

PROGRESS REPORT 2017

Vol.1

VARIETAL IMPROVEMENT

All India Coordinated Rice Improvement Project

ICAR – Indian Institute of Rice Research
Rajendranagar, Hyderabad-500030, T.S., India

Correct citation:

**ICAR-Indian Institute of Rice Research, 2018
Progress Report, 2017, Vol.1, Varietal Improvement
All India Coordinated Rice Improvement Project
ICAR-Indian Institute of Rice Research
Rajendranagar, Hyderabad – 500 030, T.S, India.**

PREFACE

ICAR-Indian Institute of Rice Research (IIRR), a premier institute for rice research in the country, through All India Coordinated Rice Improvement Project (AICRIP) coordinates the multi-disciplinary and multi-location testing of varietal improvement, crop protection and crop management technologies across diverse ecosystems for increasing and stabilizing rice production in India. IIRR is the nodal agency for facilitating collective planning, supply and exchange of improved germplasm and experimental material, for evaluation, monitoring the trials, data collection, compilation, analysis and documentation. Together both ICAR-IIRR and ICAR-NRRI have monitored the conduct of trials at some of funded centres and voluntary centres. More than 300 scientists at 45 funded cooperating research centres and about 78 voluntary centres affiliated to various State Agricultural Universities, State Departments of Agriculture, ICAR Institutions and private sector organizations carried out the planned activities of Breeding, Entomology, Pathology, Agronomy, Soil Science and Plant Physiology disciplines.

The results of 48 breeding and 5 hybrid trials were organized at various locations in all rice growing ecosystems of the country during *Kharif*, 2017 are presented in this volume. Development of suitable varieties/hybrids for most of the diverse rice ecologies in which rice crop is grown, combining biotic stress tolerance and desirable quality, is a daunting task before the rice breeders which is pursued with utmost perseverance. Concerted efforts are being made to usher in green revolution to eastern India where fragile ecosystems like rainfed uplands, lowlands, semi deep and deep water ecologies are more prevalent by testing and validating suitable varietal technologies. Varieties for various soil stresses and cold tolerant for high altitude hill regions under upland and irrigated conditions is being addressed. Intensive efforts are being made through conventional, hybrid and molecular breeding approaches to break the hither to stagnated yield levels in the irrigated ecology which contributes to more than 60% of total rice production. Not only efforts are directed towards developing rice hybrids with high magnitude of heterosis of various duration groups, but also medium slender grain hybrids to satisfy the discerning south Indian farmers and consumers. Emphasis is on to develop export quality basmati and indigenous short grain aromatic varieties to satisfy the quality preference of the export and domestic markets. Also Near Isogenic Lines (NILs) developed for blast, submergence, drought and bacterial blight resistant genes QTLs are in advance stage of testing. While emphasis on boro rice improvement continues, trials to identify suitable materials for newly emerging limited water situation such as aerobic is also being addressed. NILs developed by the introgressing both yield QTLs under drought (*qDTY*) and submergence QTLs (*Sub-1*) were evaluated in a separate trial. Breeder seed production of 271 rice varieties was organized at 38 locations as per the DAC indents. ICAR-IIRR also evaluated 54 candidate varieties and 134 Farmers Varieties for DUS testing to provide IP protection through PPV & FRA. In addition, the strong partnership with IRRI, Philippines continues to provide access to global elite rice germplasm with the exchange of breeding lines through the conduct of The International Network for Genetic Evaluation of Rice (INGER) at various centres in India. Due to change in climate delayed monsoon has been a regular phenomenon therefore, an attempt was made to identify suitable varieties for late sown conditions.

I greatly appreciate the efforts of the principal investigator, scientists, technical, administrative, project and field staff in the Plant Breeding team of this Institute and all the cooperating scientists from both funded & voluntary centres for bringing out this volume.



(S.R.Voleti)
Director.

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SUMMARY

Under All India Coordinated Rice Improvement Project (AICRIP), Indian Institute of Rice Research (IIRR) organizes multi-disciplinary and multi location testing of elite lines and improved management practices for all the rice growing ecosystems to enhance the rice production and productivity based on the guidelines for Crop Variety Testing. During the year 2017 which is the 53rd year of AICRIP testing, 47 varietal trials, 1 screening nursery and 5 hybrid rice trials were conducted as 813 experiments at 123 locations (45 funded, 78 voluntary centres) in 25 states and 2 union Territories in all the 7 zones of the country. Hybrid rice experiments were conducted by 10 private seed companies. The 48 trials were constituted with 1284 entries including 160 checks. The receipt of data has been 84.75% for funded, 64.19% for voluntary with the overall being 76.19% data was received from funded and voluntary centres respectively. In addition, 9 INGER nurseries involving 390 entries were tested at 45 centres. The three tier AICRIP testing programme is organized as Initial Variety Trial, Advance Variety Trial-1 and Advance Variety Trial-2 in order to identify the best elite lines with consistent high yield potential for various durations to fit into the prevailing rice based cropping systems for various regions and rice growing ecologies. For the vast unfavourable lowland regions of eastern and north- eastern India long duration, submergence/drought tolerances are the pre-requisites for identifying suitable elite lines. For irrigated ecology, surmounting the yield barrier is a challenging and blending quality with biotic stress tolerance in various duration groups are the major objectives intensely pursued through conventional and heterosis breeding procedures. The Marker Assisted Selection (MAS) derived products are being validated for the traits introgressed such as drought, Submergence, BLB and blast through near isogenic lines trials. For the improvement of Basmati and other indigenous short grain aromatic rice quality is of prime importance along with high yield potential. Soil stress tolerant trials aim at identifying stress tolerant cultures for a range of complex problem soils such as salinity, alkalinity and coastal salinity. Since water is becoming a major limitation in the present situation for rice cultivation and more so in the years to come, new trials have been initiated to identify suitable genotypes for aerobic rice cultivation. Under the aegis of INGER global testing facilitated access of wide range Germplasm and testing of breeding lines with IIRRI, Philippines is undertaken which is more than three decades old partnership.

LIST OF COORDINATED TRIALS, KHARIF 2017

Ecosystem	AVT 2	AVT 1	IVT	IHRT	Screening nursery
Upland- DS		AVT 1-E DS	IVT-E-DS		
Rainfed shallow			IVT-RSL		
Semi-deep water		AVT 1-SDW	IVT-SDW		NSDWSN
Deep water			IVT-DW		
Early - TP			IVT-E TP	IHRT-E	
Mid Early	AVT 2-IME	AVT 1-IME	IVT-IME	IHRT-IME	
Medium	AVT2-IM	AVT1-IM	IVT-IM	IHRT-IM	
Late	AVT 2-Late	AVT1-Late	IVT-Late		
Boro			IVT-Boro		
Basmati			IVT-BT		
Aromatic short grain		AVT1-ASG	IVT-ASG		
Saline alkaline		AL & ISTVT	AL & ISTVT		
		CSTVT	CSTVT		
Hills		AVT1-E (H)	IVT-E(H)		
		AVT1-M (H)	IVT-M(H)		
			IVT-U(H)		
Aerobic	AVT 2-Aerobic	AVT1-Aerobic	IVT-Aerobic		
Near Isogenic lines (Sub)		AVT1-NIL (Sub)			
Near Isogenic lines (Drt)		AVT 1-NIL (Drt)			
Near Isogenic Lines (Blast & BLB)		AVT 1-NIL (Bl & BLB)			
Bio-fortification	AVT 2-Biofort	AVT 1-Biofort	IVT-Biofort.		
Medium Slender	AVT 2-MS	AVT 1-MS	IVT-MS	IHRT-MS	
New Plant Type		AVT 1-NPT	IVT-NPT		

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Ecosystem	AVT 2	AVT 1	IVT	IHRT	Screening nursery
Mutant trial	Samba Mahsuri Mutant				
MLT	MLT-E				
Pilot trial	Low Phosphorus				
Pilot trial	Nitrogen use efficiency				

Particulars of Zones, States and test Locations

Region / State	Locations	
	Funded	Voluntary
ZONE I – HILLY AREAS		
North Western Hills		
Jammu & Kashmir	Khudwani (1)	Rajouri, Wadura, Bandipore, Pombay (5)
Himachal Pradesh	Malan (1)	Palampur, Dhaulakhan (2)
Uttarakhand		Almora, Bageshwar, (2)
North Eastern Hills		
Manipur		Imphal-CAU (1)
Nagaland	Kohima	
Meghalaya	Upper Shillong (1)	ICAR-Umiam, CAU-Umiam (2)
West Bengal		Kalimpong (1)
Southern Hills		
Karnataka		Sirsi (1)
ZONE II – NORTHERN		
New Delhi		IARI- New Delhi (1)
Uttarakhand	Pantnagar (1)	
Punjab	Ludhiana (1)	Gurdaspur, Kapurthala, Rauni (3)
Haryana	Kaul (1)	Karnal (CSSRI), Jind, Rohtak, Kurukshetra, , Panipat (5)
Uttar Pradesh	Nagina, Kanpur (2)	
Jammu & Kashmir	Chatha (R.S. Pura) (1)	
Rajasthan	Kota (1)	Banswara (1)
ZONE III – EASTERN		
Orissa	Jeypore, Chiplima (2)	Bhubaneswar, NRRI (Cuttack), (2)
Bihar	Patna, Pusa (2)	Patna- ICAR, Sabour(2)
Jharkhand	Ranchi (1)	Hazaribagh, Gharkatanga (2)
West Bengal	Bankura, Chinsurah (2)	Canning, Pundibari, Chakdha, Hathwara, Kolkata (5)
Uttar Pradesh	Masodha ,Ghaghraghat, Varanasi (3)	Lucknow, Modipuram, Gautam Budha Nagar (3)
ZONE IV – NORTH EASTERN		
Assam	Titabar (1)	Gerua, Karimganj, North Lakhimpur (3)
Manipur	Wangbal (1)	Lamphalpat, (1)
Tripura	Arundhutinagar (1)	Lembucherra (1)
ZONE V - CENTRAL		
Madhya Pradesh	Rewa (1)	Waraseoni, Jabalpur (2)
Chhattisgarh	Raipur, Jagadapur (2)	Bilaspur, Ambikapur (2)
Maharashtra	Sakoli (1)	Sindewahi (1)
ZONE VI - WESTERN		
Maharashtra	Karjat, Tuljapur (2)	Panvel, Radhanagari, Shirgaon, Phondaghat, Vadagaon, Parbhani, Palghar (7),
Gujarat	Nawagam, Navsari (2)	Derol, Vyra, Danti, Dabhoi, (4)
Goa		Goa (1)
ZONE VII - SOUTHERN		
Andaman & Nicobar		Port Blair (1)
Andhra Pradesh	Maruteru (1)	Ragolu, Bapatla, Machilipatnam, Nellore, (4)
Telangana	Rajendranagar, Warangal (2)	IIRR, Jagtial, Kunaram, Rudrur, Kampasagar (4)
Tamil Nadu	Aduthurai, Coimbatore (2)	Trichy, Annamalaiagar, Tirur (3)
Kerala	Moncompu, Pattambi (2)	Vyttila (1)
Karnataka	Mandya, Mugad, Ponnampet, Brahmavar, Gangavati (5)	Sirsi, Kathalgere, Malagi, Kumta (4)
Puducherry	Kurumbapet (1)	Karaikal (1)
Total locations	45	78

Underline: ICAR Institutions

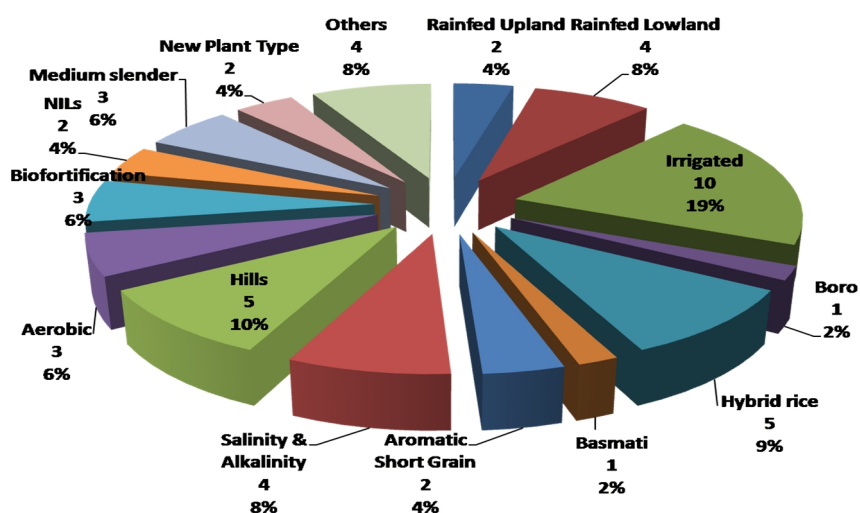
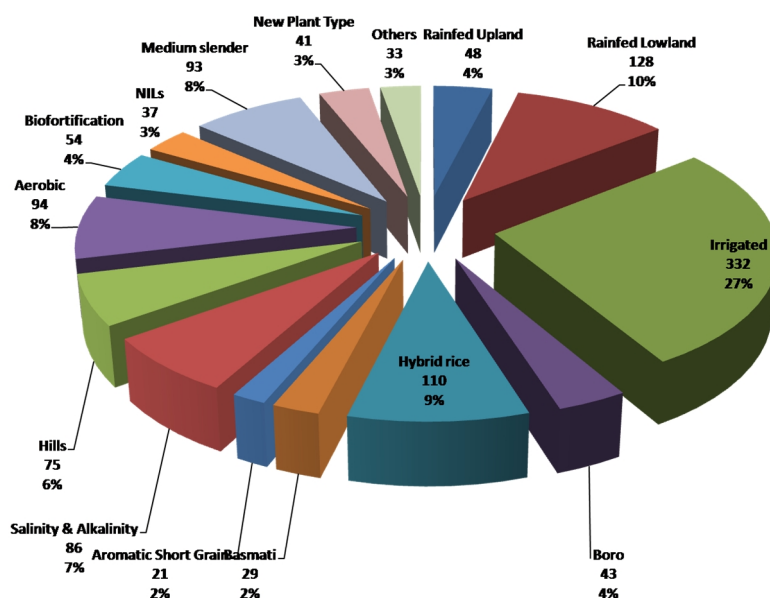
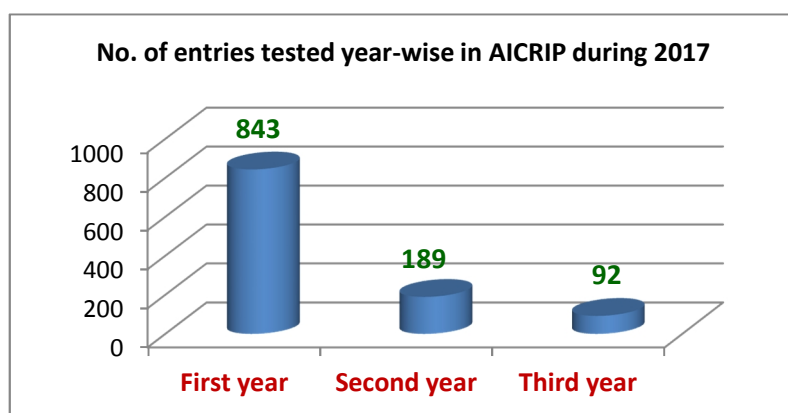


Fig: Number of trials conducted during Kharif 2017 under AICRIP (Total 48 trials)



No. of entries tested during Kharif 2017 under AICRIP (Total no. of entries 1124)



RAINFED UPLAND ECOSYSTEM

Water is the main limiting factor in rainfed upland ecosystem compounded further by uneven rainfall distribution during the growing season. The rainfed upland ecosystem is spread in most of the states across the country, with maximum area coverage in eastern India. Rice in typical upland ecosystem is grown under direct seeding with minimum input under direct seeding. Short growth duration, good seedling vigour, weed competitiveness, in-built tolerance to drought and other biotic stresses are the main objectives to breed suitable varieties for this harsh ecology. Under direct seeded conditions genotypes with < 80 days to 50% flowering are grouped in early duration. Two experiments IVT E DS and AVT 1 E DS were conducted under direct seeded rainfed conditions.

- In AVT 1 E-DS on the basis of zonal mean, five entries IET 26351, IET 26365 (two from Zone III-Eastern), IET 26356, IET 26348 and IET 26337 (three from Zone VII-Southern) were promoted to AVT 2 E DS for 3rd year of testing in their respective zones under moderate drought condition.
- In IVT E-DS the entries, IET 26619, IET 26614, IET 26618, IET 26616 from Zone V (under severe drought) and IET 26633, IET 26351, IET 26635, IET 26636 (under moderate drought) from Zone VI, IET 26613 from Zone VII (under moderate drought) were promoted to AVT 1-EDS and under normal condition, IET 26632 in zone V, IET 26639 and IET 26646 in zone III were shifted to IVT ETP.

RAINFED LOWLAND ECOSYSTEM

Flooding is a serious constraint to plant growth and survival in rainfed lowland and deep water areas because excessive water results in partial or complete submergence of the plant. With the objective of enhancing the yield potential of this ecosystem 5 trials viz., IVT-RSL, AVT-1-SDW, IVT-SDW, NSDWSN and IVT-DW were conducted with 56, 10, 15, 45 and 16 entries at 11, 9, 9, 9 and 6 locations respectively.

RAINFED SHALLOW LOW LAND

- In IVT-RSL, based on overall mean performance, three entries viz., IETs 25856, 26694 and 26696 recorded yield superiority over the best check.
- IET entries 25219 and 25856 have shown superiority over the best check in initial two years of testing in Eastern zone are promoted to third year of testing.
- Eleven entries IETs 26692, 26694, 26696, 26706, 26712, 26716, 26721, 26726, 25901, 25904 and 25920 were promoted to AVT-1 RSL for second year of testing

SEMI DEEP WATER

- In AVT 1-SDW, based on three years performance, the entry no. IET 24496 was found promising for Eastern zone (Odisha). But due to dwarf stature IET 24496 is discontinued.
- On the basis of overall performance and desirable adaptability parameters, the entry no. IET 25212 (OR 2413-9) is promoted to AVT 2-SDW.

- In IVT-SDW, on the basis of overall and zone performance with more than 5% yield advantage over the best check and desirable adaptability parameters, three entries IET 25912 (CR 2667-5-1-2-1-1), IET 25909 (CR 3898-113-4-2-1) and IET 25903 (CN 2068) are promoted to AVT 1-SDW.

NATIONAL SEMI DEEP WATER SCREENING NURSERY

- The trial was conducted in nine locations with 42 test entries. Based on the yield superiority over best check, flowering duration and suitability of plant height for semi deep water conditions, seven entries viz. IETs 26671, 26678, 26684 and 26687 are promoted to IVT-SDW.

DEEP WATER

- In IVT-DW, based on overall and zonal mean yield superiority of more than 5% over the best check, desirable traits for deep water conditions viz., days to 50% flowering, plant height and adaptability parameters, only one entry IET 26741 is promoted to AVT 1-DW.

IRRIGATED ECOSYSTEM

Early transplanted

- In IVT E (TP), on overall mean basis, 10 entries viz., IETs 25713, 24914, 24904, 26807, 26763, 26771, 23354, 26806, 26803 and 26767 are promoted. On zonal basis, seven entries are promoted in Zone II, five entries are promoted in Zone III, three entries are promoted in Zone V and nine entries are promoted in zone VI.

Irrigated Mid Early

- IN AVT-2-IME, among 20 test entries, 9 entries namely IET 24951 (VNR 218), IET 24968 (KPH 484), IET 24977 (PR 15103), IET 24952 (ADV 1503), IET 25341 (NVS 2086), IET 25331 (RNR 19399), IET 25345 (IR 95797-CR3847-2-1-1-1), IET 25358 (RCPR 32-HHZ5-DT 20-DT 3-Y2) and IET 25310 (JGL 24423) found superior in performance in grain yield with more than 5 % yield advantage over best varietal and/ hybrid checks.
- In AVT-2-IME, three entries namely IET 24968 (KPH 484), IET 24951 (VNR 218) and IET 25341 (NVS 2086) were found promising for the state of Chhattisgarh and IET 25331 (RNR 19399) was found promising for the state of Gujarat only.
- In AVT-1-IME, among 22 test entries, 11 entries found superior in performance in grain yield with more than 5 % yield advantage over best varietal and/ hybrid checks. In zone II, seven entries namely IETs 25745, 25764, 25746, 25749, 25742, 26125 and 26127, in zone III, five entries namely IETs 26126, 26079, 26075, 26089 and 26127, in zone V, three entries namely IETs 25745, 26127 and 26126, in zone VI, two entries namely IET 25764 and IET 26125 and in zone VII, two entries namely IET 25746 and IET 26125 recorded required yield superiority over BVC or BVC and HC.

- IN AVT-1-IME, based on superior yield and acceptable quality parameters, six entries namely IETs 25745, 25764, 25749, 26125, 26126 and 26079 qualifies to be promoted to AVT 2-IME.
- In IVT IME, taking into consideration the overall mean grain yield of the national check no entry was promoted. Under Zone VI, six entries (IET 26866, 26913, 26871, 26908, 26898, 26917 and 26910) were promoted to AVT 1 IME.

Irrigated Medium

- In AVT-2-IM, on overall mean basis, none of the entries recorded required yield gain over best varietal check and hybrid check. In zone II the only entry IET 24963, in zone III two varietal test entries namely IET 25330 and IET 25289 and in zone VII, the entry IET 24973 found superior in performance to best varietal check and hybrid check. None of the entries show consistent performance in any zone and state for all the 3 years of testing. Hence none of the entries found promising for any zone and state.
- In AVT-1-IM, four varietal entries namely IETs 25998, 25997, 26024 and 26019 yielded 13.7, 10.9, 9.09 and 7.8 % higher than the best check (NDR 359; National check) respectively in zone V. Two varietal entries namely IET 26024 and 26027 yielded 11.60 and 7.9 % higher than the best check (Local check) respectively in zone VII. Based on superior yield and acceptable quality parameters, three entries namely IET 26024 (OR 2573-15), IET 25997 (CR 3808-13) and IET 26027 (WGL 697) qualifies to be promoted to AVT 2-IM.
- In IVT IM, on overall mean basis, five entries (IET 26816, 26819, 26086, 26118 and 26810) were promoted. At zonal level, fourteen (14) entries were promoted based on their grain yield performance in different zones.
- IET 26816 was promoted in four different zones (III, V, VI, and VII) whereas, IET 26086 (III, V and VI) and IET 26819 (III, V, and VII) were promoted for three zones each.

IRRIGATED LATE

AVT 2-LATE

- Based on required yield advantage, none of the entries found promising during Kharif 2017 in AVT 2 – L.

AVT 1-LATE

Only one entry IET 25269 (MEPH-126) (Hybrid) out yielded best check and qualified for promotion to AVT 2-LATE.

IVT-L

- In IVT Late trial, two entries (IET 26927 and IET 26947) were promoted on the basis of overall mean grain yield.
- Though several entries were promoted in Zones III and VII, IET 26926 and IET 26959 were shifted to RSL trial.

- Similarly, under zone VI, multiple entries were shifted to IVT-IM and IVT-IME.

HYBRID RICE

During Kharif 2017, totally 95 hybrids were evaluated in four hybrid rice trials viz., IHRT-E, IHRT-ME, IHRT-M, IHRT-MS, in different locations representing North, East, Northeast, Central, West and South zones of the country. Hybrids with more than 10 percent yield advantage over the varietal check and 5 percent over the hybrid check are identified as promising. Details of the top three ranking hybrids in each of the trials are given below.

Promising hybrids identified in different hybrid rice trials (2017)

Name of the Hybrid	IET No.	DFF	Promising in
IHRT-E			
LP 17201	26464	88	Overall
NK 20031	26474	90	Overall
JKRH-2354	26468	89	Zone V
IHRT-ME			
RH-110647	26498	90	Zone III
YRH-2052	26487	89	Zone VI
US 344	26493	96	Zone III
IHRT-M			
PHI-17101	26535	98	Overall
PHI-17103	26538	97	Zone II
PHI-17104	26517	101	Zone VII
IHRT-MS			
PHI 17108	26549	100	Overall
S 8001	26547	103	Zone VI

List of public sector institute nominated hybrids (2017)

S.No.	Public sector	Number of hybrids nominated
1	IIRR, Hyderabad	5
2	IARI, New Delhi	2
3	NRRI, Cuttack	7
4	JNKVV, Jabalpur	4
5	IGKV, Raipur	1
6	GBPUAT, Pant nagar	2
7	TNAU, Coimbatore	2
8	RARS, Warangal	1
9	RARS, Navsari	1
10	RARS, Karjat	1
11	Ratnagiri	1
12	BHU, Varanasi	1
	Total	28

BORO TRIAL

IVT – BORO

In order to identify superior genotypes suitable for typical boro locations, initial variety trail (IVT- Boro) was conducted with 43 test entries at 7 locations.

- Of the 43 entries tested, IET 24898 found promising in Zone III
- Entries promoted to second year of testing

Overall: IETs 26426, 26429, 26431, 26432, 26434, 26435, 26436, 26439 and 26446

Zone III: IETs 26426, 26427, 26429, 26431, 26432, 26434, 26435, 26439, and 26463.

Zone IV: IETs 26426, 26428, 26429, 26431, 26432, 26434, 26435, 26439, 26440, 26446, 26448, 26451, 26453, 26456, 26457 and 26461.

- IET 25692 was promoted to third year of testing

SALINE AND ALKALINE TRIALS

AVT1 - AL & ISTVT: Out of eight entries tested in AVT1-AL&ISTVT at 11 locations, one test entry namely IET 22836 in second year of testing achieved required level of yield advantage over the best check with desirable grain quality parameters; hence the entry is promoted to third year of testing. IET 25378 in third year of testing also achieved required level of yield advantage over the best check under alkalinity and inland salinity stress condition. **IET 25378** (CSR 2013-MI-10) completed three years of testing in AL & ISTVT and found promising for the state of Uttar Pradesh.

IVT- AL & ISTVT: Out of 37 test entries evaluated in IVT-AL&ISTVT under alkaline and inland saline stress condition during first year of testing across 12 locations, 14 test entries namely IETs 27062, 27064, 27069, 27070, 27071, 27072, 27076, 27077, 25983, 27079, 27088, 27091, 27093 and 27094 achieved required level of yield advantage over the best check. Hence, these 14 test entries were promoted to second year of testing.

AVT 1- CSTVT: Out of nine entries tested in AVT1-CSTVT across 11 locations, none of the test entries found superior to best check under coastal saline stress condition.

IVT- CSTVT: Out of 32 entries tested in IVT-CSTVT under coastal salinity stress conditions across 11 locations, nine test entries namely IETs 27037, 27038, 27040, 27043, 27049, 27051, 27055, 27059, and 27060 out yielded the best check, hence these nine entries were promoted to second year of testing.

HILLS

Cold tolerance during seedling as well as reproductive stages in general and drought tolerance in upland hills along with resistance to blast, brown spot, BLB, leaf scald, hpa etc., are major requirements in hills for enhancing rice productivity. Therefore, hill trials were evaluated under three elevations viz., low elevation (≤ 950 MSL), medium elevation (951-1500 MSL) and high elevation (>1500 MSL). Two early duration, two medium duration and one upland hill trials were conducted with.... Test entries and Experimental sites during Kharif 2017.

Early Duration hills

- In AVT-1-EH, On overall yield basis as well as under high elevation, none of the entry was superior in yield performance to the best check (Zonal check), however in the Low and medium northern hills, four entries viz., IET's 24197, 25826, 25819 and 25818 recorded yield superiority of more than 5 % over the best check. Based on yield superiority over best check, under low elevation IET 25826, IET 25819 and IET 25818 and in medium northern hills, the entry IET 25819 qualified for promotion to 3rd year of testing in AVT-2 E-H.
- IET 24195 showed yield superiority over the best check in all three years of testing and found promising for the state of Himachal Pradesh only.
- In IVT E (H), at low altitude Northern hills, six entries viz., IETs 26561, 26564, 26565, 26566, 26573, and 26575 are promoted. At medium altitude hills IET 26576 and at High altitude hills, IET 26563 are promoted to second year of testing.

Medium duration Hills

- In AVT 1 Medium Hills, at northern high elevation, only one entry IET 25832 got promoted to second year of testing. At northern medium elevation, five entries viz., IETs 25838, 25830, 25841, 25833 and 25836 recorded superior yield over best check and promoted to third year of testing. IET 24207 was in third year of testing and did not recorded consistency in yield and hence discontinued.
- In IVT M (H), IETs 26596 (VL 32130), IET 26594 (HPR 2929), IET 26585 (TRC 2017-4), IET 26582 (HPR 2768), IET 26597 (UPR-3991-32-2-1-1) and IET 26579 (HPR 2922) are qualified for promotion to AVT-1 M (H) under northern low elevation.
- In IVT M (H), at medium altitude locations of northern region, IET 26580 (VL 32131), IET 26582 (HPR 2768), IET 26596 (VL 32130), IET 26588 (VL 40387) and IET 26585 (TRC 2017-4) are promoted to AVT-1 M (H).
- In IVT M (H), at high altitude of northern regions, only two entries IET 26578 [SKAU 501(K 08-20-11)] and IET 26591 [SKAU 502 (K 08-24-11)] were found to be superior over the best check and hence promoted to AVT-1 M (H) in this region.

Upland hills

- In IVT Upland (Hills), at Low elevation, only one entry IET 26602 got promoted to second year of testing. At medium elevation, four entries, Viz., IETs 26598, 26605, 26609 and 26601 are promoted to second year of testing.
- IET 25170 was in third year of testing and did not show consistent performance, hence discontinued.

BASMATI TRIAL

- In IVT – BT trial, out of 29 entries tested, three (IETs 26999, 26995, 26992) were promoted based on their yield superiority as well as quality requirement as Basmati rice.

AROMATIC SHORT GRAIN TRIALS

- Based on three years of testing (2015 to 2017) in ASG trials, IET 25419 was found promising in Zone III (UP). It recorded yield superiority in overall mean as well as in Zone III (Eastern) and possessed aroma.
- Although 5 entries (IET Nos. 27026, 27028, 27015, 27021 and 27020) showed yield advantage over the best check, none of them are promoted to 2nd year of testing (AVT-1-ASG) owing to their poor quality or absence of aroma.

AEROBIC TRIALS

- Aerobic rice cultivation is gaining more and more importance due to limited availability of water for agriculture. Therefore breeding cultivars suitable for aerobic condition has increasingly becoming popular to reduce the water requirement for rice cultivation. Therefore, three trials viz., AVT 2 AEROB, AVT 1 AEROB and IVT AEROB were conducted under aerobic condition. The details of the trials are given below.

AVT 2 AEROB: On overall mean grain yield, none of the entries found promising. The entry IET 25640 found promising in two zones, viz., Zone III and Zone VI. Five entries IETs 25640, 25653, 25641, 25618 and 25614 were found to be promising in Zone VI. On the basis of three years performance, consistency of entries in AVT 2 AEROB is mentioned below.

- IET 25640 found promising in the states of Jharkhand and Chhattisgarh.
- IET 25610 found promising for the states of Gujarat and Bihar, but showed poor HRR (54.3%), hence discontinued.
- IET 25662 found promising in the state of Chhattisgarh, but showed poor HRR (54.8%), hence discontinued.
- IET 25653, IET 25647, IET 25641, IET 25618, IET 25614 and IET 25636 are discontinued due to inconsistency in performance in any state.

AVT 1 AEROB: The trial was constituted with 19 test entries and conducted in 17 locations. On the basis of overall mean basis, IETs 25728 (Hybrid), 26198 (Hybrid), 26178 and IET 26194 are promoted to AVT 2 Aerob for third year of testing. Even though the entry IET 25136 out yielded the best check, due to low HRR, it was not promoted. On zonal performance, three entries IETs 26171, 26200 and 26168 are qualified for promotion in Zone III and Zone V. Three entries viz., IETs 26155, 26157 and 26170 were found to be promising and promoted to AVT 2 Aerob for third year of testing in Zone V. The entry 26173 recorded yield superiority over best check but dropped due to low (HRR 36.7%).

IVT AEROB: In IVT AEROB trail, IETs 27240, 27239, 27237 and 27218 showed required yield advantage over best check on overall mean and promoted to AVT 1 AEROB. Another eight entries viz., IETs 27193, 27188, 27191, 27199, 27208, 27215, 27230 and 27236 were promoted on zonal basis.

RICE BIOFORTIFICATION

- IET 26383 showed yield superiority of > 5% over the best check and high Zinc content and so promoted to 3rd year of testing (AVT-2-Biofort) in Zone V.
- IET 26375 was promoted to 3rd year of testing (AVT-2-Biofort) considering yield superiority, protein content and quality attributes.
- Three entries namely IET 25443, IET 25475 and IET 25477 showed yield superiority over the yield checks (IR 64 and BPT 5204) during three years of testing and high Zn content of > 24ppm. But considering their poor grain quality, they were discontinued.

IVT Biofort

Based on zinc content coupled with yield advantage and quality parameters, three entries *viz.*, IET 27170 for Zone II and IETs 27169 and 27179 for Zone VI were promoted for second year of testing

MEDIUM SLENDER GRAIN TRIALS

AVT 2 – MS

Based on required superiority of 5% over the BVC in case of varietal entries and 10% over BVC and 5% HC in case of hybrid entries, the following nine entries were found promising in AVT 2 -MS:

Overall: IET 24993 (PR 15108)

Eastern, Central and Western Zones: IET 25523 (CR 3505-7-1-1-1-2-1)

Eastern and Central Zones: IET 25493 (RTN 28-1-5-3-2) and IET 24990 (MR 8666)

Central and Western Zones: IET 25495 (MTU 1190 [MTU 2142-9-2-1])

Eastern Zone: IET 25512 (RGL 7011) and IET 25515 (CB 12186)

Central Zone: IET 25521 (AD 13121) and IET 25489 (CR 3511-3-2-2-5-1-1)

AVT 1 MS: In AVT 1 MS, based on grain yield advantage, 7 entries including five (5) hybrids were promoted to AVT 2 MS. Two hybrids (IET 25800 and IET 25802) and two varietal entries (IET 26263 and IET 26227) were promoted to AVT2-MS for three different zones.

IVT-MS: On the basis of required yield superiority and desirable quality characteristics, the entries IET 27118 and IET 27136 on overall basis and 15 entries on zonal basis were promoted to AVT1 MS.

NPT TRIALS

AVT 1 NPT and IVT NPT

As data on NPT traits has not been taken and spacing was not followed as specified in the technical programme, performance of the entries in NPT trials is not discussed in the report.

NEAR ISOGENIC LINES

ADVANCE VARIETY TRIAL 2- NEAR ISOGENIC LINES (BLAST/BACTERIAL BLIGHT): AVT2- NIL (BL/BB)

Based on yield superiority/equivalence with recurrent parent, disease resistance/tolerance reaction and similarity in morphological attributes and grain quality parameters with recurrent parent, the following two entries are considered for further testing in AVT2-NIL (Blast)

IET 27285 (RP 6280 Patho-9-12-9) and IET 27291(RP 6282 Patho-2-33-19)

ADVANCE VARIETY TRIAL 1-NIL (DROUGHT): (AVT 1– NIL-Drt)

Considering the performance under drought and normal conditions over the recurrent parent and drought tolerant checks, none of the NILs are considered for further testing in AVT-NIL (Drt).

ADVANCE VARIETY TRIAL 1-NIL (SUBMERGENCE): (AVT 1– NIL-Sub)

Under submergence conditions, as very low experimental mean was observed at Maruteru (870 kg/ha) and low at Pusa (1914 kg/ha), these locations cannot be considered in the analysis. Moreover, sensitive check for submergence stress ‘Swarna’ topped at two (Cuttack and Pusa) locations indicating submergence stress was not uniform for all the entries. Thus, none of the locations can be considered for data analysis. Hence, the trial may be repeated.

SPECIAL SAMBA MAHSURI TRIAL

A special trial was constituted to evaluate mutant of Samba Mahsuri (IET 26241). The entry out performed the best check on overall basis and also in zone V and Zone VI. The entry IET 26241 was found promising for Chhattisgarh and Maharashtra states only.

MULTI-LOCATION LATE SOWN TRIAL – EARLY

PILOT TRIAL (LOW PHOSPHORUS TOLERANCE)

A trial for Low Phosphorus tolerance was constituted with 11 test entries and conducted at one location on pilot basis. The trial was conducted under three Phosphorus levels, viz., P 20 Kg/ha, P 40 Kg/ha and P 60 Kg/ha during Kharif 2017.

Under P 20 Kg/ha phosphorus levels, RP Bio 4919-204 recorded highest grain yield of 2846 Kg/ha with yield superiority of 47.69% followed by KMR 3 with grain yield of 2664 Kg/ha, RP Bio 5477 – NH 686-1 (2579 Kg/ha) and RP 5972-3-20-3-8-29-6 (2376 Kg/ha).

At P40 Kg/ha levels, RP 5972-3-20-3-8-29-6 recorded highest grain yield of 4197 Kg/ha with yield superiority of 31.36% against the best check R P Bio 4919 - 7 (4185 Kg/ha), R P Bio 4919 -377-24-1 (4121 Kg/ha) and RP Bio 5477 – NH 787-1 (3788 Kg/ha).

At P 60 Kg/ha, KMR 3 recorded highest grain yield of 5644 Kg/ha with yield superiority of 26.6% against the best check followed by R P Bio 4919 – 204 (5330 Kg/ha), RP 5972-3-20-3-8-29-6 (5251 Kg/ha) and R P Bio 4919 -377-24-1 (5106 Kg/ha).

INGER OBSERVATIONAL NURSERIES

In order to utilize elite breeding lines and varieties developed in different countries, provide opportunities for free exchange of diverse rice germplasm and also to strengthen effective linkages among various national and international; rice improvement programmes. Nine IRRI coordinated INGER Observational Nurseries were evaluated during 2017. A total of 390 elite rice lines of different nurseries were evaluated at 45 locations. Based on yield, resistance/tolerance to biotic stresses, maturity duration, and overall phenotypic acceptability under respective situations promising lines were identified in different trials.

List of promising entries in different nurseries:

1. International Irrigated Rice Observational Nursery (IIRON):

TPs 30614, 30754, 30601, 24370 and 30600

2. International Temperate Rice Observational Nursery (IRTON)

TPs 25175, 24368, 30753, 16199 and 26783

3. International Rainfed Lowland Rice Observational Nursery (IRLON):

TPs 30531, 30543, 20081, 30560 and 30557

4. International Upland Rice Observational Nursery (IURON):

TPs 29788, 30596, 30531, 30575 and 30582

5. International Rice Soil Stress Tolerance Nurseries (IRSSTN-SS1):

TPs 200, 30650, 21654, 30646 and 30648

6. International Rice Soil Stress Tolerance Nurseries (IRSSTN-SS2): None

7. International Rice Blast Nursery (IRBN):

2017IRBN-005, 2017IRBN-006 and 2017IRBN-007

8. International Rice Bacterial Blight Nursery (IRBBN):

2017IRBBN-021, 2017IRBBN-028, 2017IRBBN-032 and 2017IRBBN-034

9. International Rice Brown Planthopper Nursery (IRBPHN):

2017IRBPHN-001, 2017IRBPHN-022, 2017IRBPHN-026, 2017IRBPHN-035, 2017IRBPHN-049 and 2017IRBPHN-009

ADVANCE VARIETY TRIAL-1 EARLY DIRECT SEEDED (AVT-1E DS)

Locations: 14**Test Entries: 12**

Checks: Sahbhagidhan and Vandana–National, Govind (Northern), Narendra 97 (Eastern), Varalu and CR Dhan 201 (Western & Southern)–Zonal check, US 314 -Hybrid Check and Local check

Table:1.1

The trial was constituted with twelve test entries and five checks, national (Sahbhagidhan and Vandana), zonal (Govind, Narendra 97, Varalu and CR Dhan 201), hybrid (US 314) and local check. Out of the twelve test entries, two entries are in third year of testing, ten entries in second year of testing. Trial was sent to 20 locations and data was received from 14 locations. Data was not received from Banswara, Bhubaneswar, Garhkhatanga, Lembuchera, Imphal CAU and Coimbatore. Entries were evaluated under rainfed direct seeded conditions, covering states of Jharkhand, West Bengal, Madhya Pradesh, Gujarat, Uttar Pradesh, Odisha, Bihar, Chhattisgarh, Tamil Nadu and Karnataka in Zones of III, V, VI and VII. At most of the locations, trial was sown in the month of July except Derol, Ranchi, Jagdalpur, Raipur, Vyara and Mugad where sowing was done in the month of June itself. While at Tirur, sowing was taken up during August first week. Severe drought was experienced at Rewa and Derol, during reproductive and grain filling stages, whereas moderate stress was experienced in Ranchi, Mugad and Pusa (Bihar) during vegetative stage. At the rest of locations normal rainfall was received during the crop growth stages.

Considering the situation, locations were grouped into severe drought, moderate drought and normal rainfall conditions for analysis of data to identify drought tolerant entries and accordingly the performance of entries discussed. The information on drought and general performance is given below.

General information on drought situation in different locations

Location	Category	Exp Mean	CV%	Best Check Mean	Drought Situation
Rewa	Severe drought	990	25.25	1738	Severe drought was experienced at reproductive and grain filling stages
Derol	Severe drought	425	25.28	875	Severe drought was experienced at reproductive and grain filling stages
Ranchi	Moderate drought	1133	15.87	1378	Moderate drought was experienced at vegetative stage
Mugad	Moderate drought	2643	12.51	3519	Moderate drought was experienced at different stages
Pusa, Bihar	Moderate drought	1757	43.02	2467	Moderate drought was experienced at different stages
Hazaribag	Normal	2566	19.42	3317	Normal rainfall received during crop growth period

Location	Category	Exp Mean	CV%	Best Check Mean	Drought Situation
Jeypore	Normal	4147	10.81	5190	Normal rainfall received during crop growth period
Jagadapur	Normal	4821	12.31	5626	Normal rainfall received during crop growth period
Cuttack	Normal	3312	25.64	4350	Normal rainfall received during crop growth period
Hathwara	Normal	3376	30.01	3600	Normal rainfall received during crop growth period
Tirur	Normal	2249	10.14	3060	Normal rainfall received during crop growth period
Raipur	Normal	1539	17.56	2550	Normal rainfall received during crop growth period
Vyara	Normal	2311	20.04	2959	Normal rainfall received during crop growth period
Masodha	Normal	3529	3.35	4127	Normal rainfall

Severe drought situation

Two locations, Rewa and Derol experienced severe drought situation during flowering and grain filling stage, hence separate analysis was done to identify entry which can be used as donor in breeding programme. The mean grain yield at Rewa and Derol was 990 and 425kg/ha and CV was 25.25%, and 25.28% respectively. Overall grain yield in severe drought locations ranged from 212kg/ha (IET26337) to 1154kg/ha (US 314), the mean flowering duration ranged from 66 days (AAUDR-1, LC) to 97 days (IET 25121 and 26348) and plant height ranged from 48cm (IET 26337) to 93cm (AAUDR-1, LC). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 1.2, 1.3, 1.4 and 1.5.

On the basis of overall mean and zonal mean, none of the entries outperformed the best check. Further, the entries IET 25103 and IET 25121 which were in 3rd year testing have not performed better than checks.

Three year performance of IET 25103

IET No.	Year/Trial	Overall mean	% yield over NC/ZC/LC	State rank	Yield (Kg/ha)	% increase over best check	Zone rank	Yield (kg/ha)	% increase over best check
Under severe drought condition									
25103	2015	447	4.19 -30.04 23.82	-	-	-	-	-	-
	2016	1559	10.41 9.10 15.06	RA-1	2759	8.28	Z II-1	2759	8.24
	2017	274	-69.99 -74.72 -70.57	-	-	-	-	-	-

IET No.	Year/Trial	Overall mean	% yield over NC/ZC/LC	State rank	Yield (Kg/ha)	% increase over best check	Zone rank	Yield (kg/ha)	% increase over best check
Under moderate drought condition									
25103	2015	4708	47.49 19.70 67.66	AP-3	6000	19.21	Z VII-3	6000	19.21
	2016	1800	-28.13 6.81 -15.25	-	-	-	-	-	-
	2017	1785	-26.08 -4.90 47.03	-	-	-	-	-	-
Under normal condition									
25103	2015	3978	16.62 -16.67 -15.66	-	-	-	-	-	-
	2016	3278	1.45 15.42 -0.46	-	-	-	-	-	-
	2017	3206	-4.53 9.83 9.23	-	-	-	-	-	-

Three year performance of IET 25121

IET No.	Year/Trial	Overall mean	% yield over NC/ZC/LC	State rank	Yield (Kg/ha)	% increase over best check	Zone rank	Yield (kg/ha)	% increase over best check
Under severe drought condition									
25121	2015	475	10.72 -25.67 31.58	-	-	-	-	-	-
	2016	1099	-22.17 -23.09 -18.89	-	-	-	-	-	-
	2017	215	-80.17 -76.91 -75.43	-	-	-	-	-	-
Under moderate drought condition									
25121	2015	4158	30.26 5.72 48.08	BI-5	3083	9.86	Z VII-12	5233	3.97
	2016	2136	-17.02 23.33 -2.15	-	-	-	-	-	-
	2017	1748	-27.61 -6.87 43.98	-	-	-	-	-	-

IET No.	Year/Trial	Overall mean	% yield over NC/ZC/LC	State rank	Yield (Kg/ha)	% increase over best check	Zone rank	Yield (kg/ha)	% increase over best check
Under normal condition									
25121	2015	4349	27.50 -8.90 -7.80	-	-	-	-	-	-
	2016	3397	5.14 19.61 3.16	OD-2 CG(2)-3	3881 5071	9.13 3.42	Z III-2 Z V-3	3032 5071	10.65 3.42
	2017	3343	-0.45 14.53 13.90	-	-	-	-	-	-

Performance of entries under moderate drought situation

Moderate drought was experienced at three locations viz., Ranchi, Mugad and Pusa (Bihar) (Vegetative stage). The mean grain yield at Ranchi, Mugad and Pusa 1133, 2643 and 1757 kg/ha, where as CV was 15.87%, 12.51% and 43.02% respectively. Over all grain yield under moderate drought ranged from 1095 kg/ha (IET 26347) to 2665 kg/ha (IET 26351), mean flowering duration ranged from 70 days (IET 26347) to 105 days (IET 26348), plant height ranged from 69 cm (IET 26341) to 99 cm (IET 26351), number of panicles/m² ranged from 208 (Vandana, NC) to 258 (IET 26356).

Overall mean performance of promising entries under moderate drought condition in AVT1 E DS, Kharif 2017

Rank	IET No./ Designation/ Cross Combination	GY/ FD/ GT	Yield adv. (%) over NC/ZC/LC/ HC	%increase over best check			
				State		Zone	
				Rank	% BC	Rank	% BC
1	IET 26351 CRR 708-1-B-2-B-B-1 (NDR 1045-2 / CR 2340-11)	2665 80 SB	10.35 132.95 41.98 119.52 54.49	JH-1	40.27	Z III-1	40.27
2	IET 26337 CRR 747-12-3-B (Vandana*4/C101A51//IR 84984-83-15-862-B)	2618 89 LS	8.40 128.84 39.47 115.65 51.76	KA-3	15.34	Z VII-3	15.34
	Sahbhagidhan (NC)	2415 87					
	Vandana(NC)	1144 71					
	Zonal check	1877 89					
	Local check	1214 80					
	US 314 (HC)	1725 92					

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield, SD-Severe drought, MD-Moderate drought

On the basis of overall mean, entries IET 26351 and IET 26337 outperformed the best check by 10% and 8% respectively. The entry IET 26351 (CRR 708-1-B-2-B-B-1) a cross between NDR 1045-2 and CR 2340-11 outperformed the national, zonal and local checks by 10.35%, 41.98 and 119.5% respectively. It ranked first with an average grain yield of 2665 kg/ha and out yield best checks by 10.35%. Further, the entry IET 26337 (CRR 747-12-3-B), derivative of Vandana*4/C101A51//IR 84984-83-15-862-B performed better than best check by 8%. However, ranking of those entries varies widely between zones were data considered for overall mean. Therefore, zone wise data was taken to identify better performing entries.

Promising entries in Zone III-(Eastern) under moderate drought condition in AVT 1 E DS

Rank	IET No./ Designation/ Cross Combination	GY/ FD/ GT	Yield advantage (%) over NC1/NC2/ZC/ LC/HC	Superior over check/yield/ rank check	% increase over best check
				3 checks	
1	IET 26351 CRR 708-1-B-2-B-B-1 (NDR 1045-2/ CR 2340-11)	1933 80 SB	47.44 40.27 102.19 67.21 155.69	JH-1933 (1)	40.27
2	IET 26365 YRH 909 (Hybrid)	1644 89 LS	25.40 19.30 71.96 42.21 117.46	JH-1644 (2)	19.30
	Sahbhagidhan (NC)	1311 87			
	Vandana(NC)	1378 71			
	Zonal check	956 89			
	Local check	1156 80			
	US 314 (HC)	756 92			

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield, SD-Severe drought, MD-Moderate drought

On the basis of zonal mean, entries IET 26351 and IET 26365 outperformed best check by 40.27% and 19.30% respectively in zone III-Eastern. While entries, IET 26356, IET 26348 and IET 26337 performed better than best check by 20.34%, 17.39% and 15.34% respectively in zone VII-Southern. Therefore, the above said five entries (IET 26351, IET 26365, IET 26356, IET 26348 and IET 26337) are promoted to AVT 2 E DS for 3rd year of testing in their respective zones.

Promising entries in Zone VII-(Southern) under moderate drought condition in AVT 1 EDS, Kharif 2017

Rank	IET no./ Designation/ Cross Combination	GY/ FD/ GT	Yield advantage (%) over NC/ZC/LC/HC	Superior over check/yield/ rank check	% increase over best check
				3 checks	
1	IET 26356 R 1779-321-1-112-1 (Danteshwari/WGL 320100)	4235 91 MS	20.34 365.38 51.30 232.67	KA-4235 (1)	20.34
2	IET 26348 TM 12061 (Senthuram/ Vandana)	4131 105 MS	17.39 353.95 47.58 224.50	KA-4131 (2)	17.39
3	IET 26337 CRR 747-12-3-B (Vandana*4/C101A51//IR 84984-83-15-862-B)	4059 89 LS	15.34 346.04 45.01 218.85	KA-4059 (3)	15.34
	Sahbhagidhan (NC)	3519 87			
	Vandana(NC)	910 71			
	Zonalcheck	2799 89			
	Local check	1273 80			

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield, SD-Severe drought, MD-Moderate drought

Normal Condition:

Eight locations viz., Hazaribagh, Jeypore, Jagadampur, Cuttack, Hathawara, Tirur, Raipur and Vyara received normal rainfall and crop did not experience moisture stress or drought like situation at any growth stage and hence grouped under normal condition and analyzed separately. Overall mean under normal condition was 3040 Kg/ha and ranged from 2213 Kg/ha (IET 26347) to 3358 Kg/ha (Sahbhagidhan), days to 50% flowering ranged from 68 days (IET 26347) to 89 days (IET 26348), plant height ranged from 81 cm (IET 26337) to 105 cm (IET 26347) and panicles per m² ranged from 247 (IET 26347) to 321 (IET 26337). Under normal condition, none of the entries outperformed the best check.

In the rainfed upland ecology the drought is unpredicted and erratic. Therefore, trials may not experience moisture stress/drought every year and may vary. Hence, results under drought as well as under normal rainfall situations are considered for identification of promising entries after three years of testing.

The performance of entries involved in three years of testing was found to be below the best check, therefore no entries were promoted.

Entries promoted for third year of testing:

Zone III-Eastern under moderate drought - IET 26351 and IET 26365

Zone VII-Southern under moderate drought - IET 26356, IET 26348 and IET 26337

INITIAL VARIETY TRIAL - EARLY DIRECT SEEDED (IVT -E DS)**Locations: 14****Test Entries: 36**

Checks: Sahbhagidhan and Vandana -National, Govind (Northern), Narendra 97 (Eastern and North Eastern), Varalu (Western), Samaleswari (Central) and Tulasi (Southern)-Zonal check, US 314- Hybrid check and Local check.

Table:1.7

The trial was constituted with 36 test entries and 5 checks, national (Sahbhagidhan and Vandana), zonal (Govind, Northern), Narendra 97 (Eastern and North eastern), Varalu (Western), Samaleswari (Central) and Tulsi (Southern) along with US 314 (Hybrid check) and Local checks. The trial was sent to 20 locations but the data could be received from 14 locations only. Data was not received from Banswara, Bhubaneswar, Garhkhatanga, Lembuchera, Imphal, and Coimbatore. The evaluation was done under rainfed direct seeded condition covering states of Rajasthan, Gujarat, Uttar Pradesh, Bihar, Jharkhand, Odisha, West Bengal, Madhya Pradesh, Chhattisgarh, Tamilnadu, Karnataka and Manipur under zones viz., II, III, IV, V, VI and VII. In most of the locations, the trial was sown in the month of July except at Mugad, Ranchi, Vyara and Raipur where the sowing was done in the month of June, 2017. Severe drought was experienced during reproductive stage at Derol and Rewa resulting poor yield in these centers. Moderate drought was experienced from tillering to maturity stage at Mugad, Ranchi and Vyara resulting low to moderate yield. The normal rainfall was experienced at Jagdalpur, Masodha, Hathwara, Hazaribagh, Jeypore, Cuttack, Pusa, Tirur and Raipur.

Considering the situation, the locations were grouped under severe drought, moderate drought and normal rainfall conditions for analysis of data to identify drought tolerant entries and accordingly the performance of entries has been discussed. The information on drought and general performance is given below.

General information on drought situation in different locations

Location	Category	Date of Sowing	Exp Mean (Yield in kg/ha)	CV%	Best Check (mean) (Yield in kg/ha)	Drought Situation
Jagdalpur	Normal	13.07.2017	5203	12.02	6498	Normal rainfall was received during crop growth period
Masodha	Normal	19.07.2017	3085	7.84	3359	Normal rainfall was received during crop growth period
Hathwara	Normal	06.07.2017	2567	12.21	3040	Normal rainfall was received during crop growth period
Hazaribag	Normal	14.07.2017	2473	16.35	3398	Normal rainfall was received during crop growth period
Jeypore	Normal	11.07.2017	4133	2.12	4295	Normal rainfall was received during crop growth period

Location	Category	Date of Sowing	Exp Mean (Yield in kg/ha)	CV%	Best Check (mean) (Yield in kg/ha)	Drought Situation
Cuttack	Normal	31.07.2017	3120	14.39	3525	Normal rainfall was received during crop growth period
Pusa, Bihar	Normal	01.07.2017	3298	25.72	4792	Normal rainfall was received during crop growth period
Tirur	Normal	28.07.2017	2705	7.43	2959	Normal rainfall was received during crop growth period
Raipur	Normal	27.06.2017	2540	17.67	3741	Normal rainfall was received during crop growth period
Mugad	Moderate drought	21.06.2017	1840	20.27	3837	Moderate drought condition , 23 days drought at tillering stage and less rain at maturity stage.
Ranchi	Moderate drought	30.06.2017	1724	15.69	3150	Moderate drought condition , at reproductive stage(Scanty rainfall)
Vyara	Moderate drought	27.06.2017	1472	16.61	2278	Terminal drought at flowering and grain filling stage
Derol	Severe drought	07.07.2017	1181	33.78	2134	Severe drought at grain filling stage
Rewa	Severe drought	02.07.2017	601	20.65	799	drought at vegetative stage (14 days) and reproductive stage

Severe drought situation:

Two locations, Rewa and Derol faced severe drought situation at grain filling stage. Rewa experienced 14 days drought at vegetative and reproductive stage. Similarly, Derol also experienced scanty rainfall during reproductive stage leading to less average grain yield. Therefore, separate analysis was done to identify entries which are drought tolerant and could be utilized as donors for development of drought tolerant varieties. Overall mean for grain yield in severe drought locations ranged from 171 kg/ha (IET26635) to 1380 kg/ha (IET 26619). The mean flowering duration ranged from 68 days (Vandana, national check) to 95 days (IET 26645) and plant height ranged from 66cm (IET26622 and IET 26627) to 102cm (IET26640). Similarly, number of panicles per m² ranged from 50 (IET26614) to 160 (IET 26619).

On overall mean yield (only zone V was considered), four entries viz., IET 26619 (1380 kg/ha), IET 26614 (1270 kg/ha), IET 26618 (1181 kg/ha) and IET 26616 (994 kg/ha) outperformed the best check (Zonal check, Samleswari, 799 kg/ha) by 73, 59, 48 and 24 percents respectively. The days to 50% flowering of these entries were 72, 76, 73 and 84 days respectively. The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 1.8, 1.9, 1.10 and 1.11.

Over all mean performance of promising entries under severe drought in IVT E DS

IET No/ Designation/ Cross Combination	GY/ FD/ GT	Yield Advantage (%) over NC/ZC/LC	% increase over the best check			
			Situation	Zone	Rank	% BC
IET 26619 NVSR-2179 GR 5/IR 28	1380 72 LB	276.0 72.7 530.1	SD	V	1	72.7
IET 26614 BPT 2620 MTU 1061/ N 22	1270 76 MS	246.1 58.9 479.9	SD	V	2	58.9
IET 26618 CB 14920 ADT 43/CB 10550	1181 73 MS	221.7 47.8 439.3	SD	V	3	47.8
IET 26616 RCPR 15-IR 84899-B- 183-CRA 19-1 IR 78877-208-B-1- 1/IRRI 132	994 84 MS -	170.8 24.4 353.9	SD	V	4	24.4
Sahbhagi dhan (NC)	367 82					
Vandana (NC)	- 68					
Zonal check	799 82					
Local check	219 78					

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield, SD-Severe drought, MD-Moderate drought

Only one centre (Rewa) contributed towards overall mean. In this context, the entries, viz., IET 26619, IET 26614, IET 26618 and IET 26616 having better grain yield and comparable flowering duration with check, were promoted to AVT 1

Performance of entries under moderate drought condition

Moderate drought was experienced at three locations viz., Ranchi, Vyara and Mugud under Zone III, VI, and VII. The location Vyara experienced terminal drought at flowering and grain filling stage, whereas, Mugud and Ranchi experienced moderate drought situation during reproductive stage, hence, many of the entries recorded moderately low yield. The mean yield at three locations mentioned above, was 1724, 1472 and 1840 Kg/ha respectively, whereas, the CV recorded was 15.69, 16.61 and 20.27 respectively. Overall grain yield under moderate drought condition ranged from 366 Kg/ha (IET 26637) to 2879 Kg/ha (Sahbhagidhan). Days to 50% flowering ranged from 72 days (IET 26620 and 26645) to 126 days (IET 26614). Plant height ranged from 77cm (IET 26646) to 116cm (IET 26629) and No. of panicle/m² ranged from 165(IET 26637) to 282(IET 26623).

On overall basis, none of the entries could out yielded the best check i.e., Sahbhagidhan (2879 Kg/ha). On zonal basis it was found that in zone III, again none of the

entries could outperform the best check, Sahbhagidhan (NC, 3150 Kg/ha), hence there is no entry which qualify for promotion.

In zone VI, cultures viz., IET 26633 (3022 Kg/ha), IET 26351 (2947 Kg/ha), IET 26635 (2668 Kg/ha) and IET 26636 (2615 Kg/ha) outperformed the best check, LC (2278 Kg/ha) by 32.7, 29.4, 17.1 and 14.8 percent respectively. The flowering durations of these entries were 90, 81, 84 and 89 days respectively. Therefore, the entries IET 26633, IET 26351, IET 26635 and IET 26636 with better yield performance and comparable flowering duration (with checks) are promoted to AVT 1.

Similarly, in zone VII, one culture IET 26613 (4331 Kg/ha) could perform better (14.46%) over best check, Sahbhagidhan (NC, 3837 Kg/ha) for grain yield. The entry registered a mean days to 50% flowering of 79 days, height of 80 cm and 225 panicles/m².

However, one culture, IET 26616, a cross between IR 78877-208-B-1-1/IRRI 132 performed well in two zones viz., zone V (severe drought) and zone VI (moderate drought). It recorded yield advantage of 24.4% and 11.8% over the best checks in respective zones. It has a mean height of 83, 108 and 106 cm under severe drought, moderate drought and normal condition. The mean panicles per m² of 270 and grain yield of 3418 kg/ha in normal condition with medium slender grains.

Performance of entries under normal condition:

On overall mean basis under normal condition, grain yield ranged from 2501 kg/ha (IET 26618) to 4030 kg/ha (Hybrid check, US 314) with experimental mean of 3126 kg/ha. Days to 50% flowering ranged from 66 days (NC, Vandana) to 88 days (IET 26638), plant height ranged from 78 cm (IET 26619) to 115 cm (IET 26629) and number of panicles/m² ranged from 211 (IET 26637) to 279 (IET 26634).

On overall mean basis, The hybrid check US 314 ranked first (4030 Kg/ha) followed by Sahbhagidhan, NC (3648 Kg/ha). Therefore, none of the entries could outperform the yield of national check.

Considering zonal performance, there are 3 zones viz., III, V and VII. In zone III, two entries viz., IET 26646 (3610 Kg/ha) and IET 26639 (3565 kg/ha) performed better than the best check (LC, 3309 Kg/ha) for GY by 9.1% and 7.7%, respectively. The flowering duration of these cultures were found to be 74 and 73 days.

In Zone V, trial was taken up in two centers of Chattisgarh only, viz., Jagdalpur and Raipur. On the basis of overall mean, hybrid check US 314 ranked first with grain yield of 6207 Kg/ha followed by IET 26633 with 5108 Kg/ha and IET 26632 with 5103 Kg/ha. Among all the genotypes these two could surpass the grain yield of best check, Sahbhagidhan, NC (4841 Kg/ha) with yield advantage of 5.5 and 5.4 % respectively.

The entry IET 26633 (RCPR 17-IR 83929-B-B-291-3-1-1), a cross between IR 78877-53-2-2-2/CT 6510-24-1-2 ranked first among the entries registered a grain yield of 5108 kg/ha in zone V, surpassed the NC by 5.5%, zonal check by 6.4% and LC by 21.2%. It had a flowering duration of 82 days. However, under moderate drought situation, it ranked

first in zone VI surpassing the GY of zonal and national checks by 67.9% and 83.2% respectively.

Similarly, zone VII consists of only one center, Tirur. In this zone the hybrid check performed the best with grain yield of 4030 Kg/ha followed by national check Sahbhagidhan with yield of 3648 Kg/ha. None of the entries could outperform the best check (NC).

Zonal Performance of entries under normal and moderate drought condition

IET No	Normal Rainfall		Moderate drought condition
	Yield in kg/ha (% increase over best check)		Yield in kg/ha (% increase over best check)
	Zone III	Zone V	Zone VI
IET 26646	3610 (9.1)	-	-
IET 26639	3565 (7.7)	-	-
IET 26633	-	5108(5.5)	3022 (32.7)
IET 26632	-	5103(5.4)	-
<i>Sahbhagidhan (NC)</i>	3308	4841	1650
<i>Vandana (NC)</i>	2948	2323	919
<i>Zonal check</i>	3303	4158	1800
<i>Local check</i>	3309	4215	2278

There were 4 cultures performing better in comparison to best check in normal rainfall condition. However, only one among them IET 26633 performed equally well under drought conditions too. Therefore, it was promoted to AVT1. As other three cultures, performed well only under normal rainfall condition, with yield advantage of 5-10% over best check, IET 26632 in zone V, IET 26639 and IET 26646 in zone III were shifted to IVT – E TP.

Entries promoted to AVT 1-EDS:

Zone V: IET 26619, IET 26614, IET 26618, IET 26616

Zone VI: IET 26633, IET 26351, IET 26635, IET 26636, IET 26616

Zone VII: IET 26613

Shift to IVT-ETP: IET 26632, IET 26639 and IET 26646

Table No. 1.1: Composition of entries in Advance Variety Trial 1–Early Direct Seeded (AVT 1E-DS), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
2 nd year of testing				
101	26356	R 1779-321-1-112-1	Danteshwari/WGL 320100	MS
102	26351	CRR 708-1-B-2-B-B-1	NDR 1045-2 / CR 2340-11	SB
103	26348	TM 12061	Senthuram / Vandana	MS
104	26341	Rewa 972-5-3-2	GP 387/IET 17815	LB
105	25588	KAUM 259-5-3-1-1-1	Pokkali / IR 50138	SB
106	26365	YRH 909 (Hybrid)	NPS 2001/NPS 70R	LS
107	Sahbhagidhan (NC)			
3 rd year of testing:				
108	25103	CB 13 805	Norungan / (Swarna Sub-1 / Norungan)	MS
109	25121	CR 3951-3-2-2-1-1	IR 64 / PSB RC 52	SB
2 nd year of testing				
110	Vandana (NC)			
111	26370	Rewa 877-3-1-1	Lalita / IR 61608	LS
112	26337	CRR 747-12-3-B	Vandana*4 / C101A51//IR 84984-83-15-862-B	LS
113	Govind (Northern), Narendra 97 (Eastern), Samaleshwari (Central), Varalu and Tulasi (Western & Southern)-- ZC			
114	US 314 (HC)			
115	26345	ORJ-1327 (IR13L382)	IURON-15-Ent-10	LB
116	Local Check			
117	26347	CRR 753-5-1	Anjali*3/IR 84984-83-15-18-B-B-93	MS

Table No. 1.2 : Grain Yield (Kg/ha) of entries in AVT1 - E DS Moderate Drought Kharif 2017

Entry No.	IET No.	III				Zone III (1)	VII		Overall (2)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²	
		JH		BI			KA							
		RCI		@PSA		Mean		MGD		Mean				
101	26356	444		3000	2 #	444		4235	1 *#	2340	5 #	91	84	258
102	26351	1933	1 *#	1067		1933	1 *# 40%	3397	5 #	2665	1 # 10%	80	99	232
103	26348	622		3667	1 #	622		4131	2 *#	2377	4 #	105	93	229
104	26341	689		2267	5	689		2329		1509		90	69	211
105	25588	1244	6 #	1267		1244	6 #	2184		1714		80	82	213
106	26365	1644	2 #	1133		1644	2 # 19%	2652	9	2148	7 #	89	79	251
107	Sahbhagidhan (NC)	1311	5 #	1133		1311	5 #	3519	4 #	2415	3 #	87	88	227
108	25103	1133	#	1267		1133	#	2438		1785	9	82	94	236
109	25121	956		1800	6	956		2540		1748		93	78	232
110	Vandana (NC)	1378	4 #	1267		1378	4 #	910		1144		71	94	208
111	26370	1533	3 #	1333	9	1533	3 #	2947	6	2240	6 #	90	75	232
112	26337	1178	8 #	2533	3	1178	8 #	4059	3 #	2618	2 # 8%	89	87	251
113	Zonal Check (ZC)	956		2467	4	956		2799	7	1877	8	89	76	242
114	US 314 (HC)	756		1667	8	756		2695	8	1725		92	83	227
115	26345	1222	7 #	1800	7	1222	7 #	1746		1484		76	94	219
116	Local Check	1156	9 #	1200		1156	9 #	1273		1214		80	88	213
117	26347	1111	#	1000		1111	#	1080		1095		70	93	216
	Exp Mean	1133		1757		1133		2643		1888		85	86	229
	C.D. 5%	299		1257		299		550		317		1		27
	C.V.%	15.87		43.02		15.87		12.51		14.55		1.69		12.65
	Sowing Date	23-06-2017		08-06-2017										
	Planting Date													
	Local ©	Birsa Vikas Dhan-109		Prabhat										
* Superior to Best Check % Superior over Best Check @ not included in means														
# Superior to Hybrid Check % Superior over Hybrid Check														

Table No. 1.2 : Grain Yield (Kg/ha) of entries in AVT1 - E DS (Normal) Kharif 2017

Entry No.	IET No.	III							Zone III (4)	V	
		OD	OD	OD (2)	JH	U.P.	W.B	CG		CG	
		CTK	JYP	Mean	HZB	@MSD	HTW	Mean		JDP	RPR
101	26356	3600 8	5093 3	4346 4	1350	3653 8	3467 7	3377 8	5512 3	1297	
102	26351	3850 3	4881 4	4365 3	3300 4 #	3960 3	3983 3	4004 2	4166	1702 7	
103	26348	3100	3285	3192	1183	4347 1 *#	3167	2684	4842	1896 5	
104	26341	2683	4158 7	3421	1983	3679 7	3417 9	3060	4469	1495	
105	25588	3700 7	4043 8	3872 6	2433	3038	3000	3294	5962 1	1382	
106	26365	2317	4471 6	3394	3517 1 #	3299	3300	3401 7	4831	1835 6	
107	Sahbhagidhan (NC)	3767 5	3959 9	3863 7	3067 6	3399	3467 8	3565 6	4953 9	2489 2 #	
108	25103	3750 6	3250	3500 9	3500 2 #	3245	4133 2	3658 4	5074 7	998	
109	25121	5583 1 #	5353 1	5468 1 # 15%	2433	3759 6	3033	4101 1 3%	4087	2119 4 #	
110	Vandana (NC)	4350 2	5190 2	4770 2	3317 3 #	4127 2 #	3133	3997 3	3693	78	
111	26370	3583 9	3801	3692 8	2267	2885	2000	2913	5004 8	1583 9	
112	26337	2850	3893	3372	3150 5	3940 4	3083	3244	5488 4	2166 3 #	
113	Zonal Check (ZC)	1700	3466	2583	1183	3339	3600 4	2487	5626 2	2550 1 #	
114	US 314 (HC)	3850 4	4819 5	4335 5	2367	3833 5	3583 6	3655 5	5082 6	1528	
115	26345	2767	3748	3257	2633 9	3492	4267 1	3354 9	5217 5	1209	
116	Local Check	2562	3924	3243	2950 8	3532 9	3600 5	3259	4380	1675 8	
117	26347	2283	3175	2729	2983 7	2464	3153	2899	3571	162	
	Exp Mean	3312	4147	3729	2566	3529	3376	3350	4821	1539	
	C.D. 5%	1412	746	770	829	197	1685	598	987	450	
	C.V.%	25.64	10.81	17.91	19.42	3.35	30.01	22.12	12.31	17.56	
	Sowing Date	31-07-2017	12-07-2017		14-07-2017	18-07-2017	28-07-2017		21-06-2017	22-06-2017	
	Planting Date										
	Local ©	CR Dhan 205	Mandakini		Anjali	Sushk Samrat	Puspa		Danteshwari	Indira Aerobic 1	
* Superior to Best Check % Superior over Best Check @ not included in means											
# Superior to Hybrid Check % Superior over Hybrid Check											

Table No. 1.2 contd : Grain Yield (Kg/ha) of entries in AVT1 - E DS (Normal) Kharif 2017

Entry No.	IET No.	CG (2)		Zone V (2)	VI		VII		Overall (8)	Days to 50% Flowering	Plant Height (cm)	Panicles / M ²
		CG (2)			GU	TN						
		Mean			VYR	TRR						
101	26356	3404 ⁵		3404 ⁵	2270	2567 ^{8 #}	3144 ⁷		81	96	295	
102	26351	2934		2934	2174	2753 ^{4 #}	3351 ²		71	104	276	
103	26348	3369 ⁶		3369 ⁶	2355 ⁸	2940 ^{3 #}	2846		89	100	276	
104	26341	2982		2982	2305 ⁹	2653 ^{6 #}	2895		78	84	253	
105	25588	3672 ⁴		3672 ⁴	2042	1947	3064 ⁹		74	83	286	
106	26365	3333 ⁷		3333 ⁷	2770 ⁶	3163 ^{1 #}	3275 ⁴		77	88	310	
107	Sahbhagidhan (NC)	3721 ³		3721 ³	2959 ¹	2200 [#]	3358 ¹		75	96	263	
108	25103	3036		3036	2426 ⁷	2520 ^{9 #}	3206 ⁶		73	89	272	
109	25121	3103		3103	1450	2687 ^{5 #}	3343 ³		83	100	276	
110	Vandana (NC)	1886		1886	1821	1653	2904		69	98	251	
111	26370	3293 ⁹		3293 ⁹	2824 ⁴	1880	2868		85	90	268	
112	26337	3827 ^{2 #}		3827 ²	2932 ²	1193	3094 ⁸		84	81	321	
113	Zonal Check (ZC)	4088 ^{1 #}		4088 ^{1 #}	2168	3060 ^{2 #}	2919		83	91	284	
114	US 314 (HC)	3305 ⁸		3305 ⁸	2778 ⁵	1820	3228 ⁵		81	95	256	
115	26345	3213		3213	2855 ³	1580	3034		71	101	253	
116	Local Check	3028		3028	1821	2569 ^{7 #}	2935		80	98	267	
117	26347	1867		1867	1336	1040	2213		68	105	247	
	Exp Mean	3180		3180	2311	2249	3040		78	94	274	
	C.D. 5%	505		529	770	379	344		1		23	
	C.V.%	13.77		14.42	20.04	10.14	19.90		2.78		15.67	
	Sowing Date				13-06-2017	01-08-2017						
	Planting Date											
	Local ©				Purna	TKM 12						

Table No. 1.2: Grain Yield (Kg/ha) of entries in AVT1-E DS under severe drought Kharif 2017

Entry No.	IET No.	V		VI		Overall (2)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		M.P.		GU						
		REW		DRL		Mean				
101	26356	1177	5	272		724	8	92	69	67
102	26351	1803	1	346		1074	3	73	79	145
103	26348			240		240		97	61	75
104	26341	370		616	3	493		86	55	87
105	25588	397		402	8	399		84	68	156
106	26365	298		344		321		96	53	106
107	Sahbhagidhan (NC)	1009	7	817	2 #	913	5	81	66	105
108	25103	280		268		274		86	65	100
109	25121			215		215		97	63	48
110	Vandana (NC)	1694	3	475	5	1084	2	74	80	134
111	26370	824	8	421	7	622	9	83	66	99
112	26337			212		212		94	48	120
113	Zonal Check (ZC)	1509	4	353		931	4	89	68	76
114	US 314 (HC)	1738	2	569	4	1154	1 6%	94	77	138
115	26345	1131	6	368	9	750	7	84	70	121
116	Local Check			875	1 #	875	6	66	93	119
117	26347	640	9	442	6	541		72	79	117
	Exp Mean	990		425		637		85	68	107
	C.D. 5%	421		179		213		4		25
	C.V.%	25.25		25.28		27.54		3.82		19.84
	Sowing Date	01-07-2017		15-06-2017						
	Planting Date									
	Local ©			AAUDR-1						
	* Superior to Best Check % Superior over Best Check									
	# Superior to Hybrid Check % Superior over Hybrid Check									

Table No. 1.3 : Days to 50% Flowering of entries in AVT1 - E DS Normal Kharif 2017

Entry No.	IET No.	III						Zone III (5)	V			Zone V (2)	VI GU	VII TN	Overall (9)
		OD	OD	OD (2)	JH	U.P.	W.B		CG	CG	CG (2)				
		CTK	JYP	Mean	HZB	MSD	HTW	Mean	JDP	RPR	Mean	Mean	VYR	TRR	Mean
101	26356	76	85	81	88	74	72	79	81	81	81	81	80	91	81
102	26351	68	75	71	74	66	64	69	72	79	76	76	68	76	71
103	26348	76	90	83	88	91	86	86	93	71	82	82	87	117	89
104	26341	72	81	77	82	72	72	76	80	87	83	83	73	86	78
105	25588	70	84	77	74	69	68	73	72	79	75	75	70	82	74
106	26365	74	88	81	79	72	66	76	78	78	78	78	74	86	77
107	Sahbhagidhan (NC)	70	83	76	79	71	68	74	71	84	77	77	75	71	75
108	25103	73	81	77	73	71	65	73	70	79	74	74	68	81	73
109	25121	75	88	82	88	75	66	78	81	101	91	91	83	91	83
110	Vandana (NC)	63	71	67	65	71	49	64	63	106	84	84	63	71	69
111	26370	77	85	81	83	75	66	77	80	103	92	92	82	113	85
112	26337	77	89	83	85	75	76	80	81	100	90	90	82	91	84
113	Zonal Check (ZC)	65	80	73	79	71	68	73	113	103	108	108	65	99	83
114	US 314 (HC)	75	86	81	86	70	67	77	81	101	91	91	79	87	81
115	26345	70	77	73	67	72	62	70	70	77	73	73	68	73	71
116	Local Check	70	83	77	65	73	69	72	79	103	91	91	64	117	80
117	26347	62	66	64	66	71	49	63	60	103	82	82	59	76	68
	Exp Mean	71	82	77	78	73	67	74	78	90	84	84	73	89	78
	C.D. 5%	7	2	4	2	1	2	2	0	3	2	2	3	5	1
	C.V.%	5.99	1.71	4.28	1.82	1.04	2.13	3.03	0.29	2.12	1.55	1.59	2.76	3.23	2.78

Table No. 1.3 : Days to 50% Flowering of entries in AVT1 - E DS Moderate Drought Kharif 2017

Entry No.	IET No.	III		Zone III (2)	VII KA	Overall (3)
		JH	BI			
		RCI	PSA	Mean	MGD	Mean
101	26356	85	88	87	99	91
102	26351	75	76	75	89	80
103	26348	105	97	101	114	105
104	26341	85	89	87	98	90
105	25588	77	73	75	91	80
106	26365	83	89	86	95	89
107	Sahbhagidhan (NC)	83	86	85	92	87
108	25103	74	84	79	88	82
109	25121	84	96	90	99	93
110	Vandana (NC)	64	74	69	76	71
111	26370	87	85	86	98	90
112	26337	87	82	85	97	89
113	Zonal Check (ZC)	79	77	78	111	89
114	US 314 (HC)	89	91	90	96	92
115	26345	67	76	72	86	76
116	Local Check	57	85	71	99	80
117	26347	61	71	66	77	70
	Exp Mean	79	83	81	94	85
	C.D. 5%	3	3	2	1	1
	C.V.%	2.63	1.86	2.40	0.33	1.69

Table No. 1.3 : Days to 50% Flowering of entries in AVT1 - E DS Severe Drought Kharif 2017

Entry No.	IET No.	V	VI	Overall (2)
		M.P.	GU	
		REW	DRL	Mean
101	26356	91	92	92
102	26351	80	65	73
103	26348	99	95	97
104	26341	93	79	86
105	25588	85	84	84
106	26365	91	100	96
107	Sahbhagidhan (NC)	85	77	81
108	25103	85	87	86
109	25121	91	104	97
110	Vandana (NC)	79	69	74
111	26370	90	76	83
112	26337	94	93	94
113	Zonal Check (ZC)	91	86	89
114	US 314 (HC)	93	95	94
115	26345	82	86	84
116	Local Check		66	66
117	26347	78	65	72
	Exp Mean	88	83	85
	C.D. 5%	5	5	4
	C.V.%	3.70	3.54	3.82

Table No. 1.4: Plant Height (cm) of entries in AVT1 - E DS Normal Kharif 2017

Entry No.	IET No.	III						Zone III (5)	V			Zone V (2)	VI	VII	Overall (9)
		OD	OD	OD (2)	JH	U.P.	W.B		CG	CG	CG (2)		GU	TN	
		CTK	JYP	Mean	HZB	MSD	HTW	Mean	JDP	RPR	Mean	Mean	VYR	TRR	Mean
101	26356	112	95	104	84	87	119	99	105	84	94	94	100	80	96
102	26351	129	104	117	95	94	96	104	115	100	107	107	111	92	104
103	26348	122	95	108	85	92	114	101	108	93	100	100	101	90	100
104	26341	119	74	96	73	87	108	92	80	76	78	78	81	61	84
105	25588	110	71	90	79	85	100	89	89	74	81	81	79	64	83
106	26365	106	85	96	87	89	110	95	87	70	79	79	94	65	88
107	Sahbhagidhan (NC)	118	99	109	86	90	117	102	100	86	93	93	103	65	96
108	25103	113	85	99	72	87	96	91	106	78	92	92	93	74	89
109	25121	123	91	107	92	92	123	104	104	92	98	98	104	76	100
110	Vandana (NC)	131	99	115	91	89	98	102	110	94	102	102	100	74	98
111	26370	122	80	101	81	86	102	94	92	79	85	85	94	74	90
112	26337	99	67	83	72	89	80	82	90	73	81	81	84	72	81
113	Zonal Check (ZC)	96	87	91	77	73	92	85	102	99	100	100	97	98	91
114	US 314 (HC)	114	102	108	84	93	88	96	101	92	96	96	102	80	95
115	26345	125	98	112	98	78	115	103	113	83	98	98	103	96	101
116	Local Check	110	103	107	91	87	100	98	80	92	86	86	114	106	98
117	26347	131	104	118	101	93	113	108	115	88	102	102	119	84	105
	Exp Mean	117	91	104	85	88	104	97	100	85	93	93	99	79	94
	C.D. 5%	0				0	0						0	0	
	C.V.%	0.00				0.00	0.00						0.00	0.00	

Table No. 1.4: Plant Height (cm) of entries in AVT1 - E DS Moderate Drought Kharif 2017

Entry No.	IET No.	III		Zone III (2)	VII	Overall (3)
		JH	BI		KA	
		RCI	PSA	Mean	MGD	Mean
101	26356	80	84	82	89	84
102	26351	103	102	103	93	99
103	26348	88	107	98	85	93
104	26341	73	64	69	69	69
105	25588	76	92	84	79	82
106	26365	81	86	84	70	79
107	Sahbhagidhan (NC)	89	88	89	87	88
108	25103	83	120	102	78	94
109	25121	88	65	77	82	78
110	Vandana (NC)	101	102	102	79	94
111	26370	74	71	73	81	75
112	26337	74	107	91	79	87
113	Zonal Check (ZC)	66	75	71	86	76
114	US 314 (HC)	89	82	86	79	83
115	26345	110	85	98	88	94
116	Local Check	108	82	95	75	88
117	26347	111	80	96	89	93
	Exp Mean	88	88	88	82	86
	C.D. 5%	0	0	0	0	
	C.V.%	0.00	0.00	0.00	0.00	

Table No. 1.5 : Panicles/ M² of entries in AVT1 - E DS Moderate Drought Kharif 2017

Entry No.	IET No.	III		Zone III (2)	VII	Overall (3)
		JH	BI		KA	
		RCI	PSA	Mean	MGD	Mean
101	26356	209	233	221	333	258
102	26351	158	201	179	336	232
103	26348	145	226	186	315	229
104	26341	150	221	185	263	211
105	25588	160	155	157	326	213
106	26365	194	188	191	371	251
107	Sahbhagidhan (NC)	131	179	155	371	227
108	25103	210	162	186	336	236
109	25121	190	202	196	305	232
110	Vandana (NC)	142	127	135	354	208
111	26370	123	209	166	364	232
112	26337	143	239	191	371	251
113	Zonal Check (ZC)	183	231	207	312	242
114	US 314 (HC)	132	193	163	357	227
115	26345	125	215	170	315	219
116	Local Check	168	152	160	319	213
117	26347	163	179	171	305	216
	Exp Mean	160	195	178	332	229
	C.D. 5%	69	40	39	26	27
	C.V.%	25.79	12.49	19.18	4.70	12.65

Table No. 1.4 : Plant Height (cm) of entries in AVT1 - E DS Severe Drought Kharif 2017

Entry No.	IET No.	V	VI	Overall (2)
		M.P.	GU	
		REW	DRL	Mean
101	26356	83	54	69
102	26351	85	74	79
103	26348	61	61	61
104	26341	59	51	55
105	25588	81	56	68
106	26365	58	48	53
107	Sahbhagidhan (NC)	80	52	66
108	25103	73	57	65
109	25121	75	51	63
110	Vandana (NC)	81	78	80
111	26370	74	58	66
112	26337		48	48
113	Zonal Check (ZC)	80	56	68
114	US 314 (HC)	86	68	77
115	26345	77	63	70
116	Local Check		93	93
117	26347	90	68	79
	Exp Mean	76	61	68
	C.D. 5%		0	
	C.V.%		0.00	

Table No. 1.5 : Panicles/ M² of entries in AVT1 - E DS Severe Drought Kharif 2017

Entry No.	IET No.	V	VI	Overall (2)
		M.P.	GU	
		REW	DRL	Mean
101	26356	61	72	67
102	26351	194	96	145
103	26348		75	75
104	26341	91	83	87
105	25588	180	132	156
106	26365	109	103	106
107	Sahbhagidhan (NC)	117	93	105
108	25103	94	106	100
109	25121		48	48
110	Vandana (NC)	161	106	134
111	26370	105	93	99
112	26337		120	120
113	Zonal Check (ZC)	65	88	76
114	US 314 (HC)	165	110	138
115	26345	130	111	121
116	Local Check		119	119
117	26347	126	107	117
	Exp Mean	123	98	107
	C.D. 5%	46	26	25
	C.V.%	21.99	16.26	19.84

Table No. 1.5 : Panicles/ M² of entries in AVT1 - E DS Normal Kharif 2017

Entry No.	IET No.	III						Zone III (5)	V			Zone V (2)	VI GU	VII TN	Overall (9)
		OD	OD	OD (2)	JH	U.P.	WB		CG	CG	CG (2)				
		CTK	JYP	Mean	HZB	MSD	HTW		JDP	RPR	Mean		VYR	TRR	Mean
101	26356	246	397	322	296	270	414	325	326	269	298	298	273	162	295
102	26351	244	280	262	344	277	520	333	241	238	240	240	241	98	276
103	26348	244	299	271	202	298	405	290	298	304	301	301	287	147	276
104	26341	228	280	254	317	270	408	300	258	232	245	245	216	72	253
105	25588	249	229	239	311	261	590	328	302	219	261	261	301	112	286
106	26365	259	437	348	272	269	541	356	253	308	281	281	304	148	310
107	Sahbhagidhan (NC)	241	295	268	303	265	391	299	271	236	254	254	237	132	263
108	25103	254	250	252	304	265	279	270	388	289	339	339	262	158	272
109	25121	218	325	272	294	273	518	326	248	225	237	237	240	145	276
110	Vandana (NC)	225	236	230	332	279	573	329	202	77	139	139	207	130	251
111	26370	220	234	227	278	265	498	299	307	233	270	270	217	158	268
112	26337	216	404	310	288	282	606	359	328	312	320	320	332	118	321
113	Zonal Check (ZC)	214	366	290	334	284	330	306	315	253	284	284	345	114	284
114	US 314 (HC)	243	262	253	241	281	487	303	243	193	218	218	244	106	256
115	26345	249	236	242	271	267	400	284	280	221	251	251	248	108	253
116	Local Check	225	266	246	259	283	373	281	365	287	326	326	212	135	267
117	26347	263	260	261	322	258	495	319	187	184	186	186	142	110	247
	Exp Mean	237	297	267	292	273	460	312	283	240	262	262	253	127	274
	C.D. 5%	51	46	35	92	11	110	31	106	44		54	74	20	23
	C.V.%	13.03	9.35	11.23	18.89	2.48	14.42	13.86	22.54	10.98		17.97	17.65	9.32	15.67

Table No. 1.6: Grain quality characteristics of entries in AVT 1-E DS, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
101	26356	74.5	63.8	54.3	5.56	2.19	2.53	MS	VOC	5.5	22.85	38
102	26351	74.2	61.3	46.9	5.72	2.29	2.49	SB	OC	3.5	21.94	48
103	26348	75.8	64.2	62	5.17	1.92	2.69	MS	VOC	7.0	23.67	26
104	26341	80.7	69.6	63.3	6.64	2.33	2.84	LB	OC	6.1	24.17	22
105	25588	78.8	62.5	28.1	5.32	2.38	2.23	SB	OC	5.0	23.81	23
106	26365	76.3	64.6	54.1	6.54	1.95	3.35	LS	VOC	7.0	20.18	23
107	Sahbhagidhan	76.7	66.4	56.9	5.56	2.34	2.37	SB	A	7.0	20.53	53
108	25103	74.5	63.6	58.8	5.29	1.84	2.87	MS	VOC	4.0	24.25	23
109	25121	74.2	59.3	31.3	5.46	2.31	2.36	SB	VOC	4.3	24.69	56
110	Vandana	72.3	62.8	49.6	5.58	2.19	2.54	MS	VOC	4.0	24.84	43
111	26370	78.1	68.4	58.6	7.00	2.09	3.34	LS	VOC	7.0	25.34	22
112	26337	75.7	64.6	54.8	6.26	2.04	3.06	LS	VOC	4.0	23.99	65
113	Tulasi	75	64.4	43.5	5.63	1.94	2.84	MS	VOC	7.0	23.05	22
114	US 314	77.2	63.8	36.6	5.55	2.18	2.54	MS	VOC	5.2	22.96	41
115	26345	75.9	66.3	63.2	6.09	2.21	2.76	LB	VOC	6.0	22.88	49
116	CR Dhan 205	76.2	63.4	47.4	6.31	2.08	3.08	LS	VOC	4.0	24.31	44
117	26347	75.4	68.2	58.2	5.75	2.26	2.54	MS	A	4.0	22.17	22

HULL: Hulling (%); Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 1.7: Composition of entries in Initial Variety Trial–Early Direct Seeded (IVT-E-DS), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain Type
1st year of testing				
201	26611	CRR 696-42-B-1B-B	Vandana / CT 9993-5-10-1M	MS
202	26612	CR 3997-21-4- IR 91648-B-238-B-1-2	Moroberekan / 3* Swarna	LS
203	26613	OR 1918-2	Rudrs / IR 64	MS
204	26614	BPT 2620	MTU 1061 / N22	MS
205	26615	RP 6267- GSR IR1-12-Y4-Y1-D1	Huang-Hua-Zhan*2 / TE QING	LS
206	26616	RCPR 15-IR84899-B-183-CRA-19-1	IR 78877-208-B-1-1 / IRR1 132	MS
207	26617	R 2237-1141-1-403-1	R 1519-713-1-579-1 / Danteshwari	LB
208	26618	CB 14920	ADT 43 / CB 10550	MS
209	26619	NVSR-2179	GR 5 / IR 28	LB
210	Vandana (NC)			
211	26620	CRR 752-3-1	Anjali*3 / IR 81896-B-195	SB
212	26621	IIRRH-112 (Hybrid)	-	MS
213	26622	RP Bio 5477-N22-M-787	N 22 Mutant	SB
214	26623	CR 3996-11-240-1-1-1	Mahulata / IR20	MS
215	26624	JDP -1-2-1519	Rastic BR 240 / Chander	LS
216	26625	CB 14932	ADT 43 / IET 21558	MS
217	26626	CR 3982-14381-22-3-1-5	Pyari / Vandana	SB
218	26627	Rewa 1163	IR 82639-B-B-115-1 / Vandana	LS
219	26628	BPT 2600	MTU 1061 / N23	LS
220	26629	NVSR-2230	GR 5 / Danteshwari	LB
221	26630	TM 12039	ADT (R) 45/ Chandaikar	MS
222	26631	CRR 693-28-B-1-B-B-1	Anjali / CR 2310-11	SB
223	26632	CR 3847-1-1-1-1-IR95797	IR 84852-B-12-2 / IR 79643-39-2-2	LS
224	26633	RCPR 17-IR 83929-B-B-291-3-1-1	IR 78878-53-2-2-2/CT 6510-24-1-2	LB
225	26634	RP 6181-GSR IR1-12-Y4-D1-Y2	Huang-Hua-Zhan*2/TE QING	MS
226	26635	CRR 754-1	CRR 680-B-B-25-4 / Anjali	LB
227	26636	R 1882-301-1-234-1	R 1207-2282-2-1 / RP 4092	MS
228	26637	CR 2908-262-1-51-62-4	IR20 / Apo	MS
229	26638	CR 3996-11-406-1-1	Mahulata / IR20	LS
230	26639	CRR 523-2-2-1-1	Kalinga III / Bhupen	LS
231	26640	NVSR-2211	GR 5 / GR 4	LS
232	Govind (Northern), Narendra 97 (Eastern & North Eastern), Samaleshwari (Central), Varalu (Western) and Tulasi (Southern)--ZC			
233	26641	CR 3946-42-1-1-4	MTU1010 / Dular	MS
234	26351 (Repeat)	CRR 708-1-B-2-B-B-1	NDR 1045-2 / CR 2340-11	SB
235	26643	CR 4042-1-2-1-1-1-IR95795	IR 79218-93-1-4 / IR 84852-B-12-2	LS
236	Sahbhagidhan (NC)			
237	26644	CR 3996-311-1-1-1	Mahulata / IR20	LS
238	26645	TM 12077	TKM (R) 12/ IET 21620	MS
239	26646	NVSR - 2233	GR 5 / Danteshwari	LB
240	Local Check			
241	US 314 (HC)			

Table No. 1.8 : Grain Yield (Kg/ha) of entries in IVT- E DS under Moderate drought Kharif 2017

Entry No.	IET No.	III		VI		VII		Overall (3)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		JH		GU		KA						
		RCI		VYR		MGD		Mean				
201	26611	2300	7	2175	#	1557		2011	#	82	106	255
202	26612	2100		180		1569		1283		97	102	230
203	26613	1450		1950	#	4391	1 #	2597	4 #	79	80	225
204	26614					1490		1490		126	70	238
205	26615	1800		1136	#	1686	#	1541		94	82	243
206	26616	1850		2546	5 #	3906	3 #	2767	2 #	85	108	270
207	26617	1250		586		3666	6 #	1834	#	93	88	233
208	26618	1200		535		1898	#	1211		74	99	229
209	26619	2000		2215	#	1577		1931	#	74	68	250
210	Vandana (NC)	1950		919	#	1070		1313		74	100	172
211	26620	1150		451		1046		882		72	90	265
212	26621	1600		547		1647	#	1265		99	95	243
213	26622	1750		1500	#	485		1245		85	78	232
214	26623	1650		343		1384		1126		103	83	282
215	26624	1800		2250	8 #	1772	#	1941	#	87	87	243
216	26625	1150		483				817		74	68	241
217	26626	2450	5	2250	9 #	1759	#	2153	8 #	85	106	209
218	26627	1500		1375	#	1477		1451		90	97	214
219	26628											
220	26629	1000		2096	#	1461		1519		82	116	226
221	26630	1500		1757	#	2127	9 #	1795	#	86	82	246
222	26631	2250	8	1800	#	3826	5 #	2625	3 #	82	101	230
223	26632	2100		439		1770	#	1437		95	93	249
224	26633	1850		3022	1 *#	2525	7 #	2466	6 #	90	105	265
225	26634	1950		2079	#			2014	#	86	88	308
226	26635	2750	4	2668	3 #	688		2035	9 #	84	104	255
227	26636	1550		2615	4 #	2515	8 #	2227	7 #	89	96	316
228	26637	350				381		366		118	86	165
229	26638	950				1705	#	1327		109	85	183
230	26639	1900		975	#	1795	#	1556		84	105	204
231	26640	2250	9	1077	#	1646	#	1658		82	100	209
232	Zonal Check (ZC)	1650		1800	#	807		1419		89	81	228
233	26641	1500		182		849		844		97	93	222
234	26351	3000	2	2947	2 *#	1774	#	2574	5 #	81	102	261
235	26643	500		226		3966	2 #	1564		106	90	247
236	Sahbhagidhan (NC)	3150	1	1650	#	3837	4 #	2879	1 #	86	98	310
237	26644	850				1438		1144		109	83	247
238	26645	690						690		72	91	205
239	26646	2350	6	2257	7 #	1331		1979	#	80	77	230
240	Local Check	1200		2278	6 #	434		1304		81	94	259
241	US 314 (HC)	3000	3	227		841		1356		97	83	207
	Exp Mean	1724		1472		1840		1601		87	89	233
	C.D. 5%	548		497		757		354		2	0	42
	C.V.%	15.69		16.61		20.27		18.37		1.64	0.00	15.21
	Sowing Date	30-06-2017		27-06-2017		21-06-2017						
	Planting Date											
	Local ©	Birsa VikasDhan-		PURNA		MGD 101						
	* Superior to Best Check % Superior over Best Check											
	# Superior to Hybrid Check % Superior over Hybrid Check											

Table No. 1.8 : Grain Yield (Kg/ha) of entries in IVT- E DS under Normal Kharif 2017

Entry No.	IET No.	III												Zone III (5)			
		OD		OD		OD (1)		BI		JH		U.P.				W.B	
		CTK		@JYP		Mean		PSA		HZB		MSD		HTW		Mean	
201	26611	2500		3526		2500		2917		3281	4 #	2297		3005	8	2800	
202	26612	2825		4888	8 *#	2825		3750		2773		2531		2625		2901	
203	26613	3825	5 #	3510		3825	5 # 9%	2708		2969	#	3297		2840		3128	9
204	26614	2175		3269		2175		2292		1719				2805		2248	
205	26615	3575	7 #	3734		3575	7 # 1%	2292		2383		2594		3025	6	2774	
206	26616	3125	#	4792	9 *#	3125	#	3958		3047	#	2469		2290		2978	
207	26617	3350	#	2965		3350	#	4792	1	1719		3109		2155		3025	
208	26618	2425		5000	5 *#	2425		2500		2930	#	3094		2175		2625	
209	26619	3350	#	3526		3350	#	2292		3281	5 #	3094		2500		2903	
210	Vandana (NC)	3525	8 #	2676		3525	8 #	1667		3398	3 #	3109		3040	5	2948	
211	26620	3725	6 #	3221		3725	6 # 6%	1667		3438	2 #	3406		2890		3025	
212	26621	2875		4167		2875		4375	9	1563		3875	3 *	2710		3080	
213	26622	2975		4006		2975		2083		2813		3328		3005	9	2841	
214	26623	3525	9 #	4631	*#	3525	9 #	2083		2031		3984	2 *	1895		2704	
215	26624	2825		6058	1 *#	2825		2292		1641		3594	9	2170		2504	
216	26625	3450	#	3013		3450	#	1250		1992		2516		1895		2221	
217	26626	2950		3125		2950		1667		2383		3797	5	2025		2564	
218	26627	2525		2981		2525		3542		3008	#	2188		2225		2697	
219	26628	3325	#	4375		3325	#	2917		1953				2025		2555	
220	26629	4475	2 *#	4295		4475	2 *# 27%	2500		2266		2859		2105		2841	
221	26630	2650		5000	6 *#	2650		2292		2656		3844	4	2335		2755	
222	26631	3050		4071		3050		4167		2461		3672	8	2925		3255	6
223	26632	4350	4 #	5000	7 *#	4350	4 # 23%	4167		1094		2391		2305		2861	
224	26633	2000		3606		2000		4792	2	2656		2906		3095	2	3090	
225	26634	3225	#	4712	*#	3225	#	3542		2578		2891		2238		2895	
226	26635	3300	#	3958		3300	#	2708		3164	7 #	2813		2188		2834	
227	26636	3150	#	3638		3150	#	2917		2344		2844		2955		2842	
228	26637	1825		4375		1825		1667		2031		3719	7	2385		2325	
229	26638	1825		4760	*#	1825		4375		1953		2875		2040		2614	
230	26639	4450	3 *#	3542		4450	3 *# 26%	3542		3789	1 #	2938		3105	1	3565	2 8%
231	26640	3325	#	4792	*#	3325	#	4167		3164	8 #	2828		2590		3215	8
232	Zonal Check (ZC)	3250	#	4151		3250	#	4375		2852		3016		3025	7	3303	5
233	26641	2925		3830		2925		4792	3	898		3453		2975		3009	
234	26351	2175		5353	4 *#	2175		3542		3086	9 #	2625		2860		2858	
235	26643	3475	#	5721	2 *#	3475	#	4792	4	1055		2531		2615		2894	
236	Sahbhagidhan (NC)	3525	#	3029		3525	#	4792	5	3281	6 #	2938		2005		3308	4
237	26644	2475		5449	3 *#	2475		2917		1977		3734	6	2640		2749	
238	26645	3400	#	3365		3400	#	4583	8	1914		3031		2550		3096	
239	26646	4525	1 *#	4712	*#	4525	1 *# 28%	4792	6	2891	#	2766		3075	4	3610	1 9%
240	Local Check	3475	#	4295		3475	#	3958		2891	#	3359		2860		3309	3
241	US 314 (HC)	2200		4327		2200		4792	7	2070		4000	1 *	3095	3	3231	7
	Exp Mean	3120		4133		3120		3298		2473		3085		2567		2907	
	C.D. 5%	907		177		907		1714		817		490		634		446	
	C.V.%	14.39		2.12		14.39		25.72		16.35		7.84		12.21		17.41	
	Sowing Date	31-07-2017		11-07-2017				01-07-2017		14-07-2017		19-07-2017		06-07-2017			
	Planting Date																
	Local ©	CR Dhan 205		Mandakini				R.Bhagwati		Anjali		Sushk Samrat		Anjali			
* Superior to Best Check % Superior over Best Check @ not included in means																	
# Superior to Hybrid Check % Superior over Hybrid Check																	

Table No. 1.8 contd: Grain Yield (Kg/ha) of entries in IVT- E DS under Normal Kharif 2017

Entry No.	IET No.	V						Zone V (2)		VII		Overall (8)		Days to 50% Flowering	Plant Height (cm)	Panicles / M²
		CG		CG		CG (2)				TN						
		JDP		RPR		Mean		Mean		TRR		Mean				
201	26611	5273		468		2870		2870		2694		2804		70	110	242
202	26612	4816		4237	8	4526		4526		3910	1 *	3433	9	80	96	249
203	26613	4884		1415		3149		3149		1368		2913		71	87	212
204	26614	3925		1333		2629		2629		1918		2310		83	87	234
205	26615	5424		3773	9	4599	9	4599	9	3535	6 *	3325		81	90	253
206	26616	5830		3723		4777	6	4777	6	2903		3418		77	106	230
207	26617	3843		2994		3418		3418		3360		3165		86	88	248
208	26618	4096		568		2332		2332		2221		2501		70	97	237
209	26619	6821	3	712		3767		3767		2434		3060		67	78	226
210	Vandana (NC)	4428		218		2323		2323		1463		2606		66	100	231
211	26620	6550	4	879		3714		3714		2781		3167		67	90	236
212	26621	5405		3438		4421		4421		3778	2 *	3502	6	86	95	245
213	26622	5921		2032		3977		3977		3299		3182		74	84	243
214	26623	5710		4347	7	5028	4 * 4%	5028	4 4%	2347		3240		85	89	264
215	26624	6081	9	2604		4343		4343		2849		3007		76	87	245
216	26625	4995		576		2785		2785		3066		2467		73	68	249
217	26626	5126		1610		3368		3368		2132		2711		75	111	249
218	26627	3843		3348		3595		3595		3390	9 *	3008		73	92	232
219	26628	4088				4088		4088		884		2532		84	93	216
220	26629	4526		616		2571		2571		3018		2796		75	115	245
221	26630	4469		4364	6	4416		4416		3324		3242		78	89	260
222	26631	6944	2	1284		4114		4114		2979		3435	8	73	102	244
223	26632	5040		5167	1 *	5103	3 * 5%	5103	3 5%	3552	5 *	3508	5	80	94	246
224	26633	5520		4695	3 *	5108	2 * 6%	5108	2 6%	3043		3588	4	78	105	278
225	26634	5380		3542		4461		4461		3554	4 *	3369		82	89	279
226	26635	6183	6	2583		4383		4383		1845		3098		73	100	237
227	26636	4998		4415	5	4706	8	4706	8	3506	7 *	3391		81	93	270
228	26637	3075		2176		2626		2626		1909		2348		87	94	211
229	26638	4325		2242		3284		3284		3380	*	2877		88	91	252
230	26639	5708		977		3342		3342		1317		3228		73	103	231
231	26640	4743		1078		2910		2910		1924		2977		75	108	271
232	Zonal Check (ZC)	4576		3741		4158		4158		1740		3322		78	88	261
233	26641	4230		4430	4	4330		4330		2653		3294		83	95	237
234	26351	6144	7	989		3566		3566		3101		3065		75	99	222
235	26643	6100	8	3434		4767	7	4767	7	2718		3340		84	89	255
236	Sahbhagidhan (NC)	6498	5	3184		4841	5	4841	5	2959		3648	2	76	105	259
237	26644	4289		2737		3513		3513		2790		2945		83	90	268
238	26645	5679		1320		3499		3499		1475		2994		88	88	259
239	26646	5456		1915		3686		3686		3430	8 *	3606	3	77	84	257
240	Local Check	5103		3328		4215		4215		2681		3457	7	77	88	234
241	US 314 (HC)	7295	1	5119	2 *	6207	1 * 28%	6207	1 * 28%	3672	3 *	4030	1 * 10%	78	94	233
	Exp Mean	5203		2540		3888		3888		2705		3126		78	94	245
	C.D. 5%	1264		908		178		718		406		342		1		21
	C.V.%	12.02		17.67		3.25		13.12		7.43		15.73		2.48		12.87
	Sowing Date	13-07-2017		27-06-2017						28-07-2017						
	Planting Date															
	Local ©	Danteshwari		Samleshwari						TKM 12						

Table No. 1.8: Grain Yield (Kg/ha) of entries in IVT- E DS under Severe Drought Kharif 2017

Entry No.	IET No.	V		VI		Overall (1)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		M.P.		GU						
		REW		@DRL		Mean				
201	26611	649		1451	9 #	649		74	107	101
202	26612							93	71	
203	26613	665	9	1987	4 #	665	9	74	76	153
204	26614	1270	2 *			1270	2 *	76	82	50
205	26615			1119				90	73	71
206	26616	994	4	666		994	4	84	83	66
207	26617									
208	26618	1181	3 *	991		1181	3 *	73	89	85
209	26619	1380	1 *	1928	5 #	1380	1 *	72	69	160
210	Vandana (NC)			1561	7 #			68	95	70
211	26620	768	8	879		768	8	69	75	71
212	26621			432						
213	26622	494		806		494		87	66	69
214	26623									
215	26624	602		961		602		82	74	85
216	26625			535				79	72	108
217	26626	372		1254		372		78	92	80
218	26627	618		590		618		87	66	88
219	26628									
220	26629	248		1318		248		78	99	79
221	26630	860	6	972		860	6	86	69	69
222	26631	210		1702	6 #	210		75	77	101
223	26632	370		381		370		91	89	100
224	26633			485				88	75	57
225	26634			498				94	87	120
226	26635	171		1135		171		79	89	82
227	26636	880	5	1341	#	880	5	84	88	84
228	26637									
229	26638									
230	26639	291		1483	8 #	291		79	92	67
231	26640	275		2090	3 #	275		84	102	92
232	Zonal Check (ZC)	799	7	1006		799	7	82	78	76
233	26641							93	84	
234	26351	476		2221	1 #	476		76	78	90
235	26643							92		
236	Sahbhagidhan (NC)	367		1417	#	367		82	86	94
237	26644			1339	#			94	86	40
238	26645	552				552		95	90	77
239	26646	320		1422	#	320		75	73	131
240	Local Check	219		2134	2 #	219		78	92	87
241	US 314 (HC)			514				86	75	63
	Exp Mean	601		1181		601		70	68	67
	C.D. 5%	256		815		256		5	0	36
	C.V.%	20.65		33.78		20.65		4.36	0.00	29.10
	Sowing Date	02-07-2017	07-07-2017							
	Planting Date									
	Local ©			AAUDR-1						
	* Superior to Best Check % Superior over Best Check @ not included in means									
	# Superior to Hybrid Check % Superior over Hybrid Check									

Table No. 1.9 : Days to 50% Flowering of entries in IVT - E DS Moderate Drought Kharif 2017

Entry No.	IET No.	III	VI	VII	Overall (3)
		JH	GU	KA	
		RCI	VYR	MGD	Mean
201	26611	75	78	93	82
202	26612	84	101	108	97
203	26613	75	71	90	79
204	26614			126	126
205	26615	89	86	108	94
206	26616	78	81	96	85
207	26617	71	101	108	93
208	26618	71	66	86	74
209	26619	74	63	85	74
210	Vandana (NC)	67	69	85	74
211	26620	64	68	84	72
212	26621	95	95	108	99
213	26622	76	74	104	85
214	26623	97	94	118	103
215	26624	78	79	106	87
216	26625	75	74		74
217	26626	76	72	108	85
218	26627	78	78	114	90
219	26628				
220	26629	78	73	94	82
221	26630	78	80	101	86
222	26631	76	72	97	82
223	26632	85	92	108	95
224	26633	81	85	106	90
225	26634	87	85		86
226	26635	75	76	100	84
227	26636	86	82	101	89
228	26637	105		131	118
229	26638	101		118	109
230	26639	78	79	94	84
231	26640	78	74	95	82
232	Zonal Check (ZC)	77	71	120	89
233	26641	76	95	121	97
234	26351	76	70	96	81
235	26643	98	103	117	106
236	Sahbhagidhan (NC)	78	83	97	86
237	26644	97		122	109
238	26645	72			72
239	26646	75	72	94	80
240	Local Check	62	66	117	81
241	US 314 (HC)	80	95	116	97
	Exp Mean	80	80	104	87
	C.D. 5%	2	4	1	2
	C.V.%	1.45	2.72	0.50	1.64

Table No. 1.9: Days to 50% Flowering of entries in IVT - E DS Severe Drought Kharif 2017

Entry No.	IET No.	V	VI	Overall (2)
		M.P.	GU	
		REW	DRL	Mean
201	26611	82	67	74
202	26612	93		93
203	26613	78	71	74
204	26614	76		76
205	26615	95	86	90
206	26616	89	80	84
207	26617			
208	26618	79	67	73
209	26619	77	67	72
210	Vandana (NC)	64	72	68
211	26620	77	61	69
212	26621			
213	26622	95	79	87
214	26623			
215	26624	88	77	82
216	26625	85	74	79
217	26626	82	74	78
218	26627	87		87
219	26628			
220	26629	85	72	78
221	26630	94	79	86
222	26631	81	70	75
223	26632	97	85	91
224	26633	95	81	88
225	26634	101	87	94
226	26635	84	74	79
227	26636	91	78	84
228	26637			
229	26638			
230	26639	84	73	79
231	26640	94	75	84
232	Zonal Check (ZC)	93	71	82
233	26641	95	91	93
234	26351	82	71	76
235	26643		92	92
236	Sahbhagidhan (NC)	86	79	82
237	26644		94	94
238	26645	95		95
239	26646	79	72	75
240	Local Check	91	65	78
241	US 314 (HC)		86	86
	Exp Mean	86	76	70
	C.D. 5%	9	5	5
	C.V.%	5.06	3.12	4.36

Table No. 1.9 : Days to 50% Flowering of entries in IVT - E DS Normal Kharif 2017

Entry No.	IET No.	III							Zone III (6)	V			Zone V (2)	VII TN	Overall (9)
		OD	OD	OD (2)	BI	JH	U.P.	W.B		CG	CG	CG (2)			
		CTK	JYP	Mean	PSA	HZB	MSD	HTW		JDP	RPR	Mean	Mean	TRR	Mean
201	26611	64	69	66	77	71	74	73	71	61	72	66	66	70	70
202	26612	70	89	80	87	82	72	81	80	72	88	80	80	81	80
203	26613	66	79	72	72	75	70	69	71	66	72	69	69	74	71
204	26614	68	90	79	81	88		85	82	74	84	79	79	97	83
205	26615	77	90	83	75	87	78	81	81	79	86	82	82	77	81
206	26616	73	86	79	82	75	75	73	77	69	84	76	76	74	77
207	26617	76	91	83	95	87	81	83	85	83	105	94	94	79	86
208	26618	73	74	73	74	72	68	72	72	58	68	63	63	72	70
209	26619	69	74	71	69	73	68	57	68	60	66	63	63	71	67
210	Vandana (NC)	71	66	69	73	65	70	62	68	56	61	58	58	70	66
211	26620	70	72	71	67	65	69	72	69	58	59	58	58	70	67
212	26621	76	91	84	96	88	81	86	86	80	94	87	87	87	86
213	26622	76	82	79	72	76	69	71	74	72	76	74	74	79	74
214	26623	73	96	84	97	86	76	82	85	78	95	87	87	82	85
215	26624	73	82	77	76	76	72	78	76	73	78	76	76	74	76
216	26625	71	75	73	81	75	69	78	75	67	73	70	70	71	73
217	26626	71	75	73	76	78	74	83	76	65	76	71	71	75	75
218	26627	73	71	72	81	76	75	74	75	68	58	63	63	80	73
219	26628	74	71	73	88	89		82	81	87		87	87	95	84
220	26629	72	75	74	75	78	74	76	75	68	84	76	76	75	75
221	26630	75	80	77	81	78	74	81	78	73	83	78	78	81	78
222	26631	71	85	78	71	77	70	72	74	68	72	70	70	75	73
223	26632	72	96	84	84	88	75	81	82	79	59	69	69	91	80
224	26633	73	84	79	78	80	78	74	78	74	83	78	78	82	78
225	26634	77	84	80	81	84	75	83	80	77	87	82	82	92	82
226	26635	67	76	72	76	72	76	74	73	68	76	72	72	75	73
227	26636	79	93	86	81	88	75	73	81	74	86	80	80	81	81
228	26637	68	95	81	110	86	97	83	90	72	83	77	77	94	87
229	26638	70	90	80	113	88	97	80	90	87	75	81	81	94	88
230	26639	69	80	74	77	72	69	72	73	69	77	73	73	71	73
231	26640	73	69	71	74	78	77	81	75	67	77	72	72	84	75
232	Zonal Check (ZC)	70	83	77	71	78	69	71	74	80	90	85	85	91	78
233	26641	78	91	85	83	89	73	81	82	78	88	83	83	87	83
234	26351	72	80	76	79	74	70	78	75	67	71	69	69	81	75
235	26643	67	85	76	94	90	91	85	85	83	70	76	76	91	84
236	Sahbhagidhan (NC)	74	82	78	81	79	71	77	77	67	80	73	73	72	76
237	26644	67	91	79	97	86	78	82	83	63	97	80	80	87	83
238	26645	78	92	85	78	87	94	84	85	87	105	96	96	91	88
239	26646	74	81	77	74	76	71	69	74	71	106	88	88	73	77
240	Local Check	74	82	78	76	69	72	62	72	75	95	85	85	90	77
241	US 314 (HC)	75	93	84	78	80	71	72	78	73	87	80	80	79	78
	Exp Mean	72	83	77	81	79	75	76	78	72	80	76	76	81	78
	C.D. 5%	8	1	4	3	3	2	3	2	0	3	1	1	4	1
	C.V.%	5.71	0.89	3.80	2.05	1.87	1.43	2.19	2.73	0.00	1.84	1.37	1.37	2.49	2.48

Table No. 1.10 : Plant Height (cm) of entries in IVT - E DS Moderate Drought Kharif 2017

Entry No.	IET No.	III	VI	VII	Overall (3)
		JH	GU	KA	
		RCI	VYR	MGD	Mean
201	26611	118	117	84	106
202	26612	98	115	92	102
203	26613	80	87	74	80
204	26614			70	70
205	26615	83	91	71	82
206	26616	104	125	95	108
207	26617	84	103	76	88
208	26618	98	110	88	99
209	26619	80	63	60	68
210	Vandana (NC)	108	112	79	100
211	26620	102	103	64	90
212	26621	101	96	87	95
213	26622	86	87	60	78
214	26623	91	92	67	83
215	26624	88	105	69	87
216	26625	69	66		68
217	26626	117		95	106
218	26627	103	106	83	97
219	26628				
220	26629	118	125	104	116
221	26630	86	91	70	82
222	26631	104	110	90	101
223	26632	91	113	74	93
224	26633	98	124	92	105
225	26634	85	91		88
226	26635	111	116	86	104
227	26636	106	108	75	96
228	26637	103		69	86
229	26638	94		76	85
230	26639	108	119	89	105
231	26640	111	95	93	100
232	Zonal Check (ZC)	79	86	77	81
233	26641	101	111	67	93
234	26351	108	109	90	102
235	26643	94	87	90	90
236	Sahbhagidhan (NC)	97	106	92	98
237	26644	90		76	83
238	26645	91			91
239	26646	87	83	60	77
240	Local Check	113	112	58	94
241	US 314 (HC)	101	85	62	83
	Exp Mean	97	101	78	89
	C.D. 5%	0	0	0	0
	C.V.%	0.00	0.00	0.00	0.00

Table No. 1.10 : Plant Height (cm) of entries in IVT - E DS Severe Drought Kharif 2017

Entry No.	IET No.	V	VI	Overall (2)
		M.P.	GU	
		REW	DRL	Mean
201	26611	95	120	107
202	26612	71		71
203	26613	71	82	76
204	26614	82		82
205	26615	61	85	73
206	26616	60	106	83
207	26617			
208	26618	71	108	89
209	26619	69	70	69
210	Vandana (NC)	82	108	95
211	26620	63	87	75
212	26621			
213	26622	58	74	66
214	26623			
215	26624	63	85	74
216	26625	78	66	72
217	26626	72	112	92
218	26627	66		66
219	26628			
220	26629	81	118	99
221	26630	58	79	69
222	26631	63	91	77
223	26632	85	92	89
224	26633	60	91	75
225	26634	97	77	87
226	26635	76	101	89
227	26636	77	98	88
228	26637			
229	26638			
230	26639	79	106	92
231	26640	88	117	102
232	Zonal Check (ZC)	71	84	78
233	26641	84		84
234	26351	68	88	78
235	26643			
236	Sahbhagidhan (NC)	83	88	86
237	26644		86	86
238	26645	90		90
239	26646	59	87	73
240	Local Check	66	118	92
241	US 314 (HC)		75	75
	Exp Mean	73	93	68
	C.D. 5%	0	0	0
	C.V.%	0.00	0.00	0.00

Table No. 1.10 : Plant Height (cm) of entries in IVT - E DS Normal Kharif 2017

Entry No.	IET No.	III							Zone III (6)	V			Zone V (2)	VII TN	Overall (9)
		OD	OD	OD (2)	BI	JH	U.P.	W.B		CG	CG	CG (2)			
		CTK	JYP	Mean	PSA	HZB	MSD	HTW	Mean	JDP	RPR	Mean	Mean	TRR	Mean
201	26611	134	99	117	110	97	102	116	110	113	109	111	111	107	110
202	26612	112	93	103	110	69	92	96	95	98	98	98	98	96	96
203	26613	122	77	99	88	71	87	82	88	105	73	89	89	74	87
204	26614	111	76	94	87	63		105	88	102	85	94	94	63	87
205	26615	106	76	91	100	63	91	101	89	105	86	96	96	82	90
206	26616	119	101	110	119	92	92	107	105	124	107	115	115	93	106
207	26617	108	67	87	100	72	89	91	88	88	88	88	88	90	88
208	26618	119	93	106	106	92	93	75	96	109	95	102	102	93	97
209	26619	87	64	76	80	84	86	83	81	88	59	74	74	72	78
210	Vandana (NC)	116	96	106	100	100	88	101	100	117	95	106	106	87	100
211	26620	119	89	104	85	75	86	76	88	108	86	97	97	85	90
212	26621	114	89	102	100	71	96	94	94	109	96	102	102	83	95
213	26622	93	77	85	78	77	83	95	84	94	80	87	87	84	84
214	26623	104	89	96	81	76	89	74	85	103	93	98	98	91	89
215	26624	116	74	95	92	63	95	82	87	88	94	91	91	77	87
216	26625	100	71	85	60	63	72	69	73	62	51	57	57	63	68
217	26626	136	102	119	115	101	105	98	109	124	103	114	114	112	111
218	26627	101	70	85	110	72	94	96	90	93	94	94	94	95	92
219	26628	98	86	92	115	75		100	95	102		102	102	72	93
220	26629	141	113	127	128	96	102	101	113	120	107	114	114	123	115
221	26630	108	75	92	103	65	90	86	88	97	95	96	96	84	89
222	26631	116	101	109	100	75	93	121	101	122	92	107	107	97	102
223	26632	102	88	95	100	87	90	74	90	106	101	104	104	95	94
224	26633	132	95	113	120	84	97	108	106	108	105	106	106	94	105
225	26634	127	63	95	93	84	89	95	92	90	86	88	88	70	89
226	26635	115	99	107	104	80	84	103	97	118	102	110	110	95	100
227	26636	118	82	100	95	73	91	89	91	96	103	100	100	86	93
228	26637	113	90	101	94	77	92	91	93	99	111	105	105	78	94
229	26638	114	97	105	80	77	100	87	92	105	98	101	101	61	91
230	26639	112	95	104	99	104	91	108	102	116	101	108	108	100	103
231	26640	127	121	124	106	87	92	110	107	120	106	113	113	103	108
232	Zonal Check (ZC)	96	91	93	77	89	86	82	87	99	89	94	94	82	88
233	26641	120	85	103	84	73	103	84	92	102	106	104	104	94	95
234	26351	101	97	99	116	82	99	97	99	117	91	104	104	89	99
235	26643	99	82	90	103	67	91	95	90	113	95	104	104	57	89
236	Sahbhagidhan (NC)	212	94	153	107	82	94	87	113	102	88	95	95	80	105
237	26644	120	85	103	103	68	86	75	90	94	98	96	96	82	90
238	26645	121	84	103	100	70	82	82	90	103	88	95	95	63	88
239	26646	86	109	97	84	76	80	73	85	90	77	83	83	82	84
240	Local Check	117	88	103	103	74	88	89	93	80	90	85	85	61	88
241	US 314 (HC)	114	85	100	102	82	97	91	95	99	90	95	95	84	94
	Exp Mean	115	88	102	98	79	91	92	94	103	93	98	98	85	94
	C.D. 5%	0			0	0	0	0		0	0	0	0	0	
	C.V.%	0.00			0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	

Table No. 1.11 : Panicles/ M² of entries in IVT - E DS Moderate Drought Kharif 2017

Entry No.	IET No.	III	VI	VII	Overall (3)
		JH	GU	KA	
		RCI	VYR	MGD	Mean
201	26611	195	304	266	255
202	26612	158	188	343	230
203	26613	137	285	252	225
204	26614			238	238
205	26615	198	245	287	243
206	26616	177	371	263	270
207	26617	156	299	245	233
208	26618	177	239	273	229
209	26619	218	299	235	250
210	Vandana (NC)	128	160	228	172
211	26620	191	348	256	265
212	26621	268	228	235	243
213	26622	203	295	200	232
214	26623	343	272	231	282
215	26624	178	310	242	243
216	26625	169	312		241
217	26626	152		266	209
218	26627	140	243	259	214
219	26628				
220	26629	113	276	291	226
221	26630	158	308	273	246
222	26631	174	230	287	230
223	26632	195	276	277	249
224	26633	134	446	217	265
225	26634	229	387		308
226	26635	244	300	221	255
227	26636	267	421	259	316
228	26637	127		203	165
229	26638	131		235	183
230	26639	177	210	224	204
231	26640	201	223	203	209
232	Zonal Check (ZC)	197	308	179	228
233	26641	195	255	217	222
234	26351	176	333	273	261
235	26643	248	244	249	247
236	Sahbhagidhan (NC)	200	415	315	310
237	26644	270		224	247
238	26645	205			205
239	26646	230	286	175	230
240	Local Check	195	351	231	259
241	US 314 (HC)	231	188	203	207
	Exp Mean	192	290	245	233
	C.D. 5%	70	42	95	42
	C.V.%	18.12	7.15	19.20	15.21

Table No. 1.11 : Panicles/ M² of entries in IVT - E DS Severe Drought Kharif 2017

Entry No.	IET No.	V	VI	Overall (2)
		M.P.	GU	
		REW	DRL	Mean
201	26611	123	79	101
202	26612			
203	26613	200	106	153
204	26614	50		50
205	26615	61	82	71
206	26616	63	70	66
207	26617			
208	26618	101	69	85
209	26619	198	122	160
210	Vandana (NC)	55	86	70
211	26620	53	88	71
212	26621			
213	26622	39	100	69
214	26623			
215	26624	70	100	85
216	26625	93	124	108
217	26626	71	89	80
218	26627	88		88
219	26628			
220	26629	93	65	79
221	26630	55	83	69
222	26631	108	94	101
223	26632	30	170	100
224	26633	30	83	57
225	26634		120	120
226	26635	59	105	82
227	26636	52	116	84
228	26637			
229	26638			
230	26639	44	91	67
231	26640	98	86	92
232	Zonal Check (ZC)	48	105	76
233	26641			
234	26351	86	95	90
235	26643			
236	Sahbhagidhan (NC)	93	96	94
237	26644		40	40
238	26645	77		77
239	26646	174	89	131
240	Local Check	78	96	87
241	US 314 (HC)		63	63
	Exp Mean	82	93	67
	C.D. 5%	65	15	36
	C.V.%	38.91	7.68	29.10

Table No. 1.11 : Panicles/ M² of entries in IVT - E DS Normal Kharif 2017

Entry No.	IET No.	III							Zone III (6)	V			Zone V (2)	VII TN	Overall (9) Mean
		OD	OD	OD (2)	BI	JH	U.P.	W.B		CG	CG	CG (2)			
		CTK	JYP	Mean	PSA	HZB	MSD	HTW		JDP	RPR	Mean		TRR	
201	26611	167	243	205	212	314	264	205	234	316	278	297	297	179	242
202	26612	238	327	283	172	324	273	146	247	279	328	303	303	157	249
203	26613	171	181	176	179	262	271	163	204	269	284	276	276	130	212
204	26614	230	354	292	230	219		127	232	254	287	270	270	173	234
205	26615	141	408	274	174	298	269	202	248	318	288	303	303	180	253
206	26616	218	247	232	244	291	269	135	234	258	235	246	246	179	230
207	26617	215	274	244	204	264	278	143	229	357	297	327	327	205	248
208	26618	256	210	233	215	200	281	160	220	332	240	286	286	240	237
209	26619	251	153	202	195	294	285	161	223	376	140	258	258	177	226
210	Vandana (NC)	236	406	321	181	299	281	220	270	203	153	178	178	102	231
211	26620	222	221	221	172	364	281	197	243	175	222	199	199	271	236
212	26621	206	312	259	221	213	299	158	235	380	263	322	322	155	245
213	26622	137	307	222	168	197	285	194	214	372	252	312	312	282	243
214	26623	227	421	324	167	307	300	109	255	301	335	318	318	214	264
215	26624	202	372	287	187	308	286	132	248	287	240	263	263	192	245
216	26625	246	230	238	170	316	258	121	223	403	212	308	308	286	249
217	26626	207	335	271	136	322	286	129	236	279	269	274	274	283	249
218	26627	246	317	281	194	258	252	115	230	324	284	304	304	102	232
219	26628	139	353	246	200	256		113	212	300		300	300	149	216
220	26629	227	254	240	199	291	276	109	226	378	258	318	318	218	245
221	26630	207	358	282	220	238	293	122	239	366	295	330	330	246	260
222	26631	218	239	229	212	277	277	156	230	396	235	316	316	184	244
223	26632	214	282	248	191	341	261	129	236	270	295	282	282	230	246
224	26633	240	424	332	223	311	274	175	274	388	303	345	345	164	278
225	26634	221	573	397	211	240	271	159	279	366	320	343	343	149	279
226	26635	201	297	249	170	263	269	145	224	372	234	303	303	183	237
227	26636	243	353	298	210	243	267	169	247	350	321	335	335	277	270
228	26637	222	216	219	149	190	283	107	194	306	257	282	282	175	211
229	26638	269	298	283	175	303	269	118	238	367	305	336	336	167	252
230	26639	162	230	196	158	291	277	201	220	363	201	282	282	195	231
231	26640	228	426	327	192	330	269	149	266	403	210	306	306	237	271
232	Zonal Check (ZC)	194	470	332	194	290	264	180	265	302	300	301	301	153	261
233	26641	207	323	265	178	221	307	123	226	317	309	313	313	151	237
234	26351	134	223	178	181	300	268	112	203	261	256	258	258	265	222
235	26643	139	446	292	271	263	252	113	247	373	265	319	319	175	255
236	Sahbhagidhan (NC)	256	430	343	184	287	268	98	253	297	289	293	293	228	259
237	26644	247	524	386	157	248	276	123	262	318	315	317	317	204	268
238	26645	288	525	406	163	213	274	138	267	314	245	280	280	168	259
239	26646	236	253	244	201	293	264	193	240	315	298	306	306	263	257
240	Local Check	220	268	244	160	257	272	165	223	341	292	317	317	128	234
241	US 314 (HC)	193	253	223	172	277	291	140	221	344	285	314	314	145	233
	Exp Mean	212	325	269	190	275	275	147	237	324	267	296	296	194	245
	C.D. 5%	60	34	34	62	90	16	52	24	113	50	35	59	12	21
	C.V.%	13.95	5.24	8.98	16.15	16.18	2.89	17.53	12.42	17.27	9.30	8.45	14.25	3.06	12.87

RAINFED LOWLAND TRIALS

Rice crop is grown in monsoon dependant lowland situations under constant threat of inundation and submergence. Rainfed lowland rice including deep water, of which 92 percent is distributed in eastern India (Assam, Bihar, West Bengal, Eastern Uttar Pradesh, Odisha and Chhattisgarh) and North Eastern states. Flooding is a serious constraint to plant growth and survival in rainfed lowland and deep water areas because excessive water results in partial or complete submergence of the plant. The potential of the genotype under such conditions depends not only on yield but also on adaptability parameters like early seedling vigour, seedling survival, kneeing and elongation abilities, semi tall to tall stature with sturdy culm, low grain shattering, submergence and drought tolerance, good phenotypic acceptability and multiple resistance to pests and diseases which are some of the key traits to be pooled together during breeding varieties for getting high yields in this harsh ecology. About 40% of the total rice area in the country is occupied by rainfed lowlands (15.3 m.ha.) and the yield levels are very low compared to irrigated ecosystem. To increase the productivity of this ecology, there is a need for highly productive and submergence/drought tolerant varieties coupled with good adaptability parameters. Various water depths of 0-100cm and above, recurrent submergence with drought spells characterize this difficult ecosystem and classified as shallow water (up to 40cm), semideep water (41-75cm) and deep water (76-120cm). With the objective of enhancing the yield potential of this ecosystem 6 trials viz., IVT-RSL, AVT 1-SDW, IVT-SDW, NSDWSN and IVT-DW were conducted with 52, 10, 12, 42 and 13 test entries at 11, 9, 9, 9 and 6 locations, respectively and the results are summarized in this chapter.

INITIAL VARIETY TRIAL-RAINFED SHALLOW LOWLAND (IVT -RSL)

Locations: 11

Test Entries: 52

Checks: Dhanrasi and Swarna-Sub1-National; Pooja-(Eastern), Bahadur (North Eastern), Savitri-(Southern)-Zonal; PA 6444 Hybrid and Local Check

Table:2.1

The trial was constituted with 52 test entries and five checks viz., Dhanrasi (NC), Swarna-Sub1(NC), Pooja (ZC) for the Eastern zone, Bahadur for North eastern zone, Savitri for the Southern zone, Hybrid check PA 6444 and a local check. Of the 51 test entries, three were in the second year of testing. Remaining forty eight entries were new nominations. The trial was sent to 11 locations. Data was received from all the 11 centres.

CV of the experiments ranged from 5.38% (Chinsurah) to 26.65% (Bhubaneswar). Experimental mean yield varied from 2183kg/ha at Masodha to 6952kg/ha at Gerua, Assam. Mean yield of the entries varied from 5617kg/ha (IET25856) to 3429kg/ha (IET26691). Days to 50% flowering ranged from 103days (IET26690 and IET26703) to 132days (IET26720). Mean panicles/m² varied from 231(IET26695 and IET26727) to 312 (Zonal Check) and mean plant height ranged from 96cm (IET26700 and IET26712) to 132cm (IET26725). The data pertaining to yield, days to 50% flowering, plant height and

no. of panicles/m² are presented in tables 2.2, 2.3, 2.4 and 2.5.

On overall mean yield performance, four entries viz., IETs 25856, 26694, 26715 and 26696 recorded yield superiority over the best check. In addition to these, seven more entries viz., IETs 26692, 26694, 25219, 25856, 25920, 26715 and 26716 in the Eastern and two entries (IETs 26692 and 26696) in the North Eastern zone and eleven entries viz., IETs 26690, 26694, 25901, 25856, 25904, 25920, 26706, 26712, 26715, 26721 and 26726 in Southern zone recorded yield superiority of more than 5% over the best check. IETs 26715 and 26690 cannot be considered for promotion due to plant height less than 120 cm.

Overall performance of promising entries in IVT-RSL, Kharif 2017

Rank	IET No./Designation/Cross combination	GY/ FD/ GT	Yield Adv. (%) over NC/ZC/LC/HC	% increase over the best check			
				State		Zone	
				Rank/ Yield	% BC	Rank/ Yield	% BC
1	25856 (MTU 1223) MTU 1081/MTU 1064	5617	12.84	OD(2)	39.49	Z III	21.10
		124	13.91	BI(1)	14.48	Z VII	30.56
		MS	20.82	AP(3)	19.85		
				KA(1)	29.39		
3	26694 (OR 2434-4) Indravati/CR 780-1937	5283	6.13	OD(1)	41.38	Z III	12.30
		127	7.14	KA(2)	13.43	Z VII	7.57
		SB	13.64				
	<i>Dhanrasi (NC)</i>	<i>4978</i>					
		<i>122</i>					
	Zonal check	4931					
		123					
	Local check	4649					
		114					
	PA6444(HC)	4933					
		123					

Bold Italics: Best check & over the best check; NC-National Check; ZC-Zonal Check; LC-Local Check; GY: Grain Yield; FD:Daysto50% flowering; GT: Grain Type; BC-Best Check

IET25856 (MTU 1223) derived from the cross between MTU 1081/MTU1064 with medium slender grains and 124 days to 50% flowering, recorded a mean yield of 5617 kg/ha with yield superiority of 12.84, 13.91 and 20.82% over National, Zonal and Local checks, respectively on overall performance. It ranked first in Zone III (5693 kg/ha) second at Cuttack location with 7164kg/ha, 1st at Bikramganj with 8300 kg/ha, while at Chinsurah it yielded 6481 kg/ha with second rank. It ranked 1st in zone VII (5657 Kg/ha), 1st rank at Ponnampet location with 6424 kg/ha and 3rd at Maruteru with 4890 kg/ha in Region VII.

IET26692 (MEPH-144; Hybrid) with long slender grains and 113 days to 50% flowering, recorded a mean yield of 5450kg/ha with yield superiority of 9.48, 10.52, 17.23 and 10.48% over National, Zonal, Local and hybrid checks, on overall performance. It ranked third in Zone III (5506 kg/ha) fifth at Cuttack location with 6657kg/ha and 2nd at Bikramganj with 7500 kg/ha. While, in Zone IV it ranked 1st (7685 kg/ha), at Gerua with a mean yield of 9020 kg/ha it ranked 1st and 2nd at Titabar with 6349 kg/ha. This entry cannot be considered for promotion on overall basis due to <10% yield advantage over best varietal check.

IET 26694 (OR 2434-4) derived from the cross between Indravati/CR 780-1937with

short bold grains and 127days to 50% flowering, recorded a mean yield of 5283kg/ha with yield superiority of 6.13, 7.14 and 13.64% over National, Zonal and Local checks, respectively on overall mean basis. It ranked fifth in Zone III (5279 kg/ha), first at Bhubaneswar and Chinsurah with an average yield of 5816 kg/ha and 6667 kg/ha respectively. It ranked sixth in Zone VII (4661 kg/ha), second at Ponnampet with yield of 5632 kg/ha.

Entries promoted to 3rd year of testing:

- Overall basis: IET 25856
- Zone-III: IET 25219

Entries promoted to 2nd year of testing:

- Overall basis: IET 26694 and 26696
- Zone-III & IV: IET 26692
- Zone-III & VII: IET 25920 and 26715
- Zone-III: IET 26716
- Zone-VII: IET 25901, 25904, 26706, 26712, 26721 and 26726

ADVANCE VARIETY TRIAL 1–SEMI DEEP WATER (AVT 1-SDW)

Locations: 9

Test Entries: 10

Checks: Sabita(National), Purnendu (Zonal) and Local Check Table: 2.7

The trial was constituted with 13 entries including three checks *viz.*, Sabita (National), Purnendu(Zonal) and local check. Out of the 10 test entries six were in third year and four were in second year of testing. The trial was sent to 9 locations and data was received from all locations except Pusa and Pundibari. Out of seven locations, five locations *viz.*, ICAR-NRRI Cuttack, Bhubaneswar, Ghaghraghat, Chinsurah and Maruteru, maintained the adequate water levels of 05-75 cm during crop growth period, whereas at Masodha and Gerua required water level was not maintained. Hence, the data from Masodha and Gerua was not considered for evaluating the entries. The data on all the listed adaptability parameters was received only from Maruteru. Seedling survival (%), submergence tolerance, phenotypic acceptability, elongation ability and grain shattering from Ghaghraghat; seedling survival, phenotypic acceptability and submergence tolerance and grain shattering from NRRI-Cuttack; phenotypic acceptability and grain shattering from Masodha.

Details of water regime at different centres in AVT 1- SDW, Kharif 2017

Location	Week	June	July	August	September	October	November
NRRI- Cuttack	1 st	-	-	20	38	43	18
	2 nd	-	-	30	34	32	15
	3 rd	-	-	37	32	41	6
	4 th	-	-	40	30	29	-
PUSA	1 st	5	22	102	110	65	-
	2 nd	18	28	115	112	58	-
	3 rd	22	55	125	98	24	-
	4 th	25	70	115	92	16	-
Chinsurah	1 st	-	20	45	50	30	-
	2 nd	-	45	30	45	40	-
	3 rd	-	35	45	55	40	-
	4 th	-	50	40	40	35	-
Ghagharaghat	1 st	-	-	05	71	38	-
	2 nd	-	-	10	67	12	-
	3 rd	-	-	38	62	05	-
	4 th	-	-	65	55	-	-
Maruteru	1 st	-	-	12	22	30	15
	2 nd	-	-	35	48	48	-
	3 rd	-	-	48	49	51	-
	4 th	-	-	39	40	40	-
Bhubneswar	1 st	-	-	-	-	38-41	20-25
	2 nd	-	-	-	5-10	41-50	15-20
	3 rd	-	-	-	5-10	50	15-20
	4 th	-	-	-	20-37	20-30	15-20
Gerua	30-50 cm						
Masodha			Highest	35	20	10	
			Lowest	20	10	3	-

CV of the experiments ranged from 5.44% at Cuttack to 19.15% at Bhubaneswar. Experimental mean yield ranged from 1838 kg/ha (IET 24505) at Bhubaneswar to 5963 kg/ha (IET 24496) at Chinsurah. Over all mean yield of entries varied from 2771 kg/ha (zonal check) to 4376 kg/ha (IET 24486). Mean days to 50% flowering ranged from 111 days (National check) to 134 days (IET 24505). Mean panicles/m² ranged from 242 (IET 24496) to 292 (IET 25179). The data pertaining to yield, days to 50% flowering, plant height and no. of panicles/m² are presented in tables 2.8, 2.9, 2.10 and 2.11.

On overall basis, none of the entries showed required yield superiority of 5% over the best check (LC) on zonal basis. In the Eastern Zone, three entries IETs 25212, 24496 and 24495 out performed best check (local check) with yield advantage of 5%. In Southern zone, trial was conducted only at single location Maruteru in Andhra Pradesh and none of the entries showed >15% yield superiority over best check (local check). Performance of the three entries in Eastern zone is discussed below:

IET 25212 (OR 2413-9) derived from the cross Indravati/CN1231-11-1 with short bold grains, 117 cm plant height and 132 days to 50% flowering, recorded a mean yield of 4213 kg/ha with no yield advantage over the best check on overall mean basis. It ranked

first in Eastern zone (4589 kg/ha) with 9 % yield superiority over the best check. It ranked second in Cuttack and fifth in Bhubaneswar with 17 % yield superiority over the best check and ranked eighth in Chinsurah. It recorded good seedling survival at Maruteru and Cuttack, good submergence tolerance, phenotypic acceptability, elongation ability and good grain shattering at Maruteru.

Adaptability parameters of entries in AVT 1- SDW, Kharif 2017

Entry No.	IET No.	Seedling Survival (%)			Phenotypic Acceptability				Kneeing Ability
		CTK	MTU	GGT	CTK	MTU	MSD	GGT	MTU
401	24519	89.6	100.00	75	1	5	5	9	7
402	24505	88.4	100.00	65	3	3		9	9
403	24486	88.9	94.95	95	3	3	3	3	3
404	24518	90	98.79	70	1	5		9	9
405	24496	92.4	98.99	85	3	3		5	9
406	24495	69.4	100.00	95	1	3	1	3	9
407	Sabita (NC)	81.2	100.00	90	7	9	5	5	7
408	25212	90.9	100.00	70	5	3		9	9
409	25209	89.8	100.00	60	1	3		9	9
410	Purnendu (ZC)	72.7	100.00	80	7	9	3	7	3
411	25191	80.5	100.00	95	3	5	5	3	9
412	25179	72.9	100.00	80	5	3	5	9	9
413	Local Check	89.6	100.00	95	1	3	3	3	non lodging

Entry No.	IET No.	Elongation Ability		Submergence Tolerance			Grain Shattering			
		GGT	MTU	CTK	MTU	GGT	CTK	MTU	GGT	MSD
401	24519	7	3	5	1	5	1	5	-	5
402	24505	7	3	5	1	7	1	5	-	-
403	24486	5	3	5	3	3	5	5	1	5
404	24518	5	1	5	3	7	1	3	-	-
405	24496	7	3	5	3	5	1	3	-	-
406	24495	7	3	6	1	3	1	5	1	5
407	Sabita (NC)	1	1	5	1	5	3	3	1	5
408	25212	5	3	4	1	7	3	3	-	-
409	25209	5	1	5	1	7	1	3	-	-
410	Purnendu(ZC)	1	1	6	1	5	5	3	-	5
411	25191	3	3	6	1	3	3	5	-	5
412	25179	7	3	6	1	5	3	7	-	7
413	Local Check	3	5	5	1	3	1	5	1	7

IET 24496 (OR 2418-2) derived from a cross between Mahanandi/OR1898-2 with short bold grains, 107 cm plant height and 124 days to 50% flowering. It ranked second (4527 kg/ha) with yield advantage of 8% in Eastern zone over the best check. It ranked first in Chinsurah (5963 kg/ha), third in Bhubaneswar (5229 kg/ha), fourth in Cuttack (3659 kg/ha) and fifth in Ghagraghat (3256 kg/ha) and). It recorded good seedling survival at Cuttack and Ghagraghat with desirable phenotypic acceptability score at Cuttack. It showed good elongation ability at good submergence tolerance at Maruteru, Cuttack and Ghagraghat and low grain shattering at Maruteru. However, due to plant height <120 cm, it is not suitable for semi-deep water conditions.

IET24495 {(MTU1172) (MTU 11335-19-1-1-1} derived from the cross MTU7029 / MTU1064 with medium slender grains, 105 cm plant height and 126 days to 50% flowering

ranked third in eastern zone (4455 kg/ha). It scored second rank in Bhubaneswar (5678 kg/ha) second in Ghagaraghat (3722 kg/ha), third in Chinsurah (5000 kg/ha) and seventh in Cuttack (3418 kg/ha). It recorded good seedling survival, submergence tolerance, phenotypic acceptability and elongation ability at Maruteru, good submergence tolerance at Ghagaraghat, good phenotypic acceptability at Cuttack Masodha and Ghagaraghat and good shattering at Maodha. Due to plant height less than 120 cm, this entry is not suitable for semi deep water ecology.

Zonal performance of promising entries in Zone III AVT1-SDW, Kharif 2017

Rank	IETNo./Designation/ Cross combination	GY/ FD/ GT	Yield Adv. (%) over NC/ ZC/ LC	Superior to check/Yield (kg/ha)/Rank 3 Checks	% increase over the best check			
					State		Zone	
					Rank/ Yield	% BC	Rank/ Yield	% BC
1	25212 OR 2413-9 Indravati/CN1231- 11-1	4589 132 SB	55 63 9	CTK 4531 (2) BBN 4493 (5)	OD-3	17.0	Z-III- 1	9
2	24496 (OR2418-2) Mahanandi/ OR 1898-2	4527 125 SB	53 61 8	BBN 5229 (3) CHN 5963 (1)	WB-1 OD-4	22.9 15.0	Z-III -2	8
3	24495 (MTU 1172) MTU II 335-19-1-1-1) MTU 7029/MTU 1064	4455 126 MS	51 58 6	BBN 5678 (2)	OD-1	18.0	Z-III- 3	6
	Sabita(NC)	2950 111						
	Purnendu(ZC)	2815 112						
	Local check	4192 119						

Bold Italics :Best check &over the best check; NC-National Check; ZC-Zonal Check; LC-Local Check; GY: Grain Yield; FD:Daysto50% flowering; GT: Grain Type; BC-Best Check

Three years performance of promising entries in Semi Deep Water

IETNo	Year	GY/ FD/ GT	Yield Adv. (%) over NC/ ZC/LC	Superior to check/Yield (kg/ha)/Rank (3 Checks)	% increase over the best				Remarks
					State		Zone/Region		
					Rank/ Yield	% BC	Rank/ Yield	% BC	
IET 24496	2015	3859 143 SB	20.19 22.67 13.78	BBN 4568 (6) CTK 3614 (4)	OD-5	14	Z-III- 4	15	Discontinued due to dwarf stature not suitable for semi deep water condition.
	2016	4453 133 SB	42.72 41.37 12.99	MTU 6020 (1) BBN 4691 (2)	AP-1 OD-2	43.85 78.09	Z-III-5 ZVII- 1	43.8 18.0	
	2017	4366 125 SB	53 58 4	BNN 5229 (3) CHN 5963	OD-3 WB-1	15.0 22.9	Z-III -2	8.0	

IETNo	Year	GY/ FD/ GT	Yield Adv. (%) over NC/ ZC/LC	Superior to check/Yield (kg/ha)/Rank (3 Checks)	% increase over the best				Remarks
					State		Zone/Region		
					Rank/ Yield	% BC	Rank/ Yield	% BC	
IET 24495	2015	4141 133 MS	28.96 31.62 22.08	BBN 5309 (3) CTK 4279 (2) PSA 3214 (1)	OD-3 BI-1	34 10	Z-III- 2	30	Discontinued due to dwarf stature not suitable for semi deep water condition.
	2016	4154 133 SB	33.14 31.87 5.4	CHN 5025 (5)	WB-5	22.83	Z-III -6	10.0	
	2017	4284 126 MS	50 55 2	BBN 5672 (2)	OD-1	18.0	Z-III -3	6.0	

Promising entries in AVT 1-SDW during Kharif 2017:

Entries in 2nd year of testing:

- **Overall: None**
- **Zone-III: IET 25212 (OR 2413-9)--- promoted to 3rd year of testing.**
- **Zone-VII: None**

Promising in 3rd year of testing: None

INITIAL VARIETY TRIAL– SEMI DEEP WATER (IVT-SDW)**Locations: 9****Test Entries: 12****Checks: Sabita (National), Purnendu (Zonal) and Local Check Table:2.13**

The IVT-SDW trial was constituted with 15 entries including three checks viz., Sabita (National), Purnendu (Zonal) and local check. The trial was sent to 9 locations and data was received from most of the locations except Pundibhari and Pusa. Required water level was not maintained at Masodha and Gerua. At rest of the locations viz., Bhubaneswar, NRRI-Cuttack, Chinsurah, Ghaghraghat and Maruteru adequate water levels of 41-75 cm was maintained. Hence, the data from Masodha and Gerua were not considered for evaluating the entries. The data on all the listed adaptability parameters was received from Maruteru. The data on seedling survival (%), submergence tolerance, phenotypic acceptability and elongation ability were obtained from Ghaghraghat. The data on seedling survival, phenotypic acceptability, kneeing ability, submergence tolerance and grain shattering were obtained from NRRI-Cuttack.

Details of water regime at different centres in IVT-SDW, Kharif 2017

Location	Week	June	July	August	September	October	November
NRRI-Cuttack	1 st	-	-	20	38	43	18
	2 nd	-	-	30	34	32	15
	3 rd	-	-	37	32	41	6
	4 th	-	-	40	30	29	-
PUSA	1 st	8	22	102	110	65	-
	2 nd	14	28	115	112	58	-
	3 rd	14	55	125	98	24	-
	4 th	12	70	115	92	16	-
Chinsurah	1 st	-	20	45	50	30	-
	2 nd	-	45	30	45	40	-
	3 rd	-	35	45	55	40	-
	4 th	-	50	40	40	35	-
Ghagharaghat	1 st	-	-	05	71	38	-
	2 nd	-	-	10	67	12	-
	3 rd	-	-	38	62	05	-
	4 th	-	-	65	55	-	-
Maruteru	1 st	-	-	10	18	36	15
	2 nd	-	-	31	37	30	-
	3 rd	-	-	45	36	42	-
	4 th	-	-	18	32	36	-
Bhubneswar	1 st	-	-	-	38-41	20-25	15-20
	2 nd	-	-	5-10	41-50	15-20	-
	3 rd	-	-	5-10	50	15-20	-
	4 th	-	-	20-37	20-30	15-20	-
Gerua	30-50 cm						
Masodha	-	-	Highest	35	20	10	-
	-	-	Lowest	20	10	3	-

CV of the experiments ranged from 5.51% at Chinsurah to 13.29% at NRRI-Cuttack. Experimental mean yield ranged from 2188 kg/ha at NRRI-Cuttack to 4795 kg/ha at Chinsurah. Overall mean yield of entries varied from 2290 kg/ha (IET 25890) to 4106 kg/ha (IET 25912). Mean days to 50% flowering ranged from 108 days (IET 25887) to 138 days (IET 25912). Mean plant height ranged from 118 cm (IET 25888) to 166 cm (IET 25907) and mean panicles/m² ranged from 227 (IET 25887) to 279 (IETs 25905 and 25909). The data pertaining to yield, days to 50% flowering, plant height and no. of panicles/m² are presented in tables 2.14, 2.15, 2.16 and 2.17. Two entries viz., IETs 25912 and 25909 on overall basis and IET 25903 in Zone III have recorded significant superiority as well as more than 5% yield advantage over the best check are discussed here under. In case of southern zone, trial was conducted at single location only and none of the entries recorded >15% yield advantage over best check.

IET 25912 (CR 2667-5-1-2-1-1) derived from the cross Gayatri/AC 38599 with short bold grains, 119 cm plant height and 138 days to 50% flowering recorded a mean yield of 4106 kg/ha with yield superiority of 52.81, 60.33 and 16.85 over national, zonal and local checks, respectively. It ranked first with 17 % both on overall basis and in eastern zone. It scored first rank in Bhubaneswar (5270 kg/ha) and Maruteru (4564 kg/ha). It was the highest yielder in Odisha (3857 kg/ ha). It recorded good seedling survival at Maruteru (100%) and NRRI-Cuttack (95.1%). It had good submergence tolerance at Maruteru and Cuttack with score of 1 and 4 respectively but poor in Ghaghrahat. It showed good phenotypic acceptability in Cuttack and Maruteru and unacceptable in Ghaghrahat. Elongation response score was 3 in Maruteru and 5 in Ghaghrahat. Low grain shattering was recorded in Cuttack but a score of 5 was observed in Maruteru. The entry was non-lodging at Maruteru and Cuttack.

Adaptability parameters of entries in IVT-SDW, Kharif 2017

Entry No.	IET No.	Seedling Survival (%)			Phenotypic Acceptability			Kneeing Ability	
		CTK	MTU	GGT	CT K	MTU	GGT	MTU	CTK
501	25890	67.4	98.01	70	5	9	9	5	
502	25905	93.7	99.57	90	5	3	7	9	lodging
503	25888	91.1	99.57	90	5	9	5	9	
504	25887	86.7	97.92	70	5	7	7	9	
505	Sabita (NC)	52.7	98.70	80	5	9	5	9	
506	25912	95.1	100.00	65	1	3	9	non lodging	
507	25903	94.5	99.13	95	1	3	3	9	
508	25913	84.8	98.96	55	5	3	9	non lodging	
509	25909	88.9	99.13	65	4	5	9	9	
510	25907	89.2	98.87	60	5	7	9	7	lodging
511	Purnendu (ZC)	95.9	98.01	85	7	9	5	5	
512	25915	81	99.31	70	3	5	9	5	lodging
513	25914	93.8	100.00	70	7	3	9	9	
514	25902	91.7	100.00	95	3	5	3	non lodging	
515	Local Check	96.1	99.48	95	1	3	3	non lodging	lodging

Entry No.	IET No.	Elongation Ability		Submergence Tolerance			Grain Shattering		
		GGT	MTU	MTU	CTK	GGT	CTK	MTU	GGT
501	25890	5	1	3	6	7	3	5	-
502	25905	5	3	3	4	5	1	3	-
503	25888	3	5	3	4	5	3	5	3
504	25887	3	3	3	5	7	5	5	-
505	Sabita (NC)	3	1	3	7	5	3	7	-
506	25912	5	3	1	4	7	3	5	-
507	25903	3	3	3	4	3	1	5	1
508	25913	7	3	3	5	7	3	1	-
509	25909	3	3	3	4	7	3	7	-
510	25907	3	1	3	5	7	3	3	-
511	Purnendu (ZC)	1	3	3	4	5	3	5	1
512	25915	3	1	3	6	7	1	5	-
513	25914	3	3	1	4	7	3	5	-
514	25902	3	3	1	4	3	1	3	-
515	Local Check	3	5	3	4	3	1	3	1

Overall performance of promising entries in IVT-SDW, Kharif 2017

Rank	IET No./ Designation/ Cross combination	GY/FD /GT	Yield Adv.(%) over NC/ZC/LC	Superior to check Location / yield/ Rank (3 checks)	% increase over the best check			
					State		Zone	
					Rank/ Yield	% BC	Rank/ Yield	% BC
1	IET 25912 (CR 2667-5-1- 2-1-1) Gayatri/ AC 38599	4106 138 SB	52.81 60.33 16.85	BBN 5270 (1) MTU 4564 (1)	OD-1	47.8	Z-III-2	17
					AP-1	13.6		
2	IET 25909 (CR 3898-113- 4-2-1) CN 1231-11-7 / Jagabandhu// IR 71700-247- 1-1-2	4013 122 SB	49.35 56.70 14.20	MTU 4105 (2) CHN 5852 (2)	OD-5	16.78	Z-III-1	18
					WB-2	16.2		
3	IET 25903 (CN 2068) CN 1039-9 / IR 84196-32	3622 118 LS	34.80 41.43 3.07	CTK 2669 (2) BBN 4350 (3) GGT 3250 (2)	OD-2	34.48	Z-III-3	13
	Sabita (NC)	2687 115						
	Purnendu (ZC)	2561 117						
	Local Check	3514 119						

Bold Italics :Best check & over the best check; NC-National Check; ZC-Zonal Check; LC-Local Check; GY: Grain Yield; FD:Daysto50% flowering; GT: Grain Type; BC-Best Check

IET 25909 (CR 3898-113-4-2-1) derived from the cross CN 1231-11-7 / Jagabandhu// IR 71700-247-1-1-2 with short bold grains, 130 cm plant height and 122 days to 50% flowering recorded a mean yield of 4013 kg/ha with yield superiority of 49.35, 56.70 and 14.20 over national, zonal and local checks, respectively. It ranked second with 14 % on overall basis but ranked first in eastern zone with 18% yield advantage. It scored second rank in Maruteru and Chinsurah with yields of 4013kg/ha and 5852kg/ha, respectively. It recorded very good seedling survival at Maruteru (99.13%) and Cuttack (88.9%). Good submergence tolerance at Maruteru and Cuttack with score of 3 and 4 respectively, but poor at Ghaghraghat. It recorded moderate phenotypic acceptability in Cuttack, fair at Maruteru and unacceptable at Ghaghraghat. Elongation response score of 3 was observed at Ghaghraghat and Maruteru. Low grain shattering was recorded in Cuttack but a score of 7 was observed in Maruteru.

IET 25903 (CN 2068) derived from the cross CN 1039-9 / IR 84196-32 with long grain type, 127 cm plant height and 118 days to 50% flowering recorded a mean yield of 3622 kg/ha with yield superiority of 34.80, 41.43 and 3.07 over national, zonal and local checks, respectively. It ranked third with 3 % on overall basis and 13 % in Eastern zone. It recorded good seedling survival at Cuttack (94.5%), Maruteru (99.13%) and Ghaghraghat (95%). It recorded good submergence tolerance at Maruteru, Ghaghraghat and Cuttack with scores of 3, 3 and 4 respectively. It showed excellent phenotypic acceptability in Cuttack, good at Maruteru and Ghaghraghat. Elongation response score of 3 was observed at Ghaghraghat and Maruteru. Low grain shattering was recorded in Cuttack and Ghaghraghat, but a score of 5 was observed in Maruteru.

On the basis of overall and zonal performance with more than 5% yield advantage over the best check and desirable adaptability parameters, three entries IET 25912 (CR 2667 -5-1-2-1-1), IET 25909 (CR 3898-113-4-2-1) and IET 25903 (CN 2068) are promoted to AVT 1-SDW.

NATIONAL SEMI DEEP WATER SCREENING NURSERY (NSDWSN)

Locations: 9

Test Entries: 42

Checks: Sabita (National), Purnendu (Zonal) and Local Check

Table: 2.18

The trial was constituted with 42 test entries and three checks viz., Sabita(NC), Purnendu (ZC) and local check. The trial was sent to 9 locations and data was received from 8 locations except Pundibhari. The centres Cuttack, Bhubaneswar, Pusa, Chinsurah, Ghaghraghat and Maruteru have maintained the required water table. At Masodha and Gerua required water level was not maintained; hence data from these locations was not included in the evaluation of entries. Three centers provided data on adaptability parameters viz., Ghaghraghat, Cuttack and Maruteru on seedling survival, submergence tolerance, phenotypic acceptability and grain shattering; Masodha on phenotypic acceptability and grain shattering; Ghaghraghat and Maruteru on elongation ability; Cuttack and Maruteru on kneeing ability. Details of the water table are furnished below.

Details of water regime at different centres in NSDWSN, Kharif 2017

Location	Week	June	July	August	September	October	November
NRRI-Cuttack	1 st	-	-	20	38	43	18
	2 nd	-	-	30	34	32	15
	3 rd	-	-	37	32	41	6
	4 th	-	-	40	30	29	-
PUSA	1 st	10	31	52	71	40	-
	2 nd	14	35	75	80	30	-
	3 rd	19	31	70	96	25	-
	4 th	22	37	62	60	15	-
Chinsurah	1 st	-	20	45	50	30	-
	2 nd	-	45	30	45	40	-
	3 rd	-	35	45	55	40	-
	4 th	-	50	40	40	35	-
Ghagharaghat	1 st	-		05	71	38	-
	2 nd	-		10	67	12	-
	3 rd	-		38	62	05	-
	4 th	-		65	55	-	-
Maruteru	1 st	-	-	10	18	36	12
	2 nd	-	-	31	37	30	-
	3 rd	-	-	45	36	42	-
	4 th	-	-	18	32	36	-
Bhubneswar	1 st	-	-	-	38-41	20-25	15-20
	2 nd	-	-	5-10	41-50	15-20	-
	3 rd	-	-	5-10	50	15-20	-
	4 th	-	-	20-37	20-30	15-20	-
Gerua	30-50 cm						
Masodha			Highest	35	20	10	
			Lowest	20	10	3	-

The experimental mean yield of locations varied from 1988 kg/ha at Cuttack to 4649 kg/ha at Chinsurah with CV ranged from 6.37 % at Chinsurah to 27.88 % at Bhubaneswar. Overall mean yield of entries varied from 1928 kg/ha (IET 26662) to 4218 kg/ha (IET 26673) and Days to 50 % flowering ranged from 90 (IET 26688) to 135 (IETs 26664 and 26666). Plant height varied from 97 cm (IET 26658) to 158cm (IET 26674 and Purnendu) and panicles/m² ranged from 179 (IET26662) to 316 (IET 26676). Of the 45 test entries IETs 26649, 26662, 26670, 26671, 26681 and 26688 flowered within 110 days. The entries IETs 26651, 26653, 26658, 26659, 26660, 26668, 26669, 26673, 26675, 26679 and 26688 were of semi-dwarf plant height below 115cm.

On the basis of overall mean yield three entries (IETs 26671, 26678 and 26684) out yielded the best check which had required plant height. IET 26673 and IET 26669 despite having required yield advantage cannot be considered for promotion due to plant height <120 cm not suitable of semi deep water condition. The data pertaining to yield, days to 50% flowering, plant height and no. of panicles/m² are presented in tables 2.19, 2.20, 2.21 and 2.22. In addition, five entries in Eastern zone (IETs 26647, 26669, 26671, 26673, 26678, 26684 and 26687) and one entry (IET 26671) in the south zone recorded yield advantage of more than 5% over the best check. Top four entries are discussed here under.

Overall performance of promising entries in NSDWSN, Kharif 2017

Rank	IET No. / Designation/ Cross combination	GY/ FD/ GT	Yield Adv. (%) Over NC/ZC/ LC	Superior to check/ Yield (kg/ha)/ Rank	% increase over the best check			
					State		Zone	
					Rank/ Yield	% BC	Rank/ Yield	% BC
1	26673 (MTU 1250) MTU 1064/ Swarna sub1 //2* MTU 1064	4218 128 MS	59.29 56.45 17.17	BBN 5322(1) CHN 6567(1)	OD-2 WB-1	37.00 67.00	Z III-2	24.00
2	26678 (CR3101-1-5-1-4-1) Uphar/ CN 1231- 11-7 //Purnendu	4061 127 LB	53.36 50.63 12.81	CTK 3517 (1) BBN 5112 (2) CHN 4861	OD-1 WB-4	41.00 23.00	Z III-1	27.00
3	26671 (CR3903-161-2-1-2) Santepheap/ IR82810-407// IR71700-247-1-1-2	3960 110 LB	49.55 46.88 10.00	PSA 4750 (4) CHN 6042 (4) GGT 5000(1) MTU 4177(1)	BI-4 WB-4 UP-1 AP-1	46.00 53.00 11.00 6.00	Z III-7 Z VII-1	11.00 6.00
4	26684 (OR 2435-28) Indravati / MTU 1074	3820 125 SB	44.25 41.69 6.11	BBN 3081 CHN 5903(5)	OD-9 WB-5	1.00 49.11	Z III-3	14.00
	Sabita(NC)	2648 121						
	Purnendu(ZC)	2696 119						
	Localcheck	3600 119						

On overall basis:

IET 26678 (CR3101-1-5-1-4-1) derived from the cross between Uphar / CN 1231-11-7// Purnendu) with a mean yield of 4061kg/ha, 127days to 50% flowering, 128 cm plant height and long bold grains showed 53.36, 50.63 and 12.81 % yield advantage over the NC, ZC and LC, respectively. In Southern zone, it did not perform better than the best check. In eastern zone it ranked first (4497 kg/ha) with 27 % yield advantage over the best check; it ranked first in Odisha (4315 Kg/ ha) with yield advantage of 41 % over best check. It recorded 23 % yield advantage over the best check in West Bengal (4861 kg/ha).

IET 26671(CR3903-161-2-1-2) derived from the cross of Santepheap/ IR82810-407// IR 71700-247-1-1-2 with a mean yield of 3960kg/ha, 110days to 50% flowering, 119 cm plant height and long bold grains Recorded 49.55, 46.88 and 10.00% yield advantage over the NC, ZC and LC respectively. It recorded first rank in Southern zone (4177 kg/ha) with 6.00% yield superiority over the best check. In Eastern zone it ranked seventh with 11% yield advantage over best check. It ranked first in the state of Uttar Pradesh (5000kg/ha) and Andhra Pradesh (4177 kg/ha). It ranked fourth at West Bengal (6042 kg/ha) and Bihar (4750 kg/ha).

IET 26684 (OR 2435-28) derived from the cross of Indravati / MTU 10074 with a mean yield of 3820 kg/ha, 125 days to 50% flowering, 136 cm plant height and short bold grains, recorded 44.25, 41.69 and 6.11% yield advantage over the NC, ZC and LC respectively. It recorded fifth rank in overall performance (3820 kg/ha) with 6% yield superiority over best check, third rank in Eastern zone (4032 kg/ha) with 14% yield superiority over the best check. It ranked fifth at West Bengal (5903 kg/ha) with yield advantage of 49 % over best check.

Trait description of the entries with more than 5% yield advantage over the best check in NSDWSN, Kharif 2017

S.No	IET No	Mean yield	FD	PH	% Yld adv. over BC	Adantability parameters						Remarks
						SS (%)	PACP	GS	ST	EA	KA	
Overall basis												
1	26669	3934	117	114	9	89.9	7	5	6	7	-	Dropped due to PH <120 cm and poor kneeling ability.
2	26671	3960	110	119	10	89.0	3	3	4	7	Non lodging	Promoted
3	26673	4218	128	112	17	89.4	2	4	4	6	9	Dropped due to PH <120 cm and poor kneeling ability.
4	26678	4061	127	128	13	90.5	7	4	4	5	Non lodging	Promoted
5	26684	3820	125	136	6	80.7	5	2	6	5	9	Promoted
Eastern zone (Z III)												
6	26647	3987	127	118	13	92.6	3	2	4	4	9	Dropped due to poor kneeling ability
7	26687	3979	121	115	13	81.0	5	2	5	3	5	Promoted

FD-days to 50% flowering, PH-plant height, SS-seedling survival, PACP-phenotypic acceptability, GS-grain shattering, ST-submergence tolerance, EA-elongation ability, KA-kneeing ability.

Based on the yield superiority over best check, 50% flowering duration and plant height suited for semi deep water conditions, four entries IET, 26671, 26678, 26684 and 26687 are promoted to IVT-SDW.

Adaptability parameters of entries in NSDWSN, Kharif 2017

Entry No.	IET No.	Seedling Survival (%)			Phenotypic Acceptability				Kneeing Ability	
		CTK	MTU	GGT	CTK	MTU	MSD	GGT	MTU	CTK
601	26647	86.2	96.67	95	3	3		3	9	
602	26648	90.9	97.46	95	3	9	5	7	7	lodging
603	26649	88.7	98.41	85	9	9	7	7	3	
604	26650	85.7	98.10	95	5	5	5	1	9	
605	26651	61.3	97.94	95	3	3	5	1	Non lodging	
606	26652	87.7	94.76	80	3	9	3	7	3	
607	26653	68.3	98.25	70	7	3		5	9	
608	26654	80.7	96.67	80	6	5		3	9	
609	Sabita (NC)	81.4	97.30	70	5	9	1	9	3	lodging
610	26655	80.8	98.41	80	2	5		7	7	
611	26656	49		60	3		5	9		
612	26657	76		95	1		5	3		
613	26658	86.4		80	3			9		
614	26659	42.4		85	1		7	7		
615	26660	73		85	3		3	9		
616	26661	28.6		85	5			9		
617	26662	79.5	86.03	70	9	9	3	7	3	
618	26663	94	96.35	70	3	7		7	7	
619	26664	87.7	86.35	80	3	7		9	7	
620	26665	88.5	92.70	95	3	5	7	9	7	lodging
621	26666	85.3	95.87	65	1	3	7	7	9	
622	Purnendu (ZC)	79.7	91.43	95	3	9	5	5	3	lodging
623	26667	86.8	95.56	95	5	5		3	9	lodging
624	26668	87.7		85	5			5		
625	26669	89.8		90	5			9		
626	26670	85.7		95	7		7	3		lodging
627	26671	84.9	97.14	85	3	3	3	1	Non lodging	
628	26672	90.9	97.94	95	3	5	3	7	7	
629	26673	84.4	98.89	85	1	1		3	9	
630	26674	94.6	97.30	70	3	5	5	9	5	lodging
631	26675	85.3		90	3		3	9		
632	26676	81.6	90.79	90	2	5	1	9	5	
633	26677	87.7	95.08	85	3	9		9	9	lodging
634	26678	89.2	97.30	85	5	9	3	9	non lodging	
635	26679	93.7	97.62	80	1	3	1	9	9	
636	26680	87.9	93.65	65	5	5	3	9	non lodging	
637	26681	69.7	91.27	75	7	9		5	1	
638	26682	46.6	96.67	85	3	5	3	9	7	
639	26683	95.9	95.87	60	3	9		9	5	lodging
640	26684	87	90.16	65	1	5		9	9	
641	26685	93.5	90.48	80	5	3		9	3	lodging
642	26686	80.5		95	3		5	7		lodging
643	26687	65.3	97.62	80	1	5		9	5	
644	Local Check	83.2	96.35	95	1	3	3	3	non lodging	
645	26688	65.8	97.78		7	5	6	3	9	

Contd.. Adaptability parameters

Entry No.	IET No.	Elongation Ability		Submergence Tolerance			Grain Shattering			
		GGT	MTU	CTK	MTU	GGT	GGT	MTU	CTK	MSD
601	26647	5	3	5	3	3	1	3	1	
602	26648	3	1	5	3	3	-	3	3	3
603	26649	3	9	5	3	5	3	5	7	5
604	26650	5	5	5	3	3	-	3	3	5
605	26651	5	9	7	3	3	1	3	1	7
606	26652	3	3	5	3	5	1	3	3	5
607	26653	7	9	6	3	7	-	5	5	
608	26654	3	1	5	3	5	-	3	3	
609	Sabita(NC)	3	1	5	3	7	-	3	3	5
610	26655	5	1	5	3	5	-	5	1	
611	26656	5		8		7	-		3	5
612	26657	5		6		5	1		1	3
613	26658	7		4		5	-		1	
614	26659	7		9		5	-		3	5
615	26660	5		6		5	-		1	7
616	26661	7		9		7	-		3	
617	26662	3	5	5	5	7	-	3	9	5
618	26663	7	3	4	3	7	-	3	1	
619	26664	7	1	5	5	5	-	5	5	
620	26665	3	1	5	5	3	1	1	1	5
621	26666	7	3	5	3	7	-	3	1	7
622	Purnendu(ZC)	3	1	6	5	3	-	5	1	5
623	26667	5	3	5	3	3	1	5	3	
624	26668	5		5		5	-		3	
625	26669	7		4		7	-		5	
626	26670	1		5		3	1		3	5
627	26671	5	9	5	3	3	1	5	1	3
628	26672	7	1	5	3	5	-	5	1	5
629	26673	7	5	5	3	3	-	5	3	
630	26674	3	1	4	3	5	-	5	3	5
631	26675	7		5		7	-		1	3
632	26676	7	1	5	5	5	-	3	3	5
633	26677	5	1	5	3	5	-	5	3	
634	26678	5	5	5	3	5	-	3	3	5
635	26679	7	5	4	3	5	-	3	3	7
636	26680	5	3	5	5	7	-	3	3	3
637	26681	1	9	6	5	5	-	1	9	
638	26682	5	3	8	3	5	-	1	1	5
639	26683	7	1	4	3	7	-	5	1	
640	26684	7	3	5	5	7	-	3	1	
641	26685	5	3	4	5	5	-	3	3	
642	26686	3		5		3	-		1	5
643	26687	5	1	7	3	5	-	3	1	
644	Local Check	3	5	6	3	3	1	3	1	7
645	26688	5	9	7	3	5	3	3	5	5

INITIAL VARIETY TRIAL-DEEP WATER (IVT-DW)

Locations: 6**Test Entries: 13****Checks: CR Dhan 500 (National), Dinesh (Zonal) and Local Check****Table:2.23**

IVT-DW trial comprised of thirteen entries and three checks, CR Dhan500 (National check), Dinesh (Zonal check) and Local check. Of those, three entries were in second year of testing and ten entries were in first year of testing. The trial was sent to six locations viz., Cuttack, Pusa, Ghagraghat, Gerua, Chinsurah and North-Lakhimpur. Data received from all the centres except North-Lakhimpur, required water level of 70-120 cm was maintained at Ghagraghat and Pusa. However, data on adaptability parameters was received only from Pusa and Ghagraghat centres.

Details of water regime at different centres in IVT- DW, Kharif 2017

Location	Week	June	July	August	September	October	November	December
NRRI-Cuttack	1 st	-	-	-	10	55	30	15
	2 nd	-	-	-	30	45	25	10
	3 rd	-	-	-	38	40	20	5
	4 th	-	-	-	40	35	15	-
PUSA	1 st	10	31	52	71	40	-	-
	2 nd	14	35	75	80	30	-	-
	3 rd	19	31	70	96	25	-	-
	4 th	22	37	62	60	15	-	-
Ghagaraghat	1 st	-	-	20	92	30	-	-
	2 nd	-	-	50	84	10	-	-
	3 rd	-	-	72	78	05	-	-
	4 th	-	-	90	72	-	-	-
Gerua	50-75 cm							
Chinsurah	20-55 cm							

The CV of the experiments varied from a minimum of 8.03 % at Ghagaraghat to a maximum of 38.77 % at Pusa. Experimental mean yield ranged from 786 kg/ha at Pusa to 3867 kg/ha at Ghagraghat. Overall mean yield of the entries varied from 2167 kg/ha (IET 26735) to 3867 kg/ha (IET 26741). Days to 50% flowering ranged from 111 (IET 26737) to 139 days (IET 26738). Plant height varied from 87 cm (IET 26736) to 166 cm (IET 26733) and panicles per square meter varied from 105 (IET 26738) to 160 (IET 26741). The data pertaining to yield, days to 50% flowering, plant height and no. of panicles/m² are presented in 7.1, 7.2, 7.3 and 7.4. Data from Pusa was not included in the overall mean yield analysis as the CV was more than 25.0 %.

Hence, based on single location result i.e. yield superiority over best check, one entry viz., IET 26741 had shown yield advantage of more than 5% over the best check is considered for promotion to AVT 1-DW as discussed below.

IET 26741 (NDGR-706) is derived from the cross of Pankaj/Jalnidhi with a mean yield of 3867 kg/ha, 117 days to 50% flowering, 156 cm plant height and short bold grains

recorded 74.42% and 20.20 % yield advantage over the NC and LC, respectively. It recorded first rank in overall zone basis and in Eastern zone (3867 kg/ha) with 20.20 % yield superiority over the best check. It ranked first in the state of Uttar Pradesh and overall mean basis (3867 kg/ha) with 20.20 % yield superiority over the best check. It had good seedling survival at Ghagrahat (95%), good phenotypic acceptability (1) at Ghagrahat, good submergence tolerance (3), elongation (1) and kneeing ability (3) at Ghagrahat.

Overall performance of promising entries in IVT-DW, Kharif 2017

Rank	IET No./ Designation/ Cross combination	GY / FD/ GT	Yield Adv. (%) over NC/ZC/ LC	Superior to check/ Yield (kg/ha)/Rank (All Checks)	% increase over the best check			
					State		Zone	
					Rank/ Yield	% BC	Rank/ Yield	% BC
1	26741 (NDGR-706) Pankaj/Jalnidhi	3867 117 SB	74.42 - 20.20	GGT 3867 (1)	UP-1	20.20	Z III-1	20.20
	CR Dhan 500 (NC)	2217 122						
	Dinesh (ZC)	- 128						
	Local check	3217 123						

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BC- Best Check

Adaptability parameters of entries in IVT-DW, Kharif 2017

Entry No.	IET NO.	Seedling Survival (%)		Phenotypic acceptability		Kneeing Ability	
		GGT	PSA	GGT	PSA	GGT	PSA
701	26733	90	90	3	3	3	3
702	26734	90	85	5	3	3	5
703	26735	85	70	5	3	5	5
704	26736	-	65	-	7	-	5
705	26737	80	68	5	7	7	5
706	CR Dhan 500 (NC)	85	7	5	7	7	5
707	25882	95	70	3	7	3	53
708	25881	10	85	9	3	7	3
709	25883	90	80	3	3	3	5
710	Dinesh (ZC)	20	75	7	3	9	5
711	26738	25	65	9	3	9	7
712	26739	75	70	5	5	7	5
713	26740	75	79	7	7	7	7
714	26741	95	65	1	7	3	7
715	26742	75	70	9	7	9	5
716	Local check	95	65	3	7	3	5

(Contd.) Adaptability parameters of entries in IVT-DW, Kharif 2017

Entry No.	IET NO.	Elongation Ability		Submergence Tolerance		Grain Shattering	
		GGT	PSA	GGT	PSA	GGT	PSA
701	26733	1	3	5	3	-	3
702	26734	3	5	5	5	1	3
703	26735	3	3	5	5	-	3
704	26736	-	5	-	7	-	7
705	26737	3	5	5	7	-	7
706	CR Dhan 500 (NC)	5	5	5	5	1	5
707	25882	5	5	3	5	-	5
708	25881	7	3	9	5	-	5
709	25883	1	5	5	7	-	5
710	Dinesh (ZC)	3	5	9	7	-	5
711	26738	7	7	9	7	-	7
712	26739	5	3	5	5	-	7
713	26740	3	3	5	5	-	5
714	26741	1	5	3	7	-	5
715	26742	7	5	5	7	-	7
716	Local check	1	5	3	7	1	7

Based on overall and zonal mean yield superiority of more than 15% over the best check (single location in entire zone), desirable traits for deep water conditions viz., days to 50% flowering, plant height and adaptability parameters, one entry, IET 26741 (NDGR 706) is promoted to AVT 1-DW.

Table 2.1: Composition of entries in Initial Variety Trial - Rainfed Shallow Lowland (IVT -RSL), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
1 st Year of testing:				
301	26689	TTB 938-4-8	Sudhir / Swarna	MS
302	26690	TRC 2017-12	Pyzum / Sambha Mahsuri	LS
303	26691	BRK-04-S-10	BPT 5204 / Sahbhagidhan	SB
304	26692	MEPH-144 (Hybrid)	-	LS
305	26693	CR 3939-2-1-1-2-1	IR 73907-753-2-3 / Pratiksya	LS
306	26694	OR2434-4	Indravati / CR 780-1937	SB
307	25901	MTU 1230	MTU 4870 / MTU 1064	LS
308	Dhanrasi (NC)			
2 nd year of testing				
309	25219	OR 2423-1	Mahanadi / IR 61040	SB
310	25856	MTU 1223	MTU 1081 / MTU 1064	MS
311	25872	RCPR 33-HHZ5-Y4-SAL 1-1	Huang-Hua-Zhan*2 / OM 1723	LS
1 st Year of testing:				
312	25904	CR 3993-15-1-5	CR 1009 / O. brachyantha // CR 1009	SB
313	25920	MTU 1221 (MTU 1931-10-4-1)	MTU 3626 / GEB 24	MS
314	26695	CR 3816-2-1-1-1-1	Gayatri / AC.38700	SB

Entry No.	IET No.	Designation	Cross combination	Grain type
315	26696	CR 4041-1-2-1-1-1	Swarna Sub 1 / Reeta	LB
316	26697	IR 70153-TTB 15-3-2-1	Change Ropeak / IR 63429-23-1-3-3 // IR 55008-10-3-3-3-3	MS
317	26698	CR 3969-17-2-2-1-1-1	IR 73907-753-2-3 / Pratiksya	LB
318	26699	CR 3580-3.2.1-1-1-1	Lalat / N22	MS
319	26700	TRC 2017-14	CT996-5-10-1-M/2/Sambha Mahsuri	LS
320	26701	CR 4122-8-3-1-2	Pooja / IET 17885	LB
321	26702	CR 3564-4-2-1-1-2	Vijetha / N 22	SB
322	Swarna Sub 1 (NC)			
323	26703	BRK-04-S-358	BPT 5204 / Sahbhagidhan	SB
324	26704	CR 4044-7-2-1-1-2	CR3606-1-6-1-3-1 / Ranjit	MS
325	26705	CR 4123-16-2-1-1	Improved Lalat / Pusa 44	LB
326	26706	BRR 0044	IR 43581-57-3-3-6 / IR 26940-20-3-3-3-1 // KHAO DAWK MALI 105	LS
327	26707	RP 5933-5-5	Swarna / IBL 57	SB
328	26708	CR 3941-15-3-1-1	Samba Mahsuri / Wita 12	MS
329	26709	OR 2750 (SBP-217)	SBIR 67495 / IR 80409 // Kanchan	SB
330	26710	CR 3549-2-1-1-1-1-1	ADT 43 / Annapurna	MS
331	26711	BRR 2074	IR 11 A 257-SEL.	MS
332	Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)-- ZC			
333	26712	BRR 0060	IR 91659:54-35 // IR 81896-B-B-195/2* IR 05F102	MS
334	26713	CR 2743-44-6	NPG 210 / Dhanrasi	SB
335	26714	CR 4031-3-1-2-1-1	Pooja / CRM 2203-1	MS
336	26715	OR 2420-3	Mahanadi / T90	SB
337	26716	CR 4112-3-2-1-1-1-1-1	NDR 1045 / CO (R) 50	SB
338	26717	CR 3985-2-1-1-2-1	Reeta / Swarna-Sub1	MS
339	PA 6444 (HC)			
340	26718	CR 3988-3-1-1-1-1-1	Pooja / AC.38687	SB
341	26719	CN-2045	IR 72022-46-2-3-3-2 / Sambha Mahsuri	LS
342	26720	CR 4039-1-1-2-1-1	Varshadhan / Warda1	LB
343	26721	CN 2032-1-1-4	Pankaj / Kanak	SB
344	26722	RP 6112-MS-8-2-5-5-7-9-6	BPT 5204 mutant	MS
345	26723	CR 3756-2-2-1-1-1	Salivahana / Krishnaveni	MS
346	26724	CR 3987-5-1-2-1-1	Pooja / CR3820-1-5-2-1-1	SB
347	26725	RP 5977-MS-39-5-6-9-8-4-3	BPT 5204 mutant	MS
348	26726	CR 3985-3-2-1-1-1	Reeta / Swarna Sub1	SB
349	26727	RP 6112-MS-170-A-2-6-5-9-4-1	BPT 5204 mutant	MS
350	26728	CR3988-5-2-3-1-1	Pooja / CR3820-1-5-2-1-1	SB
351	26729	TRC 2017-13	Pyzum / Sambha Mahsuri	LS
352	26730	BRK-04-S-528	BPT 5204 / Sahbhagidhan	SB
353	26731	RP 6112-MS-53-5-6-4-55-8-5	BPT 5204 mutant	MS
354	Local Check			
355	25924	CR 3988-1-4-2-1-1	AC. 38562 / Niraj // Ratna / Pooja	MS
356	26732	RP 5507-39-4-1-1B-B	Swarna / IRGC 63248 //Swarna Sub 1	MS

Table No. 2.2 : Grain Yield (Kg/ha) of entries in IVT- RSL Kharif 2017

Entry No.	IET No.	III									
		OD		OD		OD (2)		BI	W.B		W.B
		BBN		CTK		Mean		BKG	CHN	BNK	CHK
301	26689	2778		5315		4047		6650		4938	3728
302	26690	2300		2143		2222		4250		4074	6360
303	26691	2500		2280		2390		4800		4012	4276
304	26692	4340		6657	5 *	5499	6 * 31%	7500	2	5741	5263
305	26693	2344		3889		3116		5700		5185	4386
306	26694	5816	1 *	6021	8	5918	1 * 41%	5800		6667	1 * 4167
307	25901	4427		5299		4863	16%	6050		5199	3947
308	Dhanrasi (NC)	3793		4578		4186		7250	5	5309	3947
309	25219	4123		7503	1 *	5813	4 * 39%	5000		5213	4825
310	25856	4514		7164	2 *	5839	2 * 39%	8300	1	6481	3 * 3728
311	25872	2865		2551		2708		5700		4815	3289
312	25904	4688	7	5811		5249	7 25%	3750		6358	4 * 4276
313	25920	4688	8	6539	6 *	5613	5 * 34%	6000		5473	4057
314	26695	2083		7007	3 *	4545	9%	500		5864	4934
315	26696	4688	9	5480		5084	9 21%	5750		4691	6140
316	26697	3281		5064		4173		6450		4136	4825
317	26698	3264		4007		3635		7100	6	5432	5921
318	26699	3168		4603		3886		5800		4691	5482
319	26700	2517		3299		2908		5950		5494	6031
320	26701	2995		2523		2759		6150		5000	5263
321	26702	2561		3350		2955		6800		4815	5921
322	Swarna Sub 1 (NC)	3385		4872		4129		6100		6049	7 * 4496
323	26703	1997		1360		1678		6350		6049	8 * 4276
324	26704	2908		4692		3800		1750		5000	4605
325	26705	3125		5854		4490	7%	5150		4753	4715
326	26706	3733		2607		3170		6800		5185	3728
327	26707	1649		3481		2565		4900		5247	6031
328	26708	3038		4724		3881		4950		5247	4167
329	26709	2908		4311		3610		4800		5062	6579
330	26710	3125		4632		3878		6950	9	5185	6031
331	26711	4948	3	4688		4818	15%	7100	7	5309	3509
332	Zonal Check (ZC)	3212		2988		3100		5850		6173	5 * 6469
333	26712	3689		3358		3524		7000	8	5062	4276
334	26713	2908		4885		3896		5450		4630	5373
335	26714	3255		3713		3484		7300	4	3909	4496
336	26715	4861	4	6808	4 *	5835	3 * 39%	6800		5123	6140
337	26716	5469	2	4390		4930	18%	6250		5432	6689
338	26717	3168		6144	7	4656	11%	5200		4815	5592
339	PA 6444 (HC)	2908		2337		2622		7400	3	4506	4057
340	26718	4774	6	5542		5158	8 23%	4750		6049	9 * 4715
341	26719	2908		2553		2730		4250		5247	4934
342	26720	4253		5583		4918	18%	150		4506	6031
343	26721	3385		4868		4127		6600		5432	6140
344	26722	3472		5139		4306	3%	4800		4259	3070
345	26723	3516		3768		3642		5900		4568	6031
346	26724	3655		5953	9	4804	15%	4050		5988	5263
347	26725	3168		4861		4015		5900		5370	5702
348	26726	4601		5533		5067	21%	6400		4444	4934
349	26727	2300		3803		3052		3750		6049	4934
350	26728	4818	5	4069		4444	6%	4850		6111	6 * 5921
351	26729	2214		2969		2591		5750		4259	4167
352	26730	3168		3667		3418		4050		4938	5592
353	26731	2604		2111		2358		4400		5123	3838
354	Local Check	3385		3749		3567		5850		6667	2 * 6140
355	25924	3429		4599		4014		3000		4630	7018
356	26732	781		2061		1421		4550		5062	7456
	Exp Mean	3401		4424		3913		5471		5197	5069
	C.D. 5%	1816		1626		1212		1786		560	1626
	C.V.%	26.65		18.34		22.11		16.29		5.38	16.00
	Sowing Date	06-07-2017		26-06-2017				16-06-2017		07-07-2017	13-07-2017
	Planting Date	04-08-2017		19-07-2017				11-07-2017		05-08-2017	11-08-2017
	Local ©	Hasanta		Sumit				Rajendra		SUJALA	Sampriti
											MTU-7029

* Superior to Best Check % Superior over Best Check

Table No. 2.2 contd. : Grain Yield (Kg/ha) of entries in IVT- RSL Kharif 2017

Entry No.	IET No.	III				Zone III (7)			IV						Zone IV (2)			
		W.B (3)		U.P.					AS		AS		AS (2)					
		Mean		MSD		Mean			TTB		GER		Mean		Mean			
301	26689	4594	9%			4754	9	1%	5556		6800		6178		6178			
302	26690	4960	* 18%	1596		3595			3492		6090		4791		4791			
303	26691	3988		2327		3410			4127		5630		4878		4878			
304	26692	4846	* 16%			5506	3 *	17%	6349	2	9020	1	7685	1	12%	7685	1	12%
305	26693	4590	9%	2327		4004			4921		7450		6185		6185			
306	26694	4679	12%			5279	5 *	12%	3810		8020		5915		5915			
307	25901	4349	4%	2061		4412			5238		5250		5244		5244			
308	Dhanrasi (NC)	4195				4701			5714	8	8030	9	6872	6	6872	6		
309	25219	4707	12%			5125	7	9%	2857		6240		4549		4549			
310	25856	4727	13%			5693	1 *	21%	5079				5079		5079			
311	25872	4106		1662		3585			4127		5350		4738		4738			
312	25904	4786	14%	1529		4305			6984	1			6984	3	2%	6984	3	2%
313	25920	5112	* 22%			5427	4 *	15%	4444		4950		4697		4697			
314	26695	4699	12%			3948			6032	3	7370		6701		6701			
315	26696	4922	* 17%	3590	3	4896	8	4%	6032	4	8360	2	7196	2	5%	7196	2	5%
316	26697	4073		2061		4154			5873	6	7330		6602		6602			
317	26698	5016	* 20%	1130		4364			4762		8260	5	6511		6511			
318	26699	4775	14%	2327		4317			5079		6560		5820		5820			
319	26700	5058	* 21%	2926		4267			4921		6790		5855		5855			
320	26701	4838	* 15%	3092		4182			2857		7760		5309		5309			
321	26702	4444	6%	3790	1	4262			4603		7100		5852		5852			
322	Swarna Sub 1 (NC)	4992	* 19%	1330		4380			4921		5480		5200		5200			
323	26703	4764	14%	864		3552			3175		6860		5017		5017			
324	26704	4397	5%	1662		3457			6032	5	7790		6911	4	1%	6911	4	1%
325	26705	4504	7%	1729		4196			3492		7780		5636		5636			
326	26706	4499	7%	2261		4128			3651		5270		4460		4460			
327	26707	4821	* 15%	2793		3898			5079		5720		5400		5400			
328	26708	4301	3%	1995		3944			3333		6740		5037		5037			
329	26709	5095	* 21%	1596		4129			3810		6720		5265		5265			
330	26710	5237	7 * 25%	1064		4497			5556		6350		5953		5953			
331	26711	4089		864		4267			4444		8060	7	6252		6252			
332	Zonal Check (ZC)	5612	1 * 34%	3125	9	4573			5238		8330	3	6784	8	6784	8		
333	26712	4594	10%	3690	2	4503			4127		7670		5898		5898			
334	26713	4554	9%	1928		4119			4921		8040	8	6480		6480			
335	26714	4030				4393			4762		7650		6206		6206			
336	26715	5225	8 * 25%			5691	2 * 21%		3492		6580		5036		5036			
337	26716	5504	3 * 31%	3524	4	5163	6	10%	5238		7770		6504		6504			
338	26717	4731	13%	3059		4538			4921		7480		6200		6200			
339	PA 6444 (HC)	4033		1928		3810			4603		6830		5717		5717			
340	26718	5382	6 * 28%	1629		4577			4762		8020		6391		6391			
341	26719	4595	10%	3524	5	3860			3016		5850		4433		4433			
342	26720	4982	* 19%			4156			3333		3040		3187		3187			
343	26721	5172	9 * 23%	798		4453			4286		8280	4	6283		6283			
344	26722	3755		3324	7	4000			4127		6330		5228		5228			
345	26723	4666	11%	2294		4211			5556		8000		6778	9	6778	9		
346	26724	5042	* 20%	1396		4311			5714	9	8080	6	6897	5	6897	5		
347	26725	4882	* 16%	1795		4339			3571		6310		4941		4941			
348	26726	4201		731		4267			4921		7030		5975		5975			
349	26727	4890	* 17%	3324	8	3978			4286		7510		5898		5898			
350	26728	5531	2 * 32%	598		4418			5238		7810		6524		6524			
351	26729	4464	6%	3524	6	3978			4603		6540		5572		5572			
352	26730	4765	14%	2261		3920			3016		5960		4488		4488			
353	26731	4120		1729		3315			4127		6370		5248		5248			
354	Local Check	5472	4 * 30%	2360		4537			4921		7120		6020		6020			
355	25924	4997	* 19%	2926		4135			5873	7	7780		6827	7	6827	7		
356	26732	5463	5 * 30%	2194		3711			3175		5920		4547		4547			
	Exp Mean	4725		2183		4294			4610		6952		5760		5760			
	C.D. 5%	596		320		513			1276		1525		882		969			
	C.V. %	11.06		7.28		16.09			13.81		10.93		10.93		12.00			
	Sowing Date			05-07-2017					23-06-2017		26-06-2017							
	Planting Date			10-08-2017					04-08-2017		04-08-2017							
	Local ©			Jallahri					Kushal		Chandrama							

Table No. 2.2 contd : Grain Yield (Kg/ha) of entries in IVT- RSL Kharif 2017

Entry No.	IET No.	VII			Zone VII (2)			Overall (11)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		A.P.	KA									
		MTU	PNP		Mean	Mean						
301	26689	2072		2799		2436		4575		124	123	303
302	26690	3600		5111	7	4356	9 11%	3951		103	99	276
303	26691	3167		924		2045		3429		105	110	260
304	26692	3925		2167		3046		5450	2 * 9%	113	108	262
305	26693	3325		3563		3444		4299		117	112	267
306	26694	3690		5632	2 *	4661	6 19%	5283	3 6%	127	118	266
307	25901	4750	4	4938		4844	5 * 24%	4642		121	110	291
308	Dhanrasi (NC)	3725		4104		3915		4978	8	122	128	278
309	25219	4690	5	3285		3987	2%	4782		131	122	264
310	25856	4890	3	6424	1 *	5657	1 * 45%	5617	1 * 13%	124	110	275
311	25872	2950		4472		3711		3818		107	103	268
312	25904	4600	6	3604		4102	5%	4533		124	110	280
313	25920	4450	9	4611		4531	8 16%	5102	6 2%	122	110	290
314	26695	2060		4556		3308		4371		127	131	231
315	26696			3736		3736		5240	5 5%	118	106	270
316	26697	3150		4521		3835		4541		120	123	267
317	26698	3375		2979		3177		4539		118	101	261
318	26699	3025		4639		3832		4502		117	116	262
319	26700	3900		2361		3131		4349		107	96	289
320	26701	3950		1083		2517		4084		113	110	252
321	26702	2014		3354		2684		4264		111	116	263
322	Swarna Sub 1 (NC)	5350	1 *	4375		4863	4 * 24%	4617		116	102	307
323	26703	3675		3090		3383		3787		103	110	257
324	26704	2275		2500		2388		3891		124	122	284
325	26705	2625		3250		2938		4229		117	115	263
326	26706	4175		4931		4553	7 16%	4266		111	114	267
327	26707	2750		3785		3267		4056		118	120	251
328	26708	4175		2771		3473		4057		120	116	265
329	26709	2310		5063	8	3686		4255		126	111	233
330	26710	3750		3049		3399		4562		110	117	268
331	26711	4425		3042		3733		4531		114	102	274
332	Zonal Check (ZC)	3700		4965		4333	11%	4931	9	123	109	312
333	26712	3140		5465	4 *	4303	10%	4720		117	96	288
334	26713	2675		5472	3 *	4074	4%	4540		120	111	255
335	26714	3600		3063		3331		4543		113	110	277
336	26715	3560		4896		4228	8%	5267	4 6%	128	113	265
337	26716	2075		3736		2906		4997	7	116	107	284
338	26717	4475	8	3701		4088	4%	4758		117	110	268
339	PA 6444 (HC)	5150	2	5229	5 *	5190	2 * 33%	4408		110	107	263
340	26718			3618		3618		4873		117	105	307
341	26719	4375		3000		3688		3933		105	106	246
342	26720	2632		3917		3274		3786		132	117	238
343	26721	4025		4222		4124	5%	4726		121	115	275
344	26722	2550		4243		3397		4114		118	111	262
345	26723	4575	7	2715		3645		4575		112	117	277
346	26724	3225		4611		3918		4710		123	115	308
347	26725	3575		3049		3312		4262		110	132	245
348	26726			5167	6	5167	3 * 32%	4699		117	109	244
349	26727	3250		1590		2420		4044		109	108	231
350	26728	2037		5063	9	3550		4643		119	106	268
351	26729	2825		4382		3603		4200		109	97	275
352	26730	3350		2542		2946		3846		105	107	277
353	26731	3800		4361		4081	4%	3806		106	102	254
354	Local Check	4080		3257		3668		4649		114	115	267
355	25924	2275		3931		3103		4437		118	115	254
356	26732	2225		1465		1845		3524		111	125	241
	Exp Mean	3472		3792		3636		4444		116	112	268
	C.D. 5%	1444		1123		876		405		1		15
	C.V.%	20.72		14.77		17.19		15.40		1.29		9.23
	Sowing Date	03-07-2017		10-07-2017								
	Planting Date	12-08-2017		15-08-2017								
	Local ©	Amara (MTU 1064)		Tunga								

Table No. 2.3: Days to 50% flowering of entries in IVT- RSL Kharif 2017

Entry No.	IET No.	III									Zone III (7)	IV			Zone IV (2)	VII		Zone VII (2)	Overall (11)
		OD	OD	OD (2)	BI	WB	WB	WB	WB (3)	U.P.		AS	AS	AS (2)		A.P.	KA		
		BBN	CTK	Mean	BKG	CHN	BNK	CHK	Mean	MSD		TTB	GER	Mean		MTU	PNP		
301	26689	117	131	124	125	119	115	109	114		119	141	133	137	137	128	125	126	124
302	26690	94	105	99	91	87	96	108	97	133	102	111	110	110	110	100	98	99	103
303	26691	95	105	100	91	87	98	109	98	129	102	128	109	119	119	101	102	101	105
304	26692	110	122	116	112	100	109	110	106		110	123	120	121	121	113	115	114	113
305	26693	105	119	112	111	111	106	119	112	133	115	125	122	123	123	118	115	116	117
306	26694	124	134	129	132	124	131	96	117		123	140	136	138	138	133	120	127	127
307	25901	119	131	125	119	109	100	117	108	133	118	134	123	128	128	136	115	125	121
308	Dhanrasi (NC)	118	131	124	123	109	121	119	116		120	130	127	128	128	124	117	120	122
309	25219	138	135	137	148	108	128	116	117		129	142	136	139	139	149	116	132	131
310	25856	125	135	130	126	108	121	111	113		121	141		141	141	132	121	127	124
311	25872	94	107	101	88	101	94	111	102	135	104	108	134	121	121	98	109	104	107
312	25904	118	129	124	148	125	120	96	113	133	124	132		132	132	120	118	119	124
313	25920	123	134	129	121	125	88	112	108		117	140	122	131	131	135	118	126	122
314	26695	129	113	121	147	124	130	104	119		124	140	139	139	139	135	115	125	127
315	26696	114	123	119	116	118	94	104	105	137	115	132	127	130	130		116	116	118
316	26697	112	127	120	121	104	112	119	112	133	118	131	124	127	127	119	123	121	120
317	26698	108	119	114	111	106	130	97	111	131	114	130	123	127	127	130	109	120	118
318	26699	107	130	118	112	108	111	97	105	134	114	128	122	125	125	127	110	118	117
319	26700	94	113	103	91	94	103	95	97	133	103	120	110	115	115	111	112	111	107
320	26701	109	125	117	106	108	108	103	106	132	113	121	118	119	119	107	112	110	113
321	26702	104	114	109	116	96	106	119	107	135	113	116	111	113	113	107	104	105	111
322	Swarna Sub 1 (NC)	109	137	123	83	111	107	114	111	133	113	128	120	124	124	121	117	119	116
323	26703	93	107	100	105	87	104	92	94	126	102	110	106	108	108	98	101	100	103
324	26704	118	120	119	146	119	120	106	115	135	123	134	134	134	134	121	109	115	124
325	26705	110	130	120	111	97	112	112	107	135	115	129	122	125	125	117	112	114	117
326	26706	104	119	111	106	81	115	111	102	132	110	121	117	119	119	107	108	107	111
327	26707	112	131	121	111	110	108	111	109	131	116	126	123	124	124	124	109	117	118
328	26708	108	131	119	112	114	121	113	116	134	119	128	121	125	125	125	116	120	120
329	26709	117	128	122	147	123	116	111	117	135	125	132	130	131	131	127	121	124	126
330	26710	102	119	111	95	96	106	97	100	131	106	122	122	122	122	118	104	111	110
331	26711	107	123	115	111	105	105	94	101	133	111	128	119	123	123	121	116	118	114
332	Zonal Check (ZC)	111	127	119	146	114	108	99	107	133	120	131	130	130	130	132	125	128	123
333	26712	113	126	119	112	113	108	99	107	131	114	126	124	125	125	132	109	120	117
334	26713	118	129	123	116	119	116	101	112	134	119	126	135	130	130	122	112	117	120
335	26714	104	128	116	106	97	108	110	105		109	122	117	119	119	119	120	119	113
336	26715	129	114	121	116	123	127	119	123		121	140	142	141	141	142	126	134	128
337	26716	107	124	115	93	111	114	110	112	133	113	120	122	121	121	132	112	122	116
338	26717	113	123	118	111	110	104	96	103	136	113	132	126	129	129	119	117	118	117
339	PA 6444 (HC)	103	124	114	94	91	113	96	100	133	108	121	112	116	116	113	110	112	110
340	26718	108	122	115	111	112	109		110	135	116	128	125	126	126		108	108	117
341	26719	95	106	100	88	92	100	97	96	131	101	122	112	117	117	103	107	105	105
342	26720	134	134	134	146	124	127	120	123		131	132	144	138	138	141	117	129	132
343	26721	118	129	123	118	112	114	116	114	133	120	130	125	127	127	126	116	121	121
344	26722	118	116	117	112	111	114	112	112	132	116	130	124	127	127	122	111	117	118
345	26723	104	129	116	99	111	107	102	107	131	112	109	120	114	114	117	102	110	112
346	26724	119	131	125	146	114	116	101	110	135	123	132	131	131	131	119	116	118	123
347	26725	101	112	106	107	99	108	96	101	137	108	121	118	119	119	112	106	109	110
348	26726	115	125	120	112	109	122	96	109	127	115	128	124	126	126		112	112	117
349	26727	103	119	111	99	94	107	100	100	132	107	120	118	119	119	105	109	107	109
350	26728	113	126	119	121	119	114	103	112	133	118	131	129	130	130	116	108	112	119
351	26729	94	111	102	95	101	104	116	107	136	108	113	113	113	113	115	104	110	109
352	26730	94	106	100	97	87	100	118	101	137	105	108	108	108	108	107	98	102	105
353	26731	93	110	101	91	87	102	113	101	133	104	110	109	109	109	115	103	109	106
354	Local Check	105	128	117	101	97	105	112	105	117	109	132	112	122	122	134	116	125	114
355	25924	120	128	124	106	110	114	112	112	131	117	110	125	117	117	124	121	122	118
356	26732	99	104	101	101	95	120	112	109	137	109	123	114	118	118	110	104	107	111
	Exp Mean	110	122	116	113	106	111	107	108	133	114	126	122	124	124	120	112	116	116
	C.D. 5%	2	5	3	1	0	0	3	1	3	1	1	6	3	3	2	3	2	1
	C.V. %	1.03	1.95	1.61	0.63	0.00	0.00	1.33	0.68	1.02	1.12	0.53	2.49	1.69	1.75	0.98	1.33	1.16	1.29

Table No. 2.4 : Plant Height (cm) of entries in IVT- RSL Kharif 2017

Entry No.	IET No.	III									Zone III	IV			Zone IV (2)	VII		Zone VII (2)	Overall
		OD	OD	OD (2)	BI	WB	WB	WB	WB (3)	U.P.	(7)	AS	AS	AS (2)	Mean	A.P.	KA	Mean	(11)
		BDN	CTK	Mean	BKG	CHN	BNK	CHK	Mean	MSD	Mean	TTB	GER	Mean	Mean	MTU	PNP	Mean	Mean
301	26689	127	128	128	152	135	93	119	115		126	110	134	122	122	143	92	118	123
302	26690	100	100	100	120	138	106	115	120	100	111	103	12	58	58	109	81	95	99
303	26691	110	98	104	122	128	95	143	122	92	113	109	118	113	113	110	80	95	110
304	26692	90	115	103	136	125	106	97	109		112	106	119	112	112	116	66	91	108
305	26693	126	110	118	146	118	101	117	112	85	115	107	121	114	114	124	81	103	112
306	26694	125	115	120	139	120	118	108	115		121	112	122	117	117	134	91	113	118
307	25901	115	112	114	143	120	104	95	106	90	111	108	116	112	112	123	84	103	110
308	Dhanrasi (NC)	128	136	132	172	140	108	113	120		133	118	138	128	128	129	95	112	128
309	25219	122	121	122	150	142	112	112	122		126	116	127	122	122	123	91	107	122
310	25856	110	106	108	122	112	95	122	110		111	110		110	110	125	84	104	110
311	25872	105	100	103	127	132	94	93	106	86	105	104	113	108	108	103	78	90	103
312	25904	117	113	115	160	120	100	110	110	91	116	103		103	103	116	71	94	110
313	25920	123	102	113	123	130	106	108	115		115	112	101	106	106	116	75	96	110
314	26695	145	143	144	160	150	133	90	124		137	110	142	126	126	143	97	120	131
315	26696	122	121	122	129	120	90	105	105	87	111	109	109	109	109		72	72	106
316	26697	127	127	127	166	134	114	96	115	98	123	113	143	128	128	141	93	117	123
317	26698	95	99	97	123	112	94	108	105	88	103	102	112	107	107	110	66	88	101
318	26699	120	123	122	146	127	112	90	110	90	115	114	131	122	122	128	93	110	116
319	26700	82	93	88	116	114	89	105	103	87	98	101	101	101	101	103	61	82	96
320	26701	124	103	114	133	130	105	121	119	93	116	103	119	111	111	122	58	90	110
321	26702	130	101	116	160	130	105	128	121	101	122	110	123	117	117	118	75	96	116
322	Swarna Sub 1 (NC)	116	92	104	129	110	86	105	100	86	103	102	112	107	107	111	69	90	102
323	26703	124	102	113	133	120	92	127	113	92	113	103	115	109	109	114	91	103	110
324	26704	146	127	137	165	127	111	95	111	99	124	107	134	120	120	144	84	114	122
325	26705	141	124	133	140	128	100	102	110	89	118	110	133	122	122	122	76	99	115
326	26706	126	107	117	143	133	110	118	120	92	118	107	121	114	114	116	87	101	114
327	26707	135	124	130	148	140	114	97	117	93	122	109	131	120	120	135	95	115	120
328	26708	128	124	126	138	130	118	102	117	79	117	107	139	123	123	127	79	103	116
329	26709	125	111	118	150	124	103	106	111	81	114	112	117	115	115	110	87	99	111
330	26710	122	122	122	131	134	115	124	124	82	119	110	138	124	124	130	80	105	117
331	26711	103	95	99	180	114	92	101	102	82	110	90	104	97	97	102	65	84	102
332	Zonal Check (ZC)	132	102	117	130	122	100	94	105	79	108	108	114	111	111	132	83	107	109
333	26712	100	93	97	106	118	85	110	104	77	98	100	102	101	101	101	65	83	96
334	26713	118	102	110	160	145	89	126	120	84	118	106	111	109	109	114	70	92	111
335	26714	115	111	113	133	117	103	128	116		118	105	108	107	107	117	64	90	110
336	26715	122	113	118	123	140	104	105	116		118	112	113	113	113	119	81	100	113
337	26716	120	106	113	124	115	103	115	111	84	110	107	113	110	110	104	80	92	107
338	26717	135	114	125	123	130	106	115	117	79	115	104	109	107	107	129	63	96	110
339	PA 6444 (HC)	100	99	100	121	126	100	123	116	93	109	106	118	112	112	109	81	95	107
340	26718	117	107	112	131	115	103		109	87	110	102	115	108	108		71	71	105
341	26719	106	100	103	121	138	101	103	114	88	108	100	112	106	106	119	74	97	106
342	26720	128	116	122	120	122	125	117	121		121	112	119	115	115	127	83	105	117
343	26721	137	123	130	138	125	103	111	113	86	118	108	126	117	117	129	79	104	115
344	26722	116	99	108	170	132	101	116	116	84	117	104	115	109	109	109	79	94	111
345	26723	125	118	122	135	130	112	137	126	90	121	112	127	120	120	120	78	99	117
346	26724	115	104	110	155	152	107	137	132	91	123	104	108	106	106	122	70	96	115
347	26725	156	134	145	151	170	122	116	136	93	134	119	153	136	136	140	101	121	132
348	26726	110	105	108	128	126	102	136	121	91	114	107	112	109	109		70	70	109
349	26727	105	103	104	120	140	114	120	125	92	113	104	112	108	108	119	64	91	108
350	26728	102	103	103	124	132	98	106	112	83	107	109	105	107	107	124	79	102	106
351	26729	86	95	91	111	107	91	122	106	90	100	102	104	103	103	100	64	82	97
352	26730	117	99	108	125	116	110	102	109	97	109	104	113	109	109	111	81	96	107
353	26731	95	101	98	123	112	98	113	107	82	103	100	114	107	107	107	76	92	102
354	Local Check	135	118	127	129	152	104	109	122	95	120	103	121	112	112	106	93	99	115
355	25924	127	125	126	132	131	117	118	122	89	120	111	118	114	114	127	76	102	115
356	26732	136	107	122	150	134	120	125	126	101	125	118	142	130	130	141	99	120	125
	Exp Mean	119	111	115	137	128	104	112	115	89	115	107	118	112	112	120	79	99	112
	C.D. 5%	0	0	0	0	0	0			0		0	0	0	0	0	0	0	
	C.V.%	0.00	0.00	0.00	0.00	0.00	0.00			0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Table No. 2.5: Panicles/ M² of entries in IVT- RSL Kharif 2017

Entry No.	IET No.	III									Zone III (7)	IV			Zone IV (2)	VII		Zone VII (2)	Overall (11)
		OD	OD	OD (2)	BI	WB	WB	WB	WB (3)	U.P.		AS	AS	AS (2)		A.P.	KA		
		BBN	CTK	Mean	BKG	CHN	BNK	CHK	Mean	MSD		TTB	GER	Mean		MTU	PNP		
301	26689	268	197	232	355	314	436	373	374		324	310	224	267	267	261	290	276	303
302	26690	243	202	223	305	297	389	346	344	211	285	279	207	243	243	205	348	277	276
303	26691	293	192	242	275	281	280	278	280	246	263	298	214	256	256	168	334	251	260
304	26692	282	187	234	240	314	318	214	282		259	329	206	267	267	218	319	269	262
305	26693	241	161	201	305	413	416	276	368	196	287	215	219	217	217	195	305	250	267
306	26694	224	186	205	325	330	424	255	336		290	212	208	210	210	224	276	250	266
307	25901	234	203	219	385	281	424	329	345	227	297	250	209	230	230	353	305	329	291
308	Dhanrasi (NC)	320	202	261	273	347	369	268	328		296	278	184	231	231	224	320	272	278
309	25219	220	265	243	203	314	338	257	303		266	216	210	213	213	281	334	307	264
310	25856	281	161	221	233	347	414	234	332		278	274		274	274	274	261	268	275
311	25872	217	180	199	335	380	343	340	354	232	289	238	183	210	210	211	290	251	268
312	25904	256	200	228	248	347	298	273	306	221	263	276		276	276	267	421	344	280
313	25920	260	188	224	358	396	293	415	368		318	227	229	228	228	248	290	269	290
314	26695	211	187	199	93	314	336	237	295		229	318	179	248	248	208	232	220	231
315	26696	237	208	223	248	380	290	276	315	251	270	286	192	239	239		334	334	270
316	26697	328	228	278	240	264	327	223	271	239	264	279	209	244	244	208	392	300	267
317	26698	267	183	225	303	281	348	257	295	255	270	238	232	235	235	244	261	253	261
318	26699	226	200	213	275	347	341	262	316	201	264	313	197	255	255	234	290	262	262
319	26700	235	218	226	305	429	418	225	357	251	297	289	205	247	247	228	377	303	289
320	26701	224	185	204	230	264	363	277	301	202	249	208	199	204	204	234	392	313	252
321	26702	238	176	207	298	479	330	233	347	208	280	226	233	230	230	158	319	239	263
322	Swarna Sub 1 (NC)	280	196	238	305	380	376	275	343	206	288	268	220	244	244	251	624	438	307
323	26703	214	195	205	300	281	452	232	322	203	268	209	237	223	223	195	305	250	257
324	26704	243	200	221	118	380	371	224	325	280	259	337	255	296	296	281	436	358	284
325	26705	242	199	221	243	347	428	247	340	208	273	222	194	208	208	218	348	283	263
326	26706	294	203	248	243	281	397	293	323	228	277	243	180	211	211	248	334	291	267
327	26707	214	192	203	268	380	288	217	295	234	256	277	198	238	238	224	276	250	251
328	26708	227	180	203	296	380	359	238	326	240	274	215	243	229	229	238	305	271	265
329	26709	227	149	188	303	281	252	222	251	198	233	249	167	208	208	198	320	259	233
330	26710	242	186	214	298	380	293	282	318	229	273	276	196	236	236	231	334	282	268
331	26711	275	189	232	273	363	411	221	332	230	280	228	233	230	230	337	261	299	274
332	Zonal Check (ZC)	260	219	240	305	462	396	241	366	236	303	323	262	293	293	290	436	363	312
333	26712	245	210	227	328	380	401	298	359	231	299	247	229	238	238	284	319	302	288
334	26713	254	184	219	213	314	267	238	273	234	243	266	225	245	245	267	348	308	255
335	26714	246	175	211	298	347	337	232	305		272	288	219	253	253	211	421	316	277
336	26715	244	177	210	243	363	283	255	300		261	212	243	227	227	224	407	316	265
337	26716	279	189	234	265	347	408	271	342	204	280	323	200	261	261	267	377	322	284
338	26717	242	190	216	273	347	384	228	319	242	272	313	196	254	254	215	319	267	268
339	PA 6444 (HC)	234	183	209	213	330	369	217	305	223	253	326	277	301	301	215	305	260	263
340	26718	272	207	239	303	314	421		367	269	297	331	203	267	267		450	450	307
341	26719	258	187	222	275	314	311	226	283	240	259	213	203	208	208	191	290	241	246
342	26720	220	212	216	248	264	205	274	248		237	216	186	201	201	284	276	280	238
343	26721	236	229	232	273	380	392	260	344	203	282	223	211	217	217	277	348	313	275
344	26722	267	199	233	265	413	309	252	324	207	273	233	245	239	239	208	290	249	262
345	26723	281	192	236	305	363	401	232	332	218	284	276	220	248	248	231	334	282	277
346	26724	234	210	222	453	347	377	268	330	238	304	287	248	268	268	261	465	363	308
347	26725	237	192	215	265	347	349	235	310	176	257	213	189	201	201	155	334	244	245
348	26726	250	171	211	205	297	347	227	290	194	241	278	186	232	232		290	290	244
349	26727	235	176	205	243	281	274	266	273	179	236	248	192	220	220	244	203	224	231
350	26728	248	190	219	303	264	312	344	307	180	263	276	216	246	246	208	406	307	268
351	26729	218	182	200	295	297	340	367	335	239	277	235	242	239	239	238	377	308	275
352	26730	231	193	212	483	380	335	275	330	232	304	210	189	199	199	188	334	261	277
353	26731	215	190	202	425	264	254	263	260	178	256	226	203	215	215	257	319	288	254
354	Local Check	285	211	248	273	347	367	222	312	227	276	259	221	240	240	198	334	266	267
355	25924	234	239	236	328	314	301	223	279	190	261	304	218	261	261	201	247	224	254
356	26732	170	167	168	303	347	333	317	332	200	262	208	208	208	208	149	247	198	241
	Exp Mean	247	194	221	283	339	350	264	318	221	273	261	213	237	237	233	334	285	268
	C.D. 5%	28	42	25	17	55	40	39	27	20	14	14	54	24	27	77	89	58	15
	C.V.%	5.68	10.89	8.23	2.92	8.09	5.77	7.39	7.33	4.45	6.86	2.66	12.67	7.15	8.13	16.58	13.29	14.63	9.23

Table No. 2.6: Grain quality characteristics of entries in IVT-RSL, Kharif 2017

Entry No.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
308	Dhanrasi	76.7	65.3	19.3	5.26	2.38	2.21	SB	VOC	5	21.23	22
309	25219	78.1	67.9	63.9	4.6	2.38	1.93	SB	VOC	5	24.58	27
310	25856	77.3	69.5	62.9	5.7	1.92	2.96	MS	VOC	7	23.90	41
311	25872	73.7	59.2	45.3	6.21	1.84	3.37	LS	VOC	7	23.81	22
322	Swarna Sub-1	77.5	66.8	46.7	5.15	2.2	2.34	SB	VOC	4	23.02	56
339	PA 6444	80.5	66.7	43.3	6.02	2.25	2.67	LB	VOC	4	21.47	59
354	Sumit	76.5	59.5	22.3	6.52	2.32	2.81	LB	VOC	4	22.85	65

HULL: Hulling (%); Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB::Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 2.7: Composition of entries in Advance Variety Trial 1- Semi Deep Water (AVT 1-SDW), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
3 rd Year of testing:				
401	24519	CR 2439-B-18-1-1-1-1	Utkalprabha / WITA 12	SB
402	24505	OR 2437-11	Indravati / MTU 1065	SB
403	24486	MTU 1184 (MTU 20601-1-1-1-1)	PLA 1100 / BM 71	MS
404	24518	CR 3612-1-4-2-1	CR-662-22-11-1-1 / Sarala // CR-2080-169-1	MS
405	24496	OR 2418-2	Mahanadi / OR 1898-2	SB
406	24495	MTU 1172 (MTU II 335-19-1-1-1)	MTU 7029 / MTU 1064	SB
407	Sabita (NC)			
2 nd Year of testing:				
408	25212	OR 2413-9	Indravati / CN1231-11-1	SB
409	25209	CR 3816-1-2-1-2-2	Gayatri / AC 38700	SB
410	Purnendu (ZC)			
411	25191	CR 2747-14-4-3	NPG 210 / CR 2550-77	MS
412	25179	CR 2315-1-1-3-1-2	CR2006-10 / Hanseswari	LS
413	Local Check			

Table No. 2.8 : Grain Yield (Kg/ha) of entries in AVT 1-SDW Normal Kharif 2017

Entry No.	IET No.	III		IV		Overall (2)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		U.P.	AS	GER	AS					
		MSD				Mean				
401	24519	2349	7	4060	6	3205		132	103	205
402	24505			4938	4 *	4938	4 * 50%	139	127	205
403	24486	3147	3	3978	7	3563	7 9%	132	97	211
404	24518			3784	9	3784	6 15%	133	128	192
405	24496			5245	3 *	5245	3 * 60%	137	111	206
406	24495	3679	1	4468	5	4073	5 24%	131	97	208
407	Sabita (NC)	2327	8	2444		2385		129	139	196
408	25212			5521	1 *	5521	1 * 68%	138	121	206
409	25209			5427	2 *	5427	2 * 65%	138	146	169
410	Purnendu (ZC)	3435	2	3092		3264	9	128	139	196
411	25191	2571	6	3951	8	3261		134	94	213
412	25179	2748	5	3726		3237		136	106	201
413	Local Check	3103	4	3462		3282	8	131	137	207
	Exp Mean	2920		4161		3937		134	119	201
	C.D. 5%	259		1415		891		2		20
	C.V.%	5.06		20.18		20.72		1.10		8.33
	Sowing Date	05-07-2017		26-06-2017						
	Planting Date	10-08-2017		04-08-2017						
	Local ©	Jalpriya		Varsha Dhan						
	* Superior to Best Check % Superior over Best Check									

Table No. 2.8: Grain Yield (Kg/ha) of entries in AVT 1-SDW WLM Kharif 2017

Entry No.	IET No.	III					Zone III (4)	VII		Overall (5)	Days to 50% Flowering	Plant Height (cm)	Panicles M ²
		OD	OD	OD (2)	W.B	U.P.		A.P.					
		CTK	BBN	Mean	CHN	GGT		Mean	MTU	Mean			
401	24519	2788	3309 ⁸	3048	4963 ⁴		3687	3103 ⁶	3541 ⁸	128	116	268	
402	24505	4579 ^{1*}	1838	3209 ⁸	5815 ^{2*}		4077 ⁷	3686 ⁴	3979 ⁷	134	128	277	
403	24486	3599 ⁶	5147 ⁴	4373 ⁵ 13%	4741 ⁷	3511 ⁴	4250 ⁵ 1%	4881 ¹	4376 ¹ 4%	123	125	247	
404	24518	2811 ⁹	2247	2529	4667 ⁹		3242	2252	2994	125	128	265	
405	24496	3659 ⁴	5229 ³	4444 ⁴ 15%	5963 ^{1*}	3256 ⁵	4527 ² 8%	3725 ³	4366 ² 4%	125	114	242	
406	24495	3418 ⁷	5678 ^{2*}	4548 ^{1*} 18%	5000 ³	3722 ²	4455 ³ 6%	3602 ⁵	4284 ³ 2%	126	110	263	
407	Sabita (NC)	1583	2778	2180	4296	3144 ⁶	2950	2513	2863	111	156	247	
408	25212	4531 ^{2*}	4493 ⁵	4512 ^{3*} 17%	4741 ⁸		4589 ^{1*} 9%	3085 ⁷	4213 ⁴	132	124	266	
409	25209	3985 ^{3*}	3186 ⁹	3586 ⁷	4222		3798 ⁸	2541	3484 ⁹	132	141	263	
410	Purnendu (ZC)	1546	2574	2060	4185	2956 ⁷	2815	2593 ⁹	2771	112	161	252	
411	25191	3310 ⁸	5719 ^{1*}	4515 ^{2*} 17%	4778 ⁶	3556 ³	4341 ⁴ 4%	2882 ⁸	4049 ⁶	120	115	273	
412	25179	2717	3676 ⁷	3197 ⁹	4667		3687 ⁹	2093	3289	132	123	292	
413	Local Check	3629 ⁵	4085 ⁶	3857 ⁶	4852 ⁵	4200 ¹	4192 ⁶	4295 ²	4212 ⁵	119	120	262	
	Exp Mean	3243	3843	3543	4838	3478	3893	3173	3739	124	128	262	
	C.D. 5%	297	1240	636	520	483	378	588	322	1		18	
	C.V.%	5.44	19.15	15.49	6.38	7.80	11.95	10.99	11.91	0.84		9.35	
	Sowing Date	26-06-2017	06-08-2017		07-07-2017	16-07-2017		04-07-2017					
	Planting Date	08-08-2017	08-09-2017		17-08-2017	Direct seeded		03-08-2017					
	Local ©	Varshadhan	Upahar		RAJDEEP	NDGR 201		Badava mahsuri (PLA 1100)					
* Superior to Best Check % Superior over Best Check													

Table No. 2.9 : Days to 50% Flowering of entries in AVT 1-SDW Normal Kharif 2017

Entry No.	IET No.	III	IV	Overall (2)
		U.P.	AS	
		MSD	GER	
401	24519	127	137	132
402	24505		139	139
403	24486	128	136	132
404	24518		133	133
405	24496		137	137
406	24495	124	138	131
407	Sabita (NC)	133	125	129
408	25212		138	138
409	25209		138	138
410	Purnendu (ZC)	129	126	128
411	25191	133	135	134
412	25179	131	140	136
413	Local Check	124	138	131
	Exp Mean	129	135	134
	C.D. 5%	2	3	2
	C.V.%	0.93	1.16	1.10

Table No. 2.10: Plant Height (cm) of entries in AVT 1-SDW Normal Kharif 2017

Entry No.	IET No.	III	IV	Overall (2)
		U.P.	AS	
		MSD	GER	
401	24519	87	120	103
402	24505		127	127
403	24486	79	116	97
404	24518		128	128
405	24496		111	111
406	24495	90	105	97
407	Sabita (NC)	115	164	139
408	25212		121	121
409	25209		146	146
410	Purnendu (ZC)	110	168	139
411	25191	86	101	94
412	25179	85	127	106
413	Local Check	115	159	137
	Exp Mean	96	130	119
	C.D. 5%	0	0	
	C.V.%	0.00	0.00	

Table No. 2.9: Days to 50% Flowering of entries in AVT 1-SDW WLM Kharif 2017

Entry No.	IET No.	III					Zone III (4)	VII A.P.	Overall (5)
		OD	OD	OD (2)	W.B	U.P.			
		CTK	BBN	Mean	CHN	GGT		MTU	
401	24519	134	123	129	128		128	125	128
402	24505	147	130	138	127		135	130	134
403	24486	135	125	130	124	108	123	124	123
404	24518	133	121	127	126		127	120	125
405	24496	143	126	135	113	112	124	129	125
406	24495	143	123	133	129	109	126	127	126
407	Sabita (NC)	119	107	113	113	109	112	108	111
408	25212	142	130	136	126		133	130	132
409	25209	144	130	137	124		133	131	132
410	Purnendu (ZC)	117	113	115	111	109	113	109	112
411	25191	132	121	127	118	110	120	119	120
412	25179	142	132	137	123		133	129	132
413	Local Check	137	124	131	112	95	117	128	119
	Exp Mean	136	124	130	121	107	125	124	124
	C.D. 5%	1	2	1	2	2	1	1	1
	C.V.%	0.34	0.80	0.58	0.79	0.92	0.87	0.57	0.84

Table No. 2.10: Plant Height (cm) of entries in AVT 1-SDW WLM Kharif 2017

Entry No.	IET No.	III					Zone III (4)	VII A.P.	Overall (5)
		OD	OD	OD (2)	W.B	U.P.			
		CTK	BBN	Mean	CHN	GGT		MTU	
401	24519	112	115	114	116	96	110	140	116
402	24505	134	128	131	130	97	122	151	128
403	24486	115	130	123	125	109	120	148	125
404	24518	134	138	136	115	100	122	152	128
405	24496	114	110	112	110	93	107	141	114
406	24495	104	111	108	105	98	105	131	110
407	Sabita (NC)	136	162	149	152	141	148	187	156
408	25212	111	131	121	127	101	117	149	124
409	25209	134	154	144	140	98	131	181	141
410	Purnendu (ZC)	149	165	157	146	142	150	204	161
411	25191	104	117	111	117	105	111	132	115
412	25179	119	132	125	115	98	116	150	123
413	Local Check	142	134	138	105	111	123	109	120
	Exp Mean	124	133	128	123	107	122	152	128
	C.D. 5%		0		0	0		0	
	C.V.%		0.00		0.00	0.00		0.00	

Table No. 2.11: Panicles/ M² of entries in AVT 1-SDW Normal Kharif 2017

Entry No.	IET No.	III	IV	Overall (2)
		U.P.	AS	
		MSD	GER	
401	24519	222	188	205
402	24505		205	205
403	24486	203	219	211
404	24518		192	192
405	24496		206	206
406	24495	210	205	208
407	Sabita (NC)	194	198	196
408	25212		206	206
409	25209		169	169
410	Purnendu (ZC)	196	197	196
411	25191	216	209	213
412	25179	197	206	201
413	Local Check	222	193	207
	Exp Mean	207	199	201
	C.D. 5%	22	32	20
	C.V.%	6.13	9.52	8.33

Table No. 2.11: Panicles/ M² of entries in AVT 1-SDW WLM Kharif 2017

Entry No.	IET No.	III					Zone III (4)	VII A.P.	Overall (5)
		OD	OD	OD (2)	W.B	U.P.			
		CTK	BBN	Mean	CHN	GGT		MTU	
401	24519	306	231	269	264		267	273	268
402	24505	306	211	259	286		268	304	277
403	24486	315	220	268	253	121	227	326	247
404	24518	320	226	273	242		263	271	265
405	24496	316	228	272	253	105	225	310	242
406	24495	337	223	280	319	147	256	290	263
407	Sabita (NC)	289	216	253	275	127	227	326	247
408	25212	303	249	276	209		254	303	266
409	25209	314	199	257	264		259	275	263
410	Purnendu (ZC)	297	228	262	330	108	241	295	252
411	25191	324	264	294	330	127	261	321	273
412	25179	295	244	270	330		290	297	292
413	Local Check	348	225	287	253	164	248	321	262
	Exp Mean	313	228	271	278	128	253	301	262
	C.D. 5%	23	17	14	39	18	14	59	18
	C.V.%	4.38	4.30	4.49	8.43	7.96	6.88	11.68	9.35

Table No. 2.12: Grain quality characteristics of entries in AVT 1-SDW, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
401	24519	80.8	69.2	50.3	5.67	2.31	2.45	SB	VOC	5.0	24.58	60
402	24505	76.8	67.6	65.2	5.20	2.30	2.26	SB	VOC	5.0	22.23	22
403	24486	75.7	66.7	56.5	5.30	1.86	2.84	MS	VOC	4.0	24.20	44
404	24518	81.6	69.3	54.6	5.55	2.02	2.74	MS	VOC	4.0	23.78	22
405	24496	77.6	69.4	65.4	5.11	2.42	2.11	SB	VOC	6.0	24.28	22
406	24495	77.7	67.4	64.2	5.05	2.22	2.27	SB	VOC	4.5	24.22	34
407	Sabitha	72.8	61.0	55.3	6.58	2.13	3.08	LS	VOC	4.0	24.96	33
408	25212	80.2	69.9	63.7	5.67	2.57	2.20	SB	OC	6.0	24.34	43
409	25209	79.4	68.3	60.6	5.89	2.78	2.11	SB	F	5.0	23.93	28
410	Purnendu	76.7	63.7	44.3	5.03	2.27	2.21	SB	VOC	4.0	24.17	51
411	25191	78.2	70.3	68.1	5.39	2.01	2.68	MS	VOC	7.0	24.84	30
412	25179	70.4	60.2	56.1	6.29	1.9	3.31	LS	VOC	7.0	24.25	22
413	Varshadhan	77.7	67	62.3	6.35	2.27	2.79	LB	VOC	5.0	24.49	22

HULL: Hulling (%); MILLING (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 2.13: Composition of entries in Initial Variety Trial - Semi Deep Water (IVT-SDW), Kharif 2017.

Entry No.	IET No.	Designation	Cross combination	Grain type
1st Year of testing:				
501	25890	CR 3696-5-2-1-1-1	Gayatri / Warda 1	SB
502	25905	OR 2438-2	OR 142-99 / MTU 1065	SB
503	25888	CR 2745-2-6-3	IET 23110 / CR 2008-111-4	LS
504	25887	CN 2066	CN 1233-33-9 / IR 82810-407 // Jagabandhu	MS
505	Sabita (NC)			
506	25912	CR 2667-5-1-2-1-1	Gayatri / AC.38599	SB
507	25903	CN 2068	CN 1039-9 / IR 84196-32	LS
508	25913	CR 3878-245-2-4-2	Gayatri / FL496	SB
509	25909	CR 3898-113-4-2-1	CN 1231-11-7 / Jagabandhu // IR 71700-247-1-1-2	SB
510	25907	CR 3989-1-2-1-1-1	Savitri / AC.38562 // Varshadhan	MS
511	Purnendu (ZC)			
512	25915	CR 3034-1-1-3-1	Bhikhachak / CN 1920	LS
513	25914	OR 2433-1	Kanchan / Samba Mahsuri	MS
514	25902	CR 3988-1-7-6-1-1	Pooja / AC.38687	MS
515	Local Check			

Table No. 2.14 : Grain Yield (Kg/ha) of entries in IVT- SDW Normal Kharif 2017

Entry No.	IET No.	III U.P. @MSD		IV AS @GER		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
501	25890			4600	2	141	171	193
502	25905	2438	9	4194	3	129	114	217
503	25888	3191	4	3583	8	128	105	207
504	25887	2881	6	3267	9	126	110	210
505	Sabita (NC)	2305		1117		128	142	199
506	25912	3413	2 *	2322		138	131	206
507	25903	2349		3767	5	133	118	213
508	25913	2748	7	3683	6	138	116	215
509	25909	3790	1 *	3133		135	113	190
510	25907	3258	3 *	2667		138	126	175
511	Purnendu (ZC)	2527	8	2628		130	148	208
512	25915			2250		139	171	178
513	25914			3967	4	134	133	241
514	25902			3683	7	126	124	218
515	Local Check	3014	5	4789	1	133	145	198
	Exp Mean	2901		3310		133	131	204
	C.D. 5%	242		1778		2	0	21
	C.V.%	4.90		32.12		1.44	0.00	8.86
	Sowing Date	05-07-2017		26-06-2017				
	Planting Date	10-08-2017		05-08-2017				
	Local @	Jalpripa		Varshadhan				

* Superior to Best Check % Superior over Best Check @ not included in means

Table No. 2.14: Grain Yield (Kg/ha) of entries in IVT- SDW WLM Kharif 2017

Entry No.	IET No.	III						Zone III (4)	VII		Overall (5)	Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		OD	OD	OD (2)		W.B	U.P.		A.P.					
		CTK	BBN	Mean		CHN	GGT	Mean	MTU	Mean				
501	25890	569	1838	1204		4185		2197	2569	2290	134	150	262	
502	25905	1606	2512	2059		5889 1 *	2400 6	3102	2513	2984 9	117	121	279	
503	25888	2491 6	3431 4	2961 6	13%	4481 9	2850 4	3313 8	3092 6	3269 8	117	118	254	
504	25887	3219 1 *	2880 7	3049 4 *	17%	5519 3 *	2283 7	3475 5 3%	3035 7	3387 7	108	128	227	
505	Sabita (NC)	1096	3186 6	2141		4259	2567 5	2777	2329	2687	115	160	249	
506	25912	2444 7	5270 1 *	3857 1 *	48%	4148		3954 2 * 17%	4564 1 *	4106 1 * 17%	138	119	274	
507	25903	2669 2	4350 3 *	3510 2 *	34%	5074 5	3250 2	3836 3 * 13%	2768 9	3622 3 3%	118	127	245	
508	25913	1898	4596 2 *	3247 3 *	24%	4037		3510 4 4%	3897 4	3607 4 3%	133	123	274	
509	25909	2664 3	3431 5	3048 5 *	17%	5852 2 *		3983 1 * 18%	4105 2	4013 2 * 14%	122	130	279	
510	25907	2143	1348	1745		4148		2546	3021 8	2665	133	166	238	
511	Purnendu (ZC)	2075	1838	1957		4111	2250 8	2569	2529	2561	117	161	228	
512	25915	2442 8	1042	1742		4815 8		2766	2659	2739	132	147	246	
513	25914	2231 9	2206	2219 9		5074 6		3170 9	2010	2880	129	137	262	
514	25902	2621 5	2819 8	2720 7	4%	5296 4	3067 3	3451 6 2%	3822 5	3525 5	112	120	257	
515	Local Check	2646 4	2574 9	2610 8		5037 7	3300 1	3389 7	4016 3	3514 6	119	126	249	
	Exp Mean	2188	2888	2538		4795	2746	3203	3129	3191	122	136	254	
	C.D. 5%	486	564	378		442		240	422	203	1		12	
	C.V.%	13.29	11.67	12.88		5.51	8.78	9.23	8.06	8.81	0.81		6.75	
	Sowing Date	26-06-2017				05-07-2017	16-07-2017		03-07-2017					
	Planting Date	08-08-2017				09-08-2017	Direct seeded		03-08-2017					
	Local ©	Varshadhan				RAJDEEP	NDGR 201		Bheema (MTU 1140)					
* Superior to Best Check % Superior over Best Check														

* Superior to Best Check % Superior over Best Check

Table No. 2.15: Days to 50% Flowering of entries in IVT- SDW Normal Kharif 2017

Entry No.	IET No.	III	IV	Overall (2)
		U.P.	AS	
		MSD	GER	Mean
501	25890		141	141
502	25905	129	129	129
503	25888	129	128	128
504	25887	128	124	126
505	Sabita (NC)	130	126	128
506	25912	131	145	138
507	25903	133	132	133
508	25913	132	145	138
509	25909	134	136	135
510	25907	131	146	138
511	Purnendu (ZC)	133	127	130
512	25915		139	139
513	25914		134	134
514	25902		126	126
515	LC	126	141	133
	Exp Mean	130	134	133
	C.D. 5%	2	4	2
	C.V.%	0.96	1.73	1.44

Table No. 2.15 : Days to 50% Flowering of entries in IVT- SDW WLM Kharif 2017

Entry No.	IET No.	III					Zone III (4)	VII	Overall (5)
		OD	OD	OD (2)	W.B	U.P.		A.P.	
		CTK	BBN	Mean	CHN	GGT	Mean	MTU	Mean
501	25890	138	132	135	131		134	134	134
502	25905	121	116	119	130	110	120	107	117
503	25888	133	116	125	111	108	117	118	117
504	25887	119	107	113	102	103	108	111	108
505	Sabita (NC)	121	108	114	129	107	116	109	115
506	25912	142	141	141	130		138	139	138
507	25903	129	118	124	114	103	116	126	118
508	25913	143	130	136	130		134	130	133
509	25909	132	124	128	113		123	120	122
510	25907	137	132	135	131		133	132	133
511	Purnendu (ZC)	118	111	114	131	109	117	117	117
512	25915	136	130	133	132		133	132	132
513	25914	134	132	133	115		127	134	129
514	25902	121	113	117	113	103	113	110	112
515	Local Check	135	128	132	114	95	118	120	119
	Exp Mean	131	122	126	122	105	123	123	122
	C.D. 5%	0	1	0	1	3	1	2	1
	C.V.%	0.20	0.30	0.26	0.37	1.48	0.81	0.78	0.81

Table No. 2.16 : Plant Height (cm) of entries in IVT- SDW WLM Kharif 2017

Entry No.	IET No.	III					Zone III (4)	VII	Overall (5)
		OD	OD	OD (2)	WB	U.P.		A.P.	
		CTK	BBN	Mean	CHN	GGT	Mean	MTU	Mean
501	25890	148	148	148	180	99	144	175	150
502	25905	104	125	114	130	104	116	143	121
503	25888	103	123	113	126	107	115	131	118
504	25887	115	121	118	142	120	124	144	128
505	Sabita (NC)	137	170	154	169	135	153	186	160
506	25912	118	116	117	115	96	111	150	119
507	25903	111	133	122	138	114	124	140	127
508	25913	116	126	121	128	98	117	146	123
509	25909	117	142	129	132	105	124	156	130
510	25907	169	162	165	202	113	161	183	166
511	Purnendu (ZC)	166	170	168	166	144	161	160	161
512	25915	134	155	145	167	106	141	173	147
513	25914	116	146	131	155	113	133	153	137
514	25902	114	115	114	122	105	114	145	120
515	Local Check	136	132	134	120	110	125	133	126
	Exp Mean	127	139	133	146	111	131	155	136
	C.D. 5%	0	0		0	0	0	0	
	C.V.%	0.00	0.00		0.00	0.00	0.00	0.00	

Table No. 2.16 : Plant Height (cm) of entries in IVT- SDW Normal Kharif 2017

Entry No.	IET No.	III	IV	Overall (2)
		U.P.	AS	
		MSD	GER	Mean
501	25890		171	171
502	25905	97	131	114
503	25888	94	116	105
504	25887	93	127	110
505	Sabita (NC)	127	156	142
506	25912	93	168	131
507	25903	94	143	118
508	25913	95	137	116
509	25909	94	132	113
510	25907	90	163	126
511	Purnendu (ZC)	125	171	148
512	25915		171	171
513	25914		133	133
514	25902		124	124
515	LC	119	170	145
	Exp Mean	102	148	131
	C.D. 5%	0	0	0
	C.V.%	0.00	0.00	0.00

Table No. 2.17: Panicles/ M² of entries in IVT- SDW WLM Kharif 2017

Entry No.	IET No.	III					Zone III (4)	VII	Overall (5)
		OD	OD	OD (2)	WB	U.P.		A.P.	
		CTK	BBN	Mean	CHN	GGT	Mean	MTU	Mean
501	25890	296	188	242	275		253	288	262
502	25905	269	273	271	418	157	279	277	279
503	25888	312	217	264	374	103	251	266	254
504	25887	287	222	255	275	94	220	257	227
505	Sabita (NC)	267	226	246	385	110	247	257	249
506	25912	300	220	260	297		272	279	274
507	25903	308	260	284	297	129	248	231	245
508	25913	311	231	271	319		287	235	274
509	25909	290	250	270	286		275	290	279
510	25907	300	209	254	242		250	202	238
511	Purnendu (ZC)	286	216	251	264	119	221	253	228
512	25915	297	161	229	264		240	262	246
513	25914	267	224	246	297		263	260	262
514	25902	313	251	282	253	148	241	321	257
515	Local Check	318	231	275	275	149	243	271	249
	Exp Mean	295	225	260	301	126	253	263	254
	C.D. 5%	22	9	13	38	15	13	34	12
	C.V.%	4.53	2.49	4.30	7.56	6.77	6.21	7.69	6.75

Table No. 2.17 : Panicles/ M² of entries in IVT- SDW Normal Kharif 2017

Entry No.	IET No.	III	IV	Overall (2)
		U.P.	AS	
		MSD	GER	Mean
501	25890		193	193
502	25905	192	241	217
503	25888	197	216	207
504	25887	225	195	210
505	Sabita (NC)	186	213	199
506	25912	220	192	206
507	25903	212	214	213
508	25913	197	234	215
509	25909	203	177	190
510	25907	187	164	175
511	Purnendu (ZC)	211	205	208
512	25915		178	178
513	25914		241	241
514	25902		218	218
515	Local Check	214	182	198
	Exp Mean	204	204	204
	C.D. 5%	11	40	21
	C.V.%	3.24	11.59	8.86

Table No. 2.18: Composition of entries in National Semi Deep Water Screening Nursery (NSDWSN), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
1st Year of testing:				
601	26647	OR 2413-2	Indravati / CN 1231-11-1	LB
602	26648	CN 1324-913-303-BNKR-12-9-3	Kunti / Mahsuri	LB
603	26649	RP Bio 5479-S-30J	Jalmagna / Swarna	LB
604	26650	CR 3900-193-9-4-3	Savitri / R. Mahsuri-1 // IR 71700-247-1-1-2	LB
605	26651	MTU 1249	MTU 4870 / MTU 1064	MS
606	26652	NDGR-1517	PS46 / CR780-1983-3-07-GHT	LB
607	26653	CR 3904-162-2-1-2	Santepheap / IR70215-4-CPA 3-1-3-1 // IR 72176-307-4-2-2-3	LB
608	26654	OR 2749 (SBP-213)	PD 80 / CN 1165-4-1-2-1	LS
609	Sabita (NC)			
610	26655	CR 4045-2-3-1-1-1	CR3835-1-7-2-1-1 / CR2687-2-3-7-1-1	SB
611	26656	CR 3218-5-1-1-2-3	Manika / Varshadhan // Purnendu	SB
612	26657	OR 2439-16	OR 142-99 / Tarunbhog	SB
613	26658	MTU 1248	MTU 1081 / MTU 1064 // RP 4637-310-1	LS
614	26659	CR 3985-1-5-3-2-1	Swarna-Sub1 / Reeta	SB
615	26660	CR 2851-3-1-B-4-1-1-1-1	Gayatri / SR 26B	MS
616	26661	OR 2596-4	Indravati / WGL 110	LS
617	26662	RP Bio 5479-S-273-1J	Jalmagna / Swarna	LB
618	26663	CR 3878-245-3-4-1	Gayatri / FL496	SB
619	26664	CR 4046-1-5-2-1-1	CR3836-1-7-4-1-1 / CR3838-1-2-1-4-2	SB
620	26665	CN 1998-5-3-5	Mohan / Jaya	LB
621	26666	CR 4039-1-1-2-1-3	Varshadhan / Wardal	LB
622	Purnendu (ZC)			
623	26667	OR 2750 (SBP-145)	SBIR 67495 / IR 80409 // Kanchan	LB
624	26668	CR 3987-7-1-2-4-3-1	Pooja / CR3820-1-5-2-1-1	SB
625	26669	CR 3075-2-1-1-1-1	CN 1920 / Gayatri // Bhudev	SB
626	26670	NDGR-1520	IR 498307 / Gayatri-07-GHT-4	LB
627	26671	CR3903-161-2-1-2	Santepheap / IR82810-407 // IR 71700-247-1-1-2	LB
628	26672	CR 3816-2-3-1-1-1	Gayatri / AC38700	SB
629	26673	MTU 1250	MTU 1064 / Swarna sub1 // *2MTU 1064	MS
630	26674	CR 3989-5-3-2-1-1	Savitri / AC.38562 // Varshadhan	SB
631	26675	CR 3993-13-11-44-7-3	CR1009 / <i>O. brachyantha</i> // CR1009	SB
632	26676	OR 2411-6	Indravati / Swarna	SB
633	26677	CR 4044-1-2-1-1-1	CR2682-4-2-2-2 / CR3838-1-2-1-4-2	SB
634	26678	CR 3101-1-5-1-4-1	Uphar / CN 1231-11-7 // Purnendu	LB
635	26679	OR 2748 (SBP -217)	IR 74355-CN 3 / Swarna	SB
636	26680	CR 3089-2-2-2-1-1	Manika / Sarala // IR 49830-7	LB
637	26681	RP Bio 5479-S-300-1J	Jalmagna / Swarna	LB
638	26682	CR 2850-5-2B-12-1-1-2-1-1	Gayatri / FL 496	SB
639	26683	CR 3989-5-3-2-1-1	Savitri / AC.38562 // Varshadhan	LB
640	26684	OR 2435-28	Indravati / MTU 10074	SB
641	26685	CR 3905-171-1-2-1	Bhudev / IR82810-407 // IR 72176-307-4-2-2-3	MS
642	26686	CR 2529-B-2-3-1-1-2	IR 42 / EC 516602	SB
643	26687	CR 3985-1-5-4-1-1	Swarna-Sub1 / Reeta	SB
644	Local Check			
645	26688	RP 6175-HHZ8-DT10-SAL3-Sub 1	Huang-Hua -Zhan*2 / Phalguna	LS

Table No. 2.19: Grain Yield (Kg/ha) of entries in NSDWSN WLM Kharif 2017

Entry No.	IET No.	III												
		OD		OD		OD (2)			BI		W.B		U.P.	
		CTK		BBN		Mean			PSA		CHN		GGT	
601	26647	2905	8	3291	9	3098	8	1%	4250	8	5486	7 *	4000	5
602	26648	2789		3852	6	3320	5	8%	2750		3889		2400	
603	26649	271		630		451			4750	1 *	3472		2500	
604	26650	1099		2101		1600			4500	6 *	4127		4500	2
605	26651	1234		3151		2193			4750	2 *	4040		4500	3
606	26652	1699		2241		1970			4250	9	3611		2250	
607	26653	852		3992	5	2422			4500	7 *	4722	*	2450	
608	26654	1661		1541		1601			4000		6111	3 *	3100	
609	Sabita (NC)	1911		2101		2006			3250		3889			
610	26655	1138		1401		1269					4444			
611	26656	1354		2871		2112					4236			
612	26657	3434	2	2871		3153	6	3%	2750		4444		3230	8
613	26658	2268		2521		2394			3000		4028			
614	26659	1687		3291		2489			3000		6319	2 *	2800	
615	26660	2089		3081		2585					4028			
616	26661	1213		3011		2112					4444			
617	26662	246		770		508			2000		4097		2350	
618	26663	2227		2801		2514					4741	*		
619	26664	2838	9	3431	8	3135	7	2%			3611			
620	26665	1391		1821		1606					4583	*		
621	26666	2218		3782	7	3000					4848	*		
622	Purnendu (ZC)	2070		1331		1700			2750		3958		2500	
623	26667	2274		2101		2188			4750	3 *	5128	*	3600	6
624	26668	2755		1401		2078					5397	9 *	2800	
625	26669	3015	6	4342	4	3678	3	20%			4444			
626	26670	760		350		555			4000		3889		3200	9
627	26671	1900		1891		1895			4750	4 *	6042	4 *	5000	1
628	26672	2583		2661		2622					4028			
629	26673	3075	5	5322	1 *	4199	2 *	37%			6597	1 *	2500	
630	26674	2437		1611		2024					4444			
631	26675	2716		2941		2829					4583	*		
632	26676	2341		1891		2116					5630	6 *		
633	26677	1338		2591		1964					4028			
634	26678	3517	1	5112	2 *	4315	1 *	41%			4861	*		
635	26679	2296		1681		1988					5185	*		
636	26680	2930	7	2941		2936					4848	*		
637	26681	735		140		438			3250		5347	*	2450	
638	26682	1244		2871		2058					5486	8 *		
639	26683	2061		1471		1766					4792	*		
640	26684	3112	4	3081		3097	9	1%			5903	5 *		
641	26685	1859		1471		1665					4444			
642	26686	2047		1681		1864					4236			
643	26687	2226		4552	3 *	3389	4	11%	4250		4889	*		
644	Local Check	3114	3	3011		3063			3250		3792		4500	4
645	26688	525		1261		893			4750	5 *	4097		3600	7
	Exp Mean	1988		2495		2241			3786		4649		3212	
	C.D. 5%	651		1401		774			1203		597		972	
	C.V.%	16.26		27.88		24.58			15.24		6.37		14.47	
	Sowing Date	26-06-2017		07-06-2017					06-06-2017		10-07-2017		15-07-2017	
	Planting Date	08-08-2017		09-08-2017					24-07-2017		23-08-2017		Direct seeded	
	Local ©	Varshadhan		Upahar					Sudha		RAJDEEP		NDGR 201	
	* Superior to Best Check % Superior over Best Check													

Table No. 2.19 contd.: Grain Yield (Kg/ha) of entries in NSDWSN WLM Kharif 2017

Entry No.	IET No.	Zone III (5)		VII		Overall (6)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
				A.P.						
		Mean		MTU		Mean				
601	26647	3987	4 * 13%	2120		3675	6 2%	127	123	253
602	26648	3136		3719	7	3233		121	152	249
603	26649	2325		3268		2482		96	141	192
604	26650	3265		3867	3	3366		114	122	224
605	26651	3535		3778	5	3576		119	114	230
606	26652	2810		2162		2702		115	157	237
607	26653	3303		3768	6	3381		120	104	228
608	26654	3283		2214		3104		121	141	206
609	Sabita (NC)	2788		2089		2648		121	157	222
610	26655	2328		3087		2517		129	143	212
611	26656	2820				2820		120	120	214
612	26657	3346				3346		121	119	223
613	26658	2954				2954		119	97	248
614	26659	3420				3420		119	107	230
615	26660	3066				3066		115	112	263
616	26661	2890				2890		122	140	238
617	26662	1893		2103		1928		91	117	179
618	26663	3256		2010		2945		122	119	280
619	26664	3293		3418		3325		135	157	257
620	26665	2598		3387		2796		126	151	246
621	26666	3616	8 2%	3813	4	3665	7 2%	135	120	230
622	Purnendu (ZC)	2522		3565		2696		119	158	217
623	26667	3571	1%	2131		3331		125	126	253
624	26668	3088				3088		116	114	219
625	26669	3934	6 11%			3934	4 9%	117	114	256
626	26670	2440				2440		110	157	176
627	26671	3916	7 11%	4177	1	3960	3 * 10%	110	119	250
628	26672	3091		2970		3060		125	133	239
629	26673	4374	2 * 24%	3595		4218	1 * 17%	128	112	239
630	26674	2831		3602	8	3023		127	158	234
631	26675	3414				3414		120	102	293
632	26676	3287		3076		3235		133	140	316
633	26677	2652		2586		2636		134	148	218
634	26678	4497	1 * 27%	2753		4061	2 * 13%	127	128	271
635	26679	3054		3599	9	3190		123	112	236
636	26680	3573	9 1%	3511		3558		125	131	268
637	26681	2385		2074		2333		105	141	204
638	26682	3200		2075		2919		118	120	301
639	26683	2775		2071		2599		130	146	238
640	26684	4032	3 * 14%	3185		3820	5 6%	125	136	277
641	26685	2591		3544		2830		120	134	270
642	26686	2655				2655		124	134	206
643	26687	3979	5 * 13%	2206		3625	8 1%	122	126	233
644	Local Check	3533		3935	2	3600	9	119	131	213
645	26688	2846		2067		2717		90	106	199
	Exp Mean	3159		2986		3125		119	130	235
	C.D. 5%	436		561		349		1		18
	C.V.%	15.68		9.24		13.88		1.34		9.43
	Sowing Date			03-07-2017						
	Planting Date			03-07-2017						
	Local ©			Bheema (MTU 1140)						

Table No. 2.19 : Grain Yield (Kg/ha) of entries in NSDWSN Normal Kharif 2017

Entry No.	IET No.	III		IV		Overall (1)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		U.P.		AS						
		@MSD		GER		Mean				
601	26647			7402	1 *	7402	1 * 37%	135	127	188
602	26648	930		6165		6165	14%	133	128	193
603	26649	650		732		732		116	124	209
604	26650	1250		6588	5	6588	5 22%	129	109	203
605	26651	950		4794		4794		132	94	201
606	26652	1600		1670		1670		129	132	199
607	26653			3381		3381		130	111	191
608	26654			5588		5588	3%	129	144	175
609	Sabita (NC)	2100	7	3711		3711		128	140	230
610	26655			2990		2990		139	160	168
611	26656	1150		5454		5454	1%	134	105	188
612	26657	1300		6711	3	6711	3 24%	133	109	224
613	26658			4784		4784		129	98	185
614	26659	900		5928		5928	10%	130	98	226
615	26660	1700		7371	2 *	7371	2 * 36%	132	105	237
616	26661			4608		4608		137	143	179
617	26662	2000	9	443		443		115	132	201
618	26663			5546		5546	3%	128	122	252
619	26664			4887		4887		152	183	169
620	26665	700		4990		4990		134	125	221
621	26666	1000		2979		2979		138	103	181
622	Purnendu (ZC)	1750		2670		2670		130	148	219
623	26667			5330		5330		129	127	223
624	26668			6309	7	6309	7 17%	132	118	239
625	26669			6021		6021	11%	137	114	188
626	26670	800		1175		1175		130	137	210
627	26671	2500	2	4320		4320		126	105	225
628	26672	2200	5	6639	4	6639	4 23%	134	120	182
629	26673			5464		5464	1%	137	112	217
630	26674	1700		5485		5485	2%	133	126	211
631	26675	2450	3	5619		5619	4%	134	97	240
632	26676	2650	1	4093		4093		141	115	258
633	26677			4835		4835		153	172	176
634	26678	2150	6	6206	9	6206	9 15%	134	112	220
635	26679	2300	4	6412	6	6412	6 19%	130	102	196
636	26680	2050	8	4845		4845		135	110	211
637	26681			1773		1773		116	166	202
638	26682	1900		6144		6144	14%	131	111	239
639	26683			4216		4216		136	155	209
640	26684			5155		5155		139	136	212
641	26685			4814		4814		134	132	218
642	26686	1200		5155		5155		132	130	213
643	26687			6237	8	6237	8 15%	128	120	185
644	Local Check	1950		5402		5402		135	141	206
645	26688	1300		897		897		113	108	198
	Exp Mean	1597		4710		4710		132	125	207
	C.D. 5%	597		1424		1424		3	0	24
	C.V.%	18.17		15.00		15.00		1.64	0.00	8.12
	Sowing Date	05-07-2017		26-06-2017						
	Planting Date	10-08-2017		05-08-2017						
	Local ©	NDR 8002		Varshadhan						
* Superior to Best Check % Superior over Best Check @ not included in means										

Table No. 2.20: Days to 50% Flowering of entries in NSDWSN WLM Kharif 2017

Entry No.	IET No.	III						Zone III (5)	VII A.P.	Overall (6)
		OD	OD	OD (2)	BI	W.B	U.P.			
		CTK	BBN	Mean	PSA	CHN	GGT		MTU	Mean
601	26647	132	123	128	143	127	111	127	126	127
602	26648	128	117	123	145	111	106	121	117	121
603	26649	102	96	99	106	103	76	96	96	96
604	26650	121	115	118	127	109	101	114	112	114
605	26651	128	120	124	135	111	106	120	115	119
606	26652	115	109	112	128	125	105	116	106	115
607	26653	136	115	125	125	133	106	123	107	120
608	26654	122	120	121	137	126	105	122	115	121
609	Sabita (NC)	121	110	115	144	122		124	109	121
610	26655	137	129	133		124		130	126	129
611	26656	128	121	125		111		120		120
612	26657	131	121	126	137	109	106	121		121
613	26658	128	124	126	135	91		119		119
614	26659	122	114	118	137	111	110	119		119
615	26660	122	116	119		107		115		115
616	26661	140	127	134		98		122		122
617	26662	93	89	91	97	84	93	91	91	91
618	26663	125	122	124		117		121	124	122
619	26664	138	135	136		132		135	136	135
620	26665	128	124	126		124		125	126	126
621	26666	141	136	138		128		135	136	135
622	Purnendu (ZC)	120	114	117	145	114	110	120	110	119
623	26667	134	126	130	142	132	109	129	109	125
624	26668	127	117	122		111	110	116		116
625	26669	127	133	130		91		117		117
626	26670	111	105	108	145	86	105	110		110
627	26671	120	105	113	125	127	87	113	97	110
628	26672	138	132	135		96		122	136	125
629	26673	140	127	133		132	113	128	128	128
630	26674	132	126	129		124		127	127	127
631	26675	127	122	125		111		120		120
632	26676	138	133	136		126		132	136	133
633	26677	140	133	137		130		134	132	134
634	26678	133	126	129		124		128	125	127
635	26679	125	118	121		125		123	125	123
636	26680	128	125	127		122		125	126	125
637	26681	103	99	101	129	114	88	106	96	105
638	26682	127	124	126		108		120	112	118
639	26683	134	129	132		127		130	128	130
640	26684	128	131	130		120		126	119	125
641	26685	136	132	134		95		121	117	120
642	26686	127	121	124		124		124		124
643	26687	121	118	119	135	109		121	128	122
644	Local Check	136	120	128	142	105	94	119	119	119
645	26688	96	89	93	98	82	79	89	94	90
	Exp Mean	126	119	123	131	114	101	120	118	119
	C.D. 5%	1	2	1	3	4	4	1	3	1
	C.V.%	0.30	0.78	0.60	1.24	1.75	1.74	1.35	1.17	1.34

Table No. 2.20: Days to 50% Flowering of entries in NSDWSN Normal Kharif 2017

Entry No.	IET No.	III	IV	Overall (2)
		U.P.	AS	
		MSD	GER	Mean
601	26647		135	135
602	26648	133	133	133
603	26649	125	107	116
604	26650	133	126	129
605	26651	131	134	132
606	26652	134	123	129
607	26653		130	130
608	26654		129	129
609	Sabita (NC)	131	126	128
610	26655		139	139
611	26656	133	134	134
612	26657	135	130	133
613	26658		129	129
614	26659	131	129	130
615	26660	137	128	132
616	26661		137	137
617	26662	127	103	115
618	26663		128	128
619	26664		152	152
620	26665	135	133	134
621	26666	133	142	138
622	Purnendu (ZC)	133	126	130
623	26667		129	129
624	26668		132	132
625	26669		137	137
626	26670	135	124	130
627	26671	134	119	126
628	26672	129	138	134
629	26673		137	137
630	26674	130	137	133
631	26675	133	136	134
632	26676	131	152	141
633	26677		153	153
634	26678	133	136	134
635	26679	131	128	130
636	26680	135	135	135
637	26681		116	116
638	26682	132	130	131
639	26683		136	136
640	26684		139	139
641	26685		134	134
642	26686	129	136	132
643	26687		128	128
644	Local Check	130	139	135
645	26688	121	106	113
	Exp Mean	131	131	132
	C.D. 5%	3	5	3
	C.V.%	0.99	1.91	1.64

Table No. 2.21 : Plant Height (cm) of entries in NSDWSN Normal Kharif 2017

Entry No.	IET No.	III	IV	Overall (2)
		U.P.	AS	
		MSD	GER	Mean
601	26647		127	127
602	26648	91	165	128
603	26649	102	145	124
604	26650	84	135	109
605	26651	80	108	94
606	26652	98	165	132
607	26653		111	111
608	26654		144	144
609	Sabita (NC)	109	170	140
610	26655		160	160
611	26656	88	121	105
612	26657	85	133	109
613	26658		98	98
614	26659	83	114	98
615	26660	86	123	105
616	26661		143	143
617	26662		132	132
618	26663		122	122
619	26664		183	183
620	26665	92	158	125
621	26666	83	123	103
622	Purnendu (ZC)	125	171	148
623	26667		127	127
624	26668		118	118
625	26669		114	114
626	26670	118	156	137
627	26671	86	125	105
628	26672	88	152	120
629	26673		112	112
630	26674	97	155	126
631	26675	82	113	97
632	26676	89	141	115
633	26677		172	172
634	26678	84	139	112
635	26679	86	118	102
636	26680	83	138	110
637	26681		166	166
638	26682	93	128	111
639	26683		155	155
640	26684		136	136
641	26685		132	132
642	26686	105	156	130
643	26687		120	120
644	Local Check	112	170	141
645	26688	93	124	108
	Exp Mean	93	138	125
	C.D. 5%	0	0	0
	C.V.%	0.00	0.00	0.00

Table No. 2.21 : Plant Height (cm) of entries in NSDWSN WLM Kharif 2017

Entry No.	IET No.	III						Zone III (5)	VII A.P.	Overall (6)
		OD	OD	OD (2)	BI	W.B	U.P.			
		CTK	BBN	Mean	PSA	CHN	GGT		MTU	Mean
601	26647	114	124	119	110	137	105	118	148	123
602	26648	135	165	150	124	152	144	144	191	152
603	26649	129	165	147	153	127	148	144	121	141
604	26650	113	110	112	120	132	121	119	138	122
605	26651	114	111	112	107	120	101	111	129	114
606	26652	149	170	159	162	170	135	157	157	157
607	26653	104	102	103	101	110	90	101	115	104
608	26654	115	136	125	138	145	138	134	174	141
609	Sabita (NC)	134	148	141	177	154	134	149	194	157
610	26655	142	151	147		135	100	132	185	143
611	26656	114	128	121		129	107	120		120
612	26657	118	122	120	127	123	107	119		119
613	26658	96	95	96	99	100	97	97		97
614	26659	102	114	108	108	120	92	107		107
615	26660	117	106	111		118	109	112		112
616	26661	139	154	147		170	99	140		140
617	26662	119	95	107	127	101	132	115	130	117
618	26663	101	125	113		120	95	110	155	119
619	26664	156	163	160		178	95	148	195	157
620	26665	143	170	157		142	129	146	173	151
621	26666	105	132	118		128	88	113	146	120
622	Purnendu (ZC)	138	172	155	158	143	143	151	197	158
623	26667	111	128	119	116	132	124	122	146	126
624	26668	109	122	115		124	102	114		114
625	26669	112	131	122		125	89	114		114
626	26670	129	152	141	176	155	172	157		157
627	26671	96	109	103	117	149	113	117	130	119
628	26672	129	150	140		120	89	122	176	133
629	26673	107	112	110		108	94	105	137	112
630	26674	146	181	163		155	135	154	173	158
631	26675	102	112	107		112	83	102		102
632	26676	141	147	144		150	84	130	178	140
633	26677	150	164	157		146	99	140	183	148
634	26678	125	137	131		122	99	121	154	128
635	26679	113	115	114		103	87	104	141	112
636	26680	140	126	133		132	104	125	156	131
637	26681	150	78	114	162	133	172	139	152	141
638	26682	114	119	117		118	101	113	150	120
639	26683	142	154	148		152	107	139	178	146
640	26684	137	146	142		142	100	131	156	136
641	26685	130	132	131		142	106	127	161	134
642	26686	130	135	133		130	142	134		134
643	26687	114	140	127	96	108	115	115	182	126
644	Local Check	139	146	142	145	103	117	130	138	131
645	26688	103	127	115	109	100	108	109	90	106
	Exp Mean	124	134	129	130	131	112	126	157	130
	C.D. 5%		0		0	0	0		0	
	C.V.%		0.00		0.00	0.00	0.00		0.00	

Table No. 2.22 : Panicles/ M² of entries in NSDWSN WLM Kharif 2017

Entry No.	IET No.	III						Zone III	VII	Overall (6)
		OD	OD	OD (2)	BI	WB	U.P.	(5)	A.P.	
		CTK	BBN	Mean	PSA	CHN	GGT	Mean	MTU	
601	26647	187	246	217	252	479	149	262	208	253
602	26648	224	230	227	230	446	123	251	241	249
603	26649	73	191	132	241	281	111	179	257	192
604	26650	206	219	212	214	347	117	220	241	224
605	26651	167	224	195	220	330	157	219	284	230
606	26652	240	196	218	223	347	148	231	271	237
607	26653	155	210	182	241	380	108	219	277	228
608	26654	203	155	179	207	314	132	202	228	206
609	Sabita (NC)	237	204	220	187	231		215	254	222
610	26655	215	166	191		215		199	251	212
611	26656	169	242	205		231		214		214
612	26657	227	218	222	198	314	161	223		223
613	26658	240	261	250	211	281		248		248
614	26659	244	292	268	208	264	142	230		230
615	26660	264	262	263		264		263		263
616	26661	141	261	201		314		238		238
617	26662	134	163	148	175	248	111	166	248	179
618	26663	246	254	250		347		282	274	280
619	26664	256	216	236		347		273	211	257
620	26665	209	223	216		281		237	274	246
621	26666	227	232	229		264		241	198	230
622	Purnendu (ZC)	207	191	199	208	347	115	213	234	217
623	26667	185	254	219	223	380	132	235	343	253
624	26668	203	237	220		314	123	219		219
625	26669	236	235	235		297		256		256
626	26670	133	141	137	223	264	121	176		176
627	26671	208	242	225	224	281	233	237	314	250
628	26672	226	210	218		314		250	208	239
629	26673	255	249	252		231	135	217	327	239
630	26674	191	230	210		314		245	201	234
631	26675	217	251	234		413		293		293
632	26676	238	239	238		495		324	294	316
633	26677	197	228	212		248		224	201	218
634	26678	232	247	239		380		286	228	271
635	26679	186	178	182		281		215	300	236
636	26680	205	267	236		297		256	304	268
637	26681	157	208	182	217	281	143	201	221	204
638	26682	201	247	224		479		309	277	301
639	26683	208	220	214		281		236	244	238
640	26684	206	250	228		363		273	290	277
641	26685	202	194	198		347		248	337	270
642	26686	175	197	186		248		206		206
643	26687	181	249	215	249	281		240	205	233
644	Local Check	233	211	222	193	215	152	201	274	213
645	26688	180	229	204	208	215	129	192	238	199
	Exp Mean	203	223	213	217	313	137	235	257	235
	C.D. 5%	37	30	25	30	49	8	19	64	18
	C.V.%	8.96	6.66	8.45	6.59	7.73	2.84	9.18	12.13	9.43

Table No. 2.22 : Panicles/ M² of entries in NSDWSN Normal Kharif 2017

Entry No.	IET No.	III	IV	Overall (2)
		U.P.	AS	
		MSD	GER	
601	26647		188	188
602	26648	207	179	193
603	26649	214	204	209
604	26650	214	193	203
605	26651	224	179	201
606	26652	197	200	199
607	26653		191	191
608	26654		175	175
609	Sabita (NC)	235	225	230
610	26655		168	168
611	26656	220	156	188
612	26657	245	202	224
613	26658		185	185
614	26659	209	243	226
615	26660	243	231	237
616	26661		179	179
617	26662	185	216	201
618	26663		252	252
619	26664		169	169
620	26665	233	209	221
621	26666	204	158	181
622	Purnendu (ZC)	228	211	219
623	26667		223	223
624	26668		239	239
625	26669		188	188
626	26670	231	189	210
627	26671	227	223	225
628	26672	215	150	182
629	26673		217	217
630	26674	235	187	211
631	26675	214	267	240
632	26676	274	242	258
633	26677		176	176
634	26678	244	196	220
635	26679	208	185	196
636	26680	211	212	211
637	26681		202	202
638	26682	253	225	239
639	26683		209	209
640	26684		212	212
641	26685		218	218
642	26686	228	198	213
643	26687		185	185
644	Local Check	242	171	206
645	26688	218	178	198
	Exp Mean	224	200	207
	C.D. 5%	31	35	24
	C.V.%	6.68	8.70	8.12

Table No. 2.23 : Composition of entries in Initial Variety Trial- Deep Water (IVT-DW), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
1 st Year of testing:				
701	26733	NDGR-705	PS 46 / CR 780-1937-07-GHT-5	LB
702	26734	CR 3903-161-1-3-2	Santepheap / IR 82810-40 // IR 71700-247-1-1-2	MS
703	26735	OR (CZ) -47	Lalat Mutant	MS
704	26736	CR 3900-135-8-5-4	Savitri / R. Mahsuri-1 // IR 71700-247-1-1-2	LB
705	26737	NDGR-707	PS 41 / CR 780-1936-1-07-GHT-4	LS
706	CR Dhan 500 (NC)			LB
2 nd Year of testing:				
707	25882	NDGR 702	NDGR 207 / IR 49906-B-B-B-10-GHT-1	LB
708	25881	CR 3993-13-1-3	CR 1009 / O. brachyantha // CR 1009	SB
709	25883	NDGR 703	GHT-1PS46 / NDR 8002-07-GHT-1	LB
710	Dinesh (ZC)			
1 st Year of testing:				
711	26738	CR 3899-134-2-6-4	Savitri / R. Mahsuri-1 // IR 72176-307-4-2-2-3	MS
712	26739	OR(T)-27	Annada Mutant	MS
713	26740	CR 3909-192-5-3-1	CN 1233-33-9 / IR 85260-148 // IR 72176-307-4-2-2-3	SB
714	26741	NDGR-706	Pankaj / Jalnidhi	SB
715	26742	CR 3993-11-14-31-2-5	CR 1009 / O. brachyantha // CR 1009	SB
716	Local Check			

Table No. 2.24: Grain Yield (Kg/ha) of entries in IVT- DW Normal Kharif 2017

Entry No.	IET No.	III			Zone III (1)		IV		Overall (2)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²	
		OD		W.B			AS							
		CTK		@CHN		Mean		GER		Mean				
701	26733	1409		6361	5	1409		2743	8	2076		120	144	230
702	26734	4989	1	3072		4989	1	3607	3	4298	1	125	113	245
703	26735	4947	2	6844	3	4947	2	2558		3752	6	134	140	229
704	26736	4860	4	6783	4	4860	4	2245		3553	7	133	118	252
705	26737	3559	9	3111		3559	9	2531		3045		126	145	203
706	CR Dhan 500 (NC)	3376		4594		3376				3376	9	118	154	288
707	25882	4710	5	3639		4710	5	3561	4	4136	3	128	112	247
708	25881	3442		6150	6	3442		4734	1	4088	4	122	92	273
709	25883	1021		3817		1021		2681	9	1851		120	140	262
710	Dinesh (ZC)	2209		4572		2209		3426	5	2818		127	140	250
711	26738	4888	3	6150	7	4888	3	3048	7	3968	5	124	122	196
712	26739	3092		7211	1	3092		2674		2883		134	131	233
713	26740	3955	6	7083	2	3955	6	3148	6	3552	8	127	123	235
714	26741	1307		5244	9	1307		2554		1930		121	143	230
715	26742	3897	7	3333		3897	7	4468	2	4183	2	128	99	340
716	Local check	3707	8	6017	8	3707	8	1709		2708		125	123	210
	Exp Mean	3461		5249		3461		3046		3260		126	127	244
	C.D. 5%	939		336		939		1215		838		2		53
	C.V.%	16.27		3.84		16.27		23.85		22.27		1.48		23.10
	Sowing Date	02-08-2017		16-06-2017				26-06-2017						
	Planting Date	04-09-2017		Diret seeded				24-08-2017						
		CR DHAN												
	Local ©	506		Rajdeep				Panikekowa						
	* Superior to Best Check % Superior over Best Check @ not included in means													

* Superior to Best Check % Superior over Best Check @ not included in means

Table No. 2.24 : Grain Yield (Kg/ha) of entries in IVT- DW WLM Kharif 2017

Entry No.	IET No.	III				Zone III (1)		Overall (1)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		BI		U.P.								
		@PSA		GGT		Mean		Mean				
701	26733	929		3353	3	3353	3	3353	3	122	166	146
702	26734	1143	5	2633	7	2633	7	2633	7	115	123	144
703	26735	1000		2167		2167		2167		128	138	117
704	26736	1071	8							125	87	141
705	26737	1000		2250	9	2250	9	2250	9	111	128	122
706	CR Dhan 500 (NC)	1143	6	2217		2217		2217		122	122	128
707	25882	1214	2	3400	2	3400	2	3400	2	112	109	149
708	25881	1286	1							126	94	112
709	25883	1071	9	3100	5	3100	5	3100	5	122	157	125
710	Dinesh (ZC)	1214	3							128	153	145
711	26738	786								139	99	105
712	26739	1214	4	3050	6	3050	6	3050	6	124	133	144
713	26740	1000		2350	8	2350	8	2350	8	126	147	138
714	26741	1071		3867	1	3867	1	3867	1	117	156	160
715	26742	1143	7							130	102	106
716	Local check	929		3217	4	3217	4	3217	4	123	153	158
	Exp Mean	1076		2873		2873		2873		122	130	136
	C.D. 5%	695		393		393		393		1	0	21
	C.V.%	38.77		8.03		8.03		8.03		0.67	0.00	13.58
	Sowing Date			09-07-2017								
	Planting Date			Diret seeded								
	Local ©			Jalnidhi								
* Superior to Best Check % Superior over Best Check @ not included in means												

Table No. 2.25 : Days to 50% Flowering of entries in IVT- DW Normal Kharif 2017

Entry No.	IET No.	III		Zone III (2)	IV	Overall (3)
		OD	W.B			
		CTK	CHN		AS	
				Mean	GER	Mean
701	26733	105	134	119	122	120
702	26734	116	123	120	136	125
703	26735	119	141	130	143	134
704	26736	119	137	128	142	133
705	26737	115	130	123	133	126
706	CR Dhan 500 (NC)	116	120	118		118
707	25882	117	135	126	132	128
708	25881	112	120	116	135	122
709	25883	103	135	119	121	120
710	Dinesh (ZC)	116	134	125	130	127
711	26738	116	118	117	138	124
712	26739	125	139	132	139	134
713	26740	115	134	125	131	127
714	26741	105	135	120	122	121
715	26742	117	131	124	136	128
716	Local check	118	136	127	122	125
	Exp Mean	115	131	123	132	126
	C.D. 5%	2	4	2	3	2
	C.V.%	0.96	1.77	1.45	1.50	1.48

Table No. 2.25 : Days to 50% Flowering of entries in IVT- DW WLM Kharif 2017

Entry No.	IET No.	III		Zone III (2)	Overall (2)
		BI	U.P.		
		PSA	GGT	Mean	Mean
701	26733	135	108	122	122
702	26734	123	107	115	115
703	26735	136	120	128	128
704	26736	125		125	125
705	26737	120	102	111	111
706	CR Dhan 500 (NC)	125	119	122	122
707	25882	120	103	112	112
708	25881	126		126	126
709	25883	135	110	122	122
710	Dinesh (ZC)	128		128	128
711	26738	139		139	139
712	26739	137	111	124	124
713	26740	139	114	126	126
714	26741	127	107	117	117
715	26742	130		130	130
716	Local check	135	111	123	123
	Exp Mean	130	110	123	122
	C.D. 5%	2	1	1	1
	C.V.%	0.79	0.80	0.86	0.67

Table No. 2.26: Plant Height (cm) of entries in IVT- DW Normal Kharif 2017

Entry No.	IET No.	III		Zone III (2)	IV	Overall (3)
		OD	W.B		AS	
		CTK	CHN	Mean	GER	Mean
701	26733	112	171	142	149	144
702	26734	106	120	113	113	113
703	26735	126	155	141	140	140
704	26736	112	131	122	110	118
705	26737	133	174	154	127	145
706	CR Dhan 500 (NC)	140	167	154		154
707	25882	98	130	114	109	112
708	25881	86	98	92	92	92
709	25883	120	154	137	146	140
710	Dinesh (ZC)	120	150	135	149	140
711	26738	113	139	126	115	122
712	26739	116	160	138	118	131
713	26740	121	118	120	131	123
714	26741	117	160	139	151	143
715	26742	85	115	100	96	99
716	Local check	112	131	122	125	123
	Exp Mean	114	142	128	125	127
	C.D. 5%	0	0	0		
	C.V.%	0.00	0.00	0.00		

Table No. 2.26 : Plant Height (cm) of entries in IVT- DW WLM Kharif 2017

Entry No.	IET No.	III		Zone III (2)	Overall (2)
		BI	U.P.		
		PSA	GGT	Mean	Mean
701	26733	165	166	166	166
702	26734	110	135	123	123
703	26735	139	137	138	138
704	26736	87		87	87
705	26737	118	137	128	128
706	CR Dhan 500 (NC)	115	129	122	122
707	25882	96	121	109	109
708	25881	88	99	94	94
709	25883	144	170	157	157
710	Dinesh (ZC)	164	142	153	153
711	26738	92	105	99	99
712	26739	144	121	133	133
713	26740	153	141	147	147
714	26741	154	158	156	156
715	26742	103	101	102	102
716	Local check	144	161	153	153
	Exp Mean	126	135	129	130
	C.D. 5%	0	0	0	0
	C.V.%	0.00	0.00	0.00	0.00

Table No. 2.27 : Panicles/ M² of entries in IVT- DW WLM Kharif 2017

Entry No.	IET No.	III		Zone III (2)	Overall (2)
		BI	U.P.		
		PSA	GGT	Mean	Mean
701	26733	146	147	146	146
702	26734	157	132	144	144
703	26735	110	123	117	117
704	26736	141		141	141
705	26737	119	126	122	122
706	CR Dhan 500 (NC)	125	131	128	128
707	25882	136	161	149	149
708	25881	112		112	112
709	25883	106	143	125	125
710	Dinesh (ZC)	145		145	145
711	26738	105		105	105
712	26739	137	151	144	144
713	26740	140	135	138	138
714	26741	148	172	160	160
715	26742	106		106	106
716	Local check	158	159	158	158
	Exp Mean	131	144	134	136
	C.D. 5%	40	10	22	21
	C.V.%	18.50	3.92	13.67	13.58

Table No. 2.27 : Panicles/ M² of entries in IVT- DW Normal Kharif 2017

Entry No.	IET No.	III		Zone III (2)	IV		Overall (3)
		OD	W.B		AS		
		CTK	CHN	Mean	GER	Mean	
701	26733	191	298	245	201	230	
702	26734	207	332	269	197	245	
703	26735	209	300	255	177	229	
704	26736	202	367	285	188	252	
705	26737	204	206	205	199	203	
706	CR Dhan 500 (NC)	215	361	288		288	
707	25882	213	323	268	205	247	
708	25881	213	392	302	216	273	
709	25883	198	368	283	219	262	
710	Dinesh (ZC)	180	360	270	209	250	
711	26738	182	208	195	198	196	
712	26739	186	334	260	179	233	
713	26740	190	327	259	186	235	
714	26741	188	291	240	212	230	
715	26742	222	555	389	243	340	
716	Local check	151	251	201	228	210	
	Exp Mean	197	330	263	204	244	
	C.D. 5%	36	152	76	41	53	
	C.V.%	11.04	27.60	25.06	11.89	23.10	

Table No. 2.28: Grain quality characteristics of entries in IVT-DW, Kharif 2017

Entry NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
706	CR Dhan-500	78.7	69.4	64.6	6.16	2.16	2.85	LB	VOC	5	21.47	22
707	25882	76.9	64.5	57.9	6.19	2.27	2.72	LB	F	5	23.90	23
708	25881	78.9	66.5	51.4	4.96	2.45	2.02	SB	VOC	5	22.55	37
709	25883	74.8	65.8	64.0	6.20	2.39	2.59	LB	VOC	5	23.81	41
710	Dinesh	76.6	61.7	44.6	5.23	2.62	1.99	SB	VOC	5	23.96	41
716	CR Dhan 506	77.5	64.3	58.0	5.44	2.13	2.55	MS	VOC	6	24.69	22

INITIAL VARIETY TRIAL EARLY – TRANSPLANTED (IVT E - TP)**Locations: 30****Test Entries: 60**

Checks: CO 51--National, PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern)--Zonal, US 314--Hybrid and Local Check **Table:3.1**

Initial Variety Trial- Early- Transplanted (IVT- E-TP) constituted with 60 test entries four checks viz., national, zonal, hybrid and local checks. Among 64 entries tested two entries (IET 23354, 24904) were in third year of testing and three entries (IET 24911, 24914 and 25713) were in second year of testing, whereas remaining all entries were in first year of testing. This trial was sent to 40 locations; however data was received from only 30 locations. The conduct of the trial at all the locations was satisfactory. CV% at different locations was within acceptable limits except for Brahmavar (4.95), Pantnagar (25.62) and Jagdalpur (26.68), hence these locations were not included in the data analysis. The experimental mean grain yields ranged from 2855 kg/ha at Rewa to 8330 kg/ha at Gangavathi (Table 3.2). The locations with experimental mean yield less than 4000 kg/ha were not included in the data analysis.

Overall mean grain yield of entries varied from 3919 kg/ha (IET 26769) to 6419 kg/ha (IET 25713). The state-wise and zonal-wise performance of the entries is furnished in Table 3.2. Days to 50% flowering ranged from 81 days (IET 26768, and IET 26762) to 100 days (IET 26788) among the test entries, whereas the national, zonal, hybrid and local checks flowered in 83, 83, 87 and 82 days respectively. Maximum number of panicles/m² was recorded in IET 26761 (357), while minimum 260 panicles/m² was recorded in IET 26801. Days to 50% flowering, plant height and panicles/m² are presented in the Tables 3.3, 3.4 and 3.5 respectively.

Overall performance of entries:

IET 25713 (*LP-1621*) a hybrid entry stood first in the trial with the overall mean yield of 6419 kg/ha, 88 days to 50% flowering and possessed long bold grains. It out yielded national, zonal, local and hybrid checks viz., 22%, 23%, 25% and 11% on overall mean basis. This entry performed well over the best and hybrid checks in the states of Jharkhand (3rd rank, 35%, 21%), Bihar (5th rank, 24%, 15%), Uttar Pradesh (4th rank, 16%, 18%), Maharashtra (1st rank, 29%, 17%) and Karnataka (1st rank, 10%, 12%). This entry out yielded best and hybrid check in the zone II (13%, 13%, rank 2nd), zone III (15%, 12%, rank 4th) and zone V (49%, 48%, rank 1st).

The entry which stood 2nd in the trial was IET 24914 (*JHRH-2154*) a hybrid entry. IET 24914 recorded overall mean grain yield of 6323 kg/ha, 88 days to 50% flowering and possessed long bold grains. This entry outperformed national, zonal, local and hybrid check with a yield advantage of 20%, 21%, 23% and 9% on overall mean basis. IET 24914 performed well over best and hybrid checks in the states of Bihar (1st rank, 35%, 26%) and Uttar Pradesh (1st rank, 29%, 32%). In the zones II (rank 5th, 7%, 7%), III (2nd rank, 19%, 17%) and V (2nd rank, 47%, 46%). IET 24914 registered required yield superiority over best and hybrid checks.

Overall performance of entries in IVT-E-TP Kharif 2017

Rank	IET No/ Designation / Cross combination	GY / FD / GT	Yield adv (%) over NC/ ZC / LC /HC	% Increase over best check			
				State		Region	
				Rank	%BC %HC	Rank	%BC % HC
1	25713 LP-1621	6419	22	BI-5	24, 15	Z II-2	13, 13
		88	23	JH-3	35, 21	Z III-4	15, 12
		LB	25	UP-4	16, 18	Z V-1	49, 48
			11	MH-1	29, 17		
				KA-1	10, 12		
2	24914 JKRH-2154	6323	20	BI-1	35, 26	Z III-2	19, 17
		88	21	UP-1	29, 32	Z V-2	47, 46
		LB	23				
3	24904 NK-17508		9				
		6308	20	BI-2	34, 24	Z II-1	14, 14
		89	21	JH-2	57, 41	Z III- 1	23, 21
		LB	23	UP-2	22, 25	Z V- 3	35, 34
4	24911 SI-8H		9				
		5913	12	BI-3	26, 17	Z III- 3	15, 12
		87	14			Z V- 6	26, 26
		LB	15			Z VI-6	-, 10
6	26807 KMP-222 BPT 5204/ Pushpa		2				
		5710	8	JH-	13, -	Z III-5	7, -
		85	10	MH-7	5, -	Z V-	9, 8
		MS	11	GU-3	35, 5	Z VI-4	15, -
	National check	5266 83					
	Zonal check	5202 83					
	Local check	5139 82					
	Hybrid check	5787 87	-	-	-	-	-

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; HC- Hybrid Check; LC- Local Check; GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type

IET 24904(NK 17508) a hybrid entry ranked third in the trial with the overall mean grain yield of 6308 kg/ha, 89 days to 50% flowering and possessed long bold grains. This entry registered yield superiority against national, zonal, local and hybrid check with 20%, 21%, 23% and 9%, respectively. It ranked second in Jharkhand with 57% and 41 % yield superiority over best and hybrid check and ranked 2nd in the states of Bihar and Uttar Pradesh with a yield advantage of 34%, 24% and 22% and 25%, over best and hybrid checks respectively. It recorded yield superiority over best varietal and hybrid checks in the zone II (1st rank, 14%, 14%), III (1st rank, 23%, 21%) and V (3rd rank, 35%, 34%).

In addition to the above discussed three best entries in the trial on overall mean basis, IETs 26807, 26763, 26771, 23354, 26806, 26803 and 26767 registered the desired yield advantage over the best check and qualify for promotion.

The days to 50% flowering in the entry IET 26763 was observed to be 92 days on overall mean basis, hence this may be shifted to IVT-ME.

Zone wise performance of the entries is discussed here under:

Zone II: The northern hill zone was represented by three locations Pantnagar, Ludhiana and Kaul. However data from the Pant Nagar (PNT) was not included owing to high CV (25.62) %. The experimental mean of the locations was 4833kg/ha at Ludhiana and 5501 kg/ha at Kaul. Mean yield of the entries in this zone ranged from 2723 kg/ha (IET 26782) to 6830 kg/ha (IET 24904). The following 7 entries viz., IET 24904, 25713, 26780, 26803, 24914, 26790 and 26763 showed required yield superiority over the best check and qualify for promotion. The days to 50% flowering in the entry IET 26763 was observed to be 98 days, hence this may be shifted to IVT-ME.

Zone III: The eastern region was represented by nine locations JYP, PTN-ICAR, BKG, SBR, RCI, HZB, CHN, MSD and VRN spread across five states. However the data from CHN (Chinsurah) was not included in experimental mean owing to low yields. The experimental mean of the locations ranged from was 3985 kg/ha at Chinsurah to 5501 kg/ha at Patna-ICAR. Mean yield of the entries in this zone ranged from 3673 kg/ha (IET 26760) to 6354 kg/ha (IET 24904). The following five entries viz., IET 24904, 24914, 24911, 25713 and 26807 registered required yield superiority over best check with the acceptable flowering duration and qualify for next stage evaluation.

Zone V: The central zone was represented by three locations REW, JDP and SKL. However data from Rewa and Jagadapur locations were not included owing to low yields and high CV. Hence this zone is represented by only one location Sakoli. The mean yield of entries in this location ranged from 2387(26769) kg/ha to 6723 kg/ha (IET 25713). The following 10 entries showed required yield superiority over the best checks viz., IETs 25713, 24914, 24904, 26771, 26794, 24911, 26766, 26780, 26756 and 26799. The entries IETs 26756, 26799 and 26794 were flowered within 90 days and the remaining seven entries were flowered beyond 90 days, hence suggested for shift to IVT-ME for next stage of evaluation.

Zone VI: The western zone was represented by five locations KJT, SHR, VDG, DBI and VYR. The experimental mean of the locations ranged from was 4145 kg/ha at Vadgaon Maval to 5620 kg/ha at Vyara. Mean yield of entries ranged from 3056 kg/ha (IET 26758) to 6459 kg/ha (IET 25713). The following entries viz., IETs 26807, 26763, 26790, 26799, 26789, 23354, 26803, 26806 and 26804 showed required yield advantage over the best check with acceptable flowering duration and qualify for promotion.

Zone VII: The southern zone was represented by nine locations namely MTU, WGL, ADT, CBT, MNC, PTB, MND, BRM and GNV. The data from Brahmavar was not included in the analysis due to less experimental mean yield. The experimental mean of the locations ranged from Brahmavar (3242 kg/ha) to Gangavathi (8330 kg/ha). Mean yield of entries ranged from 4122 kg/ha (IET 26782) to 6956 Kg/ha (IET 24914). None of the entries showed required yield superiority over the best check in the zone VII.

Considering yield advantage with respect to best check on overall mean and zonal mean basis the following entries are promoted to next stage of evaluation.

Promoted on over all mean basis:

IETs 25713, 24914, 24904, 26807, 26763, 26771, 23354, 26806, 26803 and 26767

Promoted only based on zonal mean basis:

Zone II- IET 24904, 25713, 26780, 26803, 24914, 26790 and 26763

Zone III- IET 24904, 24914, 24911, 25713 and 26807

Zone V- IETs 26756, 26799 and 26794

Zone VI- IETs 26807, 26763, 26790, 26799, 26789, 23354, 26803, 26806 and 26804

Three years performance of entries:

In three years of testing IET 24904 (*NK-17508*) performed well against the best check and hybrid checks with significant yield advantage in various states, however it failed to show yield advantage over best and hybrid check consecutively for two years in the same state. This entry performed well in the Zone VII consecutively for two years during 2015 and 2016.

Three year performance of promising entries in IVT-E TP, kharif 2017

IET No/ Designation / Cross Combination	Year	Over all mean yield FD/GY	Yield adv (%) over NC/ ZC /LC/HC	% Increase over best check					
				State			Zone/ Region		
				Rank	%BC	% HC	Rank	%BC	%HC
23354 RP 5125-12-5-3-B (IR84898-B-B) IR 78877-208-B- 1-1/IR 78878-53- 2-2-2	2017	5594	6	BI-8	19	11	Z VI-8	8	-
			7.5	GU-5	27	-			
			8.9						
	2015	5536 93 LB	11.2	PU-6	11.0	-	Z II	5.0	-
			16.2	HA-4	23.7	12.7	ZIII-8	14.0	-
			10.5	OD-6	13.0	10.0	Z-IV	14.0	-
			-	GU-3	10.0	10.0			
				TN-1	13.0	12.0			
				KA-2	24.0	18.0			
				PD-6	9.2	-			
	2014	5421 92 LB	15.8	HA-5	14.3	-	R3	6.0	-
			32.5	BI-	16.0	-	R5-8	20.0	
			-	MP-9	20.0	-			
			-	KA-	19.0	7.0			
	2013	5219 89 LB	5.67	PU-9	16.81	-	R2-7	7.84	-
			43.97	HA-	25.88		R4-2	15.62	
			11.28	BI-	9.44				
			-	UP-5	17.12				
				MP-7	13.85				
				MH-	5.19				
				GU-2	30.47				
				AP-2	7.89				
				PD-	8.51				

IET No/ Designation / Cross Combination	Year	Over all mean yield FD/GY	Yield adv (%) over NC/ ZC /LC/HC	% Increase over best check					
				State			Zone/ Region		
				Rank	%BC	% HC	Rank	%BC	%HC
24904 NK-17508 (Hybrid)	2017	6308 89	19.7	BI-2	34	24	Z II-1	14	14
			21.1	JH-1	57	41	Z III-1	23	21
			22.7	UP-2	22	25	Z V-3	35	34
			9.0						
	2016	7691 94 MS	11.35	TN-1	14	26	Z VII-1	11	20
			32.51	KE-1	14	24			
			30.24						
	2015	6118 93 MS	19.89						
			59.1	-	-	-	Z III	18	15
			20.00				Z V	36	9
			21.6				Z VI	20	-
			5.42				Z VII	16	7

IET 23354 (RP 5125-12-5-3-B (IR84898-B-B) derived from the cross IR 78877-208-B-1-1/IR 78878-53-2-2-2 found to be promising in the states of Haryana, Karnataka, Bihar and Madhya Pradesh during three years of testing from 2013 to 2015. In 2017 IET 23354 performed well against the best check with the significant yield advantage in the states of Bihar and Gujarat. IET 23354 was tested for 3 years in 2013, 2014 & 2015; however the proposal was submitted to VIC in 2016 in 52nd ARGM. As per VIC recommendations, it was again tested in 2017.

Table No. 3.1: Composition of entries in Initial Variety Trial -Early Transplanted (IVT-E TP), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
1st Year of testing:				
3601	26755	AD 200-21-1	Mutant of ADT (R) 47	MS
3602	26756	OR 1628-7	Parijat / Annada	MS
3603	26757	CN 1563-32-8-12-9-MLD 15	IR 71171-31-2-2 / CN 1223	MS
3604	26758	GNV-16-02(IR 13K4070)	Selection in BPT 5204 / IR 82489-612-2-3-2	MS
3605	26759	CRR 757-1	Thadokkham 1 / IR 77298-14-1-2-10	LB
3606	26760	RP 6271- MS-THN-153-155-16-IC-1	TH*3 / ISM / NLR-145	LS
3607	26761	RP 6193-GSR IR1-8-S6-S3-Y2	Huang-Hua-Zhan*2 / Phalgun	LS
3608	26762	CU 1748	Lemont / Shatabdi	MS
3609	26763	TRC 2017-11	Kataktara / Naveen	MS
3rd Year of testing:				
3610	23354	RP 5125-12-5-3-B(IR84898-B-B)	IR 78877-208-B-1-1 / IR 78878-53-2-2-2	LB
2nd Year of testing:				
3611	24911	<i>SL-8H (Hybrid)</i>	-	LB
3612	24914	<i>JKRH-2154 (Hybrid)</i>	-	LB
3rd Year of testing:				
3613	24904	<i>NK-17508 (Hybrid)</i>	-	LB
2nd Year of testing:				
3614	25713	<i>LP-1621 (Hybrid)</i>	-	LS
1st Year of testing:				
3615	26764	Mahabeej-125	Selection from Shriram Variety of Rice	MS
3616	26765	MTU 1274	MTU 1010 / FL478 // *3MTU 1010	MS
3617	26766	CR 3984-50-1-1-2	IR 82635-B-B-143 / IR 83399-B-B-52	LS

Entry No.	IET No.	Designation	Cross combination	Grain type
3618	26767	RCPR 46-IR 93827-29-1-1-2	IR 81039-B-173-U 3-3 /IR 81063-B-94-U 3-1	LS
3619	CO -51 (NC)			
3620	26768	RDR-1188	JGL 17653 / RP 2421	LS
3621	26769	Rewa 1156	OM 7938 / IET 22040	LS
3622	26770	AD (BIO) 09518	ADT 43 / IRBB 60-5-1	MS
3623	26771	NVSR-2103	Gurjari / PAU 201	LB
3624	26772	RP Bio 4918-B-B-14(S)W	Swarna * 2 / O. nivara	SB
3625	26773	RTN-1	IR-8 / RTN-24	LB
3626	26774	CR 3997-9- IR91648-B-89-B-3-2-3	Moroberekan / 3* Swarna	LS
3627	26775	NLR 3415	NLR 34242 /NLR 34449	MS
3628	26776	CB 14536	Bhavani / CB 05501	MS
3629	26777	CR 3993-4-9-6-3-1	CR 1009 / <i>O. brachyantha</i> // CR 1009	LB
3630	26778	BRR 2019	Sita / Pusa Basmati -1	LB
3631	26779	GNV-16-01(IR 14K11485)	Selection in IR 84899-B-185-1-0-14-1 / Vardhan	SB
3632	26780	PAU 7551-1-1	HHZ 10-DTS-L11-L11	LS
3633	26781	CR 3996-302-1-1-4	Mahulata / IR20	LS
3634	PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern)—ZC			
3635	26782	Rewa 1134	Rewa 828 / RP 4092-111-15-9-5	LS
3636	26783	RCPR 45-IR 92546-7-1-1-3	Thadokkham 1/ IR08L119	LS
3637	26784	CR 3985-2-1-3-1	IR 84852-B-12-2 / IR 79218-93-1-4	LS
3638	26785	JA-6-2	Jyothi / Akkalu	SB
3639	26786	BRR 0061	IR 08L 183 / MTU 1010	MS
3640	26787	NVSR-2120	Gurjari / Jaya	LB
3641	US 314 (HC)			
3642	26788	CR 3561-3-2-2-2-1-1	Surendra /Annapurna	MS
3643	26789	RP 6190-TME 80518	Dee Geo Woo Gen / Tsai -Yuan- Chan	LS
3644	26790	MTU 1273	MTU 1010 / FL478 // *3 MTU 1010	LS
3645	26791	RP 5972-3-20-3-8-29-6	MTU 1010 / Vandana	LS
3646	26792	CR 4006-564-3-1-1-4	CR143-2-2 / CR 3504-18-1-3-1	SB
3647	26793	RTN-711	IR-8 / RTN-24	LS
3648	26794	NVSR-2153	IR 65912-90-1-6-3-2 R / Gurjari	LB
3649	26795	CRR 720-3-B	IRRI 132 / IR 05N131	LB
3650	26796	OR 2635-8	Annapurna / PNR 594-1-2	SB
3651	26797	CR 3846-2-1-2-1-1	IR72 / PSB RC 18	LS
3652	26798	TRC 2017-10	Bhalum3 / Naveen	MS
3653	26799	RP 6186-GSR IR1-17-Y16-Y3-Y2	Huang-Hua-Zhan*2 / CDR 22	LS
3654	26800	CR 4007-547-11-2-1-2-3	Satyabhama / CO (R) 50	SB
3655	26801	CN 1560-3-9	IR 70559-AC-5 / NC 365	MS
3656	26802	PAU 7552-1-1	HHZ 3-SAL 13-Y2-DTI	LS
3657	26803	RP 6221-HHZ 8-SAL9-DT2-Y2	Huang-Hua-Zhan*2 / Phalgun	MS
3658	26804	CR 3946-1-1-2-1-1-1	MTU1010 / Dular	LS
3659	Local Check			
3660	26805	RP 6112-MS-27-2-3-6-4-9-2	BPT 5204 Mutant	LS
3661	26806	RP 6179-GSR IR1-8-S9-D2-Y2	Huang-Hua-Zhan*2 / Phalgun	LS
3662	26807	KMP-222	BPT 5204 / Pushpa	MS
3663	26808	KNM-2307	JGL 1172 / JGL 17004	LS
3664	26809	AD 14098	ADT 41 / IR 50	MS

Table No. 3.2 : Grain Yield (kg/ha) of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	II			Zone II (2)	III				
		UT	PUN	HAR		OD	BI	BI	BI	BI (3)
		@PNT	LDN	KUL		JYP	PTN-ICAR	BKG	SBR	Mean
3601	26755	6491 3	4212	5450	4831	2985	5142 #	6200 8	5761 #	5701 16% 8%
3602	26756	5591	4445	5350	4898	4286	5888 #	5950	5144	5661 15% 7%
3603	26757	5925 7	4349	5900	5125	2912	6575 *#	6050	5108	5911 7 * 20% 12%
3604	26758	883	2383		2383	4029	4043	4250	4156	4150
3605	26759	5172	4513	4500	4506	6282 7	6288 *#	5450	5256	5665 15% 7%
3606	26760	3784	4457	5000	4729	2619	3334	2850	5905 #	4030
3607	26761	6405 4	5893	6350	6122 8	1978	6828 5 *#	4950	3036	4938 1%
3608	26762	4038	4137	5050	4594	2381	5436 #	2950	2953	3780
3609	26763	5693	6232 5	6350	6291 7	4469	5949 #	6200 9	5056	5735 * 17% 8%
3610	23354	5697	5324	5800	5562	4359	5927 #	6500 6	5125	5851 8 * 19% 11%
3611	24911	6621 2	5202	5750	5476	7912 1 #	6624 7 *#	7350 5 *	4618	6197 3 *# 26% 17%
3612	24914	5883 9	6287 4 #	6500 9	6394 5	4322	7366 1 *#	7650 1 *	4894	6636 1 *# 35% 26%
3613	24904	6275 5	6009 7	7650 1 *	6830 1 *#	3150	7299 2 *#	7550 4 *	4891	6580 2 *# 34% 24%
3614	25713	7426 1	6433 2 #	7100 4	6767 2 *#	3883	6501 *#	7600 3 *	4178	6093 5 *# 24% 15%
3615	26764	3875	2848	4200	3524	3626	5282 #	3850	4519	4550
3616	26765	5828	5528	5850	5689	2674	4925 #	4450	5951 9 #	5109 4%
3617	26766	3727	5404	6050	5727	4176	5374 #	6250 7	6832 2 *#	6152 4 *# 25% 16%
3618	26767	4420	4850	5350	5100	4286	6013 *#	5650	5235	5633 15% 7%
3619	CO -51 (NC)	4788	4972	3800	4386	7088 3 #	5157 #	4750	4813	4906
3620	26768	3424	3329	3850	3590	3626	5443 #	2350	3840	3878
3621	26769	3409	3148	3750	3449	2088	5491 #	3050	5260	4600
3622	26770	5913 8	5174	4650	4912	3883	5351 #	4500	3539	4464
3623	26771	4741	5270	6900 5	6085	4231	6608 8 *#	5050	4944	5534 13% 5%
3624	26772	3267	3428	5300	4364	3974	4405	4600	3534	4180
3625	26773	5778	5501	5150	5325	4359	5045 #	4100	6875 1 *#	5340 9% 1%
3626	26774	4581	5351	6450	5901	5128	5168 #	5200	3853	4740
3627	26775	5856	5024	4950	4987	3773	5503 #	5750	4414	5222 6%
3628	26776	5417	3881	5050	4466	3022	3746	3250	5063	4020
3629	26777	5576	3749	5550	4649	2454	5027 #	4000	6148 5 #	5058 3%
3630	26778	3973	5758	6250	6004	3223	5229 #	5050	5984 8 #	5421 10% 3%
3631	26779	4426	5574	6450	6012	3590	5571 #	4000	4499	4690
3632	26780	4949	5960 9	7250 2	6605 3	1960	5885 #	5400	5711 #	5666 15% 7%
3633	26781	3578	3922	5300	4611	3132	6034 *#	5200	4746	5327 9% 1%
3634	Zonal Check (ZC)	4922	4771	5300	5035	2070	3676	2850	4990	3839
3635	26782	2795	2646	2800	2723	4304	4665	3750	4666	4357
3636	26783	4663	5441	5950	5696	4414	6411 *#	4750	5219	5460 11% 3%
3637	26784	4034	4294	6400	5347	3993	6951 4 *#	5250	5633	5944 6 * 21% 12%
3638	26785	4231	5541	3700	4620	3626	6627 6 *#	4450	4675	5251 7%
3639	26786	4335		5650	5650	6520 6 #	7152 3 *#	4500	5486	5713 * 16% 8%
3640	26787	4165	3796	4450	4123	3205	5987 *#	3950	4231	4723
3641	US 314 (HC)	5544	5394	6550 8	5972	5366 9	3926	7650 2 *	4286	5288 8%
3642	26788	362	3709	5150	4429	3260	5269 #	5400	5755 #	5475 12% 4%
3643	26789	4966	5458	6400	5929	3278	5874 #	6100	5438	5804 9 * 18% 10%
3644	26790	5417	5843	6750 6	6296 6	2527	5251 #	5750	4523	5174 5%
3645	26791	4479	5068	6100	5584	2875	4978 #	3950	4536	4488
3646	26792	3854	3751	5950	4850	4066	6297 *#	4700	4739	5245 7%
3647	26793	3640	2988	2800	2894	3187	4575	2750	4556	3960
3648	26794	4788	5389	5350	5369	4762	6581 9 *#	5700	3904	5395 10% 2%
3649	26795	4494	5912	5050	5481	5110	5350 #	4800	6056 7 #	5402 10% 2%
3650	26796	4121	5104	4300	4702	6703 5 #	4809 #	4350	4424	4528
3651	26797	1617	4257	7150 3	5703	6795 4 #	6450 *#	5100	2899	4816
3652	26798	1729	4809	3800	4304	4066	5594 #	4900	4054	4849
3653	26799	4461	5991 8	5150	5570	2143	3576	5200	3864	4213
3654	26800	3339	3260	5050	4155	4011	5076 #	4700	4808	4861
3655	26801	5311	4466	5750	5108	3681	5137 #	5300	4926	5121 4%
3656	26802	5161	5800	5850	5825	2656	5035 #	5500	5404	5313 8%
3657	26803	5578	6057 6	6750 7	6403 4	4689	5730 #	5200	3913	4948 1%
3658	26804	5180	6304 3 #	5600	5952	4103	5563 #	5150	6250 4 #	5654 15% 7%
3659	Local Check	5333	5635	6300	5968	4359	4588	4000	4403	4330
3660	26805	5273	5242	5700	5471	4670	5424 #	4300	6146 6 #	5290 8%
3661	26806	6032 6	6570 1 *#	5600	6085 9	4689	6324 *#	5250	4733	5435 11% 3%
3662	26807	5275	4314	5900	5107	7564 2 #	5716 #	4600	4578	4964 1%
3663	26808	5032	4775	4750	4762	5842 8	5329 #	4400	6683 3 *#	5471 11% 3%
3664	26809	5714	3341	5700	4521	4249	3673	2850	5705 #	4076
	Exp Mean	4676	4833	5501	5167	4041	5501	4923	4895	5106
	C.D. 5%	2393	854	1231	793	1034	794	1861	1370	805
	C.V. %	25.62	8.84	11.20	10.96	12.81	7.22	18.91	14.00	13.84
	Sowing Date	30-06-2017	01-07-2017	28-06-2017		06-07-2017	07-07-2017	30-06-2017	06-07-2017	
	Planting Date	24-07-2017	01-08-2017	24-07-2017		23-08-2017	01-08-2017	26-07-2017	02-08-2017	
	Local @	Govind	PR 126	HKR-48		Mandakini	Sahbhagi Dhan	Rajendra Bhagwati	Sabour Deep	

* Superior to Best Check % Superior over Best Check @ not included in means

Superior to Hybrid Check % Superior over Hybrid Check

Table No. 3.2 contd: Grain Yield (kg/ha) of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	III								Zone III (8)
		JH	JH	JH (2)	W.B	U.P.	U.P.	U.P. (2)		
		RCI	HZB	Mean	@CHN	MSD	VRN	Mean		
3601	26755	6150	3900	5025 2%	5329 4 *#	4688 #	4550	4619	4922	
3602	26756	6300 8	5800 6 #	6050 5 * 23% 11%	3401	3956	5610	4783	5367 6 4% 2%	
3603	26757	5100	5000	5050 3%	3798	3740	6030	4885	5064	
3604	26758	4950	3600	4275	4705 *	5070 6 *#	3250	4160	4169	
3605	26759	3600	2400	3000	3912	3491	4980	4235	4718	
3606	26760	4150	4000	4075	3175		2850	2850	3673	
3607	26761	3250	4150	3700	3912	3757	5610	4683	4195	
3608	26762	5000	3600	4300	3005	5086 5 *#	4177	4632	3948	
3609	26763	5400	3850	4625	4478 *	4039	5660	4850	5078	
3610	23354	5500	4400	4950 1%	3741	3757	5910	4833	5185 1%	
3611	24911	3800	5800 7 #	4800	3628	4156	7130 4	5643 5 11% 13%	5924 3 *# 15% 12%	
3612	24914	6450 7	5400	5925 6 20% 8%	5499 3 *#	5286 3 *#	7870 1 *#	6578 1 *# 29% 32%	6155 2 *# 19% 17%	
3613	24904	8450 1 *	7000 2 *#	7725 1 *# 57% 41%	5669 1 *#	4671 #	7820 2 *#	6245 2 *# 22% 25%	6354 1 *# 23% 21%	
3614	25713	7150 2	6150 5 *#	6650 3 *# 35% 21%	4535 *	4541 #	7280 3	5911 4 *# 16% 18%	5910 4 *# 15% 12%	
3615	26764	5800	5400	5600 8 14% 2%	3231	3939	3930	3935	4543	
3616	26765	5700	5000	5350 9%	3401	3391	4900	4145	4624	
3617	26766	5350	4600	4975 1%	3005	4039	5780	4910	5300 8 3% 1%	
3618	26767	5900	6400 4 *#	6150 4 * 25% 12%	5329 5 *#	4072	5300	4686	5357 7 4% 2%	
3619	CO -51 (NC)	5250	4600	4925	3061	3973	5600	4786	5154	
3620	26768	4250	1750	3000	3685	4820 *#	4800	4810	3860	
3621	26769	3950	2200	3075	3855	3341	4310	3826	3711	
3622	26770	5300	4900	5100 4%	4138 *	4089	4670	4380	4529	
3623	26771	4650	5200	4925	4535 *	4521 #	5890	5206 2% 4%	5137	
3624	26772	5100	5800 8 #	5450 11%	5556 2 *#	4405	5650	5027 1%	4684	
3625	26773	4750	2300	3525	3231	3989	4030	4010	4431	
3626	26774	3900	4600	4250	3515	5319 2 *#	4480	4900	4706	
3627	26775	3300	4450	3875	4308 *	3491	6120	4805	4600	
3628	26776	4650	4200	4425	3345	3640	5040	4340	4076	
3629	26777	4200	2800	3500	3118	4072	5020	4546	4215	
3630	26778	4150	5460	4805	3912	3607	6050	4829	4844	
3631	26779	5400	5600 9 #	5500 12%	3685	4488 #	4760	4624	4738	
3632	26780	5450	3000	4225	4195 *	5552 1 *#	6330 9	5941 3 *# 16% 19%	4911	
3633	26781	4800	4400	4600	4705 *	5053 7 *#	4100	4577	4683	
3634	Zonal Check (ZC)	3850	4600	4225	3288	3890	5310	4600	3904	
3635	26782	3550	3800	3675	3118	3607	3870	3739	4025	
3636	26783	5450	4600	5025 2%	4195 *	3939	5270	4605	5007	
3637	26784	4900	5300	5100 4%	4195 *	4239	4920	4579	5148	
3638	26785	4500	5400	4950 1%	4649 *	4106	5930	5018 1%	4914	
3639	26786	4650	4100	4375	3345	4156	5310	4733	5234 2%	
3640	26787	6500 6	7200 1 *#	6850 2 *# 39% 25%	3458	4937 8 *#	5560	5248 3% 5%	5196 1%	
3641	US 314 (HC)	6750 4	4200	5475 11%	4649 *	3574	6410 8	4992	5270 9 2%	
3642	26788	4050	4000	4025	4932 7 *	4488 #	5020	4754	4655	
3643	26789	5250	3600	4425	4252 *	4754 #	5780	5267 3% 6%	5009	
3644	26790	5500	3600	4550	4308 *	4621 #	2450	3536	4278	
3645	26791	6200 9	4400	5300 8%	3231	4372	5230	4801	4568	
3646	26792	4200	4000	4100	4365 *	4089	4990	4540	4635	
3647	26793	5150	4800	4975 1%	3401	3890	3860	3875	4096	
3648	26794	6100	5400	5750 7 17% 5%	4819 8 *	3607	6070	4839	5266 2%	
3649	26795	3350	5600 #	4475	3571	3707	5100	4403	4884	
3650	26796	6600 5	4000	5300 8%	3515	4854 *#	5600	5227 2% 5%	5167	
3651	26797	5050	5200	5125 4%	4819 9 *	4089	5650	4870	5154	
3652	26798	4600	4600	4600	5159 6 *	5286 4 *#	4580	4933	4710	
3653	26799	6900 3	4200	5550 13% 1%	3515	3773	5070	4422	4341	
3654	26800	4350	6800 3 *#	5575 13% 2%	3345	4904 9 *#	5840	5372 9 5% 8%	5061	
3655	26801	5500	3900	4700	3741	4488 #	6560 6	5524 7 8% 11%	4936	
3656	26802	5800	4700	5250 7%	3628	4372	6770 5	5571 6 9% 12%	5029	
3657	26803	5600	5600 #	5600 9 14% 2%	3855	4338	5500	4919	5071	
3658	26804	5750	3900	4825	4649 *	4072	5120	4596	4988	
3659	Local Check	3200	4600	3900	3515	3973	6230	5101 2%	4419	
3660	26805	5300	4000	4650	4082	4471 #	4020	4246	4792	
3661	26806	4900	4200	4550	3458	4571 #	6460 7	5516 8 8% 10%	5141	
3662	26807	6200	4900	5550 13% 1%	3968	4405	6080	5242 3% 5%	5505 5 7% 4%	
3663	26808	5350	3600	4475	3515	3906	5390	4648	5063	
3664	26809	4550	4100	4325	3912	3358	5390	4374	4234	
	Exp Mean	5105	4541	4823	3985	4236	5325	4785	4822	
	C.D. 5%	1912	1327	1077	569	838	1116	688	467	
	C.V. %	18.74	14.62	15.96	7.14	9.90	10.49	10.28	13.95	
	Sowing Date	03-07-2017	21-07-2017		06-07-2017	03-07-2017	29-06-2017			
	Planting Date	29-07-2017	12-08-2017		07-08-2017	04-08-2017	26-07-2017			
	Local ©	Swarna	Anjali		AJIT	Baranideep	HUR 3022			

Table No. 3.2 contd: Grain Yield (kg/ha) of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	V				Zone V (1)		VI			
		IV	V					MH	MH	MH	MH (4)
		TR	M.P.	CG	MH	Mean	KJT	SHR	VDG	Mean	
		@ARD	@REW	@JDP	SKL						
3601	26755	2817	2597	3146	4480	4480		5088	5664 8	3264	4624
3602	26756	2383	2586	4828	5219 9	5219 9	16% 15%	5315	4909	4261	4926
3603	26757	2500	2197	4369	4311	4311		5988	5482	4470	5062 1%
3604	26758	3525	2601	3258	2675	2675		3626	2721	2683	2926
3605	26759	2017	1605	4000	3120	3120		5396	4779	3927	4305
3606	26760	2033	2603	3545	2701	2701		3729	3294	3081	3201
3607	26761	3392	2666	3335	4555	4555	1%	6934 8	3568	2955	4503
3608	26762	2683	2668	2336	3960	3960		4894	4023	3308	4046
3609	26763	2908	2679	4566	4317	4317		6699	4596	3479	4773
3610	23354	3892	1459	4449	4561	4561	1% 1%	4905	6745 2 *	3422	4908
3611	24911	3625	2202	4414	5695 6	5695 6 *	26% 26%	5753	6563 3 *	5038 8	5762 3 * 15% 4%
3612	24914	4683 2 * #	2227	5996 5	6604 2 * #	6604 2 *	47% 46%	6069	6146 4 *	4615	5859 2 * 17% 6%
3613	24904	4558 4 *	1403	6676 3	6084 3 * #	6084 3 *	35% 34%	6872 9	5651 9	3807	5603 4 * 12% 1%
3614	25713	3100	2751	6331 4	6723 1 * #	6723 1 *	49% 48%	7467 3	7513 1 * #	4186	6472 1 * # 29% 17%
3615	26764	2717	2772	3364	3553	3553		4575	3503	3699	3832
3616	26765	3175	2837 #	4703	4499	4499		4958	4492	4040	4497
3617	26766	3025	2899 #	3841	5407 7	5407 7	20% 19%	4830	3529	3422	4297
3618	26767	2892	2236	4906	4586	4586	2% 1%	6285	3581	4508	4740
3619	CO -51 (NC)	3000	2262	4375	4505	4505		5792	5000	4223	4880
3620	26768	3058	2917 #	2351	3308	3308		3857	5000	3883	4012
3621	26769	2700	2466	6863 2 *	2387	2387		4018	4974	2942	3580
3622	26770	2900	3000 #	4394	2506	2506		3834	3789	3523	3413
3623	26771	2500	3121 #	3494	6053 4 * #	6053 4 *	34% 33%	4995	5638	4129	5204 9 4%
3624	26772	2800		2744	3628	3628		4755	4010	4779	4293
3625	26773	2100	3145 #	3500	2788	2788		7051 5	5365	5202 6	5101 2%
3626	26774	4092	3181 #	4676	3766	3766		6547	4219	5347 3	4970
3627	26775	4133	2091	3501	4079	4079		6208	4232	4968	4872
3628	26776	3133	3189 #	4275	3640	3640		5044	4036	4261	4246
3629	26777	3225	3249 #	4714	3766	3766		7086 4	2435	5335 4	4655
3630	26778	2692	2354	4385	4229	4229		4893	3724	4722	4392
3631	26779	2875		4263	4392	4392		5268	3646	5044 7	4588
3632	26780	2592	2371	4725	5226 8	5226 8	16% 15%	5856	5781 7	4596	5365 6 7%
3633	26781	4475 7 *	2476	4695	3678	3678		5717	5013	3043	4363
3634	Zonal Check (ZC)	2042	3337 #	2383	4085	4085		7715 2	4948	3321	5017
3635	26782	2033	3344 #	5746 6	1485	1485		5345	3281	4040	3538
3636	26783	4517 5 *	3412 #	3653	4110	4110		5041	4414	3049	4154
3637	26784	3975	1810	5350	4731	4731	5% 4%	5172	4323	3516	4435
3638	26785	2742	2060	4643	4768	4768	6% 5%	5946	5534	4015	5066 1%
3639	26786	2950	1574	4413	4718	4718	5% 4%	5756	4674	4116	4816
3640	26787	2108	3447 #	5540 8	4549	4549	1%	5076	4557	3630	4453
3641	US 314 (HC)	4158	2049	4922	4536	4536	1%	6947 7	5820 6	4893	5549 5 * 11%
3642	26788	1875	3517 #	4904	4417	4417		6630	3086	3548	4420
3643	26789	3792	3554 #	4396	4085	4085		5946	5482	3731	4811
3644	26790	4183 8	2155	5526 9	4868	4868	8% 7%	6971 6	4427	3977	5061 1%
3645	26791	4508 6 *	2046	4816	4680	4680	4% 3%	4819	4896	3763	4540
3646	26792	3800	3789 #	4163	3941	3941		4724	3633	3807	4026
3647	26793	2767	3832 #	5499	3214	3214		5695	4896	3687	4373
3648	26794	2033	1988	3924	5783 5 * #	5783 5 *	28% 27%	6043	4258	4773	5214 8 4%
3649	26795	2658	3843 9 #	4238	3891	3891		7914 1 #	3503	3649	4739
3650	26796	2650	3891 8 #	4688	3784	3784		6021	5156	3611	4643
3651	26797	3283	4071 7 #	4121	4944	4944	10% 9%	6198	3516	4091	4687
3652	26798	2483	2441	5371	4549	4549	1%	5808	4961	4766	5021
3653	26799	2858	2501	3990	5163	5163	15% 14%	4610	5612	4937	5080 1%
3654	26800	3933	4118 6 * #	4203	3866	3866		5628	2904	4261	4165
3655	26801	4725 1 * #	4347 5 * #	3975	4211	4211		6260	5234	4798	5126 2%
3656	26802	2675	2386	4519	4029	4029		6222	4219	4350	4705
3657	26803	3592	4368 4 * #	7188 1 *	4436	4436		5642	4714	5025 9	4954
3658	26804	3900	4401 3 * #	3563	4179	4179		5200	5482	5511 1 *	5093 2%
3659	Local Check	3792		4223	2820	2820		5150	4023	4747	4185
3660	26805	4183 9	2299	4641	4392	4392		5256	3867	5391 2	4727
3661	26806	3925		5713 7	4091	4091		5920	5977 5 *	4722	5178 3%
3662	26807	3375	2243	4913	4900	4900	9% 8%	5387	5573	5221 5	5270 7 5%
3663	26808	4158	4825 2 * #	3589	4330	4330		5022	4844	4880	4769
3664	26809	4600 3 *	4845 1 * #	4159	4048	4048		5022	4831	3302	4301
	Exp Mean	3226	2855	4437	4259	4259		5615	4629	4145	4662
	C.D. 5%	462	740	2366	1193	1193		852	972	647	471
	C.V. %	7.17	12.96	26.68	14.02	14.02		7.59	10.51	7.81	10.26
	Sowing Date	27-07-2017	29-06-2017	03-07-2017	28-06-2017			09-07-2017	29-06-2017	06-07-2017	
	Planting Date	22-08-2017	26-07-2017	25-07-2017	21-07-2017			05-08-2017	21-07-2017	03-08-2017	
	Local ©	Co 51		Samleshwari	SKL-6			Karjat 7	Karjat 7	Phule Maval	

Table No. 3.2 contd: Grain Yield (kg/ha) of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	VI		VI		Zone VI (5)		VII				
		GU	GU	GU (2)		Mean		A.P.	TEL	TN	TN	TN (2)
		DBI	VYR	Mean		Mean		MTU	WGL	ADT	CBT	Mean
3601	26755	4086	4248	4167		4470		5271	5244	6935	5	5468
3602	26756	5939	5667	5803	11%	5218		4811	6376	6443		5428
3603	26757	4365	6193	5279	1%	5299	1%	4572	7526	8 #	5815	5933
3604	26758	3387	2864	3126		3056		4222	6568	4946		3593
3605	26759	4429	5239	4834		4754		5004	4274	5366		5350
3606	26760	3748	3676	3712		3506		3337	6137	5068		4250
3607	26761	3931	6019	4975		4681		5320	5915	5158		5002
3608	26762	4042	5058	4550		4265			4658	5128		4301
3609	26763	7108	7032	7070	2 * 36% 6%	5783	5 * 10%	5506	6329	6143		5748
3610	23354	6691	6521	6606	5 * 27%	5657	8 * 8%	5541	6825	5214		4942
3611	24911	5108	6343	5726	10%	5761	6 * 10%	5756	5957	6363		5448
3612	24914	4353	6300	5326	2%	5497	5%	6228	2 #	6440		6317
3613	24904	6887	7692	7289	1 * 40% 9%	6182	3 * 18%	4806	8137	4 #	4943	5604
3614	25713	6757	6371	6564	6 * 26%	6459	1 * 23% 4%	6349	1 #	6017		5566
3615	26764	3235	3503	3369		3703		4817	5556	5560		4435
3616	26765	4686	7355	6021	15%	5106			6620	6217		5806
3617	26766	3260	5858	4559		4180			7128	5911		4872
3618	26767	5451	6786	6118	* 17%	5322	2%	5387	6709	5830		5447
3619	CO -51 (NC)	5517	4809	5163		5068		5683	6	7038		4670
3620	26768	5490	5295	5393	3%	4705		2842	4726	5241		4118
3621	26769	3593	5720	4657		4249		4049	5350	5333		4692
3622	26770	3627	4985	4306		3952		4858	5756	6815	7	5010
3623	26771	6299	5564	5932	14%	5325	2%	5006	5765	5185		4968
3624	26772	4137	5056	4597		4548		4313	4393	5211		4784
3625	26773	4167	5043	4605		5366	2%	3871	4607	5801		4978
3626	26774	4559	6020	5289	1%	5338	2%	5203	5957	5205		4708
3627	26775	4054	6298	5176		5152		5414	5620	6277		5568
3628	26776	5299	5392	5345	2%	4807		4415	5957	6042		4789
3629	26777	3613	6410	5011		4976		5052	5906	6967	4	6074
3630	26778	5064	7029	6046	16%	5086		5804	3	7521	9 #	5246
3631	26779	4730	5250	4990		4788		4779	6047	5643		4847
3632	26780	3882	4958	4420		5015		5308	5863	6018		5255
3633	26781	3701	6545	5123		4804		5050	6410	6560		4550
3634	Zonal Check (ZC)	4890	5310	5100		5237		5681	7	7462	#	6509
3635	26782	3152	3313	3233		3826		2909	5192	5330		5677
3636	26783	4961	5297	5129		4552		4990	6577	5342		5238
3637	26784	5909	5779	5844	12%	4940			6718	6792	9	5608
3638	26785	3725	6503	5114		5145		5059	7628	6 #	6813	5281
3639	26786	5990	5233	5612	8%	5154		4138	7607	7 #	5836	5324
3640	26787	4846	5767	5306	2%	4775		4224	4611	5295		5150
3641	US 314 (HC)	7294	6037	6665	4 * 28%	6198	2 * 18%	5572	8	6329		6003
3642	26788	3363	3321	3342		3989		5801	4	7872	5 #	5375
3643	26789	6025	6758	6391	9 * 23%	5588	7%	4208	5209	5970		5698
3644	26790	7574	5357	6465	8 * 24%	5661	7 * 8%	5413	8205	3 #	7443	6199
3645	26791	4559	5923	5241		4792			9226	1 * #	6280	6311
3646	26792	3387	5564	4476		4223		3962	5564	7074	3	5390
3647	26793	2157	4130	3143		4113		4391	5051	6432		4946
3648	26794	3382	7250	5316	2%	5141		5165	8248	2 #	7182	6041
3649	26795	3363	6027	4695		4891		4687	4885	6679		6679
3650	26796	3941	4708	4324		4687		4662	6111	6363		5109
3651	26797	3824	5553	4688		4636		5174	5573	5565		4651
3652	26798	3382	5227	4305		4829		5378	6906	6354		5036
3653	26799	5657	7451	6554	7 * 26%	5653	9 * 8%	5091	6466	6536		5276
3654	26800	5662	6281	5971	14%	4947		4664	5047	6470		5937
3655	26801	3725	6890	5308	2%	5382	3%	4072	5615	5729		5866
3656	26802	5956	5834	5895	13%	5316	2%	5274	4679	6113		6132
3657	26803	6301	6198	6250	* 20%	5576	6%	5390	6419	6592		5309
3658	26804	6936	4415	5676	9%	5509	5%	4327	6329	6199		5496
3659	Local Check	7010	3423	5217		4871		4841	6923	5982		6132
3660	26805	5515	5234	5374	3%	5053			6295	6929	6	5667
3661	26806	5539	5533	5536	6%	5538	6%		6179	6449		5885
3662	26807	4951	9087	7019	3 * 35% 5%	6044	4 * 15%		7269	5827		4791
3663	26808	4534	6021	5278	1%	5060			6573	6399		5983
3664	26809	3922	3148	3535		4045			5843	5551		4115
	Exp Mean	4791	5620	5205		4960		4882	6218	6004		5311
	C.D. 5%	545	1645	837		449		603	1056	1650		958
	C.V. %	5.69	14.64	11.49		10.29		6.16	8.50	13.75		12.90
	Sowing Date	27-06-2017	29-06-2017					03-07-2017	11-07-2017	03-07-2017	06-07-2017	
	Planting Date	20-07-2017	28-07-2017					01-08-2017	14-08-2017	24-07-2017	26-07-2017	
	Local ©	GURJARI	GR-7					MTU 1153	KNM-118	CO 51	CO 51	

Table No. 3.2 contd: Grain Yield (kg/ha) of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	VII									
		KE	KE	KE (2)			KA	KA	KA	KA (2)	
		MNC	PTB	Mean			MND	@BRM	GNV	Mean	
3601	26755	6780	2 *#	8279	1 *#	7530	1 *# 31% 71%	4676	3450	7034	5855
3602	26756	6030	8 #	4853		5441	23%	5709	3888	7559	6634
3603	26757	4235	#	7104	3	5669	# 28%	6068	3089	8488	7278
3604	26758	4275	#	4776		4526	3%	4730	1249	6653	5691
3605	26759	5150	#	4574		4862	10%	5013	2380	8459	6736
3606	26760	5995	9 #	3827		4911	11%	4641	2127	6366	5503
3607	26761	4215		6140		5178	17%	5244	2722	9456	7350
3608	26762	7100	1 *#	3559		5330	21%	2850	2626	4944	3897
3609	26763	3640		6483	8	5062	15%	6254	3870	9594	7924
3610	23354	6050	7 #	5744		5897	5 # 2% 34%	6228	4135	8534	7381
3611	24911	5385	#	4348		4867	10%	6995	4075	9728	8361 6 1%
3612	24914	5260	#	7657	2	6458	2 # 12% 46%	7611	3023	9819	8715 2 3% 6%
3613	24904	5085	#	4618		4851	10%	6103	3900	9950	8026
3614	25713	6070	6 #	6144		6107	4 # 6% 38%	8701	1 *#	2957	9813 7 9257 1 # 10% 12%
3615	26764	3505		5035		4270		4725	2103	7181	5953
3616	26765	4555	#	4854		4705	7%	7354	3401	9853	8603 3 2% 4%
3617	26766	4925	#	6631	4	5778	7 # 31%	6272	2837	8675	7474
3618	26767	3975		6591	5	5283	20%	6077	3786	8769	7423
3619	CO -51 (NC)	4580	#	4416		4498	2%	7066	8	3065	8419 7742
3620	26768	5985	#	1512		3748		5004	1959	5944	5474
3621	26769	5940	#	2145		4043		1312	1719	5666	3489
3622	26770	5225	#	5340		5283	20%	5749	1599	8359	7054
3623	26771	6213	5 #	6537	7	6375	3 # 11% 44%	6126	2260	9409	7768
3624	26772	3270		4815		4042		6547	2885	8238	7392
3625	26773	4280	#	3869		4074		6609	2368	6756	6683
3626	26774	5905	#	5118		5511	# 25%	6374	1304	9975	8175 8
3627	26775	4190		4629		4409		5815	1376	8794	7304
3628	26776	3245		3220		3232		4490	1238	7025	5758
3629	26777	6595	3 #	4018		5307	20%	4761	1304	8069	6415
3630	26778	5015	#	3428		4221		5465	2813	8578	7022
3631	26779	5360	#	4458		4909	11%	5275	2103	7825	6550
3632	26780	4695	#	4860		4777	8%	5469	1514	8944	7206
3633	26781	3720		5640		4680	6%	4238	3798	8656	6447
3634	Zonal Check (ZC)	4135		6126		5131	16%	7132	6	5565	1 # 9731 8 8432 5 2%
3635	26782	4580	#	2952		3766		1416	3180	4572	2994
3636	26783	6405	4 #	5385		5895	6 # 2% 34%	6232	3726	9922	3 8077 9
3637	26784	4500	#	5129		4814	9%	6148	4621	7	9556 7852
3638	26785	4150				4150		5992	4940	5 #	9163 7577
3639	26786	4235	#	4245		4240		5536	2885	8691	7113
3640	26787	4915	#	6586	6	5751	9 # 30%	5855	3053	8700	7278
3641	US 314 (HC)	2610		6216		4413		7097	7	4345	9416 8256 7
3642	26788	4000		6069		5035	14%	3901	3071	6344	5122
3643	26789	4890	#	1676		3283		6893	4567	8	8238 7565
3644	26790	4025		3445		3735		7505	3	4020	9522 8514 4 1% 3%
3645	26791	5820	#	3425		4622	5%	7221	5	2704	8122 7671
3646	26792	4555	#	4224		4389		2522	4081	8353	5438
3647	26793	4405	#	1319		2862		5758	2704	5594	5676
3648	26794	3930		1820		2875		5749	4207	8238	6993
3649	26795	5810	#	3205		4507	2%	5049	4411	9	7553 6301
3650	26796	4555	#	3820		4188		6667	5126	3 #	8356 7511
3651	26797	4110		5553		4831	9%	7004	9	5306	2 # 8403 7703
3652	26798	5540	#	4536		5038	14%	5117	4657	6	8903 7010
3653	26799	3265		4088		3676		5957	3305	9075	7516
3654	26800	4965	#	4811		4888	11%	5975	3498	6588	6281
3655	26801	4030		4445		4238		6401	1422	8756	7578
3656	26802	4320	#	3688		4004		5811	4213	8944	7377
3657	26803	5180	#	3619		4399		6254	2644	9294	7774
3658	26804	4055		6216		5136	16%	5914	5036	4 #	8181 7048
3659	Local Check	5125	#	6404		5765	8 # 31%	3848	3305	9469	6658
3660	26805	4375	#	4325		4350		6434	4111	8331	7382
3661	26806	3790		6063		4926	12%	5829	3245	9909	4 7869
3662	26807	3945		6430	9	5187	18%	6676	4369	8053	7364
3663	26808	4430	#	5366		4898	11%	5918	4411	9681	7799
3664	26809	3320				3320		5217	3864	7922	6570
	Exp Mean	4757		4781		4768		5697	3242	8330	7013
	C.D. 5%	1618		1467		1066		1480	321	1167	926
	C.V.%	17.02		15.35		15.97		13.00	4.95	7.01	9.44
	Sowing Date	04-07-2017	28-07-2017				22-08-2017	23-07-2017	23-07-2017		
	Planting Date	31-07-2017	25-08-2017				11-09-2017	12-08-2017	10-09-2017		
	Local ©	Prathyasa	Matta Triveni				KMP-105 (Raksha)	Mahavira	GNV 10-89		

Table No. 3.2 contd: Grain Yield (kg/ha) of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	Zone VII (8)		Overall (24)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		Mean		Mean				
3601	26755	6028		5170		88	96	301
3602	26756	5774		5426	3%	82	105	313
3603	26757	6232	1%	5476	4%	85	101	291
3604	26758	4801		4004		95	105	302
3605	26759	5397		4868		87	99	298
3606	26760	4850		4095		84	103	320
3607	26761	5787		5002		85	98	357
3608	26762	4531		4251		81	94	291
3609	26763	6163		5656	7 * 7%	92	98	321
3610	23354	6101		5594	9 * 6%	90	114	319
3611	24911	6133		5913	4 * 12% 2%	87	102	269
3612	24914	6956	1 # 4% 13%	6323	2 *# 20% 9%	88	103	274
3613	24904	6238	9 1%	6308	3 *# 20% 9%	89	103	320
3614	25713	6778	2 # 2% 10%	6419	1 *# 22% 11%	88	99	295
3615	26764	4961		4381		92	100	285
3616	26765	6407	5 4%	5359	2%	86	100	314
3617	26766	6196	1%	5371	2%	94	111	294
3618	26767	6050		5527	* 5%	87	103	282
3619	CO -51 (NC)	5818		5266		83	97	293
3620	26768	4281		4131		81	95	316
3621	26769	4231		3919		83	99	282
3622	26770	5663		4734		87	93	278
3623	26771	6124		5622	8 * 7%	90	100	298
3624	26772	5143		4738		95	98	298
3625	26773	4993		4819		86	94	308
3626	26774	5993		5327	1%	87	97	296
3627	26775	5700		5092		91	92	303
3628	26776	4741		4464		83	96	303
3629	26777	5819		4926		91	118	290
3630	26778	5788		5280		94	102	282
3631	26779	5430		5071		85	111	300
3632	26780	5706		5352	2%	88	96	307
3633	26781	5352		4883		91	99	303
3634	Zonal Check (ZC)	6661	3 # 8%	5202		83	98	307
3635	26782	4122		3802		82	96	313
3636	26783	6248	8 2%	5346	2%	88	105	295
3637	26784	6181		5416	3%	88	111	302
3638	26785	6079		5287		87	100	300
3639	26786	5638		5353	2%	85	101	300
3640	26787	5649		5143		84	97	298
3641	US 314 (HC)	6156		5787	5 * 10%	87	104	299
3642	26788	5592		4800		100	104	279
3643	26789	5314		5270		89	100	322
3644	26790	6314	6 3%	5438	3%	86	100	291
3645	26791	6634	4 # 8%	5339	1%	85	100	311
3646	26792	4995		4658		92	112	303
3647	26793	4551		4114		88	92	285
3648	26794	5654		5399	3%	88	104	317
3649	26795	5410		5054		85	94	294
3650	26796	5549		5098		86	101	299
3651	26797	5640		5245		94	104	330
3652	26798	5807		5060		94	101	304
3653	26799	5562		5158		88	96	304
3654	26800	5490		5055		86	103	275
3655	26801	5631		5245		85	100	260
3656	26802	5623		5311	1%	89	91	297
3657	26803	5847		5519	* 5%	88	101	289
3658	26804	5752		5398	2%	91	98	307
3659	Local Check	6109		5139		82	98	314
3660	26805	5871		5218		89	104	320
3661	26806	6220	1%	5592	* 6%	85	97	310
3662	26807	5994		5710	6 * 8%	85	101	315
3663	26808	6276	7 2%	5373	2%	86	99	297
3664	26809	5089		4442		84	101	313
	Exp Mean	5681		5138		88	101	301
	C.D. 5%	463		251		1		21
	C.V.%	11.74		12.22		1.99		19.36
	Sowing Date							
	Planting Date							

Table No. 3.3 : Days to 50% Flowering of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	II			Zone II (3)	III											
		UT	PUN	HAR		OD	BI	BI	BI	BI (3)	JH	JH	JH (2)	WB	U.P.	U.P.	U.P. (2)
		PNT	LDN	KUL		JYP	PTN-ICAR	BKG	SBR	Mean	RCI	HZB	Mean	CHN	MSD	VRN	Mean
3601	26755	98	93	89	93	102	87	96	71	85	89	81	85	94	94	92	93
3602	26756	80	87	80	82	100	79	88	65	77	88	80	84	89	82	83	83
3603	26757	81	93	83	86	104	81	88	67	78	87	81	84	93	84	82	83
3604	26758	103	99		101	104	93	106	88	95	98	89	93	107	97	106	102
3605	26759	89	98	83	90	105	85	97	67	83	91	86	88	98	85	87	86
3606	26760	87	93	83	88	99	80	91	68	79	97	81	89	89		81	81
3607	26761	82	91	82	85	106	83	88	72	81	90	85	87	86	83	86	84
3608	26762	86	89	86	87	92	81	81	66	76	87	79	83	74	83	81	82
3609	26763	95	100	100	98	100	93	105	75	91	98	79	88	108	76	100	88
3610	23354	94	95	86	91	107	86	93	75	84	98	86	92	101	98	91	94
3611	24911	82	94	86	87	116	84	87	68	80	98	86	92	89	88	83	85
3612	24914	88	90	83	87	104	85	89	74	82	91	88	89	98	84	91	88
3613	24904	96	93	86	92	106	84	93	75	84	93	89	91	96	86	85	85
3614	25713	89	90	83	87	108	84	87	72	81	90	89	89	97	87	88	87
3615	26764	98	98	98	98	103	94	90	85	89	100	81	90	102	85	97	91
3616	26765	87	94	85	89	103	81	89	61	77	95	82	88	89	94	83	88
3617	26766	95	99	93	96	114	94	100	72	88	90	86	88	105	82	93	87
3618	26767	94	95	85	91	102	85	99	71	85	90	84	87	99	93	90	91
3619	CO -51 (NC)	81	85	79	82	103	78	90	66	78	92	83	87	92	85	82	83
3620	26768	76	82	79	79	89	80	87	64	77	90	80	85	85	83	81	82
3621	26769	87	89	82	86	96	81	91	69	80	82	83	82	101	75	86	80
3622	26770	94	92	88	91	102	87	87	74	82	93	89	91	96	82	91	86
3623	26771	89	94	89	91	106	90	89	72	83	90	89	89	99	82	90	86
3624	26772	115	115	91	107	112	106	88	86	93	104	88	96	117	94	105	99
3625	26773	84	87	85	85	116	81	87	71	79	91	84	87	97	71	88	79
3626	26774	87	91	87	88	104	81	104	68	84	94	85	89	96	81	86	83
3627	26775	94	96	99	96	106	93	105	73	90	98	88	93	102	84	93	88
3628	26776	82	82	83	82	99	77	85	63	75	80	85	82	89	85	80	82
3629	26777	98	99	95	97	102	86	104	75	88	91	90	90	86	80	101	90
3630	26778	95	101	97	98	114	87	104	74	88	96	94	95	104	95	94	94
3631	26779	85	93	88	89	101	83	88	68	79	89	85	87	99	94	86	90
3632	26780	63	90	85	79	104	84	90	76	83	91	86	88	98	83	89	86
3633	26781	103	103	93	100	105	88	105	75	89	94	87	90	105	83	95	89
3634	Zonal Check (ZC)	95	95	90	93	90	75	85	62	74	79	79	79	90	84	79	77
3635	26782	86	86	83	85	114	85	91	65	80	80	82	81	104	72	91	81
3636	26783	94	93	88	91	100	84	87	75	82	93	86	89	102	82	94	88
3637	26784	98	94	88	93	102	85	87	72	81	92	87	89	102	88	87	87
3638	26785	95	93	88	92	105	87	105	73	88	91	83	87	106	87	89	88
3639	26786	89		85	87	101	79	90	67	79	87	83	85	92	86	81	83
3640	26787	85	85	82	84	102	82	88	68	79	84	81	82	94	81	85	83
3641	US 314 (HC)	88	92	88	89	103	80	97	67	81	90	83	86	95	76	104	90
3642	26788	117	99	91	102	111	101	104	85	97	118	91	104	114	82	105	94
3643	26789	98	94	91	94	112	89	104	73	88	89	83	86	106	72	92	82
3644	26790	88	92	83	88	104	82	104	66	84	88	81	84	91	85	92	88
3645	26791	91	90	90	90	99	80	91	67	79	88	82	85	94	82	82	82
3646	26792	96	116	83	98	104	99	105	81	95	99	84	91	102	80	104	92
3647	26793	88	91	88	89	108	82	89	72	81	90	85	87	84	94	85	89
3648	26794	95	95	87	92	96	83	96	73	84	89	85	87	104	81	84	83
3649	26795	89	93	85	89	105	79	91	70	80	83	81	82	96	87	81	84
3650	26796	88	94	85	89	101	79	120	64	87	90	82	86	93	77	83	80
3651	26797	93	106	90	96	114	97	104	80	93	91	89	90	101	79	105	92
3652	26798	96	101	91	96	105	94	105	81	93	89	90	89	106	95	105	100
3653	26799	89	88	85	87	96	87	121	69	92	90	83	86	96	95	82	88
3654	26800	91	97	88	92	90	79	90	65	78	89	85	87	92	85	81	83
3655	26801	89	91	88	89	102	83	90	66	79	87	91	89	92	77	79	78
3656	26802	88	89	85	87	110	83	104	70	85	89	90	89	104	81	93	87
3657	26803	91	91	85	89	112	85	95	69	83	89	86	87	99	82	88	85
3658	26804	96	98	90	94	110	87	104	72	87	91	89	90	102	82	89	85
3659	Local Check	77	91	88	85	101	84	87	62	78	76	84	80	92	75	86	80
3660	26805	94	92	89	92	114	86	89	68	81	93	93	93	104	82	90	86
3661	26806	99	88	86	91	112	85	87	66	79	90	89	89	96	86	83	84
3662	26807	96	92	86	91	101	81	89	65	78	90	79	84	92	85	81	83
3663	26808	94	91	84	90	112	81	90	71	80	88	82	85	95	82	82	82
3664	26809	95	86	88	90	97	83	87	64	78	81	83	82	99	82	81	81
	Exp Mean	91	93	87	90	104	85	94	70	83	90	85	88	97	84	88	86
	C.D. 5%	12	3	1	4	2	1	1	2	1	5	4	3	0	2	2	1
	C.V.%	6.52	1.57	0.50	3.91	0.94	0.72	0.66	1.20	0.84	2.61	2.11	2.36	0.18	1.27	1.03	1.18

Table No. 3.3 contd : Days to 50% Flowering of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	Zone III	IV	V			Zone V (3)	VI							Zone VI (5)
		(9)	TR	M.P.	CG	MH		MH	MH	MH	MH (4)	GU	GU	GU (2)	
		Mean	ARD	REW	JDP	SKL		Mean	KJT	SHR	VDG	Mean	DBI	VYR	Mean
3601	26755	89	72	104	92	85	93	84	79	90	84	88	85	86	85
3602	26756	84	74	91	81	80	84	84	77	88	82	79	78	78	81
3603	26757	85	75	95	89	79	88	80	78	89	81	83	80	81	82
3604	26758	99	85	116	104	95	105	88	104	88	94	92	93	93	93
3605	26759	89	75	98	87	82	89	83	80	89	83	91	81	86	85
3606	26760	85	73	96	89	78	88	83	77	89	82	79	81	80	82
3607	26761	86	76	93	87	85	88	84	80	89	84	82	81	82	83
3608	26762	80	75	98	82	76	85	73	76	87	78	80	76	78	78
3609	26763	92	93	104	99	92	98	89	87	96	91	90	81	86	88
3610	23354	93	80	101	89	85	92	89	84	94	88	89	87	88	88
3611	24911	89	79	98	90	85	91	85	83	89	85	85	83	84	85
3612	24914	89	76	104	96	85	95	84	89	94	88	82	86	84	87
3613	24904	89	77	102	95	85	94	84	88	99	89	82	86	84	87
3614	25713	89	78	102	89	84	92	85	83	100	88	83	82	82	86
3615	26764	93	76	106	98	92	99	93	89	101	94	95	94	94	94
3616	26765	86	74	96	85	79	87	84	78	89	82	85	80	82	83
3617	26766	93	93	103	99	92	98	89	91	101	93	102	87	94	94
3618	26767	90	82	97	88	83	89	85	80	89	84	81	86	83	84
3619	CO -51 (NC)	85	78	91	85	76	84	79	77	88	80	79	76	78	80
3620	26768	82	77	90	82	75	82	75	72	86	77	87	75	81	79
3621	26769	85	76	92	92	76	86	82	72	87	79	79	74	76	79
3622	26770	89	74	98	98	85	94	74	81	91	83	81	86	83	82
3623	26771	89	75	99	102	86	95	90	82	101	90	84	82	83	88
3624	26772	100	75	27	89	100	72	101	99	101	100	100	94	97	99
3625	26773	87	83	103	90	80	91	81	82	90	83	81	78	79	82
3626	26774	89	82	99	96	82	92	85	81	89	84	82	81	82	84
3627	26775	93	80	101	81	90	91	85	81	101	89	100	85	92	90
3628	26776	82	84	93	96	75	88	79	72	86	78	82	77	80	79
3629	26777	90	83	100	96	91	96	88	99	96	93	89	89	89	92
3630	26778	96	83	107	90	90	96	95	89	90	91	93	90	91	91
3631	26779	88	84	27	93	82	67	84	81	89	84	84	81	83	84
3632	26780	89	81	105	87	85	92	86	82	95	87	84	83	83	86
3633	26781	93	84	100	81	90	90	90	87	90	89	100	86	93	90
3634	Zonal Check (ZC)	79	76	92	80	81	84	84	80	89	83	86	80	83	84
3635	26782	87	73	91	86	77	85	77	75	89	79	75	76	76	78
3636	26783	89	79	103	86	84	91	86	82	91	86	84	90	87	86
3637	26784	89	79	97	88	85	90	82	82	90	84	85	85	85	85
3638	26785	92	76	98	84	80	87	85	82	89	84	85	82	84	85
3639	26786	85	76	95	86	84	88	86	80	95	86	80	81	81	84
3640	26787	85	76	93	82	78	84	82	79	87	81	80	82	81	82
3641	US 314 (HC)	88	75	95	104	84	94	85	81	87	84	81	95	88	86
3642	26788	101	93	117	93	100	103	116	99	93	102	102	88	95	99
3643	26789	91	94	101	81	91	91	88	82	95	89	80	80	80	85
3644	26790	88	76	95	80	80	85	85	80	88	83	80	82	81	83
3645	26791	85	76	95	93	78	89	86	81	88	83	82	78	80	83
3646	26792	95	82	107	86	95	96	88	92	95	92	102	92	97	94
3647	26793	87	81	98	90	83	90	85	82	97	87	80	86	83	86
3648	26794	88	82	96	81	85	87	84	83	90	85	81	82	81	84
3649	26795	86	86	98	82	79	86	79	77	88	80	84	79	82	81
3650	26796	87	86	99	89	78	89	84	79	90	83	83	77	80	82
3651	26797	95	92	107	93	92	97	96	86	97	93	102	92	97	94
3652	26798	97	94	103	89	89	94	85	90	97	90	103	89	96	93
3653	26799	91	77	97	87	84	89	97	83	95	90	82	85	84	88
3654	26800	84	78	99	84	84	89	82	81	95	85	81	84	83	85
3655	26801	85	74	99	93	85	92	83	79	87	83	80	79	80	82
3656	26802	91	79	100	86	88	91	85	84	97	88	79	88	83	86
3657	26803	89	84	99	90	83	90	84	81	90	84	81	82	82	83
3658	26804	91	87	101	98	85	94	87	84	95	87	91	86	88	88
3659	Local Check	83	85	27	89	81	66	88	79	95	86	80	81	81	85
3660	26805	91	79	98	85	82	88	90	82	90	86	89	82	86	87
3661	26806	88	77	27	88	85	67	83	83	87	85	84	82	83	84
3662	26807	84	75	95	82	81	86	83	79	88	83	85	82	83	83
3663	26808	87	76	95	82	79	85	84	80	87	82	85	79	82	83
3664	26809	84	77	95	81	83	86	79	78	93	83	80	77	78	81
	Exp Mean	89	80	94	89	84	89	85	82	92	86	86	83	84	86
	C.D. 5%	1	4	5	0	1		2	2	2	1	2	2	1	1
	C.V.%	1.38	2.61	2.73	0.14	0.47		1.27	1.04	1.29	1.18	0.99	0.98	0.95	1.20

Table No3.3 contd : Days to 50% Flowering of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	VII												Zone VII (9)	Overall (30)
		A.P.	TEL	TN	TN	TN (2)	KE	KE	KE (2)	KA	KA	KA	KA (3)		
		MTU	WGL	ADT	CBT	Mean	MNC	PTB	Mean	MND	BRM	GNV	Mean		
3601	26755	75	93	88	89	88	68	90	79	82	86	96	88	85	88
3602	26756	73	88	79	83	81	68	86	77	84	88	96	89	83	82
3603	26757	79	92	84	90	87	82	87	84	83	86	95	88	86	85
3604	26758	79	99	93	98	95	68	91	79	88	88	114	97	91	95
3605	26759	75	92	87	90	88	83	89	86	84	85	99	89	87	87
3606	26760	72	86	80	86	83	71	85	78	83	87	97	89	83	84
3607	26761	79	90	83	93	88	63	87	75	89	96	99	94	86	85
3608	26762		82	75	77	76	76	80	78	75	85	98	86	81	81
3609	26763	77	98	89	94	91	68	89	78	90	88	100	93	88	92
3610	23354	77	95	88	99	93	79	93	86	90	87	99	92	89	90
3611	24911	80	92	88	95	91	65	88	77	89	89	100	92	87	87
3612	24914	77	92	89	94	91	66	89	78	91	97	99	96	88	88
3613	24904	78	91	86	96	91	63	88	75	92	96	99	95	87	89
3614	25713	76	91	87	102	94	65	90	78	92	97	99	96	89	88
3615	26764	80	95	93	101	97	67	91	79	84	96	98	93	89	92
3616	26765		91	81	91	86	68	84	76	82	96	100	93	86	86
3617	26766		101	87	111	99	69	94	82	93	98	112	101	95	94
3618	26767	78	92	86	96	91	65	90	77	82	79	99	87	85	87
3619	CO -51 (NC)	80	89	80	86	83	66	86	76	83	98	95	92	84	83
3620	26768	73	81	76	84	80	71	82	76	79	90	94	88	81	81
3621	26769	79	83	77	99	88	68	81	75	81	89	99	90	84	83
3622	26770	78	92	88	88	88	68	86	77	91	97	97	95	87	87
3623	26771	77	92	89	92	90	86	91	89	91	98	111	100	92	90
3624	26772	80	112	100	107	103	71	98	84	99	87	111	99	96	95
3625	26773	79	89	85	96	90	69	87	78	82	89	98	90	86	86
3626	26774	79	91	82	92	87	73	91	82	83	87	111	93	87	87
3627	26775	73	94	88	92	90	70	90	80	92	98	113	101	90	91
3628	26776	78	84	85	83	84	69	86	77	84	96	109	96	86	83
3629	26777	81	98	88	97	92	67	91	79	90	86	100	92	88	91
3630	26778	79	101	89	100	94	70	93	81	94	95	117	102	93	94
3631	26779	78	92	88	96	92	69	89	79	86	96	100	94	88	85
3632	26780	79	91	89	103	96	68	93	80	91	95	107	97	90	88
3633	26781	87	97	83	97	90	65	93	79	85	85	99	89	88	91
3634	Zonal Check (ZC)	80	93	82	95	88	67	92	79	84	77	100	87	85	83
3635	26782	64	83	79	80	79	66	90	78	71	89	97	86	80	82
3636	26783	87	96	84	98	91	70	92	81	82	87	100	89	88	88
3637	26784		94	85	93	89	64	90	77	82	88	107	92	88	88
3638	26785	74	92	86	88	87	66		66	88	85	99	91	85	87
3639	26786	83	89	86	86	86	68	90	79	80	83	98	87	85	85
3640	26787	75	85	82	97	89	68	90	79	90	87	97	91	85	84
3641	US 314 (HC)	77	92	79	86	82	70	91	81	80	86	99	88	84	87
3642	26788	108	108	94	106	100	76	96	86	93	96	117	102	99	100
3643	26789	78	92	90	95	92	72	90	81	90	85	100	92	88	89
3644	26790	82	90	83	90	86	69	89	79	85	86	97	89	85	86
3645	26791		90	79	89	84	69	88	78	79	87	109	92	86	85
3646	26792	83	90	86	90	88	65	82	73	73	94	97	88	84	92
3647	26793	76	90	88	98	93	66	91	79	94	97	117	102	90	88
3648	26794	80	92	85	93	89	67	94	80	87	95	115	99	90	88
3649	26795	75	90	82		82	67	90	78	75	96	100	90	84	85
3650	26796	83	90	82	88	85	65	92	79	84	98	99	93	87	86
3651	26797	87	98	89	97	93	70	90	80	89	97	99	95	90	94
3652	26798	105	98	92	93	92	66	94	80	84	87	114	95	92	94
3653	26799	79	90	89	96	93	68	88	78	91	89	99	93	88	88
3654	26800	82	87	88	94	91	66	90	78	82	95	108	95	88	86
3655	26801	74	91	83	90	86	65	90	77	84	98	76	86	83	85
3656	26802	77	90	89	94	91	68	91	79	89	96	100	95	88	89
3657	26803	77	90	87	96	91	69	90	80	84	96	100	93	88	88
3658	26804	84	100	88	103	95	68	91	79	89	93	99	94	90	91
3659	Local Check	93	92	78	81	79	63	90	76	76	78	99	84	83	82
3660	26805		98	91	94	92	65	89	77	86	89	106	93	89	89
3661	26806		91	89	95	92	69	92	80	89	97	95	94	90	85
3662	26807		90	85	89	87	68	89	78	85	79	98	87	85	85
3663	26808		90	86	90	88	66	89	77	86	98	99	94	88	86
3664	26809		88	80	85	82	69		69	84	87	96	89	84	84
	Exp Mean	79	92	85	93	89	69	89	79	85	90	101	92	87	88
	C.D. 5%	4	2	3	2	1	2	3	2	6	3	3	2	1	1
	C.V.%	2.59	1.28	1.90	0.87	0.97	1.13	1.58	1.42	3.24	1.40	1.50	2.15	1.84	1.99

Table No. 3.4 : Plant Height (cm) of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	II			Zone II (3)	III											
		UT	PUN	HAR		OD	BI	BI	BI	BI (3)	JH	JH	JH (2)	W.B	U.P.	U.P.	U.P. (2)
		PNT	LDN	KUL		JYP	PTN-ICAR	BKG	SBR	Mean	RCI	HZB	Mean	CHN	MSD	VRN	Mean
3601	26755	102	86	99	96	65	97	117	122	112	92	96	94	102	88	91	89
3602	26756	118	112	118	116	81	112	117	114	114	107	94	101	110	96	105	101
3603	26757	107	95	109	104	69	119	104	121	115	94	101	97	105	95	107	101
3604	26758	98	76		87	74	110	110	132	117	95	88	92	108	85	105	95
3605	26759	102	89	104	98	78	112	115	96	108	99	93	96	107	88	105	96
3606	26760	111	101	106	106	85	115	117	106	113	107	95	101	97		105	105
3607	26761	110	92	94	99	70	113	111	97	107	96	95	96	99	98	102	100
3608	26762	108	96	104	102	61	114	106	107	109	100	90	95	99	94	111	102
3609	26763	107	86	94	96	78	105	114	108	109	100	88	94	102	87	102	94
3610	23354	124	117	143	128	90	122	122	101	115	116	89	102	114	85	113	99
3611	24911	114	103	114	110	77	114	114	100	109	103	99	101	102	104	112	108
3612	24914	110	97	112	106	73	122	114	91	109	111	100	106	108	95	105	100
3613	24904	117	92	108	106	76	110	110	96	105	104	89	96	112	93	107	100
3614	25713	104	96	111	104	71	116	109	94	106	103	90	97	104	84	107	95
3615	26764	105	91	111	102	60	106	111	109	109	106	90	98	107	87	109	98
3616	26765	106	91	116	104	63	108	108	93	103	107	108	107	87	94	102	98
3617	26766	122	113	117	117	96	116	122	109	116	115	103	109	121	98	110	104
3618	26767	111	103	116	110	69	112	119	105	112	103	101	102	100	103	106	104
3619	CO -51 (NC)	106	96	117	106	60	104	97	108	103	99	101	100	89	90	103	97
3620	26768	99	85	118	101	80	107	99	105	103	98	112	105	81	92	102	97
3621	26769	101	91	114	102	69	115	120	114	116	108	101	105	98	84	113	99
3622	26770	108	86	88	94	77	98	104	105	102	101	89	95	99	105	90	98
3623	26771	119	90	113	107	68	106	106	110	107	114	94	104	102	85	106	96
3624	26772	110	81	88	93	75	108	123	111	114	90	91	91	103	90	92	91
3625	26773	100	82	98	93	74	101	96	107	101	92	93	93	90	84	97	90
3626	26774	105	86	109	100	78	106	119	99	108	103	84	93	92	87	97	92
3627	26775	102	83	87	91	73	107	97	99	101	93	85	89	90	91	96	93
3628	26776	103	87	104	98	64	103	115	105	107	110	96	103	97	90	92	91
3629	26777	127	102	135	121	92	118	129	113	120	127	99	113	128	85	121	103
3630	26778	108	87	98	98	69	124	121	106	117	110	88	99	102	109	101	105
3631	26779	114	110	121	115	88	122	120	124	122	111	86	98	119	96	107	101
3632	26780	96	92	104	97	70	109	103	109	107	92	85	89	97	95	92	93
3633	26781	116	85	102	101	80	103	112	112	109	99	96	98	101	83	88	85
3634	Zonal Check (ZC)	98	82	95	92	49	97	90	106	98	89	88	89	79	96	92	94
3635	26782	106	100	106	104	66	98	120	95	104	99	96	97	92	76	106	91
3636	26783	114	101	110	108	92	113	126	107	115	113	93	103	105	101	94	97
3637	26784	112	110	143	122	80	119	127	135	127	112	100	106	108	96	118	107
3638	26785	127	93	108	109	63	112	114	105	110	105	90	98	110	93	103	98
3639	26786	116		110	113	83	104	122	107	111	97	93	95	101	87	102	94
3640	26787	101	89	109	100	62	113	122	94	109	104	92	98	95	98	102	100
3641	US 314 (HC)	115	103	114	111	87	113	128	113	118	113	88	101	105	101	108	105
3642	26788	102	90	105	99	83	117	117	112	115	103	91	97	115	85	104	95
3643	26789	107	94	103	101	73	112	115	108	111	98	96	97	102	94	104	99
3644	26790	113	95	110	106	65	114	115	99	109	111	91	101	93	89	96	92
3645	26791	104	92	111	102	71	108	108	110	109	105	93	99	83	97	104	100
3646	26792	137	116	127	127	91	120	126	98	115	118	108	113	110	87	119	103
3647	26793	94	77	94	88	71	117	96	100	104	96	91	93	92	103	91	97
3648	26794	111	95	115	107	99	112	116	93	107	112	96	104	99	96	111	104
3649	26795	105	88	97	97	56	112	102	98	104	93	96	94	90	93	97	95
3650	26796	113	95	104	104	77	107	109	105	107	108	98	103	102	90	108	99
3651	26797	108	88	114	103	97	107	115	107	110	100	107	104	114	93	106	99
3652	26798	107	89	86	94	82	110	107	102	106	105	101	103	108	98	101	100
3653	26799	104	95	98	99	68	109	101	96	102	105	92	98	96	83	101	92
3654	26800	115	93	93	100	89	107	104	115	109	113	103	108	103	85	108	96
3655	26801	104	98	114	105	70	110	108	107	108	104	97	100	100	96	105	101
3656	26802	111	83	105	100	66	99	92	102	97	94	94	94	95	94	92	93
3657	26803	112	103	107	107	82	107	107	102	105	99	96	97	108	85	105	95
3658	26804	107	89	93	96	69	110	106	112	109	103	92	98	90	98	89	94
3659	Local Check	91	84	120	98	97	108	121	108	112	123	94	108	88	81	101	91
3660	26805	114	106	92	104	98	113	120	111	114	116	94	105	99	102	102	102
3661	26806	106	90	109	101	69	111	96	102	103	101	98	99	85	102	103	103
3662	26807	109	97	105	104	79	111	117	109	112	124	98	111	96	88	103	96
3663	26808	97	90	108	98	69	112	108	104	108	106	94	100	95	94	102	98
3664	26809	105	96	114	105	67	113	111	109	111	104	94	99	105	85	111	98
	Exp Mean	108	93	108	103	75	110	112	106	109	104	95	100	100	92	103	98
	C.D. 5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	C.V.%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		

Table No. 3.4 contd : Plant Height (cm) of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	Zone III	IV				Zone V (3)	VI							Zone VI (5)
		(9)	TR	M.P.	CG	MH		MH	MH	MH	MH (4)	GU	GU	GU (2)	
		Mean	ARD	REW	JDP	SKL		KJT	SHR	VDG	Mean	DBI	VYR	Mean	Mean
3601	26755	97	100	76	77	103	85	98	101	58	90	119	117	118	98
3602	26756	104	109	82	103	119	101	112	109	60	100	118	130	124	106
3603	26757	102	120	86	93	99	93	108	107	61	94	122	118	120	103
3604	26758	101	130	92	96	120	103	128	114	56	104	133	127	130	111
3605	26759	99	116	83	96	112	97	112	104	55	96	122	124	123	103
3606	26760	103	101	79	99	118	98	111	111	61	100	127	134	130	109
3607	26761	98	127	94	94	101	96	114	104	54	93	107	117	112	99
3608	26762	98	91	81	79	112	91	100	101	54	92	116	111	113	96
3609	26763	98	99	77	90	103	90	109	104	64	95	124	115	120	103
3610	23354	106	135	92	113	121	109	128	120	91	115	147	141	144	126
3611	24911	103	111	79	87	112	93	114	107	74	102	122	120	121	107
3612	24914	102	111	86	103	110	100	106	108	67	98	117	128	122	105
3613	24904	100	120	90	105	117	104	116	112	63	102	124	123	124	108
3614	25713	97	110	70	97	109	92	116	112	66	101	115	126	121	107
3615	26764	98	100	80	91	114	95	113	112	68	102	124	130	127	109
3616	26765	97	114	78	94	115	96	110	101	72	100	127	126	127	107
3617	26766	110	121	91	100	117	103	126	115	81	110	132	135	134	118
3618	26767	102	106	73	101	114	96	114	103	66	99	119	129	124	106
3619	CO -51 (NC)	95	78	91	95	109	98	107	106	82	101	112	111	112	104
3620	26768	97	80	75	79	114	89	100	104	66	96	112	111	111	98
3621	26769	102	102	90	89	114	98	96	102	64	94	120	120	120	100
3622	26770	96	127	69	90	104	88	100	99	57	90	107	108	108	94
3623	26771	99	95	77	87	117	93	122	106	75	105	124	124	124	110
3624	26772	98	108		84	109	96	118	98	64	97	129	119	124	105
3625	26773	93	127	78	86	101	88	99	98	67	91	110	101	106	95
3626	26774	96	89	75	88	109	91	111	102	64	97	120	122	121	104
3627	26775	92	98	75	92	97	88	96	99	60	88	117	114	116	97
3628	26776	97	102	71	115	109	98	96	101	58	91	124	114	119	99
3629	26777	112	142	91	97	122	103	152	117	96	122	152	134	143	130
3630	26778	103	122	57	105	113	92	109	106	71	100	126	121	124	107
3631	26779	108	114		84	116	100	119	119	83	109	142	135	139	120
3632	26780	95	95	68	97	99	88	103	102	69	93	107	116	111	99
3633	26781	97	102	76	92	95	88	122	96	66	95	122	119	121	105
3634	Zonal Check (ZC)	87	112	82	78	122	94	119	111	62	103	128	125	126	109
3635	26782	94	91	87	97	98	94	111	97	58	91	131	92	112	98
3636	26783	105	87	87	104	124	105	111	108	63	102	136	118	127	107
3637	26784	110	108	94	98	129	107	119	113	74	109	143	134	138	117
3638	26785	100	87	73	92	98	88	130	104	60	98	126	115	121	107
3639	26786	99	103	79	94	113	95	108	103	57	95	125	122	124	103
3640	26787	98	98	82	99	99	93	107	102	56	91	122	122	122	102
3641	US 314 (HC)	106	100	88	96	118	101	105	105	60	97	132	137	135	108
3642	26788	103	123	90	91	117	99	123	111	61	103	127	122	125	109
3643	26789	100	101	87	94	116	99	124	100	58	100	122	119	121	105
3644	26790	97	108	80	89	113	94	110	105	63	98	127	123	125	106
3645	26791	98	98	71	130	106	102	111	105	63	96	130	129	130	108
3646	26792	109	97	80	86	140	102	105	117	85	112	157	143	150	122
3647	26793	95	114	70	92	91	84	102	93	62	87	117	112	115	97
3648	26794	104	117	89	94	118	100	119	111	71	105	118	131	124	110
3649	26795	93	90	82	93	103	93	108	98	60	92	113	113	113	98
3650	26796	100	82	73	98	115	95	107	106	67	99	123	119	121	105
3651	26797	105	94	93	91	106	96	111	108	64	97	137	117	127	107
3652	26798	102	99	80	94	114	96	109	107	71	100	127	126	126	108
3653	26799	94	98	78	103	99	93	125	83	66	93	120	124	122	104
3654	26800	103	113	92	94	126	104	111	109	72	105	131	128	130	110
3655	26801	100	102	83	82	117	94	106	106	62	98	125	122	124	104
3656	26802	92	88	71	96	94	87	96	90	60	85	111	117	114	95
3657	26803	99	121	80	84	111	91	118	112	72	103	126	126	126	111
3658	26804	96	116	83	79	100	87	112	96	67	94	136	119	127	106
3659	Local Check	102	103		94	102	98	82	86	77	87	133	104	119	96
3660	26805	106	106	79	101	119	100	119	103	72	103	116	130	123	108
3661	26806	96	91		95	101	98	110	104	72	97	120	119	120	105
3662	26807	103	99	86	98	99	94	110	111	73	98	127	124	126	109
3663	26808	98	96	77	92	112	94	115	102	75	101	136	121	128	110
3664	26809	100	98	89	96	113	99	110	113	77	103	120	124	122	109
	Exp Mean	100	105	81	94	111	95	111	105	67	98	125	122	123	106
	C.D. 5%		0	0	0	0	0		0	0		0	0	0	
	C.V.%		0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	

Table No. 3.4 contd : Plant Height (cm) of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	VII												Zone VII (9)	Overall (30)
		A.P.	TEL	TN	TN	TN (2)	KE	KE	KE (2)	KA	KA	KA	KA (3)		
		MTU	WGL	ADT	CBT	Mean	MNC	PTB	Mean	MND	BRM	GNV	Mean	Mean	Mean
3601	26755	113	104	110	90	100	129	107	118	76	57	79	71	96	96
3602	26756	117	101	98	102	100	133	112	122	85	78	100	88	103	105
3603	26757	112	116	105	95	100	100	108	104	78	77	88	81	98	101
3604	26758	134	110	110	100	105	151	109	130	76	87	95	86	108	105
3605	26759	122	103	103	92	98	108	101	104	75	78	89	81	97	99
3606	26760	117	112	97	104	100	121	99	110	85	71	90	82	99	103
3607	26761	111	106	107	90	98	120	102	111	80	69	80	76	96	98
3608	26762		92	93	82	88	124	86	105	68	61	74	68	85	94
3609	26763	115	112	107	93	100	110	103	106	73	76	86	78	97	98
3610	23354	149	138	112	70	91	121	123	122	99	61	119	93	110	114
3611	24911	119	109	109	95	102	96	102	99	78	76	98	84	98	102
3612	24914	116	106	102	100	101	110	114	112	80	97	90	89	102	103
3613	24904	119	108	109	100	104	115	106	110	79	75	88	81	100	103
3614	25713	117	102	108	94	101	109	101	105	84	66	88	79	97	99
3615	26764	110	111	101	96	98	108	97	102	77	75	96	83	97	100
3616	26765		114	103	102	103	115	98	107	87	72	95	85	98	100
3617	26766		125	115	112	113	120	110	115	95	75	110	93	108	111
3618	26767	129	123	103	107	105	109	104	107	79	77	93	83	103	103
3619	CO-51 (NC)	113	108	102	86	94	112	97	104	82	71	88	80	95	97
3620	26768	113	103	103	88	96	123	91	107	75	64	66	68	92	95
3621	26769	116	104	105	90	97	114	97	106	77	74	74	75	95	99
3622	26770	103	96	94	83	88	108	100	104	72	50	75	66	87	93
3623	26771	117	112	104	99	102	117	87	102	82	62	89	78	97	100
3624	26772	124	98	110	95	103	98	91	94	79	70	99	82	96	98
3625	26773	104	97	103	96	99	108	92	100	78	66	91	78	93	94
3626	26774	120	107	96	92	94	126	94	110	79	65	95	80	97	97
3627	26775	98	96	110	92	101	126	86	106	73	58	76	69	90	92
3628	26776	112	103	103	90	97	105	93	99	70	59	77	69	90	96
3629	26777	141	155	96	127	112	117	111	114	110	82	127	107	119	118
3630	26778	119	109	100	96	98	103	107	105	80	82	97	86	99	102
3631	26779	136	128	98	108	103	117	101	109	103	86	114	101	110	111
3632	26780	111	94	147	85	116	129	103	116	73	64	76	71	98	96
3633	26781	122	113	113	97	105	105	104	104	81	73	91	82	100	99
3634	Zonal Check (ZC)	120	118	118	103	111	105	109	107	77	75	104	85	103	98
3635	26782	122	99	95	92	93	107	99	103	83	73	83	80	95	96
3636	26783	138	117	100	103	101	113	115	114	80	68	97	82	103	105
3637	26784		124	111	109	110	113	112	112	96	75	105	92	106	111
3638	26785	110	114	99	88	94	129		129	85	70	92	82	98	100
3639	26786	121	112	108	91	99	131	107	119	85	60	89	78	100	101
3640	26787	117	85	85	94	89	122	109	115	80	65	86	77	94	97
3641	US 314 (HC)	127	116	105	96	101	109	101	105	79	70	91	80	99	104
3642	26788	139	128	111	100	105	111	116	113	81	60	94	78	104	104
3643	26789	114	106	105	97	101	117	115	116	82	64	86	77	98	100
3644	26790	117	115	106	100	103	104	110	107	93	61	99	84	101	100
3645	26791		115	95	102	98	108	105	106	81	76	91	83	96	100
3646	26792	147	148	125	113	119	96	107	102	77	71	105	85	110	112
3647	26793	104	94	87	91	89	102	103	103	72	65	80	72	89	92
3648	26794	118	113	106	100	103	102	111	106	83	77	95	85	100	104
3649	26795	114	104	89		89	109	111	110	68	57	79	68	91	94
3650	26796	113	112	106	102	104	123	108	116	84	75	103	87	103	101
3651	26797	122	116	104	95	100	116	107	111	84	77	109	90	103	104
3652	26798	126	118	104	92	98	122	109	116	71	65	95	77	100	101
3653	26799	113	102	104	97	101	95	102	98	77	68	84	76	93	96
3654	26800	114	112	109	107	108	94	119	106	77	66	97	80	99	103
3655	26801	114	116	107	96	102	105	108	106	75	76	84	78	98	100
3656	26802	98	87	91	82	87	117	98	108	67	64	77	70	87	91
3657	26803	124	109	102	100	101	109	108	108	81	62	79	74	97	101
3658	26804	116	108	98	96	97	106	101	104	79	68	93	80	96	98
3659	Local Check	115	120	94	84	89	112	108	110	71	74	82	75	96	98
3660	26805		123	99	107	103	105	114	110	89	73	91	84	100	104
3661	26806		97	104	95	100	118	103	110	75	70	82	76	93	97
3662	26807		116	114	95	104	90	111	101	73	65	91	76	94	101
3663	26808		112	103	96	99	108	103	105	77	78	102	86	97	99
3664	26809		110	111	100	105	107		107	82	78	95	85	97	101
	Exp Mean	119	111	104	96	100	113	104	108	80	70	91	81	98	101
	C.D. 5%	0	0	0	0	0	0	0		0	0	0		0	
	C.V.%	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00		0.00	

Table No. 3.5 : Panicles/ M² of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	II			Zone II (3) Mean	III											
		UT	PUN	HAR		OD	BI	BI	BI	BI (3)	JH	JH	JH (2)	W.B	U.P.	U.P.	U.P. (2)
		PNT	LDN	KUL		JYP	PTN-ICAR	BKG	SBR	Mean	RCI	HZB	Mean	CHN	MSD	VRN	Mean
Code	IET No.	274	323	372	323	266	243	270	368	294	220	253	237	231	260	224	242
3601	26755	251	297	311	286	353	251	205	309	255	254	232	243	281	285	252	268
3602	26756	289	294	253	278	306	218	363	245	275	143	247	195	215	270	233	251
3603	26757	286	231	230	249	313	224	268	323	271	168	302	235	198	275	207	241
3604	26758	283	251		267	310	255	304	232	263	175	245	210	248	282	219	250
3605	26759	287	297	287	290	350	274	298	345	305	258	202	230	215	269	293	281
3606	26760	288	300	257	282	356	264	268	325	285	240	212	226	231		213	213
3607	26761	283	274	229	262	256	253	178	295	242	228	211	219	215	274	248	261
3608	26762	298	284	289	290	353	226	213	322	253	250	232	241	198	287	260	273
3609	26763	275	297	270	281	376	266	243	354	287	251	294	273	248	276	259	267
3610	23354	281	294	229	268	306	176	238	284	232	143	250	196	264	278	196	237
3611	24911	288	248	221	252	253	209	184	296	229	161	243	202	264	286	171	228
3612	24914	287	254	230	257	377	211	238	311	253	203	277	240	281	288	197	242
3613	24904	272	228	261	253	350	242	274	275	264	266	285	275	281	287	191	239
3614	25713	282	281	221	261	293	152	184	294	210	215	299	257	281	278	183	230
3615	26764	285	211	319	272	240	305	298	236	280	314	325	319	215	275	251	263
3616	26765	285	314	382	327	246	252	213	369	278	203	253	228	215	295	254	274
3617	26766	296	274	252	274	310	204	334	441	326	203	243	223	215	280	199	239
3618	26767	289	277	240	269	260	266	243	312	273	196	255	225	281	273	198	235
3619	CO -51 (NC)	284	307	242	277	410	228	448	350	342	257	281	269	215	270	297	283
3620	26768	282	231	223	245	369	249	213	383	281	171	215	193	215	285	192	238
3621	26769	277	310	248	278	216	217	214	282	238	302	174	238	231	274	223	249
3622	26770	288	281	267	278	330	266	208	321	265	265	272	269	248	272	233	252
3623	26771	291	267	280	279	353	214	274	262	250	248	257	252	231	269	218	244
3624	26772	277	307	299	294	363	276	214	269	253	237	283	260	281	274	236	255
3625	26773	289	304	235	276	342	240	268	351	286	220	281	250	215	272	225	248
3626	26774	289	330	329	316	308	265	243	361	290	242	224	233	215	298	277	287
3627	26775	292	320	291	301	230	304	315	278	299	267	278	272	248	266	260	263
3628	26776	287	304	250	280	431	208	213	348	256	202	219	210	215	268	226	247
3629	26777	296	221	266	261	263	219	243	305	255	190	235	213	215	272	248	260
3630	26778	294	290	271	285	347	258	214	335	269	270	266	268	231	267	229	248
3631	26779	273	277	249	266	428	205	304	298	269	192	269	230	215	274	214	244
3632	26780	281	300	269	283	236	211	213	420	281	223	212	217	248	304	241	272
3633	26781	294	327	320	313	233	272	239	266	259	249	249	249	248	290	249	269
3634	Zonal Check (ZC)	282	294	322	299	413	278	303	343	308	263	283	273	264	276	280	278
3635	26782	274	244	313	277	203	238	298	318	284	213	240	226	264	276	216	246
3636	26783	292	284	233	270	366	265	213	293	257	200	263	231	248	277	242	259
3637	26784	291	254	259	268	352	224	303	338	288	205	233	219	231	279	217	248
3638	26785	295	320	268	294	300	256	363	359	326	189	280	234	264	275	226	250
3639	26786	292		341	316	276	252	239	243	244	186	291	239	215	277	230	254
3640	26787	286	234	233	251	346	263	208	345	272	274	268	271	215	288	234	261
3641	US 314 (HC)	290	205	216	237	260	201	239	298	246	188	256	222	248	276	147	211
3642	26788	276	330	289	298	353	296	298	323	306	246	283	264	248	280	286	283
3643	26789	282	248	241	257	253	194	208	296	233	168	217	192	231	283	242	262
3644	26790	286	284	388	319	320	223	363	252	279	201	239	220	248	282	208	245
3645	26791	286	290	240	272	260	256	214	295	255	266	225	245	215	280	264	272
3646	26792	295	224	200	240	276	195	274	316	262	134	215	174	297	274	164	219
3647	26793	289	310	230	276	256	264	299	266	276	253	308	280	215	266	306	286
3648	26794	278	234	240	251	330	223	184	294	234	169	318	243	248	275	171	223
3649	26795	293	251	229	258	253	190	304	270	254	169	232	200	215	270	198	234
3650	26796	286	327	252	288	466	270	359	303	310	319	245	282	231	285	270	277
3651	26797	284	281	236	267	320	205	298	293	265	198	243	221	248	275	216	245
3652	26798	285	320	261	289	293	227	243	282	250	190	245	217	281	287	247	267
3653	26799	279	244	244	255	246	228	208	357	264	207	196	202	215	275	191	233
3654	26800	281	175	254	236	300	194	184	374	251	224	285	254	182	287	137	212
3655	26801	278	281	239	266	260	240	274	316	277	216	225	220	215	281	195	238
3656	26802	272	327	144	247	260	233	238	272	248	223	248	235	215	282	198	240
3657	26803	287	257	281	275	330	228	213	220	220	193	272	232	248	278	224	251
3658	26804	279	267	258	268	347	231	269	273	258	244	240	242	281	272	228	250
3659	Local Check	289	274	292	285	380	245	214	305	255	277	220	248	215	280	258	269
3660	26805	285	310	252	282	256	269	363	220	284	219	211	215	248	269	275	272
3661	26806	289	294	219	267	323	256	238	289	261	201	301	251	248	277	226	252
3662	26807	287	284	294	288	273	214	214	250	226	206	247	226	231	274	198	236
3663	26808	278	257	250	262	263	247	328	360	311	236	237	236	248	270	216	243
	Exp Mean	284	278	263	275	310	238	259	308	268	220	252	236	237	278	227	252
	C.D. 5%	22	65	45	44	73	45	15	92	50	36	72	54	47	11	22	16
	C.V.%	3.85	11.73	8.49	8.02	11.81	9.39	2.87	14.94	9.07	8.08	14.28	11.18	9.82	1.98	4.77	3.38

Table No. 3.5 contd : Panicles/ M² of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	Zone III (9)	IV			Zone V (2)	VI								Zone VI (6)
			TR	M.P.	CG		MH	MH	MH	MH	MH (4)	GU	GU	GU (2)	
			Mean	ARD	REW	JDP	Mean	SKL	KJT	SHR	VDG	Mean	DBI	VYR	Mean
Code	IET No.	259	295	199	217	208	215	293	234	584	332	221	245	233	299
3601	26755	269	232	240	239	240	340	325	255	519	360	223	298	260	327
3602	26756	249	272	198	318	258	271	255	209	496	308	229	298	263	293
3603	26757	253	259	198	213	205	282	280	193	596	338	236	290	263	313
3604	26758	252	304	195	263	229	232	345	205	594	344	275	392	334	341
3605	26759	278	293	202	256	229	233	274	219	578	326	276	333	304	319
3606	26760	263	411	232	1792	1012	246	295	209	556	326	267	259	263	305
3607	26761	239	296	197	255	226	247	299	218	526	322	284	238	261	302
3608	26762	260	262	203	200	201	203	349	211	579	335	270	287	278	316
3609	26763	285	341	207	246	226	312	315	227	556	352	281	263	272	325
3610	23354	237	187	228	196	212	212	238	173	423	261	267	305	286	269
3611	24911	229	227	228	220	224	189	206	162	473	257	247	322	284	266
3612	24914	264	433	261	223	242	212	241	229	615	324	227	294	261	303
3613	24904	272	406	161	289	225	223	269	167	578	309	237	277	257	292
3614	25713	242	294	244	242	243	229	365	186	474	313	234	249	241	289
3615	26764	273	307	223	263	243	322	344	215	570	363	249	291	270	332
3616	26765	255	212	156	278	217	232	262	212	571	319	260	277	268	302
3617	26766	270	288	269	236	253	209	215	197	453	268	229	287	258	265
3618	26767	253	233	171	297	234	236	262	124	581	300	255	347	301	301
3619	CO -51 (NC)	306	234	207	289	248	242	292	239	526	325	254	242	248	299
3620	26768	254	211	180	203	192	264	255	163	496	294	227	249	238	275
3621	26769	237	234	182	249	215	209	281	137	510	284	222	272	247	272
3622	26770	268	231	233	225	229	198	284	259	489	307	239	273	256	290
3623	26771	258	319	218	283	251	246	220	227	499	298	283	284	283	293
3624	26772	270	285		192	192	228	287	259	571	336	276	312	294	322
3625	26773	268	290	243	230	236	216	301	201	573	322	215	256	235	293
3626	26774	270	270	160	322	241	254	313	210	666	361	255	291	273	331
3627	26775	272	290	224	271	248	235	287	239	540	325	247	301	274	308
3628	26776	258	234	167	224	195	176	246	232	583	309	206	270	238	285
3629	26777	243	281	195	297	246	197	310	226	600	333	201	336	269	312
3630	26778	268	308	232	289	260	246	239	225	552	315	238	308	273	301
3631	26779	266	313		299	299	221	235	178	608	310	230	259	245	288
3632	26780	256	285	240	266	253	259	272	254	600	346	274	291	282	325
3633	26781	255	397	257	252	255	218	333	224	541	329	197	332	264	307
3634	Zonal Check (Z	300	274	167	259	213	248	310	188	475	305	255	263	259	290
3635	26782	252	285	175	287	231	188	276	201	465	282	206	354	280	281
3636	26783	263	282	216	242	229	209	293	225	545	318	259	287	273	303
3637	26784	264	351	191	305	248	241	297	193	483	303	272	266	269	292
3638	26785	279	318	158	294	226	260	314	186	481	310	247	308	277	299
3639	26786	245	295	221	292	256	239	350	209	570	342	278	263	270	318
3640	26787	271	327	188	243	215	237	287	258	491	318	267	305	286	307
3641	US 314 (HC)	235	290	159	308	233	214	295	146	558	303	237	235	236	281
3642	26788	290	312	268	282	275	277	322	212	533	336	276	340	308	326
3643	26789	232	309	188	258	223	263	281	200	545	322	256	235	245	296
3644	26790	259	283	180	350	265	254	315	217	578	341	257	308	282	321
3645	26791	252	250	176	244	210	254	211	201	561	306	303	305	304	305
3646	26792	238	299	188	322	255	156	231	164	474	256	266	266	266	259
3647	26793	270	309	206	308	257	224	321	220	554	329	226	303	264	308
3648	26794	245	354	136	262	199	231	246	200	573	312	239	284	261	295
3649	26795	233	345	203	334	268	234	345	189	541	327	180	322	251	302
3650	26796	305	291	183	227	205	267	342	242	534	346	244	389	316	336
3651	26797	255	275	321	238	279	206	316	210	524	314	221	221	221	283
3652	26798	255	267	265	291	278	269	259	162	550	310	257	287	272	297
3653	26799	236	293	167	159	163	189	236	188	532	286	216	319	267	280
3654	26800	240	290	175	286	230	176	208	163	546	273	190	242	216	254
3655	26801	247	297	138	270	204	254	315	180	556	326	263	312	287	313
3656	26802	241	288	222	298	260	204	330	196	541	318	219	221	220	285
3657	26803	245	273	266	318	292	325	303	167	646	360	263	333	298	339
3658	26804	265	298	221	245	233	304	282	208	791	396	244	291	267	353
3659	Local Check	266	338		238	238	192	365	226	707	372	275	242	259	334
3660	26805	259	329	176	344	260	265	303	226	728	380	215	368	291	351
3661	26806	262	278		320	320	239	347	222	694	375	274	305	290	347
3662	26807	234	318	188	332	260	225	305	222	663	354	249	245	247	318
3663	26808	267	324	181	304	242	274	320	222	574	347	254	298	276	323
	Exp Mean	259	293	204	290	247	237	289	205	557	322	246	289	268	304
	C.D. 5%	46	46	82	531	307	30	53	19	83	46	12	92	52	48
	C.V.%	8.66	7.82	20.05	91.61	55.83	6.25	9.15	4.73	7.42	6.89	2.46	15.83	9.15	7.64

Table No. 3.5 contd : Panicles/ M² of entries in IVT - E TP Kharif 2017

Entry No.	IET No.	VII												Zone VII (9)	Overall
		A.P.	TEL	TN	TN	TN (2)	KE	KE	KE (2)	KA	KA	KA	KA (3)	Mean	Mean
		MTU	WGL	ADT	CBT	Mean	MNC	PTB	Mean	MND	BRM	GNV	Mean		
Code	IET No.		419	499	290	395	253		253	400	222	530	384	373	301
3601	26755	373	389	429	340	385	270	390	330	453	274	519	415	382	313
3602	26756	257	408	213	380	297	214	398	306	407	290	535	410	344	291
3603	26757	251	409	422	475	449	277	439	358	447	232	538	405	388	302
3604	26758	271	409	213	338	275	190	424	307	447	203	553	401	338	298
3605	26759	304	417	399	430	415	237	439	338	460	313	557	443	395	320
3606	26760	238	409	241	410	326	257	450	353	433	171	521	375	348	357
3607	26761	264	411	421	298	359	234	413	323	420	191	572	394	358	291
3608	26762		403	502	388	445	333	698	515	480	174	565	406	443	321
3609	26763	297	409	445	433	439	200	495	348	473	121	533	376	378	319
3610	23354	241	409	239	370	305	214	285	249	407	217	526	383	323	269
3611	24911	281	389	291	390	341	247	285	266	407	292	534	411	346	274
3612	24914	281	376	395	535	465	307	311	309	427	575	516	506	413	320
3613	24904	228	394	315	425	370	207	341	274	433	236	465	378	338	295
3614	25713	294	373	421	425	423	130	236	183	427	285	494	402	343	285
3615	26764	386	413	265	355	310	187	439	313	500	294	538	444	375	314
3616	26765		398	418	330	374	137	420	279	413	171	513	366	350	294
3617	26766		396	317	323	320	183	251	217	420	201	446	355	317	282
3618	26767	333	393	369	323	346	190	465	328	420	243	452	372	354	293
3619	CO -51 (NC)	267	404	499	346	423	287	394	340	420	265	484	390	374	316
3620	26768	231	399	525	300	413	220	476	348	400	185	450	345	354	282
3621	26769	314	384	239	368	303	230	435	333	447	196	475	372	343	278
3622	26770	340	386	422	298	360	294	435	364	447	157	495	366	364	298
3623	26771	264	373	436	405	421	300	323	311	433	187	471	364	355	298
3624	26772	330	411	405	384	395	220	326	273	407	212	532	383	358	308
3625	26773	261	381	473	358	415	246	296	271	407	223	473	367	346	296
3626	26774	290	411	383	315	349	207	371	289	420	176	396	330	330	303
3627	26775	271	411	362	465	414	233	308	270	440	181	450	357	347	303
3628	26776	257	383	521	435	478	250	375	313	440	86	461	329	356	290
3629	26777	244	421	419	288	353	254	210	232	407	105	493	335	315	282
3630	26778	287	426	371	330	351	227	304	265	407	236	519	387	345	300
3631	26779	277	388	447	248	347	244	356	300	420	136	848	468	374	307
3632	26780	323	408	395	393	394	240	338	289	367	186	551	368	355	303
3633	26781	376	399	317	348	332	200	405	303	413	262	497	391	357	307
3634	Zonal Check (Z)	271	388	369	410	390	294	353	323	387	321	562	423	373	313
3635	26782	234	378	246	475	361	244	503	373	460	321	463	415	369	295
3636	26783	310	404	343	435	389	224	356	290	433	311	515	420	370	302
3637	26784		427	369	338	353	290	270	280	453	285	490	409	365	300
3638	26785	314	406	393	240	317	277		277	393	261	467	374	344	300
3639	26786	396	416	291	308	299	253	338	295	440	204	455	366	344	298
3640	26787	323	391	161	403	282	264	413	338	440	241	535	405	352	299
3641	US 314 (HC)	297	408	265	470	368	217	338	277	413	295	422	377	347	279
3642	26788	323	424	525	259	392	230	424	327	420	301	427	383	370	322
3643	26789	277	396	419	348	383	240	398	319	420	281	549	417	370	291
3644	26790	261	403	373	328	350	227	488	357	447	303	476	408	367	311
3645	26791		396	395	493	444	214	443	328	447	357	446	416	399	303
3646	26792	224	404	421	365	393	237	491	364	413	288	475	392	369	285
3647	26793	284	393	317	355	336	260	536	398	513	358	554	475	397	317
3648	26794	277	427	265	378	321	267	529	398	473	235	473	394	369	294
3649	26795	261	388	447		447	247	510	378	447	293	528	422	390	299
3650	26796	274	386	581	440	511	177	458	317	433	355	470	419	397	330
3651	26797	297	386	522	473	497	217	578	397	427	156	443	342	389	304
3652	26798	310	413	291	385	338	210	593	401	427	193	545	388	374	304
3653	26799	271	389	395	410	403	173	349	261	387	236	450	358	340	275
3654	26800	264	365	369	238	303	227	229	228	367	174	414	318	294	260
3655	26801	261	408	343	475	409	197	383	290	400	303	538	414	367	297
3656	26802	310	398	343	400	372	257	338	297	433	326	437	399	360	289
3657	26803	271	409	395	388	391	240	386	313	413	375	406	398	365	307
3658	26804	241	378	577	380	479	280	424	352	420	156	504	360	373	314
3659	Local Check	231	414	503	505	504	207	488	347	447	203	463	371	384	320
3660	26805		401	395	315	355	220	420	320	420	175	514	370	357	310
3661	26806		411	447	449	448	277	338	307	440	144	467	350	372	315
3662	26807		381	447	315	381	237	345	291	400	246	529	392	362	297
3663	26808		386	499	438	468	137	413	275	453	324	483	420	392	313
	Exp Mean	285	400	386	377	382	234	398	316	428	242	500	390	361	301
	C.D. 5%	66	18	89	61	75	102	141	121	63	4	67	45	68	21
	C.V.%	11.61	2.27	11.52	8.16	9.84	21.95	17.67	19.81	7.31	0.88	6.75	4.98	9.79	19.36

Table No. 3.6: Grain quality characteristics of entries in IVT-E TP, Kharif 2017

Entry NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
3610	23354	75.5	66.4	49.5	6.41	2.31	2.79	LB	VOC	3	15.72	79
3611	24911	79.9	68.7	61.5	6.26	2.16	2.89	LB	VOC	4	18.5	47
3612	24914	79.8	69.1	58.7	6.45	2.23	2.89	LB	VOC	3.5	19.09	50
3613	24904	79.6	67.3	54.1	6.44	2.22	2.9	LB	VOC	4.5	17.65	51
3614	25713	79.4	69.3	58.1	6.49	2.12	3.06	LS	VOC	4	19.21	55
3619	CO-51	76.2	66.3	65.1	5.26	1.85	2.86	MS	VOC	4	22.29	67
3634	MTU-1153	76.2	67.8	63.8	6.4	2.06	3.1	LS	VOC	3	15.48	57
3641	US-314	77.8	66.5	58.7	5.72	2.06	2.77	MS	VOC	4	16.62	45
3659	KNM-118	80.6	70.2	65.1	6.52	1.97	3.3	LS	VOC	3	17.92	68

HULL: Hulling (%); Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

ADVANCE VARIETY TRIAL 2- IRRIGATED MID EARLY (AVT-2-IME)

Locations: 31

Test Entries: 20

Checks: IR 64-(National); PR 113-(Northern), Lalat (Eastern and North Eastern), Karjat 7 (Western), MTU 1010 (Central and Southern)-Zonal; US 312-Hybrid and Local Check

Table:3.7

Advance Variety Trial-2- Irrigated Mid Early (AVT-2-IME) was constituted with 24 entries including 4 checks viz., IR 64-(National); PR 113 for Northern, Lalat for Eastern and North Eastern, Karjat 7 for Western and MTU 1010 for Central and Southern (Zonal); US 312 (Hybrid check) and Local Check. Among 20 test entries, 11 were the hybrids and 9 were varietal entries promoted from AVT-1-IME. The trial was sent to 41 locations, but the data was received from 31 locations only.

The experimental mean of grain yield at different locations ranged from 1535 kg/ha at Sindewahi to 7390 kg/ha at Moncompu. The mean yield of the entries ranged from 3576 kg/ha (IET 25337) to 7933 kg/ha (IET 24968). The CV of the experiment at different sites varied from 3.38 (Varanasi) to 24.52% (Pantnagar). The mean days to 50% flowering ranged from 85 days (IET 24968) to 109 days (IET 24977). The number of panicles/m² ranged from 190 (IET 25341) to 340 (IET 25323). The plant height ranged from 95 cm (NC) to 130 cm (HC). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 3.8, 3.9, 3.10 and 3.11. None of the entries were tested on overall basis, the performance of entries in different zones is discussed below.

Zonal performance of entries in AVT 2-IME

Northern zone - Zone II

The trial was conducted at 4 locations in this zone namely Pantnagar, Ludhiana, Kaul and Kota. The data was not included from Pantnagar (24.52) due to high CV. The mean days to 50% flowering ranged from 94 days (IETs 24855, 24985 and 24968) to 106 days (ZC). The number of panicles/m² ranged from 235 (IET 25310) to 272 (NC). The plant height ranged from 95 cm (NC) to 113 cm (IET 25341). Among the varietal checks, local check (6683 kg/ha) is the top yielder followed by zonal check (5705 kg/ha) and IR 64 (5643 kg/ha; National check). Hybrid check (US 312) yielded 5692 kg/ha. Out of 13 test entries, two entries namely IETs 24968 and 25341 have shown required yield improvement over the best varietal and/ hybrid checks.

Zone wise performance of promising entries in AVT 2-IME Kharif 2017

IET No	ZONE II			ZONE III			ZONE IV			ZONE V			ZONE VI		
	Yield kg/ha	% BVC	% HC	Yield kg/ha	% BVC	% HC	Yield kg/ha	% BVC	% HC	Yield kg/ha	% BVC	% HC	Yield kg/ha	% BVC	% HC
24951(H)	-	-	-	6469	25.42	8.65	7090	45.20	25.95	5401	29.52	15.50	-	-	-
24952(H)	-	-	-	-	-	-	-	-	-	5082	21.87	8.68	-	-	-
24968(H)	7933	18.70	39.37	-	-	-	-	-	-	5478	31.37	17.15	7035	34.28	13.72
24977(H)	-	-	-	-	-	-	-	-	-	5036	20.77	7.70	6684	27.58	8.05
25310	-	-	-	-	-	-	-	-	-	-	-	-	5896	12.54	-
25331	-	-	-	-	-	-	-	-	-	5014	20.24	7.23	6092	16.28	-
25341	7278	8.90	27.86	-	-	-	-	-	-	5453	30.77	16.62	-	-	-
25345	-	-	-	-	-	-	-	-	-	4672	12.04	-	5996	14.45	-
25358	-	-	-	5882	14.04	-	-	-	-	-	-	-	5609	7.06	-
BVC	6683	-	-	5158	-	-	4883	-	-	4170	-	-	5239	-	-
HC	5692	-	-	5954	-	-	5629	-	-	4676	-	-	6186	-	-

BVC- Best varietal check; HC-Hybrid check; FD-Days to 50% flowering

Eastern zone - Zone III

The trial was conducted at 11 locations in this zone namely NRRI Cuttack, Jeypore, Bhubaneswar, Chiplima, Sabour, Patna-ICAR, Ranchi, Chinsurah, Kolkata, Masodha and Varanasi. Data of Kolkata and Bhubaneswar was not received. The data were not included from Patna-ICAR (3.43), Masodha (4.03) and Varanasi (3.38) due to low CV. The mean days to 50% flowering ranged from 93 days (IET 24968) to 100 days (LC). The number of panicles/m² ranged from 243 (IET 25310) to 302 (IET 24977). The plant height ranged from 98 cm (IET 25310) to 113 cm (IET 24977). Among the varietal checks, national check (5158 kg/ha) is the top yielder followed by zonal check (4976 kg/ha) and local check (4948 kg/ha).

Hybrid check (US 312) yielded 5954 kg/ha. Out of 8 test entries, two entries namely IETs 24951 and 25358 recorded required yield advantage over the best varietal and/ hybrid checks.

North Eastern Zone - Zone IV

The trial was conducted at 3 locations namely Titabar, Gerua-ICAR and Lembucherra (ICAR). Data from Titabar and Lembucherra (ICAR) was not received. Among the varietal checks, zonal check (4883 kg/ha) is the top yielder followed by local check (4444 kg/ha) and IR 64 (4411 kg/ha; National check). Hybrid check (US 312) yielded 5629 kg/ha. Out of 7 test entries, only one entry IET 24951 found superior in performance to best varietal check and hybrid check.

Central zone - Zone V

The trial was conducted at 8 locations in this zone namely Waraseoni, Jabalpur, Raipur, Ambikhapur, Jagdalpur, Bilaspur, Sakoli and Sindewahi. Data of Jabalpur and Ambikhapur was not received. The data were not included from Raipur (3109 kg/ha) and Sindewahi (1535 kg/ha) due to low experimental mean.

The mean days to 50% flowering ranged from 88 days (IET 25342) to 106 days (IET 25337). The number of panicles/m² ranged from 234 (IET 24977) to 340 (IET 25323). The plant height ranged from 96 cm (IET 25310) to 119 cm (IET 24951 and IET 25337). Among the varietal checks, national check (4170 kg/ha) is the top yielder followed by zonal check (4066 kg/ha) and local check (4007 kg/ha). Hybrid check (US 312) yielded 4676 kg/ha. Out of 16 test entries, seven entries namely IETs 24968, 25341, 24951, 24952, 24977, 25331 and 25345 recorded required yield advantage over the best varietal and/ hybrid checks.

Western zone - Zone VI

The trial was conducted at 4 locations in this zone namely Karjat, Nawagam, Vyara and Dabhoi. The data were not included from Dabhoi (3746 kg/ha) due to low experimental mean. Among the varietal checks, local check (5239 kg/ha) is the top yielder followed by IR 64 (4977 Kg/ha; NC) and zonal check (4623 Kg/ha). Hybrid check (US 312) yielded 6186 kg/ha. Out of 12 test entries, six entries namely IETs 24968, 24977, 25331, 25345, 25310 and 25358 have shown required yield advantage over the best varietal and/ hybrid checks.

Southern zone - Zone VII

The trial was conducted at 11 locations in this zone namely Maruteru, Rajendranagar, Warangal, Aduthurai, Coimbatore, Moncompu, Pattambi, Mandya, Brahmar, Kathalgere and Kurumbapet. Data from Aduthurai, Brahmar, Kathalgere and Kurumbapet was not received. Among the varietal checks, Local check (5941 kg/ha) is the top yielder followed by zonal check (5064 kg/ha) and IR 64 (4901 kg/ha; National check). Hybrid check (US 312) yielded 6148 kg/ha. Out of 8 test entries, none of the entries found superior in performance to best varietal check and hybrid check.

Among 20 test entries, 9 entries found superior in performance in grain yield with more than 5 % yield advantage over best varietal and/ hybrid checks. The details are presented hereunder.

IET 24951 (VNR 218), a hybrid entry with 96 to 104 days to 50% flowering and medium slender grains. It was found superior in performance over best varietal and hybrid checks in three zones namely Zone III, IV and V. It recorded grain yield of 6469, 7090 and 5401 Kg/ha with 25.42, 45.20 and 29.52 % over best varietal check, 8.65, 25.95 and 15.50 % over best hybrid check respectively in zones. Quality wise it recorded 58.8 % HRR, intermediate amylose content (24.90 %), 7 ASV and 40 mm GC (Table 3.12). **Based on unacceptable quality parameters (Low HRR 58.8 %), the entry is discontinued.**

IET 24968 (KPH 484), a hybrid entry from Kaveri seeds with 85 to 94 days to 50% flowering and medium slender grains. It was found superior in performance over best varietal and hybrid checks in three zones namely Zone II, V and VI. It recorded grain yield of 7933, 5478 and 7035 Kg/ha with 18.70, 31.37 and 34.28 % over best varietal check, 39.37, 17.15 and 13.72 % over best hybrid check respectively in zones. Quality wise, it recorded low 52 % HRR, high amylose content (26.37 %), 7.0 ASV and a hard GC of 22 mm. **Based on unacceptable quality parameters, the entry is discontinued.**

IET 24977 (PR 15103), a hybrid entry with 95 to 96 days to 50% flowering and long slender grains. It was found superior in performance over best varietal and hybrid checks in two zones namely Zone V and VI. It recorded grain yield of 5036 and 6684 Kg/ha with 20.77 and 27.58 % over best varietal check, 7.70 and 8.05 % over best hybrid check respectively in zones. Quality wise, it recorded low 58.1 % HRR, intermediate amylose content (23.26 %), 5.1 ASV and 48 mm GC. **Based on unacceptable quality parameters (low 58.1 % HRR), the entry is discontinued.**

IET 24952 (ADV 1503), a hybrid entry recorded yield of 5082 kg/ha with 93 days to 50% flowering and short bold grains. It was found superior in performance over best varietal (21.87 %) and hybrid (8.68 %) checks in Zone V. Quality wise, it recorded high 61.5 % HRR, high amylose content (26.69 %), 4 ASV and 38 GC. **Based on unacceptable quality parameters (high amylose content (26.69 %), 4 ASV and 38 mm GC), the entry is discontinued.**

IET 25341 (NVSR 2086) derived from the cross between IR 65912-90-1-6-3-2R / Gurjari with 94 to 99 days to 50% flowering and long bold grains. It was found superior in performance over best varietal and hybrid checks in two zones namely Zone II and V. It recorded grain yield of 7278 and 5453 Kg/ha with 8.90 and 30.77 % over best varietal check, 27.86 and 16.62 % over best hybrid check respectively in zones. Quality wise it exhibited low 51.5 % HRR, high 25.81% AC, 4.0 ASV and a hard GC of 22 mm. **Based on unacceptable quality parameters (high 25.81% AC and 22 mm GC), the entry is discontinued.**

IET 25331 (RNR 19399) derived from the cross between IR 64 / Erramallelu with 94 days to 50% flowering and medium slender grains. It was found superior in performance over best varietal and/ hybrid checks in two zones namely Zone V and VI. It recorded grain yield of 5014 and 6092 Kg/ha with 20.24 and 16.28 % over best varietal check respectively in zones. It has shown 7.23 % yield superiority over hybrid check in Zone V. Quality wise, it exhibited high 60.1 % HRR, intermediate AC (24.02 %), 7.0 ASV and 46 mm GC.

IET 25345 (IR 95797-CR3847-2-1-1-1-1) derived from the cross between IR 84852-B-12-2/ IR 79643-39-2-2 with 89 to 90 days to 50% flowering and long slender grains. It was found superior in performance over best varietal checks in two zones namely Zone V and VI. It recorded grain yield of 4672 and 5996 Kg/ha with 12.04 and 14.45 % over best varietal

check respectively in zones. Quality wise, it exhibited 59.2 % HRR, intermediate AC (22.2 %), 5.0 ASV and 33 mm GC.

IET 25358 (RCPR 32-HHZ5-DT 20-DT 3-Y2) derived from the cross between Huang-Hua-Zhan*2/OM 1723 with 87 to 94 days to 50% flowering and long slender grains. It was found superior in performance over best varietal checks in two zones namely Zone III and VI. It recorded grain yield of 5882 and 5609 Kg/ha with 14.04 and 7.06 % over best varietal check respectively in zones. Quality wise it exhibited high 67.4 % HRR, high 25.43% AC, 7.0 ASV and 22 GC. **Based on unacceptable quality parameters (25.43 % and 22 GC), the entry is discontinued.**

IET 25310 (JGL 24423) derived from the cross between MTU 1010 / NLR 34449 / MTU 1010 with 92 days to 50% flowering and long bold grains. It recorded grain yield of 5896 Kg/ha with 12.54 % yield superiority over best varietal check. Quality wise it exhibited high 61.0 % HRR, intermediate AC (22.96 %), 3.8 ASV and 55 GC.

Summarizing the three years performance of entries found promising in AVT-2-IME

IET 24968 (KPH 484), a hybrid entry from Kaveri seeds showed consistent performance in the zone V for all the three years of testing, whereas in zone II, its performance was not consistent *i.e.*, It showed 18.70 and 39.37 % in third year of testing (2017) and 46.97 and 32.81 % in second year of testing (2016) over best varietal and hybrid check respectively. In first year of testing (2015) it could not show superior performance over checks in zone II. State wise its performance was consistently superior in Chhattisgarh for all the 3 years of testing and found promising.

IET 24951 (VNR 218), a hybrid showed consistent performance in the zone III and V for all the three years of testing. In the states of Odisha, Jharkhand, Bihar, West Bengal and Maharashtra it showed superior performance over BVC and HC in one year only and not consistent over the years. In the state of Chhattisgarh it showed superior performance over checks consistently for all the 3 years of testing and found promising.

IET 24952 (ADV 1503), a hybrid entry could not show consistent performance for the three years of testing in any zones, whereas it showed superior performance over BVC and HC in zone V in third year and second year but not in first year of testing. In zone III, it registered superior performance over BVC and HC in first year of testing only. Similarly it could not show consistent performance in any states. In zone V in the state of Maharashtra it showed superior performance over BVC and HC in second year of testing only but not in first and third year of testing. Hence it was not found promising for any zone and state.

IET 24977 (PR 15103), a hybrid entry showed consistent performance in the zone V for all the three years of testing, whereas in zone IV, its performance was not consistent *i.e.*, It showed 27.58 and 8.05 % in third year of testing (2017) and 12.0 and 10.0 % in second year of testing (2016) over best varietal and hybrid check respectively. In first year of testing (2015) it could not show superior performance over checks in zone IV. State wise it could not show consistent performance in any states for all the 3 years of testing. Whereas, in state of Maharashtra, it showed superior performance over BVC and HC in third and second year of testing and in Chhattisgarh it showed superior performance over checks in first (2015) and second (2016) year but not in third (2017) year of testing. The entry found promising in Zone V but not in any state consistently over 3 years, thus not found promising for any state.

Three years performance of entries in AVT-2-IME during 2015 to 2017

IET No.	Year	% Increase over the Best Check							
		Zone	Yield (kg/ha)	% BVC	% HC	State/Rank	Yield (kg/ha)	% BVC	% HC
24968 (Hybrid)	2017	Z-II	7933	18.70	39.37	PU-1	9508	23.58 (LC)	66.17
		Z-V	5478	31.37	17.15	CG-1	6329	46.03 (LC)	12.90
		Z-VI	7035	34.28	13.72	MH-1	7178	47.73 (LC)	23.82
						GU-1	6964	23.63 (NC)	9.14
	2016	Z-II	7622	46.97	32.81	HA-1	7583	71.60 (NC)	77.05
		Z-V	7308	59	36	UT-2	4820	39.34 (NC)	18.47
						CG-1	7613	41.01 (LC)	38.67
						MH-2	7002	59.54 (NC)	32.51
	2015	Z-III Z-V	6186 7257	21.56 26.23	7.43 8.12	CG	8196	24.24 (NC)	11.03
24951 (Hybrid)	2017	Z-III	6469	25.42	8.65	OD-2	6472	29.70 (LC)	16.19
		Z-V	5401	29.52	15.50	CG-2	6191	42.85 (LC)	6.80
	2016	Z-III Z-V	6180	26	6	JH-1	5861	38.82 (ZC)	13.67
			6593	44	22	BI-2	6190	58.15 (ZC)	7.04
						WB-2	7278	37.89 (ZC)	25.96
						CG-2	6677	23.67 (LC)	21.62
						MH-5	6509	48.30 (NC)	23.18
	2015	Z-III Z-V	6589 7307	29.48 27.10	14.43 8.86	CG	8494	28.76 (NC)	15.06
	2017	Z-V	5082	21.87	8.68	-	-	-	-
24952 (Hybrid)	2016	Z-V	6411	40	19	MH-4	6678	52.15 (NC)	26.38
	2015	Z-III	6088	19.63	5.73	-	-	-	-
	2017	Z-V	5036	20.77	7.70	MH-2	6944	42.91 (LC)	19.79
24977 (Hybrid)	2017	Z-VI	6684	27.58	8.05	-	-	-	-
		Z-V	6846	49	27	CG-3	6499	20.37 (LC)	18.38
	2016	Z-VI	5680	12	10	MH-1	7193	63.89 (NC)	36.13
	2015	Z-V	7442	20.28	10.09	CG	8202	22.86 (LC)	7.86
25345	2017	Z-V	4672	12.04	-	CG-8	5050	16.52 (LC)	-
			5155	12	-	MH-9	4369	30.73 (ZC)	-
	2016	Z-V	5155	12	-	-	-	-	-
	2015	Z-IV	5815	37.18	-	AS	5815	37.18 (ZC)	-
25310	2017	Z-VI	5896	12.51	-	GU-4	6502	15.43 (NC)	-
	2016	Z-VI	5680	12	10	GU-1	6369	28.93 (LC)	20.58
	2015	Z-IV	5888	38.90	-	AS	5888	38.90 (ZC)	-
						-	-	-	-
25331	2017	Z-VI	6092	16.28	-	GU-2	6562	16.49 (NC)	-
	2016	Z-VI	5503	9	-	GU-7	5758	16.56 (LC)	9.01
	2015	Z-VI	5526	5.04	-	GU	5657	9.72 (NC)	-
						-	-	-	-
25341	2017	Z-II	7278	8.90	27.86	MP-1	5534	10.22 (ZC)	112.76
		Z-V	5453	30.77	16.62	MH-1	5425	62.35 (ZC)	10.9
						CG-5	5427	25.22 (LC)	-
						-	-	-	-
	2016	Z-II	6788	31	-	UT-3	6632	37.59 (NC)	16.99
		Z-V	6042	32	-	HA-4	5483	24.08 (NC)	28.02
						MH-3	6696	52.56 (NC)	26.72
						-	-	-	-
	2015	Z-V	6068	14.60	-	CG	6068	14.60 (LC)	-

BVC- Best varietal check; HC-Hybrid check

IET 25345 (IR 95797-CR3847-2-1-1-1-1) derived from the cross between IR 84852-B-12-2/ IR 79643-39-2-2 could not consistent performance in any zone and state for all the 3 years of testing. It showed superior performance over BVC and HC in zone V in third and second year but not in first year of testing. Similarly it registered superior performance over BVC and HC in zone IV in first year of testing only. State wise it could not show consistent performance in any states for all the 3 years of testing. In the states of Chhattisgarh, Maharashtra and Assam, it showed superior performance over BVC and HC in one year only and not consistent over the years. Hence it was not found promising for any zone and state.

IET 25310 (JGL 24423) derived from the cross between MTU 1010 / NLR 34449 / MTU 1010 could not consistent performance in any zone and state for all the 3 years of

testing. It registered superior performance over BVC and HC in zone VI in third and second year but not in first year of testing. Similarly it showed superior performance over BVC and HC in zone IV in first year of testing only. State wise it could not show consistent performance in any states for all the 3 years of testing. In the state of Gujarat, it showed superior performance over BVC and HC in third year (2017) and second year (2016) but not in first year (2015) of testing. In the first year it registered yield gain over checks in state of Assam and could not show in second and third year of testing. Hence it was not found promising for any zone and state.

IET 25331 (RNR 19399) derived from the cross between IR 64/Erramallelu showed consistent performance over best varietal check (16.28%:2017; 9%:2016; 5.04%:2015) in the zone VI for all the three years of testing. In the state of Gujarat, it showed superior performance over checks consistently for all the 3 years of testing and found promising.

IET 25341 (NVSR 2086) derived from the cross between IR 65912-90-1-6-3-2R / Gurjari showed consistent performance in the zone V for all the three years of testing. In zone II, it registered superior performance in third and second year of testing but not in first year of testing. In the states of Maharashtra, it showed superior performance over BVC and HC in third and second year of testing but not in first year of testing. Whereas, in Chhattisgarh state, it showed yield gain over BVC in first and third year of testing, thus found promising for the state of Chhattisgarh only.

ADVANCE VARIETY TRIAL 1- IRRIGATED MID EARLY (AVT-1-IME)

Locations: 32

Test Entries: 22

Checks: IR 64-(National); PR 113-(Northern), Lalat (Eastern and North Eastern), Karjat 7 (Western), MTU 1010 (Central and Southern)-Zonal; US 312-Hybrid and Local Check

Table:3.13

Advance Variety Trial 1- Irrigated Mid Early (AVT-1-IME) was constituted with 26 entries including 4 checks viz., IR 64-(National); PR 113 for Northern, Lalat for Eastern and North Eastern, Karjat 7 for Western, MTU 1010 for Central and Southern (Zonal); US 312 (Hybrid check) and Local Check. Among 22 test entries, 6 were the hybrids and 16 were varietal entries promoted from IVT-IME. The trial was conducted at 41 locations. The data were received from 32 locations and 9 locations namely Kolkata, Titabar, Lembucherra, Jabalpur, Ambikhapur, Aduthurai, Brahmavar, Kathalgere and Kurumbapet have not submitted the data.

The experimental mean of grain yield at different locations ranged from 3562 Kg/ha at Dabhoi to 8630 Kg/ha at Pantnagar. The mean yield of the entries ranged from 4036 Kg/ha (NC) to 8949 Kg/ha (IET 25745). The CV of the experiment at different sites varied from 4.94 (Ludhiana) to 28.02 (Maruteru). The mean days to 50% flowering ranged from 83 days (IET 26125) to 106 days (IET 26089 and IET 26125). The number of panicles/m² ranged from 209 (IET 25745; ZV) to 374 (IET 25745; Z VII). The plant height ranged from 96 cm (ZC) to 133 cm (IET 26107). The data pertaining to yield, days to 50% flowering, plant

height and number of panicles/m² are presented in tables 3.14, 3.15, 3.16 and 3.17. No entry was tested across the zones in this trial, Hence the performance of entries in different zones are discussed below.

Zonal performance of entries in AVT 1-IME

Northern zone - Zone II

The trial was conducted at 4 locations in this zone namely Pantnagar, Ludhiana, Kaul and Kota. The data were not included from Ludhiana (4.94) due to low CV. The mean days to 50% flowering ranged from 90 days (NC) to 101 days (ZC). The number of panicles/m² ranged from 222 (IET 26127) to 249 (IET 26125). The plant height ranged from 97 cm (ZC) to 117 cm (IET 25742). Among the varietal checks, Zonal check (6917 Kg/ha) is the top yielder followed by local check (6430 Kg/ha) and IR 64 (5984 Kg/ha; National check). Hybrid check (US 312) yielded 7325 Kg/ha. Out of 8 test entries, seven entries namely IETs 25745, 25764, 25746, 25749, 25742, 26125 and 26127 have shown yield advantage over BVC or BVC and HC.

Zone wise performance of promising entries in AVT 1-IME Kharif 2017

IET No	ZONE II				ZONE III				ZONE V				ZONE VI				ZONE VII				Promoted / Dropped
	Yield Kg/ha	FD	% BVC	% HC	Yield Kg/ha	FD	% BVC	% HC	Yield Kg/ha	FD	% BVC	% HC	Yield Kg/ha	FD	% BVC	% HC	Yield Kg/ha	FD	% BVC	% HC	
25742(H)	7741	93	11.91	5.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Dropped due to poor quality
25745(H)	8949	97	29.38	22.17	-	-	-	-	6717	97	38.4	10.6	-	-	-	-	-	-	-	-	Promoted
25746(H)	8465	92	22.38	15.56	-	-	-	-	-	-	-	-	-	-	-	-	7505	89	19.07	7.43	Dropped due to poor quality
25749(H)	8022	95	15.98	9.52	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Promoted
25764(H)	8505	93	22.96	16.11	-	-	-	-	-	-	-	-	6914	91	18.96	5	-	-	-	-	Promoted
26075	-	-	-	-	5053	96	7.97	-	-	-	-	-	-	-	-	-	-	-	-	-	Dropped due to poor quality
26079	-	-	-	-	5072	92	8.38	-	-	-	-	-	-	-	-	-	-	-	-	-	Promoted
26089	-	-	-	-	4975	106	6.30	-	-	-	-	-	-	-	-	-	-	-	-	-	Dropped due to poor quality
26125	7996	91	15.60	9.15	-	-	-	-	-	-	-	-	6441	90	10.82	-	6722	84	6.65	-	Promoted
26126					5311	97	13.48	-	5172	98	6.57	-	-	-	-	-	-	-	-	-	Promoted
26127	7796	94	12.71	6.43	4971	98	6.22	-	5815	93	19.82	-	-	-	-	-	-	-	-	-	Dropped due to poor quality
BVC	6917	101	-	-	4680	98	-	-	4853	86	-	-	5812	90	-	-	6303	91	-	-	Promoted
HC	7325	92	-	-	5451	97	-	-	6071	93	-	-	6586	95	-	-	6986	92	-	-	Promoted

BVC- Best varietal check; HC-Hybrid check; FD-Days to 50% flowering

Eastern zone - Zone III

The trial was conducted at 11 locations in this zone namely NRRI Cuttack, Jeypore, Bhubaneshwar, Chiplima, Sabour, Patna-ICAR, Ranchi, Chinsurah, Kolkata, Masodha and Varanasi. Data of Kolkata was not received. The data were not included from Jeypore (4.89),

Patna-ICAR (3.29) and Ranchi (21.33) due to low and high CV. The mean days to 50% flowering ranged from 92 days (NC, IET 26079 and IET 26125) to 106 days (IET 26089). The number of panicles/m² ranged from 239 (IET 26079) to 291 (IET 26126). The plant height ranged from 102 cm (IET 26127) to 124 cm (IET 26107). Among the varietal checks, Zonal check (4680 Kg/ha) is the top yielder followed by IR 64 (4376 Kg/ha; National check) and local check (4561 Kg/ha). Hybrid check (US 312) yielded 5451 Kg/ha. Out of 15 test entries, five entries namely IETs 26126, 26079, 26075, 26089 and 26127 have shown yield advantage over BVC or BVC and HC.

North Eastern Zone - Zone IV

The trial was conducted at 3 locations namely Titabar, Gerua-ICAR and Lembucherra (ICAR). Data from Titabar and Lembucherra (ICAR) was not received. Among the varietal checks, local check (5610 Kg/ha) is the top yielder followed by IR 64 (5056 Kg/ha; National check) and zonal check (4451 Kg/ha). Hybrid check (US 312) yielded 6277 Kg/ha. Out of 7 test entries, none of the entry found superior in performance to best varietal check and hybrid check, hence no entry is promoted in this zone IV.

Central zone - Zone V

The trial was conducted at 8 locations in this zone namely Waraseoni, Jabalpur, Raipur, Ambikhapur, Jagdalpur, Bilaspur, Sakoli and Sindewahi. Data of Jabalpur and Ambikhapur were not received. The data were not included from Raipur (3626 Kg/ha) and Sindewahi (1669 Kg/ha) due to low experimental mean. The mean days to 50% flowering ranged from 83 days (IET 26125) to 104 days (IET 26089). The number of panicles/m² ranged from 209 (IET 25745) to 290 (LC). The plant height ranged from 96 cm (ZC) to 120 cm (IET 26089). Among the varietal checks, Zonal check (4853 Kg/ha) is the top yielder followed by local check (4329 Kg/ha) and IR 64 (4036 Kg/ha; National check). Hybrid check (US 312) yielded 6071 Kg/ha. Out of 10 test entries, three entries namely IETs 25745, 26127 and 26126 recorded required yield superiority over BVC or BVC and HC.

Western zone - Zone VI

The trial was conducted at 4 locations in this zone namely Karjat, Nawagam, Vyara and Dabhoi. The data were not included from Dabhoi (3562 Kg/ha) due to low experimental mean. Among the varietal checks, zonal check (5812 Kg/ha) is the top yielder followed by IR 64 (5762 Kg/ha; NC) and local check (5231 Kg/ha). Hybrid check (US 312) yielded 6586 Kg/ha. Out of 15 test entries, only two entries namely IET 25764 and IET 26125 outperformed BVC and or BVC and HC with required yield advantage.

Southern zone - Zone VII

The trial was conducted at 11 locations in this zone namely Maruteru, Rajendranagar, Warangal, Aduthurai, Coimbatore, Moncompu, Pattambi, Mandya, Brahmavar, Kathalgere and Kurumbapet. Data from Aduthurai, Brahmavar, Kathalgere and Kurumbapet was not received. Among the varietal checks, Local check (6303 Kg/ha) is the top yielder followed by zonal check (5364 Kg/ha) and IR 64 (4635 Kg/ha; National check). Hybrid check (US 312) yielded 6986 Kg/ha. Out of 7 test entries, two entries namely IET 25746 and IET 26125 recorded required yield superiority over BVC or BVC and HC.

Among 22 test entries, 11 entries found superior in performance in grain yield

with more than 5 % yield advantage over best varietal and/ hybrid checks. The details are presented hereunder.

IET 26125 (JGL 21078) derived from the cross between MTU 1010 / JGL 11470 with long slender grains and 84 to 91 days to 50% flowering. It found superior in performance over best varietal check in three zones namely Zone II, VI and VII. It recorded grain yield of 7996, 6441 and 6722 Kg/ha with 15.60, 10.82 and 6.65 % over best varietal check respectively in zones. The quality characteristics reported to be desirable 68.2 % HRR, 4.0 ASV, 23.87 % AC and 37 mm GC (Table 3.18). **Based on superior yield and acceptable quality parameters, the entry qualifies to be promoted to AVT 2-IME.**

IET 26127 (PAU 2K10-23-54-14-52-107-0-1) derived from the cross between PAU 201/PAU 3699-13-2-3-1//PAU 201 with long slender grains and 93 to 98 days to 50% flowering. It was found superior in performance over best varietal check in three zones namely Zone II, III and V. It recorded grain yield of 7796, 4971 and 5815 Kg/ha with 12.71, 6.22 and 19.82 % over best varietal check respectively in zones. The quality characteristics reported to be high 62.6 % HRR, 7.0 ASV, low 17.48 % AC and 75 mm GC. **Due to low amylose content (17.48%), the entry does not qualify to be promoted to AVT 2-IME and hence dropped.**

IET 26126 (OR 2512-5) derived from the cross between Kharavela / IR 62037-93 with long slender grains and 97 to 98 days to 50% flowering. It found superior in performance over best varietal check in two zones namely Zone III and V. It recorded grain yield of 5311 and 5172 Kg/ha with 13.48 and 6.57 % over best varietal check respectively in zones. The quality characteristics reported to be high 70.0 % HRR, 7.0 ASV, 25.87 % AC and 22 mm GC. **Based on superior yield and acceptable quality parameters, the entry qualify to be promoted to AVT 2-IME.**

IET 26075 (CR 3882-1-1-6-1-4-1) derived from the cross between Annapurna / FL 378/ Annapurna with short bold grains and 96 days to 50% flowering. It found superior in performance over best varietal check in zone III. It recorded grain yield of 5053 Kg/ha with 7.97 % over best varietal check. The quality characteristics reported to be high 61.5 % HRR, 4.0 ASV, high 27.60 % AC and a hard GC of 25 mm. **Based on unacceptable quality parameters, the entry does not qualify to be promoted to AVT 2-IME and hence dropped.**

IET 26079 (JR 206) derived from the cross between NPT 100/ MTU 1010 with long bold grains and 92 days to 50% flowering. It found superior in performance over best varietal check in zone III. It recorded grain yield of 5072 Kg/ha with 8.38 % over best varietal check. The quality characteristics reported to be high 66.3 % HRR, 4.0 ASV, intermediate 22.85 % AC and 47 mm GC. **Based on superior yield and acceptable quality parameters, the entry qualify to be promoted to AVT 2-IME.**

IET 26089 (OR 2494-2) derived from the cross between Pathara / Vandana with long bold grains and 106 days to 50% flowering. It found superior in performance over best varietal check in zone III. It recorded grain yield of 4975 Kg/ha with 6.30 % over best varietal check. The quality characteristics reported to be low 40.9 % HRR, 4.6 ASV, high 25.78 % AC and 45 mm GC. **Due to low HRR (40.9 %), the entry does not qualify to be promoted to AVT 2-IME and hence dropped.**

IET 25745 (PHI 16101), a hybrid with long bold grains and 92 to 97 days to 50%

flowering. It found superior in performance over best hybrid and varietal check in two zones namely Zone II and V. It recorded grain yield of 8949 and 6717 Kg/ha with 22.17 and 10.6 % over best hybrid check, 29.38 and 38.4 % over best varietal check respectively in zones. The quality characteristics reported to be high 62.6 % HRR, 4.5 ASV, intermediate 21.26 % AC and 59 mm GC. **Based on superior yield and acceptable quality parameters, the entry qualify to be promoted to AVT 2-IME.**

IET 25746 (KPH 471), a hybrid with long slender grains and 89 to 92 days to 50% flowering. It found superior in performance over best hybrid and varietal check in two zones namely Zone II and VII. It recorded grain yield of 8465 and 7505 Kg/ha with 15.56 and 7.43 % over best hybrid check, 22.38 and 19.07 % over best varietal check respectively in zones. The quality characteristics reported to be 59.4 % HRR, 5.4 ASV, intermediate 24.99 % AC and 27 mm GC. **Based on unacceptable quality parameters, the entry does not qualify to be promoted to AVT 2-IME and hence dropped.**

IET 25764 (MP 3030), a hybrid with long slender grains and 91 to 93 days to 50% flowering. It found superior in performance over best hybrid and varietal check in two zones namely Zone II and VI. It recorded grain yield of 8505 and 6914 Kg/ha with 16.11 and 5 % over best hybrid check, 22.96 and 18.96 % over best varietal check respectively in zones. The quality characteristics reported to be high 68.6 % HRR, 4.8 ASV, intermediate 24.49 % AC and 58 mm GC. **Based on superior yield and acceptable quality parameters, the entry qualify to be promoted to AVT 2-IME.**

IET 25742 (NK 18502), a hybrid with long bold grains and 93 days to 50% flowering. It found superior in performance over best hybrid and varietal check in Zone II. It recorded grain yield of 7741 Kg/ha with 5.68 % over best hybrid check and 11.91 % over best varietal check. The quality characteristics reported to be low 53.4 % HRR, 5.0 ASV, high 25.72 % AC and 65 mm GC. **Based on unacceptable quality parameters, the entry does not qualify to be promoted to AVT 2-IME and hence dropped.**

IET 25749 (NK 20050), a hybrid with long bold grains and 95 days to 50% flowering. It found superior in performance over best hybrid and varietal check in Zone II. It recorded grain yield of 8022 Kg/ha with 9.52 % over best hybrid check and 15.98 % over best varietal check. The quality characteristics reported to be high 68.6 % HRR, 4.3 ASV, intermediate 23.23 % AC and 50 mm GC. **Based on superior yield and acceptable quality parameters, the entry qualify to be promoted to AVT 2-IME.**

Entries which qualify for promotion to AVT 2-IME

On overall performance	: None
Northern zone (Zone II)	: IETs 25745, 25764, 25749 and 26125
Eastern zone (Zone III)	: IETs 26126 and 26079
North Eastern zone (Zone IV)	: None
Central zone (Zone V)	: IETs 25745 and 26126
Western zone (Zone VI)	: IET 25764 and IET 26125
Southern zone (Zone VII)	: IET 26125

INITIAL VARIETY TRIAL – IRRIGATED MID EARLY (IVT-IME)

Locations: 41

Test Entries: 61

Checks: Gontra Bidhan-3 (National), PR 113 (Northern), Lalat (Eastern & North Eastern), Karjat-7 (Western), MTU 1010 (Central & Southern) (Zonal) and Local Check **Table:3.19**

Initial Variety Trial – Irrigated Mid Early (IVT-IME) was constituted with 61 entries and three checks (Gontra Bidhan-3 – National Check [NC], Zonal Check [ZC] and Local Check [LC]). Data from eleven [11] centres (Kolkata, Titabar, Lembucharra, Waraseoni, Jabalpur, Ambikhapur, Bilaspur, Dabhoi, Aduthurai, Mandya, and Kathalgere) was not received. Data from Raipur, Sindewahi, and Nawagam was not considered due to lower yield i.e., <4000 kg/ha. Also, the data from Pantnagar, Patna-ICAR, Masodha, and Jagdalpur was not included in mean due to high/low CV (<5.0% or >20.0%). The mean grain yield of the test entries ranged from 3501 kg/ha (IET 26890) to 5551 kg/ha (IET 26872). However, the overall highest yielder was Gontra Bidan-3 (5745 kg/ha), the national check. The range of experimental CV was from 2.43% (Patna-ICAR) to 24.22% (Pantnagar). The experimental mean grain yield exhibited a range from 2448 kg/ha (Sindewahi) to 6731 kg/ha (Moncompu). Days to 50% flowering ranged from 87 days (IET 26881) to 110 days (IET 26890). The plant height varied from 85 cm (IET 26875) to 132 cm (IET 26868) while, panicles/m² ranged from 259 (IET 26912) to 312 (IET 26897). Among the three checks, Gontra Bidhan-3, the national check (NC) was the highest yielder (5745 kg/ha), followed by local check (5007 kg/ha) and Zonal Check (4959 kg/ha). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 3.20, 3.21, 3.22 and 3.23. Considering the overall mean, none of the entries out-yielded the best check, Gontra Bidhan-3, the national check. **Therefore, taking into consideration the overall mean grain yield of the national check no entry was promoted.**

Zonal Performances of Entries in IVT-IME

Zone V – this zone is spread over three different states and includes eight (8) test centres – Madhya Pradesh (Waraseoni and Jabalpur), Chhattisgarh (Raipur, Ambikhapur, Jagdalpur and Bilaspur), and Maharashtra (Sakoli and Sindewahi). The data from four centres (Waraseoni, Jabalpur, Ambikhapur, and Bilaspur) was not received. Further, the data from Raipur, Jagdalpur and Sindewahi was not considered for mean analysis. The CV ranged from 6.42% (Sindewahi) to 22.76% (Jagdalpur). The grain yield mean among the test entries ranged from 1943 kg/ha (IET 26890) to 5965 kg/ha (IET 26907). The mean of days to 50% flowering in this zone was 79 days (IET 26881) to 113 days (IET 26890). The plant height exhibited a range of 85 cm (IET 26908 and IET 26916) to 127 cm (IET 26868, IET 26900 and IET 26912). Similarly, the panicles/m² were found to be lowest in IET 26903 (184) and highest in IET 26897 (278). IET 26907 (RP 6272-HHZ 2-Y3-Y1-Y1), a product of Huang-Hua-Zhan*2/Khazar was the only test entry that exhibited a yield advantage >5.0%. IET 26907 had a mean grain yield of 5965 kg/ha, and this entry exhibited a yield advantage of 12.5% over the local check (best check). This entry had long bold grain, and it took 90 days to reach 50% flowering stage. **Since the data from only one centre was considered, IET 26907 is not considered for promotion because it had a yield advantage <15.0% i.e., IET 26907 had only 12.5% over the best check.**

Performance of promising entries in Zone – V in Initial Variety Trial – Irrigated Mid Early, Kharif 2017

Rank	IET No./ Designation/ Cross Combination	Overall mean GY/ DF/ GT	Yield adv (%) over NC /ZC /LC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ ha)	% BVC
1	26907 RP 6272-HHZ 2-Y3-Y1-Y1 Huang-Hua-Zhan*2/Khazar	5965 90 LB	57.4 89.5 12.5	MH-1	5965	12.5
Gontra Bidhan-3 (NC)		3790 88		-	-	-
MTU 1010 (ZC)		3147 84		-	-	-
Local Check (LC)		5302 96				

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; HC- Hybrid Check; LC- Local Check; GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type

Performance of promising entries in Zone – VI in Initial Variety Trial – Irrigated Mid Early, Kharif 2017

Rank	IET No./ Designation/ Cross Combination	Overall mean GY/ DF/ GT	Yield adv (%) over NC /ZC /LC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ ha)	% BVC
1	26866 CRR 484-2-1-1-1-1 RR165-1160/Krishnabhog	6017 91 SB	24.8 39.2 40.9	MH-1 GU-3	5827 5534	14.5 18.3
2	26913 RP6224-GSR IR1-5-S10-D3-Y2 Huang-Hua-Zhan*2/OM 1723	5815 97 LS	20.6 34.5 36.2	-	-	-
3	26871 RP6264-HHZ 10-DT7-Y1 Huang-Hua-Zhan*2/Zhong 413	5462 90 LS	13.2 26.4 27.9	GU-2	5562	18.9
Gontra Bidhan-3 (NC)		4823 91				
Karjat-7 (ZC)		4322 85				
Local Check (LC)		4270 91				

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; HC- Hybrid Check; LC- Local Check; GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type

Zone VI – this zone is represented by five locations including Karjat, Nawagam, Navsari, Dabhoi and Vyara. The CV in this ranged from 12.91% at Nawagam to 14.96% at Navsari. The mean grain yield of the entries had a range from 2899 kg/ha (IET 26901) to 6017 kg/ha

(IET 26866). The range of days to 50% flowering among the test entries was 87 days (IET 26881, IET 26896, and IET 26897) to 104 days (IET 26890). But, the lowest number of days to 50% flowering was 85 days (zonal check). The panicles/m² exhibited wide variability ranging from 209 (IET 26921) to 270 (IET 26869). The plant height ranged from 90 cm (IET 26875) to 145 cm (IET 26868). IET 26866 (6017 kg/ha), IET 26913 (5815 kg/ha) and IET 26871 (5462 kg/ha) were the best performing entries, with an overall yield advantage of 24.8%, 20.6% and 13.2% over Gontra Bidhan-3, the national check (best check) respectively. Apart from these entries, four other entries exhibited >5.0% yield advantage over the best check: IET 26908 (10.0%), IET 26898 (7.8%), IET 26917 (6.7%) and IET 26910 (6.1%). **IET 26898 despite yielding >5.0% over the best check, should be shifted to IVT-Early trial since its days to 50% flowering is 88.**

List of entries qualified for promotion to AVT1-IM:

- **Zone VI:** IET 26866, IET 26913, IET 26871, IET 26908, IET 26917, IET 26910
- **Shifted to IVT- E TP:** IET 26898.

Table No. 3.7: Composition of entries in Advance Variety Trial 2- Irrigated Mid Early (AVT2-IME), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
3rd Year of testing:				
3701	25341	NVSR 2086	IR 65912-90-1-6-3-2R / Gurjari	LB
3702	25310	JGL 24423	MTU 1010 / NLR 34449 / MTU 1010	LB
3703	24855	<i>RRX-012 (Hybrid)</i>	-	LS
3704	24977	<i>PR-15103 (Hybrid)</i>	-	LS
3705	24952	<i>ADV-1503 (Hybrid)</i>	-	SB
3706	24950	<i>JKRH-2230 (Hybrid)</i>	-	LB
3707	24931	<i>RH-9000 Plus (Hybrid)</i>	-	LS
3708	IR 64 (NC)			LS
3709	24951	<i>VNR-218 (Hybrid)</i>	-	MS
3710	24985	<i>RRX-024 (Hybrid)</i>	-	LS
3711	25295	ORJ-1161(IR84678-25-5-B)	IR 825865 / IR82861-B	LS
3712	24983	<i>US-337(Hybrid)</i>	-	LS
3713	25358	RCPR 32-HHZ5-DT 20-DT 3-Y2	Huang-Hua-Zhan*2/OM 1723	LS
3714	24968	<i>KPH-484 (Hybrid)</i>	-	MS
3715	24967	<i>Bio-680 (Hybrid)</i>	-	LB
3716	PR 113 (Northern), Lalat (Eastern and North Eastern), Karjat-7 (Western), MTU 1010 (Central and Southern)—ZC			
3717	24956	<i>IRH-103 (Hybrid)</i>	-	LS
3718	25342	BRR 0043-IR 83383-B-B-141-2	IR 72022-46-2-3-3-2 / IR 57514-PMI 5-B-1-2	LS
3719	25323	YNP-9183	NP-45 / PUSA-44	SB
3720	US 312 (HC)			MS
3721	25345	IR 95797-CR3847-2-1-1-1-1	IR 84852-B-12-2 / IR79643-39-2-2	LS
3722	25331	RNR 19399	IR 64 / Erramallelu	MS
3723	25337	TTB-404-2(Numoli)	APMS 6B / Piolee	LB
3724	Local Check			

Table No. 3.8 : Grain Yield (Kg/ha) of entries in AVT 2-IME (ZONE II) Kharif 2017

Entry No.	IET No.	II								Zone II (3)				Overall (3)				Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		UT		PUN		HAR		RAJ												
		@PNT	LDN	KUL	KTA	Mean				Mean										
3701	25341	3591	3 #	7956	4 #	8129	2 #	5749	*	7278	2 *#	9% 28%	7278	2 *#	9% 28%	99	113	249		
3702	25310	2302		6348		6956	9 #	5634		6313	#	11%	6313	#	11%	98	97	235		
3703	24855	3942	1 #	7369	8 #	7256	6 #	6764	3 *	7130	4 #	7% 25%	7130	4 *#	7% 25%	94	106	243		
3704	24977	3269	5	8614	2 *#	6574	#	6600	4 *	7263	3 *#	9% 28%	7263	3 *#	9% 28%	104	112	248		
3705	24952	3457	4 #	7255	#	6328	#	6822	2 *	6802	9 #	2% 19%	6802	9 #	2% 19%	97	108	250		
3706	24950	3649	2 #	7608	6 #	7856	3 #	5829	7 *	7098	5 #	6% 25%	7098	5 *#	6% 25%	100	105	246		
3708	IR 64 (NC)	1766		6314		6383	#	4233		5643			5643			98	95	272		
3709	24951	2677	8	6991	#	6819	#	7212	1 *#	7007	6 #	5% 23%	7007	6 #	5% 23%	102	112	247		
3710	24985	3200	6	6764	#	7092	8 #	6449	5 *	6769	#	1% 19%	6769	#	1% 19%	94	109	240		
3711	25295	2593	9	8240	3 #	6956	#	5652		6949	8 #	4% 22%	6949	8 #	4% 22%	100	103	245		
3713	25358	2481		7305	9 #	7829	4 #	5758	*	6964	7 #	4% 22%	6964	7 #	4% 22%	95	99	247		
3714	24968	2372		9508	1 *#	8483	1 *#	5807	8 *	7933	1 *#	19% 39%	7933	1 *#	19% 39%	94	104	242		
3716	Zonal Check (ZC)	3200	7	7082	#	5292		4743		5705			5705			106	97	253		
3718	25342	2044		6954	#	7147	7 #	5075		6392	#	12%	6392	#	12%	98	111	245		
3720	US 312 (HC)	2241		5722		5237		6117	6 *	5692			5692			99	109	243		
3721	25345	1974		7382	7 #	5947		5807	9 *	6379	#	12%	6379	#	12%	97	108	269		
3724	Local Check	1684		7694	5 #	7501	5 #	4854		6683	#	17%	6683	#	17%	99	107	250		
	Exp Mean	2732		7359		6929		5830		6706			6706			98	106	248		
	C.D. 5%	1114		796		882		816		385			385			1		23		
	C.V.%	24.52		6.51		7.66		8.42		6.14			6.14			0.73		11.31		
	Sowing Date	08-06-2017		06-08-2017		06-06-2017		29-06-2017												
	Planting Date	04-07-2017		07-10-2017		05-07-2017		27-07-2017												
	Local ©	P.D. 12		PR 124		HKR 47		RSK-1091												
	* Superior to Best Check % Superior over Best Check @ not included in means																			
	# Superior to Hybrid Check % Superior over Hybrid Check																			

Table No. 3.8 contd : Grain Yield (Kg/ha) of entries in AVT 2-IME (ZONE III) Kharif 2017

Entry No.	IET No.	III																
		OD		OD		OD		OD (3)		BI		BI		BI (1)		JH		
		CTK		JYP		CHP		Mean		SBR		@PTN-ICAR		Mean		RCI		
3701	25341	4920	6	3005		6673	5 *	4866	9	5970	2 #	6854	3 *#	5970	2 #	46%	6622	9
3702	25310	4100	9	5342	4	6294	8 *	5245	7 5%	4886	7 #	4854		4886	7 #	19%	6422	
3704	24977	7090	1 #	4953	9	6835	3 *	6293	3 *# 26% 13%	3001		7432	1 *#	3001			6356	
3708	IR 64 (NC)	2733		4053		5342		4043		6106	1 #	4112		6106	1 #	49%	6844	6
3709	24951	7037	2 *#	5462	3	6916	2 *	6472	2 *# 30% 16%	5286	4 #	7330	2 *#	5286	4 #	29%	7000	5
3713	25358	5303	4	5263	7	6709	4 *	5759	4 * 15% 3%	5468	3 #	5250	9	5468	3 #	33%	7800	2
3714	24968	6080	3 *#	6664	1 #	7098	1 *	6614	1 *# 33% 19%	4084	9	5380	8	4084	9		7111	3
3716	Zonal Check (ZC)	3073		6185	2	4989		4749		5208	5 #	6058	6	5208	5 #	27%	7044	4
3720	US 312 (HC)	4883	7	5297	5	6531	6 *	5570	5 * 12%	4101	8	6331	5	4101	8		8111	1
3721	25345	4470	8	5276	6	6485	7 *	5410	6 8%	5122	6 #	6691	4 *#	5122	6 #	25%	6667	8
3722	25331	3857		4812		5860	9	4843		3974		5420	7	3974			4956	
3724	Local Check	5060	5	5170	8	4739		4990	8	3804		5144		3804			6844	7
	Exp Mean	4884		5123		6206		5404		4751		5905		4751			6815	
	C.D. 5%	481		962		909		440		738		343		738			1961	
	C.V.%	5.82		11.09		8.65		8.67		9.17		3.43		9.17			17.00	
	Sowing Date	23-06-2017		01-07-2017		07-07-2017				22-06-2017		24-06-2017					29-06-2017	
	Planting Date	29-07-2017		11-08-2017		04-08-2017				17-07-2017		21-07-2017					18-07-2017	
	Local ©	CR Dhan 304		Manaswini		Lalat				Suwasini		Rajendra Sweta					Birsa Vikas Dhan-203	
* Superior to Best Check % Superior over Best Check @ not included in means																		
# Superior to Hybrid Check % Superior over Hybrid Check																		

Table No. 3.8 contd: Grain Yield (Kg/ha) of entries in AVT 2-IME (ZONE III) Kharif 2017

Entry No.	IET No.	III						Zone III (6)			Overall (6)			Days to 50% Flowering	Plant Height (cm)	Panicles / M²
		W.B		U.P.		U.P.										
		CHN		@MSD		@VRN		Mean		Mean						
3701	25341	4622	7	5142	2 #	8110	2 *#	5302	7	3%	5302	7	3%	94	110	260
3702	25310	4639	6	4130		7289	7 *	5281	8	2%	5281	8	2%	94	98	243
3704	24977	5383	4	4561	6	8061	3 *	5603	5 *	9%	5603	5 *	9%	98	113	302
3708	IR 64 (NC)	5872	3	5079	4 #	6039		5158		9	5158		9	95	102	277
3709	24951	7111	1 *	5180	1 #	7940	4 *	6469	1 *#	25% 9%	6469	1 *#	25% 9%	96	112	253
3713	25358	4750	5	4343	9	6389	9	5882	3 *	14%	5882	3 *	14%	94	103	263
3714	24968	3683		4193		9980	1 *#	5787	4 *	12%	5787	4 *	12%	93	106	260
3716	Zonal Check (ZC)	3356		4329		5808		4976			4976			97	108	276
3720	US 312 (HC)	6800	2 *	4547	7	7680	5 *	5954	2 *	15%	5954	2 *	15%	96	110	258
3721	25345	4389	9	4506	8	6980	8 *	5401	6	5%	5401	6	5%	94	105	267
3722	25331	4611	8	4613	5	7353	6 *	4678			4678			95	109	269
3724	Local Check	4072		5138	3 #	5730		4948			4948			100	103	272
	Exp Mean	4941		4647		7280		5453			5453			95	107	267
	C.D. 5%	518		317		416		405			405			1		14
	C.V.%	6.20		4.03		3.38		11.27			11.27			1.41		9.89
	Sowing Date	19-06-2017		21-06-2017		03-06-2017										
	Planting Date	20-07-2017		18-07-2017		23-06-2017										
	Local ©	Ajit		NDR 2064		HUR-4-3										

Table No. 3.8 contd: Grain Yield (Kg/ha) of entries in AVT 2-IME (ZONE IV) Kharif 2017

Entry No.	IET No.	IV		Overall (1)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		AS						
		GER		Mean				
3701	25341	4561	8	4561	8	104	110	190
3702	25310	4798	6	4798	6	103	96	193
3704	24977	5793	2	5793	2	109	115	208
3708	IR 64 (NC)	4411		4411		103	97	231
3709	24951	7090	1 *#	7090	1 *#	104	118	199
3713	25358	4646	7	4646	7	105	100	197
3714	24968	4293		4293		101	108	213
3716	Zonal Check (ZC)	4883	5	4883	5	107	116	226
3720	US 312 (HC)	5629	3	5629	3	102	115	191
3721	25345	4973	4	4973	4	103	101	219
3724	Local Check	4444	9	4444	9	104	115	222
	Exp Mean	5047		5047		104	108	208
	C.D. 5%	984		984		2		29
	C.V.%	11.45		11.45		1.26		8.28
	Sowing Date	27-06-2017						
	Planting Date	03-08-2017						
	Local ©	Naveen						
	* Superior to Best Check % Superior over Best Check							
	# Superior to Hybrid Check % Superior over Hybrid Check							

Table No. 3.8 contd: Grain Yield (Kg/ha) of entries in AVT 2-IME (ZONE V) Kharif 2017

Entry No.	IET No.	V													
		M.P.		CG		CG		CG		CG (2)		MH		MH	
		WRS		@RPR		JDP		BSP		Mean		SKL		@SND	
3701	25341	5534	1 * #	2705		5787	4	5067	7 *	5427	5 * 25%	5425	1 *	985	
3702	25310	3836	#	2390		4341		4178		4259		4589	6 *	1026	
3703	24855	4357	#	3091		4969		5311	6 *	5140	7 * 19%	3834		1017	
3704	24977	4249	#	2716		5264	6	5400	5 *	5332	6 * 23%	5231	2 *	912	
3705	24952	4915	7 #	3792	5	6038	3	5578	2 *	5808	3 * 34% 4%	3796		758	
3708	IR 64 (NC)	4951	6 #	3213		4990		3400		4195		3339		1412	8
3709	24951	4574	9 #	3418	7	6538	2 *	5844	1 *	6191	2 * 43% 10%	4647	5 *	2512	4 * #
3711	25295	3400	#	2143		5177	9	4911	*	5044	9 16%	3646		909	
3713	25358	4066	#	2588		5254	7	4044		4649	7%	4002		1710	6 * #
3714	24968	4885	8 #	3321	9	7191	1 * #	5467	3 *	6329	1 * 46% 13%	4369	8 *	1361	
3715	24967	3680	#	3365	8	4495		4822	*	4659	7%	4297		1780	5 * #
3716	Zonal Check (ZC)	5021	5 #	1704		4679		3222		3951		3342		1145	
3717	24956	5348	2 #	4209	2	5026		2467		3746		3617		2941	2 * #
3718	25342	5332	3 #	2487		3510		3778		3644		3817		1046	
3719	25323	4377	#	3626	6	4715		4956	9 *	4835	12%	4418	7 *	2617	3 * #
3720	US 312 (HC)	2601		4201	3	5746	5	5467	4 *	5606	4 * 29%	4890	3 *	1340	
3721	25345	4219	#	2717		5077		5022	8 *	5050	8 17%	4369	9 *	1611	7 #
3722	25331	5212	4 #	3811	4	5200	8	4867	*	5033	16%	4777	4 *	938	
3723	25337	2920		4487	1 *	4049		4267		4158		3067		3290	1 * #
3724	Local Check	4313	#	2194		4713		3956		4334		3047		1396	9
	Exp Mean	4390		3109		5138		4601		4870		4126		1535	
	C.D. 5%	491		996		1420		540		770		969		231	
	C.V.%	6.77		19.39		16.72		7.10		13.76		14.21		9.12	
	Sowing Date	28-06-2017		29-06-2017		16-06-2017		10-06-2017				19-06-2017		15-06-2017	
	Planting Date	04-08-2017		17-07-2017		08-07-2017		06-07-2017				11-07-2017		14-07-2017	
	Local ©	MTU 1001		IGKV R2		IGKV R1		Chandaha				SKL-6		SYE-1	
	* Superior to Best Check % Superior over Best Check @ not included in means														
	# Superior to Hybrid Check % Superior over Hybrid Check														

Table No. 3.8 contd : Grain Yield (Kg/ha) of entries in AVT 2-IME (ZONE V) Kharif 2017

Entry No.	IET No.			Zone V (4)				Overall (4)				Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		MH (1)												
		Mean		Mean		Mean								
3701	25341	5425	1 * 62% 11%	5453	2 *# 31% 17%	5453	2 *# 31% 17%	94	113	253				
3702	25310	4589	6 * 37%	4236	2%	4236	2%	90	96	261				
3703	24855	3834	15%	4618	9 11%	4618	9 * 11%	91	110	256				
3704	24977	5231	2 * 57% 7%	5036	5 * 21% 8%	5036	5 * 21% 8%	95	118	234				
3705	24952	3796	14%	5082	4 * 22% 9%	5082	4 * 22% 9%	93	114	310				
3708	IR 64 (NC)	3339		4170		4170		89	103	295				
3709	24951	4647	5 * 39%	5401	3 *# 30% 16%	5401	3 *# 30% 16%	96	119	259				
3711	25295	3646	9%	4283	3%	4283	3%	94	107	266				
3713	25358	4002	20%	4342	4%	4342	4%	93	104	293				
3714	24968	4369	8 * 31%	5478	1 *# 31% 17%	5478	1 *# 31% 17%	90	109	264				
3715	24967	4297	* 29%	4324	4%	4324	4%	89	102	278				
3716	Zonal Check (ZC)	3342		4066		4066		86	103	292				
3717	24956	3617	8%	4114		4114		91	112	274				
3718	25342	3817	14%	4109		4109		88	110	292				
3719	25323	4418	7 * 32%	4617	11%	4617	* 11%	98	100	340				
3720	US 312 (HC)	4890	3 * 46%	4676	7 * 12%	4676	7 * 12%	94	116	257				
3721	25345	4369	9 * 31%	4672	8 * 12%	4672	8 * 12%	89	101	334				
3722	25331	4777	4 * 43%	5014	6 * 20% 7%	5014	6 * 20% 7%	94	110	297				
3723	25337	3067		3576		3576		106	119	279				
3724	Local Check	3047		4007		4007		93	105	312				
	Exp Mean	4126		4564		4564		93	109	282				
	C.D. 5%	969		431		431		0		17				
	C.V.%	14.21		11.72		11.72		0.49		8.35				
	Sowing Date													
	Planting Date													
	Local ©													

Table No 3.8 contd : Grain Yield (Kg/ha) of entries in AVT 2-IME (ZONE VI) Kharif 2017

Entry No.	IET No.	VI									Zone VI (3)		Overall (3)	Days to 50% Flowering	Plant Height (cm)	Panicles/ M²		
		MH		GU	GU		GU (2)											
		KJT		NWG		@DBI		VYR		Mean		Mean					Mean	
3701	25341	4744		4321		3340		6234	9	5278		5100		5100		88	119	257
3702	25310	4685		6327	3	4237	5 *#	6677	5	6502	4 * 15%	5896	6 * 13%	5896	6 * 13%	92	110	243
3704	24977	6944	2 *#	6250	4	4651	2 *#	6858	4	6554	3 * 16%	6684	2 * 28%	6684	2 *# 28%	96	126	228
3707	24931	5239	7	5787	8	4571	3 *#	6306	8	6046	7 7%	5777	7 * 10%	5777	7 * 10%	94	128	225
3708	IR 64 (NC)	3664		6173	6	3638	9	5094		5633		4977		4977		92	113	246
3709	24951	5424	5	5633	9	4728	1 *#	6055		5844	9 4%	5704	8 9%	5704	8 9%	97	127	241
3712	24983	4672		6404	2	4440	4 *#	5635		6019	8 7%	5570	6%	5570	6%	95	129	246
3713	25358	5335	6	4861		3638		6630	6	5746	2%	5609	9 7%	5609	9 7%	87	111	240
3714	24968	7178	1 *#	6250	5	2893		7678	1 *	6964	1 * 24%	7035	1 *# 34%	7035	1 *# 34%	85	113	248
3716	Zonal Check (ZC)	4121		3318		2824		6431	7	4875		4623		4623		86	101	250
3717	24956	4154		4861		3332		3844		4353		4287		4287		90	123	244
3720	US 312 (HC)	5797	3 *	5633		3736	8	7129	2	6381	5 * 13%	6186	3 * 18%	6186	3 * 18%	93	130	247
3721	25345	5698	4	5170		3752	7	7122	3	6146	6 9%	5996	5 * 14%	5996	5 * 14%	92	116	246
3722	25331	5152	8	7099	1 *#	2830		6025		6562	2 * 16%	6092	4 * 16%	6092	4 * 16%	94	124	257
3723	25337	4271		5247		3558		4626		4936		4715		4715		104	130	240
3724	Local Check	4859	9	5941	7	3767	6	4915		5428		5239		5239		90	114	238
	Exp Mean	5121		5580		3746		6079		5829		5593		5593		92	120	244
	C.D. 5%	854		864		280		1080		676		507		507		1	0	20
	C.V.%	10.00		9.28		4.48		10.65		10.04		9.69		9.69		0.86	0.00	10.26
	Sowing Date	21-06-2017				06-06-2017				14-06-2017								
	Planting Date	14-07-2017				08-07-2017				07-07-2017								
	Local ©	Karjat 5				GR-7				NAUR 1								
	* Superior to Best Check % Superior over Best Check @ not included in means																	
	# Superior to Hybrid Check % Superior over Hybrid Check																	

Table No. 3.8 contd. : Grain Yield (Kg/ha) of entries in AVT 2-IME (ZONE VII) Kharif 2017

Entry No.	IET No.	VII									
		A.P.	TEL	TEL	TEL (2)	TN	KE	KE			
		MTU	RNR	WGL	Mean	CBT	MNC	PTB			
3701	25341	4220	6515	63699	5107	5975	8825	6186			
3702	25310	5157	6175	5530	5853	4856	7239	6099			
3704	24977	4728	7964	4192	6078	6208	8185	3572			
3708	IR 64 (NC)	4274	6010	4162	5086	4853	5865	3578			
3709	24951	4230	8328	4476	6402	6009	8861	4168			
3712	24983	3893	6268	6038	6153	4637	7130	4544			
3713	25358	5075	5331	4774	5052	4803	5759	6056			
3714	24968	5483	4309	6103	5206	6709	8204	5161			
3716	Zonal Check (ZC)	4266	7221	4340	5781	5674	5083	4121			
3720	US 312 (HC)	4439	6591	4564	5578	5566	9639	3494			
3721	25345	4728	4402	4286	4344	4890	7139	5518			
3724	Local Check	5010	6733	3974	5353	6110	6750	5473			
	Exp Mean	4625	6321	4678	5499	5524	7390	4831			
	C.D. 5%	808	1185	685	644	1021	966	968			
	C.V.%	10.31	11.07	8.65	10.09	10.92	7.72	11.84			
	Sowing Date	04-07-2017			04-07-2017		06-07-2017	04-07-2017	02-06-2017		
	Planting Date	02-08-2017			30-07-2017		27-07-2017	24-07-2017	18-07-2017		
	Local ©	MTU 1121		RNR-15048		CO 47	Uma	Jyothi			
	* Superior to Best Check % Superior over Best Check										
	# Superior to Hybrid Check % Superior over Hybrid Check										

Table No 3.8 contd: Grain Yield (Kg/ha) of entries in AVT 2-IME (ZONE VII) Kharif 2017

Entry No.	IET No.	VII				Zone VII (7)				Overall (7)				Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		KE (2)		KA												
		Mean		MND		Mean		Mean								
3701	25341	7505	1 *# 23% 14%	7758	5	6168	3 4%	6168	3 4%	90	107	371				
3702	25310	6669	3 9% 2%	8108	4	6166	4 4%	6166	4 4%	89	97	344				
3704	24977	5878	9	7211	8	6009	6 1%	6009	6 1%	95	112	361				
3708	IR 64 (NC)	4721		5566		4901		4901		90	95	350				
3709	24951	6514	5 7%	8449	3	6360	2 * 7% 3%	6360	2 * 7% 3%	92	107	346				
3712	24983	5837		7258	7	5681	8	5681	8	93	112	337				
3713	25358	5908	8	6980	9	5540	9	5540	9	89	99	341				
3714	24968	6682	2 9% 2%	8659	2 *	6375	1 * 7% 4%	6375	1 * 7% 4%	88	98	354				
3716	Zonal Check (ZC)	4602		4744		5064		5064		87	100	359				
3720	US 312 (HC)	6567	4 7%	8745	1 *	6148	5 3%	6148	5 3%	91	107	343				
3721	25345	6328	6 4%	6429		5342		5342		90	105	353				
3724	Local Check	6112	7	7540	6	5941	7	5941	7	92	108	367				
	Exp Mean	6110		7287		5808		5808		90	104	352				
	C.D. 5%	725		955		356		356		1		19				
	C.V.%	10.22		7.74		10.05		10.05		1.45		8.88				
	Sowing Date			22-08-2017												
	Planting Date			12-09-2017												
	Local ©			Thanu												

Table No. 3.9 : Days to 50% Flowering of entries in AVT 2-IME (ZONE II) Kharif 2017

Entry No.	IET No.	II				Zone II (4)	Overall (4)
		UT	PUN	HAR	RAJ		
		PNT	LDN	KUL	KTA	Mean	Mean
3701	25341	100	100	98	98	99	99
3702	25310	97	100	98	98	98	98
3703	24855	94	91	95	98	94	94
3704	24977	98	107	105	107	104	104
3705	24952	98	95	95	99	97	97
3706	24950	101	98	96	102	100	100
3708	IR 64 (NC)	97	98	96	99	98	98
3709	24951	99	105	106	100	102	102
3710	24985	96	92	90	98	94	94
3711	25295	100	103	99	99	100	100
3713	25358	93	94	92	100	95	95
3714	24968	93	93	91	99	94	94
3716	Zonal Check (ZC)	108	103	105	108	106	106
3718	25342	98	98	97	98	98	98
3720	US 312 (HC)	100	100	98	99	99	99
3721	25345	98	97	93	98	97	97
3724	Local Check	84	102	102	105	99	99
	Exp Mean	97	99	97	100	98	98
	C.D. 5%	3	1	0	2	1	1
	C.V. %	1.95	0.89	0.26	1.36	1.40	0.73

Table No 3.9 contd : Days to 50% Flowering of entries in AVT 2-IME (ZONE III) Kharif 2017

Entry No.	IET No.	III												Zone III (9)	Overall (9)
		OD	OD	OD	OD (3)	BI	BI	BI (2)	JH	W.B	U.P.	U.P.	U.P. (2)		
		CTK	JYP	CHP	Mean	SBR	PTN-ICAR	Mean	RCI	CHN	MSD	VRN	Mean	Mean	Mean
3701	25341	95	102	95	97	91	87	89	93	100	97	88	93	94	94
3702	25310	95	114	90	100	91	85	88	91	98	96	83	90	94	94
3704	24977	104	115	98	106	92	92	92	88	99	104	93	99	98	98
3708	IR 64 (NC)	96	111	91	99	99	86	93	91	101	95	82	89	95	95
3709	24951	100	110	95	102	88	91	90	92	99	95	94	95	96	96
3713	25358	98	110	91	100	90	86	88	94	98	102	80	91	94	94
3714	24968	93	110	92	98	98	84	91	93	99	91	80	86	93	93
3716	Zonal Check (ZC)	99	111	94	102	88	88	88	91	100	104	94	99	97	97
3720	US 312 (HC)	99	113	96	102	93	88	90	95	99	95	87	91	96	96
3721	25345	99	108	94	100	94	87	90	93	97	92	85	89	94	94
3722	25331	95	112	92	99	99	87	93	88	97	94	88	91	95	95
3724	Local Check	98	112	89	100	104	107	105	84	98	106	100	103	100	100
	Exp Mean	98	111	93	100	94	89	91	91	99	98	88	93	95	95
	C.D. 5%	1	3	1	1	2	1	1	3	3	2	2	1	1	1
	C.V.%	0.50	1.68	0.73	1.30	1.24	0.61	0.75	1.79	1.63	1.22	1.10	0.50	1.42	1.41

Table No. 3.9 contd : Days to 50% Flowering of entries in AVT 2-IME (ZONE IV) Kharif 2017

Entry No.	IET No.	IV
		AS
		GER
3701	25341	104
3702	25310	103
3704	24977	109
3708	IR 64 (NC)	103
3709	24951	104
3713	25358	105
3714	24968	101
3716	Zonal Check (ZC)	107
3720	US 312 (HC)	102
3721	25345	103
3724	Local Check	104
	Exp Mean	104
	C.D. 5%	2
	C.V.%	1.26

Table No. 3.10 : Plant Height (cm) of entries in AVT 2-IME (ZONE IV) Kharif 2017

Entry No.	IET No.	IV
		AS
		GER
3701	25341	110
3702	25310	96
3704	24977	115
3708	IR 64 (NC)	97
3709	24951	118
3713	25358	100
3714	24968	108
3716	Zonal Check (ZC)	116
3720	US 312 (HC)	115
3721	25345	101
3724	Local Check	115
	Exp Mean	108
	C.D. 5%	
	C.V.%	

Table No. 3.11 : Panicles/ M² of entries in AVT 2-IME (ZONE IV) Kharif 2017

Entry No.	IET No.	IV
		AS
		GER
3701	25341	190
3702	25310	193
3704	24977	208
3708	IR 64 (NC)	231
3709	24951	199
3713	25358	197
3714	24968	213
3716	Zonal Check (ZC)	226
3720	US 312 (HC)	191
3721	25345	219
3724	Local Check	222
	Exp Mean	208
	C.D. 5%	29
	C.V.%	8.28

Table No 3.9 contd: Days to 50% Flowering of entries in AVT 2-IME (ZONE V) Kharif 2017

Entry No.	IET No.	V								Zone V (6)	Overall (6)
		M.P.	CG	CG	CG	CG (3)	MH	MH	MH (2)		
		WRS	RPR	JDP	BSP	Mean	SKL	SND	Mean		
3701	25341	99	91	97	93	94	87	96	91	94	94
3702	25310	98	89	96	86	90	84	89	86	90	90
3703	24855	96	84	93	92	90	87	95	91	91	91
3704	24977	104	92	98	94	95	87	95	91	95	95
3705	24952	97	89	98	92	93	87	95	91	93	93
3708	IR 64 (NC)	95	86	92	86	88	84	90	87	89	89
3709	24951	101	93	102	94	96	90	98	94	96	96
3711	25295	103	90	97	93	93	88	93	91	94	94
3713	25358	104	85	98	92	92	84	96	90	93	93
3714	24968	99	84	90	89	88	84	95	90	90	90
3715	24967	93	85	91	88	88	85	91	88	89	89
3716	Zonal Check (ZC)	96	81	87	84	84	80	86	83	86	86
3717	24956	101	85	97	89	90	84	92	88	91	91
3718	25342	96	84	90	86	87	84	90	87	88	88
3719	25323	105	90	101	98	96	94	101	97	98	98
3720	US 312 (HC)	97	88	97	94	93	90	96	93	94	94
3721	25345	96	85	91	86	87	83	91	87	89	89
3722	25331	99	88	97	94	93	88	96	92	94	94
3723	25337	113	102	106	108	105	100	107	103	106	106
3724	Local Check	107	85	99	89	91	85	93	89	93	93
	Exp Mean	100	88	96	91	92	87	94	90	93	93
	C.D. 5%	1	2	0	0	1	1	1	1	0	0
	C.V.%	0.53	1.18	0.00	0.00	0.64	0.65	0.60	0.53	0.63	0.49

Table No. 3.9 contd: Days to 50% Flowering of entries in AVT 2-IME (ZONE VI) Kharif 2017

Entry No.	IET No.	VI					Zone VI (4)	Overall (4)
		MH	GU	GU	GU	GU (3)		
		KJT	NWG	DBI	VYR	Mean		
3701	25341	88	95	84	85	88	88	88
3702	25310	85	100	94	88	94	92	92
3704	24977	89	105	101	89	98	96	96
3707	24931	89	99	98	91	96	94	94
3708	IR 64 (NC)	89	98	95	86	93	92	92
3709	24951	90	104	101	92	99	97	97
3712	24983	88	105	94	92	97	95	95
3713	25358	84	95	88	82	88	87	87
3714	24968	81	95	86	81	87	85	85
3716	Zonal Check (ZC)	86	91	86	83	87	86	86
3717	24956	84	99	94	84	92	90	90
3720	US 312 (HC)	88	101	96	89	95	93	93
3721	25345	85	102	95	87	94	92	92
3722	25331	90	100	96	90	95	94	94
3723	25337	93	111	108	102	107	104	104
3724	Local Check	94	97	86	84	89	90	90
	Exp Mean	88	100	94	88	94	92	92
	C.D. 5%	2	2	1	2	1	1	1
	C.V.%	1.06	1.15	0.39	1.08	0.94	0.92	0.86

Table No. 3.9 contd: Days to 50% Flowering of entries in AVT 2-IME (ZONE VII) Kharif 2017

Entry No.	IET No.	VII									Zone VII (7)	Overall (7)
		A.P.	TEL	TEL	TEL (2)	TN	KE	KE	KE (2)	KA		
		MTU	RNR	WGL	Mean	CBT	MNC	PTB	Mean	MND	Mean	Mean
3701	25341	86	88	89	88	91	84	97	90	94	90	90
3702	25310	87	90	91	90	88	84	96	90	85	89	89
3704	24977	94	90	96	93	104	85	106	96	87	95	95
3708	IR 64 (NC)	85	88	90	89	101	78	102	90	84	90	90
3709	24951	92	83	94	89	106	78	104	91	90	92	92
3712	24983	91	83	91	87	102	86	108	97	90	93	93
3713	25358	84	84	90	87	94	85	96	91	92	89	89
3714	24968	85	84	85	85	89	87	94	91	91	88	88
3716	Zonal Check (ZC)	84	80	86	83	89	89	94	92	85	87	87
3720	US 312 (HC)	89	83	93	88	90	85	103	94	92	91	91
3721	25345	88	83	91	87	90	86	104	95	86	90	90
3724	Local Check	100	87	96	92	96	80	94	87	91	92	92
	Exp Mean	89	85	91	88	95	84	100	92	89	90	90
	C.D. 5%	2	0	1	1	1	3	2	2	3	1	1
	C.V.%	1.63	0.17	0.83	0.62	0.79	2.20	1.18	1.63	2.29	1.46	1.45

Table No. 3.10 contd : Plant Height (cm) of entries in AVT 2-IME (ZONE II) Kharif 2017

Entry No.	IET No.	II				Zone II (4)	Overall (4)
		UT	PUN	HAR	RAJ		
		PNT	LDN	KUL	KTA	Mean	Mean
3701	25341	104	114	124	109	113	113
3702	25310	90	95	111	93	97	97
3703	24855	97	110	118	100	106	106
3704	24977	106	114	122	106	112	112
3705	24952	98	113	124	98	108	108
3706	24950	110	100	113	99	105	105
3708	IR 64 (NC)	86	97	100	98	95	95
3709	24951	109	117	116	106	112	112
3710	24985	100	113	116	105	109	109
3711	25295	100	99	118	95	103	103
3713	25358	94	94	114	95	99	99
3714	24968	99	104	111	100	104	104
3716	Zonal Check (ZC)	104	91	98	93	97	97
3718	25342	102	115	122	106	111	111
3720	US 312 (HC)	95	114	123	106	109	109
3721	25345	106	104	116	103	108	108
3724	Local Check	102	93	121	114	107	107
	Exp Mean	100	105	116	102	106	106
	C.D. 5%			0			
	C.V.%			0.00			

Table No. 3.10 contd : Plant Height (cm) of entries in AVT 2-IME (ZONE III) Kharif 2017

Entry No.	IET No.	III												Zone III (9)	Overall (9)
		OD	OD	OD	OD (3)	BI	BI	BI (2)	JH	W.B	U.P.	U.P.	U.P. (2)		
		CTK	JYP	CHP	Mean	SBR	PTN-ICAR	Mean	RCI	CHN	MSD	VRN	Mean		
3701	25341	111	86	107	101	119	120	119	98	101	121	128	125	110	110
3702	25310	95	80	98	91	91	104	98	102	95	107	113	110	98	98
3704	24977	129	96	114	113	101	119	110	96	115	115	132	123	113	113
3708	IR 64 (NC)	103	78	102	95	117	100	109	101	100	104	114	109	102	102
3709	24951	130	87	106	107	106	124	115	99	115	116	130	123	112	112
3713	25358	103	81	102	95	108	111	110	102	112	102	104	103	103	103
3714	24968	110	84	103	99	106	110	108	99	121	102	117	109	106	106
3716	Zonal Check (ZC)	115	82	105	101	110	118	114	101	105	110	127	119	108	108
3720	US 312 (HC)	124	87	109	107	102	118	110	104	106	109	131	120	110	110
3721	25345	120	84	104	103	105	107	106	100	106	103	116	110	105	105
3722	25331	111	85	126	108	105	117	111	97	106	114	120	117	109	109
3724	Local Check	124	85	100	103	100	98	99	98	111	110	102	106	103	103
	Exp Mean	114	85	106	102	106	112	109	100	108	109	119	114	107	107
	C.D. 5%		0	0			0		0	0	0	0	0		
	C.V.%		0.00	0.00			0.00		0.00	0.00	0.00	0.00	0.00		

Table No. 3.10 contd : Plant Height (cm) of entries in AVT 2-IME (ZONE V) Kharif 2017

Entry No.	IET No.	V								Zone V (6)	Overall (6)
		M.P.	CG	CG	CG	CG (3)	MH	MH	MH (2)		
		WRS	RPR	JDP	BSP	Mean	SKL	SND	Mean		
3701	25341	112	107	107	121	112	125	104	114	113	113
3702	25310	98	101	92	100	98	100	85	93	96	96
3703	24855	112	109	105	118	110	110	108	109	110	110
3704	24977	134	117	113	118	116	123	102	113	118	118
3705	24952	118	119	111	121	117	118	100	109	114	114
3708	IR 64 (NC)	99	106	93	100	100	114	104	109	103	103
3709	24951	126	121	105	131	119	127	104	116	119	119
3711	25295	112	107	97	108	104	109	109	109	107	107
3713	25358	117	110	88	111	103	100	95	98	104	104
3714	24968	115	101	100	111	104	117	107	112	109	109
3715	24967	108	111	98	113	107	107	76	91	102	102
3716	Zonal Check (ZC)	98	114	104	109	109	107	88	97	103	103
3717	24956	121	118	101	118	112	121	93	107	112	112
3718	25342	115	117	109	110	112	121	87	104	110	110
3719	25323	104	105	86	112	101	107	87	97	100	100
3720	US 312 (HC)	115	125	106	121	117	123	106	114	116	116
3721	25345	110	106	102	101	103	99	89	94	101	101
3722	25331	109	115	96	122	111	114	105	109	110	110
3723	25337	127	137	114	132	128	124	80	102	119	119
3724	Local Check	106	114	104	112	110	99	93	96	105	105
	Exp Mean	113	113	101	114	110	113	96	105	109	109
	C.D. 5%	0		0	0		0	0	0		
	C.V.%	0.00		0.00	0.00		0.00	0.00	0.00		

Table No 3.10 contd : Plant Height (cm) of entries in AVT 2-IME (ZONE VI) Kharif 2017

Entry No.	IET No.	VI					Zone VI (4)	Overall (4)
		MH	GU	GU	GU	GU (3)		
		KJT	NWG	DBI	VYR	Mean		
3701	25341	124	105	121	127	118	119	119
3702	25310	107	96	110	128	111	110	110
3704	24977	124	103	141	136	127	126	126
3707	24931	124	108	137	143	129	128	128
3708	IR 64 (NC)	103	99	121	128	116	113	113
3709	24951	126	96	136	150	127	127	127
3712	24983	126	115	134	140	130	129	129
3713	25358	111	91	120	124	112	111	111
3714	24968	107	101	119	123	114	113	113
3716	Zonal Check (ZC)	98	87	88	132	102	101	101
3717	24956	122	108	120	143	124	123	123
3720	US 312 (HC)	126	112	149	132	131	130	130
3721	25345	113	107	122	123	117	116	116
3722	25331	120	111	125	139	125	124	124
3723	25337	135	119	131	134	128	130	130
3724	Local Check	120	105	101	130	112	114	114
	Exp Mean	118	104	123	133	120	120	120
	C.D. 5%	0	0	0	0	0	0	0
	C.V.%	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table No. 3.10 contd : Plant Height (cm) of entries in AVT 2-IME (ZONE VII) Kharif 2017

Entry No.	IET No.	VII									Zone VII (7)	Overall (7)
		A.P.	TEL	TEL	TEL (2)	TN	KE	KE	KE (2)	KA		
		MTU	RNR	WGL	Mean	CBT	MNC	PTB	Mean	MND		
3701	25341	134	97	121	109	106	109	91	100	89	107	107
3702	25310	115	93	118	106	93	98	84	91	77	97	97
3704	24977	137	102	131	117	121	116	98	107	80	112	112
3708	IR 64 (NC)	125	88	115	101	91	100	77	89	71	95	95
3709	24951	129	104	124	114	108	107	92	100	85	107	107
3712	24983	134	107	124	116	110	120	106	113	82	112	112
3713	25358	111	97	123	110	97	99	87	93	75	99	99
3714	24968	115	94	110	102	101	103	88	96	76	98	98
3716	Zonal Check (ZC)	122	92	121	107	97	100	85	92	80	100	100
3720	US 312 (HC)	136	101	123	112	108	111	94	102	80	107	107
3721	25345	129	106	124	115	106	98	90	94	80	105	105
3724	Local Check	124	105	139	122	101	108	82	95	99	108	108
	Exp Mean	126	99	123	111	103	106	90	98	81	104	104
	C.D. 5%	0	0			0		0		0		
	C.V.%	0.00	0.00			0.00		0.00		0.00		

Table No. 3.11 contd : Panicles/ M² of entries in AVT 2-IME (ZONE II) Kharif 2017

Entry No.	IET No.	II				Zone II (4)	Overall (4)
		UT	PUN	HAR	RAJ		
		PNT	LDN	KUL	KTA	Mean	Mean
3701	25341	136	297	295	268	249	249
3702	25310	157	244	257	280	235	235
3703	24855	185	264	242	280	243	243
3704	24977	173	290	270	257	248	248
3705	24952	173	279	268	280	250	250
3706	24950	187	244	239	315	246	246
3708	IR 64 (NC)	187	319	303	280	272	272
3709	24951	189	273	283	245	247	247
3710	24985	169	268	267	257	240	240
3711	25295	163	275	261	280	245	245
3713	25358	148	339	255	245	247	247
3714	24968	175	286	240	268	242	242
3716	Zonal Check (ZC)	173	301	268	268	253	253
3718	25342	168	288	289	233	245	245
3720	US 312 (HC)	160	275	259	280	243	243
3721	25345	183	319	283	292	269	269
3724	Local Check	166	264	289	280	250	250
	Exp Mean	170	284	269	271	248	248
	C.D. 5%	7	53	36	64	22	23
	C.V.%	2.53	11.24	7.99	14.25	11.11	11.31

Table No. 3.11 contd : Panicles/ M² of entries in AVT 2-IME (ZONE III) Kharif 2017

Entry No.	IET No.	III												Zone III (9)	Overall (9)
		OD	OD	OD	OD (3)	BI	BI	BI (2)	JH	W.B	U.P.	U.P.	U.P. (2)		
		CTK	JYP	CHP	Mean	SBR	PTN-ICAR	Mean	RCI	CHN	MSD	VRN	Mean	Mean	Mean
3701	25341	292	275	268	278	242	200	221	282	237	337	209	273	260	260
3702	25310	248	233	235	239	223	195	209	249	234	367	207	287	243	243
3704	24977	264	324	266	285	291	221	256	460	293	386	217	301	302	302
3708	IR 64 (NC)	297	291	223	270	316	255	285	280	202	353	275	314	277	277
3709	24951	307	293	169	256	266	182	224	275	203	377	205	291	253	253
3713	25358	279	266	278	274	229	195	212	288	240	381	213	297	263	263
3714	24968	317	275	219	270	242	199	220	289	266	314	221	267	260	260
3716	Zonal Check (ZC)	309	293	285	296	235	216	225	190	299	367	295	331	276	276
3720	US 312 (HC)	297	253	161	237	284	211	248	290	256	362	205	284	258	258
3721	25345	267	271	223	254	248	247	248	308	233	345	262	303	267	267
3722	25331	278	255	279	271	288	239	263	281	243	345	219	282	269	269
3724	Local Check	309	209	246	254	331	276	304	222	234	371	251	311	272	272
	Exp Mean	289	270	238	265	266	220	243	284	245	359	231	295	267	267
	C.D. 5%	37	73	25	29	67	23		39	43	13	14	10	14	14
	C.V.%	7.51	15.99	6.27	11.61	14.78	6.28		8.08	10.33	2.10	3.49	2.82	9.98	9.89

Table No. 3.11 contd : Panicles/ M² of entries in AVT 2-IME (ZONE V) Kharif 2017

Entry No.	IET No.	V							Zone V (5)	Overall (5)
		M.P.	CG	CG	CG (2)	MH	MH	MH (2)		
		WRS	RPR	JDP	Mean	SKL	SND	Mean		
3701	25341	272	242	287	265	242	221	232	253	253
3702	25310	283	208	259	233	277	278	278	261	261
3703	24855	312	203	249	226	230	288	259	256	256
3704	24977	332	191	201	196	191	254	223	234	234
3705	24952	359	245	330	288	268	348	308	310	310
3708	IR 64 (NC)	471	217	267	242	284	235	260	295	295
3709	24951	329	187	262	225	245	274	259	259	259
3711	25295	255	228	264	246	283	302	293	266	266
3713	25358	342	213	305	259	262	341	302	293	293
3714	24968	322	214	287	250	190	305	248	264	264
3715	24967	343	258	325	291	252	211	231	278	278
3716	Zonal Check (ZC)	377	219	338	279	204	323	264	292	292
3717	24956	312	217	317	267	250	271	261	274	274
3718	25342	339	250	312	281	254	305	280	292	292
3719	25323	430	273	439	356	354	202	278	340	340
3720	US 312 (HC)	361	204	234	219	243	240	242	257	257
3721	25345	486	245	317	281	268	355	312	334	334
3722	25331	366	216	298	257	243	362	303	297	297
3723	25337	361	204	338	271	276	217	247	279	279
3724	Local Check	447	224	294	259	290	306	298	312	312
	Exp Mean	355	223	296	260	255	282	269	282	282
	C.D. 5%	71	31	61	36	38	10	17	20	17
	C.V.%	12.18	8.50	12.47	12.14	9.10	2.09	5.39	10.02	8.35

Table No. 3.11 contd: Panicles/ M² of entries in AVT 2-IME (ZONE VI) Kharif 2017

Entry No.	IET No.	VI					Zone VI (4)	Overall (4)
		MH	GU	GU	GU	GU (3)		
		KJT	NWG	DBI	VYR	Mean		
3701	25341	213	280	235	301	272	257	257
3702	25310	216	291	218	246	252	243	243
3704	24977	208	292	189	225	235	228	228
3707	24931	222	289	183	208	227	225	225
3708	IR 64 (NC)	241	290	202	251	248	246	246
3709	24951	203	288	243	230	253	241	241
3712	24983	191	292	233	267	264	246	246
3713	25358	207	282	251	220	251	240	240
3714	24968	232	290	232	237	253	248	248
3716	Zonal Check (ZC)	194	272	233	301	268	250	250
3717	24956	214	283	245	232	254	244	244
3720	US 312 (HC)	203	287	227	274	262	247	247
3721	25345	224	283	244	232	253	246	246
3722	25331	240	296	231	264	263	257	257
3723	25337	207	284	232	238	252	240	240
3724	Local Check	244	289	223	194	235	238	238
	Exp Mean	216	286	226	245	253	244	244
	C.D. 5%	26	6	20	84	28	21	20
	C.V.%	7.12	1.17	5.41	20.54	11.85	10.63	10.26

Table No. 3.11 contd : Panicles/ M² of entries in AVT 2-IME (ZONE VII) Kharif 2017

Entry No.	IET No.	VII									Zone VII (7)	Overall (7)
		A.P.	TEL	TEL	TEL (2)	TN	KE	KE	KE (2)	KA		
		MTU	RNR	WGL	Mean	CBT	MNC	PTB	Mean	MND	Mean	Mean
3701	25341	345	427	353	390	437	296	311	303	430	371	371
3702	25310	354	414	359	386	343	282	284	283	373	344	344
3704	24977	332	436	363	399	501	289	206	247	400	361	361
3708	IR 64 (NC)	345	447	370	408	387	244	272	258	387	350	350
3709	24951	330	354	352	353	472	291	203	247	420	346	346
3712	24983	334	447	356	402	327	251	230	241	412	337	337
3713	25358	295	440	354	397	355	264	292	278	388	341	341
3714	24968	323	405	375	390	420	264	309	287	383	354	354
3716	Zonal Check (ZC)	345	460	362	411	367	284	296	290	400	359	359
3720	US 312 (HC)	345	488	354	421	403	236	179	207	395	343	343
3721	25345	378	510	353	432	337	235	279	257	375	353	353
3724	Local Check	310	400	377	389	422	256	375	315	432	367	367
	Exp Mean	337	436	361	398	397	266	270	268	400	352	352
	C.D. 5%	34	85	21	42	41	54	74	54	25	21	19
	C.V.%	6.05	11.49	3.36	9.19	6.16	12.09	16.28	17.23	3.73	9.88	8.88

Table No. 3.12: Grain quality characteristics of entries in AVT 2-IME, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
3701	25341	80.6	70	51.5	6.72	2.46	2.73	LB	OS	4.0	25.81	22
3702	25310	80	69.8	61	6.14	2.25	2.72	LB	VOC	3.8	22.96	55
3703	24855	81.5	70	59.5	6.5	2.15	3.02	LS	VOC	7.0	24.43	46
3704	24977	81.3	71	58.1	6.57	2.03	3.23	LS	VOC	5.1	23.26	48
3705	24952	79.5	69.0	61.5	5.38	2.32	2.31	SB	VOC	4.0	26.69	38
3706	24950	78.9	66.4	52.8	6.08	2.2	2.76	LB	VOC	5.6	23.76	59
3707	24931	80.2	71.9	65.8	6.19	2.04	3.03	LS	VOC	4.5	21.09	34
3708	IR 64	80.4	71.6	67.2	6.8	2.08	3.26	LS	VOC	4.0	23.08	62
3709	24951	82.6	71.3	58.8	5.89	2.13	2.76	MS	VOC	7.0	24.90	40
3710	24985	81	69.3	54.2	6.71	2.03	3.3	LS	VOC	7.0	23.70	45
3711	25295	80.4	72.5	67.7	6.85	2.12	3.23	LS	VOC	7	24.22	22
3712	24983	82	71.2	59	6.35	2.08	3.05	LS	A	7	22.46	49
3713	25358	78.7	70.2	67.4	6.69	2.04	3.27	LS	A	7	25.43	22
3714	24968	82.2	72.3	52	5.73	2.26	2.53	MS	VOC	7	26.37	22
3715	24967	81.3	71.4	62.8	6.58	2.31	2.84	LB	VOC	5	23.96	63
3716	MTU1010	80.4	69.3	58.4	6.1	2.13	3.08	LS	VOC	4	22.49	72
3717	24956	78.9	69.7	60.1	6.59	2.12	3.1	LS	VOC	5	24.84	46
3718	25342	79.2	69.2	61.4	6.73	1.97	3.41	LS	VOC	4.5	23.87	58
3719	25323	80.7	71.2	61.2	5.4	2.31	2.33	SB	VOC	4	25.57	22
3720	US 312	77.9	68.4	69.9	5.76	2.13	2.7	MS	VOC	5.4	23.93	41
3721	25345	78.8	68.1	59.2	7.01	2.03	3.45	LS	VOC	5	22.2	33
3722	25331	81.2	71.5	60.1	5.32	2.1	1.53	MS	VOC	7	24.02	46
3723	25337	79.6	72.4	70.6	6.11	2.07	2.95	LB	A	6	25.34	22

HULL: Hulling (%); Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB::Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 3.13: Composition of entries in Advance Variety Trial 1-Irrigated Mid Early (AVT1-IME), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
2nd Year of testing:				
3801	26096	CR 3553-1-5-1-1-1-1	ADT 43 / Ananga	LB
3802	26089	OR 2494-2	Pathara / Vandana	LB
3803	Local Check			
3804	26074	BRR 0055 (IR 91631-28-1-2-1-3-B)	IR 77298-14-1-2-10 / 3* MTU 1010	LS
3805	26082	MTU 1213 (MTU 2260-12-2-1)	MTU 1010 / Azucena // MTU 1010	SB
3806	25746	KPH-471 (Hybrid)	-	LS
3807	25764	MP-3030 (Hybrid)	-	LS
3808	IR 64 (NC)			
3809	26077	Damini	Selection from germplasm	MS
3810	24934 (Repeat)	NK-5251 Plus (Hybrid)	-	LS
3811	26075	CR 3882-1-1-6-1-4-1	Annapurna / FL378 / Annapurna	SB
3812	26126	OR 2512-5	Kharavela / IR 62037-93	LS
3813	26110	SYE-160-7-19-7-23-16	PKV HMT / Yamini	LS
3814	25745	PHI-16101 (Hybrid)		LB
3815	PR 113 (Northern), Lalat (Eastern and North Eastern), Karjat-7 (Western), MTU 1010 (Central and Southern)—ZC			
3816	26127	PAU 2K10-23-54-14-52-107-0-1	PAU 201 / PAU 3699-13-2-3-1 // PAU 201	LS
3817	26124	CR 3959-1-1-2-1-1	Satyabhama / IET21920	LS
3818	26094	WGL-962	BPT5204 / GEB-24 // BPT5204 / Shatabdi	MS
3819	26104	NLR 3296	NLR30491 / NLR34449	MS
3820	US 312 (HC)			
3821	26107	NVSR-326	IET-19044 / GNR-3	SS
3822	26079	JR 206	NPT 100 / MTU 1010	LB
3823	25749	NK-20050(Hybrid)	-	LB
3824	26125	JGL 21078	MTU 1010 / JGL 11470	LS
3825	25742	NK-18502 (Hybrid)	-	LB
3826	26111	CR 3580-7-3-1-1-1-1	Lalat / N 22	SB

Table No 3.14 : Grain Yield (Kg/ha) of entries in AVT 1-IME (ZONE II) Kharif 2017

Entry No.	IET No.	II								Zone II (3)		Overall (3)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		UT		PUN		HAR		RAJ								
		PNT		@LDN		KUL		KTA		Mean		Mean				
3803	Local Check	5942		6565	7	8074	5	5275		6430		6430		94	109	236
3806	25746	9269	5	7177	1 *	9056	1 #	7070	2 *	8465	3 *# 22%	8465	3 *# 22%	92	110	227
3807	25764	10788	2 *#	6874	4	8565	3	6161	7	8505	2 *# 23%	8505	2 *# 23%	93	112	228
3808	IR 64 (NC)	5928		5449		7392		4632		5984		5984		90	113	235
3810	24934	7490		6827	5	7883	6	6848	3 *	7407	8 7%	7407	8 7%	93	115	231
3814	25745	11059	1 *#	7117	2 *	8429	4	7358	1 *#	8949	1 *# 29%	8949	1 *# 29%	97	116	225
3815	Zonal Check (ZC)	7511	9	6050	8	7610		5629		6917		6917		101	97	224
3816	26127	10151	4	5846		7119		6117	8	7796	6 13%	7796	6 13%	94	106	222
3820	US 312 (HC)	7761	8	6651	6	7720	8	6494	5 *	7325	9 6%	7325	9 6%	92	115	234
3823	25749	10346	3 *	5984	9	7692	9	6028	9	8022	4 * 16%	8022	4 * 16%	95	112	231
3824	26125	8663	6	5803		8920	2 #	6405	6	7996	5 * 16%	7996	5 * 16%	91	111	249
3825	25742	8655	7	6943	3	7829	7	6738	4 *	7741	7 12%	7741	7 12%	93	117	237
	Exp Mean	8630		6441		8024		6230		7628		7628		94	111	232
	C.D. 5%	2749		538		1016		831		984		912		1		16
	C.V.%	18.81		4.94		7.48		7.88		13.72		12.72		1.43		8.34
	Sowing Date	13-06-2017		12-06-2017		13-06-2017		29-06-2017								
	Planting Date	29-06-2017		11-07-2017		06-07-2017		25-07-2017								
	Local ©	Pantdhan 12		PR 124		HKR-47		RSK-1091								
* Superior to Best Check % Superior over Best Check @ not included in means																
# Superior to Hybrid Check % Superior over Hybrid Check																

Table No. 3.14 contd : Grain Yield (Kg/ha) of entries in AVT 1-IME (ZONE III) Kharif 2017

Entry No.	IET No.	III																
		OD		OD		OD		OD		OD (3)		BI		BI		BI (1)		
		CTK		@JYP		BBN		CHP		Mean		SBR		@PTN-ICAR		Mean		
3801	26096	4371		4489	8 *	3170		5306	4 *	4282		6303	7	6033	7 *	6303	7 *	22%
3802	26089	5239	4	4475	9 *	5196	4	4065		4833	5 11%	6235	8	5095		6235	8	20%
3803	Local Check	5258	3	3498		4444	8	3395		4366		3928		5481		3928		
3806	25746	3609		4715	6 *	5654	1	6275	1 *#	5179	2 * 19%	6428	5	3867		6428	5 *	24%
3808	IR 64 (NC)	4855	7	2661		3235		3870		3987		4896		3890		4896		
3809	26077	3969		4630	7 *	4150		5355	3 *	4492	9 3%	5563		6819	4 *	5563		7%
3810	24934 (Repeat)	4765	8	5185	3 *	5294	3	5299	5 *	5119	3 * 17%	6155	9	3871		6155	9	19%
3811	26075	5440	2	2377		4706	6	4241		4795	7 10%	5960		4686		5960		15%
3812	26126	4109		3563		5098	5	5287	6 *	4831	6 11%	6372	6	7076	1 *	6372	6 *	23%
3814	25745	5096	6	5034	4 *	4052		4463		4537	8 4%	6863	3 *	6352	6 *	6863	3 *	33%
3815	Zonal Check (ZC)	4627	9	3193		3725		4497		4283		5177		4948		5177		
3816	26127	4356		2349		3922		4522		4267		6871	2 *	5900	8 *	6871	2 *	33%
3818	26094	4097		2637		4314	9	4948	9	4453	2%	4967		6986	2 *	4967		
3820	US 312 (HC)	5126	5	4966	5 *	4542	7	5630	2 *	5099	4 * 17%	5969		6857	3 *	5969		15%
3821	26107	3871		5418	2 *#	3529		4824		4075		5079		4971		5079		
3822	26079	4509		4335	*	3693		5185	7 *	4462	2%	6131		5567		6131		18%
3823	25749	6447	1 *#	5562	1 *#	5425	2	4883		5585	1 * 28%	5603		6529	5 *	5603		8%
3824	26125	3646		3611		3301		4417		3788		6989	1 *	5676	9	6989	1 *	35%
3826	26111	3758		3861	*	3464		5049	8	4090		6590	4 *	4390		6590	4 *	27%
	Exp Mean	4587		4029		4259		4816		4554		5899		5526		5899		
	C.D. 5%	995		327		1282		595		568		1265		301		1265		
	C.V.%	13.10		4.89		18.17		7.46		13.35		12.95		3.29		12.95		
	Sowing Date	23-06-2017		29-06-2017		20-07-2017		07-07-2017				22-06-2017		24-06-2017				
	Planting Date	01-08-2017		03-08-2017		19-08-2017		03-08-2017				17-07-2017		20-07-2017				
	Local ©	NAVEEN		Manaswini		Prativa		Lalat				R. Suwasini		Rajendra Sweta				
	* Superior to Best Check % Superior over Best Check @ not included in means																	
	# Superior to Hybrid Check % Superior over Hybrid Check																	

Table No. 3.14 contd: Grain Yield (Kg/ha) of entries in AVT 1-IME (ZONE III) Kharif 2017

Entry No.	IET No.	III										Zone III (7)		Overall (7)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		JH		W.B		U.P.		U.P.		U.P. (2)								
		@RCI		CHN		MSD		VRN		Mean		Mean		Mean				
3801	26096	4646	7	4750	*	4569	9	5719		5144		4884	4%	4884	4%	104	115	260
3802	26089	4712	5	4933	8 *	4603	8	4555		4579		4975	9 6%	4975	9 6%	106	119	263
3803	Local Check	4120		3317		5311	1	6275	9	5793	3	4561		4561		99	104	271
3806	25746	3616		3767		4163		7194	3 #	5678	7	5298	5 * 13%	5298	5 * 13%	95	107	248
3808	IR 64 (NC)	4690	6	3672		4444		5663		5053		4376		4376		92	107	255
3809	26077	4098		4078		4419		5444		4931		4711	1%	4711	1%	101	113	244
3810	24934 (Repeat)	5216	1 #	3928		4509		7006	4	5758	5	5280	6 * 13%	5280	6 * 13%	98	112	253
3811	26075	3594		4228		4561		6238		5399		5053	8 * 8%	5053	8 * 8%	96	119	253
3812	26126	4975	3 #	4756	*	4719	7	6838	5	5778	4	5311	4 * 13%	5311	4 * 13%	97	103	291
3814	25745	4032		5672	1 *	5052	3	7763	1 *#	6407	1 *# 11%	5566	2 * 19%	5566	2 * 19%	97	113	250
3815	Zonal Check (ZC)	4383	9	3833		4329		6569	6	5449	9	4680		4680		98	108	274
3816	26127	4317		5239	6 *	4306		5581		4944		4971	6%	4971	6%	98	102	268
3818	26094	4120		5267	5 *	4097		5894		4995		4798	3%	4798	3%	102	103	277
3820	US 312 (HC)	3331		5528	2 *	4876	6	6488	8	5682	6	5451	3 * 16%	5451	3 * 16%	97	112	276
3821	26107	5106	2 #	5028	7 *	4907	5	4488		4697		4532		4532		102	124	274
3822	26079	4054		4633	*	5128	2	6225		5677	8	5072	7 * 8%	5072	7 * 8%	92	107	239
3823	25749	4821	4	4778	9 *	5000	4	7363	2 *#	6181	2 # 7%	5643	1 * 21%	5643	1 * 21%	97	113	253
3824	26125	4208		5406	3 *	3751		6519	7	5135		4861	4%	4861	4%	92	104	284
3826	26111	4449	8	5406	4 *	4337		4650		4494		4751	2%	4751	2%	102	119	265
	Exp Mean	4342		4643		4583		6130		5357		4988		4988		98	111	263
	C.D. 5%	1533		454		436		659		395		326		323		0	0	5
	C.V.%	21.33		5.90		5.75		6.49		6.41		10.74		10.66		0.75	0.00	3.79
	Sowing Date	26-06-2017		30-06-2017		21-06-2017		12-06-2017										
	Planting Date	27-07-2017		25-07-2017		18-07-2017		02-07-2017										
	Local ©	Birsa Vikas Sugandha-1		Ajit		NDR 2064		HUR 4-3										

Table No. 3.14 contd : Grain Yield (Kg/ha) of entries in AVT 1-IME (ZONE IV) Kharif 2017

Entry No.	IET No.	IV		Overall ()		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		AS						
		GER		Mean				
3803	Local Check	5610	6	5610	6	109	126	273
3806	25746	6122	4	6122	4	107	117	229
3808	IR 64 (NC)	5056	9	5056	9	111	113	304
3810	24934	5884	5	5884	5	108	123	243
3814	25745	6889	2 *	6889	2 *	110	123	243
3815	Zonal Check (ZC)	4451		4451		110	121	283
3816	26127	5543	7	5543	7	110	107	235
3819	26104							
3820	US 312 (HC)	6277	3	6277	3	108	123	239
3823	25749	7053	1 *	7053	1 *	110	127	249
3824	26125	5459	8	5459	8	106	112	254
	Exp Mean	5834		5834		109	119	255
	C.D. 5%	876		876		4	0	38
	C.V.%	8.75		8.75		2.06	0.00	8.68
	Sowing Date	26-06-2017						
	Planting Date	09-08-2017						
	Local ©	Naveen						
	* Superior to Best Check % Superior over Best Check							
	# Superior to Hybrid Check % Superior over Hybrid Check							

Table No. 3.14 contd : Grain Yield (Kg/ha) of entries in AVT 1-IME (ZONE V) Kharif 2017

Entry No.	IET No.	V											
		M.P.		CG		CG		CG		CG (2)		MH	
		WRS		@RPR		JDP		BSP		Mean		SKL	
3802	26089	4098		3993	6 *	5458	6	6889	6 *	6173	7 * 22%	3559	
3803	Local Check	4321		1554		5018	8	5111		5065		2867	
3806	25746	6774	4 #	4716	2 *	5621	5	7222	4 *	6421	4 * 27%	4881	6 *
3807	25764	4625		2603		4867	9	8356	1 *	6611	3 * 31%	5069	3 *
3808	IR 64 (NC)	4308		2603		3859		5156		4507		2821	
3810	24934	5253	8	4456	4 *	6226	1 *	6556	9	6391	6 * 26%	4572	7 *
3812	26126	5061	9	3258		5308	7	5356		5332	5%	4962	4 *
3814	25745	6928	3 #	4689	3 *	6077	3 *	8289	2 *	7183	1 * 42%	5576	1 *
3815	Zonal Check (ZC)	7581	2 #	2066		3944		4711		4327		3177	
3816	26127	7878	1 #	3857	8 *	3903		7178	5 *	5540	8 9%	4303	9 *
3817	26124	6213	6	3946	7 *	4115		5711		4913		3929	
3820	US 312 (HC)	6110	7	4380	5 *	5946	4	7333	3 *	6640	2 * 31%	4893	5 *
3823	25749	6565	5	5001	1 *	6120	2 *	6689	7	6405	5 * 26%	5208	2 *
3824	26125	4507		3643	9 *	4105		6600	8	5353	9 6%	4520	8 *
	Exp Mean	5730		3626		5040		6511		5776		4310	
	C.D. 5%	644		857		998		1683		964		848	
	C.V.%	6.70		14.08		11.80		15.40		14.43		11.73	
	Sowing Date	28-06-2017		29-06-2017		16-06-2017		10-06-2017				19-06-2017	
	Planting Date	21-07-2017		18-07-2017		08-07-2017		08-07-2017				11-07-2017	
	Local ©	MTU 1001		IGKV R2		IGKV R1		Chandrasekhar				SKL-6	
	* Superior to Best Check % Superior over Best Check @ not included in means												
	# Superior to Hybrid Check % Superior over Hybrid Check												

Table No. 3.14 contd : Grain Yield (Kg/ha) of entries in AVT 1-IME (ZONE V) Kharif 2017

Entry No.	IET No.	V				Zone V (4)			Overall (4)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²	
		MH		MH (1)										
		@SND		Mean		Mean		Mean						
3802	26089	2780	1 *#	3559	12%	5001	9	3%	5001	9	3%	104	120	245
3803	Local Check	874		2867		4329			4329			92	99	290
3806	25746	2185	5 *	4881	6 * 54%	6124	3 *	26%	6124	3 *	26%	95	110	220
3807	25764	2389	3 *#	5069	3 * 60%	5729	6 *	18%	5729	6 *	18%	94	113	220
3808	IR 64 (NC)	667		2821		4036			4036			93	105	244
3810	24934	2701	2 *#	4572	7 * 44%	5651	7 *	16%	5651	7 *	16%	95	111	242
3812	26126	2331	4 *#	4962	4 * 56%	5172	8	7%	5172	8	7%	98	105	277
3814	25745	2098	6 *	5576	1 * 76%	6717	1 *#	38%	6717	1 *#	38%	97	118	209
3815	Zonal Check (ZC)	740		3177		4853			4853			86	96	250
3816	26127	679		4303	9 * 35%	5815	5 *	20%	5815	5 *	20%	93	105	233
3817	26124	976	9	3929	24%	4992		3%	4992		3%	90	107	259
3820	US 312 (HC)	2083	7 *	4893	5 * 54%	6071	4 *	25%	6071	4 *	25%	93	117	238
3823	25749	2078	8 *	5208	2 * 64%	6146	2 *	27%	6146	2 *	27%	96	115	222
3824	26125	781		4520	8 * 42%	4933		2%	4933		2%	83	106	286
	Exp Mean	1669		4310		5398			5398			94	109	245
	C.D. 5%	236		848		540			506			0		17
	C.V.%	8.44		11.73		12.37			11.60			0.26		9.67
	Sowing Date	15-06-2017												
	Planting Date	12-07-2017												
	Local ©	SYE-1												

Table No. 3.14 contd : Grain Yield (Kg/ha) of entries in AVT 1-IME (ZONE VI) Kharif 2017

Entry No.	IET No.	VI						Zone VI (3)		Overall (3)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		MH	GU	GU	GU	GU (2)								
		KJT	NWG	@DBI	VYR	Mean		Mean	Mean					
3803	Local Check	4841	5941	4242 3 #	4910	5426		5231		5231		91	115	255
3804	26074	4896	5093	3435	5511	5302		5167		5167		89	117	258
3805	26082	3429	5941	3881 4 #	3215	4578		4195		4195		105	121	229
3806	25746	5434	7330 4 *#	3661 8	6915 1	7123 1 *	20%	6560 5 *	13%	6560 5 *	13%	90	115	265
3807	25764	7090 3	7485 2 *#	3704 6	6167 7	6826 3 *	15%	6914 1 *	19%	6914 1 *	19%	91	121	257
3808	IR 64 (NC)	5389	5941	3370	5956 9	5948 9		5762		5762		90	118	273
3809	26077	3948	6250	3808 5 #	5558	5904		5252		5252		98	122	253
3810	24934 (Repeat)	6687 7	7485 3 *#	3670 7	5537	6511 6	9%	6569 4 *	13%	6569 4 *	13%	96	129	250
3813	26110	7101 2	6096	2791	3865	4980		5687		5687		97	123	262
3814	25745	5086	7562 1 *#	3151	6007 8	6784 4	14%	6218 7	7%	6218 7	7%	98	124	254
3815	Zonal Check (ZC)	6720 6	4398	2887	6319 6	5358		5812		5812		90	102	269
3816	26127	5461	5324	2817	5844	5584		5543		5543		95	115	253
3820	US 312 (HC)	6742 5	6327 9	3356	6688 3	6508 7	9%	6586 3 *	13%	6586 3 *	13%	95	120	259
3821	26107	3573	6636 7	3639 9	4031	5334		4747		4747		96	133	263
3822	26079	4324	6944 5 *	5362 1 *#	6764 2	6854 2 *	15%	6011 8	3%	6011 8	3%	91	121	264
3823	25749	7283 1	6481 8	4637 2 #	6414 5	6448 8	8%	6726 2 *	16%	6726 2 *	16%	96	129	255
3824	26125	6168 8	6713 6 *	3272	6444 4	6578 5	11%	6441 6 *	11%	6441 6 *	11%	90	120	252
3825	25742	6803 4	6096	3132	5129	5612		6009 9	3%	6009 9	3%	88	125	246
3826	26111	5699 9	5941	2856	5118	5529		5586		5586		104	128	251
	Exp Mean	5614	6315	3562	5600	5957		5843		5843		94	121	256
	C.D. 5%	900	704	418	1329	872		566		566		1		18
	C.V.%	9.68	6.73	7.08	14.34	12.73		10.37		10.37		0.99		8.55
	Sowing Date	14-06-2017		13-06-2017	14-06-2017									
	Planting Date	08-07-2017		12-07-2017	07-07-2017									
	Local ©	Karjat 5		GURJARI	NAUR 1									
	* Superior to Best Check % Superior over Best Check @ not included in means													
	# Superior to Hybrid Check % Superior over Hybrid Check													

Table No. 3.14 contd : Grain Yield (Kg/ha) of entries in AVT 1-IME (ZONE VII) Kharif 2017

Entry No.	IET No.	VII													
		A.P.		TEL		TEL		TEL (2)		TN		KE		KE	
		@MTU		RNR		WGL		Mean		CBT		MNC		@PTB	
3803	Local Check	5254	4	7294	6	4234		5764	8	6052	3	7685	8	4846	8
3806	25746	5400	3	8473	3	6528	1 *#	7501	1 *# 30%	5302	8	9972	1 *#	5153	6
3807	25764	3679		6939	7	5663	2 *#	6301	5 9%	6031	4	8352	6	5036	7
3808	IR 64 (NC)	3559		5695		4484		5090		3612		5778		5482	4
3810	24934	4845	6	8720	2 *	5609	3 *#	7165	3 *# 24%	5237	9	8996	2 *	5219	5
3814	25745	4039	9	8259	4	5520	5 *#	6890	4 *# 20%	6671	1	8435	5	3814	
3815	Zonal Check (ZC)	4237	7	6478	9	4715	8	5597	9	4856		5778		6155	1
3816	26127	4087	8	5622		4663	9	5142		5497	6	6833	9	4837	9
3820	US 312 (HC)	5228	5	7427	5	4851	7	6139	6 7%	6578	2	8963	3 *	5927	3
3823	25749	5656	2	6886	8	5106	6	5996	7 4%	5763	5	8593	4 *	6022	2
3824	26125	5952	1	8897	1 *#	5559	4 *#	7228	2 *# 25%	5366	7	7972	7	3944	
	Exp Mean	4721		7336		5176		6256		5542		7942		5131	
	C.D. 5%	2253		1423		556		734		834		847		1767	
	C.V.%	28.02		11.39		6.31		10.07		8.83		6.26		20.22	
	Sowing Date	04-07-2017				04-07-2017				06-07-2017		04-07-2017		21-06-2017	
	Planting Date	02-08-2017				24-07-2017				27-07-2017		24-07-2017		18-07-2017	
	Local ©	MTU 1121				RNR-15048				CO 47		Uma		Jyothi	
	* Superior to Best Check % Superior over Best Check @ not included in means														
	# Superior to Hybrid Check % Superior over Hybrid Check														

Table No. 3.14 contd: Grain Yield (Kg/ha) of entries in AVT 1-IME (ZONE VII) Kharif 2017

Entry No.	IET No.	VII				Zone VII (5)		Overall (5)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		KE (1)		KA								
		Mean		MND		Mean		Mean				
3803	Local Check	7685	8	6253	7	6303	8	6303	8	91	110	345
3806	25746	9972	1 *# 30%	7248	2 *	7505	1 *# 19%	7505	1 *# 19%	89	100	323
3807	25764	8352	6 9%	7209	3 *	6839	6 * 8%	6839	6 * 8%	88	107	353
3808	IR 64 (NC)	5778		3605		4635		4635		88	106	345
3810	24934	8996	2 * 17%	7092	5 *	7131	3 * 13%	7131	3 * 13%	91	108	338
3814	25745	8435	5 10%	6974	6	7172	2 * 14%	7172	2 * 14%	92	107	374
3815	Zonal Check (ZC)	5778		4995		5364		5364		87	103	333
3816	26127	6833	9	5857	8	5695	9	5695	9	94	100	324
3820	US 312 (HC)	8963	3 * 17%	7112	4 *	6986	4 * 11%	6986	4 * 11%	92	109	348
3823	25749	8593	4 * 12%	8071	1 *#	6884	5 * 9%	6884	5 * 9%	93	106	352
3824	26125	7972	7 4%	5815	9	6722	7 * 7%	6722	7 * 7%	84	103	352
	Exp Mean	7942		6385		6476		6476		90	105	344
	C.D. 5%	847		801		406		338		1		15
	C.V.%	6.26		7.37		8.67		7.22		1.24		7.06
	Sowing Date			22-08-2017								
	Planting Date			12-09-2017								
	Local ©			Thanu								

Table No. 3.15 : Days to 50% Flowering of entries in AVT 1-IME (ZONE II) Kharif 2017

Entry No.	IET No.	II				Zone II (4)	Overall (4)
		UT	PUN	HAR	RAJ		
		PNT	LDN	KUL	KTA	Mean	Mean
3803	Local Check	78	97	98	103	94	94
3806	25746	86	95	90	98	92	92
3807	25764	94	94	86	99	93	93
3808	IR 64 (NC)	82	93	91	94	90	90
3810	24934	86	99	90	96	93	93
3814	25745	91	102	98	99	97	97
3815	Zonal Check (ZC)	100	100	99	104	101	101
3816	26127	85	99	96	96	94	94
3820	US 312 (HC)	86	95	92	95	92	92
3823	25749	89	98	96	99	95	95
3824	26125	87	92	91	93	91	91
3825	25742	90	93	94	95	93	93
	Exp Mean	88	97	93	98	94	94
	C.D. 5%	5	1	1	3	1	1
	C.V.%	3.12	0.73	0.36	1.57	1.81	1.43

Table No. 3.15 contd: Days to 50% Flowering of entries in AVT 1-IME (ZONE III) Kharif 2017

Entry No.	IET No.	III													Zone III (10)	Overall (10)
		OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	W.B	U.P.	U.P.	U.P. (2)		
		CTK	JYP	BBN	CHP	Mean	SBR	PTN-ICAR	Mean	RCI	CHN	MSD	VRN	Mean	Mean	Mean
3801	26096	102	107	95	98	101	103	107	105	105	108	113	104	109	104	104
3802	26089	103	109	101	102	104	106	106	106	106	107	115	110	112	106	106
3803	Local Check	100	104	97	86	97	100	109	105	98	95	106	93	100	99	99
3806	25746	94	102	91	96	96	95	90	92	97	98	101	90	96	95	95
3808	IR 64 (NC)	94	98	87	90	92	89	89	89	102	98	89	82	86	92	92
3809	26077	94	108	97	100	100	104	104	104	101	96	110	100	105	101	101
3810	24934 (Repeat)	93	108	92	95	97	89	87	88	99	98	127	88	107	98	98
3811	26075	99	103	94	96	98	93	94	94	102	96	95	89	92	96	96
3812	26126	94	107	95	97	98	89	97	93	99	98	99	92	96	97	97
3814	25745	100	108	94	97	100	96	94	95	95	98	99	92	95	97	97
3815	Zonal Check (ZC)	102	103	90	95	97	98	96	97	99	100	104	96	100	98	98
3816	26127	100	107	95	96	99	95	95	95	106	98	102	91	97	98	98
3818	26094	102	110	96	98	102	108	102	105	94	101	112	97	104	102	102
3820	US 312 (HC)	98	110	92	95	99	95	93	94	102	98	100	89	95	97	97
3821	26107	99	103	98	101	100	108	97	103	101	102	110	98	104	102	102
3822	26079	100	101	86	88	94	88	89	88	101	98	89	81	85	92	92
3823	25749	104	107	95	99	101	95	94	95	95	98	97	86	91	97	97
3824	26125	90	102	86	87	91	88	88	88	107	95	89	82	86	92	92
3826	26111	100	110	96	98	101	104	107	105	96	98	111	98	105	102	102
	Exp Mean	98	106	94	95	98	97	97	97	100	99	104	93	98	98	98
	C.D. 5%	6	2	2	1	2	3	1		1	3	3	1	1	1	0
	C.V.%	3.54	1.09	1.13	0.70	2.08	2.16	0.81		0.79	1.76	1.49	0.67	0.74	1.74	0.75

**Table No. 3.15 contd :
Days to 50% Flowering of
entries in AVT 1-IME
(ZONE IV) Kharif 2017**

Entry No.	IET No.	IV
		AS
		GER
3803	Local Check	109
3806	25746	107
3808	IR 64 (NC)	111
3810	24934	108
3814	25745	110
3815	Zonal Check (ZC)	110
3816	26127	110
3819	26104	
3820	US 312 (HC)	108
3823	25749	110
3824	26125	106
	Exp Mean	109
	C.D. 5%	4
	C.V.%	2.06

**Table No. 3.16 : Plant Height
(cm) of entries in AVT 1-IME
(ZONE IV) Kharif 2017**

Entry No.	IET No.	IV
		AS
		GER
3803	Local Check	126
3806	25746	117
3808	IR 64 (NC)	113
3810	24934	123
3814	25745	123
3815	Zonal Check (ZC)	121
3816	26127	107
3819	26104	
3820	US 312 (HC)	123
3823	25749	127
3824	26125	112
	Exp Mean	119
	C.D. 5%	0
	C.V.%	0.00

**Table No. 3.17 : Panicles/ M²
of entries in AVT 1-IME
(ZONE IV) Kharif 2017**

Entry No.	IET No.	IV
		AS
		GER
3803	Local Check	273
3806	25746	229
3808	IR 64 (NC)	304
3810	24934	243
3814	25745	243
3815	Zonal Check (ZC)	283
3816	26127	235
3819	26104	
3820	US 312 (HC)	239
3823	25749	249
3824	26125	254
	Exp Mean	255
	C.D. 5%	38
	C.V.%	8.68

Table No. 3.15 contd: Days to 50% Flowering of entries in AVT 1-IME (ZONE V) Kharif 2017

Entry No.	IET No.	V								Zone V (6)	Overall (6)
		M.P.	CG	CG	CG	CG (3)	MH	MH	MH (2)		
		WRS	RPR	JDP	BSP	Mean	SKL	SND	Mean		
3802	26089	104	99	103	110	104	100	107	104	104	104
3803	Local Check	107	86	92	93	90	84	91	88	92	92
3806	25746	97	91	98	95	95	88	100	94	95	95
3807	25764	96	89	98	94	94	88	100	94	94	94
3808	IR 64 (NC)	126	85	88	88	87	82	91	87	93	93
3810	24934	98	91	97	96	95	88	98	93	95	95
3812	26126	101	93	101	101	98	93	102	97	98	98
3814	25745	98	94	99	99	97	92	100	96	97	97
3815	Zonal Check (ZC)	93	82	86	89	86	79	89	84	86	86
3816	26127	94	93	97	96	95	79	97	88	93	93
3817	26124	96	93	87	91	90	83	92	88	90	90
3820	US 312 (HC)	98	88	97	94	93	87	97	92	93	93
3823	25749	100	91	97	96	95	92	100	96	96	96
3824	26125	69	84	86	89	86	83	87	85	83	83
	Exp Mean	98	90	95	95	93	87	96	92	94	94
	C.D. 5%	2	2	0	0	1	1	1	1	0	0
	C.V.%	1.16	1.15	0.00	0.00	0.62	0.64	0.59	0.53	0.75	0.26

Table No. 3.15 contd: Days to 50% Flowering of entries in AVT 1-IME (ZONE VI) Kharif 2017

Entry No.	IET No.	VI					Zone VI (4) Mean	Overall (4) Mean
		MH	GU	GU	GU	GU (3)		
		KJT	NWG	DBI	VYR	Mean		
3803	Local Check	97	95	89	83	89	91	91
3804	26074	87	95	90	84	90	89	89
3805	26082	104	114	93	110	106	105	105
3806	25746	90	95	89	87	90	90	90
3807	25764	97	94	89	83	89	91	91
3808	IR 64 (NC)	91	97	90	84	90	90	90
3809	26077	89	108	103	94	101	98	98
3810	24934 (Repeat)	101	99	94	90	94	96	96
3813	26110	94	102	89	102	98	97	97
3814	25745	103	101	97	92	96	98	98
3815	Zonal Check (ZC)	97	93	90	81	88	90	90
3816	26127	92	101	95	91	95	95	95
3820	US 312 (HC)	93	99	94	94	96	95	95
3821	26107	88	100	103	93	99	96	96
3822	26079	87	101	90	88	93	91	91
3823	25749	93	104	95	93	97	96	96
3824	26125	89	98	87	86	90	90	90
3825	25742	89	96	84	83	88	88	88
3826	26111	102	106	108	100	105	104	104
	Exp Mean	94	100	93	90	94	94	94
	C.D. 5%	2	2	0	2	1	1	1
	C.V.%	1.05	1.37	0.27	1.02	1.02	1.01	0.99

Table No.3.15 contd: Days to 50% Flowering of entries in AVT 1-IME (ZONE VII) Kharif 2017

Entry No.	IET No.	VII									Zone VII (7) Mean	Overall (7) Mean
		A.P.	TEL	TEL	TEL (2)	TN	KE	KE	KE (2)	KA		
		MTU	RNR	WGL	Mean	CBT	MNC	PTB	Mean	MND		
3803	Local Check	92	84	96	90	91	88	94	91	90	91	91
3806	25746	85	87	84	86	93	82	96	89	96	89	89
3807	25764	87	89	84	87	92	77	95	86	92	88	88
3808	IR 64 (NC)	85	86	86	86	86	86	102	94	84	88	88
3810	24934	93	87	91	89	95	79	102	90	92	91	91
3814	25745	91	97	92	94	97	78	91	85	96	92	92
3815	Zonal Check (ZC)	83	87	84	85	92	79	95	87	86	87	87
3816	26127	95	95	92	93	100	85	96	91	97	94	94
3820	US 312 (HC)	92	87	91	89	97	80	102	91	92	92	92
3823	25749	95	100	89	95	100	80	91	86	96	93	93
3824	26125	84	77	83	80	89	80	90	85	88	84	84
	Exp Mean	89	89	88	89	94	81	96	89	92	90	90
	C.D. 5%	2	1	1	1	2	2	1	1	4	1	1
	C.V.%	1.22	0.85	0.85	0.84	0.98	1.66	0.49	1.09	2.24	1.26	1.24

Table No. 3.16 contd : Plant Height (cm) of entries in AVT 1-IME (ZONE II) Kharif 2017

Entry No.	IET No.	II				Zone II (4)	Overall (4)
		UT	PUN	HAR	RAJ		
		PNT	LDN	KUL	KTA	Mean	Mean
3803	Local Check	99	94	123	118	109	109
3806	25746	107	107	119	106	110	110
3807	25764	114	110	122	102	112	112
3808	IR 64 (NC)	104	115	121	114	113	113
3810	24934	114	111	122	113	115	115
3814	25745	114	116	122	112	116	116
3815	Zonal Check (ZC)	104	89	96	97	97	97
3816	26127	105	94	116	109	106	106
3820	US 312 (HC)	108	115	126	113	115	115
3823	25749	111	110	122	104	112	112
3824	26125	104	102	126	113	111	111
3825	25742	109	110	126	121	117	117
	Exp Mean	108	106	120	110	111	111
	C.D. 5%		0	0	0		
	C.V.%		0.00	0.00	0.00		

Table No. 3.17 contd: Panicles/ M² of entries in AVT 1-IME (ZONE II) Kharif 2017

Entry No.	IET No.	II				Zone II (4)	Overall (4)
		UT	PUN	HAR	RAJ		
		PNT	LDN	KUL	KTA	Mean	Mean
3803	Local Check	180	224	289	250	236	236
3806	25746	181	227	219	281	227	227
3807	25764	182	213	276	242	228	228
3808	IR 64 (NC)	182	288	232	237	235	235
3810	24934	179	253	221	272	231	231
3814	25745	180	196	240	284	225	225
3815	Zonal Check (ZC)	188	257	233	218	224	224
3816	26127	184	227	235	242	222	222
3820	US 312 (HC)	178	246	252	261	234	234
3823	25749	182	240	263	238	231	231
3824	26125	180	266	298	252	249	249
3825	25742	181	244	258	265	237	237
	Exp Mean	181	240	251	253	232	232
	C.D. 5%	8	52	19	37	16	16
	C.V.%	2.59	12.82	4.45	8.55	8.38	8.34

Table No. 3.16 contd: Plant Height (cm) of entries in AVT 1-IME (ZONE III) Kharif 2017

Entry No.	IET No.	III												Zone III (10)	Overall (10)
		OD	OD	OD	OD	OD (4)	BI	BI (2)	JH	W.B	U.P.	U.P.	U.P. (2)		
		CTK	JYP	BBN	CHP	Mean	SBR	PTN-ICAR	Mean	RCI	CHN	MSD	VRN	Mean	Mean
3801	26096	126	101	115	109	113	127	134	131	106	111	96	120	108	115
3802	26089	119	93	127	110	112	143	142	142	115	115	110	121	116	119
3803	Local Check	112	85	121	95	103	112	96	104	105	106	102	104	103	104
3806	25746	95	90	110	106	100	120	117	118	101	106	104	118	111	107
3808	IR 64 (NC)	101	90	106	102	100	120	121	120	110	105	102	114	108	107
3809	26077	117	94	115	109	109	124	124	124	107	113	104	126	115	113
3810	24934 (Repeat)	118	91	108	112	107	120	113	117	123	108	106	120	113	112
3811	26075	105	101	127	113	112	131	145	138	104	114	125	122	124	119
3812	26126	90	99	106	104	100	107	110	109	117	97	103	100	102	103
3814	25745	111	89	115	111	106	119	137	128	112	107	104	126	115	113
3815	Zonal Check (ZC)	108	81	115	104	102	114	124	119	101	109	104	119	111	108
3816	26127	100	84	100	106	97	110	118	114	91	104	94	110	102	102
3818	26094	103	78	98	103	95	111	116	113	112	104	90	112	101	103
3820	US 312 (HC)	109	89	114	116	107	121	128	125	104	112	105	121	113	112
3821	26107	117	99	122	110	112	128	134	131	112	196	105	122	113	124
3822	26079	107	88	106	107	102	115	113	114	110	105	105	116	110	107
3823	25749	118	94	112	113	109	116	132	124	108	110	108	120	114	113
3824	26125	95	95	108	101	100	107	119	113	101	105	94	112	103	104
3826	26111	134	101	122	113	118	126	136	131	118	111	105	120	113	119
	Exp Mean	110	92	113	108	105	120	124	122	108	113	103	117	110	111
	C.D. 5%	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	C.V.%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table No. 3.16 contd : Plant Height (cm) of entries in AVT 1-IME (ZONE V) Kharif 2017

Entry No.	IET No.	V								Zone V (6)	Overall (6)
		M.P.	CG	CG	CG	CG (3)	MH	MH	MH (2)		
		WRS	RPR	JDP	BSP	Mean	SKL	SND	Mean		
3802	26089	123	117	107	131	118	122	118	120	120	120
3803	Local Check	105	107	94	107	103	99	81	90	99	99
3806	25746	105	114	104	119	112	115	102	109	110	110
3807	25764	108	117	106	125	116	120	99	110	113	113
3808	IR 64 (NC)	104	108	91	114	104	121	92	106	105	105
3810	24934	116	115	97	120	111	117	105	111	111	111
3812	26126	112	108	93	116	106	100	103	101	105	105
3814	25745	113	118	106	134	119	132	105	118	118	118
3815	Zonal Check (ZC)	97	98	92	107	99	102	80	91	96	96
3816	26127	107	103	91	115	103	117	97	107	105	105
3817	26124	112	118	92	114	108	122	85	104	107	107
3820	US 312 (HC)	115	118	102	131	117	124	115	119	117	117
3823	25749	123	123	105	127	119	120	93	107	115	115
3824	26125	96	115	101	111	109	119	91	105	106	106
	Exp Mean	110	113	99	119	110	116	98	107	109	109
	C.D. 5%	0			0		0				
	C.V.%	0.00			0.00		0.00				

Table No. 3.16 contd : Plant Height (cm) of entries in AVT 1-IME (ZONE VI) Kharif 2017

Entry No.	IET No.	VI					Zone VI (4)	Overall (4)
		MH	GU	GU	GU	GU (3)		
		KJT	NWG	DBI	VYR	Mean		
3803	Local Check	113	103	116	127	115	115	115
3804	26074	108	103	133	126	121	117	117
3805	26082	114	107	134	129	123	121	121
3806	25746	95	111	124	129	121	115	115
3807	25764	116	113	122	132	122	121	121
3808	IR 64 (NC)	112	106	124	131	121	118	118
3809	26077	112	105	133	139	126	122	122
3810	24934 (Repeat)	126	113	134	143	130	129	129
3813	26110	121	117	124	132	124	123	123
3814	25745	118	107	130	140	126	124	124
3815	Zonal Check (ZC)	121	86	92	108	95	102	102
3816	26127	112	96	114	137	116	115	115
3820	US 312 (HC)	123	109	134	112	118	120	120
3821	26107	129	121	141	143	135	133	133
3822	26079	118	106	129	130	122	121	121
3823	25749	119	119	138	139	132	129	129
3824	26125	114	106	123	137	122	120	120
3825	25742	119	110	127	143	126	125	125
3826	26111	116	131	128	136	132	128	128
	Exp Mean	116	109	126	132	122	121	121
	C.D. 5%	0	0	0	0			
	C.V.%	0.00	0.00	0.00	0.00			

Table No. 3.16 contd : Plant Height (cm) of entries in AVT 1-IME (ZONE VII) Kharif 2017

Entry No.	IET No.	VII									Zone VII (7)	Overall (7)
		A.P.	TEL	TEL	TEL (2)	TN	KE	KE	KE (2)	KA		
		MTU	RNR	WGL	Mean	CBT	MNC	PTB	Mean	MND	Mean	Mean
3803	Local Check	123	102	149	126	98	110	92	101	95	110	110
3806	25746	121	56	123	90	106	115	97	106	84	100	100
3807	25764	123	101	122	111	109	118	96	107	80	107	107
3808	IR 64 (NC)	133	99	127	113	99	109	102	105	74	106	106
3810	24934	129	99	125	112	109	112	105	108	81	108	108
3814	25745	131	96	132	114	110	114	84	99	85	107	107
3815	Zonal Check (ZC)	123	94	124	109	101	99	98	99	81	103	103
3816	26127	111	89	114	101	98	110	95	102	84	100	100
3820	US 312 (HC)	128	98	132	115	104	117	103	110	78	109	109
3823	25749	123	99	113	106	111	122	91	107	81	106	106
3824	26125	125	94	125	109	108	109	77	93	83	103	103
	Exp Mean	125	93	126	110	105	112	95	103	82	105	105
	C.D. 5%	0	0			0		0				
	C.V.%	0.00	0.00			0.00		0.00				

Table No. 3.17 contd : Panicles/ M² of entries in AVT 1-IME (ZONE III) Kharif 2017

Entry No.	IET No.	III													Zone III (10)	Overall (10)
		OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	WB	U.P.	U.P.	U.P. (2)		
		CTK	JYP	BBN	CHP	Mean	SBR	PTN-ICAR	Mean	RCI	CHN	MSD	VRN	Mean	Mean	Mean
3801	26096	323	344	209	190	266	270	271	270	224	236	245	291	268	260	260
3802	26089	286	248	309	212	264	261	287	274	265	235	282	250	266	263	263
3803	Local Check	301	295	257	187	260	318	306	312	181	264	286	318	302	271	271
3806	25746	227	297	247	169	235	253	234	244	243	219	361	235	298	248	248
3808	IR 64 (NC)	240	286	251	198	244	305	238	272	213	254	264	297	280	255	255
3809	26077	326	269	225	182	250	233	238	235	210	240	293	226	259	244	244
3810	24934 (Repeat)	308	304	250	170	258	259	205	232	227	233	335	238	287	253	253
3811	26075	255	266	257	216	249	261	223	242	271	235	302	241	272	253	253
3812	26126	341	269	320	206	284	322	306	314	232	245	381	284	333	291	291
3814	25745	343	291	246	162	261	240	273	257	224	218	270	236	253	250	250
3815	Zonal Check (ZC)	299	291	289	235	279	267	322	295	195	229	335	282	309	274	274
3816	26127	255	329	248	176	252	279	262	270	245	266	373	246	310	268	268
3818	26094	304	346	278	230	289	245	241	243	244	257	333	296	315	277	277
3820	US 312 (HC)	339	309	265	194	277	255	216	236	271	327	335	247	291	276	276
3821	26107	293	286	285	182	261	267	324	295	254	243	328	281	304	274	274
3822	26079	238	297	235	168	235	269	223	246	230	249	284	200	242	239	239
3823	25749	352	243	241	167	251	239	276	257	288	224	294	206	250	253	253
3824	26125	337	284	251	223	274	312	282	297	240	241	398	275	336	284	284
3826	26111	328	311	230	198	267	280	268	274	188	199	353	292	323	265	265
	Exp Mean	300	293	257	193	261	270	263	267	234	243	319	260	289	263	263
	C.D. 5%	89	65	27	26	32	62	24	24	20	56	8	12	7	15	5
	C.V.%	17.99	13.37	6.30	8.03	15.33	13.77	5.54	7.78	5.26	13.94	1.50	2.89	2.13	11.45	3.79

Table No. 3.17 contd : Panicles/ M² of entries in AVT 1-IME (ZONE V) Kharif 2017

Entry No.	IET No.	V							Zone V (5)	Overall (5)
		M.P.	CG	CG	CG (2)	MH	MH	MH (2)		
		WRS	RPR	JDP	Mean	SKL	SND	Mean		
3802	26089	256	213	267	240	220	270	245	245	245
3803	Local Check	441	229	301	265	240	241	240	290	290
3806	25746	261	222	263	243	158	196	177	220	220
3807	25764	243	217	217	217	196	228	212	220	220
3808	IR 64 (NC)	332	233	176	205	197	281	239	244	244
3810	24934	312	208	258	233	219	215	217	242	242
3812	26126	365	204	283	243	271	260	266	277	277
3814	25745	178	202	250	226	211	202	207	209	209
3815	Zonal Check (ZC)	334	242	238	240	206	232	219	250	250
3816	26127	319	230	197	214	222	195	209	233	233
3817	26124	334	206	272	239	219	266	242	259	259
3820	US 312 (HC)	298	205	184	194	255	249	252	238	238
3823	25749	274	198	230	214	235	176	205	222	222
3824	26125	360	243	254	249	323	248	285	286	286
	Exp Mean	308	218	242	230	227	233	230	245	245
	C.D. 5%	44	43	73	41	39	6	15	20	17
	C.V.%	8.59	11.66	17.95	15.40	10.12	1.62	5.52	11.10	9.67

Table No. 3.17 contd : Panicles/ M² of entries in AVT 1-IME (ZONE VI) Kharif 2017

Entry No.	IET No.	VI					Zone VI (4)	Overall (4)
		MH	GU	GU	GU	GU (3)		
		KJT	NWG	DBI	VYR	Mean		
3803	Local Check	218	289	234	280	268	255	255
3804	26074	202	284	252	295	277	258	258
3805	26082	164	288	205	258	250	229	229
3806	25746	212	294	243	311	283	265	265
3807	25764	213	299	254	262	272	257	257
3808	IR 64 (NC)	230	289	253	322	288	273	273
3809	26077	197	291	217	306	271	253	253
3810	24934 (Repeat)	195	299	250	255	268	250	250
3813	26110	221	290	238	300	276	262	262
3814	25745	223	297	250	247	265	254	254
3815	Zonal Check (ZC)	220	278	241	339	286	269	269
3816	26127	203	285	204	321	270	253	253
3820	US 312 (HC)	202	291	209	332	277	259	259
3821	26107	207	294	235	318	282	263	263
3822	26079	203	295	247	310	284	264	264
3823	25749	199	292	230	300	274	255	255
3824	26125	179	295	228	306	276	252	252
3825	25742	179	290	208	307	268	246	246
3826	26111	220	289	220	273	261	251	251
	Exp Mean	205	291	232	297	273	256	256
	C.D. 5%	32	4	19	69	23	18	18
	C.V.%	9.53	0.81	4.88	14.10	9.09	8.91	8.55

Table No. 3.17 contd : Panicles/ M² of entries in AVT 1-IME (ZONE VII) Kharif 2017

Entry No.	IET No.	VII									Zone VII (7)	Overall (7)
		A.P.	TEL	TEL	TEL (2)	TN	KE	KE	KE (2)	KA		
		MTU	RNR	WGL	Mean	CBT	MNC	PTB	Mean	MND	Mean	Mean
3803	Local Check	282	466	372	419	410	266	223	245	397	345	345
3806	25746	297	493	359	426	298	222	197	209	397	323	323
3807	25764	297	484	340	412	430	244	315	280	363	353	353
3808	IR 64 (NC)	330	466	383	425	368	269	248	258	350	345	345
3810	24934	286	502	380	441	363	260	167	214	410	338	338
3814	25745	277	537	353	445	523	253	298	276	373	374	374
3815	Zonal Check (ZC)	321	499	362	431	290	253	248	250	357	333	333
3816	26127	290	471	354	413	285	271	223	247	377	324	324
3820	US 312 (HC)	264	521	359	440	457	244	238	241	350	348	348
3823	25749	295	495	332	414	360	258	325	291	397	352	352
3824	26125	339	510	389	450	320	265	233	249	407	352	352
	Exp Mean	298	495	362	429	373	255	247	251	380	344	344
	C.D. 5%	60	43	20	24	30	71	74	45	66	20	15
	C.V.%	11.73	5.12	3.25	4.89	4.74	16.27	17.67	15.30	10.26	9.71	7.06

Table No. 3.18: Grain quality characteristics of entries in AVT 1-IME, Kharif 2017

Entry NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
3801	26096	81.1	71.3	60.3	5.07	2.44	2.05	LB	VOC	4.0	24.37	22
3802	26089	79.1	66.0	40.9	5.46	2.48	2.20	LB	OC	4.6	25.78	45
3804	26074	79.8	70.7	66.7	6.44	2.10	3.06	LS	VOC	3.0	23.70	49
3805	26082	76.5	66.5	48.5	5.62	2.35	2.39	SB	VOC	7.0	26.19	22
3806	25746	82.3	72.2	59.4	6.77	2.12	3.19	LS	VOC	5.4	24.99	27
3807	25764	81.0	72.9	68.6	6.78	2.11	3.21	LS	VOC	4.8	24.49	58
3808	IR-64	81.5	71.5	63.1	6.88	2.11	3.26	LS	VOC	4.0	24.99	77
3809	26077	82.3	71.3	63.5	4.98	1.97	2.52	MS	A	4.0	25.87	22
3810	24934	81.3	71.9	66.4	6.20	2.04	3.03	LS	A	5.6	20.38	43
3811	26075	79.1	69.5	61.5	5.18	2.17	2.38	SB	VOC	4.0	27.60	25
3812	26126	83.3	75.2	70.0	6.35	2.05	3.09	LS	A	7.0	25.87	22
3813	26110	83.7	71.8	63.5	6.18	1.85	3.34	LS	A	4.0	22.61	24
3814	25745	81.5	71.6	62.6	6.51	2.24	2.90	LB	VOC	4.5	21.26	59
3815	MTU 1010	79.6	71.7	68.4	6.40	1.99	3.21	LS	VOC	7.0	22.82	60
3816	26127	80.3	70.5	62.6	6.62	2.19	3.02	LS	A	7.0	17.48	75
3817	26124	80.7	71.9	67.2	6.84	2.10	3.25	LS	A	4.0	25.40	37
3818	26094	81.6	72.8	70.8	4.92	1.71	2.87	MS	A	3.5	24.43	22
3819	26104	80.5	71.2	63.3	5.44	2.06	2.64	MS	A	5.0	26.54	32
3820	US 312	81.7	72.9	66.9	5.47	2.02	2.70	MS	VOC	5.0	23.78	51
3821	26107	80.0	70.8	66.8	5.82	1.84	3.16	SS	A	5.0	26.75	30
3822	26079	81.5	73.1	66.3	6.20	2.17	2.85	LB	VOC	4.0	22.85	47
3823	25749	81.3	72.8	68.6	6.21	2.23	2.78	LB	A	4.3	23.23	50
3824	26125	81.2	71.9	68.2	6.11	1.99	3.07	LS	A	4.0	23.87	37
3825	25742	80.6	68.8	53.4	6.15	2.19	2.80	LB	VOC	5.0	25.72	65
3826	26111	80.8	72.4	61.4	5.13	2.51	2.04	SB	A	5.0	22.20	22

HULL: Hulling (%); Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB::Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 3.19: Composition of entries in Initial Variety Trial –Irrigated Mid Early (IVT-IME), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
1st Year of testing:				
3901	26865	OR 2520-4	Heera / Konark	LB
3902	26866	CRR 484-2-1-1-1-1	RR165-1160 / Krishnabhog	SB
3903	26867	RP Bio 4918-B-B-233K	Swarna / O.nivara	MS
3904	26868	RP 6112-MS-44-4-4-8-58-3-1	BPT 5204 Mutant	LB
3905	26869	Pusa 2050-20	Pusa 44 / K332	LB
3906	26870	BMR -MS-1-2-1	MO4 / Narunga	SB
3907	26871	RP 6264-HHZ 10-DT7-Y1	Huang-Hua-Zhan*2 / Zhong 413	LS
3908	26872	ORJ-1342(TP-29409)	IIRON42 Ent.08	MS
3909	26873	KJT 8-1-6-7-12	KJT 35-3 / Abhaya	LS
3910	26874	TRC 2017-15	Pyzum / Sambha Mahasuri	LS
3911	26875	PAU 6508-273-13-21-8-1	PAU 201/ PAU 3699-13-2-3-1 // PAU 201	LB
3912	26876	MTU 1256	BPT 5204 / MTU 1081	SB
3913	26877	IR 73930-31-3-2 CR 3728-2-2	IR 65629-157-3-2-3-2-1 / IR 66160-121-4-1-1	LB
3914	26878	RCPR 47-IR92546-33-4-2-3	Thadokkham 1 / IR08L119	LS
3915	26879	CB 14502	ADT 43 / IET 20553	MS
3916	26880	NVSR-2125	Gurjari / Jaya	LB
3917	Gontra Bidhan-3 (NC)			
3918	26881	RNR 21571	MTU 1010 / JGL 3855//MTU 1010 / NLR 34449	LB
3919	26882	NP 9034	PAB 116 / PAB 64	LS
3920	26883	CR 3808-60-9-2-1	Selection from Male sterility facilitated recurrent selection population	SB
3921	26884	NVSR-368	IET 19389 / Pusa Sugandha 5	LS
3922	26885	RP 6177-HHZ 4-SAL5-LI1-LI1	Huang-Hua-Zhan*2 / IR 64	LS
3923	26886	RP 6112-MS-92-2-5-5-7-9-6	BPT 5204 Mutant	SB
3924	26887	Pusa 2049-23	Annada / Danteshwari	LS
3925	26888	RP 6114-83-23-6-5-1-1	Swarna / IRGC 48960 //BPT5204	LB
3926	26889	KJT 9-24-1-6-9	PLG 1 / IR BB60	LS
3927	26890	BPT 2673	BPT 5204 / RP 4677-16-6-1-12-1-2	MS
3928	26891	RP Bio 4918-B-B-236K	Swarna / O.nivara	MS
3929	26892	CR 3562-2-1-1-1-1-1	Surendra / N 22	SB
3930	26893	NLR 4005	NLR 34449 / NLR 33338 // BPT 5204	MS
3931	26894	NDR 2105	IR 36 / NDR 118	MS
3932	26895	CR 4049-1-2-1-1-1	IR64 / PSB RC 18 // IR72	LB
3933	26896	RTR-110	Mutant of MTU 1010	LS
3934	26897	RDR-1147	MTU 1010 / MTU 4870	MS
3935	26898	HURS 17-7-IR 95786-9-2-1-2	IR 10 L 149 / IR 10 L 152	LS
3936	26899	WGL-1067	Kavya / MTU 1075	MS
3937	PR 113(Northern), Lalat (Eastern & North Eastern), Karjat-7 (Western), MTU 1010 (Central & Southen)--ZC			
3938	26900	CRAC 3994-9-17	Doubled haploid of CR Dhan 701	LS
3939	26901	KMP-220	Jyothi / BR 2655	MS
3940	26902	CR 4048-2-1-2-1-1	IR 79643-39-2-2 / IR 84852-B-12-2	LS
3941	26903	RP 5687-420-111-5-4-2-1	Sona Mahsuri / DRR Dhan 39	LS
3942	26904	RP 6269-GSR IR1-5-Y3-S2-SU1	Huang-Hua-Zhan*2 / OM 1723	LS

Entry No.	IET No.	Designation	Cross combination	Grain type
3943	26905	Pusa 2050-19	Pusa 44 / K332	LB
3944	26906	IRGA-318-11-6-2B	New Rex. // IR 19743-25 / BR IRGA 409	SB
3945	26907	RP 6272-HHZ 2-Y3-Y1-Y1	Huang-Hua-Zhan*2 / Khazar	LB
3946	26908	ORJ 1338(TP 30039)	IIRON 42 ENT.19	MS
3947	26909	CR 3497-7-1-3-1-1-1	Lalat / Tapaswini	MS
3948	26910	PAU 7553-1-1-1(HHZ 14-SAL 10-DTI-DTI)	Huang-Hua-Zhan*2 / R6 44	LS
3949	26911	RP 5709-54-12-6-3-2-2	RP bio 226 / MTU 1064	MS
3950	26912	RP 6278-LVS 16-CN2100-39-11-2-2	Krishna Hamsa / IC 450068	LB
3951	26913	RP6224-GSRIR1-5-S10-D3-Y2	Huang-Hua-Zhan*2 / OM 1723	LS
3952	26914	OR 2573-14	Birupa / IR 76561-AC-8-8	LB
3953	26915	HKR15-1-IR 99784-255-29-1-2	IR 48003:257 / MR 219	LS
3954	26916	NPR-7023	Swarna / GB-1	LS
3955	26917	RP 6225-HHZ4-DT6-LI2-LI1	Huang-Hua-Zhan*2 / IR 64	LS
3956	26918	MTU 1211	MTU 1001 / KMP 105	MS
3957	26919	CB 14811	CB 04110 / ADT 39 // JGL 1798 / Rasaladam	SS
3958	26920	BRR 0071	Moroberekan (ACC 12048)/3* Swarna	MS
3959	26921	UPR 3991-2-2-1-1	Pant Dhan 19 / UPRI 2008-16	LS
3960	26922	NLR 3369	GEB 24 / NLR 33671	MS
3961	26923	NVSR-2115	Gurjari / PAU 201	LB
3962	26924	R 1645-2734-344-1	R 548-89-2 / Poornima	LS
3963	26925	HURS17-8-IR 93809-101-2-2-2	IR 7022-46-2-3-3-2 / IR 77298-5-6-18	LS
3964	Local Check			

Table No. 3.20 : Grain Yield (Kg/ha) of entries in IVT IME Kharif 2017

Entry No.	IET No.	II								III			
		UT		PUN		HAR		RAJ		Zone II (3)		OD	
		@PNT		LDN		KUL		KT A		Mean		CTK	JYP
3901	26865	8297	9	5059		7150	3	5352		5854		6246	1 *
3902	26866	7865		5302		4600		5918		5273		5055	9
3903	26867	7049		4345		3000		5386		4244		3616	
3904	26868	6014		4379		4500		5818		4899		4881	
3905	26869	6451		5119		5500		7580	3	6066	9	4190	
3906	26870	7564		5462				5918		5690		4351	
3907	26871	7783		6640	2	3000		6782		5474		4323	
3908	26872	5373		5634		5800		6283		5906		3244	
3909	26873	5531		1473				4322		2897		4766	
3910	26874	6578		5250		3950		6117		5106		5192	6
3911	26875	6811		5362		5100		5386		5282		4746	
3912	26876	5605		3253		4100		7114	8	4822		3589	
3913	26877	7574		5055		4350		5984		5130		4772	
3914	26878	11410	1 *	4140		6300		6516		5652		4746	
3915	26879	9801	2	4630		3900		5951		4827		3297	
3916	26880	9324	3	6165	8	7000	4	6250		6472	4	4269	
3917	Gontra Bidhan-3 (NC)	7197		6503	4	6800	6	7247	5	6850	1	5165	7
3918	26881	4609		4132		5050		6915		5366		6009	2
3919	26882	6070		4754		5700		7646	2	6033		4989	
3920	26883	5824		4689		4650		7114	9	5484		2699	
3921	26884	6512		4221		4700		7713	1	5545		3795	
3922	26885	6316		5646		5750		6117		5838		4239	
3923	26886	5867		4751		5500		6782		5678		4575	
3924	26887	5219		3364		3950		4854		4056		4888	
3925	26888	4996		5435		4750		4987		5057		3915	
3926	26889	3328		4457		6550	9	4322		5110		3955	
3927	26890	3244		1516				4255		2886		4610	
3928	26891			2996		3500		4987		3828		3991	
3929	26892	6988		4912		5550		6383		5615		3854	
3930	26893	3340		3773		5350		5452		4859		3266	
3931	26894	7254		4532		5400		6316		5416		4156	
3932	26895	8703	8	4602		6700	7	6416		5906		4088	
3933	26896	7617		4752		5950		4987		5230		4990	
3934	26897	6656		5324		6825	5	4122		5424		4836	
3935	26898	7641		6451	5	7700	1	5386		6512	3	4654	
3936	26899	4488		4905		5450		6184		5513		4656	
3937	Zonal Check (ZC)	5469		4236		5550		5718		5168		4615	
3938	26900	6078		4213		5300		6051		5188		4087	
3939	26901	9004	4	5057		6100		5785		5647		5390	4
3940	26902	6223		5024		5750		5652		5475		4724	
3941	26903	3742		2366		4100		4322		3596		4210	
3942	26904	4902		6000		6000		4255		5418		4315	
3943	26905	6023		4493		4850		7181	6	5508		4503	
3944	26906	5777		4872		5250		6250		5457		4515	
3945	26907	4699		5100		6600	8	7048		6249	7	4056	
3946	26908	8836	7	6191	7	5650		6715		6185	8	3604	
3947	26909	8844	6	3752		4150		6383		4762		4985	
3948	26910	7383		6957	1	5850		5984		6264	6	3678	
3949	26911	7852		3635		4450		4056		4047		3509	
3950	26912	8145		4077		4650		6915		5214		3970	
3951	26913	6285		6241	6	5800		4222		5421		4422	
3952	26914	5855		4493		5150		4156		4599		4236	
3953	26915	7117		6033	9	6000		4787		5607		5327	5
3954	26916	8984	5	6594	3	6350		7181	7	6708	2	5114	8
3955	26917	6598		5100		5650		7447	4	6066		5557	3
3956	26918	4895		4518		6150		6848		5839		4970	
3957	26919	5801		3618		5050		4721		4463		3926	
3958	26920	5637		3922		5700		5618		5080		5007	
3959	26921	6887		6033		5750		5685		5823		4682	
3960	26922	6578		5391		6050		5352		5598		4892	
3961	26923	6955		5718		7450	2	5851		6340	5	3464	
3962	26924	6334		3982		5950		4289		4740		4332	
3963	26925	6670		5437		6300		5352		5697		4402	
3964	Local Check	6580		5656		5000		4987		5214		4447	
	Exp Mean	6588		4808		5421		5839		5355		4430	
	C.D. 5%	3189		1045		1341		738		652		936	
	C.V.%	24.22		10.87		12.37		6.32		10.69		10.58	
	Sowing Date	30-06-2017		30-06-2017		26-06-2017		03-07-2017				26-06-2017	
	Planting Date	27-09-2017		31-07-2017		18-07-2017		30-07-2017				01-08-2017	
	Local ©	P.D. 12		PR 124		HKR 47		RSK-1091				NAVEEN	
												Manaswini	
												Pratibha	
												Lalat	

* Superior to Best Check % Superior over Best Check @ not included in means

Table No. 3.20 contd : Grain Yield (Kg/ha) of entries in IVT IME Kharif 2017

EntryNo.	IET No.	III											
		OD (4)		BI		BI		BI (1)		JH		W.B	
		Mean		SBR		@PTN-ICAR		Mean		RCI		CHN	
3901	26865	5012	7 * 9%	5585		6982		5585		4514		5250	
3902	26866	4608		4872		5236		4872		5357	8	5333	
3903	26867	4115		5668		5698		5668		3175		5917	
3904	26868	4273		4856		5432		4856		4663		4250	
3905	26869	3703		6198		6241		6198		4266		5333	
3906	26870	5121	5 * 11%	5288		6042		5288		4762		4833	
3907	26871	4150		5379		7766	4 *	5379		3919		3708	
3908	26872	5058	6 * 10%	6512		6613		6512		4712		7750	6
3909	26873	3800		6364		4314		6364		3869		6583	
3910	26874	5229	3 * 14%	6232		7882	3 *	6232		5060		4667	
3911	26875	3826		5731		6951		5731		4117		5917	
3912	26876	4430		4799		6378		4799		5159		6083	
3913	26877	4108		5428		6729		5428		4018		4333	
3914	26878	4181		6554	8	7209	*	6554	8 1%	4762		7292	
3915	26879	2745		4792		5193		4792		3819		3333	
3916	26880	4321		6697	5	8132	2 *	6697	5 3%	3671		7792	4
3917	Gontra Bidhan-3 (NC)	4279		6500		6757		6500		5506	6	8375	1
3918	26881	4129		4331		5221		4331		4415		5667	
3919	26882	3882		5427		5530		5427		5109		5333	
3920	26883	4354		4840		4688		4840		4018		3667	
3921	26884	4294		5271		6701		5271		5605	3	5417	
3922	26885	3980		6103		6892		6103		4514		5375	
3923	26886	4413		4513		5592		4513		4464		7167	
3924	26887	3314		4722		5894		4722		4167		6750	
3925	26888	4518		5924		5849		5924		5853	2	6708	
3926	26889	4616		5240		5523		5240		5308		6958	
3927	26890	3116		2580		1544		2580		1141		3000	
3928	26891	4289		6332		5809		6332		3224		7542	7
3929	26892	4795	4%	7475	1	7341	8 *	7475	1 15%	5060		5750	
3930	26893	4392		5007		4678		5007		4563		5583	
3931	26894	4048		4921		5466		4921		3423		4850	
3932	26895	4025		4772		4783		4772		4315		6583	
3933	26896	3444		3861		4334		3861		4117		5708	
3934	26897	4126		4906		5024		4906		4812		6567	
3935	26898	4224		5032		4730		5032		4712		6667	
3936	26899	4411		5343		6367		5343		5109		7083	
3937	Zonal Check (ZC)	4603		5788		5981		5788		5456	7	6417	
3938	26900	3794		4454		6846		4454		4266		6292	
3939	26901	5211	4 * 13%	5090		5618		5090		4861		8042	2
3940	26902	4417		5210		6433		5210		4315		7117	
3941	26903	4250		4323		5247		4323		3869		7458	8
3942	26904	4479		4816		7078	*	4816		3919		6417	
3943	26905	3787		5517		7618	6 *	5517		4712		7792	5
3944	26906	4808	9 4%	5745		6478		5745		4861		5792	
3945	26907	4431		6616	7	6270		6616	7 2%	5903	1	6417	
3946	26908	4523		3605		6574		3605		5357	9	8042	3
3947	26909	4713	2%	5702		5397		5702		4167		7083	
3948	26910	3884		5228		7634	5 *	5228		4514		7167	
3949	26911	3825		5681		6214		5681		4613		5542	
3950	26912	3867		4971		6152		4971		3472		7333	9
3951	26913	4336		6824	2	7288	9 *	6824	2 5%	4762		6500	
3952	26914	4954	8 8%	6733	4	5994		6733	4 4%	5556	5	6708	
3953	26915	3888		4942		6310		4942		4365		6417	
3954	26916	4412		6807	3	5973		6807	3 5%	5605	4	4125	
3955	26917	4394		6550	9	7510	7 *	6550	9 1%	4613		5250	
3956	26918	5238	1 * 14%	5473		6447		5473		5208		5000	
3957	26919	3151		5176		6283		5176		4167		5542	
3958	26920	4309		5900		6319		5900		4514		3000	
3959	26921	3826		5453		6408		5453		4960		4333	
3960	26922	5235	2 * 14%	6054		6736		6054		4365		6708	
3961	26923	4053		6634	6	8414	1 *	6634	6 2%	5159		4600	
3962	26924	3596		5758		6614		5758		4117		4417	
3963	26925	4388		4139		5653		4139		4415		3750	
3964	Local Check	4356		3844		5733		3844		4911		6833	
	Exp Mean	4251		5423		6137		5423		4536		5925	
	C.D. 5%	396		984		299		982		1357		1038	
	C.V.%	9.47		9.08		2.43		9.06		14.97		8.76	
	Sowing Date			28-06-2017		07-07-2017				26-06-2017		30-06-2017	
	Planting Date			23-07-2017		01-08-2017				03-08-2017		27-07-2017	
	Local ©			R. Suwasini		Rajendra Sweta				Birsa Vikas Dhan-203		Ajit	
												NDR 2064	
												HUR-4-3	

Table No. 3.20 contd : Grain Yield (Kg/ha) of entries in IVT IME Kharif 2017

Entry No.	IET No.	Zone III (8)		V								Zone V(1)		VI					
				CG		CG		CG (0)		MH				MH		MH		MH (2)	
		Mean	@RPR	@JDP			Mean		SKL		@SND		Mean		KJT		Mean		
3901	26865	5162		4159		5813				5315	5	1016		5315	5	4375		4845	
3902	26866	5022		4636		3969				4672		1598		4672		6982	2	5827	1 14%
3903	26867	4629		4327		3981				3385		2656		3385		4660		4023	
3904	26868	4506		3918		3375				4363		2202		4363		4083		4223	
3905	26869	4549		4192		4644				3205		2053		3205		3379		3292	
3906	26870	5139		4785	9	3544				4440		2720		4440		4257		4349	
3907	26871	4470		3758		3294				4427		2720		4427		5262		4845	
3908	26872	5741	1 4%	6307	1 *	5050				5373	4	3594	9	5373	4 1%	4722		5048	
3909	26873	4188		3737		3700				2716		1932		2716		3179		2947	
3910	26874	5344	7	4574		5925	7			4595		3324		4595		4599		4597	
3911	26875	4537		4531		4806				4118		1300		4118		4282		4200	
3912	26876	4828		3495		4356				4588		3793	7	4588		3818		4203	
3913	26877	4473		2898		5194				4337		3445		4337		4307		4322	
3914	26878	5116		3760		4694				4569		2479		4569		4042		4305	
3915	26879	3308		2396		4188				4562		1790		4562		3124		3843	
3916	26880	5138		4038		5294				4942		3196		4942		6273	6	5608	3 10%
3917	Gontra Bidhan-3 (NC)	5507	3	5047	6	5488				3790		3864	6	3790		6303	5	5047	
3918	26881	4445		3345		4819				3205		1122		3205		4729		3967	
3919	26882	4590		2969		4544				3108		2713		3108		4630		3869	
3920	26883	4439		3538		3750				2452		611		2452		4531		3491	
3921	26884	4875		4619		5688				5528	2	3970	4	5528	2 4%	4589		5058	9
3922	26885	4795		3811		4850				4311		4020	3	4311		6119	7	5215	7 2%
3923	26886	4865		3756		5200				3134		3693	8	3134		4912		4023	
3924	26887	4239		4205		4625				4247		2884		4247		4796		4521	
3925	26888	5313		3109		4588				3797		1719		3797		3503		3650	
3926	26889	5196		4266		5638				2941		3260		2941		3537		3239	
3927	26890	2556		2127		4769				1943		774		1943		6936	3	4440	
3928	26891	4930		4473		4975				3005		2955		3005		3578		3292	
3929	26892	5321	8	5351	2	5650				5290	7	3125		5290	7	5710	9	5500	4 8%
3930	26893	4564		3432		3988				3230		2848		3230		3321		3276	
3931	26894	4374		4327		4213				3790		3033		3790		3934		3862	
3932	26895	4766		3688		4538				4228		4595	1 *	4228		2642		3435	
3933	26896	4037		4679		4531				3205		2124		3205		4141		3673	
3934	26897	4721		3273		4800				3945		1364		3945		3333		3639	
3935	26898	4908		3788		5931	6			4208		1591		4208		4699		4454	
3936	26899	5096		4360		6331	3			4852		2848		4852		5914	8	5383	5 6%
3937	Zonal Check (ZC)	5121		3261		4119				3147		859		3147		3611		3379	
3938	26900	4505		3549		4813				4762		3210		4762		4506		4634	
3939	26901	5445	5	4559		5731				4035		2805		4035		3247		3641	
3940	26902	4889		3033		5506				3411		774		3411		4915		4163	
3941	26903	4650		3064		3550				2484		1953		2484		3588		3036	
3942	26904	4967		3097		5013				3443		2997		3443		3858		3650	
3943	26905	4916		3753		3975				4112		2500		4112		3611		3862	
3944	26906	5118		4724		4950				4640		2251		4640		4978		4809	
3945	26907	5365	6	3648		5919	8			5965	1	1570		5965	1 13%	4614		5289	6 4%
3946	26908	5165		3689		5944	5			3591		1442		3591		4083		3837	
3947	26909	5149		4099		3750				4839		2670		4839		4025		4432	
3948	26910	4836		3624		4456				4994		1286		4994		4771		4882	
3949	26911	4533		4088		5344				5380	3	2841		5380	3 1%	3534		4457	
3950	26912	4695		3964		4613				2413		2876		2413		3636		3025	
3951	26913	5221		4875	8	6238	4			2169		2244		2169		7693	1 *	4931	
3952	26914	5486	4	4889	7	6456	2			3687		4098	2	3687		3504		3595	
3953	26915	4615		3288		7031	1			2915		838		2915		3065		2990	
3954	26916	4972		3880		5419				5026		1243		5026		4589		4807	
3955	26917	5023		3512		5444				4292		1385		4292		4415		4353	
3956	26918	5313	9	5070	5	3131				5161	8	3871	5	5161	8	6397	4	5779	2 14%
3957	26919	4160		3917		3675				4916		2415		4916		4067		4492	
3958	26920	4560		4597		4994				5019		1683		5019		4870		4945	
3959	26921	4507		3741		4856				4234		2479		4234		4100		4167	
3960	26922	5522	2	5167	4	4863				4389		3281		4389		5019		4704	
3961	26923	4873		5320	3	5731				5148	9	3544		5148	9	4668		4908	
3962	26924	4217		3562		5213				2928		2401		2928		3511		3219	
3963	26925	4498		2963		5144				4749		1740		4749		5268		5008	
3964	Local Check	4866		3205		5831	9			5302	6	2500		5302	6	4877		5089	8
	Exp Mean	4795		3966		4882				4078		2448		4078		4472		4275	
	C.D. 5%	341		695		2220				998		314		998		1193		781	
	C.V.%	10.25		8.76		22.76				12.25		6.42		12.25		13.34		13.06	
	Sowing Date			29-06-2017		28-06-2017				27-06-2017		28-06-2017				12-07-2017			
	Planting Date			21-07-2017		19-07-2017				19-07-2017		20-07-2017				04-08-2017			
	Local ©			IGKV R2		IGKVR1				PKV Ganesh		PKV-HMT				Karjat 5			

Table No. 3.20 contd : Grain Yield (Kg/ha) of entries in IVT IME Kharif 2017

EntryNo.	IET No.	VI										VII					
		GU		GU		GU (2)		Zone VI (3)		AP.		TEL		TEL		TEL (2)	
		@NWG	NVS	YVR	Mean	Mean	Mean	Mean	Mean	MTU	RNR	RNR	WGL	WGL	Mean	Mean	Mean
3901	26865	3571	3885	4692	4288	4317	4317	3897	6181	9	5525	5853					
3902	26866	2877	6071	2 *	4998	5534	3 18%	6017	1 * 25%	5513	6591	6	5324	5957			
3903	26867	3571	3744		3702	3723		4035		4551	4363		6005	5184			
3904	26868	4167	3686		3544	3615		3771		2768	5800		4721	5260			
3905	26869	3075			4968	4968	9 6%	4174		3492	3463		4652	4058			
3906	26870	2778	3622		3464	3543		3781		5938	8	5618	4529	5074			
3907	26871	4464	7	6628	1 *	4497	5562	2 19%	5462	3 * 13%	2969		5505	4237			
3908	26872	5655	1	4391		4853	4622	4656		7437	1	5766	4971	5368			
3909	26873	2083		5147	7	4184	4666	4170		3956	5494		4539	5017			
3910	26874	2778		3205		4456	3830	4087		5768	5366		5245	5305			
3911	26875	2976		3615		5748	5	4682		4549	3101		4814	5270			
3912	26876	2381		5090	8	4682	4886	4%	4530	4952	5489		4691	5090			
3913	26877	3770		4109		5240	9	4674		4552	4917		4941	5551			
3914	26878	3770		4218		5630	7	4924	5%	4630	5249		5366	5471	5418		
3915	26879	2976		3981		3748	3865	3618		3061	5069		5196	5133			
3916	26880	2579		3526		3383	3454	4394		5407	5919		5284	5602			
3917	Gontra Bidhan-3 (NC)	4365	8	3385		4783	4084	4823		4576	6141		6137	6139	7		
3918	26881	3571		4923		5141	5032	8 8%	4931	8 2%	3832	5865	6652	2	6258	6	2%
3919	26882	2579		4141		3415	3778	4062		4359	5825		4623	5224			
3920	26883	3274		4224		5187	4706	1%	4647		4264	6364	8	4255	5309		
3921	26884	3671		3885		4396	4140	4290		5262	5707		5230	5468			
3922	26885	3175		3846		4472	4159	4812		4825	4200		5961	5080			
3923	26886	2480		3673		4048	3861	4211		4405	6892	2	4990	5841			
3924	26887	2579		3321		4235	3778	4117		2577	3498		5123	4310			
3925	26888	2679		3686		3458	3572	3549		3947	5469		5804	5637			
3926	26889	3274		4782		3446	4114	3922		5170	6146		5495	5821			
3927	26890	3075		2615		3728	3171	4426		3721	2930		4603	3766			
3928	26891	4663	5	3256		3785	3521	3540		5571	4960		5240	5100			
3929	26892	4266	9	4442		4321	4382	4824	9	5933	9	6848	3	6235	6542	3	7%
3930	26893	3671		3538		3635	3587	3498		2615	4501		6529	5515			
3931	26894	2778		4115		2048	3082	3366		4552	5138		5333	5236			
3932	26895	2877		5295	6	4635	4965	6%	4191	4780	6774	5	6363	8	6568	2	7%
3933	26896	3571		5045		4326	4685	4504		4126	5450		5064	5257			
3934	26897	4762	4	5506	5 *	4572	5039	7 8%	4470	4546	5168		6353	9	5760		
3935	26898	3472		5840	3 *	5061	5450	5 17%	5200	5370	5425		6373	7	5899		
3936	26899	2579		4128		3141	3635	4394		5112	5934		5127	5531			
3937	Zonal Check (ZC)	2778		4083		5270	8	4677	4322	6143	4	3883	5871	4927			
3938	26900	2877		5058	9	3736	4397	4433			5558		4809	5184			
3939	26901	3472		2904		2546	2725	2899			4140		5397	4769			
3940	26902	2282		4301		4429	4365	4549			6097		6461	6	6279	5	2%
3941	26903	3571		3923		3326	3624	3612			3997		4392	4195			
3942	26904	3869		3731		3386	3558	3658			6556	7	5358	5957			
3943	26905	2877		3141		4705	3923	3819			4476		4931	4704			
3944	26906	2579		4327		2531	3429	3945			5810		6971	1	6390	4	4%
3945	26907	3869		4429		4244	4337	4429			4847		6245	5546			
3946	26908	3274		5814	4 *	6023	4	5919	1 * 27%	5307	4 10%	5490	5894	6324	6109	8	
3947	26909	2679		3872		3882	3877	3926		6163	3	6136		5010	5573		
3948	26910	3075		4936		5639	6	5288	6 13%	5115	7 6%		4886	6216	5551		
3949	26911	2679		2660		4679	3670	3624		6094	6	5647		5500	5574		
3950	26912	2480		3705		3117	3411	3486		5536	5395		4917	5156			
3951	26913	2579		3628		6123	3	4876	4%	5815	2 * 21%	6135	5	6107	6059	6083	9
3952	26914	3869		3385		2894	3139	3261		6345	2	7085	1	4843	5964		
3953	26915	3571		4449		4467	4458	3993		6010	7	4224		5093	4659		
3954	26916	5159	2	3353		6508	2 *	4930	5%	4816	3590		3034	5417	4225		
3955	26917	3373		4378		6642	1 *	5510	4 18%	5145	6 7%	4669		3903	5755	4829	
3956	26918	3968		3872		2781	3326	4350		4729	6828	4	6559	4	6693	1	9%
3957	26919	2877		3686		4099	3893	3951		4724	4536		5495	5015			
3958	26920	4167		4353		4313	4333	4512		4497	4708		5446	5077			
3959	26921	2976		4667		4348	4507	4371		4950	4615		5990	5302			
3960	26922	3571		3763		5174	4468	4652		4845	5939		4544	5241			
3961	26923	4663	6	3372		5047	4209	4362		4853	5059		4451	4755			
3962	26924	2679		3385		3567	3476	3487		5403	3972		5015	4494			
3963	26925	3175		4250		3633	3942	4384		4978	4526		6618	3	5572		
3964	Local Check	5060	3	3974		3958	3966	4270		5660	5455		4422	4938			
Exp Mean		3358		4126		4292	4216	4298		4840	5280		5424	5352			
C.D. 5%		866		1234		1230	891	624		1502	1745		1423	1100			
C.V. %		12.91		14.96		14.34	15.12	12.76		15.48	16.54		13.13	14.69			
Sowing Date		01-07-2017		06-06-2017		28-06-2017				03-07-2017		29-06-2017		04-07-2017			
Planting Date		14-08-2017		05-08-2017		28-07-2017				02-08-2017		12-08-2017		04-08-2017			
Local ©		Mahisagr		GNR-3		NAUR-1				MTU 1121		Telangana Sona (RNR 15048)		RNR-15048			

Table No. 3.20 contd : Grain Yield (Kg/ha) of entries in IVT IME Kharif 2017

Entry No.	IET No.	VII										Zone VII (8)	Overall (23)	Days to 50% Flowerin	Plant Height (cm)	Panicles/ M ²					
		TN	KE		KE	KE (2)		KA	PUD												
		CBT	MNC	PTB	Mean		BRM	KUP	Mean	Mean											
3901	26865	3790		6278		4525		5401		4850		7639		5335		5209		90	103	272	
3902	26866	3970		7042				7042	4	8%	4645		6076		5594	9	5358	8	92	115	265
3903	26867	3248		6472		1433		3953			3648		5613		4417		4373		98	97	279
3904	26868	2950		3861		2937		3399			4645		5382		4133		4326		90	132	273
3905	26869	3962		6208		4759		5484			4351		7697	9	4823		4760		98	91	273
3906	26870	3267		4528		6288	4	5408			4429		5440		5005		4923		101	109	296
3907	26871	6241	3	8111	5			8111	2 *	24%	4639		5150		5436		5029		90	97	267
3908	26872	4140		5368		4361		4865			4730		7928	7	5587		5551	2	104	110	288
3909	26873	3417		7722	9	3381		5552			3191		2431		4266		4030		101	95	285
3910	26874	2734		6931		5680	7	6305			4411		7465		5450		5153		97	106	300
3911	26875	2445		8097	6	2275		5186			2825		4109		4174		4491		98	85	288
3912	26876	4734		10347	2 *	2916		6632	7	2%	3504		6192		5353		4961		92	102	296
3913	26877	2688		9724	3 *	3044		6384			4375		6019		5233		4827		93	107	266
3914	26878	5387	9	10543	1 *			10543	1 *	62%	3510		7118		6092	2	5408	5	90	100	294
3915	26879	2902		4847		2361		3604			2843		4456		3842		3787		92	94	267
3916	26880	4378		6144		3279		4711			5258	6	5093		5095		5192		94	107	260
3917	Gontra Bidhan-3 (NC)	6799	1	7653		5384		6518			4832		7755	8	6160	1	5745	1	90	104	285
3918	26881	5605	8	6903		3537		5220			4201		5961		5319		4879		87	104	276
3919	26882	3875		6250		7662	2 *	6956	5	7%	4020		5671		5286		4887		94	108	299
3920	26883	3647		4558		5882	6	5220			3894		6192		4882		4670		90	114	280
3921	26884	5650	7	4167		7707	1 *	5937			4020		6366		5514		5137		98	101	292
3922	26885	4850		6875		5498		6186			3972		6655		5354		5107		92	96	285
3923	26886	4878		6333		5411		5872			4958	8	6192		5507		5034		89	112	284
3924	26887	2343		7167		5628	8	6397			2825		4514		4209		4189		97	94	307
3925	26888	3646		6375		4615		5495			4489		4919		4908		4843		93	100	282
3926	26889	3258		6292		5055		5673			4189		8275	1	5485		5021		104	113	283
3927	26890	3833		7139				7139	3	10%	1863		7986	6	4582		3501		110	108	263
3928	26891	3651		5389		2327		3858			4423		6192		4719		4448		107	100	308
3929	26892	4265		5806		6030	5	5918			2188		6308		5451		5339	9	102	117	295
3930	26893	4507		6278		5622	9	5950			3413		6539		5001		4557		101	102	308
3931	26894	4683		6236		5069		5652			4772		6829		5327		4685		99	118	306
3932	26895	5069		6903		5325		6114			3978		7523		5839	3	5190		93	124	280
3933	26896	6073	5	6633		5467		6050			2867		4109		4973		4543		88	103	294
3934	26897	2223		8375	4	5048		6712	6	3%	3185		5671		5071		4868		88	101	312
3935	26898	2708		6292		6659	3	6475			4880	9	5729		5429		5306		89	108	273
3936	26899	3416		7532		2894		5213			4856		4919		4974		5006		99	109	282
3937	Zonal Check (ZC)	4980		7750	8	4976		6363			3317		4456		5185		4959		91	103	287
3938	26900	3592		7625		5503		6564	9	1%	4195		5150		5205		4823		93	128	284
3939	26901	4470		5694		4312		5003			5409	4	7292		5245		4997		101	127	311
3940	26902	4717		6903		5141		6022			3065		5787		5453		5035		92	110	293
3941	26903	3876		7597		3530		5564			3029		6771		4742		4296		105	106	276
3942	26904	4752		7278		4399		5839			2933		6019		5328		4895		92	106	290
3943	26905	4041		7167		5443		6305			3570		7176		5258		4919		98	94	281
3944	26906	4530		6750		4412		5581			3023		7176		5525		5112		101	97	285
3945	26907	6022	6	5653		4612		5133			4267		8218	3	5695	6	5490	3	93	101	284
3946	26908	4073		7361		3540		5451			4447		8275	2	5676	8	5426	4	92	96	306
3947	26909	2953		5557		5179		5368			3185		5266		4931		4850		98	100	301
3948	26910	3873		7556		4454		6005			5424	3	5903		5519		5303		91	96	264
3949	26911	4184		7083		4646		5865			3707		5440		5288		4651		94	98	274
3950	26912	3303		5875		4972		5423			3846		7581		5178		4674		95	123	259
3951	26913	4971		7249		3556		5402			4766		7581		5803	5	5394	6	97	109	265
3952	26914	4470		6764		3479		5121			5445	2	8160	4	5824	4	5119		102	116	274
3953	26915	3204		6868		3936		5402			5048	7	4861		4906		4691		89	92	280
3954	26916	5267		7028		4976		6002			3954		5150		4802		5121		91	89	285
3955	26917	3532		6361		5133		5747			3978		5613		4868		5089		91	98	275
3956	26918	4279		7847	7	3178		5513			3984		8102	5	5688	7	5380	7	103	111	281
3957	26919	3588		6431		1052		3742			3630		5324		4347		4270		95	100	294
3958	26920	3385		6939		5052		5996			3990		5845		4983		4789		97	105	275
3959	26921	3055		6522		4436		5479			3570		7118		5032		4832		90	115	279
3960	26922	5354		5510		3923		4717			4844		7465		0		5293		95	102	282
3961	26923	6116	4	7194		2942		5068			5673	1	7697		5498		5227		95	110	286
3962	26924	3758		6583		2748		4666			4321		7060		4858		4357		91	105	292
3963	26925	3952		6583				6583	8	1%	4117		4861		5091		4846		88	103	290
3964	Local Check	6247	2	5694		3452		4573			5306	5	6250		5311		5007		95	106	290
	Exp Mean	4153		6731		4424		5625			4058		6245		5157		4895		95	105	284
	C.D. 5%	1224		1428		1615		1068			630		1459		492		173		1		12
	C.V.%	14.75		10.62		18.24		13.56			7.77		11.69		13.73		8.65		2.14		12.16
	Sowing Date	07-07-2017		04-07-2017		28-07-2017				04-07-2017		14-09-2017									
	Planting Date	28-07-2017		24-07-2017		25-08-2017				26-07-2017		10-10-2017									
	Local ©	CO 47		Uma		Jyothi				MO 4		CO(R) 51									

Table No. 3.21 : Days to 50% Flowering of entries in IVT IME Kharif 2017

Entry No.	IET No.	II				Zone II (4) Mean	III														
		UT	PUN	HAR	RAJ		OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	WB	U.P.	U.P.	U.P. (2)		
		PNT	LDN	KUL	KTA		CTK	JYP	BBN	CHP	Mean	SBR	PTN-ICAR	Mean	RCI	CHN	MSD	VRN	Mean		
3901	26865	91	91	80	108	93	111	106	97	91	101	85	89	87	105	91	88	77	82		
3902	26866	96	97	87	111	98	107	115	92	88	100	88	89	88	100	90	91	85	88		
3903	26867	105	106	89	109	102	112	113	96	102	106	102	98	100	107	97	103	96	100		
3904	26868	98	92	86	110	96	108	103	86	88	96	87	85	86	101	92	89	81	85		
3905	26869	98	96	89	109	98	114	111	98	95	104	93	97	95	107	92	102	87	94		
3906	26870	115	105		122	114	106	101	98	100	101	110	101	105	110	103	106	82	94		
3907	26871	86	83	81	124	93	108	103	86	80	94	88	85	86	100	95	83	75	79		
3908	26872	119	111	102	111	111	119	119	102	104	111	110	105	107	118	107	115	105	110		
3909	26873	133	118		108	120	100	105	95	106	101	113	98	105	115	102	89	101	95		
3910	26874	103	100	98	112	103	111	114	98	91	103	92	93	92	105	98	101	91	96		
3911	26875	104	98	98	110	102	99	122	95	93	102	102	96	99	118	98	100	96	98		
3912	26876	91	99	85	123	99	105	111	91	87	98	88	85	86	101	92	93	91	92		
3913	26877	97	98	87	109	98	106	114	92	90	101	88	90	89	100	91	100	83	91		
3914	26878	89	94	86	107	94	100	103	89	88	95	84	85	84	100	97	98	86	92		
3915	26879	89	94	93	104	95	108	105	91	81	96	93	88	90	100	91	102	93	97		
3916	26880	96	90	88	108	95	106	103	96	93	99	93	89	91	100	92	96	86	91		
3917	Gontra Bidhan-3 (NC)	88	86	85	108	92	107	97	89	84	94	85	83	84	102	92	93	83	88		
3918	26881	84	93	82	109	92	97	104	87	71	90	83	75	79	101	88	105	76	90		
3919	26882	92	98	92	115	99	108	123	90	89	102	92	93	92	100	91	95	83	89		
3920	26883	87	93	83	119	95	106	107	91	105	102	85	84	84	96	93	91	77	84		
3921	26884	97	105	87	108	99	108	116	95	91	102	99	98	98	109	92	102	95	98		
3922	26885	91	89	87	116	96	105	100	88	89	95	88	85	86	97	90	95	81	88		
3923	26886	91	90	83	102	92	98	102	92	85	94	84	84	84	99	91	91	77	84		
3924	26887	95	100	98	106	100	100	111	96	94	100	100	95	97	119	101	100	91	96		
3925	26888	95	98	89	119	100	97	106	90	89	95	90	88	89	99	93	95	82	88		
3926	26889	110	107	102	110	107	112	119	102	103	109	110	102	106	116	104	112	97	104		
3927	26890	123	117		106	115	98	121	111	114	111	116	116	116	133	116	96	115	105		
3928	26891	123	114	106	106	112	125	116	104	108	113	111	105	108	118	117	116	105	111		
3929	26892	105	112	103	122	110	113	119	103	102	109	104	102	103	119	101	92	98	95		
3930	26893	101	106	101	112	105	108	113	101	97	105	101	100	100	116	103	100	95	98		
3931	26894	103	108	98	108	104	107	115	99	94	104	100	102	101	118	93	97	97	97		
3932	26895	97	97	86	121	100	106	105	93	91	99	94	88	91	100	87	94	85	89		
3933	26896	87	94	83	119	96	90	95	84	81	87	82	79	80	95	92	90	74	82		
3934	26897	87	92	82	107	92	100	101	86	91	94	82	82	82	98	94	91	74	82		
3935	26898	95	92	83	112	95	99	100	89	86	93	85	85	85	97	93	92	76	84		
3936	26899	102	101	99	113	104	107	122	95	93	104	101	95	98	111	96	101	97	99		
3937	Zonal Check (ZC)	98	94	98	107	99	104	104	90	92	97	94	92	93	116	95	102	86	94		
3938	26900	101	96	90	103	98	114	105	91	91	100	92	86	89	100	93	95	81	88		
3939	26901	65	111	102	110	97	108	114	102	102	106	110	101	105	113	109	111	99	105		
3940	26902	97	97	86	118	99	102	104	96	88	97	89	85	87	96	91	95	79	87		
3941	26903	117	114	104	119	113	112	119	104	103	109	107	105	106	119	109	116	95	105		
3942	26904	91	92	87	105	94	106	104	90	89	97	88	84	86	98	109	109	80	95		
3943	26905	98	100	97	110	101	106	121	94	97	104	94	91	92	107	91	100	92	96		
3944	26906	105	110	102	105	105	108	110	99	99	104	102	99	100	118	101	106	103	104		
3945	26907	91	92	88	114	96	105	105	90	87	97	86	89	87	101	92	95	82	88		
3946	26908	102	96	87	110	99	103	114	90	85	98	86	84	85	105	105	93	77	85		
3947	26909	101	104	98	110	103	112	105	96	97	103	100	94	97	111	104	101	94	97		
3948	26910	91	88	82	112	93	108	104	88	89	97	88	84	86	104	92	91	79	85		
3949	26911	100	100	92	105	99	104	103	90	87	96	93	93	93	106	90	96	93	94		
3950	26912	105	99	97	108	102	108	114	92	91	101	92	90	91	105	92	100	85	92		
3951	26913	104	100	93	118	104	100	105	92	98	99	95	93	94	110	92	97	103	100		
3952	26914	116	114	102	114	111	112	112	95	103	105	107	103	105	118	104	112	103	107		
3953	26915	89	92	92	107	95	88	103	87	85	91	86	83	84	97	96	89	77	83		
3954	26916	88	88	85	111	93	100	104	89	86	95	85	86	85	103	95	92	80	86		
3955	26917	105	88	85	114	98	96	104	87	85	93	90	82	86	101	92	94	80	87		
3956	26918	110	111	102	109	108	115	112	101	104	108	110	102	106	118	95	116	106	111		
3957	26919	107	103	93	119	105	108	107	91	90	99	96	91	93	104	98	96	87	91		
3958	26920	101	111	100	117	107	104	105	93	97	100	101	95	98	112	102	101	95	98		
3959	26921	98	93	87	117	99	108	119	86	90	101	83	84	83	101	90	91	80	86		
3960	26922	104	97	99	111	103	104	106	96	91	99	99	93	96	108	93	99	88	93		
3961	26923	100	100	98	111	102	105	105	96	91	99	102	92	97	107	94	97	91	94		
3962	26924	95	95	90	109	97	108	104	91	89	98	94	86	90	103	98	92	83	87		
3963	26925	94	89	85	111	95	105	103	86	83	94	84	81	82	96	91	86	76	81		
3964	Local Check	93	92	98	110	98	102	104	98	88	98	95	103	99	105	99	100	92	96		
	Exp Mean	99	99	92	111	100	105	109	93	92	100	94	91	93	106	96	98	88	93		
	C.D. 5%	20	2	1	5	5	3	1	2	5	1	1	1	1	1	3	2	2	1		
	C.V.%	9.92	1.21	0.38	2.27	5.34	1.38	0.54	1.28	2.56	1.47	0.77	0.77	0.75	0.55	1.67	0.82	1.11	0.96		

Table No. 3.21 contd : Days to 50% Flowering of entries in IVT IME Kharif 2017

Entry No.	IET No.	Zone III (10)	V					Zone V (4)	VI						Zone VI (4)
			CG	CG	CG (2)	MH	MH		MH	MH (3)	GU	GU	GU	GU (3)	
		Mean	RPR	JDP	Mean	SKL	SND	Mean	KJT	Mean	NWG	NVS	VYR	Mean	Mean
3901	26865	94	87	90	88	85	81	86	88	84	105	87	85	92	91
3902	26866	94	90	87	88	87	92	89	90	89	101	88	86	91	91
3903	26867	102	98	95	96	95	87	94	88	90	106	97	100	101	97
3904	26868	92	88	84	86	85	84	85	87	85	98	93	87	92	91
3905	26869	99	95	95	95	95	91	94	94	93	109		91	100	98
3906	26870	102	102	106	104	101	103	103	95	100	109	96	99	101	100
3907	26871	90	83	113	98	87	87	92	81	85	102	94	83	93	90
3908	26872	110	105	104	104	101	102	103	94	99	106	97	98	100	99
3909	26873	102	111	106	108	113	101	107	98	104	107	95	99	100	100
3910	26874	99	94	94	94	93	96	94	92	94	105	101	96	101	98
3911	26875	102	97	105	101	102	100	101	90	97	105	97	91	98	96
3912	26876	94	90	87	88	86	82	86	88	85	104	91	85	93	92
3913	26877	95	89	95	92	85	84	88	89	86	105	94	90	96	94
3914	26878	93	88	88	88	82	85	85	88	85	102	94	88	95	93
3915	26879	95	92	85	88	82	87	86	88	86	102	91	83	92	91
3916	26880	95	95	104	99	93	93	96	90	92	105	93	86	95	93
3917	Gontra Bidhan-3 (NC)	91	90	86	88	87	91	88	87	88	101	95	83	93	91
3918	26881	89	78	84	81	78	77	79	84	79	102	85	79	88	87
3919	26882	96	92	90	91	85	89	89	87	87	102	96	86	95	93
3920	26883	93	88	85	86	80	82	84	88	83	99	91	79	89	89
3921	26884	100	95	103	99	92	95	96	91	93	112	97	91	100	98
3922	26885	92	93	86	89	85	91	89	89	88	101	98	82	93	92
3923	26886	90	88	84	86	81	82	84	86	83	100	92	82	91	90
3924	26887	100	95	104	99	95	101	99	88	95	104	96	88	96	94
3925	26888	93	93	90	91	85	90	89	90	88	103	95	87	95	94
3926	26889	108	105	106	105	101	104	104	103	102	112	101	98	104	103
3927	26890	113	116	106	111	118	114	113	105	112	110	106	98	104	104
3928	26891	112	107	108	107	106	105	106	96	102	109	104	102	105	103
3929	26892	105	100	105	102	99	99	101	94	97	112	97	101	103	101
3930	26893	103	103	104	103	98	97	100	92	96	114	99	91	101	99
3931	26894	102	101	104	102	98	100	100	94	97	108	88	95	97	96
3932	26895	94	93	90	91	85	91	90	90	88	104	87	86	92	91
3933	26896	86	84	84	84	81	82	82	86	83	97	83	81	87	87
3934	26897	90	82	82	82	80	79	81	86	81	101	84	79	88	87
3935	26898	90	87	84	85	84	81	84	88	84	98	87	82	89	88
3936	26899	102	100	104	102	98	98	100	91	96	111	99	95	101	99
3937	Zonal Check (ZC)	97	83	83	83	80	90	84	85	85	96	81	80	85	85
3938	26900	95	90	89	89	86	82	87	88	85	109	88	90	95	93
3939	26901	107	101	86	93	98	100	96	96	98	119	97	100	105	103
3940	26902	92	89	85	87	85	86	86	90	87	103	91	86	93	92
3941	26903	109	105	106	105	102	107	105	94	101	109	97	83	96	96
3942	26904	95	88	88	88	82	83	85	90	85	104	86	88	93	92
3943	26905	99	96	98	97	93	92	95	91	92	107	96	91	98	96
3944	26906	104	100	106	103	99	94	100	93	95	111	96	98	102	99
3945	26907	93	90	90	90	87	92	90	89	89	104	94	86	94	93
3946	26908	94	88	86	87	84	85	86	86	85	98	91	85	91	90
3947	26909	101	95	90	92	91	95	93	91	92	111	98	90	99	97
3948	26910	92	93	92	92	85	91	90	89	88	103	94	85	94	93
3949	26911	95	96	98	97	91	95	95	90	92	105	96	87	96	94
3950	26912	97	95	94	94	86	87	90	90	88	106	96	98	100	97
3951	26913	98	92	98	95	93	92	94	95	93	106	95	91	97	97
3952	26914	107	101	104	102	101	97	100	95	97	102	100	100	100	99
3953	26915	89	88	87	87	81	85	85	86	84	99	92	83	91	90
3954	26916	92	91	90	90	84	89	88	84	85	101	88	81	90	88
3955	26917	91	91	86	88	85	85	87	86	85	102	91	81	91	90
3956	26918	108	103	104	103	101	106	103	93	100	115	100	101	105	102
3957	26919	97	95	93	94	87	101	94	89	92	106	97	87	96	94
3958	26920	100	94	104	99	93	93	96	89	91	103	93	92	96	94
3959	26921	93	84	84	84	81	80	82	86	82	103	88	81	91	90
3960	26922	97	95	98	96	94	92	95	88	91	105	92	90	96	94
3961	26923	98	94	98	96	88	99	94	89	92	102	89	88	93	92
3962	26924	95	89	89	89	88	82	87	89	86	105	86	85	92	91
3963	26925	89	83	83	83	81	80	82	86	82	102	84	84	90	89
3964	Local Check	98	92	94	93	93	106	96	97	99	98	84	85	89	91
	Exp Mean	97	93	94	94	90	91	92	90	90	105	93	89	95	94
	C.D. 5%	1	1	0		1	3	1	2	1	3	3	2	2	1
	C.V. %	1.26	0.27	0.13		0.55	1.69	0.83	1.03	1.07	1.65	1.51	1.17	1.53	1.42

Table No. 3.21 contd : Days to 50% Flowering of entries in IVT IME Kharif 2017

Entry No.	IET No.	VII										Zone VII (8)	Overall (30)
		A.P.	TEL	TEL	TEL (2)	TN	KE	KE	KE (2)	KA	PUD		
		MTU	RNR	WGL	Mean	CBT	MNC	PTB	Mean	BRM	KUP	Mean	Mean
3901	26865	83	100	90	95	98	74	92	83	84	81	88	90
3902	26866	93	103	95	99	101	77		77	90	74	90	92
3903	26867	99	103	106	105	100	76	92	84	89	75	92	98
3904	26868	90	100	90	95	95	77	91	84	90	73	88	90
3905	26869	97	114	99	107	107	76	95	86	99	99	98	98
3906	26870	93	111	107	109	106	75	92	83	88	81	94	101
3907	26871		94	90	92	97	74		74	96	66	86	90
3908	26872	99	114	112	113	107	80	90	85	83	83	96	104
3909	26873	100	103	99	101	99	77	91	84	99	68	92	101
3910	26874	90	103	101	102	109	76	92	84	96	84	93	97
3911	26875	90	102	100	101	97	83	90	86	90	74	91	98
3912	26876	87	100	94	97	96	78	90	84	91	76	89	92
3913	26877	94	98	103	101	99	76	92	84	88	83	91	93
3914	26878	85	98	95	97	89	75		75	93	75	87	90
3915	26879	92	97	93	95	94	84	91	87	99	78	91	92
3916	26880	87	98	98	98	98	86	91	89	90	73	90	94
3917	Gontra Bidhan-3 (NC)	78	99	97	98	98	72	89	80	98	76	88	90
3918	26881	82	100	90	95	89	73	93	83	97	73	87	87
3919	26882	88	100	95	98	97	75	91	83	95	93	92	94
3920	26883	85	101	92	97	94	71	90	80	91	75	87	90
3921	26884	97	106	106	106	105	73	92	82	100	92	96	98
3922	26885	79	96	91	94	101	74	91	82	95	107	91	92
3923	26886	88	97	94	95	91	76	93	84	96	68	88	89
3924	26887	95	92	98	95	109	77	92	84	96	75	91	97
3925	26888	89	98	95	97	101	76	90	83	101	76	91	93
3926	26889	99	113	112	113	111	72	93	83	102	94	99	104
3927	26890	114	112	123	118	118	77		77	99	103	106	110
3928	26891	106	116	118	117	107	75	90	83	94	101	101	107
3929	26892	97	106	110	108	110	74	95	85	98	90	97	102
3930	26893	95	103	105	104	102	93	95	94	99	105	100	101
3931	26894	94	106	98	102	104	76	91	84	98	77	93	99
3932	26895	90	103	93	98	97	76	90	83	98	84	91	93
3933	26896	80	100	90	95	90	80	90	85	99	104	92	88
3934	26897	85	98	92	95	93	83	96	90	98	64	89	88
3935	26898	83	97	92	94	85	86	91	88	98	74	88	89
3936	26899	98	103	108	105	101	84	92	88	97	77	95	99
3937	Zonal Check (ZC)	82	95	89	92	88	86	91	88	101	64	87	91
3938	26900		103	98	100	95	83	95	89	98	74	92	93
3939	26901		113	109	111	100	86	93	89	95	85	97	101
3940	26902		99	98	98	92	83	93	88	94	72	90	92
3941	26903		114	113	113	111	79	97	88	99	89	100	105
3942	26904		103	99	101	98	77	92	84	101	70	91	92
3943	26905		108	104	106	109	77	94	85	94	90	96	98
3944	26906		109	107	108	110	77	96	86	99	84	97	101
3945	26907		94	92	93	101	73	94	83	100	95	92	93
3946	26908	84	95	96	95	93	78	96	87	99	80	90	92
3947	26909	96	105	99	102	108	78	95	86	98	81	95	98
3948	26910	92	95	92	93	95	76	90	83	97	78	89	91
3949	26911	94	102	98	100	90	74	92	83	98	75	90	94
3950	26912	94	106	104	105	102	77	91	84	95	72	92	95
3951	26913	85	106	102	104	103	78	93	85	98	75	92	97
3952	26914	92	110	109	109	102	79	94	86	95	82	95	102
3953	26915	84	94	91	93	96	78	88	83	97	66	87	89
3954	26916	84	121	90	105	100	75	90	82	100	66	91	91
3955	26917	85	118	91	104	98	74	90	82	95	74	90	91
3956	26918	106	106	110	108	106	75	92	83	97	75	96	103
3957	26919	91	100	98	99	95	73	88	80	99	77	90	95
3958	26920	96	101	109	105	98	77	89	83	93	72	92	97
3959	26921	88	94	90	92	91	76	89	82	97	72	87	90
3960	26922	91	96	102	99	97	73	91	82	98	77	90	95
3961	26923	89	96	99	97	97	74	90	82	98	89	91	95
3962	26924	86	92	90	91	84	77	90	83	97	75	86	91
3963	26925	84	91	91	91	94	78		78	98	60	85	88
3964	Local Check	105	98	96	97	93	88	88	88	88	75	91	95
	Exp Mean	91	102	99	101	99	77	91	84	96	79	92	95
	C.D. 5%	4	1	2	1	2	1	4	2	5	2	1	1
	C.V.%	2.24	0.73	0.96	0.56	1.00	0.89	2.22	1.88	2.72	1.38	1.72	2.14

Table No. 3.22 : Plant Height (cm) of entries in IVT IME Kharif 2017

Entry No.	IET No.	II				Zone II (4)	III													
		UT	PUN	HAR	RAJ		OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	W.B	U.P.	U.P.	U.P. (2)	
		PNT	LDN	KUL	KTA	Mean	CTK	JYP	BBN	CHP	Mean	SBR	PTN-ICAR	Mean	RCI	CHN	MSD	VRN	Mean	
3901	26865	117	97	118	101	108	91	75	111	130	102	112	115	113	100	123	102	114	108	
3902	26866	119	107	125	107	114	103	95	116	108	106	114	125	119	108	124	125	118	122	
3903	26867	106	86	85	101	94	88	70	105	114	94	106	98	102	84	110	103	106	104	
3904	26868	147	129	134	112	130	114	102	145	135	124	142	135	138	120	155	133	149	141	
3905	26869	101	78	92	100	93	85	67	85	102	85	100	99	99	84	114	97	93	95	
3906	26870	114	93		104	104	105	83	107	123	104	120	112	116	96	122	114	129	122	
3907	26871	108	94	106	99	102	74	67	96	113	87	102	104	103	88	116	104	104	104	
3908	26872	107	95	98	108	102	103	88	124	126	110	122	118	120	98	124	104	117	111	
3909	26873	91	79		99	89	94	66	90	113	91	114	97	106	84	115	90	115	103	
3910	26874	109	88	96	103	99	91	90	116	114	103	113	114	114	93	121	112	116	114	
3911	26875	97	71	75	97	85	72	73	82	103	82	92	91	92	71	100	89	92	90	
3912	26876	117	87	93	109	101	91	78	99	116	96	110	110	110	95	115	104	110	107	
3913	26877	109	95	105	102	103	107	85	100	125	104	115	114	114	99	119	115	113	114	
3914	26878	108	85	103	98	99	91	84	106	116	99	103	111	107	94	111	108	103	106	
3915	26879	106	83	80	102	93	86	61	95	108	87	98	101	99	78	103	103	108	106	
3916	26880	118	96	114	105	108	91	75	111	119	99	107	111	109	90	116	113	120	116	
3917	Gontra Bidhan-3 (NC)	109	96	105	109	105	81	80	101	116	95	104	111	107	99	114	105	113	109	
3918	26881	112	94	115	111	108	82	71	97	118	92	109	110	110	101	109	102	103	102	
3919	26882	120	93	113	110	109	97	79	104	122	101	116	116	116	97	111	118	120	119	
3920	26883	114	118	125	115	118	95	84	104	116	100	122	128	125	105	125	123	122	122	
3921	26884	104	86	100	106	99	90	74	110	117	98	101	106	103	97	119	99	108	104	
3922	26885	104	92	95	102	98	71	64	91	118	86	100	111	105	87	110	100	111	105	
3923	26886	116	110	120	116	115	99	87	113	118	104	124	122	123	96	125	118	125	121	
3924	26887	100	80	89	100	92	87	69	91	117	91	100	98	99	83	102	95	96	95	
3925	26888	106	93	101	99	100	84	88	107	120	100	103	105	104	85	109	106	108	107	
3926	26889	108	89	113	117	107	109	91	119	115	108	124	117	120	98	128	116	130	123	
3927	26890	100	81		104	95	107	82	112	127	107	131	120	125	92	124	105	119	112	
3928	26891	109	75	78	102	91	96	76	118	112	101	116	102	109	85	113	94	118	106	
3929	26892	129	107	116	106	114	104	95	122	128	112	125	128	127	101	126	120	131	125	
3930	26893	111	77	98	100	96	92	90	112	115	102	110	105	107	95	114	99	102	101	
3931	26894	114	104	111	127	114	104	95	127	129	113	134	118	126	105	130	131	130	131	
3932	26895	119	119	134	99	118	105	84	135	141	116	124	139	131	117	134	143	127	135	
3933	26896	102	87	108	100	99	70	75	97	118	90	104	107	105	93	101	107	110	109	
3934	26897	102	95	107	102	101	97	81	95	110	96	100	107	104	97	114	107	103	105	
3935	26898	120	105	115	102	110	93	82	113	120	102	117	116	117	99	112	114	118	116	
3936	26899	111	90	97	112	102	93	95	115	121	106	116	116	116	97	102	112	120	116	
3937	Zonal Check (ZC)	108	76	80	97	90	102	80	115	119	104	118	120	119	93	118	116	114	115	
3938	26900	131	115	123	121	122	107	99	130	142	119	146	144	145	121	164	120	141	131	
3939	26901	153	123	128	122	131	112	102	131	137	120	139	130	135	118	147	146	131	138	
3940	26902	105	100	111	108	106	108	89	119	120	109	121	111	116	97	122	113	117	115	
3941	26903	108	91	88	103	97	104	80	108	130	105	118	116	117	97	123	103	106	105	
3942	26904	111	102	107	101	105	92	84	103	115	98	112	110	111	95	123	118	121	120	
3943	26905	97	77	89	100	91	83	64	93	112	88	102	101	102	90	115	95	102	99	
3944	26906	102	80	84	97	91	92	80	111	110	98	106	105	105	87	108	103	108	105	
3945	26907	103	93	92	107	99	74	81	101	114	93	106	109	107	92	106	108	113	111	
3946	26908	105	85	90	105	96	85	82	93	111	93	114	102	108	85	95	96	101	99	
3947	26909	118	83	93	100	98	102	79	103	114	100	115	109	112	84	108	118	107	113	
3948	26910	97	90	98	110	99	74	75	92	111	88	93	100	97	87	104	97	104	101	
3949	26911	108	84	99	99	97	91	68	103	109	93	102	125	114	87	113	101	107	104	
3950	26912	115	118	129	101	116	110	86	125	126	112	124	139	132	106	140	137	137	137	
3951	26913	114	97	105	128	111	92	82	109	122	101	114	121	117	96	118	104	116	110	
3952	26914	128	99	108	107	110	110	93	124	127	113	138	124	131	105	134	128	136	132	
3953	26915	101	79	87	116	96	80	65	89	101	84	96	101	98	89	94	86	97	91	
3954	26916	101	86	93	95	94	72	57	90	103	81	94	93	93	83	101	90	88	89	
3955	26917	108	81	98	94	95	66	75	97	111	87	109	108	108	94	109	103	106	104	
3956	26918	113	94	105	104	104	103	89	121	123	109	122	124	123	101	119	111	124	117	
3957	26919	107	84	108	106	101	88	81	100	98	92	108	111	110	92	105	100	115	108	
3958	26920	107	82	99	103	98	97	84	111	116	102	109	116	112	91	120	108	118	113	
3959	26921	127	115	127	103	118	100	96	113	129	109	128	127	128	106	137	119	131	125	
3960	26922	106	93	106	113	105	103	82	99	107	98	110	110	110	83	112	103	107	105	
3961	26923	103	95	112	103	103	85	83	110	126	101	120	124	122	99	128	108	128	118	
3962	26924	110	87	113	119	107	94	78	99	117	97	110	112	111	93	115	105	112	108	
3963	26925	117	96	122	107	110	89	70	105	113	94	101	111	106	91	113	114	115	114	
3964	Local Check	103	84	118	102	102	106	80	115	104	101	106	102	104	100	136	121	101	111	
	Exp Mean	110	93	105	105	103	93	81	108	118	100	113	113	113	95	118	109	114	112	
	C.D. 5%	0	0	0	0	0	0		0	0		0			0	0	0	0	0	
	C.V. %	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00		0.00			0.00	0.00	0.00	0.00	0.00	

Table No. 3.22 contd : Plant Height (cm) of entries in IVT IME Kharif 2017

Entry No.	IET No.	Zone III (10)	V					Zone V (4)	VI						Zone VI (4)
			CG	CG	CG (2)	MH	MH		MH	MH (3)	GU	GU	GU	GU (3)	
		Mean	RPR	JDP	Mean	SKL	SND	Mean	KJT	Mean	NWG	NVS	VYR	Mean	Mean
3901	26865	107	108	95	101	107	91	100	119	105	97	109	110	106	109
3902	26866	114	122	110	116	112	104	112	124	114	107	124	127	119	121
3903	26867	98	109	89	99	102	95	99	113	103	90	111	104	102	104
3904	26868	133	145	130	137	116	119	127	165	133	127	144	145	139	145
3905	26869	93	104	81	93	86	83	89	98	89	85		107	96	97
3906	26870	111	116	106	111	104	111	109	128	114	97	108	120	109	113
3907	26871	97	114	93	103	98	89	98	108	98	93	109	98	100	102
3908	26872	112	129	108	118	120	112	117	122	118	100	115	111	108	112
3909	26873	98	95	83	89	92	91	90	108	97	86	98	117	100	102
3910	26874	108	104	109	107	105	97	104	119	107	91	115	111	106	109
3911	26875	86	97	79	88	91	83	87	97	90	83	88	94	88	90
3912	26876	103	106	92	99	96	93	96	110	100	94	97	118	103	105
3913	26877	109	115	99	107	112	102	107	127	114	105	98	122	108	113
3914	26878	103	99	90	94	91	84	91	116	97	90	90	116	98	103
3915	26879	94	96	79	87	92	93	90	102	96	78	92	106	92	94
3916	26880	105	110	101	105	115	99	106	119	111	95	115	119	109	112
3917	Gontra Bidhan-3 (NC)	102	113	101	107	115	95	106	107	106	102	112	114	110	109
3918	26881	100	115	103	109	94	87	100	126	102	98	110	118	109	113
3919	26882	108	116	103	109	112	107	109	119	113	102	104	117	108	110
3920	26883	112	107	101	104	104	96	102	136	112	110	126	134	123	126
3921	26884	102	106	103	105	100	91	100	102	97	85	96	114	99	99
3922	26885	96	107	89	98	98	93	97	105	99	80	97	106	94	97
3923	26886	113	112	96	104	119	93	105	121	111	103	126	125	118	119
3924	26887	94	105	89	97	95	99	97	106	100	72	110	108	97	99
3925	26888	101	103	91	97	96	94	96	113	101	87	106	111	101	104
3926	26889	115	122	112	117	114	113	115	133	120	100	119	116	112	117
3927	26890	112	117	103	110	110	105	109	126	114	98	99	122	106	111
3928	26891	103	107	94	101	96	91	97	117	101	90	99	112	100	105
3929	26892	118	135	104	119	118	102	115	127	116	95	124	127	115	118
3930	26893	103	106	88	97	102	102	100	109	104	105	111	106	107	108
3931	26894	120	129	112	121	124	130	124	139	131	106	125	126	119	124
3932	26895	125	128	103	116	131	119	120	139	130	118	143	137	133	134
3933	26896	98	106	97	101	115	90	102	115	107	85	98	113	99	103
3934	26897	101	115	97	106	99	81	98	113	98	93	124	113	110	111
3935	26898	108	114	107	110	116	92	107	119	109	103	123	117	114	116
3936	26899	109	123	100	112	110	99	108	127	112	99	128	116	114	118
3937	Zonal Check (ZC)	109	114	97	105	107	84	100	91	94	87	95	99	94	93
3938	26900	131	135	118	127	126	127	127	138	130	123	133	141	132	134
3939	26901	129	134	122	128	120	118	124	155	131	120	125	128	124	132
3940	26902	112	112	108	110	115	93	107	123	110	100	126	133	120	120
3941	26903	108	121	107	114	119	118	116	110	116	90	115	109	105	106
3942	26904	107	104	102	103	108	102	104	123	111	94	124	113	111	114
3943	26905	96	94	88	91	93	92	92	115	100	83	100	101	95	100
3944	26906	101	106	106	106	95	88	99	115	99	84	91	96	90	97
3945	26907	100	105	91	98	110	90	99	109	103	97	116	115	109	109
3946	26908	96	84	91	88	93	72	85	107	90	87	97	113	99	101
3947	26909	104	103	79	91	101	86	92	117	101	87	102	107	99	103
3948	26910	94	106	90	98	97	89	96	104	97	88	102	106	99	100
3949	26911	101	113	88	100	86	88	94	112	95	75	106	113	98	101
3950	26912	123	142	121	132	129	116	127	147	131	119	140	144	134	137
3951	26913	107	119	104	112	119	93	109	126	113	102	115	126	114	117
3952	26914	122	134	115	125	124	118	123	125	122	106	116	118	114	116
3953	26915	90	92	88	90	92	82	88	97	90	86	95	100	94	94
3954	26916	87	92	80	86	88	82	85	95	88	83	98	103	95	95
3955	26917	98	105	89	97	101	90	96	108	99	88	109	115	104	105
3956	26918	114	123	106	115	105	112	112	129	115	113	120	109	114	118
3957	26919	100	112	90	101	96	101	100	105	101	90	112	115	106	106
3958	26920	107	115	99	107	103	97	103	120	106	97	134	115	115	116
3959	26921	119	108	115	111	119	100	110	118	112	104	140	122	122	121
3960	26922	102	104	92	98	97	95	97	119	104	90	110	106	102	106
3961	26923	111	127	99	113	113	111	112	130	118	104	126	120	117	120
3962	26924	103	113	106	109	104	95	104	113	104	105	118	123	115	115
3963	26925	102	111	96	104	116	91	104	116	108	92	112	119	108	110
3964	Local Check	107	106	112	109	131	99	112	116	115	103	116	126	115	115
	Exp Mean	106	112	99	106	106	98	104	118	107	96	112	116	108	111
	C.D. 5%					0	0				0		0		
	C.V.%					0.00	0.00				0.00		0.00		

Table No. 3.22 contd : Plant Height (cm) of entries in IVT IME Kharif 2017

Entry No.	IET No.	VII										Zone VII (8)	Overall (30)
		A.P.	TEL	TEL	TEL (2)	TN	KE	KE	KE (2)	KA	PUD		
		MTU	RNR	WGL	Mean	CBT	MNC	PTB	Mean	BRM	KUP	Mean	Mean
3901	26865	119	94	119	107	107	35	110	73	75	97	95	103
3902	26866	135	103	133	118	125	108		108	97	113	116	115
3903	26867	120	80	108	94	98	95	90	93	73	84	93	97
3904	26868	158	109	148	128	142	100	147	124	96	133	129	132
3905	26869	95	72	98	85	90	98	103	101	62	86	88	91
3906	26870	131	84	131	107	101	107	121	114	82	100	107	109
3907	26871		84	110	97	96	105		105	76	77	91	97
3908	26872	135	92	112	102	107	90	114	102	95	96	105	110
3909	26873	113	75	101	88	95	107	94	100	66	85	92	95
3910	26874	127	87	112	100	107	127	114	120	86	102	108	106
3911	26875	97	68	84	76	81	105	90	97	56	65	81	85
3912	26876	118	91	117	104	102	120	114	117	66	93	103	102
3913	26877	116	97	110	103	109	112	115	113	76	97	104	107
3914	26878	119	96	130	113	104	107		107	72	90	102	100
3915	26879	96	98	112	105	102	106	106	106	64	84	96	94
3916	26880	125	93	110	102	107	107	114	111	91	93	105	107
3917	Gontra Bidhan-3 (NC)	108	87	114	100	102	122	118	120	76	84	101	104
3918	26881	107	101	123	112	111	97	110	103	72	107	103	104
3919	26882	123	99	111	105	110	103	110	107	85	97	105	108
3920	26883	133	108	132	120	118	100	119	110	94	99	113	114
3921	26884	117	90	119	104	105	101	113	107	73	101	102	101
3922	26885	106	88	104	96	101	93	98	96	71	83	93	96
3923	26886	136	102	122	112	115	109	123	116	83	102	111	112
3924	26887	93	88	96	92	94	107	105	106	75	73	91	94
3925	26888	118	93	111	102	103	95	104	100	74	92	99	100
3926	26889	135	102	126	114	121	98	119	108	80	106	111	113
3927	26890	132	98	109	104	122	92		92	82	106	106	108
3928	26891	112	90	107	98	95	104	100	102	76	103	98	100
3929	26892	134	99	138	119	122	128	117	123	94	107	117	117
3930	26893	111	88	123	106	108	99	106	103	75	92	100	102
3931	26894	132	101	119	110	116	120	110	115	92	111	113	118
3932	26895	155	108	133	120	129	102	123	112	112	117	122	124
3933	26896	116	97	122	109	95	96	193	144	89	88	112	103
3934	26897	113	95	115	105	95	113	98	105	73	91	99	101
3935	26898	125	97	123	110	97	102	109	105	79	99	104	108
3936	26899	120	101	129	115	106	111	108	109	82	103	107	109
3937	Zonal Check (ZC)	125	98	119	109	106	123	103	113	89	94	107	103
3938	26900		110	141	126	129	109	137	123	123	111	123	128
3939	26901		109	142	125	143	108	128	118	93	131	122	127
3940	26902		94	131	112	117	104	107	106	86	104	106	110
3941	26903		95	121	108	102	107	102	104	87	98	102	106
3942	26904		99	124	111	111	112	107	110	75	90	102	106
3943	26905		83	101	92	91	107	103	105	64	83	90	94
3944	26906		86	118	102	90	108	108	108	67	94	96	97
3945	26907		88	111	100	118	106	105	106	66	93	98	101
3946	26908	120	90	108	99	91	122	93	107	68	94	98	96
3947	26909	128	88	115	101	113	89	101	95	71	90	99	100
3948	26910	106	84	107	95	92	104	96	100	75	92	94	96
3949	26911	114	82	104	93	97	95	101	98	83	89	96	98
3950	26912	140	111	123	117	141	105	128	117	76	110	117	123
3951	26913	121	96	127	112	112	112	111	112	86	98	108	109
3952	26914	140	101	120	111	125	98	124	111	66	104	110	116
3953	26915	101	81	107	94	89	101	90	95	63	103	92	92
3954	26916	90	73	98	86	87	109	89	99	76	75	87	89
3955	26917	111	83	113	98	86	101	103	102	97	94	99	98
3956	26918	135	95	130	113	110	90	125	108	75	97	107	111
3957	26919	113	88	108	98	94	107	102	104	75	95	98	100
3958	26920	116	89	127	108	83	105	108	106	77	99	100	105
3959	26921	133	97	126	112	96	100	125	112	75	106	107	115
3960	26922	101	88	122	105	104	117	111	114	78	82	100	102
3961	26923	125	91	128	109	111	102	111	106	77	100	106	110
3962	26924	115	89	119	104	94	104	106	105	77	94	100	105
3963	26925	120	92	111	101	100	104		104	65	87	97	103
3964	Local Check	116	99	130	115	97	106	95	100	64	89	99	106
	Exp Mean	120	93	118	105	106	104	111	107	79	96	103	105
	C.D. 5%		0	0	0	0	0			0	0		
	C.V. %		0.00	0.00	0.00	0.00	0.00			0.00	0.00		

Table No. 3.23 : Panicles/ M² of entries in IVT IME Kharif 2017

Entry No.	IET No.	II				Zone II (4)	III														
		UT	PUN	HAR	RAJ		OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	W.B	U.P.	U.P.	U.P. (2)		
		PNT	LDN	KUL	KTA		Mean	CTK	JYP	BBN	CHP	Mean	SBR	PTN-ICAR	Mean	RCI	CHN	MSD	VRN	Mean	
3901	26865	287	228	263	236	253	244	230	264	262	250	272	245	258	216	199	292	197	244		
3902	26866	291	211	249	259	252	264	203	246	245	239	235	236	235	188	228	264	215	239		
3903	26867	280	304	296	270	287	373	190	257	252	268	286	236	261	217	271	297	248	272		
3904	26868	285	304	232	277	274	284	263	222	218	246	236	259	247	240	262	319	212	266		
3905	26869	291	234	230	233	247	241	230	277	220	242	255	285	270	230	199	225	192	209		
3906	26870	296	254		236	262	307	353	322	258	310	300	255	277	243	202	341	281	311		
3907	26871	294	264	261	233	263	188	200	212	244	211	247	286	266	244	236	333	256	294		
3908	26872	283	271	311	238	276	304	250	263	280	274	297	281	289	197	271	268	250	259		
3909	26873	284	277		264	275	300	256	224	194	244	298	232	265	187	272	363	240	301		
3910	26874	278	241	298	242	264	284	250	240	247	255	263	290	276	254	195	442	236	339		
3911	26875	282	264	264	249	265	277	213	220	270	245	316	246	281	302	202	437	201	319		
3912	26876	289	244	317	236	271	261	313	226	219	254	315	287	301	255	241	328	225	276		
3913	26877	297	224	261	245	257	254	226	220	233	233	238	202	220	213	240	362	176	269		
3914	26878	289	215	278	245	257	337	243	253	278	278	270	271	270	306	193	279	243	261		
3915	26879	289	281	238	242	262	274	200	168	237	220	294	205	249	252	242	269	181	225		
3916	26880	290	215	220	257	245	281	223	217	205	231	226	210	218	174	263	342	165	253		
3917	Gontra Bidhan-3 (NC)	293	264	286	296	284	211	200	208	228	212	261	202	231	222	260	395	193	294		
3918	26881	287	201	298	235	255	218	256	215	259	237	280	216	248	196	229	424	211	318		
3919	26882	284	284	271	238	269	287	293	242	224	261	289	279	284	272	194	390	245	317		
3920	26883	273	294	283	247	274	224	250	223	273	242	301	236	268	264	147	278	230	254		
3921	26884	280	241	288	263	268	257	286	244	268	264	297	247	272	260	183	424	205	314		
3922	26885	287	238	286	238	262	178	223	203	248	213	260	227	243	262	247	433	211	322		
3923	26886	290	284	295	235	276	234	243	244	288	252	272	200	236	251	293	322	213	267		
3924	26887	282	261	289	254	271	277	290	302	282	288	338	352	345	254	265	375	224	299		
3925	26888	286	271	280	235	268	191	256	275	208	233	286	281	284	255	239	307	234	270		
3926	26889	290	284	252	243	267	304	336	251	201	273	318	235	276	203	238	311	176	244		
3927	26890	289	238		226	251	257	230	175	176	209	215	191	203	231	245	275	205	240		
3928	26891	290	281	341	236	287	264	280	253	227	256	354	309	331	279	200	403	240	321		
3929	26892	296	274	341	229	285	284	226	224	258	248	240	306	273	242	235	256	240	248		
3930	26893	282	281	297	233	273	274	276	245	266	265	359	343	351	296	242	434	257	345		
3931	26894	285	277	326	245	283	317	343	321	199	295	228	317	272	273	300	300	235	267		
3932	26895	291	231	276	228	256	271	216	221	185	223	239	210	225	247	274	282	195	238		
3933	26896	289	267	331	245	283	218	226	166	270	220	268	242	255	274	359	325	239	282		
3934	26897	287	271	364	247	292	294	243	233	283	263	394	251	323	269	261	375	232	303		
3935	26898	279	228	233	273	253	277	233	230	234	243	257	206	231	209	164	394	209	301		
3936	26899	286	228	295	249	264	243	233	223	212	228	241	205	223	246	201	313	205	259		
3937	Zonal Check (ZC)	292	257	269	266	271	333	290	250	253	282	333	249	291	270	235	382	241	311		
3938	26900	287	254	292	271	276	259	263	218	216	239	239	181	210	214	172	338	181	259		
3939	26901	300	267	285	236	272	310	246	249	213	255	288	272	280	221	294	379	190	284		
3940	26902	294	228	278	235	259	264	353	208	223	262	298	204	251	238	206	320	200	260		
3941	26903	288	234	283	280	271	317	276	216	254	266	246	262	254	188	243	298	218	258		
3942	26904	286	261	242	229	254	290	223	197	254	241	215	243	229	193	415	375	239	307		
3943	26905	276	267	239	243	256	356	230	206	181	243	258	234	246	192	231	326	208	267		
3944	26906	282	317	286	287	293	340	203	230	238	253	278	281	279	229	258	312	222	267		
3945	26907	275	281	260	242	264	155	240	216	241	213	240	254	247	237	233	362	187	275		
3946	26908	296	310	237	235	269	234	250	315	244	261	332	248	290	284	337	284	232	258		
3947	26909	270	248	292	236	261	287	293	282	241	276	254	309	281	232	263	433	205	319		
3948	26910	241	221	237	219	229	182	200	217	237	209	240	288	264	247	209	256	194	225		
3949	26911	287	224	247	238	249	224	223	210	181	210	267	251	259	232	300	297	175	236		
3950	26912	279	228	238	256	250	267	203	198	239	227	222	178	200	172	261	408	177	292		
3951	26913	291	221	190	236	234	281	226	218	194	230	249	226	237	184	241	253	182	218		
3952	26914	295	231	279	236	260	300	240	224	226	248	239	233	236	248	201	327	198	262		
3953	26915	280	294	262	235	268	224	213	238	251	232	240	254	247	238	260	276	214	245		
3954	26916	271	274	261	287	273	188	213	247	234	221	286	308	297	301	189	335	207	271		
3955	26917	282	271	242	247	260	191	220	209	264	221	275	219	247	227	232	402	199	300		
3956	26918	297	248	288	242	268	257	263	249	235	251	257	242	249	271	249	261	211	236		
3957	26919	286	224	222	240	243	297	250	227	244	254	285	255	270	274	237	292	237	265		
3958	26920	273	254	260	250	259	182	240	224	239	221	237	244	240	202	208	325	208	267		
3959	26921	268	277	253	238	259	264	283	202	245	248	272	208	240	250	246	297	199	248		
3960	26922	284	261	263	231	260	287	240	233	218	244	302	246	274	206	253	263	190	227		
3961	26923	280	231	240	236	247	274	243	209	269	248	253	255	254	279	184	346	185	265		
3962	26924	284	271	283	233	267	241	283	265	266	264	299	218	258	251	331	250				

Table No. 3.23 contd : Panicles/ M² of entries in IVT IME Kharif 2017

Entry No.	IET No.	Zone III (10)	V					Zone V (4)	VI						Zone VI (4)	
			CG	CG	CG (2)	MH	MH		MH	MH (3)	GU	GU	GU	GU (3)		
		Mean	RPR	JDP	Mean	SKL	SND	Mean	KJT	Mean	NWG	NVS	VYR	Mean	Mean	
3901	26865		242	226	253	239	222	240	235	191	217	270	164	311	248	234
3902	26866		232	253	147	200	190	252	210	181	207	265	246	277	262	242
3903	26867		262	262	290	276	187	248	246	210	215	269	206	277	250	240
3904	26868		251	269	189	229	193	217	217	175	195	272	184	280	245	228
3905	26869		235	262	218	240	143	223	211	185	183	266		361	313	270
3906	26870		286	268	199	233	236	243	236	170	216	266	191	309	255	234
3907	26871		244	258	117	187	173	307	213	191	223	276	195	264	245	231
3908	26872		266	266	257	261	211	250	246	214	225	282	215	306	268	254
3909	26873		256	222	301	262	172	218	228	194	194	262	175	364	267	249
3910	26874		270	211	331	271	239	220	250	159	206	264	202	343	270	242
3911	26875		268	257	316	286	255	249	269	188	231	265	145	319	243	229
3912	26876		267	245	278	261	226	240	247	200	222	264	140	396	266	250
3913	26877		236	237	244	240	158	291	232	160	203	270	150	301	240	220
3914	26878		267	257	230	243	193	308	247	195	232	271	220	337	276	256
3915	26879		232	246	225	235	200	219	222	177	199	266	189	315	257	237
3916	26880		230	255	212	233	157	249	218	228	211	265	195	238	232	231
3917	Gontra Bidhan-3 (NC)		238	268	179	223	167	264	219	179	203	273	188	312	258	238
3918	26881		250	261	214	237	203	244	230	190	212	269	194	270	244	231
3919	26882		271	258	282	270	255	304	275	188	249	264	172	290	242	228
3920	26883		242	274	210	242	183	273	235	180	212	267	188	308	254	236
3921	26884		267	265	242	254	241	223	243	189	218	270	170	315	252	236
3922	26885		249	275	289	282	219	289	268	216	241	268	174	291	244	237
3923	26886		256	252	248	250	153	223	219	172	183	266	160	266	231	216
3924	26887		296	275	318	296	172	288	263	207	222	264	149	340	251	240
3925	26888		253	217	256	236	194	226	223	190	203	264	169	301	245	231
3926	26889		257	240	260	250	183	253	234	194	210	270	206	284	253	238
3927	26890		220	242	358	300	145	243	247	211	199	268	162	320	250	240
3928	26891		281	288	290	289	204	276	264	204	228	275	169	319	254	242
3929	26892		251	267	310	289	237	219	258	216	224	273	206	294	257	247
3930	26893		299	274	267	270	249	267	264	188	234	270	155	294	240	227
3931	26894		283	241	282	262	157	285	241	195	212	264	170	347	260	244
3932	26895		234	220	171	195	199	281	218	171	217	265	162	263	230	215
3933	26896		258	271	200	235	287	232	247	196	238	271	149	242	221	214
3934	26897		283	263	267	265	268	316	278	175	253	279	183	277	246	228
3935	26898		241	232	245	238	180	225	220	194	200	269	161	283	238	227
3936	26899		232	275	311	293	170	208	241	197	191	264	226	305	265	248
3937	Zonal Check (ZC)		283	221	195	208	240	213	217	217	223	267	171	297	245	238
3938	26900		228	258	224	241	233	229	236	179	213	266	176	277	240	224
3939	26901		266	220	324	272	211	253	252	195	220	269	190	350	270	251
3940	26902		251	252	278	265	263	223	254	188	224	261	189	315	255	238
3941	26903		252	232	172	202	109	224	184	186	173	268	171	238	226	216
3942	26904		264	218	238	228	159	295	227	185	213	273	164	249	229	218
3943	26905		242	275	246	260	215	285	255	172	224	265	173	263	233	218
3944	26906		259	218	218	218	194	258	222	172	208	265	165	319	249	230
3945	26907		236	217	293	255	256	185	238	188	210	271	155	264	230	219
3946	26908		276	254	295	274	169	244	240	186	200	268	156	326	250	234
3947	26909		280	252	269	260	262	254	259	198	238	263	168	336	256	241
3948	26910		227	237	197	217	201	240	218	184	208	266	179	305	250	233
3949	26911		236	207	283	245	255	209	238	149	204	264	164	287	238	216
3950	26912		232	244	191	217	259	262	239	161	227	264	185	238	229	212
3951	26913		225	287	317	302	142	214	240	234	196	266	145	336	249	245
3952	26914		243	225	235	230	183	276	230	175	211	273	168	337	259	238
3953	26915		241	236	232	234	221	250	235	181	217	270	178	308	252	234
3954	26916		251	213	256	235	233	313	254	192	246	281	187	329	266	247
3955	26917		244	259	348	303	175	184	241	157	172	268	171	252	230	212
3956	26918		249	237	203	220	180	257	219	199	212	274	192	280	249	236
3957	26919		260	214	250	232	276	237	244	212	242	266	200	298	254	244
3958	26920		231	244	234	239	203	221	225	210	211	276	207	284	256	244
3959	26921		246	255	239	247	185	323	251	190	233	265	174	207	215	209
3960	26922		244	250	270	260	187	287	248	221	232	270	181	333	261	251
3961	26923		249	246	324	285	209	208	246	156	191	278	185	287	250	226
3962	26924		262	210	354	282	125	246	233	211	194	268	175	353	265	252
3963	26925		281	200	252	226	210	308	242	205	241	269	178	280	242	233
3964	Local Check		268	283	234	258	287	263	266	198	249	282	196	287	255	241
	Exp Mean		254	247	252	250	204	251	239	190	215	269	179	299	250	234
	C.D. 5%		15	30	99		23	7	26	35	12	6	16	83	28	23
	C.V. %		9.25	6.13	19.54		5.77	1.35	11.27	9.21	5.09	1.20	4.51	13.94	9.92	9.92

Table No. 3.23 contd : Panicles/ M² of entries in IVT IME Kharif 2017

Entry No.	IET No.	VII										Zone VII (8)	Overall (30)
		A.P.	TEL	TEL	TEL (2)	TN	KE	KE	KE (2)	KA	PUD		
		MTU	RNR	WGL	Mean	CBT	MNC	PTB	Mean	BRM	KUP	Mean	Mean
3901	26865	310	480	378	429	268	193	259	226	522	437	356	272
3902	26866	307	491	380	435	338	234		234	421	370	363	265
3903	26867	281	436	351	394	243	267	296	282	451	317	330	279
3904	26868	221	482	366	424	393	223	405	314	401	316	351	273
3905	26869	264	486	393	439	303	283	342	312	483	364	364	273
3906	26870	281	453	376	415	445	254	375	314	453	423	382	296
3907	26871		398	373	386	443	237		237	501	257	368	267
3908	26872	323	477	370	424	338	260	312	286	441	354	359	288
3909	26873	330	455	378	417	383	307	304	306	445	377	372	285
3910	26874	294	466	378	422	365	270	443	356	501	550	408	300
3911	26875	251	477	351	414	343	263	312	287	444	464	363	288
3912	26876	290	447	383	415	393	304	465	384	445	403	391	296
3913	26877	254	438	376	407	313	260	353	306	431	357	348	266
3914	26878	310	493	378	435	385	283		283	521	457	404	294
3915	26879	307	440	375	407	245	263	413	338	401	370	352	267
3916	26880	231	447	373	410	315	290	315	303	545	207	340	260
3917	Gontra Bidhan-3 (NC)	294	447	353	400	500	274	383	328	501	442	399	285
3918	26881	274	455	370	413	285	300	394	347	481	354	364	276
3919	26882	317	466	360	413	390	263	477	370	441	449	395	299
3920	26883	208	526	378	452	318	274	585	429	401	317	376	280
3921	26884	294	444	381	413	355	250	405	328	501	483	389	292
3922	26885	340	383	375	379	300	300	432	366	540	324	374	285
3923	26886	277	480	375	427	328	247	552	399	431	437	391	284
3924	26887	290	535	376	455	358	270	518	394	441	377	395	307
3925	26888	261	425	384	405	400	290	409	350	431	430	379	282
3926	26889	277	411	378	395	343	263	435	349	441	423	371	283
3927	26890	191	444	384	414	473	280		280	431	270	353	263
3928	26891	337	521	380	450	388	350	458	404	501	344	410	308
3929	26892	277	486	373	430	560	244	477	360	406	354	397	295
3930	26893	251	477	371	424	343	313	510	411	461	463	399	308
3931	26894	277	502	375	438	418	260	544	402	481	410	408	306
3932	26895	274	473	358	416	408	297	570	433	451	480	414	280
3933	26896	287	451	360	405	513	310	533	421	561	234	406	294
3934	26897	287	513	388	450	243	290	659	474	461	483	415	312
3935	26898	257	473	373	423	190	264	631	447	401	383	371	273
3936	26899	307	433	373	403	260	270	616	443	481	377	390	282
3937	Zonal Check (ZC)	271	453	353	403	280	297	499	398	441	283	360	287
3938	26900		480	378	429	333	253	788	521	451	344	432	284
3939	26901		469	380	424	368	313	876	595	490	370	466	311
3940	26902		469	380	424	369	359	555	457	471	377	425	293
3941	26903		389	365	377	375	297	600	448	421	350	400	276
3942	26904		495	378	436	428	330	593	461	411	327	423	290
3943	26905		477	370	424	393	290	480	385	443	357	401	281
3944	26906		438	363	400	425	327	345	336	431	360	384	285
3945	26907		442	370	406	430	264	619	441	517	357	428	284
3946	26908	317	442	376	409	425	277	676	476	461	463	429	306
3947	26909	320	416	378	397	295	294	563	428	511	410	398	301
3948	26910	314	405	383	394	325	303	383	343	491	340	368	264
3949	26911	317	480	373	426	350	307	349	328	562	297	379	274
3950	26912	234	409	361	385	335	247	349	298	511	203	331	259
3951	26913	284	440	363	402	405	264	353	308	431	297	355	265
3952	26914	261	444	381	413	298	307	394	351	463	323	359	274
3953	26915	261	491	376	433	375	280	364	322	491	403	380	280
3954	26916	221	458	371	414	400	257	360	309	502	363	367	285
3955	26917	300	513	366	439	313	270	390	330	431	383	371	275
3956	26918	297	491	373	432	470	214	364	289	501	347	382	281
3957	26919	284	475	371	423	330	284	469	376	473	630	414	294
3958	26920	238	499	391	445	273	287	492	389	484	377	380	275
3959	26921	281	462	381	422	323	303	473	388	441	370	379	279
3960	26922	327	499	361	430	350	334	405	369	421	293	374	282
3961	26923	317	427	376	402	456	300	447	373	531	364	402	286
3962	26924	284	473	383	428	343	284	518	401	461	383	391	292
3963	26925	267	460	368	414	365	424		424	441	303	375	290
3964	Local Check	264	422	373	398	433	247	323	285	441	477	372	290
	Exp Mean	282	461	373	417	361	281	461	368	465	375	384	284
	C.D. 5%	82	98	19	48	62	60	237	121	2	81	38	12
	C.V.%	14.50	10.62	2.61	8.16	8.56	10.64	25.67	23.47	0.24	10.75	14.08	12.16

ADVANCE VARIETY TRIAL 2- IRRIGATED MEDIUM (AVT-2-IM)**Locations: 34****Test Entries: 07**

Checks: NDR 359-(National); PR 113-(Northern), CR Dhan 300 (Eastern and North Eastern), IR 64 (Central), Akshayadhan (Western), Jaya (Southern)-Zonal; HRI 174 and US 312-Hybrid and Local Check **Table: 3.24**

Advance Variety Trial 2- Irrigated Medium (AVT-2-IM) was constituted with 07 test entries and 5 checks viz., NDR 359 (National), PR 113 for Northern, CR Dhan 300 for Eastern and North Eastern, IR 64 for Central, Akshayadhan for Western, Jaya for Southern (Zonal); HRI 174 and US 312 (Hybrid check) and Local Check. Among 07 test entries, 4 were the hybrids and 3 were varietal entries promoted from AVT-1-IM. The trial was sent to 41 locations. The data were received from 34 locations and 7 locations namely Patna-ICAR, Kolkata, Masodha, Gerua-ICAR, Lembucherra-ICAR, Jabalpur and Mandya have not submitted the data.

The experimental mean of grain yield at different locations ranged from 2708 Kg/ha at Sindewahi to 7556 Kg/ha at Ludhiana. The mean yield of the entries ranged from 5494 Kg/ha (IET 24933) to 6358 Kg/ha (HRI 174; Hybrid check). The CV of the experiment at different sites varied from 0.96 (Karaikal) to 35.63 (Pantnagar). The mean days to 50% flowering ranged from 96 days (US 312; HC;) to 106 days (IET 25289). The number of panicles/m² ranged from 263 (NC) to 302 (IET 25355). The plant height ranged from 106 cm (NC) to 123 cm (IET 25289). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 3.25, 3.26, 3.27 and 3.28. The promoted entries from AVT-1-IM were tested under different zones. On overall mean basis, none of the entries recorded required yield gain over best varietal check and hybrid check. The performance of entries in different zones is discussed below.

Zonal performance of entries in AVT 2-IM**Northern zone - Zone II**

This zone includes 5 locations in Northern zone namely Pantnagar, Ludhiana, Kaul, Kota and Chatha. The data were not included from Pantnagar (2915 Kg/ha; 35.63) due to low experimental mean and CV. Among the varietal checks, Local check (6149 Kg/ha) is the top yielder followed by NDR 359 (5873 Kg/ha; National check) and Zonal Check (5836 Kg/ha). Among hybrid checks HRI 174 (6496 Kg/ha) is the top yielder followed by US 312 (5798 Kg/ha). Among the seven test entries, only one entry IET 24963 found superior in performance to best varietal check and hybrid check.

IET 24963 (Bio 681), a hybrid entry stood first (6946 Kg/ha) with 104 days to 50% flowering and long slender grains. It registered 12.96 % over best varietal check (Local check) and 6.92 % over hybrid check. Quality wise it recorded 67.7 % HRR, intermediate amylose content (24.08 %), 5 ASV and 61 mm GC (Table 3.29).

Eastern zone - Zone III

This zone includes 12 locations in Eastern zone namely Bhubaneswar, NRRI-Cuttack, Jeypore, Chiplima, Bikramganj (Patna), Patna-ICAR, Sabour, Ranchi, Chinsurah, Kolkata, Masodha and Varanasi. The data were not included from Chinsurah (3.83) due to low CV. Among the varietal checks, National check (5537 Kg/ha) is the top yielder followed by Zonal Check (5392 Kg/ha) and local check (5303 Kg/ha). Among hybrid checks HRI 174 (6541 Kg/ha) is the top yielder followed by US 312 (5692 Kg/ha). Hybrid check HRI 174 is the top yielding entry in the Zone III. Among the seven test entries, two varietal test entries IET 25330 and IET 25289 found superior in performance to best varietal check.

IET 25330 (WGL 739) derived from the cross between RP 4516-3-6 / Kavya with grain yield of 5959 Kg/ha and 103 days to 50% flowering and long bold grains. It was significantly superior to best varietal check (NC) by 7.62 %. Quality wise it exhibited 66.7 % HRR, intermediate AC (24.40 %), 4.0 ASV and 50 mm GC.

IET 25289 (OR 2573-7) derived from the cross between Birupa / IR 76561-AC-8-8 with grain yield of 5875 Kg/ha and 108 days to 50% flowering and long slender grains. It was significantly superior to best varietal check (NC) by 6.10 %. Quality wise it exhibited 66.5 % HRR, intermediate AC (24.02 %), 5.0 ASV and 46 mm GC.

North Eastern Zone – Zone IV

In this zone, data is available only from single location Titabar. Among the varietal checks, NDR 359 (6407 Kg/ha; National check) is the top yielder followed by local Check (5877 Kg/ha) and zonal check (5354 Kg/ha). Among hybrid checks HRI 174 (7383 Kg/ha) is the top yielder followed by US 312 (4370 Kg/ha). Hybrid check HRI 174 is the top yielding entry in the Zone IV. None of the entry found superior in performance to best varietal check and hybrid check.

Central zone – Zone V

The trial was conducted at 6 locations in this zone namely Waraseoni, Jabalpur, Raipur, Jagdalpur, Bilaspur, Sakoli and Sindewahi. The data were not included from Raipur (3807 Kg/ha) and Sindewahi (2708 Kg/ha) due to low experimental mean. Among the varietal checks, NDR 359 (5037 Kg/ha; National check) is the top yielder followed by local check (4745 Kg/ha) and zonal check (3746 Kg/ha). Among hybrid checks HRI 174 (6204 Kg/ha) is the top yielder followed by US 312 (5591 Kg/ha). Hybrid check HRI 174 is the top yielding entry in the Zone V. None of the entry found superior in performance to best varietal check and hybrid check.

Western zone – Zone VI

The trial was conducted at 4 locations in this zone namely Karjat, Nawagam, Navsari and Dabhoi. Data from Nawagam is not included in the analysis due to low CV %. Among the varietal checks, Local check (5322 Kg/ha) is the top yielder followed by NDR 359 (5144 Kg/ha; National check) and Zonal Check (5018 Kg/ha). Among hybrid checks HRI 174 (6124 Kg/ha) is the top yielder followed by US 312 (5389 Kg/ha). Hybrid check HRI 174 is the top yielding entry in the Zone VI. None of the entry found superior in performance to best varietal check and hybrid check.

Southern zone- Zone VII

This zone includes 9 locations namely Maruteru, Ragolu, Rajendranagar, Warangal, Jagtial, Coimbatore, Aduthurai, Pattambi, Mandya and Karaikal. The data were not included from Rajendranagar (20.43) and Pattambi (22.63) due to high CV %, and Karaikal (0.96) due to low CV %. Among the varietal checks, Local check (5935 Kg/ha) is the top yielder followed by NDR 359 (5429 Kg/ha; National check) and zonal check (4759 Kg/ha). Among hybrid checks HRI 174 (6071 Kg/ha) is the top yielder followed by US 312 (5691 Kg/ha). Among the seven test entries, only one test entry IET 24973 was found superior in performance to best varietal and hybrid check.

IET 24973 (MR 8333), a hybrid entry stood first rank (6867 Kg/ha) with 97 days to 50% flowering and long slender grains. It registered 15.70 % yield advantage over best varietal check (Local check) and 13.11 % over hybrid check. Quality wise it recorded 66.4 % HRR, intermediate amylose content (23.02 %), 4 ASV and 54 mm GC.

Zone wise performance of promising entries in AVT 2-IM Kharif 2017

IET No	ZONE II			ZONE III			ZONE VII		
	Yield Kg/ha	% BVC	% HC	Yield Kg/ha	% BVC	% HC	Yield Kg/ha	% BVC	% HC
24963 (H)	6946	12.96	6.92	-	-	-	-	-	-
24973 (H)	-	-	-	-	-	-	6867	15.70	13.11
25330	-	-	-	5959	7.62	-	-	-	-
25289	-	-	-	5875	6.10	-	-	-	-
BVC	6149	-	-	5537	-	-	5935	-	-
HC	6496	-	-	6541	-	-	6071	-	-

BVC- Best varietal check; HC-Hybrid check; FD-Days to 50% flowering

Summarizing the three years performance of entries found promising in AVT-2-IM

IET 24963 (Bio 681), a hybrid entry could not show consistent performance in any zone and state for all the 3 years of testing. It showed superior performance over BVC and HC in zone III in first and second year but not in third year of testing. Similarly it registered superior performance over BVC and HC in zone VI in first year, zone IV in second year and in zone II in third year of testing. State wise it could not show consistent performance in any states for all the 3 years of testing. In the states of Odisha and Uttar Pradesh, it showed superior performance over BVC and HC in first and second year of testing, but not in third year of testing. In the state of Jammu and Kashmir, it registered yield gain over checks in third year of testing only, whereas, in Bihar and Tripura in second year and in Maharashtra in the first year of testing only. **Hence it was not found promising for any zone and state.**

IET 24973 (MR 8333), a hybrid entry could not show consistent performance in any zone and state for all the 3 years of testing. It showed superior performance over BVC and HC in zone VII in third and second year but not in first year of testing. Similarly it registered superior performance over BVC and HC in zone VI in first year only. State wise it could not show consistent performance in any states for all the 3 years of testing. In the states of Tamil Nadu (third year), Telangana (Second year), Karnataka (second year) and Maharashtra (first year), it showed superior performance over BVC and HC in one year of testing only. **Hence it was not found promising for any zone and state.**

IET 25330 (WGL 739) derived from the cross between RP 4516-3-6 / Kavya could not show consistent performance in any zone and state for all the 3 years of testing. It showed superior performance over BVC and HC in zone III in third and second year but not in first year of testing. Similarly it registered superior performance over BVC and HC in zone IV and VII in first year and second year of testing, but not in third year of testing. State wise it could not show consistent performance in any states for all the 3 years of testing. In the states of Odisha, Bihar, Tripura, Telangana and Tamil Nadu, it showed superior performance over BVC and HC in second year of testing only, whereas in Assam and Gujarat it registered yield gain over checks in first year of testing only. **Hence it was not found promising for any zone and state.**

Three years performance of entries in AVT-2-IM during 2015 to 2017

IET No.	Year	% Increase over the Best Check								Remarks
		Zone	Yield (Kg/ha)	% BVC	% HC	State/Rank	Yield (Kg/ha)	% BVC	% HC	
24963 (Hybrid)	2017	Z-II	6946	12.96	6.92	JK-1	6933	35.07 (LC)	19.53	Discontinued
	2016	Z-III	6118	6.83	7.77	OD-6	5581	5.60 (ZC)	16.27	
		Z-IV	5947	13.62	14.32	BI-2	6403	7.58 (LC)	16.44	
						UP-1	5936	12.38 (NC)	-	
						TR-1	6230	11.97 (LC)	38.63	
	2015	Z-III	6829	34.19	18.60	UP	7397	39.65	32.0	
		Z-VI	6030	26.84	10.85	OD	6843	44.70	14.70	
						MH	6382	33.60	21.89	
	2017	Z-VII	6867	15.70	13.11	TN-1	9299	32.29 (LC)	18.28	
	2016	Z-VII	7685	14.28	10.24	TEL-1	10037	12.16 (NC)	7.03	
24973 (Hybrid)						KA-2	7462	26.82 (LC)	32.07	
	2015	Z-VI	5925	11.10	8.18	MH	6181	18.59	9.73	
	2017	Z-III	5959	7.62	-	-	-	-	-	Discontinued
	2016	Z-III	5990	5.0	5.51	OD-1	6075	14.95 (ZC)	26.56	
		Z-IV	5927	13.24	-	BI-1	6578	10.52 (LC)	19.62	
		Z-V	6527	5.27	-	TR-2	6198	11.39 (LC)	37.92	
		Z-VII	7526	11.91	7.96	TEL-3	9850	10.07 (NC)	5.03	
						TN-3	7056	19.92 (LC)	24.88	
	2015	Z-IV	6359	50.01	-	AS	6359	50.01 (ZC)	-	
		Z-VII	5829	10.80	-	GU	5881	14.06 (ZC)	-	
25289	2017	Z-III	5875	610	-	-	-	-	-	Discontinued
	2016	Z-VII	7275	8.18	-	AP-2	6352	9.39 (LC)	11.67	
						TN-4	6605	12.25 (LC)	16.90	
	2015	Z-II	6043	8.08	-	OD	6036	10.71 (LC)	-	
		Z-III	6906	10.41	-	CG	6673	26.02 (LC)	-	
		Z-V	6673	26.02	-					

BVC- Best varietal check; HC-Hybrid check

IET 25289 (OR 2573-7) derived from the cross between Birupa / IR 76561-AC-8-8 could not show consistent performance in any zone and state for all the 3 years of testing. It registered superior performance over BVC and HC in zone III in third and first year but not in second year of testing. Similarly it registered superior performance over BVC and HC in zone VII in second year, zone II and V in first year of testing. State wise it could not show consistent performance in any states for all the 3 years of testing. In the states of Andhra Pradesh, Tamil Nadu, it showed superior performance over BVC and HC in second year of testing only, whereas in Odisha and Chhattisgarh, it registered yield gain over checks in first year of testing only. **Hence it was not found promising for any zone and state.**

ADVANCE VARIETY TRIAL 1- IRRIGATED MEDIUM (AVT-1-IM)**Locations: 33****Test Entries: 22**

Checks: NDR 359-(National); PR 113-(Northern), CR Dhan 300 (Eastern and North Eastern), IR 64 (Central), Akshayadhan (Western), Jaya (Southern)-Zonal; HRI 174 and US 312-Hybrid and Local Check **Table: 3.30**

Advance Variety Trial 1- Irrigated Medium (AVT-1-IM) was constituted with 27 entries including 5 checks viz., NDR 359 (National), PR 113 for Northern, CR Dhan 300 for Eastern and North Eastern, IR 64 for Central, Akshayadhan for Western, Jaya for Southern (Zonal); HRI 174 and US 312 (Hybrid check) and Local Check. Among 22 test entries, 7 were the hybrids promoted from IHRT-M and 15 were varietal entries promoted from IVT-M. The trial was sent to 41 locations. The data were received from 33 locations and 8 locations namely Patna-ICAR, Kolkata, Masodha, Gerua-ICAR, Lembucherra (ICAR), Jabalpur, Dabhoi and Mandya have not submitted the data.

The experimental mean of grain yield at different locations ranged from 2696 Kg/ha at Pantnagar to 7432 Kg/ha at Ranchi. The mean yield of the entries ranged from 3188 Kg/ha (Zonal check) to 6836 Kg/ha (HRI 174 Hybrid check). The CV of the experiment at different sites varied from 0.79 (Karaikal) to 24.34 (Pantnagar). The mean days to 50% flowering ranged from 88 days (ZC) to 118 days (IET 26019). The number of panicles/m² ranged from 202 (IET 26039) to 378 (IET 25776). The plant height ranged from 101 cm (IET 25997) to 133 cm (IET 25229, ZC, NC). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 3.31, 3.32, 3.33 and 3.34. The promoted entries from IVT-IM and IHRT-M were tested under different zones only. No entry was tested across the zones. Hence, the performance of entries in different zones is discussed below.

Zonal performance of entries in AVT 1-IM**Northern and Eastern zone - Zone II and III**

This zone includes 5 locations in Northern zone namely Pantnagar, Ludhiana, Kaul, Kota, Chatha and 12 locations in Eastern zone namely Bhubaneswar, NRRI Cuttack, Jeypore, Chiplima, Bikramganj (Patna), Patna-ICAR, Sabour, Ranchi, Chinsurah, Kolkata, Masodha and Varanasi. Data from Patna-ICAR, Kolkata and Masodha have not received. The data were not included from Pantnagar (2696 Kg/ha) and Varanasi (2.28) due to low experimental mean and CV. Among the varietal checks, Local check (5864 Kg/ha) is the top yielder followed by NDR 359 (5598 Kg/ha; National check) and Zonal Check (5260 Kg/ha). Among hybrid checks HRI 174 (6247 Kg/ha) is the top yielder followed by US 312 (5345 Kg/ha). Hybrid check HRI 174 is the top yielding entry in the Zone II and III. None of the entry found superior in performance to best varietal check and hybrid check.

North Eastern Zone – Zone IV

This zone includes 3 locations namely Titabar, Gerua-ICAR and Lembucherra (ICAR). Data from Gerua-ICAR and Lembucherra were not received. Among the varietal

checks, NDR 359 (5825 Kg/ha; National check) is the top yielder followed by Zonal Check (5649 Kg/ha) and Local check (4702 Kg/ha). Among hybrid checks HRI 174 (6836 Kg/ha) is the top yielder followed by US 312 (3836 Kg/ha). Hybrid check HRI 174 is the top yielding entry in the Zone IV. None of the entry found superior in performance to best varietal check and hybrid check.

Central zone – Zone V

The trial was conducted at 7 locations in this zone namely Waraseoni, Jabalpur, Raipur, Jagdalpur, Bilaspur, Sakoli and Sindewahi. Data from Jabalpur is not received. The data were not included from Waraseoni (3906 Kg/ha) and Sindewahi (2712 Kg/ha) due to low experimental mean. Among the varietal checks, NDR 359 (4941 Kg/ha; National check) is the top yielder followed by local check (4036 Kg/ha) and zonal check (3188 Kg/ha). Among hybrid checks HRI 174 (5553 Kg/ha) is the top yielder followed by US 312 (5319 Kg/ha). Hybrid check HRI 174 is the top yielding entry in the Zone V. Four varietal entries namely IETs 25998, 25997, 26024 and 26019 yielded 13.7, 10.9, 9.09 and 7.8 % higher than the best check (NDR 359; National check) respectively. None of the hybrid entries showed superior performance over best hybrid check (HRI 174).

Western zone – Zone VI

The trial was conducted at 4 locations in this zone namely Karjat, Nawagam, Navsari and Dabhoi. Among the varietal checks, Local check (6493 Kg/ha) is the top yielder followed by Zonal Check (6126 Kg/ha) and NDR 359 (5833 Kg/ha; National check). Among hybrid checks US 312 (6660 Kg/ha) is the top yielder followed by HRI 174 (6427 Kg/ha). Hybrid check US 312 is the top yielding entry in the Zone VI. None of the entry found superior in performance to best varietal check and hybrid check.

Southern zone- Zone VII

This zone includes 10 locations namely Maruteru, Ragolu, Rajendranagar, Warangal, Jagtial, Coimbatore, Aduthurai, Pattambi, Mandya and Karaikal. Data from Mandya was not received. Among the varietal checks, Local check (5809 Kg/ha) is the top yielder followed by NDR 359 (5294 Kg/ha; National check) and zonal check (4605 Kg/ha). Among hybrid checks HRI 174 (5371 Kg/ha) is the top yielder followed by US 312 (5294 Kg/ha). Two varietal entries namely IET 26024 and 26027 yielded 11.60 and 7.9 % higher than the best check (Local check) respectively. None of the hybrid entries showed superior performance over best varietal and hybrid check.

Among 22 test entries, 5 entries found superior in performance in grain yield with more than 5 % yield advantage over best varietal and/ hybrid checks. The details are presented hereunder.

IET 26024 (OR 2573-15) derived from the cross Birupa / IR 76561-AC-8-8 with long bold grains and 100 to 106 days to 50% flowering. It found superior in performance over best varietal check in two zones namely Zone V and VII. It recorded grain yield of 5390 and 6483 Kg/ha with 9.09 and 11.60 % over best varietal check respectively in zones. The quality characteristics reported to be high 62.0 % HRR, 4.0 ASV, 27.25 % AC and 60 mm GC (Table 3.35). **Based on superior yield and acceptable quality parameters, the entry qualify to be promoted to AVT 2-IM.**

Zone wise performance of promising entries in AVT 1-IM Kharif 2017

Rank	IET No/ Designation/ Cross Combination	Zonal Mean GY/FD/GT	Yield adv (%) over Best check	% Increase over the best check				Promoted/ Dropped
				State				
				Rank	Yield Kg/ha	% BVC	% HC	
Promising Entries in Central zone - Zone V								
1	25998 MTU 1236 (RM 152-35-2-1-1) MTU3626/MTU 1075	5621 119 SB	13.76	CH-1	6419	23.78	9.73	Dropped due to poor quality
2	25997 CR 3808-13 Selection from recurrent population	5482 109 MS	10.95	CH-4	5884	13.46	0.58	Promoted
3	26024 OR 2573-15 Birupa / IR 76561-AC- 8-8	5390 106 LB	9.09	CH-2	5956	14.85	1.81	Promoted
4	26019 MTU 1237 (RM 168-16-3-1-1) AM 295 / MTU 1081	5330 116 MS	7.87	CH-5	5880	13.38	0.51	Dropped due to poor quality
NDR 359 (NC)		4941						
BVC		99						
Zonal check (ZC)		3188 88						
Local Check (LC)		4036 102						
HRI 174 (BHC)		5553						
		101						
US 312		5319 95						
Promising Entries in Southern zone - Zone VII								
1	26024 OR 2573-15 Birupa / IR 76561-AC- 8-8	6483 100 LB	11.60	AP-2 TEL-3 TN-1	5489 5918 8324	8.59 8.09 11.54	38.82 7.44 26.43	Promoted
2	26027 WGL 697 MTU 1001 / NLR 34449	6269 104 MS	7.92	AP-4 TEL-1 TN-5	5280 6281 7240	4.45 14.72 -2.99	33.54 14.03 9.96	Promoted
NDR 359 (NC)		5294 97						
Zonal check (ZC)		4605 92						
Local Check (LC) BVC		5809						
		104						
HRI 174 (BHC)		5371						
		99						
US 312		4707 94						

Bold Italics: Best check & over the best check; NC-National check; ZC-Zonal check; LC-Local check; GY-Grain yield; FD-Days to 50% flowering; GT-Grain Type; BC-Best Check

IET 25998 [MTU 1236 (RM 152-35-2-1-1)] a derivative from the cross MTU 3626 / MTU 1075 with short bold grains and 119 days to 50% flowering. It ranked first in zone V with grain yield of 5621 Kg/ha. It showed 13.76 % yield advantage over the best check (NC) with 1st rank in the state of Chhattisgarh (6419 Kg/ha). The quality characteristics reported to be high 68.5 % HRR, 7.0 ASV, 27.30 % AC and a hard GC of 23 mm. **Based on unacceptable quality (27.30 % AC and a hard GC of 23 mm) parameters, the entry does not qualify to be promoted to AVT 2-IM.**

IET 25997 (CR 3808-13) selected from male sterility facilitated recurrent selection population and ranked second in zone V. It exhibited medium slender grains and 109 days to 50% flowering. It recorded grain yield of 5482 Kg/ha with 10.95 % over best variety check (NC) and ranked fourth in state of Chhattisgarh (5884 Kg/ha). The quality characteristics reported to be high 66.1 % HRR, 4.0 ASV, 26.57 % AC and 57 mm GC. **Based on superior yield and acceptable quality parameters, the entry qualify to be promoted to AVT 2-IM.**

IET 26019 [MTU 1237(RM 168-16-3-1-1)] a derivative from the cross AM 295 / MTU 1081 with medium slender grains and 116 days to 50% flowering. It registered grain yield of 5330 Kg/ha with 7.87% over best check in zone V. The quality characteristics reported to be high 68.8 % HRR, 5.0 ASV, 25.87 % AC and 35 mm GC. **Based on unacceptable quality (25.87 % AC and 35 mm GC) parameters, the entry does not qualify to be promoted to AVT 2-IM.**

IET 26027 (WGL 697) derived from the cross MTU 1001 / NLR 34449 with medium slender grains and 104 days to 50% flowering. It found superior in performance over best varietal check (LC) in zone VII. It recorded grain yield of 6269 Kg/ha with 7.92 % over best varietal check. The quality characteristics reported to be high 65.9 % HRR, 4.0 ASV, 23.73 % AC and 54 mm GC. **Based on superior yield and acceptable quality parameters, the entry qualify to be promoted to AVT 2-IM.**

Entries which qualify for promotion to AVT 2-IM

On overall performance	: None
Northern and Eastern zone (Zone II and III)	: None
North Eastern zone (Zone IV)	: None
Central zone (Zone V)	: IET 26024 and IET 25997
Western zone (Zone VI)	: None
Southern zone (Zone VII)	: IET 26024 and IET 26027

INITIAL VARIETY TRIAL – IRRIGATED MEDIUM (IVT-IM)**Locations: 40****Test Entries: 61**

Checks: NDR 359-(National); PR 113-(Northern), CR Dhan 300 (Eastern and North Eastern), Karma Mahsuri (Central), Akshayadhan (Western), Jaya (Southern)-Zonal and Local Check **Table: 3.36**

Initial Variety Trial – Irrigated Medium (IVT-IM) was constituted with 61 entries and three checks (NDR 359 – National Check [NC], Zonal Check [ZC] and Local Check [LC]). Data from nine centres (Kolkata, Lembucherra, Waraseoni, Jabalpur, Bilaspur, Dabhoi, Jagtial, Mandya and Karaikal) was not received. Further, data from centres (Pantnagar, Ludhiana, Sindewahi and Nawagam) was not considered due to lower yield i.e., <4000 kg/ha. Also, the data from Jeypore, Patna-ICAR, Masodha, Rajendranagar, Pantnagar and Aduthurai was not included in mean due to high/low CV (<5.0% or >20.0%). The mean grain yield of the 64 entries ranged from 4084 kg/ha (IET 26813) to 6362 kg/ha (IET 26816). The range of experimental CV was from 3.27% (Patna-ICAR) to 52.88% (Pantnagar). Similarly, the experimental mean of grain yield ranged from 2454 kg/ha at Pantnagar to 6221 kg/ha at Kaul. Days to 50% flowering ranged from 93 days (IET 26838 and IET 26853) to 115 days (IET 26843). The plant height varied from 95 cm (IET 26857) to 139 cm (IET 26826) while, panicles/m² ranged from 258 (IET 26821) to 320 (IET 26862). Among the three checks, the local check (LC) had highest yield (5404 kg/ha), followed by National Check (NDR 359; 5275 kg/ha) and Zonal Check (4684 kg/ha). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 3.37, 3.38, 3.39 and 3.40. Considering the overall mean, IET 26816, IET 26819, IET 26086, IET 26118 and IET 26810 recorded a yield advantage of 17.7%, 15.9%, 10.3%, 7.1% and 5.7% respectively over the best check i.e., local check.

IET 26816 (JGL 25960), a derivative of MTU 1010/NLR 34449 was the first ranking entry with a mean grain yield of 6362 kg/ha. IET 26816 had 17.7% yield advantage over the best check (local check), 104 days to 50% flowering and long bold grain. This entry was ranked first in Zone III with a yield of 6545 kg/ha, exhibiting a yield advantage of 23.0% over the best check. It stood second in zone VI and VII with a yield advantage 14.0% and 19.2% respectively over the best check. It stood first in Haryana (9700 kg/ha), Odisha (6366 kg/ha) and Jharkhand (6151 kg/ha) with a yield advantage of 12.1%, 34.8% and 25.2% over the best check respectively. In Gujarat, IET 26816 ranked second with a yield of 6622 kg/ha and yield advantage of 11.0% over the best check. Similarly, it ranked third in West Bengal (8000 kg/ha), Telangana (7495 kg/ha) and Tamil Nadu (7197 kg/ha), demonstrating a yield advantage of 40.2%, 34.2% and 5.7% respectively over the best check.

The second ranked entry was IET 26819 (MTU 1212), a product of IR 64/PLA 99-1-3-1-3. It had a mean grain yield of 6267 kg/ha, and exhibited a yield advantage of 15.9% over the local check (best check). Days to 50% flowering were 108 and it had medium slender grain. It ranked first in Vth and VIIth zones followed by second in IIIrd zone. IET 26819 showed a yield advantage of 18.7% (IIIrd zone), 28.4% (Vth zone) and 19.8% (VIIth zone) over the best check. Among the states, it ranked 3rd in Odisha and 1st in Chhattisgarh with a yield advantage of 29.0% and 41.6% respectively compared to the best check.

Overall performance of promising entries in Initial Variety Trial- Irrigated Medium, Kharif 2017

Rank	IET No./ Designation /Cross Combination	Over all mean GY/ DF/ GT	Yield adv (%) over NC /ZC /LC	% Increase over Best Check					
				State			Zone		
				Rank	Yield (Kg/ ha)	% BVC	Rank	Yield (Kg/ ha)	% BVC
1	26816 JGL25960 MTU1010/NLR34449	6362 104 LB	20.6 38.1 17.7	HA-1	9700	12.1	III-1	6545	23.0
				OD-1	6366	34.8	VI-2	6108	14.0
				JH-1	6151	25.2	VII-2	7177	19.2
				GU-2	6622	11.0			
				WB-3	8000	40.2			
				TEL-3	7495	34.2			
				TN-3	7197	5.7			
2	26819 MTU 1212 (MTU 2223-5-2-2-1-1) IR64/PLA99-1-3-1-3	6267 108 MS	18.8 33.8 15.9	OD-3	6095	29.0	III-2	6316	18.7
				CG-1	6980	41.6	V-1	6519	28.4
							VII-1	7217	19.8
3	26086 OR(T)-31 Lalat Mutant	5958 103 MS	12.9 27.2 10.3	WB-1	8817	54.5	III-3	6183	16.2
				MH(V)-1	6364	13.0	V-2	6272	23.5
				GU-1	6942	16.4	VI-1	6657	24.2
NDR359 (NC)		5275 98							
Zonal Check (ZC)		4684 102							
Local Check (LC)		5404 100							

Bold Italics: Best check & over the best check; NC-National check; ZC-Zonal check; LC-Local check; GY-Grain yield; DF-Days to 50% flowering; GT-Grain Type; BC-Best Check

IET 26086 (OR[T]-31) was developed from 'Lalat Mutant'. The grain yield of IET 26086 was 5958 kg/ha, it showed a yield superiority of 10.3% over local check (best check). Further, it took 103 days to attain 50% flowering and the grain type was medium slender. IET 26086 ranked 3rd in IIIrd zone and showed 16.2% higher yield compared to the best check. Further, it stood 2nd in Vth zone and 1st in VIth zone. The yield advantage over the best check in Vth (23.5%) and VIth (24.2%) zone was almost similar. Interestingly, it ranked 1st in three states: West Bengal, Maharashtra (V) and Gujarat, demonstrating a yield advantage of 54.5%, 13.0% and 16.4% respectively.

Zonal Performance of Entries in IVT-IM

Zone III – Among the 12 locations (Bhubaneswar, Cuttack, Jeypore, Chiplima, Bikramganj, Patna-ICAR, Sabour, Ranchi, Chinsurah, Kolkata, Masodha and Varanasi), the data from Kolkata was not received. The CV at different experimental locations varied from 3.27% (Patna-ICAR) to 25.02% (Jeypore). The mean grain yield of the 64 entries ranged from 3547 kg/ha (IET 26840) to 6545 kg/ha (IET 26816). Days to 50% flowering also displayed a wide range, 92 days (IET 26838 and IET 26853) to 121 days (IET 26843). Similarly, plant height had a range of 95 cm (IET 26836 and 26857) to 141 cm (IET 26826). Panicles/m² exhibited a range from 217 (IET 26860) to 297 (IET 26862). The top three performers in this zone were:

IET 26816 (6545 kg/ha), IET 26819 (6316 kg/ha) and IET 26086 (6183 kg/ha). These three entries exhibited a yield advantage of 23.0%, 18.7% and 16.2% respectively over the local check, the best check.

Performance of promising entries in Zone – III in Initial Variety Trial – Irrigated Medium, Kharif 2017

Rank	IET No./ Designation /Cross Combination	Overall mean GY/ DF/ GT	Yield adv (%) over NC /ZC /LC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ ha)	% BVC
1	26816	6545	27.0	OD-1	6366	34.8
	JGL25960	105	39.0	JH-1	6151	25.2
	MTU1010/NLR34449	LB	23.0	WB-3	8000	40.2
2	26819	6316	22.6	OD-3	6095	29.0
	MTU 1212	109	34.2			
	(MTU 2223-5-2-2-1-1) IR64/PLA99-1-3-1-3	MS	18.7			
3	26086	6183	20.0	WB-1	8817	54.5
	OR(T)-31	103	31.4			
	Lalat Mutant	MS	16.2			
NDR 359 (NC)		5153 99				
CR Dhan 300 (ZC)		4707 110				
Local Check (LC)		5323 102				

Bold Italics: Best check & over the best check; NC-National check; ZC-Zonal check; LC-Local check; GY-Grain yield; FD-Days to 50% flowering; GT-Grain Type; BC-Best Check

Zone IV – Titabar (Assam) and Lembucherra (Manipur) were the two locations in this zone. But the data from Lembucherra was not received. The CV at Titabar was 14.06%. Mean grain yield of the entries ranged from 2458 kg/ha (IET 26835) to 6566 kg/ha (IET 26852). Days to 50% flowering ranged from 98 (IET 26863) to 123 (IET26819, IET 26082, IET 26824, IET 26827, IET 26839, IET 26845, IET 26847, IET 26856, and IET 26858. IET 26813 was the shortest entry (69 cm) while IET 26828 was the tallest (115 cm). The panicles/m² ranged from 209 (IET26828 and IET 26834) to 333 (IET 26837). In zone IV, IET 26852 (6566 kg/ha), IET 26118 (6515 kg/ha) and IET 26837 (6229 kg/ha) were the best performing entries with a yield advantage of 12.1%, 11.2% and 6.3% over the best check (zonal check). **As per the final proceedings of 51st ARGM, since Titabar is the only location the promoted entries should have >15% yield superiority over the best check. Therefore, none of the entries in IVth zone are promoted.**

Zone V – this zone is spread over three states of Madhya Pradesh (Waraseoni and Jabalpur), Chhattisgarh (Raipur, Jagdalpur, and Bilaspur) and Maharashtra (Sakoli and Sindewahi) with seven test locations. Data from Waraseoni and Jabalpur was not received. The CV of Zone V demonstrated a range from 6.53% (Sindewahi) to 16.23% (Jagdalpur). Mean grain yield range recorded in this zone was 3342 kg/ha (IET 26813) to 6519 kg/ha (IET 26819). Days to 50% flowering varied significantly among the entries ranging from 84 days (IET 26853) to

125 days (IET 26843). Three entries, IET 26819 (6519 kg/ha), IET 26086 (6272 kg/ha) and IET 26102 (5847 kg/ha) exhibited 28.4%, 23.5% and 15.1% yield advantage respectively over the best check (NDR 359, national check). Additionally, the following five entries out-yielded the best check by >5.0%, IET 26858 (12.6%), IET 26816 (11.1%), IET 26830 (10.0%), IET 26850 (9.7%) and IET 26810 (9.6). **But, based on the range of days to 50% flowering for IVT-IM trial (101-110 days), IET 26830 (98 days) are to be shifted to IVT-Mid Early trial.**

Performance of promising entries in Zone – V in Initial Variety Trial – Irrigated Medium, Kharif 2017

Rank	IET No./ Designation/ Cross Combination	Overall mean GY/ DF/ GT	Yield adv (%) over NC/ZC /LC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ha)	% BVC
1	26819 MTU 1212 (MTU 2223-5-2-2-1-1) IR 64/PLA 99-1-3-1-3	6519 108 MS	28.4 65.0 70.3	CG-1	6980	41.6
2	26086 OR(T)-31 Lalat Mutant	6272 102 MS	23.5 58.7 63.9	MH-1	6364	13.0
3	26102 MTU 1206 MTU 1010/KMP 149	5847 105 MS	15.1 48.0 52.8	CG-2	6482	31.5
NDR 359 (NC)		5079 96				
Karma Mahsuri (ZC)		3952 96				
Local Check (LC)		3827 99				

Bold Italics: Best check & over the best check; NC-National check; ZC-Zonal check; LC-Local check; GY-Grain yield; FD-Days to 50% flowering; GT-Grain Type; BC-Best Check

Zone VI – this zone is represented by four locations including Karjat, Nawagam, Navsari and Dabhoi. The CV in this zone ranged from 10.77% at Nawagam to 12.84% at Navsari. The mean grain yield of the entries had a range from 4086 kg/ha (IET 26813) to 6657 kg/ha (IET 26086). The range of days to 50% flowering among the test entries was 93 days (IET 26810) to 118 days (IET 26839). The panicles/m² also exhibited wide variability ranging from 169 (IET 26821) to 253 (IET 26832). The plant height ranged from 87 cm (IET 26852) to 151 cm (IET 26826). IET 26086 (6657 kg/ha), IET 26816 (6108 kg/ha) and IET 26831 (5807 kg/ha) were the best performing entries, with an overall yield advantage of 24.2%, 14.0% and 8.4% over the zonal check (best check) respectively. IET 26820 (7.5%), IET 26118 (6.1%), IET 26859 (5.6%), and IET 26815 (5.4%) were the other entries that exhibited a yield advantage >5.0% over the best check. **But, IET 26820 flowered in 97 days therefore it is to be shifted to IVT- Mid Early trial.**

Performance of promising entries in Zone – VI in Initial Variety Trial – Irrigated Medium, Kharif 2017

Rank	IET No./ Designation/ Cross Combination	Overall mean GY/ DF/ GT	Yield adv (%) over NC/ZC/LC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ha)	% BVC
1	26086 OR(T)-31 Lalat Mutant	6657 101 MS	28.2 24.2 28.5	GU-1	6942	16.4
2	26816 JGL 25960 MTU 1010/NLR 34449	6108 101 LB	17.6 14.0 17.9	GU-2	6622	11.1
3	26831 WGL 1021 WGL 32183/Sheetal	5807 102 LS	11.8 8.4 12.1	GU-3	6603	10.8
NDR 359 (NC)		5192 97				
Akshayadhan (ZC)		5359 98				
Local Check (LC)		5180 98				

Bold Italics: Best check & over the best check; NC-National check; ZC-Zonal check; LC-Local check; GY-Grain yield; FD-Days to 50% flowering; GT-Grain Type; BC-Best Check

Performance of promising entries in Zone – VII in Initial Variety Trial – Irrigated Medium, Kharif 2017

Rank	IET No./ Designation/ Cross Combination	Overall mean GY/DF/ GT	Yield adv (%) over NC/ZC/LC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ha)	% BVC
1	26819 MTU 1212 (MTU 2223-5-2-2-1-1) IR 64/PLA 99-1-3-1-3	7217 106 MS	31.4 56.7 20.0	-	-	-
2	26816 JGL 25960 MTU 1010/NLR 34449	7177 101 LB	30.7 55.8 19.2	TEL-3 TN-3	7495 7197	34.2 5.7
3	26843 CR 3993-13-3-67-43-2 CR1009/ <i>O.brachyantha</i> //CR 1009	6795 105 SB	23.7 47.5 12.8	AP-1	7768	12.3
NDR 359 (NC)		5492 96				
Jaya (ZC)		4607 92				
Local Check (LC)		6023 102				

Bold Italics: Best check & over the best check; NC-National check; ZC-Zonal check; LC-Local check; GY-Grain yield; FD-Days to 50% flowering; GT-Grain Type; BC-Best Check

Zone VII – the Southern zone is represented by 10 locations – Maruteru, Ragolu, Rajendranagar, Warangal, Jagtial, Coimbatore, Aduthurai, Pattambi, Mandya, and Karaikal. The observed CV for this zone ranged from 7.25% (Maruteru) to 22.86% (Aduthurai). In this zone, the range of mean grain yield was from 3837 kg/ha (IET 26815) to 7217 kg/ha (IET 26819). The flowering duration varied from 89 days (IET 26838 and IET 26844) to 113 days (IET 26845). Similarly, panicles/m² exhibited a range of 329 (IET 26815) to 452 (IET 26843). The top three performing entries in this zone are IET 26819 (7217 kg/ha), IET 26816 (7177 kg/ha) and IET 26843 (6795 kg/ha). These three entries showed a yield advantage of 20.0%, 19.2% and 12.8% respectively over the best check (local check). Further, IET 26861 (11.2%), IET 26836 (8.4%), IET 26831 (7.5%), and IET 26834 (7.1%) also exhibited significant yield advantage over the best check. **Among all the entries that exhibited >5.0% yield advantage, IET 26834 (97 days), IET 26836 (95 days) and IET 26861 (95 days) are to be shifted to IVT-Mid Early.**

List of entries qualified for promotion to AVT1-IM:

- **Overall:** IET 26816, IET 26819, IET 26086, IET 26118, IET 26810
- **Zone III:** IET 26816, IET 26819, IET 26086, IET26118, IET 26810, IET 26847, IET 26828
- **Zone V:** IET 26819, IET 26086, IET 26102, IET26858, IET 26816, IET 26850
- **Zone VI:** IET 26086, IET 26816, IET 26831, IET 26118, IET 26859, IE T 26815
- **Zone VII:** IET 26819, IET 26816, IET 26843, IET 26831.
- **Shift to IVT-IME:** IET 26820, IET 26830, IET 26834, IET 26836 and IET 26861

Table No. 3.24: Composition of entries in Advance Variety Trial 2-Irrigated Medium (AVT 2-IM), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
3rd Year of testing:				
4001	25355	TRC-2015-7	Pyzum / Sambha Mahsuri	LS
4002	24963	<i>Bio-681 (Hybrid)</i>	-	LS
4003	24958	<i>MEPH-125 (Hybrid)</i>	-	MS
4004	NDR 359 (NC)			LB
4005	24973	<i>MR-8333 (Hybrid)</i>	-	LS
4006	24933	<i>Siri-2277 (Gold) (Hybrid)</i>	-	LS
4007	PR 113 (Northern), CR Dhan 300 (Eastern and North Eastern), IR 64 (Central), Akshyadhan (Western), Jaya (Southern)—ZC			
4008	25330	WGL-739	RP 4516-3-6 / Kavya	LB
4009	HRI 174 (HC)			LB
4010	25289	OR 2573-7	Birupa / IR76561-AC-8-8	LS
4011	US 312 (HC)			MS
4012	Local Check			

Table No. 3.25 : Grain Yield (Kg/ha) of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	II										Zone II (4)	III													
		UT		PUN		HAR		RAJ		J&K			OD		OD		OD		OD							
		@PNT	LDN	KUL	KTA	CHT	Mean	BBN	CTK	JYP	CHP															
4001	25355	3311	5	6646	6819	3	#	5940	3	5000	7	6101	7	5338	3	4487	8	4943	8	5080	8					
4002	24963	4654	1	7206	9	7529	1	#	6117	2	6933	1	#	6946	1	*	13%	7%	4103	8	4788	8	5293	6	5132	7
4003	24958	3830	3	8727	1	5756	8	5151	7	5000	8	6158	5	5011	6	5650	4	6060	4	5986	2	5986	2	5986	2	
4004	NDR 359 (NC)	3157	6	7456	7	5428		5873	4	4733		5873	8	4648		4872	6	4249		4108		4108		4108		
4005	24973	1823		8351	4	6574	5	5053	8	6733	2	*	6678	2	*	9%	3%	5156	4	4506		4475	9	5306	6	
4006	24933	3075	7	7830	6	6847	2	#	5590	6	5467	4	6433	4	5%	4866	7	4531	9	5874	5	4380		4380		
4007	Zonal Check (ZC)	3573	4	8377	3	5483	9	4685		4800	9	5836	9	4684	9	5921	1	8596	1	#	4094		4094		4094	
4008	25330	1481		7405	8	4528		4433				5455		5447	2	5688	3	5201	7	6158	1	6158	1	6158	1	
4009	HRI 174 (HC)	3885	2	8612	2	5810	7	5762	5	5800	3	6496	3	6%	5156	5	5803	2	6394	3	5638	5	5638	5	5638	5
4010	25289	1451		6823		4419		4366				5203		5846	1	5161	5	4120		4771	9	4771	9	4771	9	
4011	US 312 (HC)	2256	9	5173		6083	6	6871	1	5067	6	5798		4575		4470		6595	2	5778	4	5778	4	5778	4	
4012	Local Check	2488	8	8069	5	6628	4	4765	9	5133	5	6149	6	4866	8	4854	7	3873		5889	3	5889	3	5889	3	
	Exp Mean	2915		7556		5992		5384		5467		6127		4975		5061		5473		5193		5193		5193		
	C.D. 5%	1759		670		957		1137		1119		486		981		938		1038		534		534		534		
	C.V.%	35.63		5.23		9.44		12.47		11.93		9.78		11.65		10.94		11.20		6.07		6.07		6.07		
	Sowing Date	08-06-2017		02-06-2017		02-06-2017		29-06-2017		01-06-2017				18-07-2017		28-06-2017		23-06-2017		07-07-2017		07-07-2017		07-07-2017		
	Planting Date	29-06-2017		05-07-2017		03-07-2017		25-07-2017		27-06-2017				16-08-2017		04-08-2017		28-07-2017		04-08-2017		04-08-2017		04-08-2017		
	Local ©	Pant Dhan- 4		PR 121		HKR-127		RSK-1091		SJR-5				Hiranmayee		Tapaswini		Pratikshya		Pratikshya		Pratikshya		Pratikshya		
	* Superior to Best Check % Superior over Best Check @ not included in means																									
	# Superior to Hybrid Check % Superior over Hybrid Check																									

Table No. 3.25 contd : Grain Yield (Kg/ha) of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	III												Zone III (8)			
		OD (4)		BI		BI		BI (2)		JH		W.B				U.P.	
		Mean		BKG		SBR		Mean		RCI		@CHN		VRN		Mean	
4001	25355	4962	7	6111	5	6903	5	6507	5	5844		4961	3 *	5914		5578	9
4002	24963	4829		5511	9	6513	7	6012	8	6378	8	5472	1 *	8034	1 #	5719	6
4003	24958	5677	3	5822	6	5394		5608		8600	1	4683	6	6323	8	6106	2 * 7%
4004	NDR 359 (NC)	4469		5578	8	7153	3	6365	7	6778	6	4300		6914	3	5537	
4005	24973	4861		6222	4	7490	2	6856	2 5%	8422	2	4528	7	6338	6	5989	3 5%
4006	24933	4913	8	5133		6335	8	5734	9	6889	5	4328	9	6816	4	5603	8
4007	Zonal Check (ZC)	5824	1 1%	4400		4490		4445		6667	7	4311		4286		5392	
4008	25330	5623	4	5800	7	7064	4	6432	6	6156	9	4689	5	6161	9	5959	4 5%
4009	HRI 174 (HC)	5748	2	7200	1	8320	1 *	7760	1 * 19%	7489	4	5256	2 *	6328	7	6541	1 * 15%
4010	25289	4975	6	6333	3	6833	6	6583	3 1%	7578	3	4694	4	6360	5	5875	5 3%
4011	US 312 (HC)	5354	5	4533		6158	9	5346		5467		4394	8	7963	2 #	5692	7
4012	Local Check	4870	9	6911	2	6157		6534	4	5822		4178		4053		5303	
	Exp Mean	5175		5796		6567		6182		6841		4650		6291		5775	
	C.D. 5%	398		1277		777		679		1892		302		719		378	
	C.V.%	9.50		13.01		6.99		9.45		16.33		3.83		6.75		11.48	
	Sowing Date			16-06-2017		19-06-2017				19-06-2017		20-06-2017		02-06-2017			
	Planting Date			12-07-2017		11-07-2017				17-07-2017		25-07-2017		22-06-2017			
	Local ©			Sabour Shree		R. Sweta				Birsa Vikas Dhan-203		Koushalya		HUR-105			

Table No 3.25 contd : Grain Yield (Kg/ha) of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	IV		V										Zone V (4)		VI								
		AS	M.P.	CG	CG	CG	CG (2)	MH	MH	MH	MH (2)													
		TTB	WRS	@RPR	JDP	BLP	Mean	SKL	@SND	Mean	KJT	Mean												
4001	25355	6206	4	4457	8	4732	3 #	4918	6667	7	5792	9	4400	3	3817	2 #	5110	8	4371	4	4386			
4002	24963	4576		4590	7	3588	7	6385	6	8778	1 *	7581	4 * 15%	4634	2	3558	3 #	6097	3	9%	4841	4738	6	
4003	24958	5095	8	3726		4195	4	6836	4	8756	2 *	7796	1 * 18% 2%	4013	8	3176	6	5832	4	4%	5615	5	4814	5
4004	NDR 359 (NC)	6407	3	3077		3035	9	4790		7222	6	6006	7	5057	1 #	2943	8	5037	9		5804	4	5431	3
4005	24973	5053	9	5336	1	4165	5	7118	3	8067	4	7592	3 * 15%	4073	7	3205	5	6148	2 * 10%		4560	4316		
4006	24933	4947		4770	4	2992		6203	7	7333	5	6768	5 2%	3936	9	1020		5560	6		5223	8	4580	8
4007	Zonal Check (ZC)	5354	7	3339		3846	6	3708		4400		4054		3538		1224		3746			5311	7	4425	
4008	25330	6996	2	4758	5	5044	2 #	5605	9	5867	9	5736		4318	6	4167	1 #	5137	7		7189	1 *	5753	1 6%
4009	HRI 174 (HC)	7383	1 *	5077	2	3467	8	7228	2	8111	3	7670	2 * 16%	4400	4	2972	7	6204	1 * 11%		7068	2 *	5734	2 6%
4010	25289	5539	6	5034	3	5287	1 #	6590	5	4022		5306		3901		3322	4	4887			5859	3	4880	4
4011	US 312 (HC)	4370		4730	6	3010		7328	1	5911	8	6620	6	4394	5	1049		5591	5		4953	9	4673	7
4012	Local Check	5877	5	4050	9	2327		5992	8	5644		5818	8	3292		2040	9	4745			5593	6	4443	9
	Exp Mean	5650		4412		3807		6058		6731		6395		4163		2708		5341			5532		4848	
	C.D. 5%	950		1024		736		1339		1201		980		569		583		543			676		506	
	C.V. %	9.93		13.71		11.41		13.05		10.54		11.40		8.07		12.71		12.55			7.22		8.98	
	Sowing Date	17-06-2017		24-06-2017		29-06-2017		16-06-2017		10-06-2017				19-06-2017		15-06-2017					13-06-2017			
	Planting Date	26-07-2017		28-07-2017		17-07-2017		17-07-2017		03-07-2017				13-07-2017		12-07-2017					09-07-2017			
	Local ©	TTB 404		MTU 1001		IGKV R 1244		Indira Maheshwari		Chandrasah				PDKV Kisan		PKV-HMT					Karjat 5			

Table No. 3.25 contd : Grain Yield (Kg/ha) of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	VI						Zone VI (3)	VII								
		GU	GU	GU	GU (2)	Mean	A.P.		A.P.	A.P. (2)	TEL	TEL	TEL				
		@NWG	NVS	DBI	Mean		MTU		RGL	Mean	@RNR	WGL	JGL				
4001	25355	6250 6	6155 5	5047 2 #	5601 3	5191 6	4852 6	6844 2	5848 4	5%	7169 6	6123 4	4159				
4002	24963	6790 3 #	5961 8	4510 4	5236 5	5104 8	5234 4	5310	5272 8		9063 1	7665 1 #	6220 1 #				
4003	24958	7485 1 #	6155 6	3385	4770	5051 9	3428	5492	4460		8418 2	5924 5	4680 7				
4004	NDR 359 (NC)	5710 9	6620 4	3007	4813	5144 7	4390	6555 5	5472 7		6360 8	6486 2 #	4677 8				
4005	24973	6790 4 #	6021 7	4157 6	5089 7	4913	5441 1 #	6659 4	6050 2	1% 8%	7876 4	6185 3	4318				
4006	24933	5864 8	5828 9	3868 9	4848 9	4973	4849 7	5631 8	5240 9		7915 3	4471	5267 5 #				
4007	Zonal Check (ZC)	5401	5229	4514 3	4871 8	5018	2837	5565 9	4201		5592	3914	4871 6 #				
4008	25330	6790 5 #	5392	3965 7	4679	5515 2 2%	5346 2 #	5809 7	5578 6		5460	5327 7	4512 9				
4009	HRI 174 (HC)	6096 7	6974 2	4331 5	5653 1 1%	6124 1 * 14%	4791 8	6396 6	5594 5		7638 5	5424 6	4092				
4010	25289	5633	4888	5786 1 #	5337 4	5511 3 2%	5156 5	7088 1	6122 1 2% 9%		4743	5163 8	6052 2 #				
4011	US 312 (HC)	5478	7301 1	3913 8	5607 2	5389 4	4426 9	5287	4857		6955 7	4765 9	5362 4 #				
4012	Local Check	6867 2 #	6781 3	3593	5187 6	5322 5	5247 3	6748 3	5997 3	7%	6090 9	4175	5379 3 #				
	Exp Mean	6263	6109	4173	5141	5271	4666	6115	5391		6940	5468	4966				
	C.D. 5%	487	862	392	432	346	514	1405	722		2400	881	727				
	C.V.%	4.59	8.34	5.55	7.23	6.98	6.50	13.57	11.52		20.43	9.51	8.65				
	Sowing Date		16-06-2017	06-06-2017			04-07-2017	06-07-2017			21-06-2017	22-06-2017	01-07-2017				
	Planting Date		06-07-2017	12-07-2017			05-08-2017	07-08-2017			22-07-2017	22-07-2017	25-07-2017				
	Local ©		GNR-3	Mahisagar			MTU 1075	MTU 1001			Telangana Sona(RNR 15048)	Somnath (WGL-347)	JGL 11727				

Table No.3.25 contd : Grain Yield (Kg/ha) of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	VII								Zone VII (6)	Overall (26)	Days to 50% Flowering	Plant Height (cm)	Panicles / M²
		TEL (2)	TN	TN	TN (2)	KE	PUD							
		Mean	CBT	ADT	Mean	@PTB	@KRK							
4001	25355	5141 ₆ 2%	6264 ₅	7467 ₇	6865 ₆	3993 ₃ #	3511	5952 ₄	5652 ₆ 1%	101	108	302		
4002	24963	6942 ₁ # 24% 37%	3307	5405	4356	4102 ₂ #	3600 ₈	5523 ₈	5806 ₃ 4%	97	117	264		
4003	24958	5302 ₄ # 5%	6729 ₄	6440 ₉	6584 ₇	2231	3778 ₇	5449 ₉	5760 ₄ 3%	100	117	287		
4004	NDR 359 (NC)	5581 ₃ # 10%	4393	6072	5233	3831 ₄ #	4196 ₄	5429	5475	98	106	263		
4005	24973	5252 ₅ # 4%	7766 ₁	10832 ₁ *	9299 ₁ # 30% 18%	2817 ₈	3573 ₉	6867 ₁ # 16% 13%	6162 ₂ * 10%	100	119	281		
4006	24933	4869 ₉	4476 ₉	5474	4975	3257 ₇	3440	5028	5494	97	115	272		
4007	Zonal Check (ZC)	4392	3729	7637 ₅	5683 ₉	3668 ₆	4278 ₃ #	4759	5016	104	111	271		
4008	25330	4920 ₈	6106 ₆	8193 ₄	7149 ₄	3754 ₅	3878 ₆	5882 ₆	5737 ₅ 2%	102	113	286		
4009	HRI 174 (HC)	4758	6795 ₃	8928 ₂	7862 ₂ 10%	2554	4133 ₅	6071 ₃ 2%	6358 ₁ * 13%	101	113	281		
4010	25289	5607 ₂ # 11%	5527 ₈	7575 ₆	6551 ₈	2615 ₉	4600 ₁ #	6094 ₂ 3%	5632 ₇	106	123	277		
4011	US 312 (HC)	5063 ₇	5777 ₇	8531 ₃	7154 ₃	2304	4567 ₂ #	5691 ₇	5607 ₈	96	115	268		
4012	Local Check	4777	6829 ₂	7230 ₈	7029 ₅	4530 ₁ #	3433	5935 ₅	5517 ₉	102	113	292		
	Exp Mean	5217	5642	7482	6562	3305	3916	5723	5685	100	114	278		
	C.D. 5%	387	1115	2236	1161	1267	64	487	202	0		8		
	C.V.%	6.39	11.67	17.65	15.23	22.63	0.96	12.93	11.28	1.42		9.70		
	Sowing Date		31-07-2017	31-08-2017		21-06-2017	10-08-2017							
	Planting Date		24-08-2017			18-07-2017	14-09-2017							
	Local ©		CO (R) 50	ADT 46		Swetha	ADT 39							

Table No 3.26 : Days to 50% Flowering of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	II					Zone II	III											Zone III
		UT	PUN	HAR	RAJ	J&K	(5)	OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	W.B	U.P.	(9)
		PNT	LDN	KUL	KTA	CHT	Mean	BBN	CTK	JYP	CHP	Mean	BKG	SBR	Mean	RCI	CHN	VRN	Mean
4001	25355	102	110	105	101	112	106	95	109	108	100	103	94	111	102	101	99	95	101
4002	24963	98	108	103	103	106	104	92	107	105	95	100	91	105	98	100	98	88	98
4003	24958	100	106	106	107	114	107	99	107	110	101	104	91	112	101	100	100	94	101
4004	NDR 359 (NC)	98	105	102	109	102	103	95	110	108	99	103	91	105	98	98	103	92	100
4005	24973	101	108	107	110	116	108	93	105	110	100	102	94	109	102	100	100	92	100
4006	24933	93	103	103	106	102	101	93	106	108	98	101	88	133	110	100	105	85	102
4007	Zonal Check (ZC)	102	100	105	111	118	107	110	120	124	114	117	118	131	125	108	113	115	117
4008	25330	105	96	116	109		107	98	100	110	103	103	93	120	107	103	105	98	103
4009	HRI 174 (HC)	102	109	109	109	101	106	97	109	112	100	105	95	112	103	103	102	90	102
4010	25289	117	123	116	113		117	99	109	112	105	106	100	120	110	109	111	108	108
4011	US 312 (HC)	98	98	98	98	103	99	91	100	108	96	99	83	134	108	96	100	82	99
4012	Local Check	90	103	99	102	103	99	101	103	118	106	107	101	118	109	98	102	101	105
	Exp Mean	101	106	106	107	108	105	97	107	111	101	104	95	117	106	101	103	95	103
	C.D. 5%	3	2	0	4	3	1	2	3	3	1	1	2	2	1	3	2	2	1
	C.V. %	1.97	1.02	0.21	2.23	1.63	1.66	1.13	1.59	1.59	0.80	1.04	0.97	1.10	1.02	1.70	1.11	1.05	1.32

Table No3.26 contd : Days to 50% Flowering of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	IV		V						Zone V		VI						Zone VI (4)
		AS	M.P.	CG	CG	CG	CG (3)	MH	MH	(6)	Mean	MH	MH (3)	GU	GU	GU	GU (3)	
		TTB	WRS	RPR	JDP	BLP	Mean	SKL	SND			KJT	Mean	NWG	NVS	DBI	Mean	
4001	25355	102	102	94	100	92	95	95	99	97	96	97	104	94	102	100	99	
4002	24963	112	97	90	93	94	92	92	93	93	91	92	104	89	101	98	96	
4003	24958	100	102	93	97	94	95	93	100	97	97	97	106	91	103	100	99	
4004	NDR 359 (NC)	101	99	92	101	94	96	92	96	96	94	94	101	91	97	96	96	
4005	24973	108	98	93	99	97	96	96	99	97	95	97	106	94	103	101	100	
4006	24933	107	92	87	94	92	91	87	91	91	91	90	106	85	101	97	96	
4007	Zonal Check (ZC)	117	85	106	87	112	102	107	85	97	97	97	108	93	103	101	100	
4008	25330	110	105	98	96	108	101	104	99	102	97	100	112	103	111	109	106	
4009	HRI 174 (HC)	110	98	94	100	94	96	97	101	97	97	98	112	94	101	102	101	
4010	25289	111	106	97	103	108	103	100	101	102	101	100	112	101	106	106	105	
4011	US 312 (HC)	106	93	87	95	92	91	90	92	91	90	91	101	88	95	95	93	
4012	Local Check	115	104	93	97	89	93	106	113	100	97	105	106	85	93	95	95	
	Exp Mean	108	98	94	97	97	96	97	98	97	95	96	106	92	101	100	99	
	C.D. 5%	7	2	2	0	0		1	1	0	1	0	2	3	1	1	1	
	C.V.%	3.64	1.19	1.09	0.00	0.00		0.56	0.53	0.64	0.86	0.00	0.97	1.67	0.38	1.10	1.04	

Table No. 3.26 contd : Days to 50% Flowering of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	VII												Zone VII	Overall (34)
		A.P.	A.P.	A.P. (2)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KE	PUD	(9)	
		MTU	RGL	Mean	RNR	WGL	JGL	Mean	CBT	ADT	Mean	PTB	KRK	Mean	
4001	25355	96	96	96	106	101	95	101	101	93	97	109	96	99	101
4002	24963	98	86	92	103	100	89	98	85	85	85	103	82	92	97
4003	24958	101	96	99	105	102	94	100	101	90	95	110	94	99	100
4004	NDR 359 (NC)	95	96	96	103	100	94	99	100	93	96	102	87	97	98
4005	24973	97	96	96	102	102	94	100	100	89	95	102	89	97	100
4006	24933	97	95	96	102	101	90	98	89	91	90	103	83	95	97
4007	Zonal Check (ZC)	91	95	93	103	95	90	96	99	95	97	97	86	94	104
4008	25330	102	96	99	110	105	93	103	99	90	95	98	91	98	102
4009	HRI 174 (HC)	101	100	100	107	102	95	101	100	89	95	105	94	99	101
4010	25289	100	98	99	110	107	98	105	90	99	94	112	96	101	106
4011	US 312 (HC)	93	89	91	103	94	89	95	97	93	95	106	93	95	96
4012	Local Check	110	103	106	108	106	98	104	106	104	105	107	98	104	102
	Exp Mean	98	95	97	105	101	93	100	97	93	95	105	91	98	100
	C.D. 5%	3	1		0	2	2	1	2	5	2	2	1	1	0
	C.V.%	1.83	0.92		0.16	0.96	0.95	0.78	1.05	3.10	2.22	0.98	0.53	1.39	1.42

Table No. 3.27 : Plant Height (cm) of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	II					Zone II (5)	III												Zone III (9)
		UT	PUN	HAR	RAJ	J&K		OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	WB	U.P.		
		PNT	LDN	KUL	KTA	CHT	Mean	BBN	CTK	JYP	CHP	Mean	BKG	SBR	Mean	RCI	CHN	VRN	Mean	
4001	25355	108	105	120	106	97	107	116	105	96	98	104	103	124	114	98	54	120	102	
4002	24963	122	120	122	113	117	119	113	117	92	105	107	120	132	126	105	125	137	116	
4003	24958	110	124	118	106	98	111	115	113	106	97	108	117	133	125	100	116	134	115	
4004	NDR 359 (NC)	107	104	103	102	107	105	96	95	75	96	90	100	112	106	96	115	119	100	
4005	24973	111	123	125	110	111	116	113	107	86	106	103	129	148	139	103	131	138	118	
4006	24933	109	119	115	108	109	112	112	108	91	101	103	119	125	122	100	123	132	112	
4007	Zonal Check (ZC)	103	98	91	98	94	97	116	108	99	95	105	134	129	132	101	140	133	117	
4008	25330	110	111	116	113		113	110	104	100	98	103	110	124	117	101	136	137	113	
4009	HRI 174 (HC)	110	120	118	104	113	113	100	105	85	101	98	95	127	111	99	107	133	106	
4010	25289	119	125	123	113		120	121	116	99	96	108	130	135	132	102	135	141	119	
4011	US 312 (HC)	118	121	115	108	119	116	116	106	81	105	102	125	126	126	103	115	133	112	
4012	Local Check	104	92	115	111	109	106	120	104	105	109	109	105	117	111	100	109	123	110	
	Exp Mean	111	114	115	108	107	111	112	107	93	100	103	116	128	122	101	117	132	112	
	C.D. 5%	0		0	0	0		0	0		0		0	0	0	0	0			
	C.V.%	0.00		0.00	0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00			

Table No. 3.27 contd : Plant Height (cm) of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	IV		V						Zone V		VI						Zone VI (4)
		AS	M.P.	CG	CG	CG	CG (3)	MH	MH	(6)	Mean	MH	MH (3)	GU	GU	GU	GU (3)	
		TTB	WRS	RPR	JDP	BLP	Mean	SKL	SND			KJT	Mean	NWG	NVS	DBI	Mean	
4001	25355	107	104	117	109	114	113	119	102	111	115	112	112	107	133	131	124	122
4002	24963	112	116	117	118	125	120	135	83	116	117	112	115	142	149	135	135	131
4003	24958	110	125	124	109	131	121	120	117	121	117	118	120	150	143	138	133	133
4004	NDR 359 (NC)	115	116	115	90	118	108	116	108	110	109	111	103	133	122	119	117	117
4005	24973	109	129	117	116	123	119	139	111	123	121	124	107	155	139	134	131	131
4006	24933	106	118	113	118	128	120	135	93	117	124	117	112	137	140	130	128	128
4007	Zonal Check (ZC)	112	107	113	93	134	113	123	87	109	127	112	121	158	140	140	136	136
4008	25330	110	124	116	106	122	115	120	110	116	122	117	104	141	138	128	126	126
4009	HRI 174 (HC)	110	120	128	112	131	123	136	109	123	116	120	107	141	132	127	124	124
4010	25289	116	137	136	118	139	131	134	114	130	125	124	116	147	144	136	133	133
4011	US 312 (HC)	109	118	126	120	127	124	132	92	119	114	112	106	142	141	129	126	126
4012	Local Check	118	106	117	114	115	115	123	97	112	112	111	120	135	127	127	124	124
	Exp Mean	111	118	120	110	126	119	128	102	117	118	116	112	143	137	130	127	
	C.D. 5%	0	0			0		0	0		0		0		0			
	C.V.%	0.00	0.00			0.00		0.00	0.00		0.00		0.00		0.00			

Table No. 3.27 contd : Plant Height (cm) of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	VII												Zone VII (9)	Overall (34)
		A.P.	A.P.	A.P. (2)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KE	PUD		
		MTU	RGL	Mean	RNR	WGL	JGL	Mean	CBT	ADT	Mean	PTB	KRK	Mean	
4001	25355	119	121	120	102	127	118	116	90	96	93	94	102	108	108
4002	24963	107	132	120	108	133	137	126	94	97	95	110	104	114	117
4003	24958	130	127	128	109	132	129	124	95	98	96	99	106	114	117
4004	NDR 359 (NC)	109	114	112	101	119	115	111	85	94	90	103	108	105	106
4005	24973	114	133	123	101	135	135	124	93	104	98	102	107	114	119
4006	24933	114	128	121	106	129	128	121	92	91	91	102	110	111	115
4007	Zonal Check (ZC)	105	113	109	100	117	120	112	86	85	86	97	86	101	111
4008	25330	117	123	120	102	121	120	114	86	96	91	106	88	107	113
4009	HRI 174 (HC)	109	121	115	107	130	126	121	91	102	97	94	88	108	113
4010	25289	120	140	130	107	142	143	131	98	93	95	124	102	119	123
4011	US 312 (HC)	121	129	125	103	130	128	121	93	94	93	104	101	112	115
4012	Local Check	116	125	120	94	119	135	116	103	109	106	123	100	114	113
	Exp Mean	115	125	120	103	128	128	120	92	96	94	105	100	110	114
	C.D. 5%								0	0	0		0		
	C.V.%								0.00	0.00	0.00		0.00		

Table No 3.28 : Panicles/ M² of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	II					Zone II	III												Zone III
		UT	PUN	HAR	RAJ	J&K		(5)	OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	W.B	U.P.	
		PNT	LDN	KUL	KTA	CHT	Mean	BBN	CTK	JYP	CHP	Mean	BKG	SBR	Mean	RCI	CHN	VRN	Mean	
4001	25355	182	290	295	280	287	267	272	243	389	229	283	270	286	278	309	296	255	283	
4002	24963	178	235	236	315	297	252	235	231	304	180	238	237	230	234	269	195	182	229	
4003	24958	184	253	286	257	288	254	246	233	437	195	278	270	248	259	268	214	214	258	
4004	NDR 359 (NC)	179	260	230	315	269	250	223	196	333	169	230	271	223	247	271	223	188	233	
4005	24973	183	266	234	280	297	252	229	233	280	188	233	241	277	259	256	231	215	239	
4006	24933	180	266	261	303	279	258	243	188	317	184	233	210	230	220	266	219	211	230	
4007	Zonal Check (ZC)	171	277	245	315	276	257	229	224	346	181	245	272	244	258	268	183	202	239	
4008	25330	182	295	254	257		247	273	195	393	224	271	240	272	256	286	272	191	261	
4009	HRI 174 (HC)	186	260	254	280	288	253	232	266	293	175	242	273	267	270	219	241	205	241	
4010	25289	181	299	271	292		261	251	181	329	175	234	330	260	295	279	245	200	250	
4011	US 312 (HC)	180	238	233	303	281	247	255	236	297	192	245	270	216	243	255	246	199	241	
4012	Local Check	178	304	262	268	294	261	246	245	400	229	280	240	205	223	283	202	252	256	
	Exp Mean	180	270	255	289	285	255	245	223	343	193	251	260	246	253	269	231	209	247	
	C.D. 5%	3	56	24	54	28	17	19	52	76	19	22	9	62	30	21	38	12	13	
	C.V.%	1.08	12.19	5.59	10.96	5.67	9.00	4.70	13.90	13.01	5.82	10.83	1.98	14.81	10.24	4.57	9.81	3.48	9.65	

Table No 3.28 contd : Panicles/ M² of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	IV		V					Zone V (5)	VI						Zone VI (4)
		AS	M.P.	CG	CG	CG (2)	MH	MH		MH	MH (3)	GU	GU	GU	GU (3)	
		TTB	WRS	RPR	JDP	Mean	SKL	SND		KJT	Mean	NWG	NVS	DBI	Mean	
4001	25355	401	327	247	364	306	207	242	277	229	226	281	273	244	266	257
4002	24963	313	266	219	274	247	167	258	237	181	202	285	246	222	251	233
4003	24958	392	327	262	320	291	224	231	273	257	237	292	251	223	255	256
4004	NDR 359 (NC)	334	267	195	294	245	192	231	236	174	199	277	246	170	231	217
4005	24973	364	282	226	350	288	204	246	262	176	209	285	231	210	242	225
4006	24933	370	281	208	283	245	206	289	253	187	227	279	255	235	256	239
4007	Zonal Check (ZC)	362	364	225	299	262	163	276	265	162	200	277	255	190	241	221
4008	25330	421	347	237	295	266	235	220	267	175	210	284	264	234	261	239
4009	HRI 174 (HC)	460	327	205	338	271	220	251	268	184	218	280	273	165	239	225
4010	25289	344	276	226	341	283	191	263	259	195	216	277	203	180	220	214
4011	US 312 (HC)	317	265	211	288	249	177	232	234	164	191	276	292	188	252	230
4012	Local Check	378	339	181	308	245	260	260	269	189	236	285	244	223	250	235
	Exp Mean	371	306	220	313	266	204	250	258	189	214	281	253	207	247	233
	C.D. 5%	21	48	27	77		27	6	24	24	7	4	45	28	17	13
	C.V.%	3.38	9.36	7.37	14.57		7.90	1.48	12.76	7.37	3.38	0.86	10.59	7.94	7.26	6.99

Table No. 3.28 contd : Panicles/ M² of entries in AVT 2-IM Kharif 2017

Entry No.	IET No.	VII										Zone VII (9)		Overall (33)
		A.P.	A.P.	A.P. (2)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KE	PUD	
		MTU	RGL	Mean	RNR	WGL	JGL	Mean	CBT	ADT	Mean	PTB	KRK	Mean
4001	25355	244	325	285	568	369	293	410	347	371	359	289	461	302
4002	24963	286	307	297	537	350	236	374	287	390	338	206	342	264
4003	24958	262	321	291	517	387	273	392	302	381	342	149	500	287
4004	NDR 359 (NC)	268	298	283	513	347	251	370	232	334	283	223	472	263
4005	24973	260	304	282	550	369	239	386	435	399	417	201	528	281
4006	24933	253	297	275	510	364	268	381	262	480	371	255	328	272
4007	Zonal Check (ZC)	224	327	276	548	333	241	374	300	342	321	247	361	271
4008	25330	253	318	286	570	340	246	385	435	409	422	181	339	286
4009	HRI 174 (HC)	251	313	282	537	367	236	380	362	384	373	174	502	281
4010	25289	279	302	291	554	382	258	398	297	393	345	221	377	277
4011	US 312 (HC)	238	302	270	495	337	226	352	350	435	392	198	463	268
4012	Local Check	286	341	314	537	337	248	374	457	461	459	228	457	292
	Exp Mean	259	313	286	536	357	251	381	339	398	368	214	427	278
	C.D. 5%	52	30	18	52	20	35	21	38	61	34	110	6	8
	C.V.%	11.80	5.66	5.31	5.77	3.35	8.18	5.83	6.55	9.09	7.87	30.19	0.85	9.70

Table No. 3.29: Grain quality characteristics of entries in AVT 2-IM, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4001	25355	79.8	71.9	68.9	7.11	2.15	3.30	LS	VOC	5.0	23.58	60
4002	24963	80.5	72.9	67.7	6.61	2.17	3.04	LS	VOC	5.0	24.08	61
4003	24958	79.9	71.9	66.2	5.93	2.25	2.63	MS	VOC	4.0	24.25	58
4004	NDR 359	78.6	70.6	67.5	6.69	2.51	2.66	LB	OC	7.0	27.28	22
4005	24973	80.5	71.9	66.4	6.50	2.12	3.06	LS	VOC	4.0	23.02	54
4006	24933	81.1	71.8	62.2	6.65	2.01	3.30	LS	VOC	3.5	23.08	64
4007	JAYA	79.1	70.2	61.8	5.75	2.54	2.26	SB	OC	5.0	24.25	22
4008	25330	79.7	70.7	66.7	6.14	2.17	2.82	LB	VOC	4.0	24.40	50
4009	HRI-174	81.0	72.8	64.4	6.36	2.21	2.87	LB	VOC	4.0	21.94	57
4010	25289	78.3	70.2	66.5	7.06	2.29	3.08	LS	VOC	5.0	24.02	46
4011	US-312	78.6	69.9	56.9	5.74	2.03	2.82	MS	VOC	4.0	21.88	22

HULL: Hulling (%); MILLING (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 3.30: Composition of entries in Advance Variety Trial 1-Irrigated Medium (AVT 1-IM), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
2nd Year of testing:				
4101	25229	CN-1957-3-3-9	Selection from CN 1769	LB
4102	26024	OR 2573-15	Birupa / IR 76561-AC-8-8	LB
4103	25780	<i>HRI-189 (Hybrid)</i>	-	LB
4104	25791	<i>ARRH-11550 (Hybrid)</i>	-	LB
4105	PR 113 (Northern), CR Dhan 300 (Eastern and North Eastern), IR 64 (Central), Akshyadhan (Western), Jaya (Southern)—ZC			
4106	25601	MTU 1207 (MTU 2278-15-1-1)	MTU 1010 / FL478	MS
4107	26027	WGL-697	MTU 1001 / NLR-34449	MS
4108	25772	<i>MEPH-132 (Hybrid)</i>	-	LS
4109	25318	CR 3939-18	MTU1001 / Pusa 44	LS
4110	HRI 174 (HC)			LB
4111	25239	HHZ 5-Y4-SAL1-Y1	Huang-Hua-Zhan*2 / 0M1723	LS
4112	26016	OR 2537-7	OR 1643-2 / IR 62037-93	MS
4113	Local Check			
4114	25774	<i>VNR-222 (Hybrid)</i>	-	LB
4115	25994	AD 12161	I.W. Ponni / Kalajoha	MS
4116	26019	MTU 1237 (RM 168-16-3-1-1)	AM 295 / MTU 1081	MS
4117	NDR 359 (NC)			LB
4118	25785	<i>ADV-1603 (Hybrid)</i>	-	LB
4119	25997	CR 3808-13	Selection from Male sterility facilitated recurrent selection population	MS
4120	25602	CR 2906-253-8	IR 20 / Dandi	SB
4121	US 312 (HC)			MS
4122	26039	UPR 3919-10-1-1-1	Govind / UPRI 2005-34	MS
4123	25776	<i>MEPH-133 (Hybrid)</i>	-	LB
4124	26018	CR 2711-76-13-1	Tapaswini / Dhobanumberi	SB
4125	25787	<i>RRX-025 (Hybrid)</i>	-	LB
4126	25998	MTU 1236 (RM 152-35-2-1-1)	MTU 3626 / MTU 1075	SB
4127	25284	WGL-915	SN 22R / IRBBN 39	MS

Table No 3.31: Grain Yield (Kg/ha) of entries in AVT 1-IM (ZONE 2 & 3) Kharif 2017

Entry No.	IET No.	II						Zone II (4)		
		UT	PUN	HAR	RAJ	J&K		Mean		
		@PNT	LDN	KUL	KTA	CHT				
4102	26024	1899	6709 8	5401	5248	4233		5398		
4103	25780	3521 2	7102 4	7556 1 #	5798	7200 2		6914 3 *	9%	7%
4104	25791	2886 4	4543	4692	6219 7	6600 5		5513		
4105	Zonal Check (ZC)	2673 7	7556 3 *	5810 8	5567	6022		6239 8		
4108	25772	2876 5	8305 1 *#	6438 4	6090 8	6844 4		6919 2 *	9%	7%
4110	HRI 174 (HC)	3769 1 *	6969 6	5101	6755 1	7133 3		6490 5	2%	
4113	Local Check	2609 9	6854 7	7229 2 #	4876	6400 7		6340 6		
4114	25774	2065	7073 5	6274 6	6676 2	6489 6		6628 4	5%	2%
4116	26019	2380			4725			4725		
4117	NDR 359 (NC)	2147	6148	5947 7	5913 9	6178		6046 9		
4118	25785	2653 8	7790 2 *#	6738 3 #	6640 3	7222 1		7098 1 *#	12%	9%
4121	US 312 (HC)	2311	5145	5756 9	6418 6	5533		5713		
4123	25776	2731 6	6297 9	4855	6449 4	6378 8		5995		
4125	25787	3222 3	6035	6410 5	6427 5	6333 9		6302 7		
	Exp Mean	2696	6656	6016	5986	6351		6247		
	C.D. 5%	1101	627	1378	1040	916		509		
	C.V.%	24.34	5.59	13.59	10.35	8.56		10.07		
	Sowing Date	10-06-2017	09-06-2017	02-06-2017	29-06-2017	06-06-2017				
	Planting Date	04-07-2017	11-07-2017	03-07-2017	29-07-2017	07-07-2017				
	Local ©	P.D.4	PR 121	HKR-127	RSK-1091	SJR-5				
* Superior to Best Check % Superior over Best Check @ not included in means										
# Superior to Hybrid Check % Superior over Hybrid Check										

Table No 3.31 contd: Grain Yield (Kg/ha) of entries in AVT 1-IM (ZONE 2 & 3) Kharif 2017

Entry No.	IET No.	III				III			
		OD	OD	OD	OD	OD (4)	BI	BI	BI (2)
		BBN	CTK	JYP	CHP	Mean	BKG	SBR	Mean
4102	26024	5342 3	4874 9	4977 2	5176 4	5092 2 2%	7533 4	6502 3	7018 2 9%
4103	25780	5057 6	5598 1	4870 4	4685	5052 3 1%	6644 7	6059 7	6352 7
4104	25791	3882	3853	4032	4867	4158	5822	6372 5	6097 9
4105	Zonal Check (Z)	3383	5541 2	4363 8	4221	4377	4933	4379	4656
4108	25772	4772 7	5530 3	4802 5	5087 5	5048 4 1%	5400	4526	4963
4110	HRI 174 (HC)	5128 5	5207 6	4760 6	4935 8	5008 5	8089 1	7064 1	7576 1 * 18%
4113	Local Check	5591 1	4912 8	4951 3	5594 2 #	5262 1 5%	7978 2	4224	6101 8
4114	25774	4095 9	3646	4305 9	5065 7	4278	5844	5415	5630
4116	26019	5591 2	5530 4	2999	5507 3 #	4907 6	7911 3	5813 9	6862 3 7%
4117	NDR 359 (NC)	3739	5184 7	4607 7	4088	4405	6600 8	6255 6	6428 5
4118	25785	5271 4	4799	4207	4913 9	4797 8	7222 5	5937 8	6579 4 2%
4121	US 312 (HC)	3882	4715	2583	5634 1 #	4203	5356	6764 2	6060
4123	25776	4095	4707	5822 1 * #	4295	4730 9	6333 9	6446 4	6389 6
4125	25787	4772 8	5502 5	4133	5087 6	4873 7	6756 6	4644	5700
	Exp Mean	4614	4971	4386	4939	4728	6602	5743	6172
	C.D. 5%	767	1049	710	463	372	1031	1162	635
	C.V.%	9.91	12.58	9.64	5.59	9.73	9.31	12.06	8.90
	Sowing Date	19-07-2017	28-06-2017	23-06-2017	07-07-2017		16-06-2017	15-06-2017	
	Planting Date	16-08-2017	04-08-2017	29-07-2017	03-08-2017		11-07-2017	08-07-2017	
	Local ©	Hiranmayee	Tapaswini	Pratikshya	Pratrikshya		Sabour Shree	R. Sweta	

Table No 3.31 contd: Grain Yield (Kg/ha) of entries in AVT 1-IM (ZONE 2 & 3) Kharif 2017

Entry No.	IET No.	III			Zone III (8)	Overall (12)	Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		JH	W.B	U.P.					
		RCI	CHN	@VRN		Mean			
4102	26024	6178	5667 1	4522	5781 2 3%	5653 7	107	119	252
4103	25780	7089	5000 5	7617 2 #	5625 5	6055 3 3%	104	116	268
4104	25791	7733 5	4867 9	7834 1 * #	5178	5290	97	114	240
4105	Zonal Ch	6756	4583	3384	4770	5260	108	108	252
4108	25772	6800	4972 7	5305	5236	5797 6	102	115	247
4110	HRI 174	8711 2	5111 3	6590 8	6126 1 * 9%	6247 1 * 7%	102	111	252
4113	Local Ch	7533 7	4222	4817	5626 4	5864 4	102	109	272
4114	25774	8089 3	4750	6238 9	5151	5643 9	102	120	253
4116	26019	5733	4944 8	4545	5503 7	5417	110	110	234
4117	NDR 359	7511 8	5011 4	7363 4 #	5374 9	5598	99	106	249
4118	25785	7978 4	5194 2	7061 5 #	5690 3 1%	6159 2 * 5%	101	114	254
4121	US 312 (	7578 6	4778	7493 3 #	5161	5345	96	114	252
4123	25776	7356 9	4722	6623 7	5472 8	5646 8	100	117	245
4125	25787	9000 1 *	5000 6	6973 6 #	5612 6	5842 5	103	113	253
	Exp Mea	7432	4916	6169	5450	5706	102	114	252
	C.D. 5%	1170	689	236	323	270	0		11
	C.V.%	9.38	8.35	2.28	10.42	10.21	0.76		10.57
	Sowing D	19-06-2017	20-06-2017	08-06-2017					
	Planting D	18-07-2017	25-07-2017	22-06-2017					
	Local ©	BV-203	Koushalya	HUR 105					

Table No 3.31 contd : Grain Yield (Kg/ha) of entries in AVT 1-IM (ZONE 4) Kharif 2017

Entry No.	IET No.	IV		Overall ()		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		AS						
		TTB		Mean				
4102	26024	4012		4012		110	102	217
4103	25780	6784	2 *	6784	2 *	106	110	329
4104	25791	6018	5	6018	5	95	106	323
4105	Zonal Check (ZC)	5649	7	5649	7	116	107	263
4108	25772	5146	9	5146	9	109	110	302
4109	25318							
4110	HRI 174 (HC)	6836	1 *	6836	1 *	106	110	355
4113	Local Check	4702		4702		110	114	291
4114	25774	6175	3	6175	3	107	109	371
4115	25994							
4116	26019	4187		4187		118	104	215
4117	NDR 359 (NC)	5825	6	5825	6	98	104	287
4118	25785	6070	4	6070	4	103	108	297
4119	25997							
4121	US 312 (HC)	3836		3836		105	106	274
4123	25776	5637	8	5637	8	103	108	378
4125	25787	4456		4456		107	110	246
	Exp Mean	5381		5381		106	108	296
	C.D. 5%	803		803		2	0	16
	C.V.%	8.89		8.89		1.35	0.00	3.27
	Sowing Date	03-07-2017						
	Planting Date	08-08-2017						
	Local ©	TTB 404						
	* Superior to Best Check		% Superior over Best Check					
	# Superior to Hybrid Check		% Superior over Hybrid Check					

Table No. 3.31 contd : Grain Yield (Kg/ha) of entries in AVT 1-IM (ZONE 5) Kharif 2017

Entry No.	IET No.	V												
		M.P.		CG		CG		CG		CG (3)			MH	
		@WRS		RPR		JDP		BLP		Mean			SKL	@SND
4102	26024	3944	7	5608	4	5883	2	6378		5956	2	6% 2%	3691	3400 1 *
4103	25780	4666	4 #	4964	6	4745	8	7711	3	5807	7	4%	4956	3 3243 2 *
4104	25791	4396	5	2794		3616		7378	7	4596			5412	1 * 3124 5 *
4105	Zonal Check (ZC)	4688	3 #	1323		3591		4222		3046			3617	1879
4108	25772	5060	2 #	4458		4668		8222	1 *	5782	8	3%	3811	2689
4110	HRI 174 (HC)	3841		4944	8	4939	6	7667	4	5850	6	5%	4662	4 3208 4 *
4112	26016	5970	1 #	4955	7	5360	3	5778		5364			3742	2430
4113	Local Check	4271	6	2983		4294		5400		4226			3467	2110
4114	25774	3031		4564		4867	7	7356	8	5596			4460	6 2850 6 *
4116	26019	2603		7047	1 #	4659		5933		5880	5	5% 1%	3680	2753 9
4117	NDR 359 (NC)	2909		4431		4326		6800		5186			4206	9 2209
4118	25785	3863	9	5454	5	4968	5	7444	6	5955	3	6% 2%	4105	2675
4119	25997	3650		5727	3	5257	4	6667		5884	4	5% 1%	4277	8 2695
4121	US 312 (HC)	3297		4827		4677	9	7289	9	5598			4482	5 2069
4123	25776	2651		4728		3794		7533	5	5352			5095	2 * 2756 8
4125	25787	3925	8	4881	9	4421		8022	2	5775	9	3%	4329	7 2800 7 *
4126	25998	3644		6340	2 #	6672	1 #	6244		6419	1 *	15% 10%	3227	3217 3 *
	Exp Mean	3906		4707		4749		6826		5428			4189	2712
	C.D. 5%	815		968		1499		805		640			772	573
	C.V.%	12.55		12.37		18.98		7.09		12.62			11.07	12.70
	Sowing Date	27-06-2017		29-06-2017		16-06-2017		10-06-2017					19-06-2017	15-06-2017
	Planting Date	02-08-2017		17-07-2017		08-07-2017		08-07-2017					17-07-2017	25-07-2017
	Local ©	MTU 1001		IGKV R 1244		Indira Maheshwari		Chandraha sini					PDKV Kisan	PKV-HMT

Table No. 3.31 contd : Grain Yield (Kg/ha) of entries in AVT 1-IM (ZONE 5) Kharif 2017

Entry No.	IET No.				Zone V (4)			Overall (4)			Days to 50% Flowering	Plant Height (cm)	Panicles/ M²			
		MH (1)														
		Mean			Mean			Mean								
4102	26024	3691				5390	7	1%	5390	7	1%	106	125	256		
4103	25780	4956	3	11%	6%	5594	2	5%	1%	5594	2	5%	1%	102	112	263
4104	25791	5412	1 *	21%	16%	4800				4800				93	114	245
4105	Zonal Check (	3617				3188				3188				88	113	261
4108	25772	3811				5290				5290				100	119	289
4110	HRI 174 (HC)	4662	4	4%		5553	3	4%		5553	3	4%		101	116	267
4112	26016	3742				4959				4959				115	106	278
4113	Local Check	3467				4036				4036				102	110	277
4114	25774	4460	6			5312				5312				99	123	250
4116	26019	3680				5330	8			5330	8			116	116	231
4117	NDR 359 (NC	4206	9			4941				4941				99	104	247
4118	25785	4105				5493	4	3%		5493	4	3%		102	118	268
4119	25997	4277	8			5482	5	3%		5482	5	3%		109	101	285
4121	US 312 (HC)	4482	6			5319	9			5319	9			95	118	245
4123	25776	5095	2 *	14% 9%		5288				5288				98	121	243
4125	25787	4329	7			5413	6	2%		5413	6	2%		99	113	253
4126	25998	3227				5621	1	6% 1%		5621	1	6% 1%		119	107	250
	Exp Mean	4189				5118				5118				102	114	259
	C.D. 5%	772				516				500				0		19
	C.V.%	11.07				12.50				12.10				0.51		10.34

Table No. 3.31 contd : Grain Yield (Kg/ha) of entries in AVT 1-IM (ZONE 6) Kharif 2017

Entry No.	IET No.	VI								Zone VI (3)		Overall (3)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		MH		GU		GU (2)										
		KJT		NWG		NVS		Mean		Mean		Mean				
4101	25229	6604	2	6354	4	5035		5695		5998		5998		104	133	223
4102	26024	6317	7	5417	9	5692		5554		5808		5808		103	132	225
4103	25780	6549	3	5938	5	7241	9	6589	4	6576	2	6576	2	98	121	230
4104	25791	7443	1 *#	3854		8170	2	6012		6489	4	6489	4	94	122	222
4105	Zonal Check (ZC)	6111		5104		7162		6133		6126	9	6126	9	98	133	227
4108	25772	6201	9	5729	6	7244	8	6487	7	6391	7	6391	7	99	123	242
4110	HRI 174 (HC)	6273	8	5521	8	7486	6	6504	6	6427	6	6427	6	99	118	216
4113	Local Check	6013		6875	3 #	6590		6733	2	6493	3	6493	3	96	116	214
4114	25774	5041		5000		8088	3	6544	5	6043		6043		102	127	215
4116	26019	5003		7292	1 #	5392		6342	8	5896		5896		107	123	215
4117	NDR 359 (NC)	5748		4479		7271	7	5875		5833		5833		98	133	215
4118	25785	5975		5625	7	7789	5	6707	3	6463	5	6463	5	97	121	224
4121	US 312 (HC)	6400	5	5208		8371	1	6790	1	6660	1	6660	1	94	115	207
4122	26039	6334	6	4688		6618		5653		5880		5880		92	126	202
4123	25776	6400	4	4583		7952	4	6268	9	6312	8	6312	8	97	123	204
4124	26018	5174		7188	2 #	4398		5793		5587		5587		105	111	228
4125	25787	5870		5313		6972		6142		6051		6051		98	116	209
	Exp Mean	6086		5539		6910		6225		6178		6178		99	123	219
	C.D. 5%	977		910		1076		787		581		581		1		15
	C.V.%	9.65		9.88		9.36		10.97		10.06		10.06		1.25		7.17
	Sowing Date	13-06-2017				16-06-2017										
	Planting Date	08-07-2017				06-07-2017										
	Local ©	Kariat 5				GNR-3										

* Superior to Best Check % Superior over Best Check

Superior to Hybrid Check % Superior over Hybrid Check

Table No. 3.31 contd : Grain Yield (Kg/ha) of entries in AVT 1-IM (ZONE 7) Kharif 2017

Entry No.	IET No.	VII															
		A.P.		A.P.		A.P. (2)		TEL		TEL		TEL		TEL (3)			
		MTU		RGL		Mean		RNR		WGL		JGL		Mean			
4102	26024	6143	2 #	4835	3	5489	2 #	9% 39%	6018	4	5088		6647	3 #	5918	3	8% 7%
4103	25780	5453	4 #	4499	7	4976	6 #	26%	6817	1	5434		4478		5576	4	2% 1%
4104	25791	4650	#	3900		4275		8%	5731	6	5469	9	5483		5561	5	2% 1%
4105	Zonal Check (ZC)	3416		3872		3644			4461				5840	6	5151		
4106	25601	4141		4514	6	4328	9	9%	4113		5753	5	4987		4951		
4107	26027	6131	3 #	4429	9	5280	4 #	4% 34%	4918		6047	4 *	7877	1 #	6281	1 #	15% 14%
4108	25772	5032	7 #	3420		4226		7%	5609	8	5492	8	4980		5360		8
4110	HRI 174 (HC)	3916		3992		3954			5224		5512	7	5787	7	5508		6 1%
4111	25239	4601	#	4456	8	4528	8 #	15%	6088	3	6366	2 #	5403		5953	2	9% 8%
4113	Local Check	5414	6 #	4696	5	5055	5 #	28%	5119		4802		5708	8	5210		9
4114	25774	3378		3034		3206			5813	5	4580		3618		4670		
4116	26019	6174	1 #	5581	1 #	5878	1 #	16% 49%	5720	7	6070	3 *	3664		5151		
4117	NDR 359 (NC)	5002	8 #	4754	4	4878	7 #	23%	5547	9	5356		5522		5475		7
4118	25785	4356		4124		4240		7%	5286		5109		3234		4543		
4120	25602	5000	9 #	3482		4241		7%	2803		4323		5946	5	4357		
4121	US 312 (HC)	3198		3915		3557			3688		3990		5589	9	4422		
4123	25776	3959		3382		3670			3467		5531	6	6382	4 #	5127		
4125	25787	4108		3250		3679			4935		4827		2083		3948		
4126	25998	5423	5 #	5426	2 #	5424	3 #	7% 37%	2942		4796		7440	2 #	5060		
4127	25284	3501		4313		3907			6440	2	6508	1 #	2011		4986		
	Exp Mean	4650		4194		4422			5037		5319		5134		5161		
	C.D. 5%	457		885		484			1634		657		580		592		
	C.V.%	5.94		12.76		9.52			19.63		7.46		6.83		12.28		
	Sowing Date	04-07-2017		06-07-2017				22-06-2017		22-06-2017							
	Planting Date	05-08-2017		07-08-2017				20-07-2017		21-07-2017							
	Local ©	MTU 1075		MTU 1001				Telangana Sona (RNR 15048)		Somnath (WGL-347)							
	* Superior to Best Check % Superior over Best Check @ not included in means																
	# Superior to Hybrid Check % Superior over Hybrid Check																

Table No. 3.31 contd : Grain Yield (Kg/ha) of entries in AVT 1-IM (ZONE 7) Kharif 2017

Entry No.	IET No.	VII									
		TN		TN		TN (2)		KE		PUD	
		CBT		ADT		Mean		@PTB		@KRK	
4102	26024	6772	4	9877	1 #	8324	1 # 12% 26%	9293	1 *	2862	
4103	25780	6194	9	7831	6	7012	6 7%	7749	3	4200	2 #
4104	25791	4546		4933		4739		5117		2667	
4105	Zonal Check (Z)	4299		5744		5021		5675		2767	
4106	25601	5887		9229	2 #	7558	2 # 1% 15%	4410		4367	1 #
4107	26027	7852	1	6627		7240	5 10%	8363	2 *	3844	8 #
4108	25772	6108		5812		5960		6400	7	3800	9 #
4110	HRI 174 (HC)	7035	2	6132		6584		7693	4	3533	
4111	25239	5838		7194		6516		6311	8	3467	
4113	Local Check	6992	3	7934	5	7463	3 13%	4425		4167	3 #
4114	25774	5366		5733		5550		6678	6	4133	4 #
4116	26019	6272	7	8254	3 #	7263	4 10%	6068	9	3878	7 #
4117	NDR 359 (NC)	5298		5577		5438		4316		3300	
4118	25785	6313	6	5440		5876		4971		3900	6 #
4120	25602	5922		7696	7	6809	8 3%	5390		3200	
4121	US 312 (HC)	5235		7336	8	6285		5150		3133	
4123	25776	4983		4650		4817		3943		3222	
4125	25787	6654	5	6890		6772	9 3%	5107		3600	#
4126	25998	6010		7971	4	6991	7 6%	4741		4089	5 #
4127	25284	6218	8	7205	9	6712	2%	7674	5	3200	
	Exp Mean	5990		6903		6447		5974		3566	
	C.D. 5%	1342		1998		971		2196		46	
	C.V.%	13.55		17.51		13.11		22.24		0.79	
	Sowing Date	31-07-2017		31-08-2017				21-06-2017		10-08-2017	
	Planting Date	24-08-2017						18-07-2017		14-09-2017	
	Local ©	CO(R) 50		ADT 46				Swetha		ADT 39	

Table No. 3.31 contd : Grain Yield (Kg/ha) of entries in AVT 1-IM (ZONE 7) Kharif 2017

Entry No.	IET No.	Zone VII (7)				Overall (7)				Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		Mean				Mean						
4102	26024	6483	1 *#	12%	21%	6483	1 *#	12%	21%	100	120	331
4103	25780	5815	4	8%		5815	4	8%		99	114	320
4104	25791	4959				4959				92	113	317
4105	Zonal Check (ZC)	4605				4605				92	102	353
4106	25601	5518	8	3%		5518	8	3%		108	115	350
4107	26027	6269	2 *#	8%	17%	6269	2 *#	8%	17%	104	124	347
4108	25772	5208				5208				98	115	354
4110	HRI 174 (HC)	5371	9			5371	9			99	112	364
4111	25239	5707	7	6%		5707	7	6%		97	115	349
4113	Local Check	5809	5	8%		5809	5	8%		104	115	366
4114	25774	4503				4503				97	116	340
4116	26019	5962	3 #	3%	11%	5962	3 #	3%	11%	104	112	353
4117	NDR 359 (NC)	5294				5294				97	108	330
4118	25785	4837				4837				101	119	331
4120	25602	5025				5025				103	126	344
4121	US 312 (HC)	4707				4707				94	113	343
4123	25776	4622				4622				92	112	343
4125	25787	4678				4678				99	114	362
4126	25998	5716	6	6%		5716	6	6%		104	114	339
4127	25284	5171				5171				103	125	345
	Exp Mean	5318				5318				99	115	344
	C.D. 5%	447				447				1		18
	C.V.%	13.85				13.85				1.37		9.83

Table No 3.32 : Days to 50% Flowering of entries in AVT 1-IM (ZONE 2 & 3) Kharif 2017

Entry No.	IET No.	II						Zone II (5)	III												Zone III (9)	Overall (14)
		UT	PUN	HAR	RAJ	J&K			OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	WB	U.P.			
		PNT	LDN	KUL	KTA	CHT	Mean		BBN	CTK	JYP	CHP	Mean	BKG	SBR	Mean	RCI	CHN	VRN	Mean		
4102	26024	125	107	104	110	116	112		97	107	112	102	105	101	116	108	102	109	94	104		107
4103	25780	119	108	103	108	108	109		96	109	115	100	105	93	103	98	110	97	90	102		104
4104	25791	99	101	95	103	100	100		90	105	100	95	98	89	97	93	103	98	82	96		97
4105	Zonal Check (ZC)	96	98	99	108	108	102		111	117	107	112	112	118	124	121	96	113	110	112		108
4108	25772	98	102	99	106	106	102		94	109	110	100	103	94	103	99	115	95	89	101		102
4110	HRI 174 (HC)	99	105	100	106	108	104		96	108	113	99	104	93	108	101	101	96	89	100		102
4113	Local Check	97	102	98	103	104	101		102	103	111	105	105	100	103	102	105	98	100	103		102
4114	25774	99	104	100	105	108	103		91	105	114	96	102	97	124	111	101	98	90	102		102
4116	26019	131			111		121		105	110	110	110	109	96	102	99	121	114	99	107		110
4117	NDR 359 (NC)	97	103	101	101	101	101		93	105	110	96	101	92	104	98	100	98	88	99		99
4118	25785	100	106	104	106	110	105		94	107	107	98	101	92	100	96	100	97	89	98		101
4121	US 312 (HC)	94	98	92	100	101	97		89	104	108	96	99	83	103	93	98	98	84	96		96
4123	25776	98	101	100	103	104	101		91	108	108	97	101	91	109	100	102	101	84	99		100
4125	25787	100	107	100	105	108	104		94	109	115	97	104	94	120	107	105	100	89	102		103
	Exp Mean	104	103	100	105	106	104		96	108	110	100	103	95	108	102	104	101	91	102		102
	C.D. 5%	2	1	0	4	2	1		2	2	1	2	1	1	2	1	1	2	0	1		0
	C.V.%	1.29	0.76	0.16	2.22	1.33	1.63		1.06	1.24	0.71	0.91	0.96	0.76	0.97	1.18	0.65	0.94	0.00	0.98		0.76

Table No. 3.32 : Days to 50% Flowering of entries in AVT 1-IM (ZONE 4) Kharif 2017

Entry No.	IET No.	IV
		AS
		TTB
4102	26024	110
4103	25780	106
4104	25791	95
4105	Zonal Check (ZC)	116
4108	25772	109
4109	25318	
4110	HRI 174 (HC)	106
4113	Local Check	110
4114	25774	107
4115	25994	
4116	26019	118
4117	NDR 359 (NC)	98
4118	25785	103
4119	25997	
4121	US 312 (HC)	105
4123	25776	103
4125	25787	107
	Exp Mean	106
	C.D. 5%	2
	C.V.%	1.35

Table No. 3.33 : Plant Height (cm) of entries in AVT 1-IM (ZONE 4) Kharif 2017

Entry No.	IET No.	IV
		AS
		TTB
4102	26024	102
4103	25780	110
4104	25791	106
4105	Zonal Check (ZC)	107
4108	25772	110
4109	25318	
4110	HRI 174 (HC)	110
4113	Local Check	114
4114	25774	109
4115	25994	
4116	26019	104
4117	NDR 359 (NC)	104
4118	25785	108
4119	25997	
4121	US 312 (HC)	106
4123	25776	108
4125	25787	110
	Exp Mean	108
	C.D. 5%	0
	C.V.%	0.00

Table No. 3.34 : Panicles/ M² of entries in AVT 1-IM (ZONE 4) Kharif 2017

Entry No.	IET No.	IV
		AS
		TTB
4102	26024	217
4103	25780	329
4104	25791	323
4105	Zonal Check (ZC)	263
4108	25772	302
4109	25318	
4110	HRI 174 (HC)	355
4113	Local Check	291
4114	25774	371
4115	25994	
4116	26019	215
4117	NDR 359 (NC)	287
4118	25785	297
4119	25997	
4121	US 312 (HC)	274
4123	25776	378
4125	25787	246
	Exp Mean	296
	C.D. 5%	16
	C.V.%	3.27

Table No 3.32 contd : Days to 50% Flowering of entries in AVT 1-IM (ZONE 5) Kharif 2017

Entry No.	IET No.	V								Zone V (6)	Overall (6)
		M.P.	CG	CG	CG	CG (3)	MH	MH	MH (2)		
		WRS	RPR	JDP	BLP	Mean	SKL	SND	Mean		
4102	26024	110	99	101	111	104	106	112	109	106	106
4103	25780	104	95	102	101	99	99	111	105	102	102
4104	25791	96	85	90	93	89	90	101	96	93	93
4105	Zonal Check (ZC)	91	81	87	89	86	84	94	89	88	88
4108	25772	103	93	99	96	96	99	110	105	100	100
4110	HRI 174 (HC)	105	94	100	100	98	99	110	105	101	101
4112	26016	114	110	113	118	114	111	125	118	115	115
4113	Local Check	104	94	99	91	95	107	117	112	102	102
4114	25774	99	93	97	101	97	96	106	101	99	99
4116	26019	119	111	114	118	114	112	124	118	116	116
4117	NDR 359 (NC)	98	94	99	97	97	96	107	102	99	99
4118	25785	106	95	100	101	99	98	110	104	102	102
4119	25997	112	103	102	113	106	110	114	112	109	109
4121	US 312 (HC)	96	88	96	94	93	94	103	99	95	95
4123	25776	97	93	98	97	96	96	106	101	98	98
4125	25787	103	94	97	96	96	97	106	102	99	99
4126	25998	122	111	114	122	116	117	126	121	119	119
	Exp Mean	105	96	100	102	100	101	111	106	102	102
	C.D. 5%	2	2	0	0	1	1	1	0	1	0
	C.V.%	1.38	0.97	0.00	0.00	0.57	0.51	0.51	0.37	0.78	0.51

Table No. 3.32: Days to 50% Flowering of entries in AVT 1-IM (ZONE 6) Kharif 2017

Entry No.	IET No.	VI				Zone VI (3)	Overall (3)
		MH	GU	GU	GU (2)		
		KJT	NWG	NVS	Mean	Mean	Mean
4101	25229	103	114	94	104	104	104
4102	26024	102	112	95	103	103	103
4103	25780	93	110	92	101	98	98
4104	25791	89	111	82	96	94	94
4105	Zonal Check (ZC)	93	109	92	101	98	98
4108	25772	96	111	89	100	99	99
4110	HRI 174 (HC)	94	113	91	102	99	99
4113	Local Check	97	104	86	95	96	96
4114	25774	95	119	92	105	102	102
4116	26019	111	107	104	105	107	107
4117	NDR 359 (NC)	93	112	89	100	98	98
4118	25785	94	106	91	99	97	97
4121	US 312 (HC)	91	105	87	96	94	94
4122	26039	86	109	82	96	92	92
4123	25776	91	113	89	101	97	97
4124	26018	105	112	100	106	105	105
4125	25787	89	110	96	103	98	98
	Exp Mean	95	110	91	101	99	99
	C.D. 5%	2	2	2	1	1	1
	C.V.%	1.28	1.00	1.41	1.24	1.25	1.25

Table No. 3.32 : Days to 50% Flowering of entries in AVT 1-IM (ZONE 7) Kharif 2017

Entry No.	IET No.	VII												Zone VII (9)	Overall (9)
		A.P.	A.P.	A.P. (2)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KE	PUD		
		MTU	RGL	Mean	RNR	WGL	JGL	Mean	CBT	ADT	Mean	PTB	KRK	Mean	Mean
4102	26024	101	104	103	105	102	100	102	101	90	96	111	88	100	100
4103	25780	101	99	100	103	103	98	101	103	87	95	101	97	99	99
4104	25791	88	93	91	95	100	89	95	93	85	89	101	83	92	92
4105	Zonal Check (ZC)	89	96	93	95		92	94	99	88	94	97	82	92	92
4106	25601	111	111	111	113	115	107	112	109	95	102	114	98	108	108
4107	26027	106	105	106	103	109	105	106	102	96	99	114	99	104	104
4108	25772	100	98	99	101	102	93	99	101	89	95	104	93	98	98
4110	HRI 174 (HC)	99	99	99	103	102	94	100	102	87	95	109	92	99	99
4111	25239	92	96	94	103	100	98	100	100	91	95	102	93	97	97
4113	Local Check	111	107	109	105	105	93	101	109	104	107	103	97	104	104
4114	25774	93	92	93	96	98	108	101	100	86	93	109	92	97	97
4116	26019	111	111	111	113	115	90	106	110	95	103	96	98	104	104
4117	NDR 359 (NC)	92	98	95	102	100	94	99	102	87	95	106	93	97	97
4118	25785	96	98	97	104	102	104	103	101	90	96	117	95	101	101
4120	25602	109	109	109	106	121	90	105	106	93	99	102	96	103	103
4121	US 312 (HC)	91	92	92	95	95	91	94	96	86	91	103	95	94	94
4123	25776	95	94	95	92	97	94	94	96	86	91	91	85	92	92
4125	25787	96	98	97	93	102	112	102	97	87	92	117	86	99	99
4126	25998	116	86	101	113	121	96	110	110	97	104	105	92	104	104
4127	25284	96	101	98	102	103	107	104	111	93	102	110	106	103	103
	Exp Mean	100	99	100	102	105	98	101	102	91	97	106	93	99	99
	C.D. 5%	3	2	1	3	2	1	1	2	4	2	2	1	1	1
	C.V.%	1.52	1.06	1.30	1.95	0.95	0.63	1.29	0.96	2.59	1.85	1.34	0.55	1.40	1.37

Table No. 3.33 : Plant Height (cm) of entries in AVT 1-IM (ZONE 2 & 3) Kharif 2017

Entry No.	IET No.	II					Zone II (5)	III													Zone III (9)	Overall (14)
		UT	PUN	HAR	RAJ	J&K		OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	W.B	U.P.				
		PNT	LDN	KUL	KTA	CHT		Mean	BBN	CTK	JYP	CHP	Mean	BKG	SBR	Mean	RCI	CHN	VRN	Mean		
4102	26024	123	122	120	112	119	119	123	116	98	105	111	136	137	137	113	111	137	120	119		
4103	25780	120	118	119	112	114	117	114	108	95	105	105	125	127	126	128	113	133	116	116		
4104	25791	104	123	124	102	121	115	110	108	91	105	104	117	125	121	119	115	135	114	114		
4105	Zonal Check (ZC)	106	87	93	91	94	94	103	114	97	106	105	133	129	131	112	118	132	116	108		
4108	25772	109	124	121	101	114	114	113	112	94	108	107	119	132	125	122	111	134	116	115		
4110	HRI 174 (HC)	111	111	117	102	110	110	109	103	87	104	101	117	125	121	124	109	131	112	111		
4113	Local Check	100	84	117	104	122	106	112	98	96	105	103	127	114	121	117	114	122	112	109		
4114	25774	118	126	122	114	125	121	118	113	98	111	110	119	119	119	131	128	139	120	120		
4116	26019	102			101		102	120	107	90	102	105	124	114	119	117	107	124	112	110		
4117	NDR 359 (NC)	100	104	105	98	104	102	104	96	102	100	100	114	126	120	107	111	119	109	106		
4118	25785	111	121	119	103	112	113	117	111	93	112	108	117	127	122	118	112	130	115	114		
4121	US 312 (HC)	109	118	119	108	107	112	121	110	87	107	106	118	129	123	120	113	132	115	114		
4123	25776	123	128	124	103	115	119	115	106	93	113	107	116	126	121	118	115	137	115	117		
4125	25787	110	115	124	98	110	111	115	104	87	111	104	106	133	120	117	115	130	113	113		
	Exp Mean	110	114	117	104	113	111	114	108	93	107	105	121	126	123	119	114	131	115	114		
	C.D. 5%		0	0				0	0	0	0	0	0	0	0	0	0	0	0			
	C.V.%		0.00	0.00				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

Table No. 3.33 contd : Plant Height (cm) of entries in AVT 1-IM (ZONE 5) Kharif 2017

Entry No.	IET No.	V								Zone V (6)	Overall (6)
		M.P.	CG	CG	CG	CG (3)	MH	MH	MH (2)		
		WRS	RPR	JDP	BLP	Mean	SKL	SND	Mean		
4102	26024	125	119	122	141	127	131	109	120	125	125
4103	25780	111	111	107	127	115	123	93	108	112	112
4104	25791	113	117	107	123	116	124	102	113	114	114
4105	Zonal Check (ZC)	197	92	91	100	95	110	85	98	113	113
4108	25772	115	113	106	132	117	141	107	124	119	119
4110	HRI 174 (HC)	127	110	107	123	113	130	99	115	116	116
4112	26016	107	112	102	113	109	109	94	101	106	106
4113	Local Check	106	126	105	110	114	117	94	106	110	110
4114	25774	119	132	113	131	125	141	102	121	123	123
4116	26019	118	116	104	123	115	125	108	116	116	116
4117	NDR 359 (NC)	115	105	93	110	103	117	86	102	104	104
4118	25785	125	118	107	129	118	127	102	114	118	118
4119	25997	105	99	92	109	100	108	91	99	101	101
4121	US 312 (HC)	113	118	113	122	118	132	107	119	118	118
4123	25776	107	125	107	139	124	141	107	124	121	121
4125	25787	127	116	104	123	114	116	94	105	113	113
4126	25998	107	109	102	111	107	109	102	106	107	107
	Exp Mean	120	114	105	122	113	124	99	111	114	114
	C.D. 5%		0	0	0	0	0	0			
	C.V.%		0.00	0.00	0.00	0.00	0.00	0.00			

Table No. 3.33 contd : Plant Height (cm) of entries in AVT 1-IM (ZONE 6) Kharif 2017

Entry No.	IET No.	VI				Zone VI (3)	Overall (3)
		MH	GU	GU	GU (2)		
		KJT	NWG	NVS	Mean	Mean	Mean
4101	25229	130	111	158	135	133	133
4102	26024	128	112	156	134	132	132
4103	25780	117	96	151	123	121	121
4104	25791	124	99	143	121	122	122
4105	Zonal Check (ZC)	125	116	157	136	133	133
4108	25772	114	106	148	127	123	123
4110	HRI 174 (HC)	111	99	145	122	118	118
4113	Local Check	111	101	135	118	116	116
4114	25774	123	97	162	130	127	127
4116	26019	131	97	142	119	123	123
4117	NDR 359 (NC)	162	100	138	119	133	133
4118	25785	114	103	146	125	121	121
4121	US 312 (HC)	115	93	137	115	115	115
4122	26039	113	103	161	132	126	126
4123	25776	118	94	156	125	123	123
4124	26018	104	101	128	114	111	111
4125	25787	108	100	141	120	116	116
	Exp Mean	121	102	147	124	123	123
	C.D. 5%	0		0			
	C.V.%	0.00		0.00			

Table No. 3.33 contd : Plant Height (cm) of entries in AVT 1-IM (ZONE 7) Kharif 2017

Entry No.	IET No.	VII												Zone VII (9)	Overall (9)
		A.P.	A.P.	A.P. (2)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KE	PUD		
		MTU	RGL	Mean	RNR	WGL	JGL	Mean	CBT	ADT	Mean	PTB	KRK	Mean	Mean
4102	26024	128	137	132	108	132	131	124	103	108	106	119	112	120	120
4103	25780	123	134	129	111	128	122	120	97	106	102	97	109	114	114
4104	25791	124	135	129	100	131	129	120	88	100	94	104	105	113	113
4105	Zonal Check (ZC)	108	119	114	103		119	111	87	100	93	92	89	102	102
4106	25601	123	138	130	100	133	123	119	95	106	101	110	107	115	115
4107	26027	144	147	145	104	145	141	130	99	107	103	117	110	124	124
4108	25772	122	138	130	102	135	127	121	93	107	100	99	115	115	115
4110	HRI 174 (HC)	120	130	125	106	124	125	118	97	102	100	97	106	112	112
4111	25239	123	127	125	111	127	125	121	94	114	104	106	107	115	115
4113	Local Check	118	129	124	108	123	132	121	109	110	109	108	100	115	115
4114	25774	123	138	131	112	134	120	122	99	89	94	117	108	116	116
4116	26019	123	130	126	107	126	114	115	90	110	100	106	103	112	112
4117	NDR 359 (NC)	111	121	116	100	117	123	113	94	101	97	101	102	108	108
4118	25785	117	133	125	115	128	146	130	97	107	102	120	108	119	119
4120	25602	139	152	145	114	146	126	128	111	125	118	101	117	126	126
4121	US 312 (HC)	121	132	126	111	127	127	122	92	105	98	102	104	113	113
4123	25776	116	134	125	107	128	124	119	96	90	93	105	105	112	112
4125	25787	124	130	127	111	127	115	117	91	113	102	102	113	114	114
4126	25998	114	123	118	101	127	137	122	93	101	97	122	105	114	114
4127	25284	131	143	137	115	145	117	126	112	121	117	119	120	125	125
	Exp Mean	123	133	128	107	131	126	121	97	106	101	107	107	115	115
	C.D. 5%				0	0	0					0	0		
	C.V.%				0.00	0.00	0.00					0.00	0.00		

Table No. 3.34 : Panicles/ M² of entries in AVT 1-IM (ZONE 2 & 3) Kharif 2017

Entry No.	IET No.	II					Zone II (5) Mean	III											Zone III (9) Mean	Overall (14) Mean
		UT	PUN	HAR	RAJ	J&K		OD	OD	OD	OD	OD (4)	BI	BI	BI (2)	JH	W.B	U.P.		
		PNT	LDN	KUL	KTA	CHT		BBN	CTK	JYP	CHP	Mean	BKG	SBR	Mean	RCI	CHN	VRN		
4102	26024	176	326	259	235	287	256	220	222	253	225	230	272	223	247	317	243	268	249	252
4103	25780	182	310	284	239	309	265	267	259	249	264	260	240	233	237	376	307	229	269	268
4104	25791	182	310	254	253	302	260	234	242	195	209	220	210	235	222	265	282	192	229	240
4105	Zonal Check (ZC)	165	348	259	253	284	262	272	247	216	174	227	271	300	286	274	254	205	246	252
4108	25772	167	319	269	312	305	274	233	224	202	202	215	272	257	264	257	208	231	232	247
4110	HRI 174 (HC)	182	319	264	246	307	264	247	243	206	216	228	330	255	293	272	227	218	246	252
4113	Local Check	124	358	314	280	299	275	251	240	280	230	250	300	241	271	311	302	282	271	272
4114	25774	172	282	238	300	305	259	262	234	271	211	244	331	249	290	253	244	197	250	253
4116	26019	176			281		229	257	185	242	216	225	210	215	212	320	253	214	235	234
4117	NDR 359 (NC)	178	372	255	268	302	275	230	229	251	253	241	210	264	237	243	230	196	234	249
4118	25785	166	299	299	268	332	273	251	263	209	198	230	270	219	245	280	273	223	243	254
4121	US 312 (HC)	176	308	261	264	280	258	233	238	192	228	223	273	244	259	232	390	206	248	252
4123	25776	180	341	291	284	305	280	250	209	237	191	222	210	263	237	266	207	204	226	245
4125	25787	166	299	277	258	299	260	241	245	269	196	238	210	225	218	342	273	234	248	253
	Exp Mean	171	322	271	267	301	265	246	234	234	215	232	258	245	251	286	264	221	245	252
	C.D. 5%	5	75	35	62	26	20	24	53	51	25	26	8	55	26	40	39	8	14	11
	C.V.%	1.85	13.85	7.59	13.74	5.08	10.66	5.82	13.53	13.03	6.86	13.59	1.96	13.45	9.11	8.43	8.87	2.08	10.69	10.57

Table No. 3.34 : Panicles/ M² of entries in AVT 1-IM (ZONE 5) Kharif 2017

Entry No.	IET No.	V							Zone V (5) Mean	Overall (5) Mean
		M.P.	CG	CG	CG (2)	MH	MH	MH (2)		
		WRS	RPR	JDP	Mean	SKL	SND	Mean		
4102	26024	332	253	250	251	212	233	223	256	256
4103	25780	310	189	300	245	262	255	259	263	263
4104	25791	235	232	221	227	244	293	268	245	245
4105	Zonal Check (ZC)	316	189	289	239	239	270	255	261	261
4108	25772	359	227	322	275	284	255	270	289	289
4110	HRI 174 (HC)	385	222	280	251	186	261	224	267	267
4112	26016	354	245	295	270	239	255	247	278	278
4113	Local Check	350	233	271	252	296	237	267	277	277
4114	25774	281	209	254	232	231	274	252	250	250
4116	26019	265	221	264	243	189	217	203	231	231
4117	NDR 359 (NC)	288	242	278	260	186	239	213	247	247
4118	25785	302	235	298	267	227	276	252	268	268
4119	25997	355	237	354	296	197	279	238	285	285
4121	US 312 (HC)	215	222	243	233	253	290	272	245	245
4123	25776	218	215	270	243	230	284	257	243	243
4125	25787	254	226	313	269	230	241	236	253	253
4126	25998	312	229	264	246	218	231	224	250	250
	Exp Mean	302	225	280	253	231	258	245	259	259
	C.D. 5%	60	44	63	38	28	5	13	20	19
	C.V.%	11.98	11.67	13.42	13.06	7.19	1.23	4.70	10.57	10.34

Table No. 3.34 : Panicles/ M² of entries in AVT 1-IM (ZONE 6) Kharif 2017

Entry No.	IET No.	VI				Zone VI (3)	Overall (3)
		MH	GU	GU	GU (2)		
		KJT	NWG	NVS	Mean	Mean	Mean
4101	25229	133	281	255	268	223	223
4102	26024	133	277	264	271	225	225
4103	25780	123	279	289	284	230	230
4104	25791	119	270	278	274	222	222
4105	Zonal Check (ZC)	123	275	282	279	227	227
4108	25772	127	278	322	300	242	242
4110	HRI 174 (HC)	124	277	249	263	216	216
4113	Local Check	127	283	231	257	214	214
4114	25774	125	276	244	260	215	215
4116	26019	141	285	220	252	215	215
4117	NDR 359 (NC)	123	273	249	261	215	215
4118	25785	124	278	271	274	224	224
4121	US 312 (HC)	121	275	224	250	207	207
4122	26039	116	273	218	245	202	202
4123	25776	121	274	218	246	204	204
4124	26018	134	285	264	274	228	228
4125	25787	119	277	231	254	209	209
	Exp Mean	125	277	253	265	219	219
	C.D. 5%	2	4	44	22	15	15
	C.V.%	0.84	0.88	10.53	7.17	7.17	7.17

Table No. 3.34: Panicles/ M² of entries in AVT 1-IM (ZONE 7) Kharif 2017

Entry No.	IET No.	VII												Zone VII (9)	Overall (9)
		A.P.	A.P.	A.P. (2)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KE	PUD		
		MTU	RGL	Mean	RNR	WGL	JGL	Mean	CBT	ADT	Mean	PTB	KRK	Mean	Mean
4102	26024	317	336	326	447	335	304	362	455	418	436	352	12	331	331
4103	25780	290	331	311	439	338	264	347	387	449	418	372	11	320	320
4104	25791	293	329	311	483	323	288	365	398	384	391	347	11	317	317
4105	Zonal Check (ZC)	233	342	288	500		284	392	372	319	346	352	426	353	353
4106	25601	321	334	328	469	323	289	360	372	371	372	210	464	350	350
4107	26027	334	326	330	434	295	266	332	425	345	385	314	382	347	347
4108	25772	301	329	315	439	330	269	346	343	410	377	364	397	354	354
4110	HRI 174 (HC)	279	336	308	437	299	256	331	492	417	454	382	382	364	364
4111	25239	317	318	317	454	334	256	348	361	370	365	357	373	349	349
4113	Local Check	310	362	336	460	340	286	362	473	377	425	242	443	366	366
4114	25774	297	299	298	409	344	229	327	405	389	397	262	428	340	340
4116	26019	332	329	331	446	327	277	350	443	392	418	232	398	353	353
4117	NDR 359 (NC)	233	347	290	442	334	266	348	363	302	333	262	417	330	330
4118	25785	295	327	311	446	321	246	338	403	348	376	264	329	331	331
4120	25602	317	332	324	455	366	282	368	408	342	375	233	360	344	344
4121	US 312 (HC)	275	335	305	474	311	306	363	415	344	379	240	391	343	343
4123	25776	260	331	295	512	373	273	386	248	437	343	230	428	343	343
4125	25787	323	323	323	431	326	253	336	497	464	480	225	414	362	362
4126	25998	310	362	336	482	352	240	358	417	338	377	175	376	339	339
4127	25284	319	299	309	437	292	273	334	488	285	387	315	402	345	345
	Exp Mean	298	331	315	455	330	270	352	408	375	392	286	342	344	344
	C.D. 5%	44	31	27	33	25	26	14	42	60	37	116	6	19	18
	C.V.%	8.93	5.66	7.57	4.45	4.55	5.86	4.26	6.24	9.62	8.27	24.57	1.10	10.13	9.83

Table No 3.35: Grain quality characteristics of entries in AVT1-IM, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4101	25229	77.9	69.1	61.6	6.20	2.36	2.62	LB	VOC	4.0	28.42	48
4102	26024	80.4	70.2	62.0	6.59	2.51	2.62	LB	VOC	4.0	27.25	60
4103	25780	79.4	67.0	47.3	6.34	2.22	2.85	LB	VOC	7.0	25.63	22
4104	25791	79.4	65.1	43.0	6.16	2.18	2.82	LB	VOC	4.6	22.79	60
4105	JAYA	78.8	66.2	38.6	5.46	2.48	2.20	SB	VOC	7.0	25.25	22
4106	25601	78.1	63.0	56.3	5.35	1.88	2.84	MS	A	4.0	26.04	54
4107	26027	76.9	68.7	65.9	5.76	2.18	2.64	MS	VOC	4.0	23.73	54
4108	25772	79.5	69.5	62.9	6.75	2.24	3.01	LS	VOC	5.2	23.87	61
4109	25318	77.0	66.9	50.4	7.70	2.01	3.83	LS	VOC	7.0	25.37	22
4110	HRI-174	80.4	68.7	54.5	6.10	2.23	2.73	LB	VOC	5.1	20.26	52
4111	25239	77.4	69.0	64.2	6.91	1.98	3.52	LS	VOC	7.0	25.46	22
4112	26016	79.6	69.1	66.0	5.96	2.17	2.74	MS	VOC	4.0	23.23	70
4114	25774	82.5	70.6	65.1	6.06	2.16	2.80	LB	VOC	7.0	24.49	31
4115	25994	78.3	69.7	61.5	5.25	1.98	2.65	MS	VOC	4.0	21.50	22
4116	26019	77.9	68.8	63.6	5.69	2.04	2.78	MS	A	5.0	25.87	35
4117	NDR-359	79.6	68.8	61.6	6.38	2.44	2.61	LB	VOC	4.2	27.07	40
4118	25785	79.7	68.9	59.9	6.12	2.24	2.73	LB	VOC	4.8	23.93	57
4119	25997	76.6	66.1	58.7	5.43	2.15	2.52	MS	VOC	4.0	26.57	57
4120	25602	76.3	68.1	64.8	5.15	2.19	2.35	SB	VOC	4.0	25.52	22
4121	US-312	79.5	66.5	37.5	5.43	2.02	2.68	MS	VOC	4.5	25.84	51
4122	26039	76.1	56.5	23.0	5.53	2.03	2.72	MS	VOC	3.4	18.97	100
4123	25776	81.6	72.0	59.2	6.09	2.21	2.75	LB	VOC	4.8	24.87	64
4124	26018	77.5	67.8	63.7	5.18	2.29	2.26	SB	VOC	4.0	25.40	40
4125	25787	79.3	68.3	51.1	6.12	2.13	2.87	LB	VOC	5.1	25.31	33
4126	25998	80.4	68.5	57.3	5.82	2.47	2.35	SB	VOC	7.0	27.30	23
4127	25284	78.9	67.3	54.5	6.59	2.32	2.84	MS	VOC	4.0	23.81	69

HULL: Hulling (%); Milling (%): HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB::Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 3.36: Composition of entries in Initial Variety Trial -Irrigated Medium (IVT-IM), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
1st Year of testing:				
4201	26810	OR 2517-8	OR 2006-25 / IR 65629-22-1	LS
4202	26811	BPT 2787	JGL 3855 / Annada JGL 384 / Tulasi // JGL 384	SB
4203	26118	MTU 1216 (MTU 2347-55-1-1)	MTU 1075/ MTU 1081	LS
4204	26072	AD 12079	ASD 19 / WGL 32100	MS
4205	26812	CN-2076	CT 14544-1-M-2-4-1-MMSR Oryza rufipogon / 3* Oryzica 3	MS
4206	26813	RP 5934-73	Swarna / KMR 3R	MS
4207	26086	OR (T) -31	Lalat Mutant	MS
4208	26814	TTB DR 201-1-1	IET 17684 / Mahsuri	SB
4209	26815	RP 5163-102-3-5-2-2	Jagtiyal Sannalu / IC 346255	MS
4210	26816	JGL 25960	MTU 1010 / NLR 34449	LB
4211	26817	KJT 1-5-13-4-4	PLG 1 / RP Bio 170	SB
4212	26818	PAU 5564-18-1-2	PR 120 // MR 220 / PAU 2520	LS
4213	26819	MTU 1212 (MTU 2223-5-2-2-1-1)	IR 64 / PLA 99-1-3-1-3	MS
4214	26820	CR3881-4-1-3-7-2-3	Naveen / FL496 // Naveen	MS
4215	26821	UPR 3977-20-2-1-1	Pant Dhan 16 / UPRI 2008-32	LB

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Entry No.	IET No.	Designation	Cross combination	Grain type
4216	NDR 359 (NC)			
4217	26822	R 1762-805-3-267-1	R 979-67-2-44-1 / IR 64	MS
4218	26823	BRR 2086	BH 5826-Sel.	LS
4219	26082	MTU 1213 (MTU 2260-12-2-1)	MTU 1010 / Azucena // MTU 1010	MS
4220	26824	AD 12205	I.W.Ponni / Swarna	SB
4221	26825	RP 5977- MS-M-41-1-32-8-44-6-9-4	BPT 5204 Mutant	LS
4222	26826	RP 5690-20-6-3-2-1	Sonamahsuri / SR 26 B	LB
4223	26827	TRC 2017-18	Pyzum / Sambha Mahasuri	LS
4224	26828	Pusa 5173-9-1-1-1-1	MR 220 / ET 10-5	MS
4225	26829	CR3561-3-1-2-2-1-1	Surendra / Annapurna	MS
4226	26830	NP 7016	MTU 1010 / GB-3	MS
4227	26831	WGL 1021	WGL 32183 / Sheetal	LS
4228	26832	IR 73930-313-2-2 CR 3961-1-1	IR 65629-157-3-2-3-2-1 / IR 66160-121-4-1-1	LS
4229	26833	NWGR-7023	GR-6 / IRBB-13	LS
4230	PR 113 (Northern), CR Dhan 300 (Eastern and North Eastern), Karma Mahsuri (Central), Akshyadhan (Western), Jaya (Southern)--ZC			
4231	26834	WGL-1058	TCNP 13 / MP 100	MS
4232	26835	RP 6194-HHZ-2-Y13-DTI-DT1	Huang-Hua-Zhan * 2 / Khazar	LS
4233	26836	RP 5445-15-5-2-1-2-1	RP Bio 226 / CR 15MR 1523	MS
4234	26837	JR 5(Mohan)	IR 64 / Mahsuri	MS
4235	26838	RP 5507-40-8-3-2-1	Swarna / IRGC 63248 // Swarna Sub 1	LS
4236	26839	BPT 2789	JGL 384 / Tulasi // JGL 384	SB
4237	26102	MTU 1206	MTU 1010 / KMP 149	MS
4238	26840	RP 6112- MS-56-23-2-58-6-4-1	BPT 5204 Mutant	MS
4239	26841	OR(CZ) -48	Lalat Mutant	MS
4240	26842	PAU 3991-40-3-1-1-1-1-3-1	TD CD 3815 / PAU 2963-17-3-1-3	LS
4241	26843	CR3993-13-3-67-43-2	CR1009 / <i>O. brachyantha</i> // CR1009	SB
4242	26844	NWGR-9147	GR-103 / IET 16900 // IR 72	LS
4243	26845	MTU 1269	MTU 1010 / MTU 1081	MS
4244	26846	CR3561-6-2-2-2-1-1	Surendra / Annapurna	SB
4245	26847	RNR 21225	MTU 1075 / Kavya	MS
4246	26848	TTB-U-86	Ranjit / swarna sub 1 // Ranjit	MS
4247	26849	UPR 3961-3-1-1-1	Pant Dhan 4 / UPRI 2008-7	LS
4248	26850	RP 5405-43-8-3-1-1	Swarna / IRGC 4105 // Swarna	MS
4249	26851	Pusa 5000-1-1-1	TCP 54 / ADT 43	MS
4250	26852	OR 2523-6	Khandagiri / IR 72	LS
4251	26132	RP 5405-B-80-13-5-3-1	Swarna / IRGC 4105 // Swarna	SB
4252	26853	HKR 13-18	HKR 127 / IR 72	LS
4253	26854	NVSR-374	IET 19389 / Pawana	MS
4254	26855	CR 4032-1-1-2-1-1	Vandana / BG90-2 // PSB RC 18	LS
4255	26856	KAU PTB 2011 mutant-46-1-1-1	170 Gy mutant of PTB 18	SB
4256	26857	RP 5938-52-20-1-3-1-1	Samba Mahsuri / IR 88090-30-1-2-47	MS
4257	26858	MTU 1268	MTU 7029 / MTU 1001	LS
4258	26859	RCPR 48-IR 91648-B-85-B-1-1-1	Moroberekan (ACC 12048) / 3* Swarna	MS
4259	26860	R 304-34-R-1	Pragti / Phalguna	SB
4260	26861	WGL-1069	MTU-1075 / IR 71137-243-2-2-233	MS
4261	26862	SKL-03-5-11-23-32-28-38-30	SKL-8 / Swarna	MS
4262	26863	NVSR-388	IET 1938 / Indrani	SB
4263	26864	CR 3882-7-1-6-2-1-3	Annapurna / FL378 / Annapurna	MS
4264	Local Check			

Table No. 3.37 : Grain Yield (kg/ha) of entries in IVT-IM Kharif 2017

Entry No.	IET No.	II										III			
		UT		PUN		HAR		RAJ		J&K		Zone II (3)		OD	
		@PNT		@LDN		KUL		KTa		CHT		Mean		BBN	CTK
4201	26810	4040	*	4430		9400	2	5951		4350		6567	2 3%	6022	6 *
4202	26811	163		1039				6483	4	4550		5516		5182	6577 2
4203	26118	4055	9 *	4864	4	8750	3	6449	6	4750		6650	1 5%	5112	5124
4204	26072	1165		3156		5500		6383	9	4500		5461		4552	3505
4205	26812	1371		3044		5100		6017		4950		5356		3221	3050
4206	26813	4411	8 *	4197		5700		4588		4550		4946		3782	3009
4207	26086	4877	3 *	4424		7950	6	5153		5000	9	6034	9	4552	5392
4208	26814	2326		4324		6300		5751		5200	2	5750		3081	4777
4209	26815	4549	6 *	2661		5650		6549	3	4800		5666		3431	2897
4210	26816	3580		4333		9700	1	4654		4400		6251	5	6022	7 * 5812
4211	26817	2638		3292		5500		4920		5050	7	5157		4132	3453
4212	26818	1568		3780		7600	8	4056		4700		5452		4202	3736
4213	26819	2547		3588		5900		6017		5100	5	5672		6303	4 * 6123 5
4214	26820	2216		3747		7050		4289		4450		5263		3992	4333
4215	26821	3081		4464		6000		5718		4400		5373		3852	3580
4216	NDR 359 (NC)	1294		4247		6500		6416	7	4650		5855		3922	3794
4217	26822	2182		3603		5850		6383		4250		5494		3641	3736
4218	26823	1028		4653	7	7000		4222				5611		3501	3332
4219	26082	973		3001		5550		4920		4200		4890		4552	5317
4220	26824	826		2107		5600		4388		4000		4663		5882	8 5123
4221	26825	2362		3284		7800	7	6383		4250		6144	6	4762	5014
4222	26826	2119		3986		5450		6217		4000		5222		3501	3102
4223	26827	2678		4904	3	6100		5020		4300		5140		3852	3544
4224	26828	2553		2866		5450		6416	8	4500		5455		4412	4802
4225	26829	4657	5 *	4605	8	6750		4056		4250		5019		4902	4064
4226	26830	3877		5682	1 *	6850		5186		3700		5245		4762	4879
4227	26831	884		4125		6450		5020		4250		5240		5602	4344
4228	26832	2233		3456		6400		5685		4100		5395		4412	3053
4229	26833	1374		3222		4800		4488				4644		3641	3474
4230	Zonal Check (ZC)	862		4088		3250		5552		4400		4401		4342	5879 9
4231	26834	3125		4318		6400		6283		4650		5778		4692	3647
4232	26835	1549		4959	2	6650		4023		4800		5158		3571	3285
4233	26836	4742	4 *	4098		5000		4621		4550		4724		2941	6079 6
4234	26837	2117		3236		5900		4887		4000		4929		4482	4780
4235	26838	206		4492		4600		4621		4600		4607		3081	2728
4236	26839	739		1461		3550		6051		4300		4634		5532	4106
4237	26102	3350		2957		5550		5918				5734		5392	3794
4238	26840	1030		2696		4900		6483	5	5100	6	5494		3291	4005
4239	26841	2527		3606		6400		6150		4900		5817		3641	3857
4240	26842	2952		3927		4850		4787		5150	4	4929		4342	4778
4241	26843	1396				6100		6715	2	4900		5905		5742	9 5252
4242	26844	701		4605	9	7400		5751		5200	3	6117	7	3641	3801
4243	26845	3589		2123		4850		4322		5400	1	4857		5532	6249 3
4244	26846	3814		4580		7000		6915	1	5000		6305	4	2871	3940
4245	26847	3333		4350		8050	5	4422		4600		5691		5532	5845
4246	26848	2348		4041		5900		5751		5050	8	5567		4272	3591
4247	26849	6038	1 *	4242		6900		4255		4750		5302		3782	2802
4248	26850	1430		2913		5300		4887				5093		6653	1 * 6598 1
4249	26851	2331		4350		6450		4688				5569		5392	4151
4250	26852	3897		4470		7100		4920		4600		5540		5672	6008 7
4251	26132	977		2129		4900		4654		4200		4585		6653	2 * 5442
4252	26853	1097		4807	5	7600	9	5652		3800		5684		3431	2865
4253	26854	1229		4048		6350		5020		4350		5240		4552	2699
4254	26855	735		4295		6350		6184		4100		5545		4132	3714
4255	26856	913		2322		4400		6350				5375		5322	6126 4
4256	26857	2920		4085		5500		5851		4300		5217		3992	5158
4257	26858	2589		2344		5250		4721		3900		4624		6232	5 * 5031
4258	26859	5426	2 *	2994		6000		6150				6075	8	4272	4489
4259	26860	4504	7 *	4777	6	6950		5884		4200		5678		5042	5655
4260	26861	3555		3503		6600		5286		4400		5429		5322	4414
4261	26862	3856		3592		6050		4787		4000		4946		6373	3 * 4991
4262	26863	797		4150		5850		4854		3600		4768		3361	2804
4263	26864	3379		4175		6750		5485		4150		5462		3852	4718
4264	Local Check	1369		4427		8650	4	5884		4550		6361	3	4832	3769
	Exp Mean	2454		3750		6221		5415		4504		5409		4540	4404
	C.D. 5%	2593		1054		1253		766		1145		634		1114	1071
	C.V.%	52.88		14.06		10.08		7.08		12.69		10.29		12.28	12.16
	Sowing Date	30-06-2017		30-06-2017		26-06-2017		03-07-2017		28-06-2017				18-07-2017	28-06-2017
	Planting Date	29-07-2017		28-07-2017		18-07-2017		03-08-2017		22-07-2017				16-08-2017	04-08-2017
	Local ©	P.D. 4		PR 124		HKR 127		RSK-1091		SJR-5				Hiranmayee	Tapaswini

* Superior to Best Check % Superior over Best Check @ not included in means

Table No 3.37 contd : Grain Yield (kg/ha) of entries in IVT-IM Kharif 2017

Entry No.	IET No.	III																
		OD	OD	OD (3)	BI	BI	BI	BI (2)	JH									
		@JYP	CHP	Mean	BKG	@PTN-ICAR	SBR	Mean	RCI									
4201	26810	5815	6025	7	5979	4 * 27%	7800	6	8361	2 *	3987	5893		4960				
4202	26811	5971	2677		4812	2%	5200		3118		4178	4689		2778				
4203	26118	5778	6682	3 *	5639	9 * 19%	7300		7569	4 *	5976	6638	5	4315				
4204	26072	5495	4162		4073		5650		5297		6318	5984		4415				
4205	26812	3663	4545		3606		5900		5796		6087	5994		4960				
4206	26813	3159	2268		3019		5150		5064		5317	5234		3472				
4207	26086	7115	3	5076		5006	6%	8250	4	7141	8 *	6473	6	7362	1	2%	4762	
4208	26814	3736		3621		3826		6100		5606		5369		5735			3571	
4209	26815	6044		3626		3318		4200		4612		6132		5166			2778	
4210	26816	7134	2	7263	1 *	6366	1 * 35%	7750	8	8469	1 *	5151		6450			6151	1 *
4211	26817	5073		4919		4168		6850		1383		5853		6352			4613	
4212	26818	4231		5025		4321		6400		6982		5929		6164			4861	
4213	26819	3526		5859	9	6095	3 * 29%	8700	2	5650		5297		6999	3		5010	7
4214	26820	4103		3384		3903		5400		5916		5727		5564			4514	
4215	26821	4505		3843		3758		6950		6199		4805		5877			5010	8
4216	NDR 359 (NC)	5385		4172		3962		6200		6606		6348		6274			4911	
4217	26822	3645		5273		4217		6950		6046		3965		5457			3571	
4218	26823	4231		4131		3655		4400		5259		4697		4548			5060	6
4219	26082	6419		4611		4827	2%	6650		6439		5539		6094			3770	
4220	26824	6612	8	4889		5298	* 12%	6700		6024		5929		6314			4563	
4221	26825	5128		5556		5111	8%	7350		7124	9 *	4963		6157			5208	4
4222	26826	6575	9	3667		3423		3950		5175		3767		3859			5010	9
4223	26827	4158		4510		3969		5700		5261		6722	2	6211			4861	
4224	26828	3526		5682		4965	5%	6300		6610		6467	7	6383			4762	
4225	26829	5549		5924	8	4964	5%	6400		6509		5490		5945			4960	
4226	26830	3397		4854		4831	2%	5200		6737		6427	8	5814			3968	
4227	26831	4432		5227		5058	7%	5400		6322		5013		5207			4762	
4228	26832	5082		4227		3897		4850		5622		4259		4554			4415	
4229	26833	4515		4520		3879		6250		6226		6514	5	6382			3621	
4230	Zonal Check (ZC)	6658	7	3641		4621		5000		5043		5303		5152			4762	
4231	26834	2500		3874		4071		5850		6550		5960		5905			4911	
4232	26835	1767		6692	2 *	4516		6600		6491		4029		5315			5109	5
4233	26836	3663		4652		4557		5850		5214		3258		4554			4067	
4234	26837	6923	6	4384		4548		5100		6753		6380	9	5740			4266	
4235	26838	5513		4081		3297		3600		5368		5793		4696			5407	3
4236	26839	3370		5692		5110	8%	5550		4087		3872		4711			2629	
4237	26102	3663		4268		4485		8500	3	6660		3384		5942			3968	
4238	26840	3782		2864		3387		3350		4772		4563		3956			3323	
4239	26841	4286		4288		3929		4300		6493		5521		4910			4266	
4240	26842	4890		4101		4407		5450		6808		3479		4465			4117	
4241	26843	5403		5626		5540	* 17%	2350		1739		5816		4083			2877	
4242	26844	3095		6101	4	4514		4550		5243		4891		4721			4514	
4243	26845	3938		5343		5708	8 * 21%	5600		4480		6222		5911			4167	
4244	26846	5348		4970		3927		6900		7473	6 *	4478		5689			3621	
4245	26847	7244	1	6030	6	5803	6 * 23%	7600		5970		5577		6588	8		4911	
4246	26848	4881		3434		3766		5550		6706		6545	4	6047			4315	
4247	26849	4048		4611		3731		6550		6595		5124		5837			4464	
4248	26850	6987	5	5687		6313	2 * 34%	8150	5	7028	*	4474		6312			4266	
4249	26851	6502		4116		4553		6300		5309		5971		6135			4365	
4250	26852	5174		4359		5346	* 13%	6250		6733		5622		5936			4464	
4251	26132	5925		5101		5732	7 * 21%	7100		6230		4569		5835			4117	
4252	26853	4322		4793		3696		3750		5932		6214		4982			4762	
4253	26854	5165		5076		4109		6250		6624		4779		5514			4663	
4254	26855	3745		4520		4122		5850		5037		5900		5875			4067	
4255	26856	7051	4	6035	5	5828	5 * 23%	7800	7	6201		5278		6539			4216	
4256	26857	3938		4399		4516		7150		5138		5009		6080			3571	
4257	26858	5137		4247		5170	9%	7650	9	8038	3 *	5538		6594	6		4762	
4258	26859	4936		3369		4043		6800		7172	7 *	6112		6456			3274	
4259	26860	2839		4783		5160	9%	7200		6727		4991		6095			5010	
4260	26861	4057		5838		5191	10%	6950		7511	5 *	4997		5974			5903	2 *
4261	26862	3938		2495		4619		7200		5679		5979		6589	7		4266	
4262	26863	3938		3960		3375		6900		6186		6735	1	6818	4		3571	
4263	26864	3938		4010		4193		6450		4709		6693	3	6571	9		3671	
4264	Local Check	5137		5571		4724		8800	1	6129		5564		7182	2		4514	
	Exp Mean	4808		4675		4540		6167		5968		5364		5766			4356	
	C.D. 5%	2404		737		519		1396		390		1548		908			903	
	C.V.%	25.02		7.88		10.03		11.33		3.27		14.44		11.26			10.38	
	Sowing Date	28-06-2017		05-07-2017				29-06-2017		07-07-2017		26-06-2017					28-06-2017	
	Planting Date	01-08-2017		29-07-2017				21-07-2017		31-07-2017		20-07-2017					04-08-2017	
	Local ©	Pratikshya		Pratikshya				Sabour Shree		Rajendra Sweta		R. Sweta					Birsa Vikas Dhan-203	

Table No. 3.37 contd : Grain Yield (kg/ha) of entries in IVT-IM Kharif 2017

Entry No.	IET No.	III						Zone III (8)	IV		V				
		W.B	U.P.		U.P.	U.P. (1)	AS		CG	CG					
		CHN	@MSD	VRN	Mean	Mean	TTB		RPR	JDP					
4201	26810	7833	4 *	4654	1	5125	5125	5955	5 * 12%	4175		6163	*	5369	7
4202	26811	4708		4255				4471		5253	7	5185		6000	1
4203	26118	8167	2 *	4388	7	5406	5406	6010	4 * 13%	6515	2	4994		4125	
4204	26072	4000		4056		2375	2375	4372		3872		6039		4275	
4205	26812	5500		4455	4	4356	4356	4703		3906		3464		4200	
4206	26813	4067		4189		4413	4413	3935		3569		3858		3138	
4207	26086	8817	1 *	4189		6144	6144	6183	3 * 16%	4899		6608	5 *	5844	3
4208	26814	5433		4056		5600	5600	4694		3906		5666		4131	
4209	26815	5083		4322		2219	2219	3796		3451		3763		3275	
4210	26816	8000	3 *	4521	3	6213	8 6213	6545	1 * 23%	4646		5695		5406	6
4211	26817	5333		3923		4794	4794	4993		3754		6607	6 *	4856	
4212	26818	6208		3989		6344	7 6344	5338		3636		4863		4656	
4213	26819	6917	7 *	4056				6316	2 * 19%	4108		7972	1 *	5988	2
4214	26820	3958		4388	8	5418	5418	4591		3502		5376		4856	
4215	26821	5542		4056		7075	1 7075	5082	1 15%	3451		4701		4825	
4216	NDR 359 (NC)	5708		3989		6169	9 6169	5153	9	4175		5026		4581	
4217	26822	5442		4255		5563	5563	4768		4327		4379		5063	
4218	26823	4708		4122		6719	3 6719	4569	3 9%	4108		4526		4300	
4219	26082	5833		4255		4581	4581	5107		5051		5895		4256	
4220	26824	6792	8 *	4322		2706	2706	5323		4141		6811	4 *	5206	
4221	26825	4333		4322		6744	2 6744	5491	2 9%	5438	6 3%	5810		5019	
4222	26826	2458		3923		4581	4581	3755		3620		3092		4181	
4223	26827	5917		3923		5750	5750	5107		3687		4018		3606	
4224	26828	6958	6 *	3856		5744	5744	5641	7 6%	3199		4289		4363	
4225	26829	5833		4056		5669	5669	5405	2%	3013		4849		3800	
4226	26830	5583		3989		6544	5 6544	5277	5 6%	3889		6068	*	5219	
4227	26831	5792		4056		4481	4481	5078		4285		5221		4438	
4228	26832	4625		4322		5413	5413	4407		2845		3892		4381	
4229	26833	4750		4189		5213	5213	4748		3923		4593		3556	
4230	Zonal Check (ZC)	4667		3790		4063	4063	4707		5859	5			4931	
4231	26834	5167		4255		5736	5736	4979		3418		4651		4750	
4232	26835	4292		3790		6713	4 6713	5036	4 9%	2458		3940		4056	
4233	26836	5208		4122		5613	5613	4708		3788		4832		4263	
4234	26837	3417		4056		4538	4538	4668		6229	3	5738		4844	
4235	26838	2958		4056		5119	5119	4096		3653		3358		3563	
4236	26839	4542		4189		2344	2344	4283		4074		5053		4394	
4237	26102	7042	5 *	4455	5	5369	5369	5215		4663		7777	2 *	5188	
4238	26840	2750		4122		4229	4229	3547		5118		4410		4344	
4239	26841	5083		3989		4844	4844	4475		4714		4558		4257	
4240	26842	6183		4056		5025	5025	4684		4259		4931		4069	
4241	26843	6708	9 *	3723				4910		4630		4754		5075	
4242	26844	2958		4255		4675	4675	4391		4630		2834		3963	
4243	26845	4625		3989		2044	2044	4973		4377		5736		4356	
4244	26846	3417		3989		5144	5144	4418		5067		5284		3563	
4245	26847	5417		4056		4619	4619	5691	6 7%	4646		5810		4581	
4246	26848	3917		4122		5575	5575	4650		4663		4678		3731	
4247	26849	6708	*	4322		5963	5963	5000		3889		3894		5500	4
4248	26850	4917		4122		3344	3344	5511	8 4%	4158		7254	3 *	5244	9
4249	26851	4125		4056		5419	5419	4980		3535		5112		4663	
4250	26852	5333		4189		3956	3956	5208		6566	1	5336		4881	
4251	26132	6500	*	4189		4513	4513	5499	9 3%	4327		6376	9 *	5088	
4252	26853	3708		4122		5300	5300	4353		3451		3026		5331	8
4253	26854	3417		4056		5705	5705	4643		3973		4076		3500	
4254	26855	3000		4255		5719	5719	4613		3670		4137		4113	
4255	26856	4425		4455	6	4150	4150	5419	2%	4141		5414		4763	
4256	26857	4458		4255		5856	5856	4949		4411		5020		3263	
4257	26858	6333		4322		4038	4038	5479	3%	5219	9	6570	7 *	4594	
4258	26859	4542		4255		5731	5731	4823		4007		5196		4319	
4259	26860	4683		4189		3763	3763	5141		6094	4	5509		4581	
4260	26861	5167		4255		3144	3144	5217		4293		5451		4713	
4261	26862	4542		4388	9	5406	5406	5156		4663		6468	8 *	5500	5
4262	26863	4167		3989		6431	6 6431	4741	6 4%	3788		3970		4394	
4263	26864	3542		4056		5775	5775	4839		3805		4286		3781	
4264	Local Check	4500		4588	2	5038	5038	5323		5253	8	4376		3700	
	Exp Mean	5105		4159		5020	5020	4954		4279		5067		4512	
	C.D. 5%	680		353		962	962	397		1202		1024		1463	
	C.V.%	6.66		4.24		9.58	9.58	11.52		14.06		10.11		16.23	
	Sowing Date	03-07-2017		04-07-2017		26-06-2017				07-07-2017		27-06-2017		28-06-2017	
	Planting Date	03-08-2017		02-08-2017		15-07-2017				17-08-2017		22-07-2017		20-07-2017	
	Local ©	Koushalya		Sarjoo-52		HUR-105				TTB 404		IGKV R 1244		Indira Maheshwari	

Table No. 3.37 contd: Grain Yield (kg/ha) of entries in IVT-IM Kharif 2017

Entry No.	IET No.	V						Zone V (3)		VI					
		CG (2)		MH		MH		Mean	KJT	MH (2)		GU		GU	
		Mean	SKL	@SND						Mean	@NWG	NVS	Mean		
4201	26810	5766	7 17%	5174	8	3572		5568	8 10%	4771		4972		5346	
4202	26811	5593	13%	4176		3601		5121	1%	5676	9	4926		3449	
4203	26118	4560		4447		3111		4522		5421		4934		5060	4
4204	26072	5157	5%	4093		3118		4802		5313		4703		5282	8
4205	26812	3832		3764		2543		3809		4582		4173		2877	
4206	26813	3498		3031		2592		3342		3897		3464		3075	
4207	26086	6226	4 * 26%	6364	1	4055	*	6272	2 * 23%	6372	4	6368	1 * 16%	3671	1
4208	26814	4899		3726		3125		4508		4312		4019		3373	
4209	26815	3519		3108		2330		3382		6709	2 *	4909		3274	
4210	26816	5551	13%	5824	3	3849	*	5642	5 11%	5594		5709	3 4%	5159	3
4211	26817	5732	9 16%	4511		3473		5325	5%	4994		4753		2778	9
4212	26818	4759		3546		3274		4355		4355		3950		4464	9
4213	26819	6980	1 * 42%	5598	5	4112	8 *	6519	1 * 28%	4854		5226		3770	
4214	26820	5116	4%	3893		994		4708		5492		4692		3869	6
4215	26821	4763		4942		852		4823		4722		4832		1290	
4216	NDR 359 (NC)	4804		5631	4	3189		5079		5383		5507	5	2976	
4217	26822	4721		4009		3523		4484		4044		4026		3274	
4218	26823	4413		4601		1570		4476		5071		4836		4464	
4219	26082	5076	3%	3951		3040		4701		4809		4380		4762	7
4220	26824	6009	5 * 22%	3970		3807	*	5329	9 5%	4881		4425		3571	
4221	26825	5415	10%	5116	9	4233	6 *	5315	5%	5373		5245	8	3671	
4222	26826	3636		3584		3139		3619		6486	3	5035		4067	
4223	26827	3812		4196		760		3940		5530		4863		3075	
4224	26828	4326		3713		2486		4121		4751		4232		2778	
4225	26829	4324		4807		2401		4485		5421		5114		3869	
4226	26830	5644	14%	5476	6	2891		5588	6 10%	5523		5500	6	4365	
4227	26831	4829		4041		3267		4567		5011		4526		3770	3
4228	26832	4136		4858		3097		4377		5128		4993		3373	
4229	26833	4075		4234		3196		4128		5041		4638		4067	
4230	Zonal Check (ZC)	4931		2973		3374		3952		4756		3865		2976	7
4231	26834	4701		4620		4091	*	4674		5351		4986		5456	1
4232	26835	3998		4833		1577		4276		5472		5153		3770	
4233	26836	4547		4852		3125		4649		4731		4791		2381	
4234	26837	5291	7%	4820		4098	9 *	5134	1%	5840	6	5330	7	3770	
4235	26838	3460		3604		2393		3508		4733		4168		2976	
4236	26839	4723		2735		2841		4061		7028	1 *	4882		3671	
4237	26102	6482	2 * 31%	4575		3267		5847	3 * 15%	4854		4715		4500	
4238	26840	4377		3037		3132		3930		4803		3920		3175	
4239	26841	4408		3481		3352		4099		4854		4168		3770	
4240	26842	4500		4846		3303		4615		4458		4652		3869	
4241	26843	4915		1802		1548		3877		4892		3347		2282	
4242	26844	3398		4414		959		3737		4705		4560		4861	6
4243	26845	5046	2%	4505		3253		4866		4734		4619		2877	
4244	26846	4423		3912		2834		4253		4790		4351		4167	
4245	26847	5195	5%	4653		4339	2 *	5014		4981		4817		4563	8
4246	26848	4205		3951		4283	4 *	4120		4554		4253		3373	5
4247	26849	4697		4389		3331		4594		4822		4605		2877	
4248	26850	6249	3 * 27%	4221		3757		5573	7 10%	5073		4647		4167	
4249	26851	4887		4221		3068		4665		5530		4876		2877	
4250	26852	5109	4%	4698		3452		4972		4740		4719		3373	
4251	26132	5732	8 16%	4118		3700		5194	2%	5504		4811		4266	
4252	26853	4179		2870		2358		3742		4881		3875		4067	
4253	26854	3788		4163		2422		3913		3865		4014		4167	
4254	26855	4125		3308		2237		3852		5830	7	4569		2579	
4255	26856	5088	3%	4041		3295		4739		4776		4409		4464	
4256	26857	4141		4453		3196		4245		4886		4669		2877	
4257	26858	5582	13%	5997	2	4148	7 *	5721	4 13%	5881	5	5939	2 8%	4960	5
4258	26859	4757		4878		2344		4798		5581		5229	9	3373	
4259	26860	5045	2%	4653		3651		4914		5185		4919		4266	
4260	26861	5082	3%	5232	7	4276	5 *	5132	1%	5791	8	5512	4	4365	
4261	26862	5984	6 * 21%	4009		4290	3 *	5326	5%	4734		4372		3770	
4262	26863	4182		3256		3054		3873		5313		4285		2679	
4263	26864	4034		3945		4560	1 *	4004		4898		4422		4266	
4264	Local Check	4038		3404		2756		3827		5424		4414		5258	2
	Exp Mean	4787		4248		3076		4607		5121		4685		3645	
	C.D. 5%	907		1068		402		706		1112		728		785	
	C.V. %	13.53		12.58		6.53		13.46		10.86		11.11		10.77	
	Sowing Date			23-06-2017		28-06-2017				20-07-2017				27-06-2017	
	Planting Date			12-07-2017		21-07-2017				14-08-2017				14-08-2017	
	Local ©			PDKV Kisan		PKV-HMT				Karjat 5				GAR-13	
														NAUR-1	

Table No. 3.37 contd : Grain Yield (kg/ha) of entries in IVT-IM Kharif 2017

Entry No.	IET No.	Zone VI (2)		VII									
				A.P.		A.P.		A.P. (2)		TEL		TEL	
		Mean		MTU	RGL	Mean		@RNR		WGL		Mean	
4201	26810	5058				7599	8	7599	2 10%	6357	5	3920	
4202	26811	4562		5647	5694	5671		4149		4855		4855	
4203	26118	5688	5 6%	5052	6766	5909		6464	4	5553		5553	
4204	26072	5298		3662	5020	4341		5524		4268		4268	
4205	26812	4278		4783	5337	5060		5036		4663		4663	
4206	26813	4086		5031	2202	3617		2833		3644		3644	
4207	26086	6657	1 * 24%	4043	6488	5266		5060		4872		4872	
4208	26814	4656		5017	4544	4780		3869		3934		3934	
4209	26815	5650	7 5%	3756	4782	4269		5048		5067		5067	
4210	26816	6108	2 14%	6617	4 * 7401	7009	8 1%	6845	1	7495	3 *	7495	3 * 34%
4211	26817	5471	2%	4412	7143	5777		4381		4096		4096	
4212	26818	4678		3946	7421	5683		5774		6302	8	6302	8 13%
4213	26819	5315		6225	8591	2 7408	4 7%	5964	6	6377	7	6377	7 14%
4214	26820	5759	4 7%	4596	5694	5145		5869	8	4190		4190	
4215	26821	5057		5155	3214	4185		6583	2	8374	1 *	8374	1 * 50%
4216	NDR 359 (NC)	5192		4397	6349	5373		6542	3	5584		5584	
4217	26822	4865		6144	4802	5473		3577		4649		4649	
4218	26823	5055		3779	5754	4767		4024		5202		5202	
4219	26082	4770		6404	7 * 5000	5702		4190		5526		5526	
4220	26824	4280		4841	7698	6 6270		2071		3593		3593	
4221	26825	5542	3%	4766	6567	5667		2476		4096		4096	
4222	26826	5272		4823	4306	4564		2036		3809		3809	
4223	26827	5085		4639	5377	5008		1911		4487		4487	
4224	26828	4571		5617	5099	5358		3690		4190		4190	
4225	26829	5166		5478	5060	5269		3554		6805	5 *	6805	5 * 22%
4226	26830	5611	9 5%	4788	5357	5072		3702		4207		4207	
4227	26831	5807	3 8%	5745	7837	4 6791		4589		5661		5661	1%
4228	26832	5048		3995	5337	4666		5125		4393		4393	
4229	26833	4761		4089	5437	4763		4286		4379		4379	
4230	Zonal Check (ZC)	5359		4276	5020	4648		3923		4563		4563	
4231	26834	5166		5351	6667	6009		5304		4541		4541	
4232	26835	5118		4391	6012	5202		4327		4433		4433	
4233	26836	4865		5793	6389	6091		4452		6798	6 *	6798	6 * 22%
4234	26837	5208		6310	6012	6161		3548		4099		4099	
4235	26838	4767		4767	2242	3505		2544		4342		4342	
4236	26839	5110		6928	3 * 7302	7115	7 3%	2387		3941		3941	
4237	26102	4677		6397	8 * 4425	5411		5649		7065	4 *	7065	4 * 27%
4238	26840	5353		4084	2996	3540		1690		3981		3981	
4239	26841	5308		5312	5020	5166		4381		4150		4150	
4240	26842	4857		5004	5119	5061		4899		5827		5827	4%
4241	26843	4106		6251	9286	1 7768	1 12%	1339		3934		3934	
4242	26844	5009		4144	4226	4185		3500		3971		3971	
4243	26845	4553		7037	2 * 7480	9 7259	6 5%	4798		6147		6147	10%
4244	26846	4985		3603	5675	4639		1560		3968		3968	
4245	26847	5561	4%	5655	7321	6488		3250		5108		5108	
4246	26848	4886		4475	3274	3875		2125		3917		3917	
4247	26849	4917		4372	7480	5926		4250		4659		4659	
4248	26850	4636		6336	9 7619	7 6978	9 1%	2744		4032		4032	
4249	26851	5207		5498	6190	5844		5923	7	4980		4980	
4250	26852	4527		6431	6 * 4464	5448		4387		4582		4582	
4251	26132	5082		7238	1 * 7778	5 7508	3 9%	5863	9	4062		4062	
4252	26853	4742		3992	6190	5091		4155		5260		5260	
4253	26854	4208		4965	6171	5568		3625		3964		3964	
4254	26855	5184		3889	6389	5139		5173		6248	9	6248	9 12%
4255	26856	4148		5337	4921	5129		4077		4096		4096	
4256	26857	4465		4316	5595	4956		3179		5088		5088	
4257	26858	5431	1%	6552	5 * 4841	5696		4089		5860		5860	5%
4258	26859	5659	6 6%	6083	5536	5809		2619		5246		5246	
4259	26860	5157			7341	7341	5 6%	3310		4649		4649	
4260	26861	5303		5650	7242	6446		2607		7854	2 *	7854	2 * 41%
4261	26862	4412		5816	5456	5636		3476		4578		4578	
4262	26863	5621	8 5%	5911	6488	6200		2983		3769		3769	
4263	26864	5539	3%	5230	4425	4827		4244		4518		4518	
4264	Local Check	5180		5623	8214	3 6918		4298		5010		5010	
	Exp Mean	5057		5169	5854	5517		4097		4897		4897	
	C.D. 5%	846		750	2335	1218		1828		849		849	
	C.V. %	11.96		7.25	19.96	15.78		22.33		8.67		8.67	
	Sowing Date			03-07-2017	06-07-2017			22-06-2017		22-06-2017			31-07-2017
	Planting Date			05-08-2017	08-08-2017			20-07-2017		22-07-2017			24-08-2017
	Local ©			MTU 1075	MTU 1001			Telangana Sona (RNR 15048)		Somnath			CO (R) 50

Table No. 3.37 contd : Grain Yield (kg/ha) of entries in IVT-IM Kharif 2017

Entry No.	IET No.	VII					Zone VII (5)	Overall (22)	Days to 50% Flowering	Plant Height (cm)	Panicles/ M²			
		TN	TN (1)		KE									
		@ADT	Mean		PTB			Mean						
4201	26810	4965		5325		4751		5399	5 * 6%	100	117	268		
4202	26811	4585		4656		3603		4891		112	103	282		
4203	26118	4260		6381		4020		5555	4 * 7%	105	112	289		
4204	26072	3475		3838		4732		4304		106	104	295		
4205	26812	4000		2086		4552		4284		100	103	281		
4206	26813	4750		4944		5948		4354		96	106	302		
4207	26086	4750		5528		5555		5297	3 * 10%	103	110	288		
4208	26814	3220		2194		6218		4381		101	128	262		
4209	26815	2163		2945		2635		3837		97	106	267		
4210	26816	7610	1 *	7197	3 6%		7177	2 * 19%	6362	1 * 18%	104	110	287	
4211	26817	3210		4222		2843		4543		103	101	289		
4212	26818	5660	6	4708		4056		5287		105	105	262		
4213	26819	6280	3	6947	4 2%	7946	6	7217	1 * 20%	6267	2 * 16%	108	111	281
4214	26820	4075		3517		7155		5031		94	119	274		
4215	26821	5725	5	3281		5995		5204		95	111	258		
4216	NDR 359 (NC)	4225		4558		6572		5492		98	102	269		
4217	26822	3500		5072		5056		5145		104	108	274		
4218	26823	3153		3394		6611		4948		94	106	270		
4219	26082	3900		5419		4879		5446		107	110	262		
4220	26824	5515		6892	6 1%	5176		5640		5157		109	117	279
4221	26825	6000	4	2978		6577		4997		5446	8 1%	101	130	269
4222	26826	2715		2850		4083		3974		4118		98	139	267
4223	26827	2703		3441		5598		4708		4795		94	105	290
4224	26828	3025		3366		5317		4718		4990		101	101	291
4225	26829	3040		2420		10019	1 *	5956		5222		100	115	271
4226	26830	3800		4692		8603	4 *	5529		5340		100	104	259
4227	26831	5593	9	4241		8904	3 *	6477	6 8%	5378		103	119	272
4228	26832	3650		4566		4514		4561		4560		97	111	284
4229	26833	3600		4802		5115		4764		4615		101	107	270
4230	Zonal Check (ZC)	3350		4320		4855		4607		4684		102	108	271
4231	26834	5388		7969	1 17%	7732	8	6452	7 7%	5327		100	116	275
4232	26835	2650		2958		5574		4674		4757		95	97	272
4233	26836	2900		4452		9198	2 *	6526	5 8%	5088		100	96	276
4234	26837	4450		5620		8013	5 *	6011		5192		106	127	285
4235	26838	2620		5258		4349		4192		4148		93	103	275
4236	26839	3200		3689		4206		5213		4578		114	112	275
4237	26102	5600	8	3280		6842		5601		5369		104	111	287
4238	26840	3280		4889		5677		4325		4277		98	109	261
4239	26841	2450		2492		4964		4387		4673		95	114	268
4240	26842	3365		4463		7108		5504		4891		102	99	263
4241	26843	3025		6603	8	7900	7	6795	3 * 13%	5264		115	104	300
4242	26844	2575		3263		5536		4228		4567		95	108	262
4243	26845	6900	2	7203	2 6%	2781		6130	8 2%	5140		114	110	294
4244	26846	3075		2569		3624		3888		4613		100	115	274
4245	26847	4000		6594	9	4985		5933		5594	6 4%	104	114	285
4246	26848	3700		6130		2194		3998		4577		99	116	273
4247	26849	4075		3961		7314	9	5557		5055		98	108	260
4248	26850	5300		5677		5942		5921		5430	9	110	110	280
4249	26851	4355		5728		4438		5367		5036		103	96	290
4250	26852	3325		3688		5231		4879		5146		105	97	308
4251	26132	4325		5722		5196		5999		5355		110	108	295
4252	26853	2670		2920		3583		4389		4454		93	105	277
4253	26854	2850		4350		1278		4146		4442		98	107	276
4254	26855	4943		5463		4866		5371		4817		95	114	279
4255	26856	3300		4392		3872		4524		4923		111	112	265
4256	26857	2440		3478		4235		4543		4729		100	95	282
4257	26858	4450		6936	5 2%	4078		5653		5419		107	106	294
4258	26859	4075		2700		4250		4763		4965		104	110	274
4259	26860	4230		3003		5496		5122		5229		105	118	264
4260	26861	4780		6067		6668		6696	4 * 11%	5536	7 2%	99	110	279
4261	26862	4550		4164		2113		4425		4895		109	120	320
4262	26863	3175		3150		2823		4428		4592		97	99	275
4263	26864	2750		2692		4769		4327		4710		95	122	264
4264	Local Check	5635	7	6809	7	4457		6023	9	5404		100	109	284
	Exp Mean	4014		4517		5289		5145		4988		102	110	278
	C.D. 5%	1834		1309		1380		634		258		1		10
	C.V.%	22.86		14.50		13.05		13.99		12.35		2.21		10.49
	Sowing Date	03-09-2017				28-07-2017								
	Planting Date					23-08-2017								
	Local ©					Swetha								

Table No. 3.38 : Days to 50% Flowering of entries in IVT-IM Kharif 2017

Entry No.	IET No.	II					Zone II	III															Zone III
		UT	PUN	HAR	RAJ	J&K	(5)	OD	OD	OD	OD	OD (4)	BI	BI	BI	BI (3)	JH	W.B	U.P.	U.P.	U.P. (2)	(11)	
		PNT	LDN	KUL	KTA	CHT	Mean	BBN	CTK	JYP	CHP	Mean	BKG	PTN-ICAR	SBR	Mean	RCI	CHN	MSD	VRN	Mean	Mean	
4201	26810	108	112	101	100	92	102	100	106	106	100	103	78	96	104	93	112	112	119	102	110	103	
4202	26811	132	118		103	107	115	112	126	116	84	109	88	115	123	109	132	112	105		105	111	
4203	26118	115	109	103	101	109	107	102	107	105	103	104	82	104	112	99	119	109	123	103	113	106	
4204	26072	116	111	105	102	108	108	102	112	106	108	107	86	108	112	102	120	109	119	103	111	107	
4205	26812	95	109	106	101	93	101	98	107	107	98	102	76	97	104	92	104	110	105	100	102	100	
4206	26813	108	95	77	119	98	99	95	104	101	91	98	74	94	97	88	105	108	106	87	96	96	
4207	26086	105	105	99	116	108	106	101	105	113	99	104	76	100	105	93	111	110	115	101	108	103	
4208	26814	95	101	98	103	93	98	99	103	107	98	102	73	98	103	91	107	111	120	117	119	103	
4209	26815	116	99	88	100	116	104	95	108	100	94	99	87	89	96	90	98	108	119	83	101	98	
4210	26816	118	108	103	104	102	107	98	107	108	103	104	89	101	106	98	114	117	111	103	107	105	
4211	26817	105	110	101	102	113	106	96	107	107	102	103	88	105	110	101	124	103	116	104	110	105	
4212	26818	105	102	98	118	109	106	102	106	113	102	106	88	100	108	99	120	117	113	99	106	106	
4213	26819	97	117	104	101	108	105	105	111	111	109	109	89	111	114	105	114	114	111		111	109	
4214	26820	97	94	87	100	103	96	90	105	99	92	96	80	87	94	87	103	105	116	76	96	95	
4215	26821	104	100	88	97	105	99	94	92	100	92	94	86	86	94	88	103	103	101	82	91	94	
4216	NDR 359 (NC)	91	99	92	100	103	97	95	103	101	95	98	89	92	93	91	111	106	116	86	101	99	
4217	26822	114	110	105	100	108	107	100	102	112	104	104	93	103	88	95	99	108	114	107	110	103	
4218	26823	128	90	83	101		100	90	95	98	93	94	82	83	89	85	99	106	116	78	97	93	
4219	26082	109	113	106	107	93	105	103	110	114	109	109	89	111	111	103	114	108	115	106	110	108	
4220	26824	106	114	106	118	103	109	107	116	113	111	112	88	110	115	104	122	111	117	114	115	111	
4221	26825	111	108	102	100	93	102	99	107	113	103	105	84	103	98	95	111	112	116	100	108	104	
4222	26826	99	97	87	108	103	99	95	107	106	97	101	86	94	96	92	102	108	118	84	101	99	
4223	26827	109	93	84	94	108	97	88	105	99	92	96	81	88	88	85	100	107	121	76	98	95	
4224	26828	103	101	98	98	93	98	97	107	107	98	102	85	99	103	96	115	112	105	96	100	102	
4225	26829	117	101	98	115	113	109	94	107	102	95	99	87	98	105	97	105	111	104	86	95	99	
4226	26830	116	98	98	102	93	101	94	107	108	96	101	93	93	101	96	113	113	110	88	99	101	
4227	26831	104	108	104	98	92	101	97	103	106	100	102	93	103	112	102	119	114	117	103	110	106	
4228	26832	107	95	86	98	108	98	99	105	109	93	101	79	90	94	87	105	111	105	93	99	98	
4229	26833	105	105	101	117		107	101	105	112	99	104	81	101	100	94	112	108	113	98	105	102	
4230	Zonal Check (ZC)	101	101	93	104	88	97	108	120	113	110	113	82	113	122	105	114	111	118	103	111	110	
4231	26834	103	104	98	100	99	100	96	108	106	97	101	93	93	103	96	106	107	117	87	102	101	
4232	26835	105	89	81	116	97	97	94	93	107	90	96	80	84	91	85	98	105	109	79	94	93	
4233	26836	114	100	98	111	105	105	98	110	101	96	101	89	103	102	98	105	112	103	96	99	101	
4234	26837	96	110	103	99	109	103	103	109	114	104	107	94	106	106	102	111	114	115	102	109	107	
4235	26838	99	93	84	104	108	97	90	97	100	93	95	79	87	89	85	103	103	101	78	89	92	
4236	26839	122	120	107	105	113	113	119	124	125	114	120	98	119	122	113	100	106	106	120	113	114	
4237	26102	105	121	92	100		104	106	104	115	95	105	98	111	114	108	100	111	100	85	92	103	
4238	26840	101	101	97	97	117	102	95	108	102	93	99	88	98	97	94	115	108	101	92	96	99	
4239	26841	103	98	87	102	93	97	92	108	99	94	98	83	91	94	89	99	107	101	84	92	96	
4240	26842	104	105	98	113	103	104	100	106	111	99	104	89	95	103	95	114	106	117	100	108	103	
4241	26843	97		105	117	109	107	112	119	122	119	118	134	128	134	132	132	107	101		101	121	
4242	26844	122	98	87	97	97	100	89	104	100	93	96	86	88	93	89	101	105	119	86	102	97	
4243	26845	116	114	107	102	108	109	113	124	120	119	119	78	120	124	107	129	110	103	123	113	115	
4244	26846	114	105	100	98	108	105	96	106	105	96	101	89	99	103	97	104	107	115	101	108	102	
4245	26847	99	119	93	108	90	102	100	108	107	106	105	93	98	113	101	120	106	117	104	110	106	
4246	26848	104	104	93	102	93	99	99	105	106	97	102	89	89	98	92	107	106	101	93	97	99	
4247	26849	99	102	93	102	109	101	95	100	103	93	98	88	90	94	91	104	106	100	87	93	96	
4248	26850	121	118	106	104		112	107	115	112	108	110	94	112	116	107	125	113	103	112	107	110	
4249	26851	107	103	100	104		103	99	106	111	99	104	89	97	103	96	114	113	116	92	104	103	
4250	26852	117	111	103	98	93	104	98	107	113	102	105	93	105	111	103	113	112	117	114	115	107	
4251	26132	103	113	107	118	103	109	106	109	116	110	110	99	112	116	109	123	110	116	112	114	111	
4252	26853	96	88	83	106	104	95	86	98	100	89	93	76	82	87	81	98	105	116	78	97	92	
4253	26854	99	99	98	99	110	101	96	108	106	96	102	89	99	103	97	62	107	94	98	96	96	
4254	26855	96	95	94	103	103	98	94	99	99	89	95	84	89	90	87	103	108	116	79	97	95	
4255	26856	123	122	108	106		115	111	108	123	109	113	93	111	114	106	122	109	103	108	106	110	
4256	26857	104	999																				

Table No. 3.38 contd : Days to 50% Flowering of entries in IVT-IM Kharif 2017

Entry No.	IET No.	IV	V						Zone V	VI					Zone VI
		AS	CG	CG	CG (2)	MH	MH	(4)	MH	MH (3)	GU	GU	GU (2)	(3)	
		TTB	RPR	JDP	Mean	SKL	SND	Mean	KJT	Mean	NWG	NVS	Mean	Mean	
4201	26810	107	98	98	98	97	98	98	90	95		96	96	93	
4202	26811	122	119	113	116	111	116	115	115	114	126	110	118	117	
4203	26118	120	106	102	104	98	102	102	92	97	118	101	110	104	
4204	26072	122	105	106	105	104	103	104	96	101	123	106	114	108	
4205	26812	116	98	105	101	97	99	100	95	97	116	95	105	102	
4206	26813	103	96	93	95	88	93	92	93	91	110	92	101	98	
4207	26086	115	104	107	105	97	100	102	93	96	113	96	104	101	
4208	26814	114	104	104	104	94	98	100	94	95	114	98	106	102	
4209	26815	114	96	88	92	86	89	90	91	88	116	90	103	99	
4210	26816	114	105	104	104	102	104	104	92	99	116	95	105	101	
4211	26817	111	109	107	108	109	108	108	91	103	109	97	103	99	
4212	26818	116	103	108	106	103	101	104	90	98	113	100	106	101	
4213	26819	123	110	108	109	103	111	108	95	103	119	104	111	106	
4214	26820	116	93	88	90	83	86	87	90	86	109	91	100	97	
4215	26821	105	96	103	99	87	92	94	95	91	108	90	99	98	
4216	NDR 359 (NC)	114	98	98	98	88	98	96	90	92	108	93	100	97	
4217	26822	116	104	107	105	105	105	105	99	103	115	106	110	106	
4218	26823	111	92	89	90	105	91	94	92	96	103	93	98	96	
4219	26082	123	112	106	109	102	111	108	101	105	119	107	113	109	
4220	26824	123	109	108	109	104	106	107	99	103	119	108	113	108	
4221	26825	115	100	94	97	95	100	97	91	95	110	96	103	99	
4222	26826	105	98	104	101	96	92	97	96	94	108	92	100	99	
4223	26827	123	91	87	89	80	85	86	90	85	105	91	98	95	
4224	26828	116	102	104	103	95	98	100	94	95	108	96	102	99	
4225	26829	122	101	95	98	96	92	96	90	93	109	95	102	98	
4226	26830	112	99	104	101	95	95	98	91	93	111	95	103	99	
4227	26831	114	107	105	106	103	108	106	93	101	113	99	106	102	
4228	26832	106	97	93	95	88	91	92	91	90	108	93	100	97	
4229	26833	106	104	107	105	98	101	102	92	97	109	91	100	97	
4230	Zonal Check (ZC)	123		95	95	92	102	96	92	95	108	95	101	98	
4231	26834	110	104	104	104	94	98	100	92	95	109	95	102	99	
4232	26835	122	91	88	89	81	87	87	116	94	106	84	95	102	
4233	26836	116	102	96	99	96	96	97	92	94	115	95	105	100	
4234	26837	116	109	106	107	106	106	106	101	104	117	100	108	106	
4235	26838	114	93	90	91	81	90	88	88	86	102	93	98	94	
4236	26839	123	120	116	118	117	113	116	117	115	126	112	119	118	
4237	26102	122	111	115	113	110	86	105	101	99		94	94	98	
4238	26840	104	97	104	100	95	99	98	91	95	111	94	102	98	
4239	26841	107	96	89	92	88	92	91	90	90	107	94	101	97	
4240	26842	115	103	108	105	97	100	102	94	97	110	97	103	100	
4241	26843	122	129	119	124	126	126	125	115	122	119	115	117	116	
4242	26844	116	93	86	89	87	90	89	88	88	105	93	99	95	
4243	26845	123	119	116	117	114	120	117	104	113	119	112	116	112	
4244	26846	108	96	94	95	96	98	96	92	95	111	96	103	100	
4245	26847	123	107	106	106	101	105	105	95	100	117	99	108	103	
4246	26848	108	101	105	103	95	99	100	94	96	110	95	102	100	
4247	26849	112	101	103	102	94	97	99	89	93	105	95	100	96	
4248	26850	121	115	107	111	107	113	110	101	107	119	112	115	111	
4249	26851	116	101	106	103	100	100	102	97	99	109	98	103	101	
4250	26852	120	107	106	106	98	104	103	93	98	112	101	106	102	
4251	26132	122	114	108	111	110	116	112	100	108	116	110	113	109	
4252	26853	122	88	88	88	80	81	84	91	84	105	92	98	96	
4253	26854	105	103	104	103	96	99	100	90	95	109	99	104	99	
4254	26855	106	97	91	94	88	89	91	89	88	108	93	101	97	
4255	26856	123	113	107	110	109	112	110	100	107	120	110	115	110	
4256	26857	117	101	105	103	93	99	99	91	94	114	99	106	101	
4257	26858	123	107	105	106	103	111	106	95	103	113	101	107	103	
4258	26859	116	104	104	104	102	100	102	94	99	115	96	105	102	
4259	26860	116	104	105	104	99	100	102	90	96	111	98	104	99	
4260	26861	109	100	94	97	95	92	95	91	92	108	94	101	98	
4261	26862	122	110	107	108	102	113	108	100	105	119	99	109	106	
4262	26863	98	98	97	97	96	97	97	90	94	107	93	100	96	
4263	26864	106	91	89	90	85	86	88	93	88	109	93	101	98	
4264	Local Check	112	98	90	94	106	104	99	97	102	105	92	99	98	
	Exp Mean	115	102	101	102	97	100	100	95	97	112	98	105	101	
	C.D. 5%	1	2	0		1	2	1	2	1	4	2	2	2	
	C.V. %	0.49	0.90	0.00		0.44	1.02	0.69	0.95	0.85	1.76	1.21	1.45	1.46	

Table No. 3.38 contd: Days to 50% Flowering of entries in IVT-IM Kharif 2017

Entry No.	IET No.	VII										Zone VII (7)	Overall (31)
		A.P.	A.P.	A.P. (2)	TEL	TEL	TEL (2)	TN	TN	TN (2)	KE		
		MTU	RGL	Mean	RNR	WGL	Mean	CBT	ADT	Mean	PTB	Mean	Mean
4201	26810		98	98	96	108	102	98	92	95	91	97	100
4202	26811	112	109	111	115	124	119	110	95	102	98	109	112
4203	26118	104	103	104	101	108	104	99	97	98	91	100	105
4204	26072	103	102	103	99	108	103	101	98	99	93	100	106
4205	26812	99	98	98	94	106	100	93	95	94	90	96	100
4206	26813	94	97	95	90	93	91	97	91	94	90	93	96
4207	26086	101	99	100	98	108	103	103	100	101	96	101	103
4208	26814	103	99	101	96	105	101	105	98	101	92	100	101
4209	26815	96	90	93	89	96	93	94	90	92	92	92	97
4210	26816	101	102	102	97	108	102	102	95	98		101	104
4211	26817	100	96	98	99	104	101	95	90	92	89	96	103
4212	26818	103	102	103	105	108	106	112	101	106	94	103	105
4213	26819	110	109	110	106	113	109	103	102	102	99	106	108
4214	26820	89	89	89	90	96	93	90	90	90	93	91	94
4215	26821	91	93	92	94	98	96	97	89	93	89	93	95
4216	NDR 359 (NC)	94	95	94	97	103	100	94	98	96	91	96	98
4217	26822	106	102	104	98	115	106	103	92	97	92	101	104
4218	26823	92	88	90	86	93	89	91	92	91	90	90	94
4219	26082	112	106	109	97	121	109	103	99	101	98	105	107
4220	26824	113	109	111	101	117	109	106	102	104	96	106	109
4221	26825	102	98	100	96	104	100	90	91	90	95	96	101
4222	26826	94	98	96	87	94	91	100	91	95	95	94	98
4223	26827	92	92	92	80	97	89	94	91	92	93	91	94
4224	26828	98	99	99	98	111	104	103	102	102	96	101	101
4225	26829	99	99	99	87	101	94	94	88	91	95	95	100
4226	26830	98	98	98	94	102	98	103	92	97	93	97	100
4227	26831	105	103	104	98	108	103	100	93	96	91	99	103
4228	26832	95	93	94	96	101	99	98	94	96	92	96	97
4229	26833	99	102	101	96	100	98	102	94	98	92	98	101
4230	Zonal Check (ZC)	96	97	97	81	94	88	95	90	92	91	92	102
4231	26834	101	96	98	88	105	97	99	96	97	96	97	100
4232	26835	87	89	88	110	94	102	88	90	89	91	93	95
4233	26836	104	99	101	80	99	90	95	91	93	96	95	100
4234	26837	107	103	105	108	114	111	110	103	106	98	106	106
4235	26838	85	90	88	80	97	88	96	86	91	94	89	93
4236	26839	87	112	100	113	128	120	115	114	114	99	110	114
4237	26102	111	89	100	108	114	111	94	102	98	98	102	104
4238	26840	89	98	94	80	96	88	99	93	96	91	92	98
4239	26841	96	89	92	88	97	93	89	87	88	93	91	95
4240	26842	101	101	101	95	103	99	102	95	98	97	99	102
4241	26843	107	107	107	99	128	113	103	94	98	96	105	115
4242	26844	94	89	91	80	98	89	86	86	86	89	89	95
4243	26845	118	117	118	115	129	122	105	103	104	105	113	114
4244	26846	98	96	97	88	104	96	97	90	93	95	95	100
4245	26847	102	98	100	101	101	101	101	95	98	98	99	104
4246	26848	98	98	98	80	103	92	100	98	99	95	96	99
4247	26849	95	98	96	95	101	98	102	92	97	92	96	98
4248	26850	112	114	113	105	115	110	101	103	102	100	107	110
4249	26851	101	98	99	103	108	106	112	106	109	93	103	103
4250	26852	104	106	105	104	109	106	102	95	98	91	101	105
4251	26132	112	112	112	109	122	116	102	101	101	95	108	110
4252	26853	91	110	101	80	99	89	90	90	90	87	92	93
4253	26854	99	98	98	94	99	96	102	89	95	91	96	98
4254	26855	94	93	93	88	98	93	94	95	94	93	93	95
4255	26856	116	115	115	113	123	118	108	106	107	101	112	111
4256	26857	102	99	100	80	102	91	95	89	92	93	94	100
4257	26858	106	106	106	105	117	111	100	97	98	95	103	107
4258	26859	104	99	102	98	111	104	100	88	94	92	99	104
4259	26860		102	102	109	113	111	97	92	94	99	102	105
4260	26861	94	98	96	98	96	97	95	94	94	88	95	99
4261	26862	103	109	106	98	105	102	115	94	104	100	103	109
4262	26863	93	98	96	88	93	90	103	103	103	89	95	97
4263	26864	89	113	101	87	97	92	90	94	92	89	94	95
4264	Local Check	110	108	109	104	98	101	103	105	104	91	102	100
	Exp Mean	100	100	100	96	105	101	99	95	97	94	98	102
	C.D. 5%	4	3	2	6	2	3	3	5	2	3	1	1
	C.V.%	1.76	1.48	1.60	3.11	1.12	2.19	1.30	2.40	1.82	1.59	1.92	2.21

Table No. 3.39 : Plant Height (cm) of entries in IVT-IM Kharif 2016

Entry No.	IET No.	II					Zone II	III														
		UT	PUN	HAR	RAJ	J&K	(5)	OD	OD	OD	OD	OD (4)	BI	BI	BI	BI (3)	JH	W.B	U.P.	U.P.	U.P. (2)	
		PNT	LDN	KUL	KTA	CHT	Mean	BBN	CTK	JYP	CHP	Mean	BKG	PTN-ICAR	SBR	Mean	RCI	CHN	MSD	VRN	Mean	
4201	26810	115	100	135	111	114	115	126	118	100	135	120	126	120	110	118	105	129	110	120	115	
4202	26811	104	78		110	101	98	112	102	96	122	108	120	97	132	116	81	94	70		70	
4203	26118	105	88	119	105	106	104	111	119	99	117	111	126	123	108	119	99	127	104	121	113	
4204	26072	95	83	97	106	103	97	101	109	92	119	105	111	110	125	115	91	107	88	107	98	
4205	26812	106	81	101	103	94	97	104	93	100	110	102	114	103	130	116	94	94	104	113	109	
4206	26813	103	92	123	109	104	106	106	101	96	119	106	116	121	113	117	101	100	89	117	103	
4207	26086	126	81	120	103	116	109	117	109	106	121	113	124	110	111	115	99	122	93	108	100	
4208	26814	105	106	147	112	112	116	126	137	111	137	128	150	140	115	135	101	127	104	143	123	
4209	26815	106	84	109	120	108	105	100	109	86	117	103	121	103	108	111	92	102	92	109	101	
4210	26816	100	86	120	109	111	105	118	108	111	124	115	134	117	107	119	103	100	90	123	106	
4211	26817	101	82	96	108	95	96	100	89	79	104	93	140	107	125	124	92	107	102	101	101	
4212	26818	111	85	104	112	96	101	100	106	90	122	104	121	108	132	120	90	106	106	113	110	
4213	26819	116	87	109	109	98	104	107	113	101	128	112	133	114	133	126	101	117	99		99	
4214	26820	119	102	129	102	105	111	128	119	128	129	126	135	123	122	126	111	137	90	119	105	
4215	26821	106	93	121	102	102	105	110	104	107	134	114	132	124	111	122	103	114	117	118	117	
4216	NDR 359 (NC)	107	86	99	109	113	103	94	94	95	110	98	118	102	125	115	94	114	84	103	94	
4217	26822	103	82	106	109	112	102	109	112	102	120	111	135	106	148	130	118	122	76	121	98	
4218	26823	103	86	109	107		101	106	98	98	122	106	128	114	99	113	101	109	80	109	95	
4219	26082	103	87	111	111	109	104	109	117	117	132	119	132	116	116	121	95	113	74	124	99	
4220	26824	104	92	107	114	113	106	119	116	112	129	119	134	118	124	125	110	130	104	118	111	
4221	26825	146	87	143	109	112	119	129	137	119	148	133	166	132	106	134	125	136	110	136	123	
4222	26826	101	142	172	111	94	124	147	138	145	155	146	173	157	103	144	136	162	78	153	115	
4223	26827	100	89	109	114	104	103	100	99	85	124	102	122	116	121	120	96	102	88	114	101	
4224	26828	117	75	93	108	105	99	96	98	94	112	100	110	109	118	112	93	86	111	107	109	
4225	26829	104	104	120	110	112	110	110	116	107	134	117	135	122	104	120	108	121	84	130	107	
4226	26830	121	93	74	109	114	102	106	102	88	120	104	124	109	112	115	85	107	90	113	101	
4227	26831	98	97	120	108	108	106	121	121	112	135	122	142	123	123	129	105	120	110	130	120	
4228	26832	111	90	120	107	113	108	105	101	103	128	109	127	116	115	119	103	115	86	112	99	
4229	26833	99	90	95	107		98	107	106	99	121	108	124	110	143	126	94	107	88	115	101	
4230	Zonal Check (ZC)	102	75	90	102	112	96	113	111	99	127	113	137	105	119	120	107	121	85	119	102	
4231	26834	123	96	102	115	105	108	108	115	118	133	119	122	132	128	127	107	113	104	126	115	
4232	26835	91	81	88	113	102	95	87	84	86	105	91	194	95	105	131	86	89	75	99	87	
4233	26836	145	71	87	109	97	102	90	95	76	113	93	107	85	125	106	83	96	76	99	88	
4234	26837	109	112	129	124	103	115	126	138	134	141	135	133	132	126	130	109	123	104	147	126	
4235	26838	104	90	97	120	104	103	92	86	88	110	94	114	88	97	100	104	102	90	101	96	
4236	26839	98	81	94	123	112	102	102	112	96	129	110	123	112	131	122	93	107	101	122	112	
4237	26102	104	80	118	124		106	104	110	105	127	112	128	116	106	117	106	109	85	121	103	
4238	26840	112	84	141	116	103	111	96	103	97	145	110	122	112	124	119	96	118	91	112	101	
4239	26841	103	101	119	111	116	110	114	113	99	132	114	132	121	98	117	106	129	104	122	113	
4240	26842	53	81	95	108	98	87	98	96	90	111	99	120	107	114	114	88	100	96	107	102	
4241	26843	118		104	108	108	109	105	110	85	119	105	110	95	108	104	91	106	76		76	
4242	26844	104	95	122	105	102	105	106	114	83	118	105	126	112	132	123	108	116	95	119	107	
4243	26845	117	82	97	122	115	106	107	112	102	120	110	138	108	98	115	95	109	91	115	103	
4244	26846	111	94	118	120	119	112	118	122	114	128	120	129	117	138	128	102	109	89	115	102	
4245	26847	108	91	119	123	123	113	113	117	101	128	115	132	117	125	125	101	125	85	126	105	
4246	26848	122	104	120	122	121	118	125	118	96	131	117	121	115	112	116	109	117	101	131	116	
4247	26849	103	91	111	110	102	103	106	103	94	124	107	122	104	135	120	94	107	90	109	99	
4248	26850	99	83	103	120		101	115	119	100	125	114	125	118	105	116	94	99	110	109	110	
4249	26851	88	72	87	114		90	86	96	85	111	95	102	101	120	108	89	90	90	100	95	
4250	26852	87	72	86	108	105	92	100	107	89	114	102	107	100	114	107	85	93	79	97	88	
4251	26132	98	83	101	119	104	101	113	118	95	126	113	125	114	111	116	98	106	87	119	103	
4252	26853	104	91	109	103	113	104	100	102	98	122	105	111	108	121	113	97	106	89	108	99	
4253	26854	107	88	111	103	111	104	104	103	98	122	107	116	107	131	118	95	107	110	115	112	
4254	26855	118	70	125	109	117	108	117	109	100	129	114	124	112	125	120	108	129	102	115	108	
4255	26856	108	90	112	103		103	108	117	101	138	116	127	113	113	117	101	107	84	111	98	
4256	26857	96	80	96	112	109	98	91	102	75	115	96	110	86	108	101	77	101	85	95	90	
4257	26858	98	73	99	118	112	100	110	108	96	118	108	116	106	103	108	96	104				

Table No. 3.39 contd : Plant Height (cm) of entries in IVT-IM Kharif 2016

Entry No.	IET No.	Zone III (11)	IV	V					Zone V (4)	VI				
		Mean	AS	CG	CG	CG (2)	MH	MH	Mean	MH	MH (3)	GU	GU	GU (2)
4201	26810	118	104	132	115	124	121	118	122	120	120	125	125	125
4202	26811	103	108	114	98	106	111	103	107	94	103	96	109	103
4203	26118	114	100	115	100	107	109	117	110	117	114	113	121	117
4204	26072	105	87	117	98	108	109	102	107	108	106	84	110	97
4205	26812	105	82	129	104	117	99	102	109	109	103	98	96	97
4206	26813	107	69	108	88	98	117	115	107	124	118	109	113	111
4207	26086	111	103	130	102	116	116	105	113	107	110	104	122	113
4208	26814	126	101	122	112	117	146	142	130	134	141	129	156	143
4209	26815	103	91	109	95	102	112	142	115	112	122	104	110	107
4210	26816	112	100	120	108	114	120	102	112	113	112	106	104	105
4211	26817	104	97	111	94	103	110	117	108	101	109	102	101	102
4212	26818	108	87	124	90	107	109	109	108	109	109	98	97	97
4213	26819	114	100	126	101	114	119	106	113	112	112	102	100	101
4214	26820	122	86	127	121	124	132	117	124	119	123	106	110	108
4215	26821	116	90	120	103	111	117	105	111	105	109	99	115	107
4216	NDR 359 (NC)	103	90	112	89	101	112	104	104	109	108	95	96	96
4217	26822	115	98	112	98	105	86	103	100	104	98	98	104	101
4218	26823	106	100	111	95	103	98	140	111	110	116	94	110	102
4219	26082	113	100	116	102	109	117	88	106	112	106	104	114	109
4220	26824	119	104	133	109	121	131	122	124	113	122	101	121	111
4221	26825	131	87	142	123	133	148	121	134	137	135	114	156	135
4222	26826	141	110	165	143	154	153	101	141	150	135	149	154	151
4223	26827	106	108	99	93	96	117	165	119	111	131	93	110	102
4224	26828	103	115	97	88	92	110	89	96	105	101	87	106	96
4225	26829	115	104	128	103	115	137	103	118	121	120	111	131	121
4226	26830	105	88	110	93	101	116	123	110	108	116	96	107	102
4227	26831	122	103	138	112	125	128	101	120	128	119	112	144	128
4228	26832	110	106	114	101	107	124	124	116	116	122	105	130	118
4229	26833	110	95	116	97	106	116	111	110	115	114	103	130	116
4230	Zonal Check (ZC)	113	107		86	86	110	118	105	121	116	115	157	136
4231	26834	119	75	136	113	124	135	109	123	121	122	102	142	122
4232	26835	100	80	92	86	89	106	129	103	104	113	75	117	96
4233	26836	95	75	92	80	86	115	83	93	86	95	75	107	91
4234	26837	128	106	133	119	126	144	91	122	146	127	106	159	132
4235	26838	97	91	97	102	99	116	149	116	109	125	85	121	103
4236	26839	112	108	119	105	112	113	98	109	104	105	101	136	119
4237	26102	111	93	122	106	114	118	124	117	101	114		128	128
4238	26840	111	101	112	90	101	110	104	104	103	106	108	118	113
4239	26841	115	102	126	106	116	117	113	115	118	116	106	129	118
4240	26842	103	80	119	90	104	115	109	108	104	109	89	98	93
4241	26843	100	98	96	96	96	120	102	103	95	106	85	121	103
4242	26844	112	101	109	110	110	117	102	110	103	107	122	117	120
4243	26845	109	110	111	108	110	115	88	106	111	105	99	108	103
4244	26846	116	103	111	105	108	125	105	111	116	115	111	140	126
4245	26847	115	100	115	97	106	130	118	115	115	121	104	117	111
4246	26848	116	107	114	101	107	126	126	117	121	124	111	108	110
4247	26849	108	95	113	101	107	113	120	112	119	118	99	108	104
4248	26850	111	104	115	108	111	116	127	116	103	115	96	97	97
4249	26851	97	87	102	99	100	99	115	104	93	102	86	91	88
4250	26852	99	85	105	99	102	112	101	104	97	103	85	79	82
4251	26132	110	84	111	100	106	120	99	108	110	110	101	99	100
4252	26853	106	96	110	106	108	105	118	110	109	111	96	111	104
4253	26854	110	102	120	97	109	118	101	109	116	112	85	114	99
4254	26855	115	104	117	109	113	119	102	112	126	116	101	127	114
4255	26856	111	96	119	106	113	122	119	117	105	116	106	105	105
4256	26857	95	77	104	82	93	96	93	94	104	98	85	109	97
4257	26858	106	100	104	97	101	115	116	108	105	112	95	118	107
4258	26859	113	98	120	108	114	116	110	114	114	113	99	126	113
4259	26860	117	90	130	103	116	119	129	120	128	125	116	138	127
4260	26861	111	88	117	99	108	118	109	111	111	113	101	131	116
4261	26862	121	105	131	116	124	134	135	129	113	127	110	130	120
4262	26863	97	97	109	87	98	97	96	97	109	101	84	99	91
4263	26864	120	104	118	120	119	129	129	124	123	127	119	139	129
4264	Local Check	106	103	112	105	108	119	107	111	115	113	120	126	123
	Exp Mean	111	96	117	102	109	118	112	112	112	114	101	118	110
	C.D. 5%		0	0	0		0			0		0	0	0
	C.V.%		0.00	0.00	0.00		0.00			0.00		0.00	0.00	0.00

Table No. 3.39 contd : Plant Height (cm) of entries in IVT-IM Kharif 2016

Entry No.	IET No.	Zone VI	VII											Zone VII	Overall
		(3)	A.P.	A.P.	A.P. (2)	TEL	TEL	TEL (2)	TN	TN	TN (2)	KE	(7)	(31)	
		Mean	MTU	RGL	Mean	RNR	WGL	Mean	CBT	ADT	Mean	PTB	Mean	Mean	
4201	26810	123		132	132	111	125	118	96	102	99	117	114	117	
4202	26811	100	111	111	111	99	125	112	100	100	100	104	107	103	
4203	26118	117	123	118	121	107	137	122	99	107	103	111	115	112	
4204	26072	101	122	117	119	103	118	111	100	99	100	108	110	104	
4205	26812	101	109	108	109	102	122	112	86	99	92	114	106	103	
4206	26813	115	118	118	118	101	100	101	98	93	96	113	106	106	
4207	26086	111	111	110	111	106	130	118	95	104	100	111	110	110	
4208	26814	140	138	141	140	144	147	145	118	116	117	139	135	128	
4209	26815	109	112	117	115	104	124	114	89	95	92	106	107	106	
4210	26816	108	119	122	121	104	132	118	93	100	97		112	110	
4211	26817	101	102	103	102	99	107	103	93	83	88	93	97	101	
4212	26818	101	95	116	105	99	115	107	94	104	99	109	105	105	
4213	26819	105	111	121	116	103	134	118	95	108	101	118	113	111	
4214	26820	112	127	131	129	126	131	129	108	112	110	138	125	119	
4215	26821	106	114	117	116	103	135	119	89	109	99	119	112	111	
4216	NDR 359 (NC)	100	101	103	102	100	111	106	91	98	94	112	102	102	
4217	26822	102	120	117	118	102	129	116	90	96	93	107	109	108	
4218	26823	105	107	112	109	104	125	115	103	99	101	118	110	106	
4219	26082	110	126	122	124	106	133	119	96	102	99	123	115	110	
4220	26824	112	121	127	124	117	140	128	111	112	112	123	121	117	
4221	26825	136	145	147	146	145	138	142	133	121	127	139	138	130	
4222	26826	151	163	165	164	136	144	140	142	136	139	145	147	139	
4223	26827	105	112	98	105	90	98	94	87	95	91	112	99	105	
4224	26828	99	103	100	102	102	118	110	82	98	90	97	100	101	
4225	26829	121	122	120	121	111	143	127	94	105	99	120	116	115	
4226	26830	104	95	112	103	103	104	103	94	99	97	113	103	104	
4227	26831	128	125	121	123	111	135	123	109	115	112	124	120	119	
4228	26832	117	107	115	111	111	126	118	98	100	99	125	112	111	
4229	26833	116	96	103	99	103	107	105	102	100	101	113	103	107	
4230	Zonal Check (ZC)	131	96	113	104	102	106	104	93	99	96	103	102	108	
4231	26834	122	115	129	122	113	126	119	117	113	115	116	118	116	
4232	26835	99	92	90	91	85	86	85	83	94	88	103	90	97	
4233	26836	89	106	101	103	117	115	116	73	83	78	114	101	96	
4234	26837	137	157	139	148	120	132	126	130	121	126	132	133	127	
4235	26838	105	112	108	110	105	114	109	94	93	93	108	105	103	
4236	26839	114	127	128	127	105	148	126	108	116	112	126	122	112	
4237	26102	114	115	117	116	105	136	121	96	102	99	116	113	111	
4238	26840	110	109	114	112	105	104	104	108	112	110	113	109	109	
4239	26841	118	115	114	114	108	132	120	100	101	100	118	112	114	
4240	26842	97	86	99	92	105	120	112	86	89	88	111	99	99	
4241	26843	100	121	122	122	101	135	118	100	87	93	100	109	104	
4242	26844	114	113	114	114	99	107	103	90	92	91	110	103	108	
4243	26845	106	120	114	117	104	135	120	110	107	108	128	117	110	
4244	26846	122	114	131	122	111	127	119	106	103	105	114	115	115	
4245	26847	112	117	120	119	109	131	120	96	110	103	122	115	114	
4246	26848	113	124	124	124	128	122	125	104	105	104	116	117	116	
4247	26849	109	110	115	112	103	127	115	97	107	102	111	110	108	
4248	26850	99	120	116	118	106	133	119	102	102	102	120	114	110	
4249	26851	90	100	94	97	96	115	105	88	83	85	98	96	96	
4250	26852	87	106	108	107	89	115	102	84	90	87	101	99	97	
4251	26132	103	125	118	122	106	135	120	93	107	100	110	113	108	
4252	26853	106	119	114	116	103	105	104	87	100	93	105	105	105	
4253	26854	105	114	115	115	106	123	115	89	84	87	100	105	107	
4254	26855	118	128	131	130	108	117	113	100	116	108	115	117	114	
4255	26856	105	127	125	126	112	144	128	96	115	106	121	120	112	
4256	26857	100	110	97	104	97	109	103	76	77	77	99	95	95	
4257	26858	106	122	116	119	105	128	117	94	99	96	103	110	106	
4258	26859	113	117	115	116	106	137	122	86	102	94	103	109	110	
4259	26860	127		136	136	126	140	133	105	118	111	123	125	118	
4260	26861	114	118	110	114	112	135	123	103	109	106	113	114	110	
4261	26862	117	139	133	136	126	116	121	113	114	114	119	123	120	
4262	26863	97	142	99	120	100	112	106	87	100	94	101	106	99	
4263	26864	127	142	139	141	126	141	134	111	104	108	134	128	122	
4264	Local Check	120	112	122	117	102	120	111	111	92	102	127	112	109	
	Exp Mean	111	117	117	117	108	124	116	98	102	100	115	112	110	
	C.D. 5%	0	0			0	0	0		0		0			
	C.V.%	0.00	0.00			0.00	0.00	0.00		0.00		0.00			

Table No. 3.40: Panicles/ M² of entries in IVT-IM Kharif 2017

Entry No.	IET No.	II						Zone II	III															
		UT	PUN	HAR	RAJ	J&K	(5)	OD	OD	OD	OD	OD (4)	BI	BI	BI	BI (3)	JH	WB	U.P.	U.P.	U.P. (2)			
		PNT	LDN	KUL	KTA	CHT	Mean	BBN	CTK	JYP	CHP	Mean	BKG	PTN-ICAR	SBR	Mean	RCI	CHN	MSD	VRN	Mean			
4201	26810	243	264	258	240	277	256	226	213	346	185	242	543	211	203	319	156	227	299	200	249			
4202	26811	224	215		257	286	245	212	295	366	219	273	505	196	242	314	225	364	311		311			
4203	26118	288	330	281	280	291	294	222	240	406	241	277	275	335	225	278	227	250	307	254	280			
4204	26072	210	267	270	268	269	257	243	289	356	196	271	328	271	387	329	238	383	306	260	283			
4205	26812	217	281	270	245	287	260	194	264	353	215	256	393	232	235	286	266	225	336	186	261			
4206	26813	284	307	234	212	282	264	234	218	400	196	262	478	355	223	352	283	200	301	300	301			
4207	26086	296	287	231	240	284	267	228	203	409	209	262	423	253	316	331	174	186	294	214	254			
4208	26814	283	191	270	235	283	252	191	184	310	184	217	275	195	270	247	169	256	293	186	239			
4209	26815	290	281	237	277	291	275	213	237	336	246	258	235	191	296	241	141	273	317	220	268			
4210	26816	275	267	272	217	283	263	268	243	330	255	274	243	251	324	273	234	257	321	255	288			
4211	26817	221	231	285	224	297	251	204	225	380	252	265	364	297	243	301	198	324	314	253	284			
4212	26818	287	195	223	242	287	247	216	224	316	187	236	238	231	212	227	168	333	308	209	258			
4213	26819	242	224	352	268	284	274	222	238	373	178	253	304	269	290	288	197	292	316		316			
4214	26820	237	228	235	221	282	240	211	231	283	214	235	243	225	278	248	207	300	319	249	284			
4215	26821	288	254	231	257	277	261	201	191	310	234	234	268	174	209	217	183	409	306	168	237			
4216	NDR 359 (NC)	278	228	232	233	299	254	219	216	316	203	238	275	193	259	242	197	300	286	202	244			
4217	26822	278	254	252	271	282	267	217	242	310	234	251	268	191	193	217	204	174	250	219	235			
4218	26823	283	228	223	249		245	212	207	370	234	256	278	177	256	237	221	171	231	208	219			
4219	26082	273	257	240	214	280	253	219	214	253	198	221	208	228	232	222	200	204	301	176	238			
4220	26824	267	277	280	222	279	265	218	233	343	215	252	274	261	214	250	189	273	299	222	260			
4221	26825	276	284	229	238	290	263	204	245	383	204	259	238	184	294	238	202	281	285	187	236			
4222	26826	279	188	261	214	284	245	176	244	346	203	242	305	164	304	258	162	228	293	157	225			
4223	26827	288	300	275	268	293	285	205	242	323	255	256	455	231	230	305	196	243	300	208	254			
4224	26828	242	271	290	229	290	264	216	253	306	193	242	568	252	223	347	282	305	289	212	251			
4225	26829	274	234	268	233	280	258	220	245	356	214	259	213	218	229	220	208	357	297	230	263			
4226	26830	218	191	259	219	281	234	190	216	290	185	220	298	183	335	272	185	239	292	171	231			
4227	26831	274	221	259	250	285	258	202	284	330	184	250	274	173	223	223	204	287	292	182	237			
4228	26832	272	261	229	275	281	263	249	216	366	234	266	335	188	230	251	203	204	310	218	264			
4229	26833	274	244	275	205		249	211	223	259	200	223	329	220	211	253	208	299	310	200	255			
4230	Zonal Check (ZC)	218	271	237	208	282	243	196	257	280	215	237	293	238	198	243	217	355	276	203	239			
4231	26834	238	244	252	221	290	249	215	222	403	186	256	244	197	253	231	184	367	278	248	263			
4232	26835	211	215	222	250	288	237	190	201	316	246	238	303	265	299	289	247	296	276	208	242			
4233	26836	293	251	251	221	280	259	222	233	346	204	251	293	182	220	232	241	350	283	297	290			
4234	26837	239	244	258	222	281	249	200	250	320	232	250	305	352	301	319	206	348	286	208	247			
4235	26838	277	228	240	249	285	256	245	244	300	249	259	298	271	145	238	219	301	317	293	305			
4236	26839	266	307	257	224	283	267	241	243	323	205	253	208	296	224	243	224	271	316		316			
4237	26102	288	267	246	280		270	214	208	376	274	268	303	248	332	294	183	346	298	244	271			
4238	26840	287	215	245	247	282	255	217	218	316	190	235	244	242	208	231	189	240	299	183	241			
4239	26841	273	195	243	212	285	241	220	260	326	182	247	238	142	245	208	186	242	305	215	260			
4240	26842	285	201	228	275	292	256	209	198	416	189	253	93	202	248	181	206	205	303	195	249			
4241	26843	285		240	256	279	265	242	276	353	227	274	243	267	281	263	292	172	279		279			
4242	26844	289	218	292	233	284	263	188	227	363	206	246	209	183	252	215	177	304	278	207	242			
4243	26845	285	248	283	285	283	277	239	255	340	198	258	284	216	246	249	245	402	302	245	273			
4244	26846	284	241	212	277	290	261	208	196	400	188	248	238	233	223	231	243	270	303	199	251			
4245	26847	281	251	247	217	283	256	217	206	250	194	217	268	274	262	268	176	339	324	194	259			
4246	26848	211	310	240	210	295	253	224	222	373	199	254	244	181	244	223	248	271	322	233	277			
4247	26849	233	251	227	212	288	242	227	229	303	202	240	268	191	235	231	219	169	308	210	259			
4248	26850	283	254	281	194		253	262	249	310	274	273	273	222	215	237	196	404	301	233	267			
4249	26851	276	271	238	214		250	250	249	340	236	268	273	278	256	269	278	253	308	230	269			
4250	26852	286	340	270	231	301	286	264	299	376	268	302	304	294	237	278	310	273	302	268	285			
4251	26132	284	304	263	212	294	271	260	251	483	249	310	243	282	318	281	286	255	324	238	281			
4252	26853	214	271	249	212	283	246	251	300	423	172	286	209	267	245	240	248	420	313	198	255			
4253	26854	283	205	244	250	279	252	230	201	306	212	237	305	256	318	293	231	242	317	194	255			
4254	26855	271	261	266	263	279	268	265	188	333	200	246	303	184	251	246	209	336	341	232	286			
4255	26856	284	264	213	222		246	226	278	373	184	265	183	253	214	217	223	278	340	228	284			
4256	26857	294	277	256	263	284	275	244	234	333	240	263												

Table No. 3.40 contd : Panicles/ M² of entries in IVT-IM Kharif 2017

Entry No.	IET No.	Zone III (11)	IV	V					Zone V (4)	VI				
		Mean	AS	CG	CG	CG (2)	MH	MH	Mean	MH	MH (3)	GU	GU	GU (2)
4201	26810	255	229	201	267	234	193	307	242	212	237	184	184	
4202	26811	294	247	257	308	282	255	243	266	166	221	261	168	215
4203	26118	271	320	248	238	243	322	182	247	211	238	278	177	227
4204	26072	296	267	277	232	254	236	269	253	191	232	263	186	225
4205	26812	263	249	247	298	272	269	238	263	204	237	265	199	232
4206	26813	290	299	225	333	279	324	309	298	197	277	267	200	233
4207	26086	264	318	214	292	253	292	219	254	195	235	269	195	232
4208	26814	228	235	220	261	241	233	265	245	198	232	269	205	237
4209	26815	246	273	224	223	224	233	261	235	228	240	267	192	229
4210	26816	271	211	239	327	283	278	232	269	206	239	277	217	247
4211	26817	277	226	231	287	259	310	284	278	197	263	264	210	237
4212	26818	240	249	222	292	257	222	223	240	206	217	274	205	240
4213	26819	268	215	238	300	269	212	256	251	210	226	269	191	230
4214	26820	251	210	203	289	246	232	323	262	221	258	272	195	233
4215	26821	241	277	205	252	229	205	218	220	187	203	113	208	160
4216	NDR 359 (NC)	242	298	214	300	257	239	249	250	201	229	265	209	237
4217	26822	227	314	201	248	224	264	259	243	182	235	267	228	247
4218	26823	233	330	190	253	221	235	293	242	202	243	269	228	248
4219	26082	221	281	223	237	230	280	203	235	214	232	277	217	247
4220	26824	249	323	207	273	240	248	253	245	188	230	268	208	238
4221	26825	246	248	229	264	246	243	277	253	195	238	269	243	256
4222	26826	235	228	233	257	245	205	193	222	212	203	271	262	267
4223	26827	262	214	204	292	248	217	290	251	189	232	267	249	258
4224	26828	282	209	250	299	275	218	235	250	176	209	265	268	266
4225	26829	253	240	213	288	250	246	280	257	193	240	270	241	256
4226	26830	235	256	211	263	237	228	245	237	212	228	274	214	244
4227	26831	239	213	169	226	197	208	280	220	215	234	270	261	265
4228	26832	250	259	239	273	256	249	292	263	232	257	267	261	264
4229	26833	242	300	185	308	246	250	266	252	193	236	272	274	273
4230	Zonal Check (ZC)	248	216		285	285	232	253	256	184	223	266	272	269
4231	26834	254	209	183	221	202	317	259	245	197	257	280	234	257
4232	26835	259	302	212	288	250	235	243	244	191	223	270	215	243
4233	26836	261	211	231	231	231	328	254	261	169	250	264	214	239
4234	26837	273	333	208	254	231	260	333	264	237	277	270	205	238
4235	26838	262	217	213	250	231	262	248	243	177	229	266	268	267
4236	26839	255	238	227	231	229	224	263	236	236	241	269	253	261
4237	26102	275	240	238	216	227	242	280	244	202	241		274	274
4238	26840	231	286	247	224	235	234	239	236	236	236	266	215	241
4239	26841	233	270	209	239	224	217	288	238	196	234	270	209	240
4240	26842	224	287	194	264	229	264	230	238	204	233	272	225	249
4241	26843	263	298	245	222	233	218	248	233	189	218	263	175	219
4242	26844	236	244	210	200	205	245	293	237	185	241	277	232	255
4243	26845	270	286	213	217	215	259	240	232	195	231	265	192	228
4244	26846	245	239	217	305	261	222	217	240	197	212	273	240	256
4245	26847	246	250	197	216	206	274	264	237	198	245	276	207	242
4246	26848	251	229	207	271	239	224	245	237	172	213	268	238	253
4247	26849	233	215	189	178	183	254	283	226	207	248	265	234	249
4248	26850	267	212	215	221	218	264	238	234	231	244	272	216	244
4249	26851	268	319	234	296	265	262	250	260	210	241	265	196	230
4250	26852	290	266	278	290	284	320	314	300	181	271	267	255	261
4251	26132	289	216	216	243	230	301	288	262	196	262	275	199	237
4252	26853	277	234	220	294	257	195	303	253	177	225	273	184	228
4253	26854	255	219	213	289	251	266	273	260	196	245	270	173	222
4254	26855	258	239	212	232	222	207	271	230	189	222	263	207	235
4255	26856	252	281	218	246	232	219	272	238	165	218	274	193	234
4256	26857	253	294	227	261	244	291	281	265	230	267	264	203	234
4257	26858	267	267	220	266	243	279	346	277	243	289	275	224	250
4258	26859	252	279	211	295	253	243	246	248	201	230	267	267	267
4259	26860	217	273	202	217	209	258	246	231	195	233	267	193	230
4260	26861	247	221	224	201	212	257	250	233	220	242	273	241	257
4261	26862	297	211	272	389	331	345	309	329	213	289	269	246	257
4262	26863	252	228	193	265	229	220	273	237	226	239	264	183	224
4263	26864	230	240	188	189	188	239	243	215	213	232	273	195	234
4264	Local Check	260	276	157	285	221	295	283	255	228	269	280	193	237
	Exp Mean	255	256	218	262	240	252	262	249	202	239	267	218	242
	C.D. 5%	12	18	20	91	43	27	6	24	29	8	6	18	11
	C.V.%	8.11	3.50	4.57	17.34	12.76	5.29	1.19	9.82	7.27	2.96	1.07	4.05	3.32

Table No. 3.40 contd : Panicles/ M² of entries in IVT-IM Kharif 2017

Entry No.	IET No.	Zone VI (3)	VII										Zone VII (7)	Overall (31)
			A.P.	A.P.	A.P. (2)	TEL	TEL	TEL (2)	TN	TN	TN (2)	KE		
		Mean	MTU	RGL	Mean	RNR	WGL	Mean	CBT	ADT	Mean	PTB	Mean	Mean
4201	26810	198		315	315	467	384	426	388	280	334	263	350	268
4202	26811	198	294	329	311	464	360	412	308	366	337	248	338	282
4203	26118	222	294	321	307	418	351	385	418	468	443	275	364	289
4204	26072	213	264	342	303	389	393	391	375	599	487	333	385	295
4205	26812	222	254	314	284	429	343	386	288	579	433	352	365	281
4206	26813	221	267	347	307	444	388	416	373	408	390	480	387	302
4207	26086	220	254	347	300	460	348	404	410	608	509	279	387	288
4208	26814	224	244	309	277	460	305	383	283	554	418	306	352	262
4209	26815	229	231	314	272	450	333	392	278	402	340	298	329	267
4210	26816	233	264	344	304	426	365	395	463	466	464		388	287
4211	26817	224	267	342	305	510	383	446	428	442	435	275	378	289
4212	26818	228	261	324	292	413	317	365	358	381	369	317	339	262
4213	26819	223	281	341	311	432	348	390	400	406	403	275	355	281
4214	26820	229	284	351	317	422	348	385	378	389	383	406	368	274
4215	26821	169	228	323	275	394	332	363	298	430	364	383	341	258
4216	NDR 359 (NC)	225	215	339	277	467	342	404	335	344	339	379	346	269
4217	26822	225	320	344	332	449	342	395	413	483	448	341	384	274
4218	26823	233	264	330	297	449	353	401	338	511	424	314	365	270
4219	26082	236	310	315	313	444	353	398	288	336	312	464	359	262
4220	26824	221	294	327	310	485	343	414	430	437	433	317	376	279
4221	26825	236	231	321	276	403	330	366	355	383	369	325	335	269
4222	26826	248	271	275	273	450	345	398	373	554	463	344	373	267
4223	26827	235	248	344	296	449	358	403	463	617	540	275	393	290
4224	26828	236	294	347	320	447	360	403	340	554	447	337	382	291
4225	26829	235	251	321	286	455	340	398	230	402	316	364	338	271
4226	26830	233	248	329	288	388	396	392	350	343	346	341	342	259
4227	26831	248	284	308	296	442	380	411	293	583	438	383	382	272
4228	26832	253	271	351	311	487	340	413	395	388	392	430	380	284
4229	26833	246	241	335	288	427	330	379	380	326	353	356	342	270
4230	Zonal Check (ZC)	240	251	341	296	429	332	380	353	343	348	441	356	271
4231	26834	237	241	314	277	450	323	387	473	366	419	437	372	275
4232	26835	225	254	320	287	427	351	389	318	413	365	364	349	272
4233	26836	216	281	360	320	467	353	410	223	399	311	406	355	276
4234	26837	237	248	323	285	455	320	388	343	321	332	476	355	285
4235	26838	237	175	286	230	414	333	374	390	489	439	383	353	275
4236	26839	252	248	319	283	421	318	370	318	389	353	403	345	275
4237	26102	238	271	321	296	416	360	388	308	530	419	325	361	287
4238	26840	239	215	288	251	401	323	362	410	280	345	403	331	261
4239	26841	225	188	317	252	422	356	389	280	553	417	523	377	268
4240	26842	234	244	333	289	422	310	366	430	343	386	387	353	263
4241	26843	209	294	350	322	479	375	427	420	624	522	623	452	300
4242	26844	231	251	311	281	413	333	373	270	320	295	445	335	262
4243	26845	217	241	320	280	431	394	413	418	350	384	732	412	294
4244	26846	237	218	311	264	444	325	384	313	404	358	565	368	274
4245	26847	227	241	345	293	424	394	409	433	474	453	673	426	285
4246	26848	226	234	329	281	441	328	384	433	399	416	422	369	273
4247	26849	235	198	333	266	447	338	393	283	449	366	433	355	260
4248	26850	240	297	329	313	432	347	389	350	413	381	414	369	280
4249	26851	224	287	347	317	444	365	404	375	475	425	422	388	290
4250	26852	234	277	363	320	449	394	422	413	507	460	348	393	308
4251	26132	223	297	306	301	454	328	391	470	460	465	344	380	295
4252	26853	211	241	335	288	429	383	406	275	366	321	395	346	277
4253	26854	213	244	348	296	452	401	427	378	427	402	337	369	276
4254	26855	220	248	327	287	427	358	393	413	546	479	344	380	279
4255	26856	211	241	335	288	446	350	398	275	320	298	372	334	265
4256	26857	232	277	351	314	454	396	425	353	397	375	306	362	282
4257	26858	247	304	341	322	480	351	416	418	460	439	379	390	294
4258	26859	245	350	317	333	426	351	389	348	303	325	333	347	274
4259	26860	218		314	314	398	338	368	368	446	407	391	376	264
4260	26861	245	310	357	334	454	356	405	438	442	440	403	394	279
4261	26862	242	267	354	311	526	345	436	390	547	468	553	426	320
4262	26863	224	383	336	359	465	363	414	375	383	379	329	376	275
4263	26864	227	290	302	296	510	340	425	343	420	381	391	371	264
4264	Local Check	234	314	321	317	477	323	400	473	423	448	422	393	284
	Exp Mean	228	264	329	297	443	351	397	364	435	399	387	368	278
	C.D. 5%	12	65	49	40	80	28		53	59	39	143	32	10
	C.V.%	4.63	12.24	7.39	9.67	9.05	3.99		7.28	6.76	6.96	18.51	11.73	10.49

ADVANCE VARIETY TRIAL 2-LATE (AVT2-L)**Locations: 14****Test Entries: 10**

**Checks: Swarna - National, NDR 8002 (Eastern and Central), Table:3.41
Salivahana (Western), Pushyami (Southern)-Zonal,
PA 6444 (Hybrid) and local check**

Advance Variety Trial (AVT2-L) was constituted with ten entries of which four entries IETs 25236, 25231, 25228 and 25287 are in third year of testing, two entries IET 23610 and IET 24395 are repeat entries (*i.e.*, fourth year of testing) and four entries are checks. Swarna was used as National check, NDR 8002 as Zonal check for Eastern and Central Zones, Salivahana for Western Zone and Pushyami for Southern Zone and PA6444 as Hybrid check. IET 23610 has been repeated based on the recommendations of VIC for one more year of testing in Zone VI. IET 24395 has been repeated for one more year of testing based on the request of the nominating breeder during 52nd ARGM. Data from Pundibhari, Masodha and Ponnampet is not included in the analysis due to experimental mean yield lower than 4000 Kg/ha. Similarly data from Varanasi, Pondaghat and Maruteru is not included due to low CV% and data from Karaikal due to both low experimental mean yield and low CV%.

Overall mean yield of the entries ranged from a maximum of 5347 Kg/ha (Zonal Check) to minimum of 4255 Kg/ha (IET 24395), days to 50% flowering varied from 119 days (Local check) to 106 days (PA6444), plant height from 121 cm (Local check) to 99 cm (IET 24395) and panicles/m² from 287 (IET 25228) to 262 (IET 25231). CV % at the locations varied from 15.73 (Pundibari) to 0.74 (Karaikal) and experimental mean yield from 6508 Kg/ha (Aduturai) to 2369 Kg/ha (Ponnampet). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 3.42, 3.43, 3.44 and 3.45.

Entries in third year of testing

On overall basis, Zonal check is the best check and none of the entries showed required superiority of 5% over the best check. In zones III and VII, none of the entries showed required superiority of 5%. As only location is considered for analysis in Zone VI, the entries to be considered for promotion should show more than 15% yield superiority over the best check and in case of hybrid entries, required yield superiority is 20% over the best check (Please refer 51st ARGM proceedings). None of the entries in Zone VI showed required yield superiority of 15% or 20% over the best varietal check.

Repeat entries IET 23610 and IET 24395

IET 23610 is a repeat entry considered for one more year of testing in Zone VI based on VIC recommendations during 52nd ARGM. However, it did not show required yield superiority over the best check in Zone VI, hence discontinued. IET 24395 is also a repeat entry for testing in Eastern Zone and it did not show required superiority of 5% in the Eastern Zone.

Based on required yield advantage, entries found promising during Kharif 2017 in AVT2-L: None

Three years Performance of the entries on Overall basis in AVT2-L during Kharif 2017

IET No	Year	Overall Mean Yield (Kg/ha)	Yield gain over NC/ZC/LC/HC	Zone III			Zone V			Zone VI			Zone VII			Remarks
				Yield Kg/ha	% BVC	%HC	Yield Kg/ha	% BVC	%HC	Yield Kg/ha	% BVC	%HC	Yield Kg/ha	% BVC	%HC	
25236 (H)	2017	5120	--	4713	--	--	4464	--	--	4664	--	9	5898	--	--	Discontinued
	2016	6339	27,11,14,18	--	--	--	--	--	--	7438	24	22	--	--	--	
	2015	5498	--	5115	30	6	--	--	--	5952	21	34	--	--	--	
25228	2017	5158	--	5102	--	37	4939	--	--	4148	--	--	5623	--	--	Discontinued
	2016	6133	23,8,10,14	--	--	--	--	--	--	6370	7	--	--	--	--	
	2015	5529	9,8,5,7	5269	34	10	--	--	--	5821	18	31	--	--	--	

Three years Performance of the entries on Zonal basis in AVT2-L during Kharif 2017

IET No	Year	Yield Kg/ha	% BVC	%HC	Remarks
Zone VI					
IET 25231 (H)	2017	5287	24	--	Discontinued
	2016	7562	27	24	
	2015	5703	45	19	
IET 25287 (H)	2017	4034	--	--	Discontinued
	2016	7037	18	16	
	2015	4937	25	--	
IET 23610 (R)	2017	4673	9	-	Discontinued, (In 2017, in Zone VI, tested at single location and entry has to show 15% superiority)
	2016	6350	-		
	2015	4342	12		
	2014	5777	14		
Zone III					
IET 24395 (R)	2017	4123	-	11	Discontinued
	2016	5555	-	-	
	2015	5150	8	18	
	2014	6085	18	10	

ADVANCE VARIETY TRIAL 1-LATE (AVT1-L)**Locations: 15****Test Entries: 17**

Checks: Swarna-National, NDR 8002 (Eastern and Central) Table:3.47
Salivahana (Western), Pushyami (Southern)-Zonal,
PA 6444 -Hybrid and local check.

Advanced Variety Trial (AVT1-L) comprised seventeen entries with twelve of them in second year of testing, one (IET 25269) as a repeat entry, Swarna as National check, NDR 8002 as Zonal check for Eastern and Central Zones, Salivahana for Western Zone and Pushyami for Southern Zone and PA6444 as Hybrid check. Trial was sent to twenty locations across the country and data is received from fifteen locations. The locations viz., Bhubaneswar, Patna-ICAR, Pundibhari, Titabar and Nellore failed to send data. Data from Masodha and Ponnampet is not included in the analysis due to experimental mean yield lower than 4000 Kg/ha. Similarly data from Varanasi and Pondaghat is not included due to low CV% and data from Karaikal due to both low experimental mean yield and low CV%.

Overall mean yield of the entries ranged from a maximum of 5874 Kg/ha (IET 25269) which is a repeat entry to minimum of 4534 Kg/ha (IET 25971), days to 50% flowering

varied from 122 days (IET 25959) to 105 days (IET 25970), plant height from 127 cm (IET 25959) to 106 cm (IET 25971 and National check-Swarna) and panicles/m² from 294 (National check-Swarna) to 251 (IET 25953). CV at the locations varied from 19.68 (Aduturai) to 1.05 % (Karaikal) and experimental mean yield from 6482 Kg/ha (Aduturai) to 2535 Kg/ha (Ponnampet). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 3.48, 3.49, 3.50 and 3.51. On overall basis, Zonal check is the best check with a mean yield of 5290 Kg/ha and three entries IETs 25269, 25042 and 25967 recorded required superiority over ZC (BVC) and hybrid check. Also, two of those entries IETs 25269 and 25042 recorded required yield advantage over BVC and HC in Eastern and Southern zones and IET 25967 in Eastern and Central Zones on Zonal basis. In addition to these three entries, three other entries IET 25952 and IET 25953 in Eastern Zone and IET 25948 in Central Zone showed yield advantage of more than 5%.

Overall performance of the entries

IET 25269 (MEPH-126), a hybrid entry is repeated in AVT1-L based on 52nd ARGM proceedings. It recorded a grain yield of 5874 Kg/ha on overall basis with 21.77, 11.04, 16.11 and 10.29 % yield advantage over National, Zonal, Local and Hybrid checks respectively with 115 days to 50% flowering and long slender grain. On Zonal basis, it ranked first and third with 14 & 21 % and 14 & 8% in Eastern and Southern Zones respectively. It ranked first and second respectively in the states of West Bengal and Tamil Nadu with 12.29 & 44.61% and 11.87 & 37.33% over BVC and HC. It has desirable quality characteristics in terms of high HRR (64.5%), intermediate amylose content (24.4%), intermediate ASV (5) and moderate GC (58 mm) (Table 3.52).

Overall Performance of Promising entries in Advance Variety Trial-1-Late (AVT1-L) during Kharif 2017

Rank	IET No/Designation/ Cross combination	GY/ DFF/ GT	% Yield Adv over NC/ZC/LC/HC	% Increase over BVC & HC in Zones				Remarks
				Rank	Yield	% BVC	% HC	
1	IET 25269 (Repeat) MEPH-126 (Hybrid)	5874 115 LS	21.77 11.04 16.11 10.29	Z III-3 Z VII-1	6036 5698	14 14	21 8	Promoted
2	IET 25042 MTU 1197 (MTU 2191-27-1-1-1) MTU 1064/ Swarna Sub1	5680 117 MS	17.74 7.37 12.28 6.65	Z III-4 Z VII-2	5916 5566	12 11	18 6	Dropped due to high AC and undesirable GC
3	IET 25967 Sonagathi Selection from Sonagathi	5620 118 SB	16.50 6.24 11.09 5.52	Z III-1 Z V-2	6337 6578	20 15	27 18	Dropped due to high AC and undesirable GC
	National check (NC)	4824						
	Zonal Check (ZC)	5290						
	Local Check (LC)	5059						
	Hybrid Check (HC)	5326						

Bold Italics: Best check & over the best check; NC-National Check; ZC-Zonal Check; LC-Local Check; GY-Grain Yield; DFF-Days to 50% flowering; GT-Grain Type; BVC-Best Varietal Check

IET 25042 designated as 'MTU 1197' (MTU 2191-27-1-1-1) derived from MTU 1064/Swarna Sub1 with 117 days to 50% flowering and medium slender grain type recorded a mean yield of 5680 Kg/ha and 17.74, 7.37, 12.27 and 6.65 % yield superiority over NC, ZC, LC and HC respectively. On Zonal basis, it ranked second and fourth in Southern and Eastern Zones respectively with yield advantage of 12 and 11% over the best check. It ranked first in Tamil Nadu with 13.35% and second in Odisha with 34.51% yield advantage over the best check. Quality wise, it possesses high HRR of 66.8% but high amylose content of 25.57%, intermediate ASV (5) and hard GC of 22 mm. **As entries with AC of 25-27% should have above 40mm of GC, IET 25042 is not promoted to the next year of testing.**

IET 25967, is a selection from 'Sonagathi' with 118 days to 50% flowering and short bold grain type recorded a mean yield of 5620 Kg/ha and 16.5, 6.24, 11.1 and 5.52% yield superiority over NC, ZC, LC and HC respectively. It ranked third in Eastern Zone with 20% yield advantage over the best check. It ranked first and third in the states of Odisha and West Bengal with 38.33 and 7.19 % yield advantage over the BVC respectively. It has desirable quality characteristics in terms of high HRR (62.2%), high amylose content (25.22%) and intermediate ASV (4) but hard GC of 35 mm. **As entries with AC of 25-27% should have above 40mm of GC, IET 25967 entry is not promoted to the next year of testing.**

Zonal Performance of the entries-Eastern Zone

IET 25952 (PNP 9557) derived from the cross of NPG10/NPG12 with 122 days to 50% flowering and medium slender grain recorded 6099 kg/ha in the Eastern Zone. It showed 28.67, 18.7, 15.49 and 21.86 % yield advantage over the NC, ZC, LC and HC respectively. It ranked fourth in Odisha with a mean yield of 6226 Kg/ha and 23.07 and 27.9% yield superiority over the best varietal and hybrid checks respectively. In case of quality parameters, its HRR is 60.7%, has AC to the extent of 25.87%, low ASV (7) and hard GC (26 mm). **As entries with AC of 25-27% should have above 40mm of GC, IET 25952 is not promoted to the next year of testing.**

IET 25953 (MTU 1238 [MTU 2284-103-1-9]) derived from the cross of MTU 5249/IR72 with 121 days to 50% flowering and medium slender grain recorded 5576 Kg/ha in the Eastern Zone. It showed 17.64, 8.52, 5.59 and 11.41 %. It ranked second in the state of West Bengal with a mean yield of 5690 Kg/ha and 9.44 and 40.95% yield superiority over the best varietal and hybrid checks respectively. Head rice recovery for this entry is 63.9%, with intermediate ASV (5) and AC (26.19%) and hard GC (22 mm). **As entries with AC of 25-27% should have above 40mm of GC, IET 25953 is not promoted to the next year of testing.**

Northern Zone: With single location Gerua in Assam in the entire of northern zone, entries have to show > 15% yield advantage over BVC for varietal entries; >15 & 20% over BVC & HC respectively for hybrid entries to be considered for promotion. None of the entries have shown required superiority.

Central Zone: Only one location, Chattisgarh in Raipur represented central zone with single entry IET 25948 (RRX 027), a hybrid outperforming BVC and HC by 23.77 and 27.38%. IET 25948 recorded 62.8% HRR, but due to other undesirable quality traits like high AC of 26.4% and hard GC of 29mm and ASV of 4.0 is **not considered for promotion to AVT2-L.**

Zonal performance of Promising Entries in Advance Variety Trial-1-Late (AVT1-L) during Kharif 2017

Rank	IET No/ Designation/ Cross combination	GY/ DFF/ GT	% Yield Adv over NC/ZC/ LC/HC	% Increase over BVC & HC in States				Remarks
				Rank	Yield	% BVC	% HC	
Eastern Zone								
2	IET 25952 PNP 9557 NPG10/NPG12	6099 122 MS	28.67 18.7 15.49 21.86	OD-4	6226	23.07	27.9	Dropped due to high AC and undesirable GC
5	IET 25953 MTU 1238 (MTU 2284-103-1-9) MTU 5249/IR 72	5576 121 MS	17.64 8.52 5.59 11.41	WB-2	5690	9.44	40.95	Dropped due to high AC and undesirable GC
	National Check (NC) Zonal Check (ZC) Local Check (LC) Hybrid Check (HC)	4740 5138 5281 5005						
Zone IV: (only single location, hence > 15% yield advantage over BVC for varietal entries; >15 & 20% over BVC & HC respectively for hybrid entries)-None qualified								
Central Zone: (only single location, hence > 15% yield advantage over BVC for varietal entries; >15 & 20% over BVC & HC respectively for hybrid entries)								
1	IET 25948 (Hyrbid) RRX027	7081 115 LS	23.77 41.08 27.38 58.41	CG-1	7081	23.77	27.38	Dropped due to high AC and undesirable GC
	National Check (NC) Zonal Check (ZC) Local Check (LC) Hybrid Check (HC)	5721 5019 5559 4472						

Bold Italics: Best check & over the best check; NC-National Check; ZC-Zonal Check; LC-Local Check; GY-Grain Yield; DFF-Days to 50% flowering; GT-Grain Type; BVC-Best Varietal Check

Entries promoted to AVT2-L: Only one.

On overall basis: IET 25269 (Repeat) (MEPH-126) (Hybrid)

INITIAL VARIETY TRIAL- LATE (IVT- LATE)**Locations: 13****Test Entries: 60**

**Checks: Swarna-National, NDR 8002 (Eastern and Central), Table:3.53
 Ranjeet (North Eastern), Salivahana (Western),
 Pushyami (Southern)-Zonal, PA6444 - Hybrid and
 local check.**

Initial Variety Trial – Late (IVT-L) was constituted with 60 entries and four checks (Swarna – National Check [NC], NDR 8002 (Eastern), Ranjeet (Northe Eastern), Salivahana (Western), Pushyami (southern) - Zonal Checks [ZCs], PA 6444 – Hybrid Check and Local Check [LC]). Among the 20 centres, data from seven centres (Pundibhari, Varanasi, Titabar, Gerua, Port Blair, Nellore, and Karaikal) was not received. Data from two centres (Malagi and Ponnampet) was not considered due to lower yield i.e., <4000 kg/ha. Further, the data from Patna-ICAR, Masodha, Malagi and Chinsurah was not included in mean due to low CV (<5.0% or >20.0%). The mean grain yield of the 64 entries ranged from 3327 kg/ha (IET 26972) to 5879 kg/ha (IET 26927). The range of experimental CV was from 0.46% (Chinsurah) to 26.57% (Malagi). The experimental mean of grain yield ranged from 1776 kg/ha at Malagi to 6080 kg/ha at Aduthurai. The plant height varied from 94 cm (IET 26981) to 143 cm (IET 26972). The panicles/m² ranged from 226 (IET 26972) to 321 (IET 26937). Days to 50% flowering ranged from 99 days (IET 26954 and IET 26958) to 136 days (IET 26937). Swarna, the NC yielded the highest (5510 kg/ha) followed by LC (5377 kg/ha) and ZC (5164 kg/ha) while PA 6444, the HC yielded 5100 kg/ha. Based on the overall mean, IET 26927, and IET 26947 recorded a yield advantage of 6.7%, and 6.3% respectively over the best check i.e., national check. The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 3.54, 3.55, 3.56 and 3.57.

IET 26927 (BPT 2678), a derivative of (MTU 7029/Moroberakan)/MTU 7029 ranked first with a mean grain yield of 5879 kg/ha. IET 26927 had 6.7% yield advantage over Swarna, the national check (best check), 114 days to 50% flowering and medium slender grain. IET 26927 ranked second in Zone III with a yield of 6320 kg/ha, exhibiting a yield advantage of 9.7% over the best check. It stood sixth in zone VII with a yield advantage 13.7%. Among the states, it stood first in Odisha (6516 kg/ha) with a yield advantage of 23.5%.

The second ranked entry was IET 26947 (MTU 1267), a product of (MTU 7029/MTU 4870)/ MTU 7029. It had a mean grain yield of 5855 kg/ha, and exhibited a yield advantage of 6.3% over the Swarna, the best check. Days to 50% flowering of IET 26947 were 112 and it had medium slender grain. It ranked eighth in zone VI with yield of 5313 kg/ha and exhibited a advantage of 11.7%; whereas it was ranked seventh in VIIth zone with yield and advantage over best check of 5313 kg/ha and 9.2% respectively.

Overall Performance of Promising entries in Initial Variety Trial Late (IVT-L) Kharif, 2017

IET No. / Designation/ Cross combination	Overall Mean GY/FD /GT	Yield Advantage (%)over NC /ZC/LC	State			Zone		
			Rank	Yield Kg/ha	% BVC	Rank	Yield Kg/ha	% BVC
26927 BPT 2678 (MTU 7029/ Moroberakan) /MTU 7029	5879 114 MS	6.7 13.8 9.3	OD-1	6516	23.5	Z3-2 Z7-6	6320 6519	9.7 13.7
26947 MTU 1267 (MTU 7029 / MTU 4870) / MTU 7029	5855 112 MS	6.3 13.4 8.9	OD-2	6127	16.1	ZVI-8 ZVII-7	5313 6261	11.7% 9.2%
Swarna (NC)	5510 109							
Zonal Check (ZC)	5164 112							
Local Check (LC)	5377 115							

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BVC- Best Varietal Check

Zone Wise Performance of promising entries in Zone-III (Eastern) in Initial Variety Trial Late (IVT-L) Kharif, 2017

Rank	IET No. / Designation/ Cross combination	Overall Mean GY/FD /GT	Yield Advantage (%) Over NC/ZC/LC	% Increase Over the Best Check		
				State		
				State	Yield kg/ha	% BVC
1	26926 AD 13189 (ADT 44/Jeeragasamba)	6509 127 SB	13.4 16.2 12.9	OD-5	5988	13.5
2	26927 BPT 2678 (MTU 7029/ Moroberakan)/ MTU 7029	6320 117 MS	10.1 12.9 9.7	OD-1	6516	23.5
3	26935 MTU 1253 (BPT 5204 / NBR 16)	6304 120 MS	9.8 12.6 9.4	-	-	-
Swarna (NC)		5741 108				
NDR 8002 (ZC)		5600 114				
Local Check (LC)		5763 115				

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BVC- Best Varietal Check

Zonal Performance of Entries in IVT-L

Zone III - Among the 8 locations (Bhubaneswar, Cuttack, Patna-ICAR, Sabour, Chinsurah, Pundibhari, Masodha and Varanasi), the data from Pundibhari and Varanasi was not received.

The CV at different experimental locations varied from 0.46% (Chinsurah) to 14.0% (Bhubaneswar). The mean grain yield of the tested entries ranged from 3236 kg/ha (IET 26972) to 6509 kg/ha (IET 26926). Days to 50% flowering also displayed a wide range, 102 days (IET 26958, IET 26966, and PA 6444) to 141 days (IET 26980). Panicles/m² exhibited a range from 225 (IET 26972) to 324 (IET 26937). Similarly, plant height had a range of 102 cm (IET 26958) to 141 cm (IET 26972). The top three performers in this zone were: IET 26926 (6509 kg/ha), IET 26927 (6320 kg/ha) and IET 26935 (6304 kg/ha). These three entries exhibited a yield advantage of 12.9%, 9.7% and 9.4% respectively over the local check, the best check. **Though IET 26926 (days to 50% flowering is 127) exhibited a yield advantage, it is shifted to Rainfed Shallow Lowland trial.**

Zone V – this zone includes only Chhattisgarh with a test location at Raipur. The CV of Zone V is 13.1%. Mean grain yield range recorded in this zone was 1498 kg/ha (IET 26962) to 7051 kg/ha (IET 26934). Days to 50% flowering varied significantly among the entries ranging from 92 days (IET 26954) to 136 days (IET 26962). Three entries, IET 26934 (7051 kg/ha), IET 26927 (6509 kg/ha) and IET 26948 (6327 kg/ha) exhibited 19.3%, 10.1% and 7.1% yield advantage respectively over the best check (Swarna, national check). Additionally, IET 26934 showed a yield advantage of 32.9% over PA 6444, the hybrid check. **But, since Raipur is the single location, the hybrid should show 20% advantage over the best check and 15% over the hybrid check whereas, a variety should show 15% over the best check variety. Therefore, none of the entries were promoted.**

Zone Wise Performance of promising entries in Zone-VI (Western) in Initial Variety Trial Late (IVT-L) Kharif, 2017

Rank	IET No. / Designation/Cross combination	Overall Mean GY/FD /GT	Yield Advantage (%) Over NC/ZC/LC	% Increase Over the Best Check		
				State		
				State	Yield KG/ha	% BVC
1	26961 CR 3561-5-1-1-1-1 Surendra/ Annapurna	5758 100 MS	21.0 37.7 26.5	GU-5	6364	31.1
2	26963 NVS-331 IET 19384/ NVSR-177	5521 99 MS	16.1 32.0 21.3	GU-3	6484	33.6
3	26974 MTU 1265 MTU 1075 / MTU 7029	5511 97 MS	15.9 31.8 21.1	MH-1	6061	17.6
	Swarna (NC)	4757 105				
	Salivahana (ZC)	4182 105				
	Local Check (LC)	4552 108				

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BVC- Best Varietal Check

Zone VI – this zone is represented by two locations including Navsari and Pondaghat. The CV in this zone ranged from 6.45% at Pondaghat to 16.01% at Navsari. The mean grain yield of the entries had a range from 2898 kg/ha (IET 26950) to 5997 kg/ha (PA 6444). The range of days to 50% flowering among the test entries was 90 days (IET 26954, IET 26958, and

IET 26973) to 135 days (IET 26937). The panicles/m² also exhibited wide variability ranging from 169 (IET 26958) to 254 (IET 26979). IET 26961 (5758 kg/ha), IET 26963 (5521 kg/ha) and IET 26974 (5511 kg/ha) were the best performing entries, with an overall yield advantage of 21.0%, 16.1% and 15.9% over the Swarna, national check (best check) respectively. IET 26936 (11.0%), IET 26947 (11.7%), IET 26968 (9.8%), and IET 26979 (5.1%) were the other entries that exhibited a yield advantage >5.0% over the best check. Days to 50% flowering for these entries were 98, 109, 103 and 105. **Based on the days to 50% flowering the following entries are shifted to IVT-IME: IET 26961 (100 days), IET 26963 (99 days), IET 26974 (97 days) and IET 26936 (98 days). IET 26947 (109 days), IET 26968 (103 days) and IET 26979 (105 days) are shifted to IVT-IM.**

Zone Wise Performance of promising entries in Zone-VII (Southern) in Initial Variety Trial Late (IVT-L) Kharif, 2017

Rank	IET No. / Designation/ Cross combination	Overall Mean GY/FD/GT	Yield Advantage (%) Over NC/ZC/LC	% Increase Over the Best Check		
				State		
				State	Yield KG/ha	% BVC
1	26952	7738	35.3	AP-2	5935	13.5
	CR 3825-1-2-1-2-1-1	109	37.4	TN-1	9541	43.3
	(IR 64/NLR 9672-96)	SB	34.9			
2	26974	6813	19.2	-	-	-
	MTU 1265	112	21.0			
	MTU 1075/MTU 7029	MS	18.8			
3	26935	6772	18.4	-	-	-
	MTU 1253	115	20.3			
	BPT 5204 / NBR 16	MS	18.1			
	Swarna (NC)	5718				
		109				
	Pushyami (ZC)	5630				
		112				
	Local Check (LC)	5736				
		115				

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BVC- Best Varietal Check

Zone VII – the Southern zone is represented by 7 locations – Maruteru, Nellore, Aduthurai, Port Blair, Sirsi, Ponnampet and Karaikal. The observed CV for this zone ranged from 7.24% (Maruteru) to 26.57% (Malagi). In this zone, the range of mean grain yield was from 3148 kg/ha (IET 26942) to 7738 kg/ha (IET 26952). The flowering duration varied from 96 days (IET 26958) to 134 days (IET 26937). Similarly, panicles/m² exhibited a range of 259 (IET 26972) to 408 (IET 26956). The top three performing entries in this zone are IET 26952 (7738 kg/ha), IET 26974 (6813 kg/ha) and IET 26935 (6772 kg/ha). These three entries showed a yield advantage of 34.9%, 18.8% and 18.1% respectively over the best check (local check). Further, IET 26976 (16%), IET 26963 (15.1%), IET 26927 (13.7%), IET 26947 (9.2%) IET 26951 (6.9%), IET 26956 (6.0%), IET 26959 (5.1%), and IET 26948 (5.1%) also exhibited significant yield advantage over the best check. IET 26976 also had a yield advantage of 49.0% over the hybrid check. **Among all the entries that exhibited >5.0% yield advantage, IET 26959 (127 days) is to be shifted to Rainfed Shallow Lowland Trial.**

Entries Promoted to AVT-L:

- **Overall:** IET 26927, IET 26947
- **Zone III:** IET 26927, IET 26935,
- **Zone VI:** IET 26963, IET 26974
- **Zone VII:** IET 26952, IET 26974, IET 26935, IET 26976, IET 26963, IET 26927, IET 26947, IET 26951, IET 26956, IET 26948
- Shifted to IVT-IME - IET 26961, IET 26963, IET 26974 and IET 26936
- Shifted to IVT-IM - IET 26947, IET 26968, and IET 26979
- Shifted to Rainfed Shallow Lowland Trial - IET 26926 and IET 26959

Table No.3.41: Composition of entries in Advance Variety Trial 2- Late (AVT 2-L), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
3rd Year of testing:				
4301	23610	NP 7061	IR 64/ Mahsuri // IR 36	MS
4302	25236	<i>NK 16531 (Hybrid)</i>	-	MS
4303	24395(R)	RP 5865-300-4-1-1-2-3	MTU 1075 / MTU 1010	MS
4304	Swarna (NC)			SB
4305	25231	<i>CRHR-102 (Hybrid)</i>	-	LS
4306	PA 6444 (HC)			MS
4307	25228	OR 2427-5	OR 1334-8 / Swarna	SB
4308	NDR 8002 (Eastern and Central), Salivahana (Western), Pushyami (Southern)-- ZC			
4309	25287	<i>VNR-216 (Hybrid)</i>	VNRF-48 / VNRB-412	SB
4310	Local Check			

Table No. 3.42 : Grain Yield (Kg/ha) of entries in AVT 2-L, Kharif 2017

Entry No.	IET No.	III										Zone III (3)		
		OD	OD	OD (2)	W.B	W.B	W.B (1)	U.P.	U.P.					
		BBN	CTK	Mean	CHN	@PNB	Mean	@MSD	@VRN	Mean				
4301	23610	4659 6	6626 1 #	5643 2 #	75%	6259 1 #	3617 6	6259 1 #	13% 33%	3258 7	6377 2	5848 1 #	11% 57%	
4302	25236	5093 3 #	4454 5 #	4773 5 #	48%	4593 9	3748 5	4593 9			5417 5	4713 5 #	27%	
4303	24395(R)	3646 9	3946 6 #	3796 7	18%	4778 5	4528 1	4778 5	2%	3316 5	3274 9	4123 8	11%	
4304	Swarna (NC)	4167 7	3693 7 #	3930 6 #	22%	4704 6	3863 4	4704 6		2349 9	4609 6	4188 7 #	13%	
4305	25231	5035 4 #	2335	3685 8	14%	6037 2 #	4006 2	6037 2 #	9% 28%	3546 4 *	6281 3	4469 6 #	20%	
4306	PA 6444 (HC)	3964 8	2494 9	3229		4704 7	3987 3	4704 7		3568 3 *	7414 1 *	3721		
4307	25228	5990 1 #	4650 4 #	5320 3 #	65%	4667 8	3367 7	4667 8		4078 1 #	3888 7	5102 4 #	37%	
4308	Zonal Check (ZC)	5440 2 #	6132 2 #	5786 1 #	79%	4074	3335 8	4074		3103 8	3534 8	5215 3 #	40%	
4309	25287	3501	2983 8	3242 9		5185 4 #	3306 9	5185 4 #	10%	3701 2 *	2148	3890 9	5%	
4310	Local Check	4688 5	5608 3 #	5148 4 #	59%	5519 3 #	3274	5519 3 #	17%	3302 6	6135 4	5271 2 #	42%	
	Exp Mean	4618	4292	4455		5052	3703	5052		3358	4908	4654		
	C.D. 5%	945	732	609		458	1000	458		212	405	428		
	C.V.%	11.93	9.93	11.71		5.29	15.73	5.29		3.65	4.81	9.75		
	Sowing Date	05-07-2017	23-06-2017			07-07-2017	09-06-2017			28-06-2017	02-06-2017			
	Planting Date	03-08-2017	24-07-2017			17-08-2017	06-07-2017			30-07-2017	23-06-2017			
	Local ©	Hasanta	Reeta			Kaushalya	MTU 1075			Sambha Mahsuri	MTU 7029			
* Superior to Best Check % Superior over Best Check @ not included in means														
# Superior to Hybrid Check % Superior over Hybrid Check														

Table No.3.42 contd : Grain Yield (Kg/ha) of entries in AVT 2-L, Kharif 2017

Entry No.	IET No.	V		VI		Zone VI (1)	VII					
		CG	GU	MH			A&N	A.P.	TN	KA	KA	KA (1)
		RPR	NVS	@PDG			POB	@MTU	ADT	MLG	@PNP	Mean
4301	23610	4752 3 #	4673 3	5278 8	4673 3 9%		6389 5	5530 4 #	5143 9	3378 6	1639 9	3378 6
4302	25236	4464 7	4664 4	5325 6	4664 4 9%		5907 9	5537 3 #	6296 6	5489 1 *	2030 7	5489 1 * 59% 2%
4303	24395(R)	3146	3722	3810	3722		6991 2 #	5607 2 #	4448	3367 7	1644 8	3367 7
4304	Swarna (NC)	4746 4 #	4278 5	5449 5	4278 5		6435 4	4799 8	6681 4	2289	2799 4	2289
4305	25231	4591 5 #	5287 2 *	5457 4	5287 2 * 24%		7157 1 #	2838	7411 3	4578 4 *	2038 6	4578 4 * 33%
4306	PA 6444 (HC)	3698 9	5398 1 *	6386 2	5398 1 * 26%		5722	4911 7	5981 7	5356 3 *	2851 3	5356 3 * 55%
4307	25228	4939 2 #	4148 6	6047 3	4148 6		6019 8	4692 9	7596 2	3256 9	3278 2 #	3256 9
4308	Zonal Check (ZC)	4517 6	3867 8	6549 1	3867 8		6315 7	5901 1 #	9119 1 #	3311 8	2299 5	3311 8
4309	25287	5130 1 #	4034 7	5295 7	4034 7		6389 6	5411 5 #	5907 8	5389 2 *	1130	5389 2 * 56% 1%
4310	Local Check	4328 8	3852 9	4733 9	3852 9		6759 3 #	5093 6	6474 5	3444 5	3986 1 #	3444 5
	Exp Mean	4431	4392	5433	4392		6408	5032	6506	3986	2369	3986
	C.D. 5%	819	978	432	978		881	304	1624	509	398	509
	C.V.%	10.78	12.98	4.64	12.98		8.01	3.52	14.56	7.44	9.79	7.44
	Sowing Date	16-06-2017	08-06-2017	10-06-2017			19-06-2017	04-07-2017	30-07-2017		10-07-2017	
	Planting Date	11-07-2017	11-07-2017	03-07-2017			20-07-2017	04-08-2017	06-09-2017		14-08-2017	
	Local ©	Jaldubi	Mashuri	Karjat-2			CARI Dhan 5	MTU1064	CR 1009 sub 1		Tunga	

Table No.3.42 contd : Grain Yield (Kg/ha) of entries in AVT 2-L, Kharif 2017

Entry No.	IET No.	VII		Zone VII (3)		Overall (8)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		PUD								
		@KRK		Mean		Mean				
4301	23610	3711 5		4970 9		5235 3 # 12%		113	109	283
4302	25236	3578 8		5898 3 4%		5120 5 # 10%		111	115	267
4303	24395(R)	3456 9		4935		4255		108	99	279
4304	Swarna (NC)	3700 6		5135 8		4624 9		110	103	286
4305	25231	3833 4 #		6382 1 # 2% 12%		5304 2 # 14%		113	108	262
4306	PA 6444 (HC)	3700 7		5686 5		4665 8		106	110	264
4307	25228	3267		5623 6		5158 4 # 11%		117	118	287
4308	Zonal Check (ZC)	4200 2 #		6248 2 10%		5347 1 # 15%		115	111	276
4309	25287	4389 1 #		5895 4 4%		4815 7 3%		111	114	264
4310	Local Check	4167 3 #		5559 7		5084 6 # 9%		119	121	280
	Exp Mean	3800		5633		4961		112	111	275
	C.D. 5%	48		625		328		1		14
	C.V.%	0.74		11.77		11.59		1.08		12.06
	Sowing Date	10-08-2017								
	Planting Date	14-09-2017								
	Local ©	CR 1009 (Savithiri)								

Table No. 3.43 : Days to 50% Flowering of entries in AVT 2-L, Kharif 2017

Entry No.	IET No.	III									Zone III (6)
		OD	OD	OD (2)	W.B	W.B	W.B (2)	U.P.	U.P.	U.P. (2)	
		BBN	CTK	Mean	CHN	PNB	Mean	MSD	VRN	Mean	
4301	23610	106	125	115	109	122	116	121	119	120	117
4302	25236	103	115	109	98	124	111		126	126	113
4303	24395(R)	105	128	116	110	131	121	115	99	107	115
4304	Swarna (NC)	104	125	115	110	121	115	106	110	108	113
4305	25231	106	115	111	107	120	114	136	115	125	117
4306	PA 6444 (HC)	99	113	106	99	134	116	132	96	114	112
4307	25228	113	130	122	113	129	121	118	122	120	121
4308	Zonal Check (ZC)	110	130	120	112	122	117	113	121	117	118
4309	25287	103	115	109	98	131	115	126	132	129	118
4310	Local Check	107	131	119	104	128	116	133	122	128	121
	Exp Mean	106	123	114	106	126	116	122	116	119	116
	C.D. 5%	2	0	1	1	2	1	3	0	1	1
	C.V.%	1.14	0.15	0.79	0.65	0.85	0.68	1.58	0.00	0.77	0.92

Table No. 3.43 contd :Days to 50% Flowering of entries in AVT 2-L, Kharif 2017

Entry No.	IET No.	V	VI		Zone VI (2)	VII							Zone VII (6)	Overall (15)
		CG	GU	MH		A&N	A.P.	TN	KA	KA	KA (2)	PUD		
		RPR	NVS	PDG		POB	MTU	ADT	MLG	PNP	Mean	KRK		
4301	23610	109	120	106	113	112	105	104	119	109	114	111	110	113
4302	25236	122	123	116	120	106	107	99	119	108	114	93	105	111
4303	24395(R)	109	106	93	100	104	104	105	106	103	105	104	104	108
4304	Swarna (NC)	109	112	102	107	114	106	104	117	117	117	97	109	110
4305	25231	114	111	103	107	107	109	107	123	117	120	98	110	113
4306	PA 6444 (HC)	103	103	94	99	105	100	102	109	109	109	95	103	106
4307	25228	117	120	108	114	115	118	116	119	115	117	107	115	117
4308	onal Check (Z)	113	121	109	115	114	116	113	117	112	115	108	113	115
4309	25287	123	129	118	123	104	105	86	117	97	107	88	99	111
4310	Local Check	124	113	108	110	116	122	126	117	120	118	112	119	119
	Exp Mean	114	116	106	111	110	109	106	116	111	113	101	109	112
	C.D. 5%	1	3	1		0	1	5	0	2	1	1	1	1
	C.V.%	0.54	1.41	0.57		0.00	0.80	2.77	0.22	1.28	0.84	0.64	1.36	1.08

Table No. 3.44 : Plant Height (cm) of entries in AVT 2-L, Kharif 2017

Entry No.	IET No.	III									Zone III (6)
		OD	OD	OD (2)	W.B	W.B	W.B (2)	U.P.	U.P.	U.P. (2)	
		BBN	CTK	Mean	CHN	PNB	Mean	MSD	VRN	Mean	
4301	23610	100	112	106	115	112	113	87	124	106	108
4302	25236	110	119	115	117	123	120		116	116	117
4303	24395(R)	85	99	92	108	99	103	95	107	101	99
4304	Swarna (NC)	108	109	109	108	105	106	89	112	101	105
4305	25231	105	117	111	115	115	115	85	123	104	110
4306	PA 6444 (HC)	100	105	103	108	116	112	114	134	124	113
4307	25228	125	120	123	120	117	119	91	133	112	118
4308	Zonal Check (ZC)	114	105	110	110	116	113	99	119	109	110
4309	25287	105	124	115	122	126	124	90	138	114	118
4310	Local Check	118	123	121	122	114	118	101	110	105	115
	Exp Mean	107	113	110	115	114	114	95	121	109	111
	C.D. 5%	0	0	0	0	0	0	0	0	0	0
	C.V.%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table No. 3.44 contd : Plant Height (cm) of entries in AVT 2-L, Kharif 2017

Entry No.	IET No.	V	VI		Zone VI (2)	VII							Zone VII (6)	Overall (15)
		CG	GU	MH		A&N	A.P.	TN	KA	KA	KA (2)	PUD		
		RPR	NVS	PDG		POB	MTU	ADT	MLG	PNP	Mean	KRK		
4301	23610	129	129	130	129	123	123	104	89	64	77	90	99	109
4302	25236	127	141	135	138	128	135	103	96	61	78	96	103	115
4303	24395(R)	97	133	123	128	104	114	93	73	59	66	94	89	99
4304	Swarna (NC)	109	130	127	128	103	124	100	74	65	69	87	92	103
4305	25231	128	144	129	137	120	121	100	71	59	65	96	94	108
4306	PA 6444 (H)	109	140	132	136	123	121	92	85	68	77	95	97	110
4307	25228	125	139	133	136	117	147	116	97	75	86	116	111	118
4308	Zonal Check	123	143	133	138	121	130	105	88	64	76	90	100	111
4309	25287	136	140	135	137	127	142	76	101	60	81	85	99	114
4310	Local Check	201	148	112	130	121	125	115	111	87	99	105	111	121
	Exp Mean	128	139	129	134	119	128	100	89	66	77	95	100	111
	C.D. 5%		0	0				0	0	0	0	0		
	C.V.%		0.00	0.00				0.00	0.00	0.00	0.00	0.00		

Table No. 3.45 : Panicles/ M² of entries in AVT 2-L, Kharif 2017

Entry No.	IET No.	III									Zone III (6)
		OD	OD	OD (2)	W.B	W.B	W.B (2)	U.P.	U.P.	U.P. (2)	
		BBN	CTK	Mean	CHN	PNB	Mean	MSD	VRN	Mean	
4301	23610	233	227	230	297	184	240	294	240	267	246
4302	25236	276	174	225	242	173	208		260	260	225
4303	24395(R)	224	224	224	297	229	263	304	241	273	253
4304	Swarna (NC)	246	207	227	297	178	238	306	248	277	247
4305	25231	235	242	239	330	179	255	257	228	243	245
4306	PA 6444 (HC)	251	196	224	242	231	237	305	205	255	238
4307	25228	216	211	214	440	188	314	305	197	251	260
4308	Zonal Check (ZC)	255	235	245	363	142	253	303	206	255	251
4309	25287	232	198	215	341	157	249	343	176	260	241
4310	Local Check	245	235	240	363	184	274	330	238	284	266
	Exp Mean	241	215	228	321	185	253	305	224	263	248
	C.D. 5%	32	51	30	61	47	38	64	16	28	19
	C.V.%	7.81	13.81	11.26	11.04	14.96	12.96	12.16	4.18	8.97	11.62

Table No. 3.45 contd : Panicles/ M² of entries in AVT 2-L, Kharif 2017

Entry No.	IET No.	V	VI		Zone VI (2)	VII							Zone VII (6)	Overall (15)
		CG	GU	MH		A&N	A.P.	TN	KA	KA	KA (2)	PUD		
		RPR	NVS	PDG		POB	MTU	ADT	MLG	PNP	Mean	KRK		
4301	23610	238	272	196	234	222	246	385	399	363	381	446	344	283
4302	25236	259	216	176	196	244	273	308	429	363	396	349	328	267
4303	24395(R)	250	173	185	179	255	246	418	363	436	399	337	343	279
4304	Swarna (NC)	243	283	221	252	278	255	407	373	392	382	351	343	286
4305	25231	236	185	154	169	233	268	440	347	247	297	349	314	262
4306	PA 6444 (HC)	223	171	181	176	266	268	319	330	436	383	333	325	264
4307	25228	238	304	179	242	278	255	308	413	334	373	431	336	287
4308	Zonal Check (Z)	229	282	203	243	255	286	363	310	378	344	328	320	276
4309	25287	245	205	176	190	233	260	264	396	392	394	346	315	264
4310	Local Check	200	155	219	187	333	244	341	327	421	374	362	338	280
	Exp Mean	236	224	189	207	260	260	355	369	376	372	363	331	275
	C.D. 5%	40	6	30		95	30	118	55	60	38	7	27	14
	C.V.%	9.94	1.58	9.32		21.32	6.72	19.37	8.67	9.34	8.67	1.06	12.36	12.06

Table No. 3.46: Grain quality characteristics of entries in AVT 2-L, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4301	23610	81.2	69.6	67.2	5.49	2.14	2.56	MS	VOC	4	22.46	43
4302	25236	82.7	72.6	67.6	5.83	2.23	2.61	MS	VOC	4	20.26	53
4303	24395	80	69.6	66.4	5.33	2	2.66	MS	VOC	4	24.05	22
4304	Swarna	80.2	70.7	69	5.38	2.18	2.46	SB	A	4	26.72	22
4305	25231	81.7	72.6	67.6	6.58	2.13	3.08	LS	VOC	4	23.99	25
4306	PA 6444	81.3	71.2	64.7	6.15	2.18	2.82	MS	VOC	4	23.43	56
4307	25228	81.1	72	68.9	5.38	2.42	2.22	SB	VOC	4	23.23	22
4308	Pushyami	80.6	71	69.3	5.71	2.06	2.77	MS	A	5	24.52	22
4309	25287	80.8	71.5	68.9	5.73	2.51	2.28	SB	VOC	4	25.4	22

HULL: Hulling (%); Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 3.47: Composition of entries in Advance Variety Trial 1- Late (AVT 1-L), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
2nd Year of testing:				
4401	25952	PNP 9557	NPG 10 / NPG 12	SB
4402	25953	MTU 1238 (MTU 2284-103-1-9)	MTU 5249 / IR 72	MS
4403	25945	DLRH-4 (Hybrid)	NP 10125 / NP 9865	SB
4404	25970	RP 5594-410-27-3-2	MTU 1010 / RPHR 1005	MS
4405	Swarna (NC)			SB
4406	25955	CN 1930-2-3-9	Sabita / Dular	MS
4407	25042	MTU 1197 (MTU 2191-27-1-1-1)	MTU1064 / Swarna Sub1	MS
4408	25967	Sonagathi	Selection from Sonagathi	SB
4409	25948	RRX 027 (Hybrid)	-	LS
4410	25959	OR 2412-5	Indravati / IR 65629-22-1	SB
4411	NDR 8002 (Eastern & Central), Salivahana (Western), Pushyami (Southern)—ZC			
4412	25973	OR (T)-35	Annada Mutant	MS
4413	25269 (Repeat)	MEPH-126 (Hybrid)	-	MS
4414	PA 6444 (HC)			LB
4415	25971	CR 3984-1-4-4-2-1	CR3624-2 / CRMAS 2232-85	SB
4416	Local Check			
4417	26080	KAU PTB 0614-1-6-21	Pranava / Vellari	SB

Table No. 3.48 : Grain Yield (Kg/ha) of entries in AVT 1-L, Kharif 2017

Entry No.	IET No.	III					Zone III (3)	IV	V	VI		Zone VI (1)
		OD	BI	W.B	U.P.	U.P.				GU	MH	
		CTK	SBR	CHN	@MSD	@VRN				NVS	@PDG	
4401	25952	6226 4 #	7219 2 #	4852 8 #	2704	7347 5	6099 2 # 15% 22%	5978	5235	3828	5680 7 #	3828
4402	25953	4765	6274 8	5690 2 #	3480 7	7663 3 *	5576 6 # 6% 11%	5981	6283 4 *	5812 1 #	6547 3 #	5812 1 # 2% 24%
4403	25945	5256 7	6715 5	5244 5 #	3768 3 #	7247 6	5738 5 # 9% 15%	7411 1	5082	3647	6244 5 #	3647
4404	25970	4115	5559	3815	3480 8	7214 8	4496	6337	3989	4306	5073 #	4306
4405	Swarna (NC)	3965	6071	4185	3258	6447	4740	6407 8	5721 8	4081	5333 9 #	4081
4406	25955	3213	5141	4444 #	3502 6	5595	4266	6163	4668	3846	5550 8 #	3846
4407	25042	6805 2 #	5905	5037 7 #	3081	5993	5916 4 # 12% 18%	5774	6103 6 *	4907 5	5030 #	4907 5 5%
4408	25967	6998 1 #	6439 7	5573 3 #	3679 4 #	5717	6337 1 # 20% 27%	5974	6578 2 #	4854 7	6417 4 #	4854 7 3%
4409	25948	3342	8415 1 #	4556 #	4078 1 #	8308 2 *	5437 7 3% 9%	6385 9	7081 1 #	5541 3 #	6846 1 #	5541 3 # 18%
4410	25959	5306 6	5231	4333		2624	4957	6541 6	4470	3860	4553 #	3860
4411	Zonal Check (ZC)	5059	5156	5199 6 #	2903	4420	5138 3%	6793 3	5019	5684 2 #	5247 #	5684 2 # 21%
4412	25973	5141 8	6703 6	4185	3014	7152 9	5343 8 1% 7%	6589 5	5944 7 *	5417 4	6163 6 #	5417 4 # 15%
4413	25269 (Repeat)	5113 9	7157 3 #	5838 1 #	3790 2 #	7514 4	6036 3 # 14% 21%	6489 7	6490 3 #	4861 6	6591 2 #	4861 6 4%
4414	PA 6444 (HC)	4868	6111 9	4037	3391 9	9297 1 *	5005	6856 2	5559 9	4694 8	2927	4694 8
4415	25971	6243 3 #	4144	5296 4 #	3103	2187	5228 4%	4585	4094	4227	5333 #	4227
4416	Local Check	4685	6935 4	4222	3568 5 #	7239 7	5281 9 6%	6296	4472	4523 9	4986 #	4523 9
4417	26080	5663 5	5487	4667 9 #	3280	6570	5272 5%	6696 4	6171 5 *	4127	5154 #	4127
	Exp Mean	5104	6157	4775	3380	6384	5345	6309	5468	4601	5510	4601
	C.D. 5%	830	1000	396	173	327	444	1189	772	807	113	807
	C.V. %	9.78	9.77	4.99	3.07	3.08	8.89	11.33	8.49	10.55	1.23	10.55
	Sowing Date	20-06-2017	14-06-2017	05-07-2017	28-06-2017	16-06-2017		26-06-2017	16-06-2017	16-06-2017	14-06-2017	
	Planting Date	22-07-2017	07-07-2017	09-08-2017	30-07-2017	13-07-2017		31-07-2017	11-07-2017	21-07-2017	10-07-2017	
	Local ©	Reela	R.Mahsuri-1	Kaushalya	Sambha Mahsuri	MTU-7029		Ranjit	Jaldubi	Mashuri	Karijat-2	
* Superior to Best Check % Superior over Best Check @ not included in means												
# Superior to Hybrid Check % Superior over Hybrid Check												

Table No.3.48 contd : Grain Yield (Kg/ha) of entries in AVT 1-L, Kharif 2017

Entry No.	IET No.	VII							Zone VII (4)	Overall (10)	Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		A&N	A.P.	TN	KA	KA	KA (1)	PUD					
		POB	MTU	ADT	MLG	@PNP	Mean	@KRK					
4401	25952	4240 6	5770 1 *	6787 8	3872	1690	3872	3033	5167 6 3%	5401 8 2% 1%	114	107	282
4402	25953	4185 7	4556 9	5991	4593 9	3032 6	4593 9 5%	3778 8 #	4831	5413 7 2% 2%	116	110	251
4403	25945	3728	4818 7	7320 4	5628 4 *	2807 8	5628 4 * 28%	3167	5374 3 8% 2%	5485 5 4% 3%	112	113	271
4404	25970	4167 8	3553	3981	5872 2 *	3663 3	5872 2 * 34% 2%	3800 6 #	4393	4569	105	111	265
4405	Swarna (NC)	3874	5121 4	5330	3488	2454 9	3488	3011	4453	4824	112	106	294
4406	25955	4167 9	4085	5272	5116 7 *	799	5116 7 * 17%	3000	4660	4612	109	113	278
4407	25042	3692	5051 5	8174 1 #	5349 6 *	2911 7	5349 6 * 22%	3511 #	5566 2 11% 6%	5680 2 * 7% 7%	117	113	258
4408	25967	4788 1	3721	6904 7	4372	2274	4372	4089 3 #	4946 9	5620 3 6% 6%	118	124	289
4409	25948	4459 3	4771 8	5096	6279 1 *	3414 5	6279 1 * 43% 9%	3744 9 #	5151 7 3%	5593 4 6% 5%	106	116	259
4410	25959	3618	2516	8043 3 #	1860	3837 2	1860	3500	4009	4578	122	127	282
4411	Zonal Check (ZC)	4276 5	4118	7211 5	4384	2454	4384	3911 4 #	4997 8	5290	113	109	265
4412	25973	4624 2	5191 3	6328	4628 8	799	4628 8 6%	3733 #	5193 5 4%	5475 6 3% 3%	115	108	270
4413	25269 (Repeat)	3655	5453 2 *	8067 2 #	5616 5 *	1030	5616 5 * 28%	3800 7 #	5698 1 * 14% 8%	5874 1 # 11% 10%	115	113	264
4414	PA 6444 (HC)	4167		5874	5767 3 *	4010 1 *	5767 3 * 32%	3444	5269 4 5%	5326 9 1%	107	113	270
4415	25971	3600		6556 9	2058	2367	2058	4167 2 #	4071	4534	121	106	268
4416	Local Check	3600	4986 6	7070 6	3802	3507 4	3802	4367 1 #	4865	5059	120	126	268
4417	26080	4423 4	4524	6183	3058	2054	3058	3833 5 #	4547	5100	117	114	268
	Exp Mean	4074	4549	6482	4456	2535	4456	3641	4900	5205	114	113	271
	C.D. 5%	931	429	2122	703	438	703	63	662	361	1		13
	C.V. %	13.73	5.64	19.68	9.49	10.38	9.49	1.05	16.73	13.67	1.48		11.40
	Sowing Date	29-06-2017	04-07-2017	29-07-2017				10-08-2017					
	Planting Date	25-07-2017	04-08-2017	06-09-2017				14-09-2017					
	Local ©	Gayatri	MTU1064	CR 1009 sub 1				KKL (R) 1					

Table No. 3.49 : Days to 50% Flowering of entries in AVT 1-L, Kharif 2017

Entry No.	IET No.	III						Zone III (5)	IV	V	VI		Zone VI (2)	VII								Zone VII (6)	Overall (15)
		OD	BI	W.B	U.P.	U.P.	U.P. (2)		AS	CG	GU	MH		A&N	A.P.	TN	KA	KA	KA (2)	PUD			
		CTK	SBR	CHN	MSD	VRN	Mean		Mean	GER	RPR	NVS		PDG	Mean	POB	MTU	ADT	MLG	PNP	Mean		
4401	25952	132	122	112	134	112	123	122	124	112	120	107	114	96	109	110	116	109	113	97	106	114	
4402	25953	136	125	114	126	106	116	121	122	117	121	109	115	103	114	111	116	111	114	102	110	116	
4403	25945	136	121	98	123	116	120	119	119	108	108	105	106	98	107	108	114	116	115	97	107	112	
4404	25970	130	132	95	113	99	106	114	111	104	99	96	98	90	95	102	104	109	107	93	99	105	
4405	Swarna (NC)	132	116	104	125	109	117	117	119	112	111	107	109	105	104	106	115	114	114	103	108	112	
4406	25955	128	116	103	120	118	119	117	115	109	113	104	109	95	102	102	113	103	108	95	102	109	
4407	25042	137	118	112	128	113	121	121	125	117	121	112	116	105	114	114	114	112	113	112	112	117	
4408	25967	136	128	109	126	115	121	123	126	117	119	110	115	104	118	113	119	116	117	110	113	118	
4409	25948	125	131	95	115	105	110	114	114	115	113	109	111	90	100	87	107	98	102	85	94	106	
4410	25959	138	128	111		119	119	124	135	130	124	118	121	105	120	125	135	122	129	93	117	122	
4411	Zonal Check (ZC)	130	123	112	132	115	124	123	121	114	118	104	111	96	105	108	117	109	113	92	105	113	
4412	25973	136	123	111	130	108	119	121	123	113	119	112	116	103	114	105	117	110	114	94	107	115	
4413	25269 (Repeat)	131	120	112	122	105	114	118	120	115	115	110	112	104	109	114	120	118	119	108	112	115	
4414	PA 6444 (HC)	129	108	93	123	115	119	114	111	104	101	99	100	105		103	110	109	109	93	104	107	
4415	25971	135	132	113	131	118	125	126	125	124	116	111	114	115		117	123	119	121	112	117	121	
4416	Local Check	136	121	100	124	115	120	119	135	123	117	107	112	115	121	126	116	120	118	118	119	120	
4417	26080	130	124	113	125	108	116	120	124	118	120	109	115	105	117	115	123	117	120	107	114	117	
	Exp Mean	133	123	106	125	112	118	120	122	115	115	108	111	102	110	110	116	112	114	101	108	114	
	C.D. 5%	2	2	5	2	0	1	1	3	2	2	1		0	2	7	0	2	1	1	1	1	
	C.V.%	0.84	1.08	2.60	0.84	0.00	0.63	1.31	1.52	0.88	1.18	0.60		0.00	1.25	3.65	0.24	1.16	0.85	0.58	1.92	1.48	

Table No. 3.50: Plant Height (cm) of entries in AVT 1-L, Kharif 2017

Entry No.	IET No.	III						Zone III (5)	IV AS	V CG	VI		Zone VI (2)	VII								Zone VII (6)	Overall (15)
		OD	BI	W.B	U.P.	U.P.	U.P. (2)				GU	MH		A&N	A.P.	TN	KA	KA	KA (2)	PUD			
		CTK	SBR	CHN	MSD	VRN	Mean																
4401	25952	102	123	107	92	118	105	108	125	115	105	120	112	103	135	95	93	62	78	105	99	107	
4402	25953	109	125	110	93	114	103	110	123	124	117	118	117	110	132	99	100	75	88	106	104	110	
4403	25945	116	134	116	95	126	111	118	120	135	121	123	122	115	138	100	98	60	79	100	102	113	
4404	25970	110	125	110	95	132	113	114	111	108	123	119	121	112	130	107	100	77	89	102	105	111	
4405	Swarna (NC)	103	126	105	90	112	101	107	118	114	119	119	119	126	121	88	80	67	74	100	97	106	
4406	25955	109	133	112	105	123	114	117	114	116	120	127	124	120	136	109	99	65	82	111	107	113	
4407	25042	106	128	104	94	118	106	110	125	132	132	122	127	118	128	97	107	68	87	112	105	113	
4408	25967	116	147	134	96	133	115	125	126	127	138	131	135	122	154	123	104	88	96	117	118	124	
4409	25948	100	146	120	108	128	118	120	114	125	146	128	137	160	122	69	110	77	94	83	104	116	
4410	25959	119	141	120		123	123	126	135	135	146	148	147	123	156	122	104	86	95	125	119	127	
4411	Zonal Check (ZC)	104	128	103	86	118	102	108	121	115	132	115	123	103	132	104	93	77	85	108	103	109	
4412	25973	109	130	110	84	117	100	110	123	126	131	122	127	100	137	83	92	63	77	93	95	108	
4413	25269 (Repeat)	116	127	112	93	125	109	115	120	126	118	129	123	109	142	110	94	65	80	105	104	113	
4414	PA 6444 (HC)	109	124	120	89	130	110	114	111	122	127	122	124	165		97	96	71	84	100	106	113	
4415	25971	99	106	120	88	97	92	102	125	123	134	116	125	120		99	89	63	76	102	95	106	
4416	Local Check	126	130	124	102	107	104	118	135	201	159	107	133	125	131	108	119	91	105	126	117	126	
4417	26080	112	136	100	94	128	111	114	124	135	129	129	129	111	137	110	91	73	82	100	103	114	
	Exp Mean	110	130	113	94	120	108	114	122	128	129	123	126	120	135	101	98	72	85	106	105	113	
	C.D. 5%	0		0	0				0	0	0			0	0	0	0	0	0				
	C.V.%	0.00		0.00	0.00				0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00				

Table No. 3.51 : Panicles/ M² of entries in AVT 1-L, Kharif 2017

Entry No.	IET No.	III						Zone III (5)	IV	V	VI		Zone VI (2)	VII								Zone VII (6)	Overall (15)
		OD	BI	W.B	U.P.	U.P.	U.P. (2)		AS	CG	GU	MH		A&N	A.P.	TN	KA	KA	KA(2)	PUD			
		CTK	SBR	CHN	MSD	VRN	Mean		Mean	GER	RPR	NVS		PDG	Mean	POB	MTU	ADT	MLG	PNP	Mean		
4401	25952	220	323	297	302	231	267	275	228	264	196	183	190	300	277	319	309	319	314	458	331	282	
4402	25953	235	307	264	284	213	248	261	190	238	185	197	191	266	244	297	296	247	272	307	276	251	
4403	25945	189	322	297	274	254	264	267	246	229	154	164	159	300	246	319	341	290	316	446	324	271	
4404	25970	218	352	297	279	262	271	282	240	223	160	186	173	255	251	374	255	290	273	334	293	265	
4405	Swarna (NC)	218	351	297	259	273	266	280	223	254	153	197	175	255	253	363	283	450	367	586	365	294	
4406	25955	225	294	264	293	265	279	268	236	226	155	186	170	300	271	451	291	276	284	435	337	278	
4407	25042	210	355	253	306	236	271	272	181	239	150	175	163	244	264	275	325	319	322	338	294	258	
4408	25967	246	410	242	277	240	259	283	202	268	200	193	197	244	275	308	286	334	310	609	343	289	
4409	25948	191	350	264	312	243	277	272	196	245	165	172	168	222	251	253	276	305	290	439	291	259	
4410	25959	216	397	330		214	214	289	219	271	153	191	172	311	378	330	328	305	316	309	327	282	
4411	Zonal Check (ZC)	224	318	264	305	248	277	272	234	287	135	266	201	222	253	352	294	247	270	326	282	265	
4412	25973	240	300	264	347	241	294	278	228	221	155	220	188	300	304	275	309	319	314	334	307	270	
4413	25269 (Repeat)	238	290	297	283	247	265	271	206	242	169	175	172	300	268	286	304	348	326	305	302	264	
4414	PA 6444 (HC)	233	294	242	251	295	273	263	230	243	155	191	173	311		396	291	319	305	335	330	270	
4415	25971	207	341	253	272	221	247	259	177	237	197	166	182	244		429	351	378	364	278	336	268	
4416	Local Check	247	322	275	252	285	269	276	216	218	139	220	179	222	271	363	320	334	327	338	308	268	
4417	26080	246	322	341	269	261	265	288	212	251	160	196	178	300	242	319	252	319	286	328	293	268	
	Exp Mean	224	332	279	285	249	267	274	216	244	164	193	178	270	270	336	301	318	309	383	314	271	
	C.D. 5%	52	76	47	14	12	11	21	24	28	5	19		129	41	82	38	55	32	6	27	13	
	C.V.%	13.91	13.71	10.16	2.93	3.01	3.53	10.62	6.70	6.89	1.73	6.03		28.80	9.01	14.76	7.60	10.49	8.94	0.99	13.19	11.40	

Table No. 3.52: Grain quality characteristics of entries in AVT 1-L, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4401	25952	81.2	72.0	60.7	5.35	2.27	2.35	SB	VOC	7.0	25.87	26
4402	52953	81.1	71.2	63.9	5.57	2.03	2.74	MS	A	5.0	26.19	22
4403	25945	81.1	70.5	62.7	5.41	2.17	2.49	SB	VOC	7.0	26.40	39
4404	25970	80.3	67.9	53.5	5.48	2.16	2.53	MS	VOC	4.0	25.54	35
4405	Swarna	79.9	69.8	63.4	5.17	2.20	2.35	SB	VOC	4.0	24.87	24
4406	25955	78.6	67.9	49.8	5.56	2.21	2.51	MS	VOC	4.0	24.90	41
4407	25042	81.8	72.3	66.8	5.63	2.06	2.73	MS	VOC	5.0	25.57	22
4408	25967	79.4	70.4	62.2	5.24	2.54	2.06	SB	VOC	4.0	25.22	35
4409	25948	81.0	71.4	62.8	6.52	2.15	3.03	LS	VOC	4.0	26.40	29
4410	25959	79.6	72.0	66.5	5.48	2.22	2.46	SB	OC	5.0	23.78	46
4411	Pushyami	80.5	71.1	65.0	5.55	2.04	2.72	MS	A	7.0	24.84	22
4412	25973	81.5	72.0	67.1	5.89	2.22	2.65	MS	VOC	4.0	26.92	39
4413	25269	82.5	71.7	64.5	5.52	2.17	2.54	MS	VOC	5.0	24.40	58
4414	PA 6444	81.3	70.9	56.5	6.14	2.23	2.75	LB	VOC	4.0	23.46	45
4415	25971	70.3	58.1	44.3	5.00	2.11	2.36	SB	VOC	3.0	16.28	55
4417	26080	79.5	71.5	69.1	5.48	2.46	2.22	SB	VOC	4.0	23.46	33

HULL: Hulling (%); Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No.3.53: Composition of entries in Initial Variety Trial - Late (IVT-L), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
1st Year of testing:				
4501	26926	AD 13189	ADT 44 / Jeeragasamba	SB
4502	26927	BPT 2678	(MTU 7029 / Moroberakan) / MTU 7029	MS
4503	26928	OR 2573-4	Birupa / IR 76561-AC-8-8	LB
4504	26929	CN-2122	CN1918 / Santephep // Madhavi	LS
4505	26930	RP 5934-78	Swarna / KMR 3 R	SB
4506	26931	RP 6112-MS-166-5-2-8-6-10-5	BPT 5204 Mutant	LS
4507	26932	RP 5695-121-18-3-2-1-1	Sona Mahsuri / Krishnaveni	MS
4508	26933	PAU 4319-9-2-4-1-2-1-1	PAU 3409-37-5 / PAU 3129-64-2-1-1	LB
4509	26934	MEPH-142 (Hybrid)	-	MS
4510	26935	MTU 1253	BPT 5204 / NBR 16	MS
4511	26936	NVSR-389	IET 19384 / PAWANA	MS
4512	26937	NLR 3261	BPT 5204-30 KR	MS
4513	26938	CR 3909-192-5-1-3	CN1233-33-9 / IR85260-148 // IR 72176-307-4-2-2-3	SB
4514	26939	CRHR 114 (Hybrid)	CRMS 32A / CRL 25R	LS
4515	26940	RCPR 50-IR 93621-558-563-B-2-1-1	IR 91659-54-35 // IR81896-B-B-195 / 2* IR05F102	MS
4516	Swarna (NC)			
4517	26941	KAU PTB 0615-01-28-34-1	Pranava / Chettadi	SB
4518	26942	Improved Chepti Gurmatiya	Selection from Chepti Gurmatiya	SB
4519	26943	NK 9315 Imp (Hybrid)	-	MS
4520	26944	WGL-1062	Gedonzibetan / Kavya	MS
4521	26945	CR 3773-3-2-1-1-1-1	Tapaswini / Dular	SB
4522	26946	NLR 3135	NLR 33892 / WGL 20471 / RNR 19994	MS
4523	26947	MTU 1267	(MTU 7029 / MTU 4870) / MTU 7029	MS
4524	26948	PRNP-48	NPG-2 / NPG-24	MS
4525	26949	RP 5977-MS-112-9-4-3-2-4-5	BPT 5204 Mutant	MS
4526	26950	BPT 2659	MTU 2077 / NBR 16 / MTU 2077*2	MS
4527	26951	KAU PTB 0615-01-25-17	Pranava / Chettadi	SB
4528	26952	CR 3825-1-2-1-2-1-1	IR64 / NLR9672-96	SB
4529	NDR 8002 (Eastern & Central), Ranjeet (North Eastern), Salivahana (Western), Pushyami (Southern)—ZC			
4530	26953	BRR 0078	IR 91659:54-35 // IR 81896-B-B-195/2* IR 05F102	MS
4531	26954	US 368 (Hybrid)	-	LS
4532	26955	CRHR 117 (Hybrid)	CRMS 32A / CRL 122R	MS
4533	26956	OR 2541-4	Gouri / IR6237-159	LS
4534	26957	AD 11132	IW.Ponni / Swarna	MS
4535	26958	RP 6112-MS-11-3-36-4-7-3	BPT 5204 Mutant	LS
4536	26959	MTU 1255	MTU 1078 / MTU 1075	MS
4537	26960	RP 5933-123	Swarna / IBL 57	MS
4538	26961	CR 3561-5-1-1-1-1	Surendra / Annapurna	MS
4539	26962	NLR 3380	NLR 145 / QR16	SB
4540	26963	NVSR-331	IET 19384 / NVSR-177	MS
4541	26964	CR 3967-8-3-2-2-1	IR 73895-33-1-3-2 / Pratikshya	LS

Entry No.	IET No.	Designation	Cross combination	Grain type
4542	26965	AD 14175	Salivahana / KL 05027	SB
4543	26966	RP Bio 4919-B-B-458	KMR 3 / O.rufipogon	MS
4544	26967	PAU 3391-41-5-1-1-1-2-2-2	TDCD 3815 / PAU 2963-17-3-1-3	LS
4545	PA 6444 (HC)			
4546	26968	CR 2742-8-3	CR 407 / Samba Mahsuri	LS
4547	26969	OR 2486-2	Khandagiri // Indravati	MS
4548	26970	RP 5684-44-5-3-2-2	Swarna / MORI	MS
4549	26971	BPT 2740	BPT 2270 / NLR 145	MS
4550	26972	Improved Dokra-Dokri	Selection from Dokra-Dokri	LB
4551	26973	CR 3881-M-33-1-3-2-1-1	Naveen / FL496 // Naveen	SB
4552	26974	MTU 1265	MTU 1075 / MTU 7029	MS
4553	26975	WGL-1003	BPT-5204 / Kavya // IR-42 / MP 100	MS
4554	26976	CRHR 113 (Hybrid)	CRMS 31A / CRL 25R	LS
4555	26977	MTU 1264	MTU 1064 / MTU 7029	MS
4556	26978	CR 3582-5-2-3-1-1	Lalat /Supriya	SB
4557	26979	CN-2085	CN 1039-9 /IR 85260-148	MS
4558	26980	AD 14142	CR 1009 / CO 48	MS
4559	26981	CRAC 3995-80-2-1	Doubled haploid of BS 6444G	LS
4560	Local Check			
4561	26982	RP Bio 4919-B-B-377-24	KMR 3 / O.rufipogon	SB
4562	26983	MTU 1252	MTU 2077 / BPT 5204	MS
4563	26984	CN 1998-1-1-1	Mohan / Jaya	LS
4564	26985	MTU 1254	BPT 5204 / WGL 167	MS

Table No. 3.54 : Grain Yield (Kg/ha) of entries in IVT-L Kharif 2017

Entry No.	IET No.	III									
		OD		OD		OD (2)		BI		BI	
		BBN		CTK		Mean		@PTN-ICAR		SBR	BI (1)
4501	26926	4575		7400	2 *#	5988	5 # 13% 45%	2402		7551	5 20%
4502	26927	5882	2 #	7150	3 *#	6516	1 *# 24% 57%	9350	3 *#	5927	
4503	26928	3595		6400	8 #	4997	21%	6694		6724	7%
4504	26929	4248		6050		5149	# 24%	3917		5131	
4505	26930	5065	8 #	5150		5108	# 23%	3524		4804	
4506	26931	2560		3650		3105		5093		3642	
4507	26932	3595		4300		3947		7032		7287	8 16%
4508	26933	3976		4900		4438	7%	8220	9 *#	5050	
4509	26934	5229	6 #	6850	4 #	6039	3 # 14% 46%	9933	1 *#	4498	
4510	26935	5719	3 #	5000		5359	# 2% 29%	6169		8194	1 # 7% 30%
4511	26936	4956	#	4150		4553	10%	5140		7251	9 15%
4512	26937	4194		5050		4622	12%	1694		6918	10%
4513	26938	3976		5850		4913	19%	2092		6344	1%
4514	26939	4575		5050		4813	16%	6713		5147	
4515	26940	4194		5150		4672	13%	8165	*#	6692	6%
4516	Swarna (NC)	4139		5700		4920	19%	7574	#	7384	6 17%
4517	26941	4847	#	6400	9 #	5624	8 # 7% 36%	8104	*#	5160	
4518	26942	2342		2200		2271		2851		6849	9%
4519	26943	4630	#	4000		4315	4%	9319	4 *#	6604	5%
4520	26944	3813		5100		4456	8%	4133		7198	14%
4521	26945	4031		4700		4365	5%	6976		7349	7 17%
4522	26946	3813		5000		4406	6%	5149		4473	
4523	26947	6155	1 *#	6100	#	6127	2 # 16% 48%	7927	#	5599	
4524	26948	4902	#	5750		5326	# 1% 29%	9257	5 *#	6278	
4525	26949	4412		5500		4956	20%	5306		6895	10%
4526	26950	3704		4050		3877		4256		7558	4 20%
4527	26951	4684	#	6700	5 #	5692	7 # 8% 37%	9826	2 *#	5781	
4528	26952	3105		3950		3527		5654		5955	
4529	Zonal Check (ZC)	4902	#	5650		5276	# 27%	7140		6249	
4530	26953	4902	#	4900		4901	18%	5911		5983	
4531	26954	3322		4500		3911		4931		7162	14%
4532	26955	4684	#	5150		4917	19%	7771	#	6535	4%
4533	26956	5120	7 #	4750		4935	19%	7134		7019	12%
4534	26957	3649		5150		4400	6%	4986		5627	
4535	26958	2397		3600		2998		6238		5443	
4536	26959	3540		4800		4170	1%	2044		5655	
4537	26960	2778		3700		3239		4103		7583	3 21%
4538	26961	4357		6100	#	5229	# 26%	7573	#	4714	
4539	26962	4521		6350	#	5435	# 3% 31%	1776		5518	
4540	26963	4303		4600		4451	8%	5183		6882	9%
4541	26964	4575		6050		5313	# 1% 28%	8410	7 *#	2735	
4542	26965	4684	#	5950		5317	# 1% 28%	5117		5999	
4543	26966	3758		4050		3904		1276		5308	
4544	26967	3540		4950		4245	3%	6442		7127	13%
4545	PA 6444 (HC)	3431		4850		4141		6857		6292	
4546	26968	4684	#	4450		4567	10%	7842	#	5976	
4547	26969	4847	#	5850		5349	# 1% 29%	6957		6745	7%
4548	26970	3813		5150		4481	8%	5707		6736	7%
4549	26971	3431		6000		4716	14%	5890		5811	
4550	26972	2179		2600		2389		1818		4928	
4551	26973	3377		4650		4013		3363		6653	6%
4552	26974	4412		6700	6 #	5556	9 # 5% 34%	8358	8 *#	5048	
4553	26975	3704		4550		4127		6515		5652	
4554	26976	5011	#	5200		5105	# 23%	7506	#	3674	
4555	26977	5556	4 #	5400		5478	# 4% 32%	8769	6 *#	6462	3%
4556	26978	2996		5450		4223	2%	8219	*#	6193	
4557	26979	5338	5 #	5200		5269	# 27%	8089	*#	4250	
4558	26980	3050		6215	#	4633	12%			6689	6%
4559	26981	2451		3350		2900		4271		6868	9%
4560	Local Check	4139		5500		4820	16%	6511		7649	2 22%
4561	26982	4085		4300		4192	1%	4026		5393	
4562	26983	4575		7500	1 *#	6038	4 # 14% 46%	4030		6770	8%
4563	26984	5065	9 #	6500	7 #	5783	6 # 10% 40%	5803		4369	
4564	26985	3268		4150		3709		5753		4546	
Exp Mean		4146		5173		4660		5949		6039	
C.D. 5%		1160		1235		918		374		1560	
C.V.%		14.00		11.95		14.08		3.15		12.93	
Sowing Date		05-07-2017		11-07-2017				24-06-2017		21-06-2017	
Planting Date		02-08-2017		19-08-2017				20-07-2017		15-07-2017	
Local ©		Hasanta						Sambha Mahsuri		R. Mahsuri-1	

* Superior to Best Check % Superior over Best Check @ not included in means

Superior to Hybrid Check % Superior over Hybrid Check

Table No. 3.54 contd : Grain Yield (Kg/ha) of entries in IVT-L Kharif 2017

Entry No.	IET No.	W.B		U.P.		Zone III (3)			V		VI		Zone VI (2)		VII	
		@ CHN		@MSD		Mean			CG		GU		PDG		A.P.	
									RPR		NVS				MTU	
4501	26926	4198		2194		6509	1 *#	13% 34%	4073		4842		3106		3974	
4502	26927	6790	1 *#	1928		6320	2 #	10% 30%	6509	2 #	3441		5088		4265	
4503	26928	4074		3657	#	5573		15%	5646		3813		4735		4274	
4504	26929	6173	4 #	2394		5143		6%	5493		3453		3775		3614	
4505	26930	4568		2161		5007		3%	5367		4198		4848		4523	
4506	26931	4321		3524	#	3284			3027		4949		4293		4621	
4507	26932	4938	#	3557	#	5061		4%	2982		4893		4154		4523	
4508	26933	5432	#	3225	#	4642			4606		4059		4091		4075	
4509	26934	4938	#	3391	#	5526		14%	7051	1 #	6143	7	4697		5420	7 14%
4510	26935	4321				6304	3 #	9% 30%	4892		5556		3422		4489	
4511	26936	4074		3457	#	5452		12%	4317		5101		5455	3	5278	11%
4512	26937	4691				5387		11%			4470		2866		3668	
4513	26938	4074		2227		5390		11%	2774		6755	2 *	2929		4842	2%
4514	26939	4321		2427	#	4924		1%	4814		5682		4924		5303	11%
4515	26940	5309	#	2194		5345		10%	4498		5019		4154		4586	
4516	Swarna (NC)	5926	6 #	2028		5741	9 #	18%	5910	5	4855		4659		4757	
4517	26941	4444		2992	#	5469		13%	5532		4375		4609		4492	
4518	26942	4321		1895		3797			3316		2759		3232		2996	
4519	26943	4938	#	3890	3 #	5078		5%	5517		4855		5758	2 *#	5306	9 12%
4520	26944	4074		3657	#	5370		11%	2798		4369		2879		3624	
4521	26945	4691		2128		5360		10%	4246		4931		4091		4511	
4522	26946	4321		2161		4429			2560		3144		3144		3144	
4523	26947	6790	2 *#	2660	#	5951	5 #	3% 23%	5841	7	6294	6	4331		5313	8 12%
4524	26948	4321		4122	1 *#	5643	#	16%	6327	3	5044		4078		4561	
4525	26949	4568		2028		5602	#	15%	5811	9	4496		3068		3782	
4526	26950	4074				5104		5%	3396		2412		3384		2898	
4527	26951	5309	#	3624	#	5722	#	18%	5434		3996		4280		4138	
4528	26952	4074				4337			4261		6035		3687		4861	2%
4529	Zonal Check (ZC)	6543	3 #	3557	#	5600	#	15%	4887		3213		5152	6	4182	
4530	26953	5432	#	4056	2 *#	5262		8%	5876	6	4274		4697		4485	
4531	26954	4321		2261		4995		3%	2983		6465	4 *	4432		5448	6 15%
4532	26955	4321		2294		5456		12%	4745		5114		4343		4729	
4533	26956	4938	#	3557	#	5630	#	16%	5601		3068		4533		3801	
4534	26957	4074		3757	7 #	4809			2865		4766		3662		4214	
4535	26958	4074		3624	#	3813			1852		6010		3598		4804	1%
4536	26959	4074		1795		4665			4287		3504		4040		3772	
4537	26960	4321				4687			3351		2601		3712		3157	
4538	26961	4074		3225	#	5057		4%	3490		6364	5 *	5152	7	5758	3 * 21%
4539	26962	4321		3324	#	5463		12%	1498		4104		3056		3580	
4540	26963	4568		3358	#	5262		8%	5188		6484	3 *	4558		5521	4 * 16%
4541	26964	4444		3690	9 #	4453			6033	4	4710		3876		4293	
4542	26965	6173	5 #	3757	8 #	5544		14%	4943		3163		3939		3551	
4543	26966	4074		3890	4 *#	4372			3109		3826		3598		3712	
4544	26967	4444		2294		5206		7%	4025		5650		4306		4978	5%
4545	PA 6444 (HC)	4691		2161		4858			5305		6843	1 *	5152	8	5997	1 * 26%
4546	26968	4691		1795		5037		4%	4919		6054	9	4394		5224	10%
4547	26969	4321		3823	5 *#	5814	6 #	1% 20%	4791		4817		3447		4132	
4548	26970	5926	7 #	3358	#	5233		8%	4184		5057		4609		4833	2%
4549	26971	4198		3524	#	5081		5%	4672		3908		4129		4018	
4550	26972	4321		1895		3236			3270		2727		3864		3295	
4551	26973	4074		3125	#	4893		1%	4145		2336		4470		3403	
4552	26974	4074		2992	#	5387		11%	5176		4962		6061	1 *#	5511	5 * 16%
4553	26975	4938	#	3291	#	4635			2532		3580		3737		3658	
4554	26976	5679	9 #			4628			4468		6086	8	5455	4	5770	2 * 21%
4555	26977	5185	#	2427	#	5806	7 #	1% 20%	5505		3112		3144		3128	
4556	26978	4321		3790	6 #	4880			5020		5246		3876		4561	
4557	26979	5185	#	2028		4929		1%	5832	8			5000		5000	5%
4558	26980	4074				5318		9%			2405		4912		3658	
4559	26981	4444		3424	#	4223			2646		5158		3561		4359	
4560	Local Check	4568		2493	#	5763	8 #	19%	5152		3952		5152	9	4552	
4561	26982	4691		3624	#	4593			3678		5429		4242		4836	2%
4562	26983	4321		3657	#	6282	4 #	9% 29%	2869		4350		3952		4151	
4563	26984	5926	8 #	1762		5311		9%	4316		3655		5177	5	4416	
4564	26985	4198		3624	#	3988			5152		3782		4192		3987	
	Exp Mean	4720		2961		5119			4441		4551		4202		4375	
	C.D. 5%	44		247		734			1164		1457		541		712	
	C.V. %	0.46		4.16		12.60			13.10		16.01		6.45		11.63	
	Sowing Date	05-07-2017		28-06-2017					20-06-2017		20-06-2017		24-06-2017			03-07-2017
	Planting Date	04-08-2017		30-07-2017					10-07-2017		17-07-2017		18-07-2017			06-08-2017
	Local ©	Kaushalya		Sambha Mahsuri					Jaldubi		Mashuri		Karjat - 2			MTU1064
																CR 1009 sub 1

Table No. 3.54 contd : Grain Yield (Kg/ha) of entries in IVT-L Kharif 2017

Entry No.	IET No.					Zone VII (2)		Overall (8)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		KA		KA								
		@MLG		@PNP		Mean		Mean				
4501	26926	1744		479		5875	# 2% 32%	5412	9 6%	123	122	277
4502	26927	3534	3 *	3743	9	6519	6 # 14% 46%	5879	1 # 7% 15%	114	107	272
4503	26928	2581		3493		4696	5%	5038		106	119	277
4504	26929	2906	*	861		3741		4454		114	132	257
4505	26930	1694		660		3421		4534		111	120	269
4506	26931	1153		1313		4090		3788		107	115	257
4507	26932	2329		2396		5279	18%	4721		111	108	287
4508	26933	1038		813		4812	8%	4538		107	101	278
4509	26934	3068	8 *	4264	2	5816	# 1% 30%	5762	3 # 5% 13%	109	110	273
4510	26935	772		1625		6772	3 # 18% 52%	5651	5 # 3% 11%	117	110	295
4511	26936	2038		2639		5360	20%	5244	3%	105	97	279
4512	26937	86		2125		4471		4634		136	110	321
4513	26938	983		4125	4	5259	18%	4893		126	117	258
4514	26939	3174	6 *	3208		4844	9%	4985		108	117	262
4515	26940	2856	*	4181	3	5899	# 3% 32%	5188	2%	110	102	286
4516	Swarna (NC)	1714		2590		5718	# 28%	5510	8 8%	109	102	287
4517	26941	1364		1417		5443	22%	5226	2%	113	116	280
4518	26942	1761		2806		3148		3374		101	125	244
4519	26943	2903	*	3375		4801	8%	5121		105	117	254
4520	26944	370		1965		5272	18%	4588		120	125	264
4521	26945	2056		1785		4219		4795		104	122	264
4522	26946	1213		3729		5344	20%	3925		123	117	268
4523	26947	1503		2653		6261	7 # 9% 40%	5855	2 # 6% 15%	112	112	271
4524	26948	2221		3076		6028	# 5% 35%	5554	7 1% 9%	113	110	280
4525	26949	2450		3243		5180	16%	5068		107	126	274
4526	26950	306		3243		5177	16%	4357		125	114	291
4527	26951	1261		1819		6130	8 # 7% 37%	5392	6%	114	118	270
4528	26952	1446		4000	7	7738	1 *# 35% 73%	5309	4%	104	115	249
4529	Zonal Check (ZC)	1498		3340		5630	26%	5164	1%	112	111	272
4530	26953	1281		2958		5610	26%	5231	3%	111	106	276
4531	26954	2678	*	2799		3850		4571		99	113	270
4532	26955	2349		1646		4310		4899		107	117	265
4533	26956	792		3576		6079	9 # 6% 36%	5281	4%	116	111	311
4534	26957	1529		2458		5086	14%	4486		109	116	289
4535	26958	2108		2576		3652		3776		99	99	262
4536	26959	628		1083		6030	# 5% 35%	4736		127	110	281
4537	26960	1370		2590		4315		4045		109	128	286
4538	26961	2323		2653		5754	# 29%	5211	2%	104	112	261
4539	26962	157		3333		4343		4216		129	122	260
4540	26963	3326	4 *	2465		6601	5 # 15% 48%	5652	4 # 3% 11%	106	112	284
4541	26964	3291	5 *	3326		5266	18%	4814		118	120	285
4542	26965	1408		2965		5637	26%	4994		119	106	276
4543	26966	2367		569		4551	2%	4094		102	134	276
4544	26967	3001	9 *	3646		4566	2%	4841		105	104	273
4545	PA 6444 (HC)	5477	1 *	4285	1	4463		5100		102	114	284
4546	26968	1333		2583		5493	23%	5183	2%	107	115	287
4547	26969	2181		2701		4320		4892		110	120	282
4548	26970	3162	7 *	896		4280		4764		109	109	286
4549	26971	522		2299		5205	17%	4795		121	105	301
4550	26972	1443		188		3523		3327		110	143	226
4551	26973	1129		2833		4808	8%	4406		103	123	261
4552	26974	2228		3778	8	6813	2 # 19% 53%	5596	6 # 2% 10%	109	113	291
4553	26975	2288		2674		5129	15%	4252		109	116	247
4554	26976	3683	2 *	4097	5	6652	4 # 16% 49%	5400	6%	107	122	280
4555	26977	1434		3528		5580	25%	5042		116	113	284
4556	26978	1110		1563		4858	9%	4812		102	110	270
4557	26979	1441		2833		4916	10%	5064		112	120	293
4558	26980	94		2069		5019	12%	4758		134	112	319
4559	26981	1314		1375		3680		3924		103	94	274
4560	Local Check	1406		4083	6	5736	# 29%	5377	5%	115	122	287
4561	26982	892		1764		3848		4353		105	128	286
4562	26983	408		3181		5620	26%	5157	1%	122	110	255
4563	26984	1098		3139		4653	4%	4798		118	121	256
4564	26985	416		3347		4900	10%	4361		118	107	278
	Exp Mean	1776		2607		5105		4845		112	115	275
	C.D. 5%	943		752		1179		465		1		13
	C.V. %	26.57		14.43		16.50		13.81		1.32		8.66
	Sowing Date	23-06-2017		11-07-2017								
	Planting Date			13-08-2017								
	Local ©	MGD-03		Tunga								

Table No. 3.55 : Days to 50% Flowering of entries in IVT-L Kharif 2017

Entry No.	IET No.	III									Zone III (6)	V		VI		Zone VI (2)	VII					Zone VII (4)	Overall (13)
		OD	OD	OD (2)	BI	BI	BI (2)	WB	U.P.	CG		GU	MH	A.P.	TN		KA	KA	KA (2)				
		BBN	CTK	Mean	PTN-ICAR	SBR	Mean	CHN	MSD	Mean	RPR	NVS	PDG	Mean	MTU	ADT	MLG	PNP	Mean	Mean	Mean		
4501	26926	120	126	123	133	131	132	123	127	127	125	121	122	121	123	122	102	127	115	118	123		
4502	26927	108	106	107	118	121	119	113	136	117	113	111	108	109	114	108	115	111	113	112	114		
4503	26928	101	101	101	110	110	110	98	121	107	104	108	101	104	105	95	113	110	112	106	106		
4504	26929	110	105	107	124	121	122	102	131	115	115	113	111	112	119	109	116	111	113	114	114		
4505	26930	106	107	106	116	121	118	100	135	114	107	107	107	107	119	103	112	109	111	111	111		
4506	26931	106	107	107	111	115	113	99	124	110	107	98	106	102	107	99	110	110	110	106	107		
4507	26932	109	107	108	121	123	122	113	109	113	113	111	103	107	115	103	113	109	111	110	111		
4508	26933	106	107	107	104	109	106	98	125	108	105	102	105	103	104	102	113	119	116	109	107		
4509	26934	105	107	106	107	108	107	97	124	108	108	102	106	104	107	111	115	117	116	112	109		
4510	26935	118	121	119	120	131	125	111		120	122	116	104	110		104	123	119	121	115	117		
4511	26936	100	101	100	107	108	107	97	125	106	105	97	99	98	104	104	105	112	108	106	105		
4512	26937	137	131	134	146	149	147	124		137		140	131	135	141	117	144	136	140	134	136		
4513	26938	119	107	113	139	150	144	119	134	128	135	129	130	129	118	115	125	117	121	119	126		
4514	26939	106	102	104	110	113	111	98	128	109	108	97	105	101	106	109	116	117	116	112	108		
4515	26940	102	106	104	112	118	115	113	132	114	105	110	99	104	119	107	105	107	106	109	110		
4516	Swarna (NC)	102	103	102	111	105	108	95	134	108	104	108	102	105	107	113	116	118	117	113	109		
4517	26941	116	109	113	115	118	116	112	125	116	107	98	109	103	121	102	118	117	118	114	113		
4518	26942	96	90	93	106	107	106	93	135	104	98	98	93	95	111	90	101	100	100	100	101		
4519	26943	100	96	98	115	113	114	99	118	107	113	96	107	101	104	89	116	107	112	104	105		
4520	26944	119	121	120	132	138	135	88	109	117	124	119	120	119	119	112	133	126	129	122	120		
4521	26945	100	99	99	110	108	109	93	127	106	102	97	99	98		99	113	107	110	106	104		
4522	26946	120	121	120	126	125	125	126	131	125	124	118	116	117		118	131	122	126	123	123		
4523	26947	108	108	108	118	118	118	103	126	113	112	113	106	109	114	102	118	111	114	111	112		
4524	26948	109	108	108	114	118	116	105	124	113	113	114	108	111	119	103	118	120	119	115	113		
4525	26949	105	104	104	106	111	108	100	135	110	103	108	97	102	107	96	112	107	110	105	107		
4526	26950	127	116	121	131	128	129	127		125	127	127	123	125	125	106	137	129	133	124	125		
4527	26951	111	112	111	117	121	119	112	115	114	113	113	108	110	118	106	123	119	121	116	114		
4528	26952	103	104	103	104	108	106	96		103	101	96	98	97	105	107	116	108	112	109	104		
4529	Zonal Check (ZC)	106	106	106	119	121	120	111	122	114	107	111	100	105	118	109	112	110	111	112	112		
4530	26953	108	105	106	113	114	114	118	123	113	109	108	103	105	111	105	116	112	114	111	111		
4531	26954	94	96	95	89	121	105	89	130	103	92	90	91	90	99	97	103	106	105	101	99		
4532	26955	104	100	102	113	111	112	98	131	109	105	106	105	105	105	89	115	106	111	104	107		
4533	26956	115	107	111	115	115	115	112	126	115	115	111	115	113	119	111	123	126	124	120	116		
4534	26957	108	107	107	109	110	109	98	126	109	108	101	104	102	114	106	112	119	116	113	109		
4535	26958	88	96	92	94	120	107	89	125	102	117	91	89	90	97	88	94	104	99	96	99		
4536	26959	124	125	124	135	131	133	124	135	129	127	121	123	122	128	129	126	124	125	127	127		
4537	26960	102	108	105	114	116	115	112		110	105	109	105	107	116	109	112	109	111	111	109		
4538	26961	101	95	98	107	106	107	98	126	105	102	98	103	100	105	98	103	108	106	103	104		
4539	26962	133	126	129	137	157	147	88	109	125	136	141	126	133	141	134	130	127	128	133	129		
4540	26963	101	102	102	103	109	106	88	122	104	104	101	98	99	105	133	102	110	106	112	106		
4541	26964	118	117	117	118	126	122	123	121	120	122	109	113	111	124	106	124	123	124	119	118		
4542	26965	116	120	118	126	121	123	112	136	121	117	111	112	111	124	109	120	124	122	119	119		
4543	26966	97	101	99	101	106	103	95	115	102	98	99	99	99	101	103	108	109	109	105	102		
4544	26967	101	112	106	100	103	101	95	132	107	104	98	101	100	99	103	111	116	113	107	105		
4545	PA 6444 (HC)	99	96	97	99	103	101	89	130	102	98	98	98	98	100	99	108	111	110	104	102		
4546	26968	102	106	104	102	103	102	97	135	107	103	101	105	103	106	104	118	116	117	111	107		
4547	26969	105	103	104	110	111	111	98	120	108	107	97	105	101	115	128	116	115	115	118	110		
4548	26970	109	107	108	110	124	117	103	107	110	112	97	106	101	118	111	113	109	111	113	109		
4549	26971	120	127	123	125	127	126	112	123	122	121	110	115	112	126	114	131	126	129	124	121		
4550	26972	102	94	98	137	123	130	98	133	114	118	109	109	109	104	90	112	99	106	101	110		
4551	26973	96	101	98	92	120	106	90	125	104	119	91	89	90	112	96	103	106	105	104	103		
4552	26974	106	105	106	116	116	116	99	126	111	113	90	105	97		103	120	112	116	112	109		
4553	26975	107	105	106	116	121	118	106	115	111	111	109	105	107	97	99	116	109	113	105	109		
4554	26976	106	107	106	110	111	110	98		106	108	100	106	103	124	88	116	111	114	110	107		
4555	26977	122	111	116	128	127	128	124	98	118	121	118	113	116	107	105	120	116	118	112	116		
4556	26978	100	96	98	104	109	107	97	118	104	100	99	98	98	106	94	108	104	106	103	102		
4557	26979	108																					

Table No. 3.56 : Plant Height (cm) of entries in IVT-L Kharif 2017

1.222

Table No. 3.57 : Panicles/ M² of entries in IVT-L Kharif 2017

Entry No.	IET No.	III									Zone III (6)	V			VI			Zone VI		VII					Zone VII		Overall (13)
		OD	OD	OD (2)	BI	BI	BI (2)	W.B	U.P.	CG		GU	MH	(2)	A.P.	TN	KA	KA	KA (2)	(4)							
		BBN	CTK	Mean	PTN-ICAR	SBR	Mean	CHN	MSD	Mean		RPR	NVS	PDG	Mean	MTU	ADT	MLG	PNP	Mean	Mean	Mean					
4501	26926	210	351	281	310	239	274	314	245	278	276	154	237	195	201	429	285	348	317	316	277						
4502	26927	233	276	254	269	299	284	380	274	288	238	193	218	205	208	347	279	319	299	288	272						
4503	26928	222	287	254	273	253	263	347	226	268	257	236	222	229	281	380	318	305	312	321	277						
4504	26929	222	211	217	174	318	246	380	214	253	252	157	333	245	228	297	312	247	279	271	257						
4505	26930	219	232	225	330	230	280	396	310	286	249	213	213	213	218	314	272	305	289	277	269						
4506	26931	212	283	248	230	248	239	413	307	282	210	136	204	170	271	264	233	327	280	273	257						
4507	26932	232	456	344	250	316	283	314	320	314	219	160	217	188	271	363	305	305	305	311	287						
4508	26933	220	326	273	322	223	272	347	307	291	256	160	214	187	244	363	345	283	314	309	278						
4509	26934	223	245	234	326	203	264	347	290	272	271	178	219	199	238	314	285	414	350	313	273						
4510	26935	277	263	270	329	270	299	347		297	281	202	211	206		446	325	298	311	356	295						
4511	26936	216	232	224	220	335	278	314	251	261	216	144	210	177	254	380	338	523	430	374	279						
4512	26937	228	398	313	383	296	340	314		324		158	207	182	231	413	371	530	451	386	321						
4513	26938	188	299	243	262	263	262	347	247	267	273	172	209	191	185	314	318	283	301	275	258						
4514	26939	199	370	285	241	208	224	330	282	272	222	192	193	192	244	314	318	290	304	292	262						
4515	26940	234	231	232	243	214	229	347	271	257	292	163	196	179	231	363	384	545	464	381	286						
4516	Swarna (NC)	208	309	258	311	244	277	380	317	294	252	152	246	199	323	347	338	312	325	330	287						
4517	26941	254	246	250	256	280	268	314	330	280	259	154	193	173	208	462	378	312	345	340	280						
4518	26942	158	254	206	261	225	243	281	263	240	217	190	226	208	294	248	266	298	282	276	244						
4519	26943	220	276	248	236	243	239	330	259	260	238	155	217	186	158	396	285	290	288	283	254						
4520	26944	211	289	250	226	301	263	429	255	285	247	157	223	190	231	281	332	254	293	274	264						
4521	26945	214	330	272	301	176	238	330	268	270	263	151	227	189		198	325	392	358	305	264						
4522	26946	248	332	290	348	193	270	314	243	279	257	151	223	187		297	299	312	305	303	268						
4523	26947	256	375	316	276	294	285	380	236	303	235	199	215	207	218	297	285	254	270	264	271						
4524	26948	209	244	226	263	266	265	347	338	278	253	154	235	195	228	429	285	392	339	334	280						
4525	26949	218	255	236	276	353	314	314	289	284	278	152	225	189	254	281	312	363	337	302	274						
4526	26950	235	419	327	278	209	243	347		297	281	203	248	225	267	363	299	348	323	319	291						
4527	26951	227	262	244	273	235	254	330	296	270	225	156	249	203	191	380	312	370	341	313	270						
4528	26952	216	276	246	222	214	218	380		261	222	152	225	189	238	248	292	305	298	270	249						
4529	Zonal Check (ZC)	241	341	291	234	232	233	347	247	273	260	187	216	202	224	314	378	312	345	307	272						
4530	26953	218	332	275	303	218	260	347	228	274	259	155	221	188	287	347	338	341	340	328	276						
4531	26954	203	330	266	233	259	246	330	331	281	227	154	202	178	271	330	266	370	318	309	270						
4532	26955	243	271	257	176	170	173	380	242	247	232	195	176	185	241	380	444	298	371	340	265						
4533	26956	262	257	259	308	256	282	363	244	282	291	175	261	218	261	545	404	421	413	408	311						
4534	26957	274	430	352	259	231	245	363	296	309	226	163	254	209	201	413	351	298	324	316	289						
4535	26958	183	318	250	291	256	274	314	268	272	217	146	192	169	215	281	332	399	365	306	262						
4536	26959	222	356	289	260	273	266	281	266	276	282	149	252	201	248	297	351	414	383	327	281						
4537	26960	254	255	254	299	230	264	479		303	239	210	222	216	234	297	391	327	359	312	286						
4538	26961	207	297	252	205	242	224	314	271	256	244	197	227	212	241	248	345	356	350	297	261						
4539	26962	217	252	234	225	252	239	281	319	257	248	155	239	197	274	281	338	298	318	298	260						
4540	26963	267	264	265	152	279	215	347	194	250	229	241	227	234	284	413	411	385	398	373	284						
4541	26964	232	419	325	282	332	307	314	178	293	281	198	256	227	215	429	299	276	287	304	285						
4542	26965	258	265	261	238	223	230	363	298	274	235	161	251	206	274	347	351	327	339	325	276						
4543	26966	243	320	281	294	294	294	330	246	288	251	204	221	212	221	347	305	312	309	296	276						
4544	26967	250	255	252	231	387	309	363	233	286	251	147	231	189	224	347	285	348	317	301	273						
4545	PA 6444 (HC)	240	377	308	270	262	266	363	349	310	246	170	216	193	244	380	318	261	290	301	284						
4546	26968	223	288	255	244	290	267	347	356	291	241	184	193	188	287	396	351	327	339	340	287						
4547	26969	242	255	249	250	250	250	380	310	281	253	191	180	185	238	528	325	269	297	340	282						
4548	26970	220	291	255	368	256	312	281	277	282	220	184	205	194	228	413	338	443	390	355	286						
4549	26971	265	265	265	358	324	341	314	312	306	239	191	212	202	271	281	398	486	442	359	301						
4550	26972	151	207	179	141	295	218	281	273	225	205	162	189	176	231	116	318	370	344	259	226						
4551	26973	235	343	289	235	253	244	347	194	268	218	188	176	182	191	413	279	319	299	301	261						
4552	26974	252	330	291	308	215	261	297	241	274	296	220	220	220		363	398	348	373	370	291						
4553	26975	159	364	261	193	253	223	314	231	252	201	159	202	181	261	264	318	298	308	285	247						
4554	26976	266	320	293	278	220	249	380		292	216	149	253	201	221	297	384	378	381	320	280						
4555	26977	249	446	347	297	253	275	347	196	298	202	166	240	203	221	380	417	283	350	325	284						
4556	26978	214	265	239	280	226	253	363	302	275	251	151	246	198	300	297	305	312	309	304							

INITIAL VARIETY TRIAL - BORO (IVT – BORO) 2016-17**Locations: 7****Test Entries: 43****Checks: IR-64 – National, Gautam – Zonal,
Rajalakshmi – Hybrid and Local Check****Table:3.58**

The Initial variety trial – Boro (2016-17) was constituted with 43 test entries and four checks IR- 64 (National), Gautam (Zonal), Rajalakshmi (Hybrid) and a Local Check. Of the 43 test entries, one entry (IET 24898) was in 3rd year and three entries (IET 25692, IET 25688 and IET 23354) were in 2nd year of testing, while the remaining 39 entries were in 1st year of testing. The trial was conducted at 7 typical Boro locations. Experimental mean yield ranged from 2917 kg/ha at Lembucherra to 7576 kg/ha at Varanasi. The experimental mean grain yield of Lembucherra was low (2917 kg/ha), hence not considered for overall mean and analysis. The CV% of the test locations ranged from 3.75% at Arundhutinagar to 14.44% at Cuttack. Days to 50% flowering ranged from 117 days (IET 26442) to 145 days (IET 26444). Plant height of the entries ranged from 87cm (IET 26453 and IET 26442) to 125 cm (IET 26452), while the panicles per square meter ranged from an extremely low value of 25 (IET 26455) to a maximum of 502 (IET 26454). The data pertaining to yield, days to 50% flowering, plant height and No. of panicles per square meter are presented in tables 3.59, 3.60, 6.61 and 3.62.

The hybrid check (Rajalakshmi) recorded highest yield of 7313 kg/ha on over all mean, followed by zonal check (Gautam-6304 kg/ha), local check (5901 kg/ha) and national check (IR 64-5413 kg/ha). Of the 43 test entries IET 26435, IET 26431, IET 26439, IET 26446, IET 26434, IET 26429, IET 26432, IET 26426, IET 25692 and IET 26436 recorded the required yield superiority over the best varietal check (Zonal check) on overall mean. The details are here under.

On zonal basis, the following entries recorded required yield superiority over best varietal check In Zone III IETs 23354, 24898, 26426, 26427, 26429, 26431, 26432, 26434, 26435, 26439 and 26463.

In Zone IV IETs 25692, 26426, 26428, 26429, 26431, 26432, 26434, 26435, 26439, 26440, 26446, 26448, 26451, 26453, 26456, 26457 and 26461.

In Zone VII required yield advantage was not reported.

The first best entry in the trial IET 26435 (TRC 2016-14) from the cross Pyzum / Samba Mahsuri with long slender grain type and 128 days to 50% flowering recorded 7724 kg/ha of mean grain yield. This entry in its first year of testing recorded 22.53% yield advantage over the best check (Zonal) and 5.62% over the hybrid check Rajalakshmi. It ranked 2nd in Zone III with 7972 kg/ha of yield and 24.08% and 11.53% yield advantage over best varietal and hybrid checks in that zone. It stood first in Telangana with 7441 kg/ha yield and 5.62% of yield advantage over best varietal check. It yielded 8125 kg/ha in West Bengal with 2nd rank and had 25.81% yield advantage over best varietal check. Therefore, promoted to second year of testing.

IET 26431 (YNP 7023) is the second best entry with parentage of MTU 1010 / GB3. It out yielded best varietal check by 15.59% with a mean yield of 7287 kg/ha and 125 days to

50% flowering with long slender grain type. It has superiority over national check (IR 64) 34.62%, zonal check (Gautam) 15.59% and local check 23.48% respectively. It stood first in Zone IV with 9754 kg/ha yield with 92.05% yield gain over best varietal check. It ranks 1st in both West Bengal and Tripura states with yield of 8750 kg/ha and 9754 kg/ha and yield advantage of 35.49% and 92.05% over best varietal check in West Bengal and Tripura states respectively. Hence, promoted to second year of testing.

Performance of entries in Initial Variety Trial – Boro (IVT-BORO) 2016-17

Rank	IET No/ Designation Cross combination	GY/ FD/ GT	% Superiority over IR 64 / Gautam / Raja- lakshmi/ Local Check	% Increase over BC (State)				% Increase over BC (Zonal)			
				Rank	Yield	% BVC	% HC	Rank	Yield	% BVC	% HC
First year of testing:											
1	IET 26435 TRC 2016-14 (Pyzum/Samba Mahsuri)	7724 128 LS	42.69 22.53 5.62 30.89	OD-5 WB-2 TEL-1	9277 8125 7441	40.56 25.81 5.62	- 15.94 8.04	III-2 IV VII-1	7972 7016 7441	24.08 38.14 5.62	11.53 - 8.04
2	IET 26431 YNP 7023 (MTU 1010/GB3)	7287 125 LS	34.62 15.59 - 23.49	WB-1 TR-1	8750 9754	35.49 92.05	24.86 16.15	IV-1	9754	92.05	16.15
3	IET 26439 CR 3856-44- 22-2-1-10-1-5 (IR 73963-86- 1-5-2-2/CR 2324-1)	7233 126 MS	33.62 14.73 - 22.57	OD-6 TR- 4	9233 8363	39.89 64.66	- -	III-9 IV-4	7117 8363	10.77 64.66	- -
4	IET 26446 CRAC 3995- 48(DH) Doubled haploid of BS 6444G	7145 123 MB	32.00 13.34 - 21.08	TR-2	8858	74.40	5.48	IV-2	8858	74.40	5.48
5	IET 26434 CR 4032-1-3- 2-1-1	7030 129	29.87 11.52 - 19.13	TR-5	8314	63.69	-	III-6 IV-5	7266 8314	13.09 63.69	- -
Second year of testing:											
1	IET 25692 IR 82489-7-2- 2-2 CR 3724- 1 (IR 72967-12- 2-2-3/PR 31090-33-2- 1)	6654 129 MS	5.5 22.93 - 12.76	CTK- 4	9400	42.42	-	III IV	6601 6704	2.74 31.99	- -
2	IET 25688 IR 72158- 154-3-2-1-CR 3624-1-2-2 (BG90-2/IR 67962-84-2- 2-2)	5970 135 LS	- 10.29 - 1.17	CTK- 9	9150	38.64	-	III	6442	0.26	-

Rank	IET No/ Designation Cross combination	GY/ FD/ GT	% Superiority over IR 64 / Gautam / Raja- lakshmi/ Local Check	% Increase over BC (State)				% Increase over BC (Zonal)			
				Rank	Yield	% BVC	% HC	Rank	Yield	% BVC	% HC
3	IET 23354 RP 5125-12- 5-3-B (IR 84898) (IR 78877-208-B- 1-1/IR 78878- 53-2-2-2)	6267 121 LB	- 15.78 - 6.20	CTK TRP	8775 5614	32.95 10.53	- -	III	6913	7.60	-
	IR 64 (NC)	5413 119									
	Gautam (ZC)	6304 120									
	Rajalakshmi (HC)	7313 122									
	Local Check (LC)	5901 120									

The third best entry IET 26439 (CR 3856-44-22-2-1-10-1-5) with parental combination of IR 73963-86-1-5-2-2/CR 2324-1 yielded 7233 kg/ha of mean grain yield and showed yield advantage of 14.74% over best varietal check. It got 4th rank in Zone IV with 64.66% yield advantage over best varietal check with an yield of 8363 kg/ha. It ranks 6th with 9233 kg/ha in Odisha having 39.89% of yield grain over best varietal check. Hence, promoted to second year of testing.

IET 25692 (IR 82489-7-2-2-2 CR 3724-1) in the second year of testing was a derivative of cross IR 72967-12-2-2-3 / PR31090-33-2-1 with 129 days to 50% of flowering possessing medium slender grains. It exhibited yield advantage of 5.55% over the best varietal check and it stood 4th in Odisha (42.42% and 9400 kg/ha). It recorded HRR (52.6%), Amylose content (20.29), GC (43) and desirable ASV (4) (Table 3.63). Hence, promoted for third year of testing.

IET 23354 (RP 5125-12-5-3-B (IR 84898)) obtained from the cross IR 78877-208-B-1-1/IR 78878-53-2-2-2 with 121 days to 50% of flowering and long bold grain type. It outperformed best varietal check with 7.60% (6913kg/ha) in zone III. It has 32.95% (8775) and 10.53% (5614) yield advantage over best varietal check in odisha and Tripura states respectively. It recorded HRR (57.2%), Amylose content (19.27), GC (46) and ASV (3). Since amylose content is low, this can be considered for North Eastern region.

Considering the three years performance of the entry IET 24898 (HRI 186) a hybrid, it may be noted that it showed yield superiority on overall mean basis in the last two consecutive trials during 2014-15 and 2015-16 with 12.80% (5657 kg/ha) and 21.06% (6508 kg/ha) over the best varietal check and yield advantage of 24.44% (6508 kg/ha) and 6.78% (5657 kg/ha) over Hybrid check (HC) during 2015-16 and 2014-15 respectively. It has yield advantage of 9.52% in 2016-17 trial over the best varietal check and no yield gain over the hybrid check (Rajalakshmi) in 2016-17. During 2016-17, 2015-16 period the performance of the entry was promising in Zone III. State-wise performance revealed that it showed consistent superiority over two years in the states of West Bengal-2nd, 8.62% & 7269 kg/ha

during 2015-16; 3rd, 15.94% & 8125 kg/ha during 2016-17 and in Bihar-1st, 46.41% & 5694 kg/ha during 2014-15; 1st, 6.97% & 5476 kg/ha during 2016-17. It recorded HRR (54.7%), Amylose content (22.50), GC (22) and desirable ASV (4). Therefore, it is found promising in Zone III and considered for wide scale adoption in the states of Bihar and West Bengal.

Three years Performance of Promising entries in Initial Variety Trial Boro (IVT-BORO) 2016-17

IET NO.	Year	GY/ FD/ GT	% Superiority over Gautam IR64/ Raja-lakshmi/ Local Check	% Increase over BC (State)				% Increase over BC (Zonal)			
				Rank	Yield	% BVC	% HC	Rank Zone	Yield	% BVC	% HC
IET 24898 HRI-186 (Hybrid)	2016-17	6904 127 LS	9.52 27.54 -	BI-1 WB-3	5476 8125	12.19 25.81	6.97 15.94	III	7768	20.90	8.67
	2015-16	6508 132 LS	63.23 46.61 24.44	OD-4 TR-2	6565 6794	16.62 62.53	58.08 39.82	III IV	6949 5986	12.62 27.22	17.84 37.18
				WB-2	7269	74.94	8.62				
	2014-15	5657 135 LS	26.81 37.98 6.78	BI-1 UP-2	5694 7667	46.41 5.50	46.41 16.17				

The following entries were found promising during 2016-2017 IVT BORO

Zone III: IET 24898

- Entries promoted to **second** year of testing

Overall: IETs 26426, 26429, 26431, 26432, 26434, 26435, 26436, 26439 and 26446

Zone III: IETs 26426, 26427, 26429, 26431, 26432, 26434, 26435, 26439, and 26463.

Zone IV: IETs 26426, 26428, 26429, 26431, 26432, 26434, 26435, 26439, 26440, 26446, 26448, 26451, 26453, 26456, 26457 and 26461.

- Entries promoted to **third** year of testing

Overall: IET 25692

Zone IV: IET 25692

Table No. 3.58:Composition of entries in Initial Variety Trial - Boro (IVT- BORO) 2016-17

Entry No.	IET No.	Designation	Cross combination	Grain Type
2nd Year of testing				
1	25692	IR 82489-7-2-2-2 CR 3724-1	IR 72967-12-2-2-3/PR 31090-33-2-1	MS
2	25688	IR 72158-154-3-2-1-CR 3624-1-2-2	BG 90-2/IR 67962-84-2-2-2	LS
3	23354	RP 5125-12-5-3-B (IR 84898-B-B)	IR 78877-208-B-1-1/ IR 78878-53-2-2-2	LB
3rd Year of testing				
4	24898	HRI 186 (Hybrid)	-	LS
1st Year of testing				
5	26425	TRC 2016-15	TRC 87-251 / Beti	MS
6	26426	CR 3996-302-1-1-2	Mahulata / IR 20	MB
7	26427	KAUM 230-1-1-1	Remya / Rasmi	LB
8	26428	CR 3938-2-1-1-2-1	IR 73907-753-2-3/Prathiksya	MS
9	26429	CR 3848-1-1-1-3	Vandana/BG90-2//PSB RC 18	
10	IR 64 (Check)			
11	26430	TRC 2016-13	Swarna / Fulbadam	LS
12	26431	YNP 7023	MTU 1010 / GB 3	LS
13	26432	CR4033-1-2-1-1-1	CR Dhan 203 / CR Dhan 305	
14	26433	TRC 2016-17	Pyzum / Samba Mahsuri	MS
15	Gautam (Check)			
16	26434	CR 4032-1-3-2-1-1	Vandana/ BG 90-2// PSB RC 18	MS
17	26435	TRC 2016-14	Pyzum / Samba Mahsuri	LS
18	26436	CR 3856-11-2-1-1-1-1-1	IR 73963-86-1-5-2-2/CR 2324 -1	MS
19	26437	KAUM 230- 1-2-1	Remya / Rasmi	LB
20	Rajalakshmi (Hybrid Check)			
21	26438	TRC 2016-16	TRC 87-251 / Beti	LS
22	26439	CR 3856-44-22-2-1-10-1-5	IR 73963-86-1-5-2-2/CR 2324 -1	MS
23	26440	TRC 2016-18	TRC 87-251 / Samba Mahsuri	MS
24	26441	CR 3622-7-3-1-1-2	Naveen/ NLR 33892//NLR 9692-96	
25	26442	CHR-36	IR 30/ Basmati 370	LS
26	26443	CR 4029-1-1-1-3-1	IR 73930-31-3-2-2 / CR 324-2-1/ Reeta	
27	Local Check (LC)			
28	26444	CRAC 3995-80-2 (DH)	Doubled Haploid of BS 6444G	LS
29	26445	CRAC 3994-2-1-1 (DH)	Doubled Haploid of CR Dhan 701	LS
30	26446	CRAC 3995-48 (DH)	Doubled haploid of BS 6444G	MB
31	26447	CN 1780-7-14-5-MLD-9		
32	26448	CR 3942-2	MTU 1010/Improved Lalat	LS
33	26449	CR 2908-262-1	IR 20 / Apo	MS
34	26450	PUR-B-67	Satabdi/BR 28	MS
35	26451	CR 3516-11-2-2-1-1	IR 36/Pusa 44	MS
36	26452	CR 3813-4-4-2-1-1	CR 780-1937-1-3/DRR 1702	MS
37	26453	PUR-B-36	Annada/GB-1	SB
38	26454	CR 3773-3-2-1-1-1	Tapaswini/Dular	MB
39	26455	CR 3821-4-5-2-1-1	AC.38562/Ratna	MS
40	26456	CR 3939-4	MTU 1001/Pusa 44	MS
41	26457	CR 3967-40-3-1-1-1-1	IR 73895-33-1-3/Pratiksyas	MS
42	26458	PUR-B-66	Satabdi/BR 28	MS
43	26459	CR 3943-6	Samba Mahsuri / Naveen	MS
44	26460	CRHR-104	31 A / CRL 126 R	LS
45	26461	CR 3560-4-2-1-1-1	Tapaswini/Ananga	MS
46	26462	CR 3553-9-2-1-1-1-1	ADT 43/Ananga	MB
47	26463	CR 3511-18-1-1-2-1-1	IR 36/ Surendra	MS

Table No. 3.59 : Grain Yield (Kg/ha) of entries in IVT- Boro Kharif 2017

Location	Bihar		Odisha		Uttar Pradesh		West Bengal		Zonell(4)	
Code	Pusa		CUTTACK		Varanasi		Pundibari			
IET No.	PSA		CTK		VRN		PNB		Mean	
25692	3452		9400	4*	7050		6500		6601	
25688	3095		9150	9*	7730	#	5792		6442	
23354	3452		8775	*	8960	8 #	6463		6913	8%
24898	5476	1*	9450	2*	8020	#	8125	3*#	7768	3, 21%
26425							4208		4208	
26426	3929		7800	*	9590	3 #	6917	9*	7059	10, 10%
26427	4167		8883	10*	8690	10 #	6917	8*	7164	7, 12%
26428			7450	*	4050		4042		5181	
26429			9400	3*	9100	7 #	6167		8222	1, 28% 15%
IR 64 (Check)	3333		6525		6890		6208		5739	
26430	3333		8867	*	7950	#	5083		6308	
26431	4881	7	6580				8750	1*#	6737	
26432	4643	10	8050	*	8790	9 #	6104		6897	7%
26433	3214						4000		3607	
Gautam (Check)	3333		6600		9310	6 #	6458		6425	
26434	4762	9	8300	*	9420	5 #	6583		7266	6, 13%
26435	5000	5	9277	5*	9484	4 #	8125	2*#	7972	2, 24% 12%
26436			9150	8*			4083		6617	
26437	4762	8	8367	*	5460		4058		5662	
Rajalakshmi (Hybrid Check)	5119	4	9583	1*	6880		7008	6*	7148	8, 11%
26438			3517				4063		3790	
26439			9233	6*	6410		5708		7117	9, 11%
26440	5119	3	6600				7042	5*	6254	
26441	3571		7350	*	6790		4417		5532	
26442	4405		5450		7500		4583		5485	
26443			6950	*			4042		5496	
Local Check (LC)	4881	6	6400		9660	1 #	4708		6412	
26444							4083		4083	
26445	4048		9200	7*	7020		4333		6150	
26446							5708		5708	
26447	4524		7300	*	8360	#	5125		6327	
26448	3571		5650		8550	#	6833	10*	6151	
26449	3929		4700		4680		4000		4327	
26450	3214		7900	*	7560		4125		5700	
26451			6350		6020		4042		5471	
26452							4042		4042	
26453	3690				6450		4000		4713	
26454	3810		6450		7130		4500		5473	
26455							4208		4208	
26456	3929		7625	*	7420		6583		6389	
26457			3050		9620	2 #	6625		6432	
26458	2976		6800		8010	#	6917	7*	6176	
26459	5238	2*	5700		3330		6042		5078	
26460			7450	*	6705		7875	4*#	7343	5, 14%
26461	3095		8700	*	8660	#	4042		6124	
26462	3452		8750	*	6850		4375		5857	
26463			7800	*	8650	#	6583		7678	4, 20%
Exp mean	4044		7513		7576		5536			
CD%	415		2195		1701		1546			
CV%	5.03		14.44		11.06		13.87			

Table No. 3.59 contd: Grain Yield (Kg/ha) of entries in IVT- Boro Kharif 2017

Location	Tripura		Tripura & Lembucher		Zone I V(1)		Telangana		Zone VII(1)		Overall (7)	
Code	Arundhutinagar		ra				Rajendranagar					
IET No.	ARD		& LMC		Mean		RNR		mean		mean	
25692	6704	*	6719	1*#	6704	32%	6818	5	6818		6654	6%
25688	4479		2459		4479		5573		5573		5969.83	
23354	5614	*	4426	6 #	5614	11%	4338		4338		6267	
24898	6075	*	4145	8 #	6075	20%	4279		4279		6904.17	8,10%
26425			2769		0						4208	
26426	8078	6*			8078	6,59%	4437		4437		6791.83	8%
26427	3080		2260		3080		6028		6028		6294.17	
26428	6801	*			6801	34%	5188		5188		5506.2	
26429	5824	*	5190	4 #	5824	15%	4229		4229		6944	7,10%
IR 64 (Check)	4997		3075	#	4997		4526		4526		5413.17	
26430	3725		2745		3725		5830		5830		5798	
26431	9754	1*#	4293	7 #	9754	1,92% (16%)	6472	10	6472		7287.4	3,16%
26432	7046	10*	2453		7046	10,39%	6156		6156		6798.17	10,8%
26433			3969	9 #	0						3607	
Gautam (Check)	5079		2736		5079		7045	2	7045	9	6304.17	
26434	8314	5*	3260	#	8314	5,64%	4802		4802		7030.17	6,12%
26435	7016	*	5028	5 #	7016	38%	7441	1*	7441	8 , 6%	7723.83	1,23%
26436			5479	3 #	0						6616.5	5%
26437	3906		2208		3906		6126		6126		5446.5	
Rajalakshmi (Hybrid Check)	8398	3*	2675		8398	3,65%	6887	3	6887	10	7312.5	2,16%
26438	5534	*			5534	9%	5148		5148		4565.5	
26439	8363	4*			8363	4,65%	6453		6453		7233.4	4,15%
26440	6297	*	3375	#	6297	24%	5168		5168		6045.2	
26441	5569	*	1715		5569	10%	6136		6136		5638.83	
26442	3884		1725		3884		3794		3794		4936	
26443	5534	*	870		5534	9%	6680	7	6680		5801.5	
Local Check (LC)	3017		5990	2 #	3017		6739	6	6739		5900.83	
26444					0						4083	
26445			355		0						6150.25	
26446	8858	2*			8858	2,74%	6868	4	6868		7144.67	5,13%
26447	3686		2836		3686		5978		5978		5828.83	
26448	7941	7*	298		7941	7,56%	6077		6077		6437	
26449	5237		2951	#	5237		5148		5148		4615.67	
26450	4882		964		4882		3854		3854		5255.83	
26451	7220	9*	1201		7220	9,42%	6571	9	6571		6040.6	
26452	3181				3181		1957		1957		3060	
26453	6927	*	1880		6927	36%					5266.75	
26454					0		5870		5870		5552	
26455					0						4208	
26456	7448	8*	1024		7448	8,47%	6403		6403		6568	
26457	6805	*	3583	#	6805	34%	5237		5237		6267.4	
26458	5407	*			5407	6%	4318		4318		5738	
26459	4737		1206		4737		6591	8	6591		5273	
26460	6127	*	3823	10 #	6127	21%	5959		5959		6823.2	9,8%
26461	6148	*	2894		6148	21%	6215		6215		6143.33	
26462	4671		1403		4671		4862		4862		5493.33	
26463	3103				3103		3814		3814		5990	
Exp mean	5887		2917				5550					
CD%	446		582				1439					
CV%	3.75		9.81				12.82					

Table No 3.60 : Days to 50% flowering of entries in IVT- Boro Kharif 2017

Location	Bihar	Odisha	Uttar Pradesh	West Bengal	Zone III(4)	Tripura	Zone IV (1)	Telangana	Zone VII(1)	Overall (6)
IET No.	PSA	CTK	VRN	PNB	Mean	ARD	Mean	RNR	mean	mean
25692	176	123	166	126	148	114	114	125	125	129
25688	179	116	170	126	148	122	122	135	135	135
23354	160	112	150	121	136	111	111	115	115	121
24898	158	117	149	120	136	120	120	126	126	127
26425			159	125	142					142
26426	162	111	159	127	140	114	114	123	123	126
26427	166	111	151	123	138	116	116	123	123	126
26428		121	177	129	142	117	117	121	121	127
26429		115	168	130	138	116	116	135	135	130
IR 64 (Check)	160	101	145	118	131	111	111	116	116	119
26430	158	110	149	114	133	110	110	121	121	121
26431	164	115	161	124	141	113	113	121	121	125
26432	174	121	169	125	147	111	111	131	131	130
26433	161		146	121	143					143
Gautam (Check)	157	102	144	117	130	113	113	116	116	120
26434	171	114	159	123	142	111	111	133	133	129
26435	162	112	159	127	140	117	117	128	128	128
26436		124	159	128	137	122	122			130
26437	179	115	173	125	148	121	121	134	134	134
Rajalakshmi (Hybrid Check)	160	109	166	123	140	111	111	115	115	122
26438		130		130	130	114	114	132	132	125
26439		121	166	128	138	118	118	122	122	126
26440	157	112		117	129	113	113	125	125	122
26441	165	115	176	122	145	111	111	121	121	126
26442	156	102	146	119	131	110	110	111	111	117
26443		122	168	124	138	118	118	119	119	125
Local Check (LC)	156	96	161	114	132	113	113	116	116	120
26444			161	128	145					145
26445	154	103	151	121	132					132
26446				130	130	118	118	122	122	123
26447	154	101	144	117	129	113	113	115	115	119
26448	161	122	147	122	138	120	120	122	122	127
26449	176	120	168	123	147	113	113	121	121	127
26450	162	98	160	118	135	110	110	113	113	119
26451		130	160	130	140	118	118	129	129	129
26452				122	122	116	116	142	142	127
26453	164		157	126	149	121	121			135
26454	160	115	150	123	137			121	121	129
26455				130	130					130
26456	172	115	156	124	142	116	116	128	128	129
26457		128	169	129	142	117	117	133	133	131
26458	165	99	156	117	134	111	111	112	112	119
26459	176	121	169	129	149	117	117	139	139	135
26460		121	171	136	143	117	117	131	131	130
26461	160	110	158	123	138	117	117	119	119	125
26462	162	109	155	124	138	114	114	118	118	123
26463		121	156	129	135	113	113	122	122	123
Exp mean	164	114		124		115		124		
CD%	3	1		4		28		3		
CV%	0.94	0.64		1.65		11.98		1.01		

Table No. 3.61 : Plant height (cm) of entries in IVT- Boro Kharif 2017

State	Bihar	Odisha	Uttar Pradesh	West Bengal	Zone III (4)	Tripura	Tripura	Zone IV (2)	Telangana	Zone VII (1)	Overall
IET No.	PSA	CTK	VRN	PNB	mean	ARD	LMC	mean	RNR	mean	mean
25692	97	101.5	100.40	96	99	108.0	109.2	109	93.9	94	101
25688	90	98.5	105.00	92.5	97	120.0	111	116	92	92	101
23354	94	120.0	120.80	108.7	111	129.0	115.8	122	101.4	101	113
24898	82	113.0	92.70	89.8	94	115.0	103.6	109	87.8	88	98
26425				106	106		110	110			108
26426	88	105.5	92.40	90.2	94	102.0		102	74.8	75	92
26427	91	102.5	105.70	97.3	99	118.0	101.8	110	95.5	96	102
26428		115.0	113.30	103.1	110	127.0		127	94.1	94	111
26429		118.0	105.30	97.4	107	137.0	113.2	125	98.2	98	112
IR 64 (Check)	73	93.7	86.90	89.3	86	107.0	92.8	100	78.5	79	89
26430	70	89.1	85.40	85.75	83	109.0	99	104	81.6	82	89
26431	76	99.4		83.6	86	121.0	84.8	103	82.3	82	91
26432		108.0	100.20	104.8	104	121.0	106.6	114	97.9	98	106
26433	88			117.7	103		107.8	108			105
Gautam (Check)	73	102.0	91.70	90.8	89	111.0	86.4	99	93	93	93
26434	97	116.5	114.40	100.2	107	129.0	113.6	121	102.5	103	110
26435	87	101.0	116.60	95	100	115.0	110.8	113	92.3	92	103
26436		114.4		107.3	111		114.8	115			112
26437	80	99.0	103.50	88.7	93	130.0	110	120	90.1	90	100
Rajalakshmi (Hybrid Check)	92	107.0	97.70	105.6	101	128.0	118.4	123	98.4	98	107
26438		97.5		94.2	96	118.0		118	94.5	95	101
26439		129.5	119.50	112.25	120	128.0		128	98.4	98	118
26440	82	101.9		93.65	93	123.0	94.6	109	90.1	90	98
26441	85	107.5	110.40	94.25	99	106.0	107.6	107	95.1	95	101
26442	72	83.9	86.90	91.3	84	94.0	91.25	93	91.6	92	87
26443		104.5		98.7	102	124.0	103.4	114	93.9	94	105
Local Check (LC)	94	116.0	95.60	104.3	102	94.0	118.2	106	98.3	98	103
26444				109.3	109		104	104			107
26445	76	101.0	100.40	109.3	97		98.8	99			97
26446				115.2	115	144.0		144	111.3	111	124
26447	84	86.4	95.30	88.9	89	125.0	114.8	120	89.1	89	98
26448	88	111.6	110.10	107.6	104	144.0	62.5	103	102.3	102	104
26449	102	131.0	92.60	105.4	108	149.0	128.8	139	112.2	112	117
26450	84	78.0	94.20	88.1	86	114.0	80.2	97	78.1	78	88
26451		100.5	118.30	101.2	107	145.0	109.8	127	111.4	111	114
26452				115.9	116	150.0		150	108.8	109	125
26453	71		68.00	106.7	82	81.0	107.4	94			87
26454	81	95.2	102.30	101.5	95				108.9	109	98
26455				100	100						100
26456	103	114.8	122.20	109.2	112	150.0	107.5	128.8	98.1	98	115
26457		106.3	124.30	108.1	113	124.0	89.4	106.7	97	97	108
26458	91	96.5	110.90	100.8	100	124.0	108.2	116.1	95.4	95	104
26459	109	121.5	125.70	115.3	118	134.0	115.8	124.9	99.9	100	117
26460		118.5	118.00	102.2	113	131.0	107	119.0	100	100	113
26461	99	102.0	110.40	100.6	103	118.0	103.4	110.7	100.2	100	105
26462	86	105.0	103.20	97.55	98	127.0	110.2	118.6	102.1	102	104
26463		109.6	113.00	106.1	110	112.0	104.8	108.4	101.9	102	108
Exp Mean	87	106	104	101	101	122	105	114	96	96	104

Table No. 3.62 : Panicles/m² of entries in IVT- Boro Kharif 2017

Location	Bihar	Odisha	Uttar Pradesh	West Bengal	Zone III(4)	Tripura	Tripura	Zone IV(2)	Telangana	Zone VII(1)	Overall(7)
IET No.	PSA	CTK	VRN	PNB	Mean	ARD	LMC	Mean	RNR	mean	mean
25692	274	445	315	210	311	378	300	339	674	674	441
25688	272	410	316	234	308	365	378	372	604	604	428
23354	260	275	276	240	263	343	338	341	430	430	345
24898	319	495	330	210	339	391	365	378	608	608	442
26425				210	210		273	273			242
26426	283	295	309	255	286	350		350	642	642	426
26427	243	393	352	215	301	314	198	256	654	654	404
26428		375	219	240	278	330		330	508	508	372
26429		448	316	174	313	328	258	293	518	518	375
IR 64 (Check)	260	350	336	216	291	336	315	326	696	696	438
26430	280	505	349	267	350	325	270	298	556	556	401
26431	289	255		263	269	354	388	371	570	570	403
26432	246	375	306	245	293	346	353	350	512	512	385
26433	267			279	273		253	253			263
Gautam (Check)	277	365	375	186	301	313	205	259	588	588	383
26434	242	390	309	202	286	360	333	347	640	640	424
26435	302	328	356	201	297	338	303	321	630	630	416
26436		600		247	424		228	228			326
26437	261	425	357	266	327	322	273	298	618	618	414
Rajalakshmi (Hybrid Check)	261	480	314	196	313	376	315	346	554	554	404
26438		275		240	258	324		324	572	572	385
26439		335	241	210	262	368		368	598	598	409
26440	294	363		195	284	335	341	338	678	678	433
26441	238	410	286	180	279	341	310	326	568	568	391
26442	243	443	311	247	311	327	228	278	790	790	460
26443		410		211	311	331	290	311	658	658	427
Local Check (LC)	289	360	376	261	322	305	343	324	540	540	395
26444				223	223		265	265			244
26445	262	335	298	272	292		167	167			230
26446				220	220	364		364	582	582	389
26447	230	305	287	226	262	314	395	355	602	602	406
26448	221	393	259	223	274	321	257	289	528	528	364
26449	209	445	286	226	292	308	383	346	534	534	391
26450	260	435	377	271	336	352	303	328	678	678	447
26451		337	316	243	299	320	323	322	740	740	454
26452				252	252	341		341	604	604	399
26453	243		383	253	293	343	315	329			311
26454	251	445	324	220	310				694	694	502
26455				25	25						25
26456	250	308	313	195	267	368	210	289	460	460	339
26457		290	316	216	274	381	255	318	642	642	411
26458	258	348	294	197	274	312	178	245	624	624	381
26459	308	338	332	247	306	330	213	272	642	642	407
26460		345	311	270	309	350	250	300	600	600	403
26461	267	333	257	232	272	333	248	291	600	600	388
26462	275	315	319	254	291	298	295	297	530	530	373
26463		453	303	244	333	292	335	314	692	692	446
Exp mean	263	381	314	225		338	287		604		
CD%	54	67	67	76		41	167		194		
CV%	10.00	8.66	10.45	16.75		5.99	28.73		15.92		

Table No. 3.63: Grain quality characteristics of entries in IVT-BORO 2016-17

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	25692	78.1	67.7	52.6	6.17	1.97	3.13	LS	VOC	4	20.29	43
2	25688	75.5	63.0	53.0	6.83	1.92	3.55	LS	CO	4	20.29	71
3	23354	76.1	66.4	57.2	6.27	2.17	2.88	LB	F	3	19.27	46
4	24898	77.8	66.2	54.7	5.85	2.04	2.86	MS	CO	4	22.05	22
10	IR 64	75.2	63.3	43.1	6.46	2.01	3.21	LS	VOC	5	23.87	34
15	Gautam	77.6	66.4	50.4	5.35	2.07	2.58	MS	VOC	7	24.78	62
20	Raja Lakshmi	77.0	65.9	51.4	5.52	2.01	2.74	MS	VOC	7	25.6	22
27	Chandana	74.9	61.7	45.6	5.56	2.13	2.61	MS	VOC	3	26.6	37

HULL: Hulling (%); Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB::Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Hybrid Rice

In our country, an excellent progress has been made in hybrid rice research and development. As a result of concerted efforts over the last three decades, 97 hybrids have been released for commercial cultivation in different rice growing states across the country. All the hybrids released are based on three line breeding system. Among these, 33 hybrids have been released from the public sector, while remaining 64 are released by the private sector. The private sector is playing a very important role in hybrid rice research and development in the country. During the year 2017, hybrid rice was planted in an area of 3 m.ha and more than 80% of the total hybrid rice area is in the states of Uttar Pradesh, Jharkhand, Chhattisgarh, Madhya Pradesh, Odisha and Haryana. During this year (2017-18), 15 hybrids were released and notified by CSCSN&RV for commercial cultivation in different states of the country. Among the 15 hybrids, 11 hybrids viz., HRI 180, HRI 183, 28P09, 27P22, NPH 8899, GK5022, 27P36, KPH-459, KPH-473, Bio 799 and MRP 5408 were central releases and the remaining four viz., BS 129G, PAN 2423, PAN 802 and Indam 200-022 were state releases.

For identification of high yielding widely adapted hybrids, a national level three tier system of evaluation is being adapted and in this system, the hybrids developed by research network centres, including some of the voluntary centres and those developed by the private sector seed companies having their own R&D, are pooled together based on maturity groups into early (<120 days), mid early (121-130 days) and medium (131-140 days) trials. In addition, one more trial is also constituted aiming to develop medium slender grain type hybrids. IHRTs are conducted at 30-35 locations and these trials consist of test hybrids, national varietal checks, zonal and local varietal checks in the respective maturity and grain type groups.

The hybrids are promoted to the next stage of testing *i.e.*, Advanced Varietal Trial (AVT-1) based on criterion mentioned in the proceedings of 51 ARGM 2016 (Pp 59-60). Based on similar criteria, the hybrids are promoted from AVT-1 to AVT-2 stages. Simultaneously all hybrid entries are tested for resistance to diseases and insect pests and grain quality traits during all the three years. Those hybrids performing consistently well during all the three years are proposed to Varietal Identification Committee (VIC) for consideration.

As decided in the previous 52nd Annual Rice Group Meeting (Pp 45 of draft proceedings), the following criteria was adapted for including data of a location for analysis “minimum experimental mean of yield of 4 t/ha for inbreds and 5 t/ha for hybrid trial”. CV% for trial acceptance to be ranged between 5 to 20% under irrigated ecosystem and 5 to 30% for stress environment.

During Kharif 2017, five trials were conducted and hybrids evaluated and test locations are given in Tables 3.64 & 3.65 respectively.

Table 3.64: Details of hybrid rice trials conducted during Kharif 2017

Sl. No	Name of the trial	No. of hybrids evaluated		No. of test locations
		Public	Private	
1.	Initial Hybrid Rice Trial - Early	5	16	32
2.	Initial Hybrid Rice Trial - Mid Early	12	21	33
3.	Initial Hybrid Rice Trial - Medium	6	20	31
4.	Initial Hybrid Rice Trial - Medium Slender	5	10	27
5.	Multi location Evaluation of released hybrids	1	14	26

Table 3.65: Zone wise test centres for Initial Hybrid Rice Trials, Kharif 2017

Zone	No. of Locations	Name of Locations
Zone I (Hills)	1	Public Sector: Malan (MLN)
Zone II (Northern)	4	Public Sector: Chatha (CHT), Kaul (KUL), Ludhiana (LDN) Pantnagar (PNT)
Zone III (Eastern)	13	Public Sector: Allahabad (ALH), Chinsurah (CHN), Chiplima (CHP), Cuttack (NRRI), Masodha (MSD), Ranchi (RCI), Varanasi (VRN) Private Sector: Bioseeds (BIO), Bisco Biosciences (BIS), JK Agri Genetics (JKA), Nuziveedu Seeds (NUZ), Syngenta (SYN), Trimurthi Seeds (TMT)
Zone IV (North Eastern)	1	Public Sector: Titabar (TTB)
Zone V (Central)	5	Public Sector: Jabalpur(JBP), Raipur (RPR), Sakoli(SKL) Sindewahi (SND) Private Sector: VNR Seeds (VNR)
Zone VI (Western)	8	Public Sector: Dabhoi (DBI), Karjat (KJT), Navsari (NVS), Nawagam (NWG), Radhanagari (RDN), Shirgaon (SHG), Vadagaon (VDG) Private Sector: Ankur Seeds (ANK)
Zone VII (Southern)	12	Public Sector: Aduthurai (ADT), Bapatla (BPT), Brahmavar (BRM), Coimbatore (CBT), Hyderabad (IIRR), Karaikal (KRK), Malagi (MLG), Mugad (MGD), Maruteru (MTU), Warangal (WGL) Private Sector: Advanta Seeds (ADV), Bayer Seeds (BAY)

1. Initial Hybrid Rice Trial - Early (IHRT-E)

Twenty one test hybrids (16 and 5 from private sector and public sector respectively) were evaluated in 32 locations comprising Zone-I, II, III, V, VI and VII along with national hybrid check (US 314), national varietal check (CO 51), zonal varietal checks (PR 124 - Zone II; NDR-97 - Zone III; Sahbhagidhan - Zone V&VI; MTU 1153 - Zone VII) and local varietal checks of their respective locations. The details about the composition of the trial are given in Table 3.66.

Table 3.66: Composition of Initial Hybrid Rice Trail - Early (IHRT-E), Kharif 2017

S. No.	IET No.	Name	Nominating Agency
1	26464	LP-17201	Longping (I), Hyderabad
2	26465	NS-6508	Namdhari Seeds, Hyderabad
3	26466	Bio-688	Bioseed, Hyderabad
4	26467	JKRH-2337	JK Seeds, Hyderabad
5	26468	JKRH-2354	JK Seeds, Hyderabad
6	26469	IRH-107	IGKV, Raipur
7	26470	TMRH-129	Trimurthi, Hyderabad
8	26471	BLR-106	Bisco Bio-Science, Hyderabad
9	26472	US-317	Seed Works, Hyderabad
10	26473	SD-151030	Devgen, Hyderabad
11	26474	NK-20031	Syngenta, Hyderabad
12	26475	RH-131419	UPL, Hyderabad
13	26476	MEPH-136	Mahyco, Hyderabad
14	26477	RH-150025	UPL, Hyderabad
15	26478	MEPH-137	Mahyco, Hyderabad
16	26479	MP-3050	Mahindra Agri. Solutions, Hyd.
17	26480	LP-17301	Longping (I), Hyderabad
18	26481	WGRH-19	RARS, Warangal
19	26482	JRH-87	JNKVV, Jabalpur
20	26483	TNRH-290	TNAU, Coimbatore
21	26484	CRHR-121	NRRI, Cuttack
22	-	US-314 (NCH)	National Check Hybrid
23	-	CO-51 (NCV)	National Check Variety
24	-	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (ZCV)	Zonal Check Variety
25	-	Local Check Variety (LCV)	Local Check Variety

Northern: PR-124; North Eastern: Luit; Eastern: NDR-97; Central and Western: Sahbhagidhan; Southern: MTU-1153

The detailed location wise and zone wise performance for days to 50% flowering (DFF) and grain yield are given in Appendix 1 & 2 respectively. The grain quality traits are given in Appendix-3. The overall DFF ranged from 82 to 100 Days. The national varietal check (CO 51) had mean of 84 days, zonal checks of 86 days, local checks of 84 days and national hybrid check (US 314) of 88 days.

Table 3.67: Promising hybrids identified in IHRT-E, Kharif 2017

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)						Remarks
					Overall	Zone II	Zone III	Zone V	Zone VI	Zone VII	
1.	LP 17201	26464	88	LB	7076 (20) [9]	9550 (31) [32]	6886 [5]	7328 (19) [18]	6361 (26)	6569	Promoted to AVT-1-E-TP
2.	NK 20031	26474	90	LB	7024 (19) [8]	7691 [6]	6983 [6]	7421 (20) [20]	6132 (21)	6893 [7]	Promoted to AVT-1-E-TP
3	US 317	26472	90	SB	6681 (14)	7845 [8]	6657	7413 (20) [20]	5666 (12)	6403	Dropped low HRR, low AC
4	JKRH-2354	26468	89	LB	6607 (12)	6798	6368	7362 (20) [19]	6141 (21)	6401	Promoted to AVT-1-E-TP
5.	LP 17301	26480	84	LS	6502 (11)	7973 [10]	6112	7161 (16) [16]	5420	6315	Promoted to AVT-1-E-TP
6.	RH-150025	26477	88	SB	6484 (10)	7157	6194	6979 (13) [13]	5837 (15)	6381	Promoted to AVT-1-E-TP
7.	MEPH-137	26478	87	MS	6461	6775	5839	6977 (13) [13]	5862 (16)	6896 [7]	Promoted to AVT-1-E-TP
8.	MP 3050	26479	96	MS	6426	6474	6377	6829 (11) [10]	6368 (26)	5771	Dropped high DFF
9.	NS 6508	26465	90	LB	6390	6349	6904 [5]	6999 (14) [13]	5211	6019	Promoted to AVT-1-E-TP
10	NCH		88	MS	6518	7249	6574	6191	6129	6438	
11	NCV		84	MS	5868	4888	6863	6154	4496	5823	
12	ZCV		86	MS	5882	7224	5383	5401	5065	6819	
13	LCV		84	SB	5336	7302	4501	6159	4777	5434	

() -Yield superiority in percent over the varietal check; [] - Yield superiority in percent over the Hybrid check

As per the quality data of IHRT-E hybrids (Appendix-3), the milling percentage ranged from 64.0 to 71.1 and HRR from 27.8 to 68.9. TNRH 298 has recorded very low HRR. Majority of the hybrids showed intermediate amylose content with the exceptions of US 317 (14.75) & SD 151030 (15.89) having low amylose. Regarding grain type, the entries were falling in different grain type categories.

Based on overall mean, two hybrids *viz.*, LP 17201 and NK 20031 have significantly out yielded the best varieties and hybrid checks (Table 3.67). Besides these, based on zonal

means, seven hybrids *viz.*, NS 6508, JKRH-2354, US 317, RH 150025, MEPH 137, MP 3050 and LP 17301 (Zone V) were found promising. The hybrids *viz.*, US 317 (low HRR and low amylose) and MP 3050 (high DFF) are dropped from further evaluation. All these hybrids except US 317 and MP 3050 are promoted to AVT-1-E-TP trial.

2. Initial Hybrid Rice Trail - Mid Early (IHRT-ME)

Mid early trial comprising 33 hybrids and four checks *viz.*, Gontra Bidhan-3 (national varietal check); US-312 (national hybrid check); zonal checks *viz.*, PR 113 (North); CR Dhan 300 (East); Karjat-7 (Central & West); MTU 1010 (South) and respective local checks were conducted at 33 locations. Among the 33 hybrids evaluated 21 were from private sector and 12 from public sector. The composition of the trial is given in Table 3.68.

Table 3.68: Composition of Initial Hybrid Rice Trail- Mid Early (IHRT-ME), Kharif 2017

S. No.	IET No.	Name	Nominating Agency
1	26485	RRX-131	Rasi Seeds, Hyderabad
2	26486	NS-6667	Namdhari Seeds, Bangalore
3	26487	YRH-2052	Yaganti Seeds, Medchal
4	26488	NS-6677	Namdhari Seeds, Bangalore
5	26489	YRH-2725	Yaganti Seeds, Medchal
6	26490	JKRH-2389	JK Seeds, Hyderabad
7	26491	BLR-107	Bisco Biosciences, Hyderabad
8	26492	BLR-108	Bisco Biosciences, Hyderabad
9	26493	US-344	Seed Works, Hyderabad
10	26494	Indam-200-042	Indo-American, Hyderabad
11	26495	US-346	Seed Works, Hyderabad
12	26496	SD-140204	Devgen, Hyderabad
13	26497	NK-18798	Syngenta, Hyderabad
14	26498	RH-110647	UPL, Hyderabad
15	26499	MEPH-138	Mahyco, Hyderabad
16	25778	Heera-2	Nath Biogene, Aurangabad
17	26500	PH-17106	Pioneer Overseas, Hyderabad
18	26501	MEPH-139	Mahyco, Hyderabad
19	26502	PHI-17107	Pioneer Overseas, Hyderabad
20	26503	NK-24215	Syngenta, Hyderabad
21	26504	LP-17302	Longping (I), Hyderabad
22	26505	JRH-79	JNKVV, Jabalpur
23	24971	IIRRH-105	IIRR, Hyderabad
24	26506	JRH-82	JNKVV, Jabalpur
25	26507	IIRRH-117	IIRR, Hyderabad
26	26508	JRH-88	JNKVV, Jabalpur
27	26509	CRHR-120	NRRI, Cuttack
28	26510	HURHS-17-1	BHU, Varanasi
29	26511	CRHR-123	NRRI, Cuttack
30	26512	NVSRH-1011	RRS, Navsari
31	26513	Pusa RH-52	IARI, New Delhi
32	26514	IIRRH-119	IIRR, Hyderabad
33	26515	Pusa RH-53	IARI, New Delhi
34	-	US-312 (NCH)	National Check Hybrid
35	-	Gontra Bidhan-3 (NCV)	National Check Variety
36	-	PR-113/CR Dhan-300/ Karjat-7/MTU-1010 (ZCV)	Zonal Check Variety
37	-	Local Check Variety (LCV)	Local Check Variety

North Zone: PR 113; East Zone: CR Dhan-300; West Zone: Karjat-7; South Zone: MTU-1010

Performance of the hybrids with respect to grain yield and days to 50% flowering (DFF) are given in Appendix 4 & 5 respectively. Grain quality traits of the hybrids are given in Appendix 3.69.

Performance of promising hybrids identified in different zones is given in Table 6. In this trial mean DFF of checks ranged from 89 to 94 days. The hybrids check US 312 had mean DFF of 93 days. The varietal checks viz., national, zonal and local checks had mean DFF of 89, 94 and 92 days respectively.

Table 3.69: Promising hybrids identified in IHRT-ME, Kharif 2017

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)						Remarks
					Overall	Zone II	Zone III	Zone V	Zone VI	Zone VII	
1.	RH-110647	26498	90	LS	6581 [5]	6836	6937 (13) [11]	8211	5959 [7]	6298	Promoted to AVT-1-ME-TP
2.	YRH-2052	26487	89	SB	6263	6490	6107	7867	6523 (11) [17]	6088	Promoted to AVT-1-ME-TP
3.	Heera-2	25778	84	SB	6225	6669	7181 (17) [15]	7602	5645	5669	Dropped Low DFF
4.	NS-6677	26488	89	MS	6083	6565	6177	8964 (17) [5]	4854	5914	Dropped Low AC
5.	US 344	26493	96	MS	6057	6224	6785 (11) [9]	7530	4754	5926	Promoted to AVT-1-ME-TP
6.	NCH		93	MS	6221	6568	6240	8552	5567	6112	
7.	NCV		89	SB	6490	7293	6114	7686	5854	6782	
8.	ZCV		94	LS	5701	7675	5461		5115	5211	
9.	LCV		92	SB	5754	7481	5764	7430	4848	5199	

() -Yield superiority in percent over the varietal check; [] - Yield superiority in percent over the Hybrid check

Based on the overall mean, none of the test hybrids were found promising. However, based on zonal means, five hybrids viz., US 344, RH 110647, Heera-2 (Zone-III), NS 6677(Zone-V),YRH 2052 (Zone VI) were found to be superior to both varietal and hybrid checks. For promotion of entries (based on 91-100 days DFF limit) check mean of 92 ± 5 days criterion was adopted. As per the above DFF limit, the hybrids US 344, RH 110647 and YRH 2052 meet the required DFF limit and hence are promoted to AVT-1-ME-TP. The hybrids Heera-2 (84 days) having very low DFF and NS 6677 (low AC -19) are dropped from further evaluation.

As per the quality data of IHRT-ME hybrids (Appendix- 6), the milling percentage ranged from 59.1 to 71.7 and HRR from 30.7 to 62.9. HRR in general was very low in the trial, hence, this was not considered for promotion/deletion of test hybrids. All the hybrids in the trial showed intermediate amylose content however differed in the grain type categories.

3. Initial Hybrid Rice Trail - Medium (IHRT-Medium)

The Initial Hybrid Rice Trial (Medium), conducted at 31 locations with 26 test hybrids including four checks *viz.*, HRI 174 (national hybrid check); NDR 359 (national varietal check); zonal varietal checks (PR 113 - North; CR Dhan 300 - East; Karma Mahsuri- Central; Akshayadhan - West; Jaya - South) and local checks of their respective locations. Among the 26 test hybrids evaluated, 20 were from private sector and 6 from public sector. The recently developed and notified hybrid VNR 2375 was included in the trial as observational hybrid check to evaluate its performance and suitability to replace existing notified hybrid check HRI 174. The details about the composition of the trial are given in Table 3.70.

Table 3.70: Composition of Initial Hybrid Rice Trail - Medium (IHRT-M), Kharif 2017

S. No.	IET No.	Name	Nominating Agency
1	26516	RRX-130	Rasi Seeds, Hyderabad
2	26517	PHI-17104	Pioneer Overseas, Hyderabad
3	26518	PHI-17105	Pioneer Overseas, Hyderabad
4	26519	GRH-1172	Godrej Agrovat, Hyderabad
5	26520	NS-6768	Namdhari Seeds, Bangalore
6	26521	NS-6791	Namdhari Seeds, Bangalore
7	26522	Bio-788	Bioseed, Hyderabad
8	26523	KJTRH-15	RARS, Karjat
9	26524	BLR-109	Bisco Biosciences, Hyderabad
10	26525	MR-8383	Metahelix, Hyderabad
11	26526	US-366	Seed Works, Hyderabad
12	26527	Indam-200-040	Indo-American Seeds, Hyderabad
13	26528	RNE-8032	Devgen, Hyderabad
14	26529	SD-140041	Syngenta, Hyderabad
15	26530	HRI-194	Bayer Bioscience, Hyderabad
16	26531	MEPH-140	Mahyco, Hyderabad
17	26532	HRI-193	Bayer Bioscience, Hyderabad
18	26533	UPRH-182	GBPUAT, Pantnagar
19	26534	MEPH-141	Mahyco, Hyderabad
20	26535	PHI-17101	Pioneer Overseas, Hyderabad
21	26536	IIRRH-116	IIRR, Hyderabad
22	26537	PHI-17102	Pioneer Overseas, Hyderabad
23	26538	PHI-17103	Pioneer Overseas, Hyderabad
24	26539	TNRH-273	TNAU, Coimbatore
25	26540	IIRRH-118	IIRR, Hyderabad
26	26541	UPRH-185	GBPUAT, Pantnagar
27	-	HRI-174 (NCH)	National Check Hybrid
28	-	NDR-359 (NCV)	National Check Variety
29	-	PR-113/CR Dhan-300/ Karma Mahsuri/Akshayadhan/Jaya (ZCV)	Zonal Check Variety
30	-	Local Check Variety (LCV)	Local Check Variety
31	-	VNR-2375 (OBCH)	Observational Hybrid Check

Northern: PR-113; Eastern and North Eastern: CR Dhan-300; Central: Karma Mahsuri; Western: Akshayadhan and Southern: Jaya

The location wise data on DFF and grain yield are given in Appendix 7 & 8 respectively and grain quality traits of hybrids are given in Appendix 9.

The list of promising hybrids with the advantage over the best checks in their respective zones is given in 3.71.

Table 3.71: Promising hybrids identified in IHRT- M, Kharif 2017

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)						Remarks
					Overall	Zone II	Zone III	Zone V	Zone VI	Zone VII	
1.	PHI-17101	26535	98	MS	7065 (16) [6]	6611 [8]	7572 (12)	10568 (22)	6046	7023 (21)	Promoted to AVT-1-M-TP
2.	PHI-17103	26538	97	LB	6598	7646 (10) [25]	6832	9224	5700	6253	Promoted to AVT-1-M-TP
3.	PHI-17104	26517	101	LB	6475	5900	6688	9780 (13)	5745	7299 (26) [5]	Promoted to AVT-1-M-TP
4.	Indam 200-040	26527	100	SB	6326	5836	6319	8336	5172	7235 (25) [5]	Promoted to AVT-1-M-TP
5.	NCH		101	LB	6663	6137	7796	9894	5037	6922	
6.	NCV		98	LB	6086	6289	6766	7051	5463	5792	
7.	ZCV		101	SB	5597	6178	4878	6775	5632	5627	
8.	LCV		101	SB	5745	6977	4895	8645	4886	5755	

() -Yield superiority in percent over the varietal check; [] - Yield superiority in percent over the Hybrid check

Based on grain quality parameters (Appendix- 9), milling percentage of the hybrids ranged from 60.9 to 71.6 and HRR from 20.9 to 65.8. Since the HRR recorded in the trial (including checks viz., Jaya- 39.7; HRI 174-51.3; LCV- 28) is too low, this parameter was not considered for promotion/ deletion of test hybrids. All the test hybrids had intermediate amylose content with few exceptions.

Based on overall mean, one hybrid PHI 17101 and based on zonal means, three hybrids viz., PHI 17104, Indam 200-040 (Zone VII) and PHI 17103 (Zone II) were found to be promising with required yield advantage over the varietal and hybrid checks. All these four hybrids are promoted to AVT-1-M-TP, trial.

The observational national hybrid check (NCH) VNR 2375 has shown ‘**NO**’ significant yield superiority over the national hybrid check (HRI 174) (Table 3.72). It is inferior to HRI 174 in Zone III, Zone VII as well as overall mean basis, and superior in Zone II and Zone VI. Because of its inconsistent yield performance, across the zones, it is ‘**NOT**’ considered to replace HRI 174 as national hybrid check.

Table 3.72: Performance of Observational National Hybrid Check VNR 2375 over HRI 174 in IHRT-M, Kharif 2017

S. No.	Hybrid Check	DFF	Yield (kg/ha)					
			Overall	Zone II	Zone III	Zone V	Zone VI	Zone VII
1.	VNR 2375	100	6532 (-2)	6704 (9)	6778 (-13)	9966 (0.7)	5851 (16)	6220 (-10)
2.	HRI 174	101	6663	6137	7796	9894	5037	6922

4. Initial Hybrid Rice Trail - Medium Slender (IHRT-MS), Kharif 2017

The trial consisting of 15 hybrids, 10 from private sector and 5 from public sector was conducted at 27 locations. It has five checks viz., national hybrid checks (27P63 & JKRH 3333); national varietal checks (BPT 5204 & WGL 14); zonal checks (Improved samba Mahsuri - East & Central); Karjat 6 - West; Ketekejoha - North East; ADT 49 - South). The details about the composition of the trial are given in Table 3.73.

Table 3.73: Composition of Initial Hybrid Rice Trail- Medium Slender (IHRT-MS), Kharif 2017

S. No.	IET No.	Name	Nominating Agency
1	26542	RRX-135	Rasi Seeds, Hyderabad
2	26543	NS-6816	Namdhari Seeds, Bangalore
3	26544	NPH-2899	Nuziveedu Seeds, Hyderabad
4	26545	NK-23831	Syngenta, Hyderabad
5	26546	HRI-195	Bayer Bioscience, Hyderabad
6	26547	S-8001	Syngenta, Hyderabad
7	26548	Indam-200-043	Indo-American Seeds, Hyderabad
8	26549	PHI-17108	Pioneer Overseas, Hyderabad
9	26550	US-308	Seed Works, Hyderabad
10	26551	MEPH-143	Mahyco, Hyderabad
11	26552	CRHR-115	NRRI, Cuttack
12	26553	CRHR-119	NRRI, Cuttack
13	26554	CRHR-116	NRRI, Cuttack
14	26555	RTNRH-11	Ratnagiri
15	26556	CRHR-118	NRRI, Cuttack
16	-	JKRH-3333 (NCH-1)	National Check Hybrid-1
17	-	27P63 (NCH-2)	National Check Hybrid-2
18	-	WGL-14 (NCV-1)	National Check Variety-1
19	-	BPT-5204 (NCV-2)	National Check Variety-2
20	-	Improved Samba Mahsuri / Ketekejoha/Karjat-6/ADT-49 (ZCV)	Zonal Check Variety

Eastern and Central: Improved Samba Mahsuri; North East: Ketekejoha; Western: Karjat-6 and Southern: ADT-49

Table 3.74: Promising hybrids identified in IHRT-MS, Kharif 2017

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)					Remarks
					Overall	Zone III	Zone V	Zone VI	Zone VII	
1.	PHI 17108	26549	100	MS	6515 (16) [7]	5752	7083 (13)	6169 (22) [16]	7180 (24) [11]	Promoted to AVT-1-MS
2.	S 8001	26547	103	MS	5626	5171	6116	5663 (12) [6]	5822	Promoted to AVT-1-MS
	NCH-1		100	MS	6111	5884	6914	5326	6461	
	NCH-2		101	MS	5955	5509	7569	5170	6093	
	NCV-1		104	MS	5632	5646	6270	5072	5799	
	NCV-2		109	MS	5365	5244	5668	4726	5483	
	ZCV		100	MS	4934	5348	5754	4776	4188	

() -Yield superiority in percent over the varietal check; [] - Yield superiority in percent over the Hybrid check

The location wise mean data of grain yield and DFF are given in Appendix 10 & 11 respectively. The grain quality traits are given in Appendix 12.

Based on the overall mean, hybrid PHI 17108 and on zonal mean basis, S 8001 (Zone VI) were found promising with recommended yield advantage over the varietal as well as hybrid checks (Table 3.74). Both these hybrids are promoted to AVT-1-MS trial.

Based on the grain quality parameters (Appendix-12), the milling percentage of hybrids in the trial ranged from 60.5 to 69.9 and HRR from 23.1 to 63.4. HRR, in general is very low in the trial (including checks *viz.*, JKRH 3333 - 23.7; 27P63 - 48.6; WGL 14 - 40.8; ADT-49-23), hence, was not considered for promotion/deletion of test hybrids. Majority of the hybrids have MS grain type with intermediate amylose with few exceptions.

Multi Location Evaluation of released hybrids

In order to find out the suitability of already released hybrids to more number of locations in respective states representing different zones of the country, a separate multi location evaluation trial consisting of six hybrids *viz.*, PAN 2423, KPH 467, HRI 180, 27P22, 27P36 and BS 158 along with three checks (in early and mid early group) and three hybrids *viz.*, NPH 8899, NK 16520 and 28P09 along with three checks (in medium and late duration group), was conducted at 26 locations. The composition of the trial is given Table 3.75 (a & b).

Table 3.75 (a): Composition of Multi Location Evaluation of released hybrids (MLT- Early and Mid Early Duration Group) - Kharif 2017

S. No.	Name	Nominating Agency
1	PAN-2423	PAN Seeds, Kolkata
2	GK-5022	Ganga Kaveri Seeds, Hyderabad
3	KPH-467	Kaveri Seeds, Hyderabad
4	HRI-183	Bayer Bioscience, Hyderabad
5	KPH-272	Kaveri Seeds, Hyderabad
6	HRI-180	Bayer Bioscience, Hyderabad
7	27P22	Pioneer Overseas, Hyderabad
8	27P36	Pioneer Overseas, Hyderabad
9	BS-158	Bayer Bioscience, Hyderabad
10	BS-129G	Bayer Bioscience, Hyderabad
11	US-312 (NCH-ME)	National Check Hybrid-Mid Early
12	Gontra Bidhan-3 (NCV-ME)	National Check Variety-Mid Early
13	LCV-ME	Local Check Variety-Mid Early

Table 3.75 (b): Composition of Multi Location Evaluation of released hybrids (MLT- Medium and Late Duration group) - Kharif 2017

S. No.	Name	Nominating Agency
1	NPH-8899	Nuziveedu Seeds, Hyderabad
2	PAC-8744	Advanta, Hyderabad
3	28P09	Pioneer Overseas, Hyderabad
4	Sahyadri-5	RARS, Karjat
5	NK-16520	Syngenta, Hyderabad
6	HRI-174 (NCH-M)	National Check Hybrid-Medium
7	NDR-359 (NCV-M)	National Check Variety-Medium
8	LCV-M	Local Check Variety-Medium

Performance of hybrids in different zones is given in Table 3.76. In the early and mid early group, based on overall mean basis, 27P22, 27P36, HRI 180, PAN 2423, KPH 467 and on zonal mean basis another hybrid BS 158 (Zone V) have recorded their yield superiority over the checks.

In medium and late duration group, none of the hybrids have recorded significant yield superiority over the checks on overall mean basis, however, on zonal mean basis, NK 16520 (Zone VI & VII); and 28P09 (Zone VII) were found to perform better than the check genotypes

Table 3.76: Promising hybrids identified in Hybrid Multi Location Trial, Kharif 2017

S. No	Hybrid	DFF	Mean Yield (kg/ha)					
			Overall	Zone II	Zone III	Zone V	Zone VI	Zone VII
Early and Mid Early duration hybrids								
1.	27P22	95	5933 (11)	8612 (16) [18]	6239	4919	4907 [15]	6390 (14) [13]
2.	27P36	98	5917 (11)	8300 (12) [14]	6466	5510	6667 (22) [57]	5429
3.	HRI-180	97	5584	8271 (12) [13]	5916	5361	5093 [20]	5095
4.	PAN 2423	88	5496	8208 (11) [12]	5455	6281	5741 [35]	4811
5.	KPH 467	102	5555	8147 (10) [12]	6210	4323	6481 (19) [52]	5552
6.	BS 158	94	5823	7137	5840	7064 (23) [13]	4259	5572
7.	NCH (US 312)	98	5873	7302	6564	6275	4259	5649
8.	NCV (Gontra Bidhan 3)	94	5334	7027	6071	4347	3519	5601
9.	LCV	98	5172	7393	5216	5755	5463	4868
Medium and Late duration hybrids								
1.	NK 16520	101	5761	6032	5620	6171 (11)	5833 (11) [5]	5826 (22) [7]
2.	28P09	105	5685	5760	6066	5928	5556	5821 (22) [7]
3.	NPH 8899	98	5515	4637	5928	6280 (13)	6204 (18) [12]	5206
4.	NCH (HRI 174)	101	5862	8075	5843	6065	5556	5460
5.	NCV (NDR 359)	100	5054	7411	5368	5562	3611	4346
6.	LCV	103	5378	7958	6154	5087	5278	4762

() -Yield superiority in percent over the varietal check; [] - Yield superiority in percent over the Hybrid check

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Appendix-1: Grain yield (kg/ha) of hybrids in IHRT-Early, Kharif 2017

S. No	IET No	Name	ZONE I	ZONE II				ZONE III (contd)					
			MLN	KUL	@ PNT	LDN	Northern Mean	MSD	Bisco	@ BIO	JKA	@ ALH	UP Mean
1	26464	LP-17201	9065(5)	9467(1)	2359	9632(1)	9550	5569	7450	6325(2)	6422	8100(3)	6885
2	26465	NS-6508	8549(7)	6,600	2416	6,098	6349	6404(3)	7061	5175	6169	7200(6)	6709
3	26466	Bio-688	8075	6,267	2080	5,826	6047	6529(2)	7980(6)	6018(6)	6455	5133	6525
4	26467	JKRH-2337	8232	7400	2269	7174(9)	7287	5090	6677	4402	8217(1)	6667(9)	6663
5	26468	JKRH-2354	8434(9)	6,300	2076	7296(7)	6798	5111	8712(1)	4420	7091(3)	6067	6745
6	26469	IRH-107	5355	5367	1643	4680	5023	5757	7184	6265(3)	5508	6333	6196
7	26470	TMRH-129	8002	7500	1805	5,292	6396	6112(5)	6918	5852(9)	6737(9)	4333	6025
8	26471	BLR-106	7433	7833(4)	2866(5)	6,960	7396	5027	7955(7)	4875	6763(8)	6233	6495
9	26472	US-317	8342	8500(2)	2757(6)	7190(8)	7845	5194	7732(9)	5919(7)	6336	8533(1)	6949
10	26473	SD-151030	9149(4)	8333(3)	3309(1)	6,392	7363	5215	8047(5)	5898(8)	6992(6)	6567	6705
11	26474	NK-20031	9632(2)	7733(5)	3135(2)	7648(5)	7691	6821(1)	6676	3499	7530(2)	8467(2)	7373
12	26475	RH-131419	7824	7567(8)	2294	7730(4)	7649	5841(9)	7244	6219(4)	5701	6733(8)	6380
13	26476	MEPH-136	6684	7233	2042	4085	5659	5736	6998	6159(5)	5108	4833	5669
14	26477	RH-150025	9029(6)	7667(7)	2936(4)	6,647	7157	5411	7888(8)	5764	6328	5300	6232
15	26478	MEPH-137	8506(8)	7700(6)	1987	5,849	6775	5194	4998	3989	7083(4)	5467	5686
16	26479	MP-3050	9275(3)	6,500	2691(8)	6,448	6474	4693	8474(2)	5651	6653	5300	6280
17	26480	LP-17301	10193(1)	7500(9)	2044	8446(2)	7973	5382	5929	3725	6061	5667	5760
18	26481	WGRH-19	8045	6,233	2106	5,637	5935	5173	7651	5358	6444	7467(4)	6684
19	26482	JRH-87	6633	6,300	1346	4253	5277	5920(7)	8449(3)	4653	6051	4733	6288
20	26483	TNRH-290	4804	5167	1892	3619	4393	5726	7467	4825	1860	5167	5055
21	26484	CRHR-121	3019		2544			5288	7596	5023	6394	3500	5695
22	US-314 (NCH)		8391	7400	3036(3)	7,098	7249	6208(4)	6398	3912	6790(7)	6500	6474
23	Co-51 (NCV)		6834	5600	2554(9)	4177	4888	5945(6)	8108(4)	6783(1)	7081(5)	7433(5)	7142
24	PR-124/Luit/NDR-97/ Sahbhagidhan/ MTU-1153 (ZCV)		7074	7,033	2481	7414(6)	7224	5861(8)	6820	5259	6521	6733(7)	6484
25	Local Check Variety (LCV)		6161	6,433	1904	8171(3)	7302	3942	6130	4374	5939	4767	5195
Exp. Mean			7710	7068	2343	6407	6737	5566	7302	5214	6329	6129	6332
CD(0.05)			1067.78	617.6	1311.12	894.66		436.81	2741.86	2199.06	898.23	203.63	
CV			8.48	5.35	33.76	8.55		4.81	23	25.83	8.69	2.03	
D/S			03-06-2017	02-06-2017	29-05-2017	29-06-2017		17-06-2017	15-06-2017	28-06-2017	23-06-2017	15-06-2017	
D/P			03-07-2017	07-07-2017	20-06-2017	07-01-2017		15-07-2017	20-07-2017	23-07-2017	18-07-2017	12-07-2017	
Zonal Check			PR-124	PR-124	PR-124	PR-124		NDR-97	NDR-97	NDR-97	NDR-97	NDR-97	
Local Check			HPR 2143	HKR-48	Govind	PR 126		Sushk-Samrat	NDR 97			NDR 359	

@ Data of PNT (Pantnagar) and BIO (Bio Seeds) not included in the analysis due to High C.V. and Data of ALH (Allahabad) Not included in the analysis due to low C.V

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Appendix-1 (contd): Grain yield (kg/ha) of hybrids in IHRT-Early, Kharif 2017

S. No	IET No	Name	(contd) ZONE III						ZONE IV	ZONE V (contd)			
			SYN	@ CHN	RCI	TMT	Jharkhand Mean	Eastern Mean	@ TTB	RPR	VNR	Chhattisgarh Mean	JBP
1	26464	LP-17201	5983	5630(1)	7900(2)	6781	7340	6886	4500	7209(9)	9553(1)	8381	6345
2	26465	NS-6508	6347	4593	8333(1)	6812(9)	7573	6904	4833(2)	5688	9306(3)	7497	7372(4)
3	26466	Bio-688	6676(8)	4889(9)	7567(4)	6744	7155	6726	4500	5394	6379	5886	5920
4	26467	JKRH-2337	7008(4)	5531(3)	4500	6941(5)	5721	6443	4533	6263	6794	6528	8869(1)
5	26468	JKRH-2354	5463	4642	5400	6735	6067	6368	4767(5)	7312(6)	8817(7)	8064	7109(9)
6	26469	IRH-107	5027	3012	7067(7)	6213	6640	6156	3500	7612(1)	8,209	7911	5857
7	26470	TMRH-129	4112	3210	5067	7932(1)	6499	5887	3500	7216(8)	8,016	7616	6671
8	26471	BLR-106	4985	3704	5100	6309	5704	6053	4667(9)	4497	8,300	6398	5761
9	26472	US-317	5421	3951	6700(9)	6682	6691	6657	5000(1)	7517(4)	8694	8105	7272(6)
10	26473	SD-151030	6816(7)	3358	7733(3)	6920(7)	7327	6898	4833(4)	5559	8793(9)	7176	7234(7)
11	26474	NK-20031	7041(3)	5580(2)	5533	6812(8)	6173	6983	4833(3)	7569(2)	8965(5)	8267	7301(5)
12	26475	RH-131419	7326(1)	5086(8)	7267(5)	7117(2)	7192	6747	4500	3674	9145(4)	6409	6571
13	26476	MEPH-136	4579	3704	5500	6543	6022	5614	3500	4716	4170	4443	7025
14	26477	RH-150025	6867(6)	3605	4500	7068(3)	5784	6194	4667(8)	7533(3)	8826(6)	8180	5682
15	26478	MEPH-137	4929	3259	6400	6806	6603	5839	3333	5883	8806(8)	7345	6362
16	26479	MP-3050	6374	5086(7)	6833(8)	6315	6574	6377	4667(7)	5096	8,363	6729	8127(2)
17	26480	LP-17301	6950(5)	3457	5733	7065(4)	6399	6112	4567	4643	9486(2)	7065	7651(3)
18	26481	WGRH-19	5631	3704	7133(6)	6552	6843	6579	3833	3694	7418	5556	6967
19	26482	JRH-87	4341	4099	4900	4620	4760	5573	3667	7298(7)	5451	6374	4994
20	26483	TNRH-290	3432	5185(6)	6033	5593	5813	5040	2833	4683	5375	5029	5444
21	26484	CRHR-121	4688	5235(5)	4333	3571	3952	5053	4333	6409	6397	6403	6262
22	US-314 (NCH)		7101(2)	5383(4)	6400	6620	6510	6574	4167	3142	8,145	5643	7163(8)
23	Co-51 (NCV)		6411(9)	3901	6133	6932(6)	6533	6863	4700(6)	7480(5)	6339	6909	6450
24	PR-124/Luit/NDR-97/ Sahbhagidhan/ MTU-1153 (ZCV)		5553	3556	3300	2889	3094	5383	3167	3479	7,500	5489	5565
25	Local Check Variety (LCV)		3932	4148	1767	5028	3397	4501	4183	5688	7,830	6759	5615
Exp. mean			5720	4300	5885	6304	6095	6176	4223	5810	7803	6807	6624
CD(0.05)			482.82	663.69	2133.34	1178.03			611.51	1103.59	1148.33		1549.35
CV			5.17	9.45	22.2	11.44			8.87	11.63	9.01		14.32
D/S			23-06-2017	30-06-2017	29-06-2017	16-06-2017			12-07-2017	19-06-2017	15-06-2017		20-06-2017
D/P			17-07-2017	08-08-2017	20-07-2017	14-07-2017			06-08-2017	05-07-2017	12-07-2017		15-07-2017
Zonal Check			NDR-97	NDR-97	NDR-97	NDR-97			Luit	Sahbhagidhan	Sahbhagidhan		Sahbhagidhan
Local Check			NDR 97	Gontra Bidhan 1	BVD 110	BVD 110			Lachit	Indira Barani Dhan 1	MTU 1010		JR -201

@ Data of CHN (Chinsurah) and TTB (Titabar) not included in the analysis due to low experimental means.

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Appendix-1 (contd): Grain yield (kg/ha) of hybrids in IHRT-Early, Kharif 2017

S. No	IET No	Name	(contd) ZONE V			ZONE VI								
			@ SND	SKL	Central Mean	NWG	@ NVS	@ DBI	Gujarat Mean	KJT	VDG	ANK	Maharashtra Mean	Western Mean
1	26464	LP-17201	2496(2)	6204(5)	7328	6771(6)	5819(4)	3,422	6295	7659(1)	5697(7)	5857(3)	6354	6361
2	26465	NS-6508	1591	5,632	6999	5104	3433	2438	4269	7007(4)	5225	5286	5788	5211
3	26466	Bio-688	2406(3)	5240	5733	4479	4,841	4374(8)	4660	5970	4391	4152	4938	4767
4	26467	JKRH-2337	1952	4960	6722	6250(9)	5380(6)	4912(2)	5815	5615	3937	5055	4892	5247
5	26468	JKRH-2354	1903	6212(4)	7362	6771(5)	6267(2)	3,229	6519	6585(7)	5432	5648(5)	5969	6141
6	26469	IRH-107	1047	5161	6710	4896	4064	3954	4480	4844	4903	6137(1)	5261	4969
7	26470	TMRH-129	2224(8)	4965	6717	3542	5203(9)	2735	4372	4825	4347	5888(2)	5006	4761
8	26471	BLR-106	2242(7)	5845(9)	6101	5521	3531	4477(5)	4526	5489	3977	4696	5002	4643
9	26472	US-317	2291(5)	6170(6)	7413	6875(3)	5291(8)	4108(9)	6083	6104(9)	4405	5656(4)	5584	5666
10	26473	SD-151030	2273(6)	4018	6401	5312	5597(5)	2265	5455	5281	4083	5488(7)	4718	5152
11	26474	NK-20031	2656(1)	5849(8)	7421	8021(2)	4468	2190	6245	7207(3)	5622(9)	5344(9)	6005	6132
12	26475	RH-131419	1849	5,628	6254	5833	5895(3)	4673(3)	5864	5644	5882(4)	5172	5581	5685
13	26476	MEPH-136	1315	3809	4930	4896	4,900	2500	4898	5296	5648(8)	4675	4857	5083
14	26477	RH-150025	1930	5874(7)	6979	6667(7)	4,880	2304	5773	6074	6327(2)	5239	5878	5837
15	26478	MEPH-137	2313(4)	6859(2)	6977	6458(8)	4,767	4590(4)	5613	6341(8)	6406(1)	5336	6235	5862
16	26479	MP-3050	2103(9)	5,732	6829	8021(1)	5311(7)	4471(6)	6666	6874(5)	6278(3)	5358(8)	6061	6368
17	26480	LP-17301	1502	6863(1)	7161	4896	5,197	3,211	5047	6696(6)	5873(5)	4435	5967	5420
18	26481	WGRH-19	1988	5040	5780	5833	3543	2701	4688	5696	4696	4737	5042	4901
19	26482	JRH-87	700	3901	5411	3958	4253	2,971	4106	4519	4149	3577	4037	4091
20	26483	TNRH-290	1092	3066	4642	3021	3938	2572	3479	3163	3854	3550	3408	3505
21	26484	CRHR-121	2014	5453	6130	5729	4469	4444(7)	5099	5415	5437	4382	5172	5086
22	US-314 (NCH)		1373	6316(3)	6191	6875(4)	6605(1)	3,325	6740	7518(2)	4025	5619(6)	5870	6129
23	Co-51 (NCV)		1074	4347	6154	5000	3459	2253	4230	4941	4493	4587	4592	4496
24	PR-124/Luit/NDR-97/ Sahbhagidhan/ MTU-1153 (ZCV)		1136	5060	5401	4271	4512	3,111	4391	5852	5759(6)	4932	5401	5065
25	Local Check Variety (LCV)		1154	5503	6159	5417	4370	6931(1)	4894	5348	4215	4534	4900	4777
Exp. mean			1785	5348	6396	5617	4800	3526	5208	5839	5002	5014	5301	5254
CD(0.05)			429.67	1250.45		1345.54	1199.29	526.06		1144.16	633.19	535.37		
CV			14.74	14.32		11.61	15.3	9.14		12	7.75	6.54		
D/S			20-06-2017	20-06-2017		19-06-2017	06-07-2017	06-06-2017		09-06-2017	09-06-2017	03-07-2017		
D/P			25-07-2017	13-07-2017		20-07-2017	07-10-2017	06-07-2017		05-07-2017	10-07-2017	24-07-2017		
Zonal Check			Sahbhagidhan	Sahbhagidhan		Sahbhagidhan	Sahbhagidhan	Sahbhagidhan		Sahbhagidhan	Sahbhagidhan	Sahbhagidhan		
Local Check			SYE 1	SKL-6		Mahisagar	GR 7	GR-7		KJT-7		SAKOLI-6		

@ Data of SND (Sindewahi), (NVS) Navsari and DBI (Dabhoi) not included in the analysis due to low experimental means.

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Appendix-1 (contd): Grain yield (kg/ha) of hybrids in IHRT-Early, Kharif 2017

S. No	IET No	Name	ZONE VII											Overall Mean
			MTU	BAY	AP Mean	IIRR	WGL	ADV	TS Mean	@ CBT	ADT	TN Mean	South Mean	
1	26464	LP-17201	5609(6)	9083(6)	7346	5009	5233(4)	8134(1)	6125	4631	6346	6346	6569	7076
2	26465	NS-6508	4763	8233(7)	6498	5120(9)	4597	6653	5457	4719	6748(9)	6748	6019	6390
3	26466	Bio-688	5511(8)	6450	5980	5614(4)	4911	6842(6)	5789	5948(1)	6231	6231	5927	5983
4	26467	JKRH-2337	5431	7933	6682	5024	5201(6)	6006	5410	5218(5)	6959(3)	6959	6092	6303
5	26468	JKRH-2354	5324	9417(3)	7371	5680(3)	5147(7)	6767(8)	5865	3687	6070	6070	6401	6607
6	26469	IRH-107	5323	7150	6237	4030	4003	4642	4225	4658	5956	5956	5184	5651
7	26470	TMRH-129	5237	7600	6418	4965	4686	5697	5116	5157(6)	6039	6039	5704	5876
8	26471	BLR-106	5315	9250(4)	7282	5334(7)	4931	5833	5366	4044	7330(2)	7330	6332	6008
9	26472	US-317	6547(2)	8195(9)	7371	5078	4908	6779(7)	5588	5432(2)	6911(6)	6911	6403	6681
10	26473	SD-151030	4931	8117	6524	4985	4227	5652	4955	4510	6751(8)	6751	5777	6328
11	26474	NK-20031	5560(7)	11250(1)	8405	5688(2)	5137(9)	6355	5727	5311(3)	7367(1)	7367	6893	7024
12	26475	RH-131419	5404	7867	6635	4874	4734	6165	5258	4318	6033	6033	5846	6355
13	26476	MEPH-136	5432	7523	6477	4819	5118	6485	5474	4845	6006	6006	5897	5513
14	26477	RH-150025	5143	9668(2)	7406	4983	5220(5)	6342	5515	3671	6926(5)	6926	6381	6484
15	26478	MEPH-137	6437(3)	7923	7180	6376(1)	6653(2)	7325(3)	6785	5278(4)	6665	6665	6896	6461
16	26479	MP-3050	5359	7667	6513	4947	4562	5996	5169	3007	6096	6096	5771	6426
17	26480	LP-17301	5385	9100(5)	7243	5088	4742	6878(5)	5570	4389	6694	6694	6315	6502
18	26481	WGRH-19	4830	7221	6025	4559	5122	5990	5224	3468	5222	5222	5491	5861
19	26482	JRH-87	5048	7455	6252	4948	4217	4384	4517	3660	5983	5983	5339	5213
20	26483	TNRH-290	5458	7171	6314	3775	4426	4752	4318	3402	6956(4)	6956	5423	4700
21	26484	CRHR-121	5717(5)	6400	6058	5204(8)	4285	4572	4687	3720	6320	6320	5416	5254
22	US-314 (NCH)		6582(1)	8200(8)	7391	5557(5)	4881	7249(4)	5896	5081(8)	6159	6159	6438	6518
23	Co-51 (NCV)		4736	6712	5724	5433(6)	5665(3)	6024	5707	4922(9)	6370	6370	5823	5868
24	PR-124/Luit/NDR-97/ Sahbhagidhan/ MTU-1153 (ZCV)		6400(4)	7671	7035	4786	7584(1)	7644(2)	6671	5152(7)	6831(7)	6831	6819	5882
25	Local Check Variety (LCV)		5373	5580	5476	4044	5139(8)	6742(9)	5308	4554	5728	5728	5434	5336
Exp. mean			5474	7953	6714	5037	5013	6236	5429	4511	6428	6428	6024	6092
CD(0.05)			1210.87	1464.81		1505.3	603.44	844.13		670.59	590			
CV			13.55	11.28		18.48	7.37	8.29		9.1	5.62			
D/S			03-07-2017	27-06-2017		16-06-2017	11-07-2017	21-06-2017		11-07-2017	01-07-2017			
D/P			05-2-08-17	17-07-2017		20-07-2017	18-08-2017	20-07-2017		01-08-2017	25-07-2017			
Zonal Check			MTU-1153	MTU-1153		MTU-1153	MTU-1153	MTU-1153		MTU-1153	MTU-1153			
Local Check			MTU 1156	MTU-1010			KNM-118							

@ Data of CBT (Coimbatore) not included in the analysis due to low experimental means.

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Appendix-2: Days to 50% flowering (DFF) of hybrids in IHRT-Early, Kharif 2017

S. No	IET No	Hybrid	ZONE I	ZONE II				ZONE III											ZONE IV	
			MLN	KUL	@ PNT	LDN	Northern Mean	MSD	Bisco	@ BIO	JKA	@ ALH	UP Mean	SYN	@ CHN	RCI	TMT	Jharkhand Mean	Eastern Mean	@ TTB
1	26464	LP-17201	106	93	96	96	94	86	82	82	89	87	86	85	97	90	88	89	87	85
2	26465	NS-6508	104	100	88	108	104	83	79	78	92	88	85	87	94	90	88	89	87	92
3	26466	Bio-688	94	91	99	89	90	97	87	82	79	80	86	78	82	85	81	83	84	80
4	26467	JKRH-2337	97	92	80	92	92	91	93	77	80	82	87	78	91	81	81	81	84	78
5	26468	JKRH-2354	108	92	97	95	94	85	78	77	81	89	83	86	95	91	88	89	85	87
6	26469	IRH-107	99	91	76	95	93	90	79	78	85	85	85	80	93	83	82	83	83	87
7	26470	TMRH-129	98	93	74	94	93	92	85	80	81	85	86	78	91	83	82	82	84	87
8	26471	BLR-106	111	94	95	98	96	90	82	82	89	90	88	84	95	90	88	89	87	90
9	26472	US-317	108	95	97	97	96	84	78	78	89	88	85	83	91	90	88	89	86	90
10	26473	SD-151030	96	89	75	90	89	90	97	78	79	83	87	79	79	86	82	84	85	83
11	26474	NK-20031	105	94	88	98	96	85	76	75	90	90	85	86	93	89	88	88	86	92
12	26475	RH-131419	101	97	81	103	100	90	81	82	75	90	84	82	92	83	83	83	84	87
13	26476	MEPH-136	98	89	73	88	89	95	91	88	81	80	87	77	82	82	78	80	84	85
14	26477	RH-150025	103	92	89	95	94	90	81	78	88	81	85	82	91	82	88	85	84	86
15	26478	MEPH-137	103	98	97	104	101	92	82	79	89	83	86	81	94	85	87	86	85	85
16	26479	MP-3050	114	106	97	110	108	74	89	83	96	95	89	94	103	99	94	97	92	96
17	26480	LP-17301	100	92	96	96	94	94	77	78	83	91	86	80	90	79	80	80	83	81
18	26481	WGRH-19	105	91	96	94	92	94	81	81	89	89	88	83	95	87	83	85	87	87
19	26482	JRH-87	96	89	76	89	89	100	79	79	81	81	85	77	83	77	78	78	82	81
20	26483	TNRH-290	95	96	88	96	96	100	84	84	95	88	92	84	93	84	82	83	88	89
21	26484	CRHR-121	122		128			74	82	79	89	120	91	109	112	104	99	101	97	103
22	US-314 (NCH)		104	98	92	108	103	84	82	81	90	86	85	85	92	83	88	86	85	92
23	Co-51 (NCV)		94	89	81	92	90	99	81	80	82	89	88	78	92	79	82	80	84	85
24	PR-124/Luit/NDR-97/ Sahbhagidhan /MTU-1153 (ZCV)		110	99	97	108	104	80	77	77	81	94	83	75	81	75	78	76	80	75
25	Local Check Variety (LCV)		94	94	70	95	95	81	87	81	79	86	84	75	91	73	73	73	79	86
Exp. mean			103	94	90	96	95	89	83	80	86	88	86	83	92	87	85	86	86	87

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Appendix-2 (contd): Days to 50% flowering (DFF) of hybrids in IHRT-Early, Kharif 2017

S. No	IET No	Name	ZONE V							ZONE VI								
			RPR	VNR	Chhattisgarh Mean	JBP	@ SND	SKL	Central Mean	NWG	@ NVS	@ DBI	Gujarat Mean	KJT	VDG	ANK	Maharashtra Mean	Western Mean
1	26464	LP-17201	75	84	80	95	99	83	84	86	92	87	89	91	95	86	89	90
2	26465	NS-6508	76	86	81	95	99	84	85	91	94	87	93	89	91	88	88	91
3	26466	Bio-688	89	75	82	87	91	80	83	77	81	87	79	80	88	78	82	81
4	26467	JKRH-2337	78	76	77	90	91	80	81	79	81	87	80	85	88	81	84	83
5	26468	JKRH-2354	79	85	82	94	110	85	86	86	91	87	88	97	91	86	90	90
6	26469	IRH-107	85	83	84	90	90	81	85	81	85	90	83	88	88	83	85	85
7	26470	TMRH-129	83	78	80	88	91	80	82	79	84	84	81	83	87	82	83	83
8	26471	BLR-106	69	88	79	94	101	86	84	85	90	83	88	89	93	86	88	89
9	26472	US-317	84	85	84	94	102	84	87	86	91	94	89	96	98	88	92	92
10	26473	SD-151030	76	77	77	88	98	78	80	79	82	90	80	89	89	82	85	84
11	26474	NK-20031	77	86	82	93	98	84	85	86	92	79	89	93	97	88	91	91
12	26475	RH-131419	73	83	78	90	94	82	82	86	89	92	87	85	93	85	87	88
13	26476	MEPH-136	66	74	70	87	86	76	76	76	75	80	76	81	88	80	81	80
14	26477	RH-150025	80	84	82	94	97	83	85	86	90	83	88	88	98	86	89	90
15	26478	MEPH-137	83	81	82	91	91	82	84	87	92	90	90	85	89	83	85	87
16	26479	MP-3050	75	91	83	97	109	94	89	91	102	101	97	95	98	94	95	96
17	26480	LP-17301	88	79	84	90	87	79	84	82	84	79	83	85	85	79	82	83
18	26481	WGRH-19	78	84	81	93	97	83	85	85	91	83	88	91	90	85	87	88
19	26482	JRH-87	86	86	86	84	87	79	84	79	79	81	79	74	86	79	79	79
20	26483	TNRH-290	89	78	84	88	93	82	84	85	92	85	89	85	91	85	86	88
21	26484	CRHR-121	88	106	97	106	111	100	100	87	107	91	97	101	98	98	99	98
22	US-314 (NCH)		78	84	81	94	94	82	85	87	92	91	90	81	88	87	85	87
23	Co-51 (NCV)		86	76	81	90	90	76	82	78	79	79	78	83	87	83	82	82
24	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (ZCV)		66	82	74	90	94	83	80	87	91	90	89	88	91	83	86	88
25	Local Check Variety (LCV)		75	83	79	84	101	83	81	89	92	87	90	88	90	84	86	89
Exp. mean			80	83	82	92	96	83	85	84	89	87	86	88	91	85	87	87

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Appendix-2 (contd): Days to 50% flowering (DFF) of hybrids in IHRT-Early, Kharif 2017

S. No	IET No	Name	ZONE VII											Overall Mean
			MTU	BAY	AP Mean	IIRR	WGL	ADV	TS Mean	@ CBT	ADT	TN Mean	South Mean	
1	26464	LP-17201	76	80	78	91	91	90	91	97	92	92	87	88
2	26465	NS-6508	77	83	80	93	93	94	94	92	92	92	89	90
3	26466	Bio-688	75	72	73	83	85	88	85	84	82	82	81	83
4	26467	JKRH-2337	76	77	77	85	85	90	87	85	80	80	82	84
5	26468	JKRH-2354	80	84	82	94	93	90	92	99	96	96	90	89
6	26469	IRH-107	78	79	78	89	90	90	90	87	84	84	85	86
7	26470	TMRH-129	83	78	81	88	88	92	90	89	88	88	86	85
8	26471	BLR-106	83	84	83	96	93	95	95	95	92	92	91	90
9	26472	US-317	84	83	84	96	93	91	94	91	92	92	90	90
10	26473	SD-151030	72	77	74	86	85	92	88	84	85	85	83	84
11	26474	NK-20031	86	84	85	94	95	96	95	95	99	99	92	90
12	26475	RH-131419	70	78	74	89	95	92	92	83	89	89	86	87
13	26476	MEPH-136	76	74	75	85	89	88	87	88	86	86	83	83
14	26477	RH-150025	83	80	82	92	90	94	92	98	91	91	88	88
15	26478	MEPH-137	78	77	77	90	89	89	89	87	83	83	84	87
16	26479	MP-3050	92	89	91	100	105	105	104	100	97	97	98	96
17	26480	LP-17301	71	75	73	84	84	89	86	81	88	88	82	84
18	26481	WGRH-19	80	82	81	94	93	98	95	95	93	93	90	89
19	26482	JRH-87	73	70	72	83	85	87	85	80	78	78	79	82
20	26483	TNRH-290	78	77	78	87	91	96	91	81	87	87	86	88
21	26484	CRHR-121	104	95	100	104	111	89	101	99	97	97	100	100
22	US-314 (NCH)		85	79	82	90	92	89	90	87	88	88	87	88
23	Co-51 (NCV)		72	76	74	85	91	93	90	84	84	84	84	84
24	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (ZCV)		80	79	80	92	94	91	92	87	88	88	87	86
25	Local Check Variety (LCV)		80	76	78	77	91	91	86	87	84	84	83	84
Exp. mean			80	80	80	91	92	92	91	90	89	89	87	88

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Appendix-3: Quality Characteristics of hybrids in IHRT – Early, Kharif 2017

S. No.	IET No	Name	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
1	26464	LP-17201	80.0	67.6	63.5	6.24	2.11	2.95	LB	A	5.3	325	9.3	1.49	7.0	22.88	50	NS
2	26465	NS-6508	79.6	66.3	61.1	6.26	2.09	2.99	LB	VOC	5.0	240	10.4	1.66	4.0	22.41	60	NS
3	26466	Bio-688	76.6	68.0	62.9	6.87	1.91	3.59	LS	VOC	4.7	340	12.8	1.86	5.0	24.17	63	MS
4	26467	JKRH-2337	79.9	68.3	61.2	5.81	2.37	2.45	SB	VOC	5.3	235	9.0	1.54	4.0	23.32	67	NS
5	26468	JKRH-2354	80.0	68.5	63.4	6.33	2.36	2.68	LB	VOC	4.3	280	10.0	1.57	5.5	21.14	57	NS
6	26469	IRH-107	79.7	68.3	59.0	6.25	2.20	2.84	LB	VOC	4.4	270	10.9	1.74	4.7	23.67	52	MS
7	26470	TMRH-129	78.9	64.0	46.6	6.15	2.10	2.92	LB	VOC	4.7	325	9.7	1.57	4.0	21.44	54	MS
8	26471	BLR-106	81.9	70.0	63.8	6.01	2.11	2.84	LB	VOC	4.3	330	10.3	1.71	7.0	23.87	44	NS
9	26472	US-317	79.7	66.4	54.9	5.39	2.18	2.47	SB	VOC	4.7	250	8.8	1.63	4.7	14.75	90	NS
10	26473	SD-151030	78.8	65.2	60.3	6.29	2.11	2.98	LB	A	4.7	335	9.6	1.52	5.0	15.89	100	NS
11	26474	NK-20031	80.4	69.8	65.3	6.33	2.42	2.61	LB	VOC	5.5	350	10.8	1.70	4.7	23.61	23	NS
12	26475	RH-131419	80.3	70.0	66.5	5.67	2.24	2.53	MS	VOC	4.7	205	8.8	1.55	4.0	23.29	52	NS
13	26476	MEPH-136	78.4	67.1	62.7	5.53	2.14	2.58	MS	VOC	5.0	335	9.9	1.79	7.0	21.82	50	MS
14	26477	RH-150025	83.3	69.2	65.3	5.41	2.40	2.25	SB	VOC	4.7	245	9.8	1.81	4.6	24.40	45	NS
15	26478	MEPH-137	78.9	68.1	62.5	5.59	2.16	2.58	MS	VOC	4.1	255	9.7	1.73	6.3	24.78	24	NS
16	26479	MP-3050	79.5	68.9	65.5	5.67	2.12	2.67	MS	VOC	4.8	260	10.5	1.85	4.7	23.52	22	NS
17	26480	LP-17301	80.0	70.7	68.9	6.56	2.10	3.12	LS	VOC	5.0	150	10.5	1.60	4.0	22.29	43	NS
18	26481	WGRH-19	81.6	71.1	65.7	6.43	2.10	3.08	LS	VOC	4.8	220	10.0	1.55	5.0	22.05	46	NS
19	26482	JRH-87	79.7	65.0	55.5	6.68	1.94	3.44	LS	VOC	5.3	220	11.6	1.73	4.0	23.61	54	NS
20	26483	TNRH-290	77.8	65.7	27.8	5.05	1.90	2.65	MS	A	4.8	310	8.9	1.76	6.2	24.43	40	NS
21	26484	CRHR-121	80.1	68.0	65.1	6.31	2.09	3.01	LS	VOC	5.0	240	9.1	1.44	5.0	23.84	50	NS
22	US-314 (NCH)		78.1	65.7	58.6	5.31	2.11	2.51	MS	VOC	4.7	275	8.9	1.67	4.0	21.85	44	NS
23	Co 51 (NCV)		77.4	65.8	62.9	5.15	1.92	2.68	MS	VOC	4.3	185	8.3	1.61	4.0	25.98	70	NS
24	MTU 1153 (ZCV)		80.0	70.8	68.2	5.97	2.14	2.78	MS	VOC	5.1	190	10.0	1.67	4.0	21.91	65	NS
25	Rasi (LCV)		78.7	68.5	62.4	5.37	2.55	2.10	SB	OC	5.0	170	9.5	1.77	7.0	25.69	22	NS

HULL: Hulling (%); MILL: Milling (%); HRR: Head rice recovery (%); KL: Kernel length (mm); KB: Kernel breadth (mm); SS: Short slender ; L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; MS: Medium slender; ASV: Alkali spreading value; AC: Amylose content (%); GC: Gel consistency; LB: Long bold; SB: Short bold; LS: Long slender;

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Appendix-4: Grain Yield (kg/ha) of Hybrids in IHRT-Mid Early, Kharif 2017

S. No.	IET No	Name	Zone-II					Zone-III						
			KUL	@ PNT	LDN	CHT	Northern Mean	@ MSD	@ ALH	BISCO	JKA	@ NUZ	VRN	UP Mean
1	26485	RRX-131	5300	5270(1)	7615	7000(4)	6638	6373	9600(1)	7315	6903(9)	7421	5413	6544
2	26486	NS-6667	3200	4565	7119	6000	5440	6487	6700	6182	6480	7695	5973	6212
3	26487	YRH-2052	5467	4478	7804	6200	6490	6529	3445	6682	6884	9880(1)	5887	6484
4	26488	NS-6677	5467	4052	8028	6200	6565	6466	6400	6484	7013(6)	7975	4973	6157
5	26489	YRH-2725	5200	4500	8455(6)	6300	6652	6456	4500	6998	6064	9225(2)	6260	6441
6	26490	JKRH-2389	8267(1)	4439	8690(2)	5700	7552	7756(1)	7100(9)	7228	7511(1)	8455(8)	6160	6967
7	26491	BLR-107	6567	4540	7846	6300	6904	6383	5867	5416	6454	8355	6820(7)	6230
8	26492	BLR-108	4167	4394	6894	6667	5909	6414	5800	6798	6639	7698	6333	6590
9	26493	US-344	5200	4868	6838	6633	6224	6608	5800	8070(5)	6457	7625	8040(2)	7522
10	26494	Indam-200-042	6567	5228(2)	8310(9)	6533	7137	6404	6200	7172	6916(8)	5505	5487	6525
11	26495	US-346	5033	4724	7845	6300	6393	6646(7)	5427	5272	6787	7460	6120	6060
12	26496	SD-140204	5267	4916	9240(1)	6700(8)	7069	6583	5300	6193	6413	8965(4)	7200(4)	6602
13	26497	NK-18798	7200(6)	5196(4)	7644	6667(9)	7170	6796(3)	5000	6252	6394	9145(3)	7313(3)	6653
14	26498	RH-110647	5433	4609	8574(3)	6500	6836	6894(2)	7300(6)	7981(6)	7151(3)	8355	6360	7164
15	26499	MEPH-138	7700(3)	5178(5)	7569	6900(6)	7390	6621(9)	7120(8)	5305	7028(5)	6800	6187	6173
16	25778	Heera-2	5400	4534	8208	6400	6669	6425	4367	8422(2)	6480	8815(6)	8067(1)	7656
17	26500	PH-17106	4500	5143(6)	8500(5)	7000(5)	6667	6508	7153(7)	6948	6727	7135	6527(8)	6734
18	26501	MEPH-139	7267(4)	5214(3)	8360(7)	6433	7353	6625(8)	7433(5)	7021	6986(7)	8670(7)	3720	5909
19	26502	PHI-17107	6233	4343	8332(8)	7300(1)	7288	6696(4)	3700	7165	6793	8245	4967	6308
20	26503	NK-24215	5167	4900	8100	6800(7)	6689	6675(6)	5440	7108	6790	8385(9)	6833(6)	6910
21	26504	LP-17302		4342		4967	4967	6454	8220(4)	7486	6884	7985	3260	5877
22	26505	JRH-79	6600(9)	4656	4539	5800	5646	6571	3420	7548	6453	5390	4180	6060
23	24971	IIRRH-105	6333	4244	6547	6300	6393	6529	5113	7993(7)	6540	6575	5607	6713
24	26506	JRH-82	6667(8)	4927(9)	6669	6400	6579	6529	3080	8303(3)	6730	5900	5727	6920
25	26507	IIRRH-117	6433	4096	7271	6400	6701	6683(5)	3733	7710	7038(4)	6575	5300	6683
26	26508	JRH-88	6133	4119	6906	6300	6446	6091	2863	6937	6635	5660	3947	5840
27	26509	CRHR-120	3867	4161	6528	6100	5498	6289	3747	6685	6902	6839	6120	6569
28	26510	HURHS-17-1	5600	5077(7)	8120	6600	6773	6279	7060	5890	7234(2)	7830	5933	6353
29	26511	CRHR-123	6533	4133	6141	4967	5880	6268	5080	7815(9)	6363	5629	6433(9)	6871
30	26512	NVSRH-1011	6200	4391	6979	6400	6526	6477	9200(3)	7841	6013	7315	6013	6622
31	26513	Pusa RH-52	5233	4871	7574	6433	6414	6268	9500(2)	7793	6397	5802	6253	6814
32	26514	IIRRH-119	5367	4983(8)	4985	6167	5506	6512	6673	6082	6562	3246	6113	6253
33	26515	Pusa RH-53	5167	4457	8244	6233	6548	6028	4940	8088(4)	6710	8350	6847(5)	7215
34	US-312 (NCH)		6100	4712	7038	6567	6568	6195	6380	6871	6367	8010	6287	6508
35	Gontra Bidhan-3 (NCV)		6667(7)	4751	8113	7100(3)	7293	6320	6540	5969	6546	8845(5)	6293	6270
36	PR-113/CR Dhan-300/ Karjat-7/MTU-1010 (ZCV)		7200(5)	4151	8558(4)	7267(2)	7675	6571	2600	8582(1)	6512	7065	5007	6700
37	Local Check Variety (LCV)		7967(2)	3739	8176	6300	7481	6500	4900	6454	6417	7085	4253	5708
Exp.Mean			5907	4619	7566	6401	6593	6511	5749	7029	6680	7481	5898	6536
CD(0.05)				705.48	836.67	832.65		317.34	297.18	1804.98	918.12	514.94	805.34	
CV			7.16	9.45	6.84	8.05		3.01	3.2	15.89	8.5	3.41	8.45	
D/S			02-06-2017	29-05-2017	27-05-2017	01-06-2017		14-06-2017	16-06-2017	15-06-2017	23-06-2017	08-06-2017	29-07-2017	
D/P			06-07-2017	22-06-2017	27-06-2017	13-07-2017		12-07-2017	12-07-2018	20-07-2017	20-07-2017 & 21-07-2017	01-07-2017	12-08-2017	
Zonal Check			PR 113	PR 113	PR 113	PR 113		Lalat	Lalat	Lalat	Lalat	Lalat	Lalat	
Local Check			HKR 47	Pant Dhan 4	PR 124	SJR 5		NDR 2064	NDR 2064	Lalat				

@ Data of PNT (Pantnagar) not included in the analysis due to low Experimental Mean and Data of NUZ (Nuziveedu Seeds), MSD (Masodha) and ALH (Allahabad) not included in the analysis due to low C.V

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Appendix-4 (Contd): Grain Yield (kg/ha) of Hybrids in IHRT-Mid Early, Kharif 2017

S. No.	IET No	Name	Zone-III					Zone-IV	Zone-V				
			SYN	@ CHN	@ RCI	CHP	Eastern Mean	@ TTB	@ RPR	VNR	JBP	@ SND	Central Mean
1	26485	RRX-131	5018	5383	4733	5338	5997	4167	3333	9424(6)	7067	2669	8246
2	26486	NS-6667	5849	4247	4700	5232	5943	4333	3389	9823(1)	7384	2897	8604
3	26487	YRH-2052	5454	4889	5300(2)	5630	6107	3167	3789(7)	8921	6813	2870	7867
4	26488	NS-6677	6555(4)	5630(6)	4133	5859	6177	4333	2583	9063(7)	8865(2)	2,126	8964
5	26489	YRH-2725	5720	5877(5)	4800(8)	6391(8)	6286	3500	2402	6320	6975	2750	6648
6	26490	JKRH-2389	6157(9)	5185	3567	5423	6496	4333	3492	6344	8536(3)	2545	7440
7	26491	BLR-107	7256(1)	4494	5233(3)	5705	6330	3833	2282	9792(3)	7463	4617(1)	8628
8	26492	BLR-108	6557(3)	5235	4967(6)	6380	6541	4183	2976	7948	8369(4)	2527	8158
9	26493	US-344	5822	4741	3967	5535	6785	4833(3)	3458	8188	6871	2,299	7530
10	26494	Indam-200-042	5190	3556	4167	7746(1)	6502	3000	2706	8999(8)	6692	2,340	7845
11	26495	US-346	5953	5481(8)	3433	4859	5798	4667(7)	1660	7801	6725	2433	7263
12	26496	SD-140204	6247(8)	4988	4067	5705	6351	4667(6)	2977	8404	6758	2620	7581
13	26497	NK-18798	5589	4691	4367	6173	6344	5183(2)	2531	9808(2)	7155	3128(6)	8481
14	26498	RH-110647	6963(2)	4198	4567	6231	6937	4333	3365	8595	7826(7)	3993(2)	8211
15	26499	MEPH-138	6081	5481(9)	4267	7114(3)	6343	4683(5)	3100	8817	7117	3418(4)	7967
16	25778	Heera-2	6520(5)	3457	5067(4)	6417(7)	7181	3017	2257	9443(5)	5761	3088(7)	7602
17	26500	PH-17106	5538	3951	4967(5)	7130(2)	6574	5667(1)	2476	8701	7789(8)	2,166	8245
18	26501	MEPH-139	4895	4444	4367	5274	5579	4000	3574(9)	8724	7180	3075(8)	7952
19	26502	PHI-17107	6471(7)	4049	4800(7)	6003	6280	4500(8)	2452	8042	7138	2,197	7590
20	26503	NK-24215	5916	4494	3667	5242	6378	4350	4835(2)	9503(4)	7672(9)	3743(3)	8588
21	26504	LP-17302	5706	3605	3933	5662	5800	2850	2629	6080	5982	2010	6031
22	26505	JRH-79	2315	3506	3967	5208	5141	3317	2388	3730	5982	1110	4856
23	24971	IIRRH-105	5525	4593	4433	6662(4)	6465	3683	3853(6)	8959(9)	7931(6)	2865	8445
24	26506	JRH-82	4141	4642	4133	5301	6040	4683(4)	1238	6832	7405	2,121	7119
25	26507	IIRRH-117	5976	4198	4267	5795	6364	3167	2877	7825	7067	2874	7446
26	26508	JRH-88	4324	6272(1)	4500	6380(9)	5645	3833	4120(3)	6716	6829	2594	6773
27	26509	CRHR-120	4475	4198	4767(9)	4604	5757	3333	3549	8102	5690	2023	6896
28	26510	HURHS-17-1	5680	6222(2)	3833	5460	6040	4183	1898	7708	8252(5)	3044(9)	7980
29	26511	CRHR-123	5365	6123(3)	4300	4801	6156	3333	3908(5)	6866	6842	2,094	6854
30	26512	NVSRH-1011	5134	4790	3900	6460(6)	6292	3317	2712	8061	7522	2803	7791
31	26513	Pusa RH-52	6479(6)	4543	3567	4976	6380	3017	1833	7768	6959	1827	7363
32	26514	IIRRH-119	3933	4938	4367	6593(5)	5857	3333	1350	6964	6713	3160(5)	6838
33	26515	Pusa RH-53	3966	4494	4600	5014	6125	3017	4877(1)	4807	5882	2,166	5345
34	US-312 (NCH)		5327	6025(4)	6200(1)	6348	6240	3700	4094(4)	8185	8919(1)	2955	8552
35	Gontra Bidhan-3 (NCV)		5465	4395	4133	6295	6114	4367	3583(8)	8839	6533	1729	7686
36	PR-113/CR Dhan-300/ Karjat-7/MTU-1010 (ZCV)		915	5481(7)	4700	6290	5461	4500(9)	3573				
37	Local Check Variety (LCV)		5904	4148	3900	5790	5764	4133	2172	8794	6066	2,059	7430
Exp. Mean			5416	4774	4395	5865	6178	3960	2981	8025	7131	2637	7578
CD(0.05)			469.17	703.22	1583.82	673.54		544.81	747.3	1031.26	1156.99	308.85	
CV			5.36	9.11	22.29	7.1		8.51	15.51	7.95	10.04	7.24	
D/S			20-06-2017	30-06-2017	27-06-2017	29-07-2017		10-07-2017	19.06.17	15-06-2017	20-06-2017	20-06-2017	
D/P			12-07-2017	11-08-2017	05-08-2017	19-08-2017		08-08-2017	07.07.17	13-07-2017	12-07-2017	24-07-2017	
Zonal Check			Lalat	Lalat	Lalat	Lalat		PR 113	Karjat-7	Karjat-7	Karjat-7	Karjat-7	
Local Check			NDR 359	Khitish	BVD 203	NK 5231		Chilarai	Maheshwari	MTU 1010	IR 64	PKV-HMT	

@ Data of CHN (Chinsurah), TTB (Titabar) RPR (Raipur) and SND (Sindewahi) not included in the analysis due to low Experimental Mean and Data of RCI (Ranchi) not included in the analysis due to low Experimental Mean and High C.V.

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Appendix-4 (Contd): Grain Yield (kg/ha) of Hybrids in IHRT-Mid Early, Kharif 2017

S. No.	IET No	Name	Zone-VI								Zone-VII (contd)			
			NWG	NVS	@ DBI	Guj Mean	KJT	ANK	MH Mean	Western Mean	MTU	BAY	AP Mean	IIRR
1	26485	RRX-131	5820(6)	5697	4,846	5759	5941	5516	5729	5744	4869	8997	6933	5283(9)
2	26486	NS-6667	5732(7)	3870	5,173	4801	5748	5090	5419	5110	5063	8156	6609	4075
3	26487	YRH-2052	6614(1)	5702	3235	6158	7837(1)	5939(5)	6888	6523	4883	7841	6362	5210
4	26488	NS-6677	5115	3455	3,807	4285	6304	4543	5423	4854	4991	7138	6065	4751
5	26489	YRH-2725	6349(2)	4984	5,003	5666	6756(7)	5673	6214	5940	5198	9235	7217	5625(5)
6	26490	JKRH-2389	3704	5263	3203	4483	7193(5)	5025	6109	5296	4662	9279(9)	6970	4915
7	26491	BLR-107	5291	5840(7)	2451	5565	7022(6)	5876(8)	6449	6007	5192	8838	7015	6541(1)
8	26492	BLR-108	3880	2731	4,399	3306	4941	5053	4997	4151	5320(6)	11244(1)	8282	4817
9	26493	US-344	4233	3947	6420(2)	4090	6089	4747	5418	4754		7981	7981	5171
10	26494	Indam-200-042	6261(3)	3755	5,384	5008	6348	4397	5373	5190		9262	9262	5677(3)
11	26495	US-346	3792	4590	5,426	4191	7718(2)	4902	6310	5251		7502	7502	4534
12	26496	SD-140204	5644(8)	5767(9)	5722(7)	5706	6741(8)	5222	5981	5843		8158	8158	5276
13	26497	NK-18798	5556	6527(3)	6219(3)	6041	5637	4952	5294	5668	6756(1)	10040(3)	8398	5609(7)
14	26498	RH-110647		5508	4,528	5508	6393	5978(4)	6185	5959	5057	9298(8)	7178	5153
15	26499	MEPH-138	6173(4)	6682(2)	6020(4)	6427	5704	5597	5650	6039	4898	9300(7)	7099	5845(2)
16	25778	Heera-2	2028	7954(1)	4,482	4991	7630(4)	4969	6299	5645	4461	9588(6)	7025	5515(8)
17	26500	PH-17106	4233	5876(6)	6629(1)	5054	6163	5550	5857	5455	6569(2)	9878(4)	8224	5026
18	26501	MEPH-139	4762	5162	5631(9)	4962	5607	6380(1)	5993	5478	5368(5)	8177	6773	5235
19	26502	PHI-17107	5115	5805(8)	5998(5)	5460	5667	6282(2)	5974	5717	5194	9625(5)	7409	5299
20	26503	NK-24215	5467	5264	5912(6)	5366	5778	5686(9)	5732	5549	5931(4)	8870	7400	5279
21	26504	LP-17302	5996(5)	2235	4,010	4116	3889	5049	4469	4292	5270(7)	6222	5746	3902
22	26505	JRH-79	3439	4328	2302	3883	4044	4205	4125	4004	5149	6464	5807	4799
23	24971	IIRRH-105	5379	4836	4,658	5108	6215	4707	5461	5284	6082(3)	6934	6508	4818
24	26506	JRH-82	5556	4598	5,428	5077	5474	5227	5351	5214	5012	6921	5966	4658
25	26507	IIRRH-117	5115	5481	3064	5298	5326	5123	5225	5261	4719	5115	4917	5644(4)
26	26508	JRH-88	4586	5270	3312	4928	3904	4676	4290	4609	4375	6349	5362	4847
27	26509	CRHR-120	5203	3361	3,459	4282	5318	4418	4868	4575	4976	6200	5588	4171
28	26510	HURHS-17-1	5291	5652	5,279	5472	6215	5924(6)	6070	5771	5204(9)	7773	6488	5187
29	26511	CRHR-123	3616	3852	3,804	3734	5807	3951	4879	4307	4276	5941	5109	4041
30	26512	NVSRH-1011	4233	5904(5)	4,982	5069	7704(3)	5088	6396	5732	4582	7852	6217	5044
31	26513	Pusa RH-52	3968	4897	3090	4432	6400(9)	5880(7)	6140	5286	4303	7302	5802	4343
32	26514	IIRRH-119	5115	3352	3121	4233	5667	4296	4982	4607	5211(8)	9105	7158	5003
33	26515	Pusa RH-53	4497	2664	3319	3581	5356	3543	4449	4015	4513	5339	4926	4683
34	US-312 (NCH)		5203	5353	4,926	5278	6244	5467	5856	5567	4929	7947	6438	5622(6)
35	Gontra Bidhan-3 (NCV)		5556(9)	6219(4)	2572	5887	5570	6069(3)	5820	5854	4722	10318(2)	7520	4741
36	PR-113/CR Dhan-300/ Karjat-7/MTU-1010 (ZCV)		5115		4,953	5115				5115	4823	6036	5429	4842
37	Local Check Variety (LCV)		5467	4828	5711(8)	5148	5267	3828	4547	4848	4525	5577	5051	4785
Exp.Mean			4975	4922	4553	4959	5989	5134	5562	5257	5063	7995	6700	5026
CD(0.05)			793.56	1176.78	755.35		744.82	771.42			742.74	1300.46		777.45
CV			7.89	14.79	10.26		7.69	9.29			9.07	10.06		9.56
D/S			19-06-2017	07-06-2017	06-06-2017		09-06-2017	30-06-2017			03-07-2017	27-06-2017		18-06-2017
D/P			21-07-2017	12-07-2017	09-07-2017		03-07-2017	22-07-2017			05-08-2017	18-07-2017		20-07-2017
Zonal Check				Karjat-7	Karjat-7		Karjat-7	Karjat-7			MTU-1010	MTU-1010		MTU-1010
Local Check				Mahisagar	GNR 3		Gurjari	KJT-3	MTU 1010		MTU 1001			varadhan

@ Data of DBI (Dabhoi) not included in the analysis due to low Experimental Mean.

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Appendix-4 (Contd): Grain Yield (kg/ha) of Hybrids in IHRT-Mid Early, Kharif 2017

S. No.	IET No	Name	(contd) Zone-VII								Overall Mean
			WGL	ADV	TS Mean	CBT	@ ADT	@ BRM	@ MGD	South Mean	
1	26485	RRX-131	5595(8)	5963	5614	6475(8)	8876(8)	4956(7)	2585	6197	6225
2	26486	NS-6667	5352	7485(4)	5637	4243	8390	3249	3464	5729	5828
3	26487	YRH-2052	5234	6466(9)	5637	6894(4)	7171	5228(3)	6559(2)	6088	6263
4	26488	NS-6677	4654	7974(2)	5793	5972	8007	3434	5155(7)	5914	6083
5	26489	YRH-2725	4537	6401	5521	7217(2)	5921	4487	5310(5)	6369	6198
6	26490	JKRH-2389	4993	5559	5156	6991(3)	5992	4740	3715	6066	6283
7	26491	BLR-107	6354(2)	6077	6324	7267(1)	5381	4219	4618	6712	6560
8	26492	BLR-108	5229	5714	5253	5946	8278	2989	5191(6)	6378	5991
9	26493	US-344	4471	5586	5076	6419	5443	5205(5)	4303	5926	6057
10	26494	Indam-200-042	5077	6837(6)	5864	6320	9411(4)	2997	4697	6634	6327
11	26495	US-346	3699	5935	4723	6817(5)	5287	5573(2)	4643	5697	5843
12	26496	SD-140204	4398	6277	5317	6122	9725(1)	5076(6)	3357	6046	6320
13	26497	NK-18798	4366	6280	5418	6702(6)	5336	6098(1)	2396	6626	6562
14	26498	RH-110647	5597(7)	6226	5659	6460(9)	7328	4507	5335(4)	6298	6581
15	26499	MEPH-138	5825(6)	5997	5889	6316	7511	4507	6551(3)	6363	6516
16	25778	Heera-2	3618	6444	5193	4390	5639	3053	4013	5669	6225
17	26500	PH-17106	6180(3)	8996(1)	6734	6332	9092(6)	1948	7523(1)	7164	6659
18	26501	MEPH-139	4804	6188	5409	6552(7)	8921(7)	1909	4208	6054	6100
19	26502	PHI-17107	4948	5952	5400	5689	9689(2)	4748(9)	4449	6118	6310
20	26503	NK-24215	4611	7020(5)	5637	5568	8000	3041	3280	6213	6331
21	26504	LP-17302	4492	5247	4547	3721	5864	4251	2226	4809	4995
22	26505	JRH-79	3226	4150	4058	4409	6153	4808(8)	2635	4700	4756
23	24971	IIRRH-105	5487	6118	5474	4101	8451	4275	2280	5590	6036
24	26506	JRH-82	5561(9)	6747(7)	5655	4725	7281	3931	3552	5604	5873
25	26507	IIRRH-117	5915(5)	5506	5688	4644	8236	2833	4495	5257	5837
26	26508	JRH-88	5920(4)	6379	5715	5621	5483	2408	1811	5582	5565
27	26509	CRHR-120	3398	5487	4352	3559	6903	2484	2039	4632	5167
28	26510	HURHS-17-1	4729	6038	5318	5977	8556	1855	4727(9)	5818	6126
29	26511	CRHR-123	3815	4874	4243	3754	8269	2296	2071	4450	5209
30	26512	NVSRH-1011	5352	6590(8)	5662	4511	7297	3979	1209	5655	6038
31	26513	Pusa RH-52	4274	5229	4615	3770	9608(3)	4363	3727	4870	5679
32	26514	IIRRH-119	3979	5739	4907	3363	7957	2620	3457	5400	5412
33	26515	Pusa RH-53	3989	5720	4797	3204	9259(5)	2684	2959	4575	5118
34	US-312 (NCH)		5374	6382	5793	6419	6719	3866	4040	6112	6221
35	Gontra Bidhan-3 (NCV)		6652(1)	7971(3)	6455	6287	6988	4223	5040(8)	6782	6490
36	PR-113/CR Dhan-300/ Karjat-7/MTU-1010 (ZCV)		5169	6111	5374	4284	6406	4623	2069	5211	5701
37	Local Check Variety (LCV)		4002	6363	5050	5939	8597(9)	5224(4)	2413	5199	5754
Exp.Mean			4889	6217	5377	5486	7498	3856	3840	5797	5979
CD(0.05)			589.95	1111.75		741.39	454.74	365.11	474.96		
CV			7.46	11.06		8.36	3.75	5.86	6.12		
D/S			04-07-2017	21-06-2017		07-11-2017	15-09-2017	05-07-2017	07-06-2017		
D/P			30-07-2017	22-07-2017		08-02-2018	17-10-2017	02-08-2017			
Zonal Check			MTU-1010	MTU-1010		MTU-1010	MTU-1010	MTU-1010	MTU-1010		
Local Check			RNR-15048			ADT 39		MO4	SIRI 1253		

@ Data of BRM (Brahmavar) and MGD (Mugad) not included in the analysis due to low Experimental Mean and Data ADT (Aduthurai) not included in the analysis due to low C.V.

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Appendix-5: Days to 50% Flowering (DFF) of Hybrids in IHRT-Mid Early, Kharif 2017

S. No.	IET No	Name	Zone-II					Zone-III											
			KUL	@ PNT	LDN	CHT	Northern Mean	@ MSD	@ ALH	BISCO	JKA	@ NUZ	VRN	UP Mean	SYN	@ CHN	@ RCI	CHP	Eastern Mean
1	26485	RRX-131	100	102	106	115	107	78	100	87	92	112	78	86	101	101	105	90	90
2	26486	NS-6667	99	103	104	115	106	111	95	88	97	105	78	88	94	102	105	88	89
3	26487	YRH-2052	93	101	93	104	97	88	89	88	88	98	70	82	89	95	99	83	84
4	26488	NS-6677	96	101	101	105	101	88	94	86	89	99	71	82	92	97	98	82	84
5	26489	YRH-2725	93	98	97	104	98	91	99	86	95	104	72	84	91	101	99	84	86
6	26490	JKRH-2389	94	98	94	104	97	94	98	86	88	98	69	81	86	96	98	83	82
7	26491	BLR-107	94	98	93	101	96	90	94	86	86	103	79	84	88	92	95	83	84
8	26492	BLR-108	92	100	93	104	97	92	99	90	86	103	72	83	86	110	100	81	83
9	26493	US-344	97	104	106	116	106	82	102	89	97	106	79	88	96	95	105	88	90
10	26494	Indam-200-042	97	98	98	111	102	80	98	86	91	98	70	82	88	100	100	81	83
11	26495	US-346	100	101	100	114	105	80	101	85	92	106	70	82	98	100	98	87	86
12	26496	SD-140204	99	102	101	113	104	81	101	93	93	103	74	87	97	101	103	84	88
13	26497	NK-18798	101	101	102	116	107	82	104	84	97	106	79	87	97	103	105	87	89
14	26498	RH-110647	93	98	97	104	98	80	98	87	89	101	79	85	90	100	98	82	85
15	26499	MEPH-138	100	101	105	117	107	81	100	89	96	98	78	87	95	105	104	86	89
16	25778	Heera-2	91	98	97	101	96	84	101	87	85	97	66	79	85	106	97	76	80
17	26500	PH-17106	102	103	106	117	108	82	106	92	93	102	66	83	97	100	102	87	87
18	26501	MEPH-139	98	103	106	114	106	88	108	97	91	104	75	87	91	102	103	84	87
19	26502	PHI-17107	103	105	108	119	110	80	108	86	100	103	80	89	97	99	105	88	90
20	26503	NK-24215	99	101	105	112	106	82	104	89	96	104	70	85	95	102	104	87	88
21	26504	LP-17302		129		131	131	115	102	87	112	111	79	93	104	98	106	81	93
22	26505	JRH-79	89	86	90	101	93	81	82	88	81	89	65	78	84	86	94	76	79
23	24971	IIRRH-105	97	102	101	115	104	83	99	89	91	97	68	83	91	100	100	82	84
24	26506	JRH-82	98	103	101	110	103	84	98	87	92	99	68	83	94	101	102	82	85
25	26507	IIRRH-117	94	98	94	103	97	90	100	92	85	94	69	82	88	91	99	82	83
26	26508	JRH-88	94	98	95	106	98	91	100	87	94	93	72	84	88	97	95	78	84
27	26509	CRHR-120	100	101	109	115	108	82	101	85	96	102	77	86	97	102	103	84	88
28	26510	HURHS-17-1	101	102	112	114	109	78	102	90	96	102	80	89	99	101	103	88	91
29	26511	CRHR-123	102	104	117	125	115	111	103	88	98	105	78	88	100	107	104	87	90
30	26512	NVSRH-1011	98	103	113	117	109	80	96	96	90	94	68	85	91	101	98	80	85
31	26513	Pusa RH-52	93	98	98	104	99	92	92	99	86	100	68	84	89	97	98	83	85
32	26514	IIRRH-119	94	98	96	110	100	129	93	87	90	96	74	84	89	101	98	83	85
33	26515	Pusa RH-53	94	101	100	106	100	87	96	87	93	104	70	83	89	101	100	83	84
34	US-312 (NCH)		98	104	101	115	105	85	109	90	96	103	72	86	92	96	101	85	87
35	Gontra Bidhan-3 (NCV)		93	100	91	104	96	92	90	87	89	103	78	85	87	92	98	84	85
36	PR-113/CR Dhan-300/ Karjat-7/MTU-1010 (ZCV)		100	106	105	118	108	94	97	87	115	116	79	94	115	118	124	81	95
37	Local Check Variety (LCV)		99	96	103	117	106	82	99	90	97	97	90	92	94	92	104	88	92
Exp.Mean			97	100	102	111	103	90	97	89	93	99	74	85	93	99	101	83	86

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Appendix-5 (Contd): Days to 50% Flowering (DFF) of Hybrids in IHRT-Mid Early, Kharif 2017

S. No.	IET No.	Name	Zone-IV	Zone-V					Zone-VI							
			@ TTB	@ RPR	VNR	JBP	@ SND	Central Mean	NWG	NVS	@ DBI	Guj Mean	KJT	ANK	MH Mean	Western Mean
1	26485	RRX-131	99	81	87	97	101	92	98	101	100	99	93	90	92	96
2	26486	NS-6667	94	83	86	95	101	90	94	96	105	95	92	89	91	93
3	26487	YRH-2052	94	85	85	92	99	89	89	93	93	91	87	85	86	89
4	26488	NS-6677	94	79	83	90	98	87	93	94	101	93	78	87	82	88
5	26489	YRH-2725	93	81	86	90	99	88	90	93	101	92	92	86	89	90
6	26490	JKRH-2389	90	90	81	92	105	87	88	90	83	89	91	80	85	87
7	26491	BLR-107	94	73	85	91	100	88	91	92	90	91	92	83	87	89
8	26492	BLR-108	93	91	88	94	99	91	89	94	91	91	92	87	90	90
9	26493	US-344	99	84	93	100	106	97	99	100	106	99	92	92	92	96
10	26494	Indam-200-042	95	82	85	94	91	90	93	96	94	94	100	87	94	94
11	26495	US-346	99	73	90	97	100	93	95	99	98	97	92	90	91	94
12	26496	SD-140204	99	93	87	95	102	91	98	97	97	97	92	89	91	94
13	26497	NK-18798	100	75	92	99	105	96	100	100	102	100	93	91	92	96
14	26498	RH-110647	94	85	83	95	95	89		92	86	92	93	87	90	91
15	26499	MEPH-138	97	84	87	97	98	92	94	99	105	96	77	89	83	90
16	25778	Heera-2	82	83	85	90	92	88	83	82	88	82	82	77	80	81
17	26500	PH-17106	97	80	89	98	102	94	96	101	102	98	92	89	91	94
18	26501	MEPH-139	98	86	86	98	99	92	91	96	83	93	93	87	90	92
19	26502	PHI-17107	100	72	91	93	103	92	96	100	100	98	91	89	90	94
20	26503	NK-24215	97	92	89	105	102	97	93	99	100	96	90	88	89	93
21	26504	LP-17302	95	86	105	86	105	95	102	111	113	106	98	93	95	101
22	26505	JRH-79	82	87	72	94	84	83	83	78	83	81	69	77	73	77
23	24971	IIRRH-105	93	90	83	93	97	88	92	96	96	94	90	86	88	91
24	26506	JRH-82	97	90	86	90	97	88	92	96	96	94	91	89	90	92
25	26507	IIRRH-117	88	87	81	91	92	86	90	91	86	90	76	83	80	85
26	26508	JRH-88	93	78	81	98	91	90	89	95	94	92	98	86	92	92
27	26509	CRHR-120	97	89	86	98	98	92	90	101	99	95	90	89	89	92
28	26510	HURHS-17-1	98	102	89	100	100	95	94	100	101	97	92	90	91	94
29	26511	CRHR-123	99	88	95	99	102	97	92	101	104	97	94	92	93	95
30	26512	NVSRH-1011	97	81	84	93	93	88	92	96	98	94	92	86	89	92
31	26513	Pusa RH-52	91	81	85	93	96	89	95	91	88	93	91	82	87	90
32	26514	IIRRH-119	95	78	84	93	99	89	94	95	89	95	76	82	79	87
33	26515	Pusa RH-53	95	79	89	95	98	92	100	95	96	97	92	89	91	94
34	US-312 (NCH)		97	92	88	97	99	93	95	90	101	93	94	89	91	92
35	Gontra Bidhan-3 (NCV)		87	90	86	97	96	92	92	93	83	92	92	86	89	90
36	PR-113/CR Dhan-300/ Karjat-7/MTU-1010 (ZCV)		111	82					88		92	88				88
37	Local Check Variety (LCV)		103	78	79	93	115	86	90	92	86	91	90	89	89	90
Exp.Mean			95	86	85	95	97	90	92	94	93	93	88	86	87	90

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Appendix-5 (Contd.): Days to 50% Flowering (DFF) of Hybrids in IHRT-Mid Early, Kharif 2017

S. No.	IET No	Name	Zone-VII												Overall Mean
			MTU	BAY	AP Mean	IIRR	WGL	ADV	TS Mean	CBT	@ ADT	@ BRM	@ MGD	South Mean	
1	26485	RRX-131	87	88	87	100	86	101	95	91	92	86	105	92	95
2	26486	NS-6667	81	85	83	94	91	97	94	91	94	85	100	90	93
3	26487	YRH-2052	83	81	82	92	90	93	92	96	95	87	97	89	89
4	26488	NS-6677	77	84	81	94	87	95	92	96	91	85	92	89	89
5	26489	YRH-2725	82	87	85	96	93	98	96	99	102	88	99	92	91
6	26490	JKRH-2389	74	85	79	93	86	96	92	89	96	86	100	87	88
7	26491	BLR-107	83	81	82	94	89	94	93	91	91	82	99	89	89
8	26492	BLR-108	83	87	85	98	89	98	95	93	95	88	107	91	90
9	26493	US-344		81	81	101	91	98	97	98	90	85	113	94	96
10	26494	Indam-200-042		79	79	91	90	93	91	81	105	85	96	87	90
11	26495	US-346		89	89	99	95	100	98	92	99	86	105	95	94
12	26496	SD-140204		87	87	97	94	96	96	83	96	86	101	91	93
13	26497	NK-18798	87	89	88	101	95	104	100	94	107	85	106	95	96
14	26498	RH-110647	83	84	83	95	90	97	94	89	90	83	95	90	90
15	26499	MEPH-138	85	87	86	95	94	96	95	87	107	82	97	91	93
16	25778	Heera-2	74	80	77	91	83	93	89	79	80	80	97	83	84
17	26500	PH-17106	86	88	87	98	93	103	98	96	91	83	101	94	95
18	26501	MEPH-139	88	85	87	96	92	101	96	98	95	87	100	93	93
19	26502	PHI-17107	99	90	94	98	95	93	95	89	97	85	101	94	95
20	26503	NK-24215	83	86	85	97	92	102	97	94	91	85	102	93	94
21	26504	LP-17302	81	91	86	101	92	96	97	78	89	76	109	90	96
22	26505	JRH-79	77	72	75	86	83	92	87	78	85	81	90	81	82
23	24971	IIRRH-105	86	84	85	93	90	97	94	88	90	85	99	90	91
24	26506	JRH-82	92	88	90	95	91	105	97	93	91	78	101	94	92
25	26507	IIRRH-117	85	81	83	93	88	96	92	86	90	84	98	88	87
26	26508	JRH-88	81	81	81	90	89	97	92	89	93	73	94	88	90
27	26509	CRHR-120	86	85	86	95	95	95	95	93	94	84	107	92	93
28	26510	HURHS-17-1	85	87	86	99	95	97	97	97	94	81	102	93	95
29	26511	CRHR-123	89	90	90	102	97	104	101	100	96	82	112	97	98
30	26512	NVSRH-1011	82	80	81	91	89	94	91	82	91	85	97	86	91
31	26513	Pusa RH-52	79	84	82	94	89	98	94	93	94	89	100	90	90
32	26514	IIRRH-119	73	83	78	95	85	99	93	96	96	85	99	89	89
33	26515	Pusa RH-53	85	84	84	96	92	93	94	83	98	86	112	89	91
34	US-312 (NCH)		88	86	87	97	93	96	95	92	111	85	102	92	93
35	Gontra Bidhan-3 (NCV)		71	83	77	95	89	90	91	90	94	81	103	86	89
36	PR-113/CR Dhan-300/ Karjat-7/MTU-1010 (ZCV)		75	80	77	90	86	95	90	77	92	84	97	84	94
37	Local Check Variety (LCV)		76	77	77	93	96	92	94	96	92	78	114	88	92
Exp.Mean			82	83	82	94	90	96	94	90	94	83	101	89	91

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Appendix 6: Quality Characteristics of hybrids in IHRT – Mid Early, Kharif 2017

S. No.	IET No.	Name	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
1	26485	RRX-131	79.5	67.7	49.3	6.35	2.12	2.99	LB	VOC	5.0	245	10.8	1.70	5.1	24.25	40	MS
2	26486	NS-6667	78.7	65.6	44.9	5.23	2.31	2.26	SB	VOC	4.8	165	10.4	1.98	4.0	19.91	72	NS
3	26487	YRH-2052	78.7	67.4	57.8	5.12	2.47	2.07	SB	VOC	5.5	190	10.3	2.01	4.0	23.37	24	NS
4	26488	NS-6677	78.6	62.4	43.8	5.44	2.15	2.53	MS	VOC	5.5	170	10.6	1.94	4.0	19.00	56	NS
5	26489	YRH-2725	79.1	67.3	48.5	5.57	2.46	2.26	SB	VOC	4.5	160	9.4	1.88	4.0	24.46	24	NS
6	26490	JKRH-2389	78.9	65.7	50.0	5.86	2.22	2.63	MS	VOC	5.0	225	10.5	1.79	4.3	15.01	68	NS
7	26491	BLR-107	78.9	68.4	54.9	5.81	2.24	2.59	MS	VOC	4.7	340	10.9	1.87	7.0	23.90	24	NS
8	26492	BLR-108	81.6	66.0	49.3	6.09	2.14	2.84	LB	VOC	5.5	290	9.5	1.55	5.0	16.16	100	NS
9	26493	US-344	79.2	66.6	58.3	5.86	2.10	2.79	MS	VOC	4.2	260	10.8	1.84	5.0	22.38	56	NS
10	26494	Indam-200-042	77.6	63.4	49.1	6.23	1.88	3.31	LS	A	4.2	260	8.5	1.36	4.8	23.70	52	NS
11	26495	US-346	81.7	67.1	47.8	5.21	2.10	2.48	SB	VOC	4.7	270	9.8	1.88	4.0	15.13	76	NS
12	26496	SD-140204	79.7	68.1	54.5	6.25	2.00	3.12	LS	VOC	4.2	265	10.4	1.66	5.3	24.90	47	MS
13	26497	NK-18798	79.8	71.7	64.4	5.66	2.28	2.48	SB	VOC	5.6	245	10.3	1.81	5.3	20.09	43	NS
14	26498	RH-110647	78.7	66.0	50.5	6.54	2.00	3.27	LS	VOC	4.8	245	10.5	1.60	4.8	23.08	53	NS
15	26499	MEPH-138	78.9	68.0	58.5	6.55	1.98	3.3	LS	VOC	4.7	260	9.8	1.49	5.1	24.08	22	NS
16	25778	Heera-2	78.3	63.8	30.7	5.54	2.43	2.27	SB	VOC	4.1	200	11.2	2.02	5.3	22.41	37	NS
17	26500	PH-17106	80.4	68.4	54.7	5.78	2.23	2.59	MS	VOC	4.8	215	10.5	1.81	4.0	25.78	25	NS
18	26501	MEPH-139	79.1	67.9	60.3	5.76	1.98	2.90	MS	VOC	4.4	210	10.3	1.78	4.3	19.12	23	NS
19	26502	PHI-17107	82.9	68.3	50.2	6.33	1.99	3.18	LS	VOC	4.7	245	10.8	1.70	4.7	21.85	63	NS
20	26503	NK-24215	80.9	69.5	57.7	5.59	2.45	2.28	SB	VOC	4.4	240	10.2	1.82	5.6	25.63	45	NS
21	26504	LP-17302	80.4	67.5	58.4	6.33	2.19	2.89	LB	VOC	4.6	225	9.4	1.48	4.6	21.91	36	NS
22	26505	JRH-79	73.5	59.1	33.5	6.60	1.90	3.47	LS	VOC	4.7	250	9.8	1.48	4.6	23.76	45	NS
23	24971	IIRRH-105	79.3	66.6	54.7	5.59	2.00	2.79	MS	VOC	5.1	220	10.5	1.87	5.6	24.14	25	NS
24	26506	JRH-82	79.9	68.9	61.8	6.30	1.96	3.21	LS	VOC	5.2	240	11.8	1.87	6.1	25.34	22	NS
25	26507	IIRRH-117	79.5	69.0	62.0	6.34	1.91	3.31	LS	VOC	5.5	280	10.0	1.57	7.0	25.84	22	NS
26	26508	JRH-88	79.7	62.8	43.9	5.39	1.85	2.91	MS	VOC	5.0	325	9.6	1.78	5.7	25.63	51	NS
27	26509	CRHR-120	78.4	66.5	48.6	5.18	2.05	2.52	MS	VOC	4.5	260	9.3	1.79	4.8	25.57	60	NS
28	26510	HURHS-17-1	76.8	63.2	43.1	6.17	2.01	3.06	LS	VOC	4.8	275	10.5	1.70	5.1	26.10	50	NS
29	26511	CRHR-123	80.3	69.7	62.9	5.48	2.03	2.69	MS	VOC	4.4	240	9.4	1.71	5.0	21.53	37	NS
30	26512	NVSRH-1011	80.3	68.2	49.8	5.44	1.88	2.89	MS	VOC	5.0	255	9.7	1.78	4.5	23.93	44	NS
31	26513	Pusa RH-52	78.8	67.6	58.8	6.98	1.88	3.71	LS	VOC	4.8	310	14.1	2.02	7.0	25.05	23	NS
32	26514	IIRRH-119	78.3	64.1	37.1	6.43	1.89	3.40	LS	VOC	5.6	230	10.7	1.66	5.8	23.81	37	NS
33	26515	Pusa RH-53	81.0	65.1	24.4	6.51	1.93	3.37	LS	VOC	4.4	245	10.4	1.59	5.6	19.53	85	NS
34	US 312 (NCH)		78.7	64.6	45.7	5.42	2.04	2.65	MS	VOC	4.8	280	9.6	1.77	5.0	22.90	56	NS
35	Gontra Bidhan-3 (NCV)		79.7	69.4	62.2	5.18	2.20	2.35	SB	VOC	5.5	135	8.7	1.67	4.0	25.63	22	NS
36	MTU 1010 (ZCV)		76.5	64.0	56.4	6.21	1.99	3.12	LS	VOC	5.2	205	9.2	1.57	7.0	24.20	77	NS
37	Varadhan (LCV)		79.8	68.7	56.1	5.63	2.47	2.27	SB	VOC	5.5	205	8.5	1.50	4.0	25.78	62	NS

HULL: Hulling (%); MILL: Milling (%); HRR: Head rice recovery (%); KL: Kernel length (mm); KB: Kernel breadth (mm); SS: Short slender ; L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; MS: Medium slender; ASV: Alkali spreading value; AC: Amylose content (%); GC: Gel consistency; LB: Long bold; SB: Short bold; LS: Long slender;

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Appendix-7: Grain Yield (kg/ha) of Hybrids in IHRT-Medium, Kharif 2017

S. No.	IET No	Name	Zone-II				Zone-III							
			KUL	PNT	LDN	Northern Mean	MSD	ALH	BIO	Bisco	NUZ	UP Mean	SYN	CHN
1	26516	RRX-130	6100	5637(8)	6604	6114	5415	8533(4)	7425(9)	9103(5)	8585	7812	5458	5266
2	26517	PHI-17104	5933	5224	6544	5900	5603	5300	6522	5547	8985	6391	6222	6080(9)
3	26518	PHI-17105	7400(3)	4591	8542(9)	6844	6120(9)	6686	7750(6)	8675(8)	8835	7613	6488	6732(7)
4	26519	GRH-1172	7133(9)	5447	7827	6802	6258(7)	8871(3)	7224	7477	5455	7057	7674(3)	5755
5	26520	NS-6768	6367	4921	7904	6397	6174(8)	5000	5460	6963	7521	6224	6832(8)	4940
6	26521	NS-6791	5200	5732(7)	8968(7)	6633	6612(2)	6267	7034	7843	7825	7116	4605	5320
7	26522	Bio-788	7133(7)	5086	9273(6)	7164	5236	6100	8910(1)	8328	5925	6900	7952(1)	5537
8	26523	KJTRH-15	5233	4643	7126	5667	5507	4033	3760	7256	5037	5119	4648	4072
9	26524	BLR-109	6400	4785	6835	6006	6446(4)	5100	7093	9006	6455	6820	5032	7926(1)
10	26525	MR-8383	6167	4772	9449(5)	6796	4526	6100	7869(4)	6960	7686	6628	4338	6840(6)
11	26526	US-366	4467	5045	7261	5591	4985	5133	5855	8650(9)	5405	6006	4998	5212
12	26527	Indam-200-040	5133	4547	7829	5836	5465	4033	7739(7)	9932	7281	6890	4952	5646
13	26528	RNE-8032		4031		4031	6258(6)	8367(5)	5767	9391(2)	6715	7299	7502(4)	4940
14	26529	SD-140041		2913		2913	4725	4167	5690	6760	5185	5305	6606	6189(8)
15	26530	HRI-194	7467(2)	5374	8296	7046	5361	5267	6317	7800	7631	6475	4727	6026
16	26531	MEPH-140	7367(4)	5177	8405	6983	5820	7067	6945	6309	9100	7048	5397	7438(4)
17	26532	HRI-193	5300	4888	9617(4)	6602	5486	8300(6)	7026	8678(7)	6591	7216	7485(5)	7709(3)
18	26533	UPRH-182	4467	4356	5658	4827	4902	3967	3503	6862	5599	4966	3311	4017
19	26534	MEPH-141	5333	5837(6)	8334	6501	4506	5267	6282	7486	9215	6551	6653	5049
20	26535	PHI-17101	7133(8)	6161(3)	6538	6611	6362(5)	7300(9)	8684(2)	8644	8395	7877	6421	7383(5)
21	26536	IIRRH-116	6667	6185(1)	7164	6672	5945	9133(2)	4649	8822(6)	8580	7426	5222	5049
22	26537	PHI-17102	7167(6)	6116(4)	7008	6764	5403	9853(1)	7982(3)	6839	8655	7746	7315(6)	5592
23	26538	PHI-17103	7167(5)	5993(5)	9778(2)	7646	5319	8000(7)	6695	9151(4)	8935	7620	6168	5537
24	26539	TNRH-273	6267	5596(9)	6776	6213	5507	2000	3489	7543	6630	5034	4982	5266
25	26540	IIRRH-118	4367	6177(2)	8398	6314	6550(3)	4000	7866(5)	7229	6445	6418	5783	5755
26	26541	UPRH-185	4300	4238	6434	4991	5215	3733	3813	8623	4795	5236	4262	5809
27	HRI-174 (NCH)		5233	5568	7609	6137	5816	7967(8)	5711	8228	8743	7293	6729(9)	7818(2)
28	NDR-359 (NCV)		6167	4588	8112	6289	5715	4033	7563(8)	8337	5553	6240	7723(2)	6026
29	PR-113/CR Dhan-300/ Karma Mahsuri/ Akshyadhan / Jaya (ZCV)		4300	4072	10163(1)	6178	5611		3316	7866	5270	5516	1894	5646
30	Local Check Variety (LCV)		7500(1)	3678	9752(3)	6977	5194	4667	7093	7487	3775	5643	4889	5429
31	VNR-2375 (OBCH)		6233	5209	8670(8)	6704	6717(1)	5133	7238	8428	8105	7124	6868(7)	5049
Exp.Mean			6038	5051	7961	6198	5637	5979	6396	7943	7062	6600	5778	5840
CD(0.05)			707.71	1281.46	1330.29		861.07	1466.8	490.74	2291.62	1505.84		502.94	869.58
CV			7.18	15.54	10.23		9.35	15.02	4.7	17.62	19.59		5.33	9.12
D/S			02.06.2017	29-05-2017	26-5-2017		14-06-2017	16-06-2017	21.6.2017	15.6.17	08.06.2017		19-06-2017	29.06.17
D/P			05.07.2017	24-06-2017	26-6-2017		12-07-2017	12-07-2017	21.7.2017	20.7.17	01.07.2017		12-07-2017	02.08.17
Zonal Check			PR-113	PR-113	PR-113		CR Dhan-300	CR Dhan-300	CR Dhan-300	CR Dhan-300	CR Dhan-300		CR Dhan-300	CR Dhan-300
Local Check			HKR 127	Pant Dhan 4	PR 121		NDR 359	NDR359	27P31	NDR 8002			Sarju-52	Pratikshya

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Appendix-7 (contd.): Grain Yield (kg/ha) of Hybrids in IHRT-Medium, Kharif 2017

S. No.	IET No	Name	Zone-III			Zone-IV	Zone-V				Zone-VI		
			@ RCI	NRRI	Eastern Mean		@ RPR	VNR	@ SND	Central Mean	@ NWG	NVS	DBI
1	26516	RRX-130	5734(1)	5361	6167	6017(2)	4005	9271	2977	9271	4808	5734	4928
2	26517	PHI-17104	5507(5)	5465	6688	5683(6)	1909	9780(6)	4184(3)	9780	5876	5811	5,154
3	26518	PHI-17105	5539(4)	7397(6)	7363	5850(5)	4699(5)	9722(8)	3650(4)	9722	5876	6507(7)	5,049
4	26519	GRH-1172	5313(7)	7057	6485	5017	2424	9031	3106	9031	2564	6332(9)	4616
5	26520	NS-6768	4438	7351(8)	6661	5183	4757(3)	9081	3030	9081	6303	5626	4680
6	26521	NS-6791	4568	7673(5)	6356	5333	3676	8610	2598	8610	2671	4878	4609
7	26522	Bio-788	5313(8)	7297(9)	6678	5017	1068	7485	3596(5)	7485	4380	6791(1)	4286
8	26523	KJTRH-15	3466	5492	4812	4050	5283(1)	6728	2393	6728	2244	5399	3209
9	26524	BLR-109	4179	6553	6492	5167	3901	8844	3583(8)	8844	3312	6481(8)	6317(2)
10	26525	MR-8383	5410(6)	6395	6315	6033(1)	3006	7860	3360	7860	4808	6753(2)	5,212
11	26526	US-366	4082	6889	5626	4917	4627(6)	9758(7)	3070	9758	5235	5658	5,225
12	26527	Indam-200-040	4082	7397(7)	6319	5167	4498(8)	8336	3012	8336	2991	4071	5686(9)
13	26528	RNE-8032	4859	7755(4)	6728	5000	3367	8701	2843	8701	5876	4761	4732
14	26529	SD-140041	4891	7252	6308	5850(4)	4592(7)	7111	3311	7111	5769	5498	4730
15	26530	HRI-194	4665	6658	6260	5517(9)	3683	8160	3592(7)	8160	4167	6169	6137(3)
16	26531	MEPH-140	4632	6748	7171	4850	4402(9)	7994	3592(6)	7994	4274	6651(4)	5962(5)
17	26532	HRI-193	5086	6834	7155	5467	2462	8986	3471(9)	8986	5662	5166	5725(8)
18	26533	UPRH-182	2462	6494	4855	3500	1351	3252	2086	3252	855	4473	2466
19	26534	MEPH-141	5151(9)	6376	6823	4667	2632	8535	3102	8535	5662	5380	4902
20	26535	PHI-17101	5701(3)	8091(1)	7572	5517(8)	2314	10568(1)	2959	10568	4701	6082	5820(6)
21	26536	IIRRH-116	5701(2)	6683	6383	5517(7)	4394	10137(3)	2447	10137	5235	5856	5,260
22	26537	PHI-17102	5053	7125	7172	5350	3338	9363(9)	651	9363	5021	6638(5)	5,538
23	26538	PHI-17103	3952	6689	6832	3683	3573	9224	2963	9224	2991	6740(3)	6804(1)
24	26539	TNRH-273	4244	5057	5484	4850	4243	7881	2005	7881	4167	4789	4047
25	26540	IIRRH-118	4082	5633	5904	4517	4161	10496(2)	3004	10496	4487	4748	6021(4)
26	26541	UPRH-185	3337	5592	5114	4683	4703(4)	4521	1319	4521		5080	2941
27	HRI-174 (NCH)		4924	7896(2)	7796	6000(3)	4761(2)	9894(5)	4305(1)	9894	2671	5568	5,265
28	NDR-359 (NCV)		3628	7764(3)	6766	5367	4208	7051	3231	7051	2030	5722	4500
29	PR-113/CR Dhan-300/ Karma Mahsuri/ Akshayadhan /Jaya (ZCV)		3531	6703	4878	5183	3477	6775	2558	6775	4594	5929	5729(7)
30	Local Check Variety (LCV)		1101	5488	4895	5333	3633	8645	2228	8645	5556	4342	5,185
31	VNR-2375 (OBCH)		4665	7088	6778	5483	3653	9966(4)	4189(2)	9966	2885	6552(6)	5,374
Exp. Mean			4493	6718	6350	5154	3639	8444	2981	8444	4256	5683	5036
CD(0.05)			1243.13	641.1		525.72	760.58	1029.57	375.94		1518.27	651.92	523.11
CV			16.94	5.84		6.25	12.8	7.47	7.72		32.77	7.02	6.36
D/S			27.06-2017	09-06-2017		06-07-2017	20.06.17	16-06-2017	20.6.2017		19-06-2017	08-06-2017	06-06-2017
D/P			03.08.2017	10-07-2017		02-08-2017	07.07.17	14-07-2017	24.7.2017		21-07-2017	10-07-2017	09-07-2017
Zonal Check			CR Dhan-300	CR Dhan-300		CR Dhan-300	Karma Mahsuri	Karma Mahsuri	Karma Mahsuri		Akshayadhan	Akshayadhan	Akshayadhan
Local Check			BPT5204	Tapaswini		Shraboni	Rajeshwari	Mahamaya	PKV-HMT		GAR-13	NAUR-1	GAR-13

Data of RCI (Ranchi) , RPR (Raipur) and SND (Sindewahi) not included in the analysis due to low Experimental Mean and NWG (Nawagam) not included in the analysis due to low experimental mean and High C.V.

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Appendix-7 (contd.): Grain Yield (kg/ha) of Hybrids in IHRT-Medium, Kharif 2017

S. No.	IET No	Name	Zone-VI						Zone-VII					
			GJ Mean	KJT	SHR	ANK	MH Mean	Western Mean	MTU	BAY	AP Mean	IIRR	WGL	ADV
1	26516	RRX-130	5331	6230(3)	5682	5316	5742	5578	6547(6)	8808	7677	5838(6)	4044	8311(2)
2	26517	PHI-17104	5482	5193	7256(2)	5310	5920	5745	6627(4)	9889(7)	8258	5813(7)	6805(2)	7212
3	26518	PHI-17105	5778	7007(2)	6329(8)	5661(5)	6332	6111	4425	10356(1)	7391	5248	6927(1)	7263
4	26519	GRH-1172	5474	7141(1)	6161	4808	6037	5811	5194	9188	7191	5882(5)	5282	5285
5	26520	NS-6768	5153	5726	5433	4468	5209	5186	3996	7051	5524	4508	4660	7108
6	26521	NS-6791	4744	5422	2937	4679	4346	4505	3737	8487	6112	5304	3857	7381(9)
7	26522	Bio-788	5538	5252	5626	6031(2)	5636	5597	5959(8)	8602	7280	5325	6031(6)	8108(4)
8	26523	KJTRH-15	4304	5674	3466	4417	4519	4433	2070	4314	3192	4039	4405	4791
9	26524	BLR-109	6399	5244	7350(1)	5292	5962	6137	4371	9365	6868	3473	5453	6155
10	26525	MR-8383	5983	5385	7194(3)	5591(9)	6057	6027	6580(5)	10076(6)	8328	5338	4564	5624
11	26526	US-366	5442	5541	5906	5294	5580	5525		9013	9013	5936(4)	4777	5241
12	26527	Indam-200-040	4878	5518	5663	4923	5368	5172		8437	8437	5436	6730(3)	8204(3)
13	26528	RNE-8032	4746	6037(9)	5109	6039(1)	5728	5336	5505	9586(8)	7545	4774	5678	5981
14	26529	SD-140041	5114	5089	3989	4799	4626	4821	5619	8563	7091	4510	4686	5655
15	26530	HRI-194	6153	6044(8)	6783(5)	5618(7)	6149	6150	5171	8597	6884	5594	5495	6620
16	26531	MEPH-140	6307	6170(5)	6310(9)	5,533	6005	6125	6795(2)	8777	7786	5966(3)	5923(8)	7145
17	26532	HRI-193	5446	5985	4929	5194	5369	5400	4783	9023	6903	5698	4969	6780
18	26533	UPRH-182	3470	5763	3385	4779	4643	4173	5949(9)	6911	6430	2506	3235	3293
19	26534	MEPH-141	5141	6156(6)	5918	5665(4)	5913	5604	3578	7178	5378	4902	5628	6687
20	26535	PHI-17101	5951	6178(4)	7039(4)	5113	6110	6046	4137	10295(2)	7216	5260	6374(4)	9094(1)
21	26536	IIRRH-116	5558	5326	2881	4996	4401	4864	4645	8253	6449	5711(9)	5069	8020(5)
22	26537	PHI-17102	6088	5185	5445	5,509	5380	5663	4900	9502(9)	7201	5735(8)	6078(5)	7918(6)
23	26538	PHI-17103	6772	5896	3690	5,370	4986	5700	3482	10172(3)	6827	4902	6010(7)	7865(7)
24	26539	TNRH-273	4418	5311	4531	5,439	5094	4823	2658	4953	3806	5,107	4515	6159
25	26540	IIRRH-118	5385	6081(7)	3802	5820(3)	5235	5295	4380	10116(5)	7248	5988(2)	3640	7276
26	26541	UPRH-185	4011	5119	3385	4515	4340	4208	6844(1)	3126	4985	3120	3003	3143
27	HRI-174 (NCH)		5417	5452	3597	5301	4783	5037	6782(3)	10119(4)	8451	6110(1)	4716	6608
28	NDR-359 (NCV)		5111	5918	6559(7)	4617	5698	5463	4157	7783	5970	4408	5640	7697(8)
29	PR-113/CR Dhan-300/ Karma Mahsuri/ Akshayadhan /Jaya (ZCV)		5829	5763	5091	5651(6)	5501	5632	5035	8089	6562	4966	4672	6086
30	Local Check Variety (LCV)		4763	5526	4226	5154	4968	4886	6119(7)	7169	6644	4554	4189	5990
31	VNR-2375 (OBCH)		5963	5089	6647(6)	5593(8)	5776	5851	4164	9081	6622	5334	5916(9)	5437
Exp.Mean			5360	5723	5236	5242	5400	5384	4973	8415	6815	5074	5128	6585
CD(0.05)				618.26	865.93	750.18			611.94	1264.2		619.22	753.13	1393.02
CV				6.62	10.13	8.76			7.54	9.2		7.47	8.99	12.95
D/S				09-06-2017	13-06-2017	26-06-2017			04-07-2017	27-06-2017		23-06-2017	24-06-2017	21-06-2017
D/P				04-07-2017	04-07-2017	24-07-2017			05-08-2017	18-07-2017		27-07-2017	25-07-2017	21-07-2017
Zonal Check				Akshayadhan	Akshayadhan	Akshayadhan			Jaya	Jaya		Jaya	Jaya	Jaya
Local Check				KJT-5	Karjat 6	IR-64			MTU 1075	MTU 1001		DRR Dhan 38	Somnath	

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Appendix-7 (contd.): Grain Yield (kg/ha) of Hybrids in IHRT-Medium, Kharif 2017

S. No.	IET No	Name	Zone-VII						Overall Mean
			TS Mean	CBT	@ KRK	@ BRM	@ MLG	South Mean	
1	26516	RRX-130	6064	7200(6)	5333	3791	4800(3)	6791	6559
2	26517	PHI-17104	6610	7447(2)	4778	6246(3)	4422(6)	7299	6475
3	26518	PHI-17105	6479	7378(4)	4556	3281	3644	6933	6956
4	26519	GRH-1172	5483	6916(9)	4667	4387	4044	6291	6543
5	26520	NS-6768	5425	5102	4667	4379	3456	5404	5919
6	26521	NS-6791	5514	5157	6222(3)	4872	3689	5654	5978
7	26522	Bio-788	6488	6517	4444	5272(4)	4111	6757	6575
8	26523	KJTRH-15	4411	3724	4556	3978	2733	3890	4712
9	26524	BLR-109	5027	6073	5556(8)	3185	3944	5815	6301
10	26525	MR-8383	5175	6687	4222	4219	4656(4)	6478	6417
11	26526	US-366	5318	6907	4444	4768	4167	6375	6003
12	26527	Indam-200-040	6790	7369(5)	5333	3085	1578	7235	6326
13	26528	RNE-8032	5478	5528	5556(7)	6398(1)	3756	6175	6280
14	26529	SD-140041	4950	5858	4000	4940(9)	4422(7)	5815	5520
15	26530	HRI-194	5903	6787	4444	4263	4478(5)	6377	6401
16	26531	MEPH-140	6345	5954	5778(6)	4506	4178	6760	6658
17	26532	HRI-193	5816	6787	6000(5)	5068(7)	4022	6340	6559
18	26533	UPRH-182	3011	2776	4667	4571	1789	4111	4393
19	26534	MEPH-141	5739	5349	7222(1)	3313	3830	5554	6037
20	26535	PHI-17101	6909	6980(8)	4111	3413	4200(9)	7023	7065
21	26536	IIRRH-116	6267	4864	4444	2183	3319	6094	6276
22	26537	PHI-17102	6577	7530(1)	4778	4864	3600	6944	6823
23	26538	PHI-17103	6259	5088	5111	6358(2)	4404(8)	6253	6598
24	26539	TNRH-273	5261	3302	4111	4243	2556	4449	5111
25	26540	IIRRH-118	5635	3242	4444	3538	3878	5774	6014
26	26541	UPRH-185	3088	2569	4889	5064(8)	1178	3634	4536
27	HRI-174 (NCH)		5811	7195(7)	5000	3870	4911(2)	6922	6663
28	NDR-359 (NCV)		5915	5065	6222(2)	5108(5)	3356	5792	6086
29	PR-113/CR Dhan-300/ Karma Mahsuri/ Akshyadhan /Jaya (ZCV)		5241	4914	5333	4724	2544	5627	5597
30	Local Check Variety (LCV)		4911	6508	6074(4)	5088(6)	3800	5755	5745
31	VNR-2375 (OBCH)		5562	7388(3)	5444(9)	4395	5033(1)	6220	6532
Exp.Mean			5596	5812	5045	4431	3693	6017	6121
CD(0.05)				1003.51	2074.52	296.57	773.04		
CV				10.57	25.18	4.1	12.82		
D/S				28-07-2017		05-07-2017	22-07-2017		
D/P				22-08-2017		02-08-2017	Direct seeded		
Zonal Check				Jaya	Jaya	Jaya	Jaya		
Local Check						MO 4	SIRI-1253		

@ Data of KRK (Karikal) not included in the analysis due to High C.V., BRM (Brahmavar) not included in the analysis due to low C.V and low experimental mean and Data of MLG (Malagi) not included in the analysis due to low Experimental Mean.

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Appendix-8: Days to 50% Flowering (DFF) of Hybrids in IHRT-Medium, Kharif 2017

S. No.	IET No	Name	Zone-II				Zone-III										
			KUL	PNT	LDN	Northern Mean	MSD	ALH	BIO	Bisco	NUZ	UP Mean	SYN	CHN	@ RCI	NRRI	Eastern Mean
1	26516	RRX-130	112	116	114	114	115	109	102	95	107	105	104	98	106	101	102
2	26517	PHI-17104	110	112	112	111	102	111	95	92	106	101	102	97	106	103	102
3	26518	PHI-17105	108	113	113	111	104	106	97	98	105	102	101	102	106	103	103
4	26519	GRH-1172	100	107	107	104	105	102	93	89	104	98	100	99	107	101	101
5	26520	NS-6768	105	106	106	106	100	115	92	96	102	101	99	94	103	103	99
6	26521	NS-6791	101	104	102	102	103	103	87	97	99	98	94	98	108	100	98
7	26522	Bio-788	105	105	109	106	116	102	99	95	107	104	101	100	100	101	102
8	26523	KJTRH-15	95	99	95	96	102	100	88	94	96	96	89	96	105	100	95
9	26524	BLR-109	105	105	107	106	106	100	90	96	106	99	101	98	98	101	101
10	26525	MR-8383	104	104	111	106	106	108	88	95	109	101	101	101	105	101	103
11	26526	US-366	103	107	109	106	106	110	98	93	112	104	101	98	106	102	103
12	26527	Indam-200-040	102	109	109	107	106	104	94	95	107	101	99	99	106	100	101
13	26528	RNE-8032		134		134	116	104	110	96	111	107	107	97	106	105	105
14	26529	SD-140041		137		137	112	110	106	97	113	108	111	115	108	105	111
15	26530	HRI-194	100	112	111	108	116	117	97	93	109	106	103	100	107	100	103
16	26531	MEPH-140	97	105	102	101	104	101	88	93	100	97	98	96	104	105	100
17	26532	HRI-193	100	128	119	116	110	117	104	94	101	105	103	104	104	104	103
18	26533	UPRH-182	98	101	103	101	103	101	82	95	86	93	87	99	91	98	93
19	26534	MEPH-141	98	103	102	101	104	104	94	95	100	99	98	100	105	98	99
20	26535	PHI-17101	102	107	106	105	104	102	92	95	100	98	99	99	102	101	100
21	26536	IIRRH-116	103	106	107	105	106	99	90	95	97	97	98	97	101	99	98
22	26537	PHI-17102	102	110	108	107	101	107	92	98	107	101	100	101	106	103	103
23	26538	PHI-17103	98	103	105	102	101	76	90	93	104	93	99	98	108	104	101
24	26539	TNRH-273	92	99	92	94	102	92	82	96	91	93	86	96	96	96	92
25	26540	IIRRH-118	103	116	112	111	103	76	86	98	96	92	94	97	97	101	97
26	26541	UPRH-185	108	106	117	110	120	102	110	95	112	108	111	119	112	105	112
27	HRI-174 (NCH)		103	112	109	108	106	112	94	98	108	104	102	101	112	101	103
28	NDR-359 (NCV)		100	104	104	103	105	110	88	96	107	101	98	96	101	101	101
29	PR-113/CR Dhan-300/ Karma Mahsuri/ Akshyadhan / Jaya (ZCV)		98	105	101	101	114		110	94	119	109	115	120	117	100	114
30	Local Check Variety (LCV)		98	103	103	101	107	102	87	98	101	99	99	107	116	104	103
31	VNR-2375 (OBCH)		100	108	108	105	102	107	93	95	107	101	102	96	108	101	101
Exp.Mean			102	109	107	107	107	104	94	95	104	101	100	101	105	102	102

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Appendix-8 (Contd): Days to 50% Flowering (DFF) of Hybrids in IHRT-Medium, Kharif 2017

S. No.	IET No	Name	Zone-IV	Zone-V				Zone-VI								
			TTB	@ RPR	VNR	@ SND	Central Mean	@ NWG	NVS	DBI	Guj Mean	KJT	SHR	ANK	MH Mean	Western Mean
1	26516	RRX-130	104	92	95	111	95	101	103	102	103	98	89	106	98	100
2	26517	PHI-17104	104	74	91	103	91	104	100	103	101	98	87	102	96	98
3	26518	PHI-17105	102	94	94	106	94	101	100	100	100	99	90	102	97	99
4	26519	GRH-1172	103	73	95	101	95	98	96	101	98	95	88	103	95	96
5	26520	NS-6768	99	92	90	101	90	99	91	98	95	97	86	98	94	94
6	26521	NS-6791	97	95	87	99	87	97	96	97	96	93	85	96	91	93
7	26522	Bio-788	103	79	94	102	94	104	98	102	100	96	89	103	96	97
8	26523	KJTRH-15	96	90	84	93	84	97	91	93	92	89	78	93	87	89
9	26524	BLR-109	104	92	93	101	93	98	98	102	100	98	88	103	96	98
10	26525	MR-8383	103	88	94	103	94	99	100	100	100	97	88	104	96	98
11	26526	US-366	106	90	94	105	94	99	95	102	98	98	90	101	96	97
12	26527	Indam-200-040	102	91	92	106	92	96	96	98	97	97	88	98	94	95
13	26528	RNE-8032	98	89	104	102	104	108	104	112	108	98	97	100	98	102
14	26529	SD-140041	104	87	106	108	106	107	109	115	112	114	103	104	107	109
15	26530	HRI-194	102	86	97	105	97	107	99	102	100	100	89	103	97	98
16	26531	MEPH-140	99	91	89	100	89	95	94	100	97	93	84	99	92	94
17	26532	HRI-193	105	83	95	108	95	103	102	101	102	100	89	101	97	99
18	26533	UPRH-182	93	94	81	87	81	85	90	93	92	88	78	86	84	87
19	26534	MEPH-141	103	83	89	93	89	98	95	94	95	91	78	97	89	91
20	26535	PHI-17101	102	94	90	100	90	97	96	101	99	96	86	100	94	96
21	26536	IIRRH-116	103	95	87	99	87	101	100	100	100	90	81	98	90	94
22	26537	PHI-17102	103	90	92	94	92	102	100	102	101	95	87	101	95	97
23	26538	PHI-17103	103	83	91	101	91	97	94	100	97	97	88	99	95	96
24	26539	TNRH-273	95	92	78	90	78	84	90	94	92	112	73	90	92	92
25	26540	IIRRH-118	97	94	87	103	87	96	98	95	96	88	80	96	88	91
26	26541	UPRH-185	99	94	108	112	108	99	101	101	101	99	89	109	99	100
27	HRI-174 (NCH)		103	90	95	103	95	104	103	102	102	96	87	104	96	98
28	NDR-359 (NCV)		99	92	93	100	93	96	97	100	99	93	86	99	93	95
29	PR-113/CR Dhan-300/ Karma Mahsuri/Akshyadhan/ Jaya (ZCV)		107	85	91	106	91	104	103	100	101	93	90	101	95	97
30	Local Check Variety (LCV)		101	98	88	111	88	104	93	108	101	95	105	104	101	101
31	VNR-2375 (OBCH)		107	94	94	107	94	101	98	101	99	96	86	102	95	97
Exp.Mean			101	89	92	102	92	99	98	101	99	97	87	100	95	96

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Appendix-8 (Contd.): Days to 50% Flowering (DFF) of Hybrids in IHRT-Medium, Kharif 2017

S. No.	IET No	Name	Zone-VII												Overall Mean
			MTU	BAY	AP Mean	IIRR	WGL	ADV	TS Mean	CBT	@ KRK	@ BRM	@ MLG	South Mean	
1	26516	RRX-130	98	92	95	103	102	113	106	98	79	75	105	101	103
2	26517	PHI-17104	96	87	92	101	101	108	103	99	85	83	105	99	101
3	26518	PHI-17105	98	92	95	104	102	111	106	105	84	75	105	102	102
4	26519	GRH-1172	94	90	92	102	102	108	104	99	94	75	106	99	99
5	26520	NS-6768	89	87	88	100	96	98	98	97	80	80	102	94	98
6	26521	NS-6791	87	85	86	98	96	102	99	96	91	76	105	94	96
7	26522	Bio-788	99	89	94	103	105	107	105	101	79	75	108	101	101
8	26523	KJTRH-15	84	80	82	103	94	98	99	90	87	75	97	92	93
9	26524	BLR-109	96	88	92	101	104	108	104	102	81	85	108	100	100
10	26525	MR-8383	97	89	93	102	106	107	105	100	86	87	109	100	101
11	26526	US-366		89	89	102	101	108	104	105	108	74	108	101	101
12	26527	Indam-200-040		88	88	102	99	105	102	102	89	75	105	99	100
13	26528	RNE-8032	87	88	88	98	99	100	99	81	87	76	106	92	102
14	26529	SD-140041	95	94	95	103	106	102	104	91	91	54	106	99	107
15	26530	HRI-194	99	89	94	105	107	99	104	103	106	68	109	100	102
16	26531	MEPH-140	101	89	95	101	101	106	103	103	81	75	104	100	98
17	26532	HRI-193	99	92	96	103	105	100	103	100	87	68	104	100	103
18	26533	UPRH-182	97	79	88	88	89	93	90	66	90	77	99	85	91
19	26534	MEPH-141	99	88	93	97	102	107	102	100	89	68	101	99	97
20	26535	PHI-17101	93	88	91	100	98	101	100	103	94	75	105	97	98
21	26536	IIRRH-116	90	84	87	98	100	103	100	81	89	75	97	93	96
22	26537	PHI-17102	96	87	92	102	103	108	104	100	89	56	105	99	100
23	26538	PHI-17103	96	88	92	100	102	104	102	102	83	77	108	99	97
24	26539	TNRH-273	92	81	87	89	91	94	92	67	108	76	93	86	90
25	26540	IIRRH-118	90	82	86	93	96	98	95	65	89	79	93	87	94
26	26541	UPRH-185	108	93	101	107	105	107	106	105	96	76	113	104	106
27	HRI-174 (NCH)		97	89	93	104	106	104	105	99	83	76	106	100	101
28	NDR-359 (NCV)		89	88	89	102	102	102	102	101	106	75	105	97	98
29	PR-113/CR Dhan-300/ Karma Mahsuri/ Akshyadhan / Jaya (ZCV)		83	86	85	102	94	100	98	103	83	75	108	95	101
30	Local Check Variety (LCV)		103	102	102	100	112	106	106	102	83	56	111	104	101
31	VNR-2375 (OBCH)		97	88	92	103	106	109	106	101	85	76	106	101	100
Exp.Mean			95	88	91	100	101	104	102	96	89	74	105	97	99

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Appendix 9: Quality Characteristics of hybrids in IHRT – Medium, Kharif 2017

S. No.	IET NO	Name	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
1	26516	RRX-130	81.9	68.2	45.9	5.90	2.26	2.61	MS	VOC	4.7	195	10.2	1.72	4	23.46	50	NS
2	26517	PHI-17104	79.8	65.2	46.1	6.18	2.20	2.80	LB	VOC	5.6	285	9.0	1.45	4	23.84	22	NS
3	26518	PHI-17105	80.1	64.9	32.9	5.82	2.15	2.71	MS	VOC	5.5	240	8.8	1.51	4	27.42	52	NS
4	26519	GRH-1172	82.2	65.5	32.4	5.76	2.26	2.54	MS	VOC	5.5	340	9.7	1.68	7	24.40	50	NS
5	26520	NS-6768	80.0	66.5	45.8	5.90	1.90	3.10	SS	VOC	5.5	270	9.8	1.66	5.1	24.43	22	NS
6	26521	NS-6791	78.7	62.5	37.5	6.01	2.16	2.78	LB	VOC	4.6	245	8.6	1.43	4	22.73	58	NS
7	26522	Bio-788	80.5	67.6	61.2	5.72	2.11	2.71	MS	VOC	5.5	290	9.8	1.71	5	24.46	62	NS
8	26523	KJTRH-15	80.5	64.5	33.7	5.89	1.89	3.11	SS	VOC	5.5	300	9.4	1.59	4.5	22.00	68	NS
9	26524	BLR-109	81.7	64.4	35.0	6.28	2.13	2.94	LB	VOC	5.6	285	9.7	1.54	4.3	24.66	78	MS
10	26525	MR-8383	79.8	64.9	37.6	5.49	2.17	2.52	MS	VOC	4.2	330	9.8	1.78	4.6	23.84	59	NS
11	26526	US-366	80.7	67.1	40.7	5.67	2.22	2.55	MS	VOC	4.1	270	9.5	1.67	4.6	24.66	54	NS
12	26527	Indam-200-040	83.6	71.6	56.6	5.27	2.17	2.42	SB	VOC	4.2	225	10.2	1.93	4	20.82	55	NS
13	26528	RNE-8032	76.6	62.4	28.1	5.60	2.19	2.55	MS	VOC	4.7	215	8.3	1.48	4	24.05	53	NS
14	26529	SD-140041	79.9	64.6	40.2	5.72	2.17	2.63	MS	VOC	4.1	275	10.2	1.78	4	24.20	66	NS
15	26530	HRI-194	81.0	69.7	65.8	5.17	2.17	2.38	SB	VOC	5.5	280	7.4	1.43	4.7	23.46	57	NS
16	26531	MEPH-140	79.1	64.5	20.9	6.13	2.17	2.82	LB	VOC	5.5	310	10.6	1.72	5	25.10	39	NS
17	26532	HRI-193	79.0	68.8	50.5	6.46	2.05	3.15	LS	VOC	4.5	305	11.3	1.74	7	25.28	22	NS
18	26533	UPRH-182	76.4	60.9	39.2	5.85	1.90	3.07	SS	VOC	4.7	230	9.1	1.55	4	28.01	40	NS
19	26534	MEPH-141	80.1	69.0	46.8	6.30	2.13	2.95	LB	VOC	4.1	275	9.5	1.50	4	23.14	51	SS
20	26535	PHI-17101	80.4	69.6	50.0	5.88	2.25	2.61	MS	VOC	4.8	240	10.6	1.80	4	25.54	42	NS
21	26536	IIRRH-116	79.5	61.1	25.5	5.72	2.11	2.71	MS	VOC	5.5	315	9.5	1.66	5.4	24.49	47	NS
22	26537	PHI-17102	78.3	66.2	43.9	6.04	2.19	2.75	LB	VOC	5.5	250	10.8	1.78	4	24.78	40	NS
23	26538	PHI-17103	75.4	63.2	48.0	6.20	2.12	2.92	LB	VOC	4.2	270	9.9	1.59	5.1	24.40	50	NS
24	26539	TNRH-273	79.7	63.6	26.1	5.73	1.98	2.89	MS	VOC	4.4	290	9.6	1.67	5.1	22.93	38	NS
25	26540	IIRRH-118	77.9	61.7	13.7	5.86	2.22	2.63	MS	VOC	4.8	295	10.0	1.70	4.6	24.31	22	NS
26	26541	UPRH-185	79.2	68.3	59.0	5.94	1.96	3.03	SS	OC	5.2	255	9.9	1.66	4	21.61	31	NS
27	HRI-174 (NCH)		81.9	70.2	51.3	6.39	2.31	2.73	LB	VOC	4.8	260	10.4	1.78	4.8	25.42	49	NS
28	NDR-359 (NCV)		79.6	69.5	56.4	6.40	2.39	2.67	LB	VOC	4.8	245	10.3	1.60	4	24.43	52	NS
29	Jaya (ZCV)		80.4	68.6	39.7	5.51	2.59	2.12	SB	VOC	4.7	325	9.8	1.77	7	25.40	22	NS
30	DRR Dhan-38 (LCV)		79.4	66.1	28.0	5.32	2.16	2.46	SB	VOC	4.8	250	10.1	1.89	4	26.69	48	NS
31	VNR-2375 (OBCH)		80.1	64.5	42.7	5.51	2.12	2.59	MS	VOC	5.1	270	9.4	1.70	5	24.90	76	NS

HULL: Hulling (%); MILL: Milling (%); HRR: Head rice recovery (%); KL: Kernel length (mm); KB: Kernel breadth (mm); SS: Short slender ; L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; MS: Medium slender; ASV: Alkali spreading value; AC: Amylose content (%); GC: Gel consistency; LB: Long bold; SB: Short bold; LS: Long slender;

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Appendix-10: Grain Yield (kg/ha) of Hybrids in IHRT-Medium Slender, Kharif 2017

S. No.	IET No	Name	Zone-III							Zone-IV	Zone-V		
			MSD	@ ALH	SYN	CHN	RCI	@ NRRI	Eastern Mean	TTB	RPR	VNR	CG Mean
1	26542	RRX-135	4431	7100	5849	5144	6004	6712	5357	3800	6630	7935(6)	7282
2	26543	NS-6816	5327	3867	4209	4892	4375	7551(3)	4701	4600	6104	8116(5)	7110
3	26544	NPH-2899	4489	8500	5960	7010(1)	4152	6209	5403	5020	5324	6589	5956
4	26545	NK-23831		6833	5756	5295	5717	5732	5589	4240	5827	6870	6348
5	26546	HRI-195		8133	4695	5850	5110	5356	5218	3280	6224	5400	5812
6	26547	S-8001	3571	6633	6197(7)	5900	5014	5415	5171	4700	6197	7028	6612
7	26548	Indam-200-043	4097	7267	3280	4639	5334	5497	4337	3840	6131	5764	5947
8	26549	PHI-17108	4869	6533	6147(9)	6051	5940	6798(8)	5752	4920	5546	9282(1)	7414
9	26550	US-308	5048	7900	5947	6404(3)	5621	6630	5755	4480	4583	8957(3)	6770
10	26551	MEPH-143	4301	6667	5786	6858(2)	5685	6503	5658	4920	5638	9093(2)	7366
11	26552	CRHR-115	4606	4300	6936(1)	6304(4)	4823	6739(9)	5667	4640	5724	7334(8)	6529
12	26553	CRHR-119	4543	5433	6175(8)	6102(9)	5014	7859(2)	5458	4200	5089	6697	5893
13	26554	CRHR-116	5215	5400	6676(3)	6203(6)	4759	6676	5713	4220	4339	7236	5787
14	26555	RTNRH-11	4289	7300	4188	6051	5302	6830(7)	4957	4000	6713	7018	6866
15	26556	CRHR-118	5069		6457(5)	5648	4950	6599	5531	4000	4378	6791	5585
16	JKRH-3333 (NCH-1)		6187	8133	5109	6203(7)	6036	7429(5)	5884	4860	7603	7670(7)	7636
17	27P63 (NCH-2)		4702	7500	5124	6304(5)	5908	7007(6)	5509	4420	7520	8395(4)	7957
18	WGL-14 (NCV-1)		5398	6733	6489(4)	6001	4695	8213(1)	5646	4340	7153	6926	7040
19	BPT-5204 (NCV-2)		4251		6803(2)	6152(8)	3769	7483(4)	5244	6140	5949	7039	6494
20	Improved Samba Mahsuri/ Ketekejoha/Karjat-6/ ADT-49 (ZCV)		5661	5533	6279(6)	5749	3705	6717	5348	5760	6822	6301	6562
Exp.Mean			4781	6654	5703	5938	5096	6698	5395	4519	5975	7322	6648
CD(0.05)			807.35	225.54	509.81	961.67	1214.61	491.18		931.7	1079.73	1227.01	
CV			10.23	2.05	5.42	9.81	14.45	4.44		12.49	10.95	10.16	
D/S			15-06-2017	16-06-2017	17-06-2017	29-06-2017	27-06-2017	09-06-2017		29-06-17	20-06-2017	16-06-2017	
D/P			15-07-2017	10-07-2017	13-07-2017	02-08-2017	27-07-2017	11-07-2017		05-07-17	05-07-2017	14-07-2017	
Zonal Check			ISM	ISM	ISM	ISM	ISM	ISM		Ketekejoha	ISM	ISM	

@ Data of ALH (Allahabad) and NRRI not included in the analysis due to low C.V.

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Appendix-10 (contd): Grain Yield (kg/ha) of Hybrids in IHRT-Medium Slender, Kharif 2017

S. No.	IET No	Name	Zone-V				Zone-VI							
			JBP	@ SND	@ SKL	Central Mean	@ NWG	NVS	@ DBI	KJT	RDN	ANK	MH Mean	Western Mean
1	26542	RRX-135	6696	3605	4631	7087	4583	6569	3070(8)	5204	5656	5447	5436	5436
2	26543	NS-6816	6308	3102	4451	6843	5104	4659	2536	5422	5295	4378	5032	5032
3	26544	NPH-2899	6955	4189(4)	4468	6289	4271	4979	2453	4785	3075	5977	4613	4613
4	26545	NK-23831	5186	3619	4410	5961	5625	4564	4020(3)	4904	5549	5457	5303	5303
5	26546	HRI-195	6279	4046(8)	5486	5967	4896	4215	3175(7)	5489	3816	5248	4851	4851
6	26547	S-8001	5123	4496(2)	4239	6116	1875	5502	2475	5511	6349	5127	5663	5663
7	26548	Indam-200-043	6224	4078(7)	3792	6040	5312	3705	2915	5430	3597	4516	4514	4514
8	26549	PHI-17108	6421	4118(6)	4869	7083	6562	4318	4619(1)	5548	6652	6307	6169	6169
9	26550	US-308	4414	3668	5315	5985	3646	4891	2820	4867	4024	5676	4856	4856
10	26551	MEPH-143	5098	3601	4739	6610	5937	4817	4147(2)	6289	4669	4786	5248	5248
11	26552	CRHR-115	5524	4358(3)	3488	6194	5000	3361	2830	5207	3054	4215	4159	4159
12	26553	CRHR-119	5703	3841	4109	5830	5312	3861	2539	5207	3669	4225	4367	4367
13	26554	CRHR-116	4552	3681	4364	5375	4583	3539	3601(5)	5407	3261	4553	4407	4407
14	26555	RTNRH-11	6917	3890(9)	4051	6883	3646	3681	2631	5304	4539	4431	4758	4758
15	26556	CRHR-118	4518	4171(5)	4113	5229	5104	3589	2281	3733	4061	4647	4147	4147
16	JKRH-3333 (NCH-1)		5469	3819	4752	6914	5000	3560	3572(6)	6059	4812	5107	5326	5326
17	27P63 (NCH-2)		6792	4550(1)	5390	7569	4479	4023	2958	5059	5660	4789	5170	5170
18	WGL-14 (NCV-1)		4731	3324	4068	6270	5000	3953	3642(4)	5363	4100	5753	5072	5072
19	BPT-5204 (NCV-2)		4018	3097	3776	5668	1563	3651	2212	5474	3548	5158	4726	4726
20	Improved Samba Mahsuri/ Ketekejoha/Karjat-6/ ADT-49 (ZCV)		4139	2932	3705	5754	2083	4007	2190	4978	4907	4444	4776	4776
Exp.Mean			5553	3809	4411	6283	4479	4272	3034	5262	4515	5012	4930	4930
CD(0.05)			1049.99	807.16	782.36		1391.53	1039.11	760.11	800.27	840.98	927.9		
CV			11.46	12.84	10.75		14.84	14.74	15.18	9.22	11.29	11.22		
D/S			20-06-2017	20-06-2017	20-06-2017		19-06-2017	07-06-2017	06-06-2017	09-06-2017	16-06-2017	30-06-2017		
D/P			12-07-2017	20-07-2017	13-07-2017		20-07-2017	10-07-2017	20-07-2017	04-07-2017	20-07-2017	22-07-2017		
Zonal Check			ISM	ISM	ISM		Karjat-6	Karjat-6	Karjat-6	Karjat-6	Karjat-6	Karjat-6		

@ Data of SND (Sindewahi), SKL (Sakoli), NWG (Nawagam), NVS (Navsari) and DBI (Dabhoi) not included in the analysis due to low Experimental Mean.

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Appendix-10 (contd.): Grain Yield (kg/ha) of Hybrids in IHRT-Medium Slender, Kharif 2017

S. No.	IET No	Name	Zone-VII												Overall Mean
			MTU	BAY	BPT	AP Mean	IIRR	WGL	ADV	TS Mean	@ CBT	@ KRK	@ BRM	South Mean	
1	26542	RRX-135	6108	7329	5021	6153	6772(4)	5963(5)	6656(3)	6464	2566	4778(5)	4211(8)	6308	5920
2	26543	NS-6816	4,797	7759	6604(8)	6387	4810	4398	5670(9)	4959	2670	4000	5100(4)	5673	5474
3	26544	NPH-2899	5387	8535(2)	6615(7)	6846	6002(8)	5940(6)	5444	5795	4111	4111	4347(7)	6320	5721
4	26545	NK-23831	3663	8360(6)	5316	5780	6373(5)	5040	5229	5547	2711	5333(3)	3802	5664	5549
5	26546	HRI-195	5805	7297	6513(9)	6538	5933(9)	5453	5556	5648	4078	5111(4)	3466	6093	5497
6	26547	S-8001	3448	8360(7)	6462	6090	6221(6)	4929	5513	5554	5547(5)	4333	4139	5822	5626
7	26548	Indam-200-043	3274	4433	5158	4288	4678	5653(9)	6833(1)	5721	4922(8)	4333	3814	5005	4875
8	26549	PHI-17108	6621	9268(1)	6103	7331	7373(1)	7026(2)	6689(2)	7029	4740(9)	4444(9)	4491(6)	7180	6515
9	26550	US-308	5948	8183	7068(3)	7066	6851(2)	5000	6307(6)	6053	6307(1)	4333	3522	6560	5846
10	26551	MEPH-143	5354	8421(5)	4158	5978	6074(7)	8077(1)	6549(4)	6900	2563	4444(8)	4111	6439	5986
11	26552	CRHR-115	3509	7884	7538(1)	6311	5194	5434	5150	5259	5407(6)	5333(2)	3526	5785	5475
12	26553	CRHR-119	5,240	8204(9)	6509	6651	5799	5450	5335	5528	5677(4)	4333	5717(1)	6089	5480
13	26554	CRHR-116	5751	8469(3)	6675(6)	6965	5718	5890(7)	5084	5564	4118	4444(7)	4091	6265	5530
14	26555	RTNRH-11	5,047	7678	6684(5)	6470	4881	4728	4243	4617	2800	3222	2512	5544	5413
15	26556	CRHR-118	3567	6797	5038	5134	5549	4973	4901	5141	3933	3889	4848(5)	5137	5005
16	JKRH-3333 (NCH-1)		4,652	8435(4)	7402(2)	6830	5919	6031(4)	6329(5)	6093	4285	4556(6)	5377(2)	6461	6111
17	27P63 (NCH-2)		4,561	8255(8)	4910	5909	6835(3)	5871(8)	6127(7)	6277	5270(7)	5778(1)	4038	6093	5955
18	WGL-14 (NCV-1)		3312	6936	6919(4)	5722	5617	6142(3)	5869(8)	5876	6207(2)	4111	5210(3)	5799	5632
19	BPT-5204 (NCV-2)		5678	6109	6338	6042	5338	4635	4801	4924	5748(3)	3778	3301	5483	5365
20	Improved Samba Mahsuri / Ketekejoha /Karjat-6/ ADT-49 (ZCV)		4,712	5866	3248	4609	2576	4095	4631	3767	2926	3222	3510	4188	4934
Exp.Mean			4822	7629	6014	6155	5726	5536	5646	5636	4329	4394	4157	5895	5595
CD(0.05)			722.75	1320.02	1304.21		1409.51	551.11	1647.59		611.32	2135.8	454.63		
CV			9.08	10.49	13.14		14.92	6.03	17.69		8.56	29.45	6.63		
D/S			04-07-2017	27-06-2017	04-08-2017		16-06-2017	07-07-2017	21-06-2017		28-07-2017	24-08-2017	05-07-2017		
D/P			05-08-2017	19-07-2017	08-09-2017		20-07-2017	08-08-2017	24-07-2017		21-08-2017	22-09-2017	02-08-2017		
Zonal Check			ADT-49	ADT-49	ADT-49		ADT-49	ADT-49	ADT-49		ADT-49	ADT-49	ADT-49		

@ Data of CBT(Coimbatore) and BRM(Brahmavar) not included in the analysis due to low Experimental Mean and KRK (Karikal) not included in the analysis due to Low experimental mean and High C.V.

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Appendix-11: Days to 50% Flowering (DFF) of Hybrids in IHRT-Medium Slender, Kharif 2017

S. No.	IET No.	Name	Zone-III							Zone-IV	Zone-V							Zone-VI (contd)			
			MSD	@ ALH	SYN	CHN	RCI	@ NRRI	Eastern Mean		TTB	RPR	VNR	CG Mean	JBP	@ SND	@ SKL	Central Mean	@ NWG	NVS	@ DBI
1	26542	RRX-135	105	102	99	99	103	104	101	107	87	92	90	98	96	93	93	94	100	114	93
2	26543	NS-6816	113	110	99	98	104	100	103	109	101	92	96	101	103	96	98	98	100	112	98
3	26544	NPH-2899	108	113	103	100	98	106	102	106	87	92	90	99	95	84	93	94	100	113	95
4	26545	NK-23831		117	93	96	105	103	98	102	97	87	92	97	97	91	94	91	96	105	97
5	26546	HRI-195		115	101	101	104	102	102	109	89	93	91	102	102	94	95	96	101	112	94
6	26547	S-8001	107	113	104	101	106	104	104	111	99	98	98	106	104	98	101	99	101	119	105
7	26548	Indam-200-043	115	110	103	100	104	101	106	109	98	95	97	102	106	95	99	99	101	112	95
8	26549	PHI-17108	124	112	101	98	103	101	107	109	88	94	91	101	99	94	94	101	101	111	93
9	26550	US-308	111	110	105	103	104	105	106	109	95	98	97	108	107	101	100	104	102	114	99
10	26551	MEPH-143	105	112	100	99	104	98	102	108	108	92	100	109	99	93	103	96	99	111	87
11	26552	CRHR-115	106	115	111	103	112	104	108	111	88	105	97	108	111	105	101	107	110	120	95
12	26553	CRHR-119	106	120	113	101	107	104	107	111	96	109	103	109	108	105	105	107	110	115	95
13	26554	CRHR-116	116	120	112	105	112	104	111	110	102	109	106	109	111	104	107	104	109	121	105
14	26555	RTNRH-11	103	111	90	99	100	101	98	105	95	86	91	97	95	91	93	91	94	100	96
15	26556	CRHR-118	118		112	101	109	102	110	110	91	110	101	108	109	105	103	102	110	122	96
16	JKRH-3333 (NCH-1)		109	122	103	99	102	100	103	111	95	93	94	101	106	97	96	101	101	113	95
17	27P63 (NCH-2)		112	114	105	101	104	105	105	110	88	97	93	108	108	99	98	96	100	113	94
18	WGL-14 (NCV-1)		106	114	110	111	108	104	109	112	93	100	97	100	110	101	98	107	108	119	97
19	BPT-5204 (NCV-2)		113		116	118	111	109	114	115	93	111	102	115	115	105	106	112	112	121	102
20	Improved Samba Mahsuri/ Ketekejoha/Karjat-6/ ADT-49 (ZCV)		117	111	117	117	107	107	114	122	97	104	101	109	107	102	103	81	92	96	97
Exp.Mean			111	113	105	103	105	103	106	110	94	98	96	104	104	98	99	99	102	113	96

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Appendix-11 (contd): Days to 50% Flowering (DFF) of Hybrids in IHRT-Medium Slender, Kharif 2017

S. No.	IET No	Name	(contd) Zone-VI				Zone-VII												Overall Mean
			RDN	ANK	MH Mean	Western Mean	MTU	BAY	BPT	AP Mean	IIRR	WGL	ADV	TS Mean	@ CBT	@ KRK	@ BRM	South Mean	
1	26542	RRX-135	96	91	93	93	95	87	104	95	101	97	98	98	98	82	84	97	97
2	26543	NS-6816	97	92	96	96	95	89	91	92	102	101	106	103	94	83	85	97	99
3	26544	NPH-2899	96	93	95	95	94	89	107	97	101	100	105	102	95	85	84	99	98
4	26545	NK-23831	100	87	95	95	85	88	87	87	100	93	100	98	91	74	81	92	95
5	26546	HRI-195	86	92	91	91	96	93	96	95	104	101	96	100	99	85	87	98	97
6	26547	S-8001	104	97	102	102	102	94	97	98	106	105	109	107	98	91	86	102	103
7	26548	Indam-200-043	105	95	98	98	98	90	96	94	106	102	105	104	101	88	85	99	101
8	26549	PHI-17108	100	94	96	96	98	87	96	94	104	103	106	104	100	85	85	99	100
9	26550	US-308	105	100	101	101	99	96	99	98	107	103	98	103	103	93	85	100	102
10	26551	MEPH-143	97	92	92	92	94	88	90	90	99	97	106	101	90	76	85	96	98
11	26552	CRHR-115	108	102	102	102	103	100	102	102	109	106	114	110	102	90	80	106	105
12	26553	CRHR-119	107	102	101	101	106	100	102	103	108	105	109	107	102	92	85	105	105
13	26554	CRHR-116	107	102	105	105	104	99	98	100	109	107	114	110	103	90	86	105	107
14	26555	RTNRH-11	97	92	95	95	106	89	97	97	102	94	103	100	100	96	86	98	97
15	26556	CRHR-118	107	101	101	101	90	99	96	95	108	103	108	106	102	88	87	101	104
16	JKRH-3333 (NCH-1)		100	92	96	96	100	89	98	96	105	102	104	104	97	82	81	100	100
17	27P63 (NCH-2)		99	96	96	96	100	93	102	98	104	102	105	104	97	86	81	101	101
18	WGL-14 (NCV-1)		103	102	101	101	101	100	101	101	109	104	106	106	102	75	79	104	104
19	BPT-5204 (NCV-2)		108	106	106	106	104	104	105	104	111	111	107	110	108	95	85	107	109
20	Improved Samba Mahsuri/ Ketekejoha/Karjat-6/ ADT-49 (ZCV)		104	81	94	94	86	76	90	84	88	85	102	92	64	84	75	88	100
Exp.Mean			101	95	98	98	98	92	98	96	104	101	105	103	97	86	84	100	101

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Appendix 12: Quality Characteristics of hybrids in IHRT – Medium Slender, Kharif 2017

S. No.	IET No	Name	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
1	26542	RRX-135	79.6	65.5	42.2	4.94	1.93	2.57	MS	VOC	5.4	260	8.9	1.79	4.0	24.93	22	NS
2	26543	NS-6816	79.1	67.6	50.8	5.03	1.97	2.55	MS	VOC	5.6	175	9.6	1.9	4.0	23.81	38	MS
3	26544	NPH-2899	80.3	68.2	63.2	5.00	2.08	2.40	SB	A	4.4	170	9.8	1.96	4.0	25.90	22	NS
4	26545	NK-23831	78.6	67.2	48.8	5.18	1.85	2.80	MS	VOC	4.6	280	9.7	1.87	5.5	25.25	22	SS
5	26546	HRI-195	80.0	69.0	45.4	5.16	1.77	2.91	MS	VOC	5.6	275	8.8	1.7	5.8	24.78	22	NS
6	26547	S-8001	81.5	69.4	52.7	5.07	1.82	2.74	MS	VOC	4.7	315	9.1	1.79	5.5	24.49	22	SS
7	26548	Indam-200-043	80.7	67.8	48.0	4.84	1.88	2.59	MS	A	5.4	180	10	2.06	4.0	27.07	26	NS
8	26549	PHI-17108	78.7	67.8	58.9	5.07	1.88	2.69	MS	VOC	4.1	170	9.4	1.85	3.6	20.70	52	NS
9	26550	US-308	79.6	68.6	50.8	5.13	1.93	2.65	MS	VOC	4.2	205	9.4	1.83	3.4	21.76	40	MS
10	26551	MEPH-143	79.9	67.6	58.2	5.05	1.74	2.90	MS	VOC	4.7	275	9	1.78	5.0	24.34	60	MS
11	26552	CRHR-115	80.3	67.5	44.1	5.31	1.85	2.87	MS	A	5.4	270	9.3	1.75	5.6	26.16	23	NS
12	26553	CRHR-119	80.3	66.8	50.5	5.21	1.82	2.86	MS	VOC	4.1	255	8.6	1.65	5.3	26.89	53	NS
13	26554	CRHR-116	79.8	69.9	57.7	5.38	1.86	2.89	MS	A	4.1	240	9.5	1.76	5.4	25.81	45	NS
14	26555	RTNRH-11	79.5	66.5	49.3	5.20	1.93	2.84	MS	VOC	4.7	245	9.5	1.82	6.4	26.48	37	MS
15	26556	CRHR-118	79.7	67.8	63.4	5.41	1.97	2.74	MS	A	5.4	270	8.9	1.64	4.0	24.52	71	NS
16	JKRH-3333 (NCH-1)		79.2	67.2	23.7	4.96	2.07	2.39	MS	VOC	4.8	210	9.2	1.85	4.0	27.60	22	NS
17	27P63 (NCH-2)		80.1	67.2	48.6	5.08	1.85	2.74	MS	VOC	4.7	165	8.5	1.67	3.5	24.40	22	NS
18	WGL-14 (NCV-1)		78.7	66.3	40.8	5.01	1.84	2.72	MS	A	4.2	155	9.6	1.91	3.2	26.98	22	NS
19	BPT 5204 (NCV-2)		79.3	67.3	50.8	5.10	1.83	2.78	MS	A	4.1	210	10	1.96	4.0	23.05	26	NS
20	ADT-49 (ZCV)		74.6	60.5	23.0	5.04	1.84	2.73	MS	VOC	4.1	195	8.5	1.68	3.9	25.57	47	MS

HULL: Hulling (%); MILL: Milling (%); HRR: Head rice recovery (%); KL: Kernel length (mm); KB: Kernel breadth (mm); SS: Short slender ; L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; MS: Medium slender; ASV: Alkali spreading value; AC: Amylose content (%); GC: Gel consistency; LB: Long bold; SB: Short bold; LS: Long slender;

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Appendix-13: Grain Yield (kg/ha) of Hybrids in MLT, Kharif 2017

S. No.	Name	Zone-II				Zone-III							
		KUL	@ PNT	LDN	Northern Mean	MSD	@ ALH	CHN	@ RCI	CHP	NRRI	OR Mean	Eastern Mean
Early and Mid Early Duration hybrids													
1	PAN-2423	8467(5)	3849	7949(7)	8208	5607(7)	7067(7)	3605	4022	5762(6)	5388	5575	5455
2	GK-5022	7200	4132	7681	7440	4059	6700	6074	4578(3)	4,424	6728(1)	5576	5982
3	KPH-467	7833(8)	4133(9)	8461(3)	8147	4839	6933(9)	6173	4089	6328(2)	5406	5867	6210
4	HRI-183	8033(7)	3707	7232	7632	5,382	7333(4)	6321(9)	4178	5015	6164(6)	5590	6208
5	KPH-272	6933	4909(2)	7683	7308	4410	6500	3704	4400(5)	5745(7)	5670	5708	5405
6	HRI-180	8467(4)	4851(4)	8075(5)	8271	5465(9)	6700	6025	3689	5233	5705	5469	5916
7	27P22	8667(1)	4601(6)	8557(2)	8612	6341(2)	7400(3)	6716(5)	3956	5179	5661	5420	6239
8	27P36	8567(2)	4435(8)	8032(6)	8300	4547	6700	6617(7)	4311(7)	6374(1)	6173(5)	6273	6466
9	BS-158	5700	3864	8574(1)	7137	4735	6133	6617(6)	3444	5619(8)	4991	5305	5840
10	BS-129G	7133	4124	7826(8)	7480	5528(8)	6433	4840	3844	5271	6111(7)	5691	5664
11	US-312 (NCH-ME)	7500	4119	7103	7302	6612(1)	7167(6)	6815(3)	4978(2)	5862(5)	6411(2)	6137	6564
12	Gontra Bidhan-3 (NCV-ME)	6933	4481(7)	7122	7027	5820(4)	6500	6222	3267	5950(4)	5611	5781	6071
13	LCV-ME	6667	2274	8119(4)	7393	5882(3)	5167	4593	2400	5300	5802(8)	5551	5216
Exp. Mean		7546	4114	7878	7712	5325	6672	5717	3935	5543	5833	5688	5941
Medium and Late Duration hybrids													
1	NPH-8899	4467	4128	4806	4637	4155	7033(8)	6765(4)	4022	4516	5397	4957	5928
2	PAC-8744	7600(9)	4816(5)	7666	7633	4318	7433(2)	5827	4556(4)	5405(9)	5488	5446	6038
3	28P09		3025	5760	5760	4777	6767	6864(2)	4178(9)	5103	5529	5316	6066
4	Sahyadri-5		2687			5695(5)		6420(8)	3956	3229	5417	4323	5022
5	NK-16520	4333	4898(3)	7731(9)	6032	4860	6533	5284	4267(8)	4,332	6332(3)	5332	5620
6	HRI-174 (NCH-M)	8500(3)	4910(1)	7650	8075	5611(6)	6067	7062(1)	5244(1)	3,946	6296(4)	5121	5843
7	NDR-359 (NCV-M)	7567	4030	7254	7411	4410	7767(1)	5185	4356(6)	3254	5265	4259	5368
8	LCV-M	8200(6)	3148	7716	7958	5,215	7200(5)	5531	3511	6143(3)	5741	5942	6154
Exp. mean		6778	3955	6940	6786	4880	6971	6117	4261	4491	5683	5087	5755
CD(0.05)		680.38	369.11	951.75		636.42	489.98	835.6	1259.6	523.37	792.82		
CV		5.65	5.52	7.64		7.48	4.38	8.63	18.8	6.17	8.32		
D/S		12.06.2017	06.06.2017	06-08-2017		MSD	ALH	CHN	29.06.2017	29.07.2017	09.06.2017		
D/P		08.07.2017	27.06.2017	07-11-2017		14-06-2017	15-06-2017	30.06-2017	29.07.2017	19.08.2017	21.08.2017		
ZCV-ME		PR-113	PR-113	PR-113		12-07-2017	12-07-2017	08.08.2017	Lalat	Lalat	Lalat		
ZCV-M		PR-113	PR-113	PR-113		Lalat	Lalat	Lalat	CR Dhan 300	CR Dhan 300	CR Dhan 300		
LCV-ME		HKR 47	P.D.26	PR 126		CR Dhan 300	CR Dhan 300	CR Dhan 300		Lalat	Naveen		
LCV-M		HSD-1	Pant Dhan 4	PR 121			NDR 359	Khitish		NK-5231	Tapaswini		

@ Data of PNT (Pantnagar) and RCI (Ranchi) not included in the analysis due to low Experimental Mean and ALH(Allahabad) not included in the analysis due to low C.V.

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Appendix-13 (contd): Grain Yield (kg/ha) of Hybrids in MLT, Kharif 2017

S. No.	Name	Zone-IV	Zone-V					Zone-VI					
		TTB	RPR	JBP	@ SND	SKL	Central Mean	KJT	MH Mean	NWG	@ NVS	@ DBI	Western Mean
Early and Mid Early Duration hybrids													
1	PAN-2423	4725	6608(4)	7117	1119	5119	6281	6504	5811	5741(5)	4310	3338	5741
2	GK-5022	5313(8)	4323	3350	3636(6)	5315	4329	8333(4)	6824	4722	4092	3175	4722
3	KPH-467	4550	4971	3154	4666(3)	4844	4323	7452	6148	6481(2)	3029	3296	6481
4	HRI-183	4900	5279	3204	2086	4844	4442		4844	3796	5605(3)	4271(9)	3796
5	KPH-272	4550	5380	5620	3030	5023	5341	8296(5)	6660	2963	4090	3021	2963
6	HRI-180	5425(5)	6343(9)	4397	3030	5344	5361	7193	6268	5093	3389	4510(7)	5093
7	27P22	5600(4)	2789	5382	3289(8)	6587(1)	4919	7763(8)	7175	4907	3679	3444	4907
8	27P36	5250	6317	4272	2420	5941(6)	5510	6874	6407	6667(1)	3801	3990	6667
9	BS-158	5250(9)	6585(5)	8469	2215	6137(4)	7064	7570	6854	4259	5809(2)	4940(3)	4259
10	BS-129G	4375	5704	7426	1034	6012(5)	6380	5481	5747	4630	5401(4)	4186	4630
11	US-312 (NCH-ME)	4743	7474(1)	5148	2099	6204(3)	6275	6956	6580	4259	5028(7)	4757(5)	4259
12	Gontra Bidhan-3 (NCV-ME)	5250	4936	3375	1127	4731	4347	6556	5643	3519	4367	3408	3519
13	LCV-ME	4853	6413(7)	5594	2157	5257	5755	6504	5880	5463(8)	4284	5088(2)	5463
Exp. Mean		4983	5625	5116	2454	5489	5410	7123	6218	4892	4376	3956	4892
Medium and Late Duration hybrids													
1	NPH-8899	4375	5786	7781	3997(5)	5273	6280	5911	5592	6204(3)	4350	2758	6204
2	PAC-8744	5250	5684	6758	4269(4)	5415	5953	8993(1)	7204	4630	4536(9)	4493(8)	4630
3	28P09	5600(3)	5832	5544	5022(1)	6408(2)	5928	8919(2)	7663	5556(6)	5910(1)	4618(6)	5556
4	Sahyadri-5	5600(2)	6151	5161	4764(2)	4965	5425	7496	6230	5185	4184	3261	5185
5	NK-16520	5355(6)	6990(3)	5999	3164(9)	5524	6171	8667(3)	7095	5833(4)	5260(5)	5703(1)	5833
6	HRI-174 (NCH-M)	5985(1)	6379(8)	5991	2870	5824(8)	6065	7593(9)	6708	5556(7)	5128(6)	4814(4)	5556
7	NDR-359 (NCV-M)	5215	7216(2)	3550	3427(7)	5920(7)	5562	8226(6)	7073	3611	4139	3423	3611
8	LCV-M	5355(7)	6499(6)	3016	2469	5745(9)	5087	7778(7)	6761	5278(9)	4751(8)	3843	5278
Exp. mean		5342	6317	5475	3748	5634	5809	7948	6791	5231	4782	4114	5231
CD(0.05)		535.89	1005.42	1120.99	465.95	904.82		1050.13		1897.33	908.07	649.08	
CV		6.34	10.35	12.93	9.58	9.89		8.97		18.3	12.15	9.79	
D/S		29.06.2017	20.06.2017	20.06.2017	20.06.2017	20.06.2017		09.06.2017		19.06.2017	07.06.2017	06.06.2017	
D/P		02.08.2017	07.07.2017	13.07.2017	20.07.2017	13.07.2017		05.07.2017		20.07.2017	08.07.2017	20.07.2017	
ZCV-ME		PR-113	Karjat-7	Karjat-7	Karjat-7	Karjat-7		Karjat-7		Karjat-7	Karjat-7	Karjat-7	
ZCV-M		CR Dhan 300	Karma Mahsuri	Karma Mahsuri	Karma Mahsuri	Karma Mahsuri		Akshyadhan		Akshyadhan	Akshyadhan	Akshyadhan	
LCV-ME		Chilarai	Indira Barani Dhan 1	IR-64	PKV-HMT	PKV Ganesh		KJT-3		Mahisagar	NAUR-1	M-Sagar	
LCV-M		Shraboni	Rajeshwari		SYE-1	SYE-1		KJT- 5		GAR-13	GAR-13	GR-11	

@ Data of SND (Sindewahi), NVS (Navsari) and DBI (Dabhoi) not included in the analysis due to low Experimental Mean.

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Appendix-13 (contd): Grain Yield (kg/ha) of Hybrids in MLT, Kharif 2017

S. No.	Name	Zone-VII									Overall Mean
		@ MTU	@ IIRR	WGL	CBT	@ KRK	@ BRM	@ MLG	MGD	Southern Mean	
Early and Mid Early Duration hybrids											
1	PAN-2423	3702	4178	5380(8)	4142	6111(3)	2704(9)	3711	3,611	4811	5496
2	GK-5022	3901	5315	4808	5513	5333(8)	3429(4)	3237	4834	5122	5267
3	KPH-467	4541	5934(1)	3717	5,596	4667	3005(7)	4000(6)	8228(2)	5552	5555
4	HRI-183	5021(9)	5800(2)	5393(7)	5317	4778	1935	3089	4433	4980	5309
5	KPH-272	4024	5360	4829	5500	4667	2228	3444	4378	4843	5116
6	HRI-180	4,723	4212	5519(6)	4754	4556	2013	3578	5550	5095	5584
7	27P22	5119(7)	5342	5612(5)	5288	6111(2)	2183	4567(1)	8550(1)	6390	5933
8	27P36	5,020	5714(4)	5018	5913(7)	4556	2067	3744(9)	6228(7)	5429	5917
9	BS-158	3990	5629(6)	6163(2)	5284	5000	3062(6)	4022(4)	5839(8)	5572	5823
10	BS-129G	3391	4950	6041(3)	6392(3)	4670	1945	4011(5)	3,212	5079	5515
11	US-312 (NCH-ME)	5643(3)	5606(7)	4719	5459	6778(1)	3850(2)	3085	5639(9)	5649	5873
12	Gontra Bidhan-3 (NCV-ME)		4439	7789(1)	5804(8)	5444(7)	3397(5)	3074	3,367	5601	5334
13	LCV-ME	5403(4)	4727	4732	5071	5173	3446(3)	3930(7)	4495	4868	5172
Exp. Mean		4540	5170	5363	5387	5219	2713	3653	5259	5307	5528
Medium and Late Duration hybrids											
1	NPH-8899	4489	5173	4846	4408	5333(9)	2813(8)	3222	6239(6)	5206	5515
2	PAC-8744	5224(5)	5743(3)	4534	5513	4333	2459	4085(3)	7211(4)	5398	5729
3	28P09	5022(8)	5437(8)	4467	6163(4)	4778	1988	3519	7878(3)	5821	5685
4	Sahyadri-5	4,701	5703(5)	3280	6000(5)	6000(4)	1639	3022	4161	4860	4943
5	NK-16520	5123(6)	4629	5313(9)	8171(1)	5470(6)	2095	3878(8)	4350	5826	5761
6	HRI-174 (NCH-M)	6293(1)	5380(9)	4341	6450(2)	4111	2448	4222(2)	6939(5)	5460	5862
7	NDR-359 (NCV-M)	4355	4660	5785(4)	4788	4778	2344	3133	2034	4346	5054
8	LCV-M	5737(2)	4902	3696	5988(6)	5703(5)	4808(1)	3233	3,662	4762	5378
Exp. Mean		5118	5203	4533	5935	5063	2574	3539	5309	5210	5523
CD(0.05)		547	1864.97	549.5	761.93	1799.56	494.54	648.19	586.25		
CV		6.95	21.81	6.6	8.25	21.14	11.27	10.88	5.32		
D/S		04.07.2017	23-06-2017	04.07.2017	10.08.2017	24.08.2017		04.07.2017	22.06.2017		
D/P		13.08.2017	03-08-2017	30.07.2017	18.09.2017	22.09.2017		03.08.2017	direct seeded		
ZCV-ME		MTU-1010	MTU-1010	MTU-1010	MTU-1010	MTU-1010	MTU-1010	MTU-1010	MTU-1010		
ZCV-M		Jaya	Jaya	Jaya	Jaya	Jaya	Jaya	Jaya	Jaya		
LCV-ME		MTU 1001	Varadhan	RNR-15048	ADT 39	ADT 46					
LCV-M		MTU 1075	DRR Dhan-38	Somnath				MO 4			

@ Data of MTU (Maruteru), BRM (Brahmavar) and MLG (Malagi) not included in the analysis due to low Experimental Mean and IIRR and KRK (Karikal) not included in the analysis due to high C.V.

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Appendix-14: Days to 50% Flowering (DFF) of Hybrids in MLT, Kharif 2017

S. No.	Name	Zone-II				Zone-III								Zone-IV	Zone-V				
		KUL	@ PNT	LDN	Northern Mean	MSD	@ ALH	CHN	@ RCI	CHP	NRRI	Orissa Mean	Eastern Mean	TTB	RPR	JBP	@ SND	SKL	Central Mean
Early and Mid Early Duration hybrids																			
1	PAN-2423	89	95	98	94	92	97	82	91	81	107	94	91	90	84	89	89	86	86
2	GK-5022	88	97	103	96	104	97	97	97	85	122	104	102	105	86	95	95	90	90
3	KPH-467	99	102	116	108	107	90	96	104	91	129	110	106	112	92	101	102	96	96
4	HRI-183	85	81	93	89	103	101	92	92	86	117	101	99	98	87	92	88	84	88
5	KPH-272	95	98	105	100	99	100	94	96	85	120	103	100	105	89	97	92	88	91
6	HRI-180	97	98	106	101	103	101	98	93	86	128	107	104	106	87	97	92	86	90
7	27P22	94	97	107	100	103	101	95	93	85	119	102	100	102	74	97	92	90	87
8	27P36	94	95	110	102	96	101	96	96	89	128	109	102	109	95	99	94	87	94
9	BS-158	84	80	99	92	96	97	112	88	83	112	98	101	97	89	90	89	86	88
10	BS-129G	81	74	93	87	92	81	84	89	84	112	98	93	98	82	90	86	84	85
13	US-312 (NCH-ME)	88	94	104	96	106	96	118	92	85	115	100	106	105	92	97	92	90	93
12	Gontra Bidhan-3 (NCV-ME)	87	92	95	91	90	116	94	89	83	116	100	96	94	106	94	92	87	96
11	LCV-ME	99	94	94	97	103	101	92	86	77	120	99	98	112	94	92	86	94	93
Exp. Mean		91	92	102	96	100	98	96	93	85	119	102	100	103	89	95	92	88	91
Medium and Late Duration hybrids																			
1	NPH-8899	94	98	105	100	105	100	95	100	90	126	108	104	104	92	100	92	97	97
2	PAC-8744	91	101	111	101	104	99	103	104	91	127	109	107	109	82	104	101	94	93
3	28P09		113	119	119	105	95	112	107	94	124	109	109	113	89	105	109	102	98
4	Sahyadri-5		121			115		111	110	101	116	108	111	114	83	111	108	106	100
5	NK-16520	97	96	109	103	105	95	100	98	90	123	106	105	108	104	100	94	90	98
8	HRI-174 (NCH-M)	99	100	111	105	107	100	98	103	93	126	110	106	111	82	103	99	95	93
7	NDR-359 (NCV-M)	98	97	108	103	105	99	98	98	86	122	104	103	105	84	107	98	90	94
6	LCV-M	99	92	110	105	101	97	108	93	83	124	104	104	110	90	103	110	98	97
Exp. mean		96	102	110	105	106	98	103	102	91	124	107	106	109	88	104	102	96	96

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Appendix-14 (contd): Days to 50% Flowering (DFF) of Hybrids in MLT, Kharif 2017

S. No.	Name	Zone-VI						Zone-VII								Overall Mean	
		KJT	MH Mean	NWG	@ NVS	@ DBI	Western Mean	@ MTU	@ IIRR	WGL	CBT	@ KRK	@ BRM	@ MLG	MGD		Southern Mean
Early and Mid Early Duration hybrids																	
1	PAN-2423	87	87	84	90	95	84	78	92	85	81	76	77	100	101	86	88
2	GK-5022	91	90	92	96	105	92	95	102	93	102	83	78	106	103	95	97
3	KPH-467	96	96	100	100	111	100	104	108	94	98	90	81	106	106	97	102
4	HRI-183		84	82	88	94	82	83	97	90	97	85	81	99	101	93	93
5	KPH-272	94	91	92	94	106	92	98	103	92	99	85	85	105	108	96	97
6	HRI-180	85	86	88	92	108	88	99	102	95	96	79	89	98	99	92	97
7	27P22	94	92	91	95	103	91	99	101	90	99	86	83	88	101	94	95
8	27P36	88	87	92	97	108	92	103	103	95	99	82	81	99	97	93	98
9	BS-158	89	87	85	89	95	85	94	94	90	97	94	87	98	99	95	94
10	BS-129G	90	87	81	87	105	81	86	96	86	99	86	84	95	100	93	90
11	US-312 (NCH-ME)	94	92	92	94	106	92	101	102	91	100	86	84	105	103	95	98
12	Gontra Bidhan-3 (NCV-ME)	85	86	84	90	98	84		102	90	101	86	84	98	103	95	94
13	LCV-ME	90	92	92	90	102	92	103	100	98	99	84	85	113	117	99	98
Exp. Mean		90	89	89	92	103	89	95	100	91	98	85	83	101	103	94	95
Medium and Late Duration hybrids																	
1	NPH-8899	88	93	91	97	113	91	97	101	93	103	79	84	106	102	94	98
2	PAC-8744	95	94	93	103	110	93	103	108	101	108	84	85	107	107	100	101
3	28P09	106	104	112	109	114	112	104	112	103	110	85	88	112	105	101	105
4	Sahyadri-5	108	107	99	111	115	99	111	113	110	110	94	86	117	118	108	107
5	NK-16520	92	91	96	98	107	96	100	104	96	106	77	80	106	111	97	101
6	HRI-174 (NCH-M)	95	95	93	100	110	93	107	104	99	100	85	87	106	108	98	101
7	NDR-359 (NCV-M)	91	90	93	96	108	93	95	104	97	98	85	85	107	117	99	100
8	LCV-M	95	97	104	101	111	104	114	103	103	102	84	82	94	121	102	103
Exp. mean		96	96	98	102	111	98	104	106	100	105	84	85	107	111	100	102

ADVANCE VARIETY TRIAL 2-AEROBIC (AVT 2-AEROB)**Locations: 15****Test Entries: 15**

Checks: CR Dhan 201-National, CR Dhan 202 (Northern, Eastern & Central), AAUDR-1 (Western), MAS 946-1 (Southern)—**Table:4.1**
Zonal and Local Check

Advance Variety Trial 2 - Aerobic (AVT 2 – Aerob) was constituted with 15 test entries and three checks, viz., national, zonal and local checks. All 15 test entries were in third year of testing. The trial was sent to 27 locations but data was received from 15 locations. These 15 locations are spanning in six zones (Zone- II, III, IV, V, VI & VII) across 10 states. The experiment was conducted under direct seeded aerobic condition with need based irrigation in all locations except Kaul wherein the seedlings were transplanted, hence the data from Kaul location is not included in data analysis. At Ludhiana (1631 Kg/ha), Arundhuthinagar (2451 Kg/ha), Raipur (2650 Kg/ha) and Derol (637 Kg/ha) low experimental mean grain yield was recorded and not included for analysis. Therefore, the data from remaining 10 locations was considered for overall mean and analysis. In most of the locations, sowing was taken in the month of June-July except Mandya (September).

Overall mean grain yield ranged from 3082 Kg/ha (IET 25613) to 4760 Kg/ha (IET 25614) with mean grain yield of 4283 Kg/ha. The days to 50% flowering ranged from 79 days (zonal check) to 104 days (IET 25620) with average of 87 days. The plant height ranged from 88 cm (IET 25610) to 114 cm (IET 25653) with average of 103cm. The number of panicles/m² ranged from 243 (IET 25613) to 291 (IET 25636). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 4.2, 4.3, 4.4 and 4.5.

Performance of entries in AVT 2-Aerobic, Kharif 2017

IET No./Designation/ Cross combination	GY/ FD/ GT	% Improvement over best check		Remarks
		5 locations	2 location	
		Z-III (5)	Z-VI (2)	
25640 RCPR-22-IR84899-B-183-20-1-1-1 IR78877-208-B-1-1 / IRRI 132	- 83 LS	4934 Kg/ha (5.81%)	3911 Kg/ha (18.05%)	
25653 RP 5943-421-16-1-1-B RP 5124-11-4-3-2-1 / IR 78877-208-B-1-1	4316 80 SB	-	30.28	
25610 PAU-2K 10-23-53-14-52-20-0-4 PAU 201 / PAU 3699-13-2-3-1 // PAU 201	4090 98 LS	-	23.45	Discontinued due to low HRR (54.3%)
25662 TRC-2015-12 Naveen / Kataktara	4041 85 LS	-	22.52	Discontinued due to low HRR (54.8%)
25647 CR 3848-1-1-1-6 Vandana / BG 90-2//PSB RC 18	3978 84 LS	-	20.07	Discontinued due to low HRR (43.7%)

IET No./Designation/ Cross combination	GY/ FD/ GT	% Improvement over best check		Remarks
		5 locations	2 location	
		Z-III (5)	Z-VI (2)	
25641 CR 3948-2-1-2-2-1 Lalat / CR 2340-11	3748 84 LS	-	13.13	
25618 RCPR-20-IR83929-B-B-291-2-1-1-2 IR 78878-53-2-2-2 / CT6510-24-1-2	3697 87 LS	-	11.59	
25614 R 1973-206-2-86-1 MTU 1010 / RP 4092	3632 89 LS	-	9.63	
25636 TRC-2015-15 Swarna / Kataktara	3491 81 LS	-	5.37	Discontinued due to low HRR (53.5%)
Best Check	4558 (NC)	4663 (NC)	3313 (NC)	

Performance of entries based on overall mean and zonal mean

On overall mean grain yield, none of the entries recorded required yield superiority over best check, hence **none of the entries were found to be promising on overall mean grain yield**. Among checks, national check recorded highest grain yield (4558 Kg/ha). Performance of entries based on zone is discussed below.

Zone wise performance of entries

In Zone III, only one entry IET 25640 recorded required yield advantage over best check and hence found promising in Zone III.

In Zone VI, nine entries IETs 25640, 25653, 25610, 25662, 25647, 25641, 25618, 25614 and 25636 recorded yield advantage over best check. But IETs 25610, 25662, 25647 and 25636 had poor HRR (54.3%, 54.8%, 43.7% and 53.5% respectively.), hence discontinued. **In Zone VI, IETs 25640, 25653, 25641, 25618 and 25614 are found to be promising.**

The entry **IET 25640** (RCPR-22-IR 84899-B-183-20-1-1-1) derived from the cross of IR78877-208-B-1-1 and IRRI 132 recorded grain yield of 4705 Kg/ha with 84 days to reach 50% flowering and had short bold grains. It had yield superiority over best check in Zone III (5.81%) and Zone VI (18.05%). It out yielded the best check in the states of Jharkhand (7.73%) and Maharashtra (14.91%). It recorded average plant height of 110 cm and 256 number of panicles/m². It has HRR 67.5%, ASV 4, AC 22% and GC 61mm (Table 4.6).

The entry **IET 25653** (RP 5943-421-16-1-1-B) obtained from the cross of RP 5124-11-4-3-2-1 and IR 78877-208-B-1-1 recorded grain yield of 4696 Kg/ha with 84 days to 50% flowering and had short bold grain type. It had yield superiority over best check in Zone VI (30.28%). It ranked first in the state of Maharashtra with grain yield of 4270 Kg/ha with yield

superiority of 60.83% over the best check. In Gujarat, it ranked 3rd with grain yield of 4362 kg/ha and had 5% yield superiority over best check. It has recorded HRR of 63.9%, ASV 4.0, AC 22.73% and GC 60mm.

The entry **IET 25610** (PAU-2K-10-23-53-14-52-20-0-4) a derivative of the cross PAU 201 / PAU 3699-13-2-3-1 // PAU 201 recorded grain yield of 4450 Kg/ha and took 96 days for achieving 50% flowering and exhibited long bold grains. It ranked 4th in Zone VI and recorded grain yield of 4090 Kg/ha and out yielded the best check by 23%. Among the states, it ranked 6th in the state of Maharashtra and produced grain yield of 2584 kg/ha and recorded yield superiority of 36.38% over best check. It has head rice recovery (HRR=54.3%), ASV (7), AC (17.83%) and GC (67mm). **Due to poor quality parameters like low HRR (54.3%) and Low AC (17.83%), the entry IET 25610 is discontinued.**

Conclusion:

On overall mean basis: none of the entries were found to be promising.

In Zone III: only one entry IET 25640 found promising.

In Zone VI: IETs 25640, 25653, 25641, 25618 and 25614 are found to be promising

Three year performance of entries in AVT 2-Aerobic

The entry **IET 25640** outperformed the best check in Zone III for two years (2015 & 2017) and had slightly higher yield than the best check during 2016 which was statistically on par with the best check. Similarly it had yield superiority over best check consecutively for two years in Zone VI (2016 & 2017) and Zone V (2015 & 2016). The entry had yield superiority over best check for one year in Zone II (2016) and Zone VII (2015). The entry outperformed the best check consistently for two years in Jharkhand (2016 & 2017) and Chhattisgarh (2015 & 2017) states. The entry outperformed the best check for one year in Maharashtra (2017), Punjab (2016), Madhya Pradesh (2016), Gujarat (2016), Bihar (2015), Tamil Nadu (2015) and Karnataka (2015). Therefore **the entry 25640 was found promising in the states of Jharkhand and Chhattisgarh.**

The entry **IET 25653** did not show consistent superiority over best check in any zone or state. However, it outperformed the best check in one year in zone VI (2017), zone V (2016) and zone III (2015). Similarly, it had yield superiority over best check for one year in different states viz., Gujarat (2017), Maharashtra (2017), Chhattisgarh (2016), Madhya Pradesh (2016), Bihar (2015) and Uttar Pradesh (2015). **Due to lack of consistency, IET 25653 is discontinued.**

The entry **IET 25610** outperformed the best check consistently for two years in zone VI (2016 & 2017). It also showed yield superiority over best check for only one year in zone V (2016) and zone III (2015). It had yield superiority over best check consistently for two years in Gujarat (2016 & 2017) and Bihar (2015 & 2016). It also out yielded the best check in the state of Chhattisgarh in 2016. Therefore, the entry IET 25610 found to be promising for the state of Gujarat and Bihar. **Due to poor grain quality parameter like Low HRR (54.3%), the entry is discontinued.**

The entry **IET 25662** out yielded the best check consistently for two years in zone V (2015 & 2016) and one year in zone VI (2017) and zone VII (2015). Among the states, it showed yield superiority over best check in Chhattisgarh consecutively for two years (2015

& 2016) and one year in Maharashtra (2017) and Tamil Nadu (2015). Hence the entry IET 25662 was found to be promising in the state of Chhattisgarh. **Due to poor grain quality parameter like Low HRR (54.8%), the entry is discontinued.**

Three years performance of entries promising in AVT 2-Aerobic, Kharif 2017

IET No.	Year	Overall mean	% yield over NC ZC LC	Zone			State		
				Rank	Yield (Kg/ha)	% increase over best check	Rank	Yield (Kg/ha)	% increase over best check
25640	2017	4705	- 9.1 22.49	Z-3 1	4934	5.81	JH-2	5578	7.73
				Z-6 5	3911	18.05	MH-4	3807	14.91
	2016	4856	19.72 19.34 14.18	Z-2 3	5353	13.03	PUN-3	5353	13.03
				Z-5 3	6727	40	JH-1	3355	34.52
				Z-6 3	5096	44	MP-2	4200	25.45
							CG-3	6727	39.65
							GU-3	5096	44
	2015	5148	34.9 33.8 36.8	Z-3 7	5389	27.00	BI-7	5389	27.00
				Z-5 2	4715	7.67	CG-2	4715	7.67
				Z-7 -	4063	14.4	TN -	4063	14.4
							KA-1	7217	42.68
25653	2017	4696	- 8.88 22.26	Z-6 1	4316	30.27	GU-3	4362	5.00
							MH-1	4270	60.83
	2016	4776	17.75 17.37 12.29	Z-5 8	5918	23	CG-8	5918	22.85
							MP-3	4148	23.89
	2015	4508	18.19 17.30 19.80	Z3- 3	5854	38.36	BI-3	5854	38.36
							UP-6	2277	18.71
25610	2017	4450	- - 15.85	Z-6 2	4090	23.45	GU-1	5597	35.00
	2016	4618	13.85 13.49 8.58	Z-5 4	6652	38.09	BI-4	5311	14.91
				Z 6 7	4117	16.14	CG-4	6652	38.09
							GU-7	4117	16.14
	2015	4016	5.30 - 6.72	Z-3 -	4738	11.98	BI- -	4738	11.98
25662	2017	4360	- - 13.51	Z-6 3	4059	22.52	MH-2	4077	53.56
	2016	4922	21.35 20.96 15.73	Z-5 7	6308	31	CG-7	6308	31
	2015	4464	17.04 16.07 18.63	Z-5 1	4765	8.81	CG-1	4765	8.81
				Z-7 5	4609	7.06	TN-6	4234	19.2
25647	2017	4342	- - 13.04	Z-6 4	3978	20.07	MH-6	3621	36.38

IET No.	Year	Overall mean	% yield over NC ZC LC	Zone			State		
				Rank	Yield (Kg/ha)	% increase over best check	Rank	Yield (Kg/ha)	% increase over best check
	2016	4174	- - -	Z-5 10	5738	19.12	CG-10	5738	19.12
	2015	4083	7.05 6.16 8.5	Z-3 2	5975	41.22	BI-2	5975	41.22
	2017	4182	- - 8.88	Z-6 6	3748	13.13	MH-8	3588	35.14
25641	2016	4273	5.35 5.01 -	Z-6 6	4172	17.69	GU-6	4172	17.69
	2015	4167	9.26 8.35 10.56	Z-3 -	4953	17.06	BI- -	4953	17.06
	2017	4656	- 7.95 21.22	Z-6 7	3697	11.59	MH-5	3704	39.51
25618	2016	4740	16.86 16.49 11.45	Z-2 1 Z-6 1	5515 5554	16.45 56.67	PUN-1	5515	16.45
	2015	4169	9.3 8.39 10.79	Z-3 -	4783	13.05	BI- -	4783	13.05
	2017	4760	- 10.36 23.92	Z-6 8	3632	9.63	MH-7	3600	35.59
25614	2016	4571	12.70 12.34 7.48	Z-5 -	5457	13.29	CG- -	5457	13.29
	2015	3588	- - -	Z-3 -	4501	6	BI- -	4501	6
	2017	4065	- - 5.83	Z-6 9	3491	5.37	MH-9	3561	34.12
25636	2016	3846	- - -	Z-6 4	4465	26	GU-4	4465	26
	2015	3712	- - -	Z-3 -	4886	15.48	BI- -	4886	15.48
	2017	4065	- - 5.83	Z-6 9	3491	5.37	MH-9	3561	34.12

The entry **IET 25647** did not show consistent performance over best check in any zone or state. However, it outperformed the best check for one year in zone III (2015), zone V (2016) and zone VI (2017). Similarly, it had yield superiority over best check for one year in the state of Maharashtra (2017), Chhattisgarh (2016) and Bihar (2015). **Since the entry IET 25647 did not show consistent performance, and also showed poor grain quality parameter like Low HRR (43.7%), the entry is discontinued.**

The entry **IET 25641** out yielded the best check consecutively for two years in 2016 & 2017. It also recorded superior yield over best check for one year in zone III during 2015. It did not show consistent yield advantage over best check in any state. However, the entry out yielded the best check for one year in Maharashtra (2017), Gujarat (2016) and Bihar (2015). **Due to lack of consistency in any state, the entry IET 25641 is discontinued.**

The entry **IET 25618** out yielded the best check consecutively for two years in zone VI (2016 & 2017). It also recorded superior yield over best check for one year in zone II (2016) and zone III (2015). It did not show consistent yield advantage for any state. However, the entry out yielded the best check for one year in Maharashtra (2017), Punjab (2016) and Bihar (2015). **Since the entry did not perform continuously in any state, the entry IET 25618 is discontinued.**

The entry **IET 25614** did not show consistent performance over best check in any zone and any state. However, it out yielded the best check for one year in zone III (2015), zone V (2016) & zone VI (2017). Similarly, it had yield superiority over best check for one year in the states of Maharashtra (2017), Chhattisgarh (2016) and Bihar (2015). **Since the entry did not perform continuously in any state, the entry IET 25614 is discontinued.**

The entry **IET 25636** out yielded the best check consecutively for two years in zone VI (2016 & 2017). It also recorded yield advantage over best check for one year in zone III (2015). It did not show consistent yield advantage for any state. However, this entry out yielded the best check for one year in Maharashtra (2017), Gujarat (2016) and Bihar (2015). **Since the entry IET 25647 did not show consistent performance, and also showed poor grain quality parameter like Low HRR (53.5%), the entry is discontinued.**

ADVANCE VARIETY TRIAL 1-AEROBIC (AVT 1-AEROB)

Locations: 17

Test Entries: 19

Checks: CR Dhan 201-National, CR Dhan 202 (Northern, Eastern & Central), AAUDR-1 (Western), MAS 946-1 (Southern) - Zonal, PA 6129 -Hybrid and local check **Table:4.7**

Advance Variety Trial 1-Aerobic (AVT 1-Aerob) was constituted with 19 test entries and four checks viz., National, Zonal, Hybrid and local checks. All 19 entries were in second year of testing. The trial was sent to 27 locations but data was received from only 17 locations. These 17 locations are spanning in six zones (Zone- II, III, IV, V, VI & VII) across 13 states in the country. The experiment was conducted under direct seeded aerobic condition with need based irrigation in all locations except Kaul where in the seedlings were transplanted. Hence, the data from Kaul Centre is not included in overall mean and analysis. The experimental mean at Ludhiana (1636 Kg/ha), Pusa (2106 Kg/ha), Rewa (1146 Kg/ha), Raipur (2381 Kg/ha) and Derol (700 Kg/ha) recorded low mean grain yield and not included for overall mean. The coefficient of variation was low at two locations viz., Arundhuthingar (4.17%) and Parbhani (4.15%), hence data from these two centres was also not included in overall mean. Hence data from 10 locations was considered for overall mean and analysis. In most of the locations, sowing was taken up in the month of June and July except Arundhuthinagar (August) and Mandya (September). Overall mean grain yield ranged from 2959 Kg/ha (IET 26201) to 5581 Kg/ha (IET 25728) with mean grain yield of 4637 Kg/ha. The days to 50% flowering ranged from 78 days (IET 26200 and IET 26156) to 95 days (IETs 26155, 25619 and 26201) with mean of 86 days. The plant height ranged from 66 cm (IET 26178) to 105 cm (IET 26155) with average of 94 cm. The number of panicles per m² ranged from 244 (IET 26177) to 325 (IET 26201). The data pertaining to yield, days to 50% flowering, plant height and number of panicles per m² are presented in tables 4.8, 4.9, 4.10 and 4.11.

Performance of promising entries based on overall mean grain yield and zonal mean

Mean grain yield over the locations varied from 2959 Kg/ha (IET 26201) to 5581 Kg/ha (IET 25728). Based on the performance of entries on overall mean basis, IET 25728 (hybrid) (11%), IET 26198 (hybrid) (10%), IET 25136 (5%), IET 26194 (5%) and IET 26178 (5%) recorded required yield advantage over varietal/hybrid check. Hence, **on overall basis five entries IET 25728 (hybrid), IET 26198 (hybrid), IET 25136, IET 26194 and IET 26178 are qualified for promotion to AVT 2 Aerobic for third year of testing**; whereas **on the basis of zonal mean, the entries IETs 26200, 26171, 26194 and 26168 are promoted in Zone III and Zone V. The entries IETs 26173, 26155, 26157 and 26170 are qualified for promotion to AVT 2 Aerobic in Zone V for third year of testing.** Among the checks, local check with grain yield of 4942 Kg/ha was the best varietal check and hybrid check (PA 6129) recorded grain yield of 5013 Kg/ha.

The entry **IET 25728 (US 380)**, a hybrid ranked first on overall mean with mean grain yield of 5581 kg/ha and required 90 days to reach 50% flowering and had medium slender grains. It recorded 17.67%, 30.31%, 12.93% and 11.33% yield advantage over national, zonal, local and hybrid checks respectively. In Zone III, the entry ranked first (4613 Kg/ha) and recorded yield advantage of 20.04% and 20.16% over hybrid check and best varietal check. The entry ranked 2nd in the state of Bihar (5076 Kg/ha) and recorded yield advantage

of 12% and 7% over best varietal check and hybrid check respectively. It ranked first in Jharkhand (5289 Kg/ha) with yield advantage of 54.56% over best check and ranked 6th in UP (3960 Kg/ha) with yield advantage of 8.4% over best check. It ranked 6th in Chhattisgarh with grain yield of 6052 Kg/ha with a yield advantage of 28% and 12% against best varietal and hybrid check respectively. It has head rice recovery (HRR) of 67.4%, ASV 7.0, intermittent AC of 24.87% and GC 32 mm (Table 4.12).

Performance of entries on overall mean in AVT 1-Aerobic, Kharif 2017

IET No./Designation/ Cross combination	GY/ FD/ GT	Yield advantage (%) over NC/ZC/LC	% Improvement over best check	
			5 location	1 locations
			Z-III (5)	Z-V (1)
25728 US 380 (Hybrid)	5581 90 LS	17.67 30.31 12.93 11.33	20.04 (HC) 20.16 (BVC)	-
26198 MEPH 134 (Hybrid)	5504 84 LS	16.05 28.51 11.37 9.79	17.80 (HC) 17.92 (BVC)	-
25136 (IR 95 812-CR 3948-1-2-1-2) IR 80376-12-2-3 / IR 84878-B-60-4	5202 86 LB	9.68 21.46 5.26 -	14.07	-
26194 (RP 5591-123-16-2) MTU 1010/IR 79915-B-83-4-3	5198 86 MS	9.38 21.13 5.0	13.23	33.09
26178 TRC 2015-5 Naveen / Kataktara	5188 85 LB	9.38 21.13 5.0 -	-	50.87
CR DHAN 201 (NC)	4743 87			
Zonal Check (ZC)	4283 81			
Local Check (LC)	4942 81			
PA 6129 (HC)	5013 85			

The entry **IET 26198 (MEPH 134)**, a hybrid ranked second on overall mean for grain yield (5504 kg/ha) with 84 days to 50% flowering and long slender grains. It recorded 16.05%, 28.51%, 11.37% and 9.79% yield advantage over national, zonal, local and hybrid checks respectively. In Zone III, this entry ranked second and recorded yield of 4527 Kg/ha with yield advantage of 17.80% and 17.92% over hybrid check and best varietal check respectively. The entry IET 26198 ranked third in the state of Bihar (4987 Kg/ha) and achieved yield advantage of 10% and 5% over best varietal check and hybrid check respectively. It ranked second in the state of Jharkhand (4222 Kg/ha) with yield advantage of 23.38% and 79.20% over best varietal check and hybrid check respectively. It ranked first in Uttar Pradesh (4374 Kg/ha) with yield advantage of 19.74% and 69.27% over best varietal check and hybrid check respectively. It has head rice recovery (HRR) of 66.1%, ASV 5.0, intermittent AC 24.17% and GC 58mm.

IET 25136 (IR 95812-CR-3948-1-2-1-2) derived from IR 80376-12-2-3/IR 84878-B-60-4 ranked third on overall mean grain yield (5202 Kg/ha) with 86 days to 50% flowering

and long slender grains. It recorded 9.68%, 21.46% and 5.26% yield advantage over national, zonal and local checks respectively. In Zone III, the entry ranked third (4379 Kg/ha) with yield advantage of 14% over best varietal check as well as hybrid check. It out yielded the best varietal check in the states of Bihar (10%), Jharkhand (13.65%) and Chhattisgarh (14%). It has low head rice recovery (HRR) of 38.7%, ASV 7.0, AC 23.2% and GC 25mm. **Due to low HRR, the entry IET 25136 was dropped.**

IET 26194 (RP 5591-123-16-2) derived from the cross of MTU1010 and IR 79915-B-83-4-3 ranked fourth on overall mean for grain yield (5198 Kg/ha) which recorded 86 days to 50% flowering and Long bold grains. It recorded 10%, 21% and 5% yield advantage over national, zonal and local checks respectively. In Zone III, IET 26194 ranked fourth (4347 Kg/ha) with yield advantage of 13% over best varietal check as well as hybrid check. In Zone V, the entry ranked fourth (6310 Kg/ha) with yield advantage of 33% and 17% over best varietal and hybrid check respectively. It out yielded the best varietal checks in the states of Bihar (10%), Jharkhand (16.25%) and Chhattisgarh (33%). It has low head rice recovery (HRR) of 55.3%, ASV 7.0, intermittent AC of 22.55% and GC 22mm.

IET 26178 (TRC 2015-5) derived from the cross of Naveen/Kataktara ranked fifth on overall mean grain yield (5188 Kg/ha) which took 85 days to reach 50% flowering and had long bold grain type. It recorded 9%, 21% and 5% yield advantage over national, zonal and local checks respectively. In Zone V, it ranked first (7153 Kg/ha) with yield advantage of 51% and 32% over best varietal check and hybrid check respectively. It out yielded the best varietal checks in the states of Jharkhand (16.89%), Uttar Pradesh (10.76%), Madhya Pradesh (28%), Chhattisgarh (51%) and Karnataka (13.64%). It has head rice recovery (HRR) of 65.1%, ASV 4.0, intermittent AC of 22.14% and GC 45mm.

Zone wise performance entries in AVT1 Aerobic, Kharif 2017

IET No.	FD	Overall mean (10)	%Improvement over best check		Remarks
			5 locations	1 location	
			Z-III (5)	Z-V (1)	
25728 (Hybrid)	90	12.93 (BVC) 11.33 (HC)	20.16 (BVC) 20.04 (HC)	-	Promoted overall
26198 (Hybrid)	84	11.37 (BVC) 9.79 (HC)	19.92 (BVC) 17.80 (HC)	-	Promoted overall
25136	86	5.26	14.07	-	<i>Dropped due to low HRR</i>
26194	86	5.18	13.23	33.09	Promoted overall
26178	85	5.00	-	50.87	Promoted overall
26171	88	-	7.00	26.00	Promoted in Zone III & V
26200	78	-	5.00	35.00	Promoted in Zone III & V
26168	83	-	10.52	33.74	Promoted in Zone III & V
26173	86	-	-	20.38	<i>Dropped due to low HRR</i>
26155	95	-	-	30.37	Promoted in Zone V
26157	86	-	-	17.84	Promoted in Zone V
26170	81	-	-	22.70	Promoted in Zone V
Best Varietal Check (kg/ha)	81	4942	3839	4741	
Hybrid Check (kg/ha)	85	5013	3843	5412	

Zone wise performance of promising entries in AVT 1-Aerobic, Kharif 2017

On zonal mean basis, seven entries have been qualified for promotion based on yield advantage over best check as listed in the table.... **In Zone III, three entries IETs 26200 (5%), 26171 (7%) and 26168 (11%) outperformed the best varietal check and hence promoted to AVT 2 Aerobic trial in Zone III for third year of testing.**

In Zone V, seven entries IETs 26200 (35%), 26171 (26%), 26168 (34%), 26173 (20%), 26155 (30%), 26157 (18%) and 26170 (23%) out yielded the best varietal check. **The entry IET 26173 even though out yielded the best check, it has recorded low HRR (36.7%), hence not promoted. Remaining six entries IETs 26200, 26171, 26168, 26155, 26157 and 26170 qualified for promotion to AVT 2 Aerobic for third year of testing in Zone V.**

Promotion based on Overall mean basis: IETs 25728 (Hybrid), 26198 (Hybrid), 26178 and 26194. Even though one entry IET 25136 out yielded the best check, due to low HRR it is not promoted to 3rd year of testing.

Promotion in Zone III and Zone V: Four entries IETs 26171, 26200 and 26168 and 26194 are promoted to AVT 2 AEROB.

Promotion in Zone V: IETs, 26155, 26157, 26170 are promoted to AVT 2 AEROB. The entry 26173 dropped due to low HRR.

INITIAL VARIETY TRIAL - AEROBIC (IVT-AEROB)

Locations: 13

Test Entries: 60

Checks: CR Dhan 201-National, CR Dhan 202 (Northern, Eastern, North Eastern & Central), AAUDR-1 (Western), MAS 946-1 (Southern) - Zonal and PA 6129—Hybrid and Local Check

Table:4.13

Initial Variety Trial - Aerobic comprised 60 entries and national, zonal, hybrid and local checks. The trial was sent to 27 locations and data was received from 13 locations spanning across 11 states. Sowing of experiment was done in the month of June in Patna-ICAR, September in Mandya and at remaining all the centres was done in the month of July. The experiment was conducted in direct seeded aerobic condition with need based irrigation in all the locations. Data from Pusa (2551 kg/ha), Rewa (1294 kg/ha), Raipur (2123 kg/ha), Vyara (2264 kg/ha) and Parbhani (2574 kg/ha) owing to low experimental mean, were not included for overall mean and analysis. The data from remaining 8 locations was used for overall mean and analysis. Overall mean yield ranged from 2662 kg/ha (IET 27206) to 5280 kg/ha (PA 6129), days to 50% flowering ranged from 78 days (IET 27221) to 104 days (IET 27219), plant height ranged from 79 cm (IET 27187) to 121 cm (IET 27193) and panicles per m² ranged from 215 (IET 27222) to 320 (IET 27209).

Among the checks, hybrid check PA 6129 registered highest grain yield (5280 kg/ha) followed by local check (4436 kg/ha), nation check (CR Dhan 201 – 4376 kg/ha) and Zonal

check (4307 kg/ha) on overall mean basis. The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 4.14, 4.15, 4.16 and 4.17.

Overall Performance of promoting entries in Initial Variety Trial – Aerobic (IVT-Aerob), Kharif 2017

Rank	IET No./ Designation/ Cross combination	GY/ FD/ GT	% Superiority over NC/ ZC / HC/LC	% Increase over BC (State)				% Increase over BC (Zonal)			
				Rank	Yield	% BVC	%HC	Rank	Yield	% BVC	%HC
1	27240 RCPR 25-IR 88964- 24-2-1-4 (IRRI 123 / IR 05 N372)	4965	13.46	HA-5	6300	8.62	11.50	II-4	5253	5.35	14.62
		83	15.28	OD-4	5575	33.53	7.21	III-4	4885	13.18	-
		LS	-	BI-4	5257	27.50	32.02				
			11.93								
2	27239 NVSR-2107 (Gurjari / PAU 201)	4892	11.79	BI-3	5519	33.86	38.60	III-3	4929	14.20	-
		86	13.58	JH-7	5400	14.89	-				
		LB	-	UP-8	5620	14.46	-				
			10.28								
3	27237 RP 6191-HHZ1-Y4- Y1-Y1 (Huang-Hua-Zhan*2 / Yue-Xiang-Zhan)	4858	11.01	PU-1	5761	27.37	63.85	II-2	5881	17.95	28.32
		87	12.79	JH-1	6900	46.81	6.98	III-5	4859	12.58	-
		LS	-	UP	5440	10.79	-				
			9.51								
4	27218 CR 3983-53-1-2-1- 2-IR95786 (IR84850-B-27-2 / IR84852-B-44-1)	4667	6.65	OD-6	5270	26.23	1.35	III-8	4787	10.91	-
		86	8.36	BI-5	5036	22.14	26.47				
		LS	-	JH	5000	6.38	-				
			5.21	CG-5	6258	7.05	-				
	CR Dhan 201 (NC)		4376 84								
	Zonal check(ZC)		4307 82								
	PA 6129 (HC)		5280 86								
	Local check (LC)		4436 84								

Bold Italics: Best check & over the best check; NC-National check; ZC-Zonal check; HC- Hybrid Check; LC-Local check; GY-Grain yield; FD-Days to 50% flowering; GT-Grain Type; BVC-Best Varietal Check

On overall mean basis IET 27240 (4965 kg/ha), IET 27239 (4892 kg/ha), IET 27237 (4858 kg/ha), IET 27218 (4667 kg/ha) showed required yield advantage over best check.

IET 27204, a hybrid with 13% yield advantage over best varietal check, was inferior to hybrid check, hence not considered on overall basis.

The entry IET 27240 (RCPR 25-IR 88964-24-2-1-4) derived from a cross combination between IRRI 123 / IR 05 N372 ranked 2nd in overall mean for grain yield (4965 kg/ha) with 83 days to 50% flowering and long slender grain type. It recorded 13.46%, 15.28% and 11.93% yield advantage over national, zonal and local checks, respectively. The entry ranked 4th in both Bihar (5257 kg/ha) and Odisha (5575 kg/ha) with a yield advantage of 27.50% and 33.53% over best varietal check respectively. It also out yielded the best check with 4th rank both in Zone II (5.35%) and Zone III (13.18%) with grain yield of 5253 kg/ha and 4885 kg/ha in respective zones.

The entry IET 27239 (NVSR-2107) a cross between Gurjari and PAU 201 ranked third in overall mean for grain yield (4892 kg/ha) with 86 days to flowering with long bold grain type. It out yielded national zonal and local checks viz., 11.79%, 13.58% and 10.28% on overall mean basis. It ranked 3rd in Bihar (5519 kg/ha), 7th in Jharkhand (5400 kg/ha), 8th in Uttar Pradesh (5620 kg/ha) with yield superiority of 33.86%, 14.89% and 14.46% over best varietal check in the respectively. It outperformed best varietal check in the Zone III (4929 kg/ha) by 14.20%

IET 27237 (RP 6191-HHZ1-Y4-Y1-Y1) a derivative of the cross Huang-Hua-Zhan*2 / Yue-Xiang-Zhan with 4th rank, out yielded the best varietal check by 9.51% (4858 kg/ha) with 87 days to 50% flowering and long slender grain type. It stood first in states of both Punjab (5761 kg/ha) and Jharkhand (6900 kg/ha) with 27.37% and 46.81% yield advantage over best varietal check. The entry also recorded yield superiority of 17.95% (5881 kg/ha) with second rank in Zone II. It also exhibited good performance by ranking 5th in Zone III with grain yield of 4859 kg/ha (12.58%) when compared with best varietal check.

Based on overall mean performance the entries IET 27240, IET 27239, IET 27237 and IET 27218 were promoted to next level.

Zone wise performance of entries in IVT Aerobic 2017

On zonal mean basis, eight entries have been promoted based on yield advantage over best check listed below in table. In zone II, one entry IET 27193 recorded 20.34% over best varietal check

In Zone III, seven entries viz., IET 27188 (10.94%), IET 27191 (6.75%), IET 27199 (10.91) IET 27208 (8.39%), IET 27215 (5.84%), IET 27230 (6.46%), IET 27236 (8.06%) out yielded the best check and hence promoted to AVT1 Aerobic for second year of testing in Zone III.

Zone wise performance of entries in IVT Aerobic 2017 (% increase over best check)

IET	FD	Overall (8)	Z II (2)	Z III (4)	Z V (1)	Z VII (1)	Promoted
27240	83	11.93	5.35	13.18	-	-	Overall
27239	86	10.28	-	14.20	-	-	Overall
27237	87	9.51	17.95	12.58	-	-	Overall
27218	86	5.21	-	10.91	-	-	Overall
27193	100	-	20.34	-	-	-	Z II
27188	84	-	-	10.94	-	-	Z III
27191	86	-	-	6.72	-	-	Z III
27199	89	-	-	10.91	-	-	Z III
27208	91	-	-	8.39	-	-	Z III
27215	85	-	-	5.84	-	-	Z III
27230	84	-	-	6.46	-	-	Z III
27236	81	-	-	8.06	-	-	Z III
Best check (Variety)	84	4436	4986	4316	5846	4360	
Hybrid Check	88	5280	4583	5605	6569	4082	

Based on required yield advantage, over best varietal check in case of varieties and over best varietal check and hybrid check in case of hybrids, the following *twelve* entries are considered for promotion to AVT1 Aerobic.

On over all basis: ***IET 27240, IET 27239, IET 27237 and IET 27218***

Zone II: ***IET 27193***

Zone III: ***IETs 27188, 27191, 27199, 27208, 27215, 27230 and 27236***

Table No. 4.1: Composition of entries in Advance Variety Trial 2 -Aerobic (AVT 2-AEROB), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
3rd year of testing:				
5301	25633	R 1986-296-2-86-1	Dateshwari / R 1493	MS
5302	25610	PAU-2K 10-23-53-14-52-20-0-4	PAU 201 / PAU 3699-13-2-3-1 // PAU 201	LB
5303	25618	RCPR-20-IR83929-B-B-291-2-1-1-2	IR 78878-53-2-2-2 / CT6510-24-1-2	SB
5304	25636	TRC-2015-15	Swarna / Kataktara	LS
5305	CR Dhan 201 (NC)			LS
5306	25641	CR 3948-2-1-2-2-1	Lalat / CR2340-11	LS
5307	25620	OR 2529-1	Sararhi // Subhadra	MS
5308	25614	R 1973-206-2-86-1	MTU 1010 / RP 4092	LS
5309	25613	UPR 3841-8-1	UPR 2757-1-2-2 / UPR2787-9-1-1	LS
5310	CR Dhan 202 (Northern, Eastern & Central), AAUDR-1 (Western), MAS 946-1 (Southern)--ZC			
5311	25625	RCPR-21-IR84887-B-158-7-1-1-4	IRRI148 / IR78877-208-B-1-1	LB
5312	25662	TRC-2015-12	Naveen / Kataktara	SB
5313	25647	CR 3848-1-1-1-6	Vandana / BG 90-2//PSB RC 18	LS
5314	25640	RCPR-22-IR84899-B-183-20-1-1-1	IR78877-208-B-1-1 / IRRI 132	SB
5315	25653	RP 5943-421-16-1-1-B	RP 5124-11-4-3-2-1 / IR 78877-208-B-1-1	SB
5316	25642	OR 2537-1	OR1643-2 / IR62037-93	MS
5317	25616	RP 5955-15-1-1-1-1	RP 5125-42-6-4-1-1 / IR 78878-53-2-2-2	LB
5318	Local Check			

Table No. 4.2 : Grain Yield (Kg/ha) of entries in AVT 2- AEROB Kharif 2017

Entry No.	IET No.	II		III								Zone III (5)	
		PUN	OD	BI	BI	BI (3)	JH						
		@LDN	CTK	BKG	PSA	PTN-ICAR	Mean	RCI	Mean	Mean	Mean	Mean	Mean
5301	25633	1330	3602	4511	3467	9	3892	6	3957	4133	3921		
5302	25610	1154	6279	5378	3400		3509		4096	4756	4664	3	
5303	25618	2258	5198	5400	3000	4018	4	4139	6	5089	4541	8	
5304	25636	1621	3683	4089	2733	3652		3491		3889	3609		
5305	CR Dhan 201 (NC)	1611	6287	5111	4333	1	3608		4351	2	4663	4	
5306	25641	909	3815	5311	3133		2329		3591		3776		
5307	25620		5822	1	4267	2	3848	7	4646	1	4117		
5308	25614	1452	6699	2	4067	3	3237		4294	3	4872	2	4%
5309	25613		6528	3	3000	6	1687		2762		3314		
5310	Zonal Check (ZC)	1929	5774	9	4533	9	3533	7	3965	5	4597	7	
5311	25625	1978	3625	4778	7	3933	4	3746	8	4152	4096		
5312	25662	946	5262	4489	3200		2573		3421		4109		
5313	25647	887	5941	7	4089		3067		4232	2	4199	9	
5314	25640	1965	6495	4	4444		3867	5	4287	1	4934	1	6%
5315	25653	2256	6737	1	4356		2667		3654	9	4620	6	
5316	25642		4821	8	3533	8	2770		3627		4163		
5317	25616	2121	5813	8	4511		3400	3	4046	8	4635	5	
5318	Local Check	2052	4107	3111	2267		2957		2778		3186		
	Exp Mean	1631	5333	4616	3415		3455		3829		4224		
	C.D. 5%	520	1117	1307	1443		534		702		530		
	C.V. %	19.07	12.60	17.06	25.46		9.32		19.61		17.42		
	Sowing Date	15-06-2017	30-06-2017	18-07-2017	21-06-2017	18-06-2017							
	Planting Date												
	Local @	PR 115	CR Dhan 205	Sabour Ardhalaj	Rajendra Neelam	Rajendra Bhagwati							

* Superior to Best Check % Superior over Best Check @ not included in means

Table No. 4.2 contd.: Grain Yield (Kg/ha) of entries in AVT 2- AEROB Kharif 2017

Entry No.	IET No.	IV		V				Zone V (1)		VI									
		TR		CG		CG				CG (1)		GU		GU		GU (1)		MH	
		@ARD		@RPR		JDP		Mean		Mean		NVS		@DRL		Mean		PBN	
5301	25633	2172		2592		5700	3	5700	3	5700	3	3395		473		3395		2637	
5302	25610	2010		2854	7	4831		4831		4831		5597	1 *	280		5597	1 *	35%	2584
5303	25618	2875	4	3753	1 *	5731	2	5731	2	5731	2	3690		864	4	3690		3704	5
5304	25636	2531	6	1993		5236	7	5236	7	5236	7	3421				3421		3561	9
5305	CR Dhan 201 (NC)	2457	8	2713	9	5093		5093		5093		4160	6	563	8	4160	6	2465	
5306	25641	2751	5	2028		5029		5029		5029		3907				3907		3588	8
5307	25620	2067		2602		5118	9	5118	9	5118	9	4377	2			4377	2	5%	2560
5308	25614	2338		2074		5641	4	5641	4	5641	4	3664		265		3664		3600	7
5309	25613	2168		2408		3077		3077		3077		3752				3752		2524	
5310	Zonal Check (ZC)	2016		2553		5940	1	5940	1	5940	1	2093		1096	1	2093		2655	
5311	25625	1775		3153	5	5469	5	5469	5	5469	5	2667		934	3	2667		3837	3
5312	25662	2120		3255	4							4041	7	685	6	4041	7	4077	2
5313	25647	3505	1 *	2847	8	4738		4738		4738		4336	4	271		4336	4	4%	3621
5314	25640	2381	9	3380	3 *	4836		4836		4836		4016	8	712	5	4016	8	3807	4
5315	25653	2924	3	2904	6	4712		4712		4712		4362	3	492	9	4362	3	5%	4270
5316	25642	3290	2 *	401		4746		4746		4746		4212	5			4212	5	1%	2308
5317	25616	2524	7	3578	2 *	5367	6	5367	6	5367	6	4005	9	681	7	4005	9	2643	
5318	Local Check	2219		2609		5223	8	5223	8	5223	8	3886		962	2	3886		2204	
	Exp Mean	2451		2650		5087		5087		5087		3866		637		3866		3147	
	C.D. 5%	833		609		1411		1411		1363		757		380		757		313	
	C.V. %	20.48		13.86		16.68		16.68		16.12		11.81		35.38		11.81		5.99	
	Sowing Date	14-07-2017		23-06-2017		20-06-2017						06-06-2017		15-06-2017				15-07-2017	
	Planting Date																		
	Local ©	Sahbhagi Dhan		Indira Aerobic 1		Indira Aerobic-1						NAUR-1		AAUDR-1				Avishkar	

Table No. 4.2 contd.: Grain Yield (Kg/ha) of entries in AVT 2- AEROB Kharif 2017

Entry No.	IET No.	Zone VI (2)		VII				Zone VII (2)		II		Overall (11)		Days to 50% Flowering	Plant Height (cm)	Panicles M²
				TEL		KA				HAR						
		Mean		RDR		MND		Mean		KUL@		Mean				
5301	25633	3016		4006	7	4470	2	4238	5	6247		4187		87	97	266
5302	25610	4090	2 * 23%	2920		2683		2802		7010	4	4450	7	96	88	267
5303	25618	3697	7 12%	4484	4	3971	8	4227	6	6929	6	4656	4 2%	86	110	286
5304	25636	3491	9 5%	3632		3644		3638		7174	2	4065		80	105	291
5305	CR Dhan 201 (NC)	3313		3675		4337	3	4006	9	7092	3	4558	6	86	102	273
5306	25641	3748	6 * 13%	3768		4036	7	3902		6792		4182		87	100	289
5307	25620	3469	5%	3543		2986		3265		6056		4111		104	99	277
5308	25614	3632	8 10%	3846	8	3802		3824		7447	1	4760	1 4%	86	95	286
5309	25613	3138		2325		2568		2447				3082		90	100	243
5310	Zonal Check (ZC)	2374		3180		3854		3517		6738		4313		79	108	258
5311	25625	3252		4701	1	3909	9	4305	4	6956	5	4366	8	82	106	281
5312	25662	4059	3 * 23%	3846	9	4241	5	4044	8	6847	8	4360	9	88	99	261
5313	25647	3978	4 * 20%	3312		3859		3585		6901	7	4342		87	100	279
5314	25640	3911	5 * 18%	4434	5	4269	4	4352	2	5728		4705	2 3%	84	110	256
5315	25653	4316	1 * 30%	4530	3	4138	6	4334	3	6547		4696	3 3%	84	114	257
5316	25642	3260		1620		2484		2052		4746		3721		99	102	250
5317	25616	3324		4647	2	3750		4199	7	6847	9	4585	5 1%	85	110	249
5318	Local Check	3045		4270	6	4959	1	4614	1	5783		3841		82	100	265
	Exp Mean	3506		3708		3776		3742		6579		4283		87	103	269
	C.D. 5%	403		793		745		528		614		298		1		12
	C.V.%	9.98		12.89		11.89		12.27		5.61		14.36		2.09		11.06
	Sowing Date			07-07-2017		15-09-2017				14-06-2017						
	Planting Date									15-07-2017						
	Local ©			MTU 1010		KMP-175				HKR 48						

Table No. 4.3 : Days to 50% Flowering of entries in AVT 2- AEROB Kharif 2017

Entry No.	IET No.	II	III							Zone III (5)	IV	V			Zone V (2)
		PUN	OD	BI	BI	BI	BI (3)	JH	TR		CG	CG	CG (2)		
		LDN	CTK	BKG	PSA	PTN-ICAR	Mean	RCI	Mean		ARD	RPR	JDP	Mean	
5301	25633	87	73	67	97	87	84	88	82	71	95	85	90	90	
5302	25610	103	82	85	109	100	98	100	95	73	100	93	97	97	
5303	25618	93	76	78	100	88	89	82	85	70	88	80	84	84	
5304	25636	78	71	49	99	86	78	81	77	64	91	77	84	84	
5305	CR Dhan 201 (NC)	88	75	84	114	89	96	82	89	65	87	79	83	83	
5306	25641	93	76	80	106	92	93	82	87	65	99	80	90	90	
5307	25620			110	130	116	119	111	117	87	110	77	94	94	
5308	25614	91	75	67	100	90	86	83	83	73	94	82	88	88	
5309	25613		86	86	112	101	100	89	95	68	98	79	89	89	
5310	Zonal Check (ZC)	89	78	70	98	85	84	80	82	68	85	80	83	83	
5311	25625	91	76	68	99	86	84	78	81	68	85	75	80	80	
5312	25662	95	75	74	101	96	90	86	86	73	91		91	91	
5313	25647	91	72	79	113	92	95	82	88	73	93	80	87	87	
5314	25640	93	73	74	98	87	87	82	83	69	87	81	84	84	
5315	25653	90	76	73	103	87	88	84	85	71	86	79	83	83	
5316	25642		86	84	116	100	100	107	99	85	123	96	110	110	
5317	25616	89	77	79	106	87	91	81	86	73	86	79	83	83	
5318	Local Check	91	73	70	104	90	88	76	82	66	94	82	88	88	
	Exp Mean	91	77	77	106	92	92	86	88	71	94	81	88	88	
	C.D. 5%	2	5	1	2	1	1	2	1	3	3	0		1	
	C.V.%	1.29	4.24	0.91	1.24	0.57	1.03	1.28	1.89	2.24	1.91	0.00		0.88	

Table No. 4.3 contd.: Days to 50% Flowering of entries in AVT 2- AEROB Kharif 2017

Entry No.	IET No.	VI				Zone VI (3)	VII		Zone VII (2)	II	Overall (15)
		GU	GU	GU (2)	MH		TEL	KA		HAR	
		NVS	DRL	Mean	PBN		RDR	MND		KUL@	
5301	25633	80	98	89	87	88	91	102	97	92	87
5302	25610	91	105	98	97	98	98	107	102	102	96
5303	25618	85	90	88	85	87	88	88	88	95	86
5304	25636	79		79	83	81	86	86	86	93	80
5305	CR Dhan 201 (NC)	78	94	86	84	85	90	88	89	96	86
5306	25641	81		81	87	84	89	89	89	94	87
5307	25620	104		104	95	100	104	96	100	110	104
5308	25614	81	100	91	84	89	88	86	87	97	86
5309	25613	87		87	91	89	95	93	94		90
5310	Zonal Check (ZC)	67	65	66	64	65	79	84	82	91	79
5311	25625	79	85	82	77	81	83	80	81	92	82
5312	25662	80	89	85	85	85	90	95	93	95	88
5313	25647	83	84	84	85	84	91	89	90	96	87
5314	25640	80	83	81	83	82	86	91	89	93	84
5315	25653	81	78	79	82	80	86	88	87	93	84
5316	25642	83		83	89	86	101	101	101	110	99
5317	25616	86	76	81	84	82	85	89	87	91	85
5318	Local Check	80	67	74	82	76	85	77	81	90	82
	Exp Mean	83	86	84	85	84	90	91	90	96	87
	C.D. 5%	3	7	4	1	2	3	4	2	0	1
	C.V.%	2.34	4.86	3.65	0.81	2.93	1.88	2.66	2.24	0.15	2.09

Table No. 4.4 : Plant Height (cm) of entries in AVT 2- AEROB Kharif 2017

Entry No.	IET No.	II	III							Zone III (5)	IV	V			Zone V (2)
		PUN	OD	BI	BI	BI	BI (3)	JH	TR		CG	CG	CG (2)		
		LDN	CTK	BKG	PSA	PTN-ICAR	Mean	RCI	Mean		ARD	RPR	JDP	Mean	
5301	25633	84	125	100	94	107	100	110	107	112	88	108	98	98	
5302	25610	75	116	93	90	91	91	97	97	116	85	102	93	93	
5303	25618	98	128	128	110	114	117	107	117	136	102	116	109	109	
5304	25636	84	110	113	94	115	107	103	107	149	94	108	101	101	
5305	CR Dhan 201 (NC)	85	123	112	107	115	111	103	112	120	93	112	103	103	
5306	25641	75	118	118	100	101	106	102	108	137	85	99	92	92	
5307	25620			108	102	108	106	98	104	123	87	98	92	92	
5308	25614	83	134	112	95	100	102	97	108	117	81	102	91	91	
5309	25613		120	100	107	100	102	101	106	125	96	97	97	97	
5310	Zonal Check (ZC)	97	125	130	109	114	118	104	116	129	93	113	103	103	
5311	25625	102	117	125	100	123	116	105	114	117	97	115	106	106	
5312	25662	93	103	117	93	94	101	106	103	113	94		94	94	
5313	25647	82	121	119	111	115	115	105	114	116	89	100	95	95	
5314	25640	97	124	130	117	113	120	115	120	122	99	110	104	104	
5315	25653	103	134	140	126	116	127	108	125	120	110	116	113	113	
5316	25642		121	109	95	96	100	107	106	132	75	117	96	96	
5317	25616	102	137	139	96	119	118	105	119	129	106	115	110	110	
5318	Local Check	76	119	106	100	106	104	100	106	112	87	116	101	101	
	Exp Mean	89	122	117	103	108	109	104	111	123	92	108	100	100	
	C.D. 5%			0	0			0		0		0			
	C.V.%			0.00	0.00			0.00		0.00		0.00			

Table No. 4.4: Plant Height (cm) of entries in AVT 2- AEROB Kharif 2017

Entry No.	IET No.	VI				Zone VI (3)	VII		Zone VII (2)	II	Overall (15)
		GU	GU	GU (2)	MH		TEL	KA		HAR	
		NVS	DRL	Mean	PBN		Mean	RDR		MND	
5301	25633	99	70	85	55	75	111	68	89	122	97
5302	25610	102	68	85	50	73	90	48	69	102	88
5303	25618	108	80	94	72	87	128	75	101	142	110
5304	25636	110		110	61	85	117	80	99	128	105
5305	CR Dhan 201 (NC)	105	73	89	70	83	109	72	90	133	102
5306	25641	93		93	87	90	96	69	83	121	100
5307	25620	108		108	97	102	98	57	78	100	99
5308	25614	94	39	67	85	73	105	59	82	117	95
5309	25613	107		107	91	99	99	62	80		100
5310	Zonal Check (ZC)	127	114	121	64	102	100	69	84	131	108
5311	25625	117	68	93	77	87	113	76	95	137	106
5312	25662	106	73	89	84	88	122	74	98	116	99
5313	25647	99	61	80	85	82	112	70	91	112	100
5314	25640	125	64	95	83	91	128	86	107	134	110
5315	25653	121	76	98	82	93	126	87	107	145	114
5316	25642	104		104	90	97	87	60	73	133	102
5317	25616	116	59	87	84	86	122	85	103	136	110
5318	Local Check	101	102	101	81	95	99	87	93	108	100
	Exp Mean	108	73	95	78	88	109	71	90	125	103
	C.D. 5%		0		0					0	
	C.V.%		0.00		0.00					0.00	

Table No. 4.5 : Panicles/ M² of entries in AVT 2- AEROB Kharif 2017

Entry No.	IET No.	II	III							Zone III	IV	V			Zone V (2)
		PUN	OD	BI	BI	BI	BI (3)	JH	(5)	TR	CG	CG	CG (2)		
		LDN	CTK	BKG	PSA	PTN-ICAR	Mean	RCI	Mean	ARD	RPR	JDP	Mean	Mean	
5301	25633	417	194	362	233	232	276	228	250	233	312	281	297	297	
5302	25610	420	195	237	217	185	213	295	226	304	286	260	273	273	
5303	25618	447	203	297	240	273	270	235	250	313	294	333	314	314	
5304	25636	483	213	453	198	215	289	248	265	259	247	275	261	261	
5305	CR Dhan 201 (NC)	397	265	327	199	217	248	337	269	219	287	311	299	299	
5306	25641	437	204	361	206	240	269	361	274	217	223	226	225	225	
5307	25620			301	204	239	248	203	237	273	329	336	333	333	
5308	25614	420	217	302	187	265	251	310	256	249	271	434	353	353	
5309	25613		308	661	227	110	333	104	282	240	158	72	115	115	
5310	Zonal Check (ZC)	407	226	330	175	256	253	240	245	266	220	297	259	259	
5311	25625	470	218	328	253	226	269	234	252	253	324	214	269	269	
5312	25662	410	215	300	271	225	265	165	235	271	238		238	238	
5313	25647	460	192	302	261	286	283	288	266	265	254	258	256	256	
5314	25640	453	154	243	246	211	233	247	220	238	256	222	239	239	
5315	25653	440	235	330	189	241	253	171	233	242	234	234	234	234	
5316	25642		208	300	234	104	212	294	228	313	113	275	194	194	
5317	25616	437	185	330	235	244	270	246	248	223	255	204	229	229	
5318	Local Check	493	207	302	202	258	254	223	238	271	291	327	309	309	
	Exp Mean	439	214	337	221	224	261	246	249	258	255	268	261	261	
	C.D. 5%	65	29	23	72	45	29	13	18	45	38	86	36	45	
	C.V. %	8.83	8.21	4.20	19.74	12.16	11.82	3.08	10.03	10.56	8.92	19.27	12.07	15.06	

Table No. 4.5 contd.: Panicles/ M² of entries in AVT 2- AEROB Kharif 2017

Entry No.	IET No.	VI				Zone VI (3)	VII		Zone VII (2)	II	Overall (15)
		GU	GU	GU (2)	MH		TEL	KA		HAR	
		NVS	DRL	Mean	PBN		RDR	MND		KUL@	
5301	25633	195	157	176	247	200	278	366	322	253	266
5302	25610	217	128	172	252	199	314	451	382	251	267
5303	25618	188	147	168	313	216	342	399	371	264	286
5304	25636	197		197	291	244	347	381	364	270	291
5305	CR Dhan 201 (NC)	206	164	185	184	185	304	367	336	304	273
5306	25641	210		210	296	253	316	481	398	263	289
5307	25620	207		207	212	210	327	399	363	289	277
5308	25614	201	88	144	314	201	330	434	382	274	286
5309	25613	195		195	194	195	247	396	321		243
5310	Zonal Check (ZC)	191	111	151	230	178	299	356	328	272	258
5311	25625	203	112	158	363	226	318	450	384	256	281
5312	25662	200	101	151	354	218	271	377	324	252	261
5313	25647	195	80	137	311	195	331	444	387	259	279
5314	25640	205	109	157	335	216	325	366	346	234	256
5315	25653	197	83	140	365	215	322	346	334	234	257
5316	25642	192		192	212	202	328	422	375	255	250
5317	25616	191	95	143	208	165	307	349	328	230	249
5318	Local Check	197	115	156	196	169	336	328	332	228	265
	Exp Mean	199	115	169	271	203	313	395	354	258	269
	C.D. 5%	7	16	6	28	10	35	83	38	17	12
	C.V.%	2.07	8.22	2.96	6.32	5.38	6.66	12.61	9.40	3.88	11.06

Table No. 4.6: Grain quality characteristics of entries in AVT 2-Aerob, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	A.C	G.C
5301	25633	77.1	69.5	67.4	5.6	2.08	2.69	MS	VOC	4.0	23.78	22
5302	25610	76.4	67.2	54.3	6.37	2.26	2.81	LB	A	7.0	17.83	67
5303	25618	76.2	69.9	68.6	5.66	2.4	2.35	SB	VOC	5.0	24.46	23
5304	25636	76	65.2	53.5	6.95	2.02	3.44	LS	VOC	5.0	23.32	58
5305	CR DHAN-201	77.3	69.5	67.7	6.62	2.03	3.26	LS	A	7.0	24.66	57
5306	25641	77.9	70.2	68.4	6.97	2.03	3.43	LS	A	5.0	25.81	22
5307	25620	77.8	67.7	61.4	5.77	2.18	2.64	MS	A	6.0	26.57	39
5308	25614	73.5	65.9	63.9	6.57	1.96	3.35	LS	A	4.0	23.46	22
5309	25613	77.8	70.5	68.3	6.54	2.12	3.08	LS	A	5.5	24.52	29
5310	MAS-946-1	78.3	69.4	67.5	5.61	2.22	2.52	MS	A	4.0	23.58	61
5311	25625	77.4	67.6	63.5	6.21	2.32	2.67	LB	VOC	4.0	24.61	36
5312	25662	78.1	64.6	54.8	5.44	2.37	2.29	SB	VOC	7.0	24.43	65
5313	25647	76.6	61.5	43.7	6.81	1.87	3.64	LS	VOC	5.0	24.49	51
5314	25640	76.8	69	67.5	5.35	2.32	2.3	SB	VOC	4.0	22	61
5315	25653	78.3	67.6	63.9	5.75	2.42	2.37	SB	VOC	4.0	22.73	60
5316	25642	78.4	69.6	51.2	5.91	2.25	2.62	MS	VOC	4.0	24.46	45
5317	25616	77.1	70.4	69.8	6.53	2.34	2.79	LB	VOC	4.0	21.53	52

HULL: Hulling (%); Milling (%): HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB::Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 4.7: Composition of entries in Advance Variety Trial 1 -Aerobic (AVT 1-AEROB), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
2nd year of testing:				
5401	26173	CR 3997-8- IR91648-B-89-B-5-1	Moroberekan / 3* Swarna	LS
5402	26177	Rewa 1121-475-15-1-1	Rewa 870 / IR83934-247-1-1-1	LS
5403	26200	OR 2568-4	OR 1509-4 / IRAT 112	SB
5404	26155	BPT 2671	MTU2067 / Ajay	SB
5405	25136	IR 95812-CR3948-1-2-1-2	IR 80376-12-2-3 / 1R84878-B-60-4	LS
5406	CR Dhan 201 (NC)			LS
5407	25728	US 380 (Hybrid)	-	MS
5408	26198	MEPH 134 (Hybrid)	-	LS
5409	25619	CR 3947-9-25-3-2	IR 64 / PSB RC 18	LS
5410	26178	TRC 2015-5	Naveen / Kataktara	SB
5411	26156	CB 14932	ADT 43 / IET 21588	MS
5412	26162	AAGP 9412	MTU 1010 / Triguna	LS
5413	26157	CR 3996-11-240-3-1	Mahulata / IR20	MS
5414	26171	RP 5601-283-14-4-1	BPT 5204 / Azucena	SB
5415	26194	RP 5591-123-16-2	MTU 1010 / IR 79915-B-83-4-3	LB
5416	25109	RP 5587-B-B-B-210-1	IR64 / IR 75870-5-8-5-B-2-B	LS
5417	CR Dhan 202 (Northern, Eastern & Central), AAUDR-1 (Western), MAS 946-1 (Southern)--ZC			
5418	26176	RP 5594-410-53-4-2	MTU 1010 / RPHR 1005	MS
5419	26170	R 1882-306-4-243-1	R 1207-2282-2-1 / RP 4092	SB
5420	26201	RP 5477-N22 SM-162	N22 Mutant	SB
5421	PA 6129 (HC)			MS
5422	26168	RP 5593-83-12-3-1	MTU 1010 / N-22	MS
5423	Local Check			

Table No. 4.8 : Grain Yield (Kg/ha) of entries in AVT 1-AEROB Kharif 2017

Entry No.	IET No.	II		III										JH	U.P.
		PUN	OD	BI	BI	BI	BI (2)						JH		
		@LDN	CTK	BKG	@PSA	PTN-ICAR	Mean						RCI	MSD	
5401	26173	1835	8	3683		4956	2778	5 #	3506		4231		2933		3018 #
5402	26177	1967	6	3517		4044	1667		2412		3228		2422		2297
5403	26200	2331	2	6020	2 *#	5689	3	1056	2084		3887		2178		4095 4 *#
5404	26155			3167		5044	9	2667	6 #	3726		4385		3378	2417
5405	25136	2145	5	3700		4511		2056	5414	1 *#	4963	5 10% 5%	3889	6 #	
5406	CR Dhan 201 (NC)	1506		2800		4622		3167	3 #	4411	8 #	4517	9	3289	2517
5407	25728	1708	9	3667		5644	4	3222	2 #	4507	7 #	5076	2 12% 7%	5289	1 *# 3960 6 #
5408	26198	2310	3	4067	9	5378	6	1389		4596	6 #	4987	3 10% 5%	4222	2 # 4374 1 *#
5409	25619			4400	6	3444		2389	9	2932		3188		1489	2511
5410	26178	1280		3567		5222	7	2000		2123		3673		4000	4 # 4046 5 *#
5411	26156	858		6363	1 *#	3511		1556		882		2197		1200	
5412	26162	894		2683		4000		1389		2808		3404		3156	
5413	26157	1067		3867		3822		2167		4623	5 #	4223		3578	8 # 3112 #
5414	26171	1413		2727		5956	1	2500	8	4771	4 *#	5363	1 * 19% 13%	4067	3 # 3005 #
5415	26194	1612		3967		5089	8	3056	4 #	4861	3 *#	4975	4 10% 5%	3978	5 # 3839 7 #
5416	25109	990		3333		4778		1167		3675		4226		3022	4107 3 *#
5417	Zonal Check (ZC)	2388	1	4613	5	4911		1111		2737		3824		3422	9 3265 9 #
5418	26176	1056		3500		4489		3333	1 #	4893	2 *#	4691	8 4%	2244	4180 2 *#
5419	26170	1623		2880		4778		1889		3544		4161		3156	2584
5420	26201			5200	3	1800		1778		2468		2134			
5421	PA 6129 (HC)	2301	4	4800	4	5489	5	1611		3984		4737	7 5%	2356	2584
5422	26168	1599		4383	7	5778	2	1833		4124	9	4951	6 10% 5%	3800	7 # 3132 #
5423	Local Check	1839	7	4179	8	4844		2667	7 #	3476		4160		3044	3653 8 #
	Exp Mean	1636		3960		4687		2106		3589		4138		3187	3300
	C.D. 5%	378		1101		1329		1027		353		767		1089	314
	C.V.%	13.98		16.90		17.23		29.63		5.98		16.17		20.73	5.74
	Sowing Date	15-06-2017		30-06-2017		14-07-2017		19-06-2017		18-06-2017				23-06-2017	25-07-2017
	Planting Date														
	Local ©	PR 126		CR Dhan 205		Sabour Ardhalaj		Rajendra Neelam		Rajendra Bhagwati				Birsa Dhan-201	Narendra 97
* Superior to Best Check % Superior over Best Check @ not included in means															
# Superior to Hybrid Check % Superior over Hybrid Check															

Table No. 4.8 contd.: Grain Yield (Kg/ha) of entries in AVT 1-AEROB Kharif 2017

Entry No.	IET No.	Zone III (5)				IV		V							Zone V (1)		
						TR	M.P.	CG	CG	CG (1)							
		Mean				@ARD	@REW	@RPR	JDP	Mean						Mean	
5401	26173	3619				4956	255	1895	5707	9	5707	9 20% 5%	5707	9 20% 5%			
5402	26177	2938				5244	6	1637	5 *#	2030	4669		4669		4669		
5403	26200	4013	7	5% 4%		4889		1556	7 *#	1386	6421	2	6421	2 * 35% 19%	6421	2 * 35% 19%	
5404	26155	3546				4978		1627	6 *#	1335	6181	5	6181	5 30% 14%	6181	5 30% 14%	
5405	25136	4379	3 *#	14% 14%		4556		3030	2 *#	3375	2	5405	5405	14%	5405	14%	
5406	CR Dhan 201 (NC)	3528				4844		376		2745		4512	4512		4512		
5407	25728	4613	1 *#	20% 20%		5044		897		2359	6	6052	6 28% 12%	6052	6 28% 12%		
5408	26198	4527	2 *#	18% 18%			945	3005	5	5527		5527	5527	17% 2%	5527	17% 2%	
5409	25619	2955				5178	9		453		4618		4618		4618		
5410	26178	3792				5089		1956	4 *#	3132	3	7153	1 *# 7153	1 *# 51% 32%	7153	1 *# 51% 32%	
5411	26156	2989				4711		163		176		3625	3625		3625		
5412	26162	3162				5111		2158	3 *#	2749	9	4774	4774	1%	4774	1%	
5413	26157	3800				5244	7	3106	1 *#	2990	6	5587	5587	18% 3%	5587	18% 3%	
5414	26171	4105	6	7% 7%		5422	5	1087	9	2500		5952	7 5952	7 26% 10%	5952	7 26% 10%	
5415	26194	4347	4 *#	13% 13%		5600	2 #	449		2420		6310	4 6310	4 * 33% 17%	6310	4 33% 17%	
5416	25109	3783				5178		131		1889		4877	4877	3%	4877	3%	
5417	Zonal Check (ZC)	3790				5533	3	857		2943	7	4741	4741		4741		
5418	26176	3861	8	1%		4822		427		2196		4856	4856	2%	4856	2%	
5419	26170	3388				5111		231		3053	4	5817	8 5817	8 23% 7%	5817	8 23% 7%	
5420	26201	3156				5044				2913	8	3572	3572		3572		
5421	PA 6129 (HC)	3843		9		5244	8	1161	8	4129	1 *	5412	5412	14%	5412	14%	
5422	26168	4243	5	11% 10%		5489	4	882		2561		6343	3 6343	3 * 34% 17%	6343	3 34% 17%	
5423	Local Check	3839				6044	1 #			2527		4616	4616		4616		
	Exp Mean	3766				5152		1146		2381		5336	5336		5336		
	C.D. 5%	437				354		317		650		1713	1506		1658		
	C.V.%	16.12				4.17		16.70		16.59		19.51	17.17		18.89		
	Sowing Date					05-08-2017		07-07-2017		22-06-2017		19-06-2017					
	Planting Date																
	Local ©					Co-51				Indira Aerobic 1		Indira Aerobic-1					

Table No. 4.8 contd : Grain Yield (Kg/ha) of entries in AVT 1-AEROB Kharif 2017

Entry No.	IET No.	VI								Zone VI (1)			VII			
		GU		GU		GU (1)		MH					TEL		KA	
		@DRL		VYR		Mean		@PBN		Mean		RDR		MND		
5401	26173	292		6835		6835		2963		6835		4323	7 #	5511	4	
5402	26177	774	7	5707		5707		2347		5707		3679		4606		
5403	26200	647	9	8207		8207		3141		8207		3989	#	4289		
5404	26155			6616		6616		2919		6616		3722		4142		
5405	25136	273		7929		7929		3233	9	7929		4683	6 #	4606	9	
5406	CR Dhan 201 (NC)	616		10034	4	10034	4	3633	3 #	10034	4	5110	3 #	3803		
5407	25728	268		10370	3	10370	3 3%	3316	8 #	10370	3 3%	4291	8 #	5842	3	
5408	26198	1104	4	10371	2	10371	2 3%	3828	1 #	10371	2 3%	5164	2 #	3709		
5409	25619	196		6667		6667		2818		6667		2147		3583		
5410	26178	803	6	9596	6	9596	6	3452	6 #	9596	6	3907	#	5882	2	
5411	26156	405		5303		5303		3354	7 #	5303		1887		1260		
5412	26162	530		7754		7754		3517	4 #	7754		4701	5 #	4175		
5413	26157	734	8	7189		7189		3493	5 #	7189		4238	9 #	2375		
5414	26171	273		9057	7	9057	7	3150		9057	7	2885		5966	1 #	
5415	26194	275		7374		7374		3680	2 #	7374		4808	4 #	5131	6	
5416	25109			6768		6768		2877		6768		3241		3571		
5417	Zonal Check (ZC)	1444	2	5101		5101		2524		5101		3597		4442		
5418	26176			6397		6397		2255		6397		3027		4099		
5419	26170	1242	3	9831	5	9831	5	2613		9831	5	4131	#	4134		
5420	26201			3418		3418		2640		3418				1296		
5421	PA 6129 (HC)	1763	1 *	10556	1	10556	1 5%	3087		10556	1 5%	2920		5125	7	
5422	26168	627		8586	9	8586	9	3034		8586	9	3889	#	4710	8	
5423	Local Check	1044	5	8956	8	8956	8	3203		8956	8	5342	1 #	5176	5	
	Exp Mean	700		7766		7766		3090		7766		3895		4236		
	C.D. 5%	278		1959		1982		211		1985		940		780		
	C.V.%	23.93		15.33		15.52		4.15		15.54		14.65		11.19		
	Sowing Date	15-06-2017		13-06-2017				15-07-2017				07-07-2017		08-09-2017		
	Planting Date															
	Local ©	AAUDR-1		NAUR 1				Avishkar				MTU 1010		KMP-175		

Table No. 4.8 contd : Grain Yield (Kg/ha) of entries in AVT 1-AEROB Kharif 2017

Entry No.	IET No.	Zone VII (2)			II		Overall (10)			Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
					HAR							
		Mean			KUL@		Mean					
5401	26173	4917	4 #	22%	7174	3 *	4765			86	85	277
5402	26177	4142		3%	5155		3851			84	83	244
5403	26200	4139		3%	5210		4818			78	93	272
5404	26155	3932			6219		4461			95	105	277
5405	25136	4645	6	15%	6683	6	5202	3	5% 4%	86	100	288
5406	CR Dhan 201 (NC)	4457	7	11%	6328	9	4743			87	96	310
5407	25728	5066	2 #	26%	6192		5581	1 *#	13% 11%	90	104	301
5408	26198	4436	9	10%	7638	1 *#	5504	2 *#	11% 10%	84	96	283
5409	25619	2865			5346		3714			95	97	247
5410	26178	4895	5 #	22%	6383	8	5188	5	5% 3%	85	66	266
5411	26156	1574			3137		3019			78	92	295
5412	26162	4438	8	10%	7283	2 *	4593			82	96	297
5413	26157	3307			6956	4 *	4535			86	102	285
5414	26171	4425		10%	6274		5066	7	2% 1%	88	97	297
5415	26194	4969	3 #	24%	6628	7	5198	4	5% 4%	86	90	304
5416	25109	3406			5974		4335			88	100	303
5417	Zonal Check (ZC)	4020			6001		4283			81	89	270
5418	26176	3563			6274		4396			94	95	265
5419	26170	4133		3%	5019		4587			81	86	279
5420	26201	1296					2959			95	91	325
5421	PA 6129 (HC)	4022			6901	5	5013	8	1%	85	102	276
5422	26168	4299		7%	6328		5107	6	3% 2%	83	98	278
5423	Local Check	5259	1 #	31%	6137		4942		9	81		308
	Exp Mean	4069			6147		4637			86	94	284
	C.D. 5%	650			576		373			1		14
	C.V.%	13.91			5.68		15.84			2.92		12.32
	Sowing Date				14-06-2017							
	Planting Date				15-07-2017							
	Local ©				HKR-48							

Table No 4.9 : Days to 50% Flowering of entries in AVT 1-AEROB Kharif 2017

Entry No.	IET No.	II		III						Zone III	IV	V					Zone V (3)
		PUN	OD	BI	BI	BI	BI (3)	JH	U.P.	(6)	TR	M.P.	CG	CG	CG (2)		
		LDN	CTK	BKG	PSA	PTN-ICAR	Mean	RCI	MSD	Mean	ARD	REW	RPR	JDP	Mean	Mean	
5401	26173	86	75	83	84	90	86	87	76	83	68	98	98	83	91	93	
5402	26177	89	69	74	83	89	82	87	77	80	64	92	99	82	91	91	
5403	26200	76	68	72	75	79	75	81	73	75	67	87	84	77	80	82	
5404	26155		85	80	82	112	91	111	91	94	66	111	120	95	107	109	
5405	25136	84	74	76	80	87	81	88		81	65	88	118	82	100	96	
5406	CR Dhan 201 (NC)	88	80	83	86	89	86	86	75	83	64	90	119	80	100	96	
5407	25728	95	73	81	87	94	87	108	80	87	66	96	100	86	93	94	
5408	26198	87	82	83	78	87	83	82	76	81		86	88	77	83	84	
5409	25619		76	90	113	113	105	109	89	98	65		121	99	110	110	
5410	26178	94	71	78	85	93	86	86	78	82	55	95	96	82	89	91	
5411	26156	75	69	72	74	77	74	74		73	68	94	111	69	90	91	
5412	26162	87	69	78	81	85	81	79		78	65	88	91	78	84	86	
5413	26157	94	70	85	91	90	89	86	76	83	69	88	89	86	88	88	
5414	26171	96	75	84	87	95	88	90	86	86	64	91	95	86	91	91	
5415	26194	85	72	83	80	89	84	87	75	81	65	95	95	82	89	91	
5416	25109	89	68	81	85	92	86	86	78	82	66	102	107	88	98	99	
5417	Zonal Check (ZC)	88	75	82	79	85	82	88	75	81	68	86	85	81	83	84	
5418	26176	99	82	82	96	98	92	107	84	91	66	97	104	94	99	98	
5419	26170	84	67	75	77	82	78	89	77	78	64	91	91	87	89	89	
5420	26201		88	80	115	109	102			98	68		108	96	102	102	
5421	PA 6129 (HC)	87	84	75	90	87	84	86	76	83	70	93	89	81	85	88	
5422	26168	77	72	82	89	86	86	88	75	82	69	97	88	78	83	87	
5423	Local Check	84	72	91	84	90	88	84	74	82	64		94	82	88	88	
	Exp Mean	87	75	80	86	91	86	89	79	83	66	93	99	84	92	92	
	C.D. 5%	2	7	8	3	1	3	3	2	2	4	7	2	0		2	
	C.V.%	1.43	5.98	6.20	1.78	0.55	3.48	1.99	1.31	3.51	3.51	4.70	1.27	0.14		2.69	

Table No. 4.9 contd.: Days to 50% Flowering of entries in AVT 1-AEROB Kharif 2017

Entry No.	IET No.	VI				Zone VI (3)	VII		Zone VII (2)	II HAR	Overall (17)
		GU	GU	GU (2)	MH		TEL	KA			
		DRL	VYR	Mean	PBN		RDR	MND			
5401	26173	104	89	96	85	92	84	83	83	94	86
5402	26177	95	80	88	85	87	88	85	87	91	84
5403	26200	87	75	81	80	81	78	84	81	81	78
5404	26155		105	105	83	94	100	83	92	99	95
5405	25136	112	76	94	81	89	85	80	83	95	86
5406	CR Dhan 201 (NC)	100	83	92	82	88	84	88	86	96	87
5407	25728	108	88	98	90	95	90	91	91	96	90
5408	26198	93	82	88	81	86	83	79	81	93	84
5409	25619	95	96	95	90	94	93	83	88	100	95
5410	26178	94	88	91	90	90	88	78	83	94	85
5411	26156	69	75	72	80	74	75	90	82	81	78
5412	26162	97	81	89	81	86	82	86	84	90	82
5413	26157	101	83	92	81	88	87	84	85	98	86
5414	26171	104	90	97	84	93	87	83	85	98	88
5415	26194	105	89	97	88	94	87	91	89	90	86
5416	25109		97	97	87	92	90	91	91	98	88
5417	Zonal Check (ZC)	63	63	63	91	72	79	89	84	94	81
5418	26176	111	99	105	87	99	96	84	90	107	94
5419	26170	94	77	86	82	84	83	80	82	82	81
5420	26201		102	102	82	92		105	105		95
5421	PA 6129 (HC)	91	79	85	84	85	88	90	89	90	85
5422	26168	95	83	89	80	86	86	78	82	90	83
5423	Local Check	63	83	73	83	76	82	76	79	90	81
	Exp Mean	94	85	90	84	88	86	85	86	93	86
	C.D. 5%	5	5	3	1	2	2	4	2	0	1
	C.V.%	3.02	3.65	3.25	1.06	2.82	1.29	3.06	2.18	0.26	2.92

Table No. 4.10 : Plant Height (cm) of entries in AVT 1-AEROB Kharif 2017

Entry No.	IET No.	II	III							Zone III	IV	V					Zone V
		PUN	OD	BI	BI	BI	BI (3)	JH	U.P.	(6)	TR	M.P.	CG	CG	CG (2)	(3)	
		LDN	CTK	BKG	PSA	PTN-ICAR	Mean	RCI	MSD	Mean	ARD	REW	RPR	JDP	Mean	Mean	
5401	26173	87	127	109	100	113	107	98	88	106	79	75	91	107	99	91	
5402	26177	76	119	96	83	92	90	83	85	93	88	70	79	106	92	85	
5403	26200	78	117	98	77	89	88	96	88	94	90	69	69	103	86	80	
5404	26155		126	101	105	108	105		86	105	89	51	82	103	92	78	
5405	25136	86	123	123	102	128	118	103		116	86	83	105	120	113	103	
5406	CR Dhan 201 (NC)	89	136	119	94	118	110	101	91	110	76	82	90	119	104	97	
5407	25728	80	124	116	106	111	111	101	95	109	81	68	87	115	101	90	
5408	26198	90	137	127	95	118	113	98	93	111		89	93	118	105	100	
5409	25619		127	120	99	106	108	96	89	106	95		83	105	94	94	
5410	26178	82	118	108	104	97	103	99	96	104	95	77	94	113	103	95	
5411	26156	47	99	91	65	65	74	62		76	40	51	62	85	73	66	
5412	26162	73	127	104	95	99	99	93		104	97	70	88	114	101	91	
5413	26157	71	122	100	95	117	104	101	92	105	78	84	94	106	100	95	
5414	26171	83	129	120	103	109	111	99	86	108	87	87	94	116	105	99	
5415	26194	79	124	114	100	110	108	95	75	103	88	74	86	115	101	92	
5416	25109	66	132	97	91	105	98	87	78	98	88	60	80	110	95	83	
5417	Zonal Check (ZC)	90	127	116	100	114	110	101	75	106	81	90	99	120	110	103	
5418	26176	76	132	100	95	107	101	98	84	103	77	66	91	101	96	86	
5419	26170	81	122	107	99	106	104	98	77	102	87	83	94	109	101	95	
5420	26201		132	77	82	94	84			96	88		74	103	89	89	
5421	PA 6129 (HC)	83	120	111	90	103	101	98	76	100	94	65	91	109	100	89	
5422	26168	81	129	117	105	113	112	100	75	106	95	75	89	128	108	97	
5423	Local Check	75	119	108	95	109	104	91	74	99	83		83	124	103	103	
	Exp Mean	79	125	108	95	106	103	95	84	103	85	73	87	111	99	91	
	C.D. 5%	0	0	0	0			0	0			0	0	0	0	0	
	C.V.%	0.00	0.00	0.00	0.00			0.00	0.00			0.00	0.00	0.00	0.00	0.00	

Table No. 4.10 contd: Plant Height (cm) of entries in AVT 1-AEROB Kharif 2017

Entry No.	IET No.	VI				Zone VI (3)	VII		Zone VII (2)	II		Overall (17)
		GU	GU	GU (2)	MH		TEL	KA		HAR		
		DRL	VYR	Mean	PBN		RDR	MND		KUL@		
5401	26173	78	126	102	70	91	111	78	95	120		98
5402	26177	61	99	80	51	71	93	71	82	88		85
5403	26200	65	95	80	43	68	92	59	75	88		83
5404	26155		125	125	59	92	104	69	87	94		93
5405	25136	86	135	110	68	96	114	82	98	130		105
5406	CR Dhan 201 (NC)	80	126	103	70	92	117	76	97	123		100
5407	25728	71	125	98	51	82	111	74	93	120		96
5408	26198	96	136	116	64	98	114	72	93	123		104
5409	25619	67	124	95	53	81	103	71	87	105		96
5410	26178	71	117	94	71	87	111	84	97	116		97
5411	26156	52	85	68	40	59	73	48	61	87		66
5412	26162	73	112	93	51	79	98	70	84	114		92
5413	26157	75	133	104	65	91	106	68	87	119		96
5414	26171	90	134	112	72	99	123	82	102	123		102
5415	26194	70	124	97	74	89	117	79	98	121		97
5416	25109		111	111	54	83	108	67	87	109		90
5417	Zonal Check (ZC)	88	134	111	79	100	96	70	83	122		100
5418	26176	66	105	85	52	74	102	70	86	87		89
5419	26170	77	125	101	66	90	102	81	91	97		95
5420	26201		97	97	57	77		51	51			86
5421	PA 6129 (HC)	66	117	92	55	79	95	73	84	103		91
5422	26168	88	128	108	72	96	128	91	109	122		102
5423	Local Check	90	118	104	98	102	97	93	95	109		98
	Exp Mean	76	119	99	62	86	105	73	89	110		94
	C.D. 5%	0			0		0			0		
	C.V.%	0.00			0.00		0.00			0.00		

Table No. 4.11 : Panicles/ M² of entries in AVT 1-AEROB Kharif 2017

Entry No.	IET No.	II		III							Zone III (6)	IV		V				Zone V (3)
		PUN	OD	BI	BI	BI	BI (3)	JH	U.P.			TR	M.P.	CG	CG	CG (2)		
		LDN	CTK	BKG	PSA	PTN-ICAR	Mean	RCI	MSD	Mean		ARD	REW	RPR	JDP	Mean	Mean	
5401	26173	440	283	452	244	305	334	259	266	302	225	113	244	381	312	246		
5402	26177	393	187	300	249	201	250	198	261	233	235	173	264	334	299	257		
5403	26200	447	201	272	206	315	264	307	288	265	222	130	278	415	346	274		
5404	26155		247	420	311	300	344		261	308	229	70	337	321	329	243		
5405	25136	427	191	335	272	313	306	227		267	222	223	302	407	355	311		
5406	CR Dhan 201 (NC)	450	234	482	300	367	383	365	262	335	216	183	296	378	337	286		
5407	25728	450	214	510	307	267	361	242	276	303	229	152	328	409	369	296		
5408	26198	397	207	360	264	242	289	264	296	272		281	261	311	286	284		
5409	25619		220	423	286	253	321	131	262	263	231		226	308	267	267		
5410	26178	393	209	508	216	202	309	168	292	266	241	93	260	356	308	236		
5411	26156	417	234	573	200	320	365	308		327	230	121	222	409	316	251		
5412	26162	407	257	482	201	331	338	366		327	233	153	297	325	311	259		
5413	26157	407	241	421	246	298	322	232	265	284	272	234	299	312	305	281		
5414	26171	413	222	482	295	289	355	287	268	307	249	194	264	335	300	264		
5415	26194	423	211	632	248	346	409	336	271	341	247	131	281	389	335	267		
5416	25109	453	210	720	188	335	415	344	293	349	231	98	241	334	288	224		
5417	Zonal Check (ZC)	417	204	452	204	285	314	218	269	272	254	194	300	312	306	269		
5418	26176	403	202	630	203	247	360	151	294	288	225	101	260	257	259	206		
5419	26170	443	237	418	219	259	299	258	263	276	279	201	318	301	310	273		
5420	26201		218	722	245	324	430			377	232		358	279	319	319		
5421	PA 6129 (HC)	400	221	603	236	230	356	201	257	291	246	149	317	348	333	271		
5422	26168	423	217	273	211	313	266	269	268	258	226	189	337	408	373	311		
5423	Local Check	430	245	392	279	233	301	457	275	314	243		327	363	345	345		
	Exp Mean	422	222	472	245	286	334	266	273	295	237	159	288	347	318	270		
	C.D. 5%	70	52	7	61	75	34	13	16	20	9	80	44	112	50	47		
	C.V.%	10.10	14.32	0.95	15.21	15.89	10.96	2.92	3.51	10.29	2.18	30.30	9.29	19.57	13.62	18.69		

Table No. 4.11 contd.: Panicles/ M² of entries in AVT 1-AEROB Kharif 2017

Entry No.	IET No.	VI				Zone VI (3)	VII		Zone VII (2)	II		Overall (17)
		GU	GU	GU (2)	MH		TEL	KA		HAR		
		DRL	VYR	Mean	PBN		RDR	MND		KUL@	Mean	
5401	26173	113	308	211	261	227	315	249	282	255	277	
5402	26177	115	239	177	222	192	316	233	275	233	244	
5403	26200	122	351	236	280	251	310	233	272	252	272	
5404	26155		287	287	257	272	330	281	306	224	277	
5405	25136	142	312	227	342	265	336	301	319	256	288	
5406	CR Dhan 201 (NC)	146	413	280	372	310	316	252	284	245	310	
5407	25728	110	378	244	348	279	337	322	329	235	301	
5408	26198	109	334	221	382	275	319	262	290	232	283	
5409	25619	37	242	140	253	178	315	256	286	261	247	
5410	26178	98	337	218	323	253	331	274	303	227	266	
5411	26156	141	401	271	325	289	333	258	296	230	295	
5412	26162	144	385	264	315	281	315	279	297	256	297	
5413	26157	144	341	242	310	265	338	233	286	247	285	
5414	26171	148	419	284	283	283	330	306	318	266	297	
5415	26194	133	311	222	327	257	315	311	313	249	304	
5416	25109		334	334	271	303	318	236	277	248	303	
5417	Zonal Check (ZC)	148	292	220	242	227	303	278	291	225	270	
5418	26176		206	206	234	220	306	278	292	242	265	
5419	26170	137	364	251	242	248	314	236	275	250	279	
5420	26201		324	324	252	288		294	294		325	
5421	PA 6129 (HC)	153	267	210	281	234	304	249	277	238	276	
5422	26168	156	286	221	288	243	332	252	292	275	278	
5423	Local Check	161	392	276	260	271	301	281	291	282	308	
	Exp Mean	129	327	242	290	256	320	268	293	247	284	
	C.D. 5%	11	95	56	22	37	25	19	13	15	14	
	C.V.%	5.18	17.63	20.56	4.55	15.61	4.72	4.33	3.94	3.58	12.32	

Table No. 4.12: Grain quality characteristics of entries in AVT 1-Aerob, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
5401	26173	77.7	65.8	36.7	6.74	2.05	3.28	LS	VOC	4.0	25.1	50
5402	26177	78.2	67.7	63.3	6.9	2.17	3.17	LS	OC	7.0	24.2	22
5403	26200	78.6	67.8	61.3	5.42	2.5	2.16	SB	VOC	5.0	21.56	23
5404	26155	76.5	67.8	57.9	5.7	2.29	2.48	SB	VOC	7.0	24.49	30
5405	25136	76.2	66.9	38.7	6.41	2.07	3.09	LS	VOC	7.0	23.2	25
5406	CR DHAN-201	77.3	66.1	60.6	6.18	1.85	3.33	LS	VOC	7.0	24.28	56
5407	25728	77.7	69.6	67.4	5.82	2.06	2.82	MS	VOC	7.0	24.87	32
5408	26198	79.7	70.9	66.1	6.44	2.06	3.12	LS	VOC	5.0	24.17	58
5409	25619	78.7	70	67.1	6.31	2.09	3.01	LS	VOC	4.0	21.91	61
5410	26178	76.9	67.9	65.1	5.67	2.3	2.46	SB	VOC	4.0	22.14	45
5411	26156	75	66.8	50.6	5.28	1.77	2.98	MS	A	4.0	22.99	24
5412	26162	78.6	70	67.7	6.58	2.05	3.2	LS	VOC	7.0	24.17	34
5413	26157	79.1	69.5	64.3	5.64	1.95	2.89	MS	A	5.0	24.52	25
5414	26171	78.7	68.5	64.6	5.32	2.22	2.39	SB	VOC	4.0	23.32	61
5415	26194	78.3	69.1	55.3	6.23	2.19	2.84	LB	VOC	7.0	22.55	22
5416	25109	76	66.4	51.6	6.85	2.04	3.35	LS	VOC	4.0	23.05	25
5417	MAS 946-1	77.6	68	63.8	5.63	2.1	2.68	MS	A	4.0	23.26	57
5418	26176	79.5	69.2	55.6	5.44	2.11	2.57	MS	A	5.0	22.99	24
5419	26170	76.9	68.9	60	5.19	2.4	2.16	SB	VOC	4.0	24.9	23
5420	26201	74.8	63.6	57	5.4	2.29	2.35	SB	A	4.0	24.95	22
5421	PA 6129	81.2	67.6	49.5	5.47	1.87	2.92	MS	VOC	7.0	21.23	50
5422	26168	79.8	71.9	68.4	5.69	2.25	2.52	MS	VOC	4.0	24.34	47

HULL: Hulling (%); Milling (%): HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 4.13: Composition of entries in Initial Variety Trial -Aerobic (IVT-AEROB), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st year of testing:				
5501	27185	CR 3721-1-3-1-1-1-2.	Pooja / Lalat	MS
5502	27186	BPT 2601	MTU 1001 / N22	MS
5503	27187	RP Bio 4918-B-B-1425	Swarna / O.nivara	MS
5504	27188	RP 6273-HHZ4-DT3-LI1-LI1	Huang-Hua-Zhan*2 / IR 64	SB
5505	27189	JDP-1-1-1695	Danteshwari / Poornima	LB
5506	27190	HKR 15-4-IR 99784-255-91-1-5	IR 98003-2 57 / MR 219	LS
5507	27191	TRC-2017-20	Bhalum 3 / Naveen	LS
5508	27192	PAU 7554-1-1-1 (HH 214-Y7-Y1-FT2)	Huang-Hua-Zhan*2 / R6 44	LS
5509	27193	RP 5977-MS-M-42-1-9-4-2-35-8-6	BPT 5204 Mutant	SB
5510	27194	RP 6178-GSR IR 1-5-D20-D2-D1	Huang-Hua-Zhan*2 / OM 1723	LS
5511	27195	CR 3946-3-1-1-1-1	MTU 1010 / Dular	LS
5512	27196	NPH 9003 (Hybrid)	-	MS
5513	27197	UPR 3978-9-1-1-1	Pant Dhan 16 / UPR 3199-464-1-2	MS
5514	27198	R 1986-296-2-229-1	Danteshwari / R 1493	MS
5515	CR Dhan 201 (NC)			
5516	27199	RDR-1158	MTU 1010 / NLR 20158	LS
5517	27200	CR 3996-331-1-2	Mahulata / IR20	SB
5518	27201	Rewa 1113	Rewa 842 / IR 81024-B-254-4	MS
5519	27202	US 335 (Hybrid)		LS

Entry No.	IET No.	Designation	Cross Combination	Grain Type
5520	27203	RP 5934-73-2	Swarna / KMR 3R	MS
5521	27204	KPH-468 (Hybrid)	468A / 468R	LS
5522	27205	PAU 6508-273-13-20-6-2	PAU 201 / PAU3699-13-2-3-1 // PAU 201	LS
5523	26247	RP 5594-410-12-6-3	MTU 1010 / RPHR 1005	MS
5524	27206	BPT 2611	IR 64 / Lalnakanda	MS
5525	25123	RP 5943-68-17-6-3-1-1-1	RP 5124-11-4-3-2-1 / IR 78877-208-B-1-1	SB
5526	27207	TRC-2017-21	Pyzum / Sambha Mahasuri	LS
5527	27208	NWGR-13031	Ratna / NWGR-2010	LB
5528	27209	OR 2567-3	OR 1509-4 / China-5	SB
5529	27210	RP 6222-GSR IR1-12-Y4-D1-Y3	Huang-Hua-Zhan*2 / TE QING	LS
5530	27211	CR 4002-1324-2-2	IET 23445 / Pyari	MS
5531	PA 6129 (HC)			
5532	27212	CR 4043-1-2-1-1-1-IR95796	IR79643-39-2-2 / IR84850-B-27-2	LS
5533	27213	BRR 2085	HHZ 10-DT7-Y1-Sel.	LS
5534	27214	HURS 17-9-IR 95836-14-3-1-2	IRRI 168 / IR 10 L 105	LB
5535	27215	CR4043-1-2-1-1-1	CR Dhan305 / CR Dhan 203	LS
5536	27216	CB 14756	CB 04110 / Hinohikari // CB 04110	MS
5537	27217	YRH 2007 (Hybrid)	NPS 2005 A / NPS 2016	MS
5538	CR Dhan 202(Northern, Eastern, North Eastern & Central), AAUDR-1 (Western), MAS 946-1 (Southern)--ZC			
5539	27218	CR 3983-53-1-2-1-2-IR95786	IR84850-B-27-2 / IR84852-B-44-1	LS
5540	27219	RP Bio 4918-B-B-2215	Swarna / O.nivara	MS
5541	27220	RP 6226-GSR IR1-11-Y10-D3-Y3	Huang-Hua-Zhan*2 / IR 64	MS
5542	27221	HKR 15-3-IR 91326-19-2-1-2	IR 06 A 144 / IR 55419-04	LB
5543	27222	RP 5933-123-2	Swarna / IBL 57	MS
5544	27223	RP Bio 4918 B-B-166SW	Swarna*2 / O.nivara	MS
5545	27224	CR 4006-564-3-1-4	CR143-2-2 / CR 3504-18-1-3-1	LB
5546	27225	UPR 3976-24-1-1-1	Pant Dhan 16 / UPRI 2008-15	LB
5547	27226	RP 6275-GSR IR1-15-D4- D1 -Y1	Huang-Hua-Zhan*2 / PSB RC 66	LS
5548	27227	RP Bio 4918 B-B-248L	Swarna*2 / O.nivara	MS
5549	27228	UPR 3961-6-1-2-1	Pant Dhan 4 / UPRI 2008-7	LS
5550	27229	R 1700-2247-1-2313-1	Danteshwari / Amrit Bhog	LS
5551	27230	HURS 17-10-IR 93827-27-1-1-2	IR Bio 39-B-173-U 3-3 / IR 81063-B-94-43-1	LS
5552	27231	CR 3848-1-1-2-1-1	Vandana / BG 90-2//PSB RC18	LS
5553	27232	RP 6112-MS-14-3-9-8-5-4-2	BPT 5204 Mutant	LS
5554	27233	RCPR 36-IR84899-B-185-8-1-1-2	IR 78877-208-B-1-1 / IRRI 132	SB
5555	27234	RP 5988-78-25-18-5-99-6-70-220	Akshyadhan / IR6542-7-216-1-2	MS
5556	27235	Rewa 1187	Rewa 972 / IR 84881-B-132-CRA-1-11*2	LS
5557	27236	NVSR - 2147	IR-5912-90-1-6-3-2 R / Gurjari	LB
5558	27237	RP 6191-HHZ1-Y4-Y1-Y1	Huang-Hua-Zhan*2 / Yue-Xiang-Zhan	LS
5559	27238	BRR 2077	IR 11 A 257-Sel.	LS
5560	27239	NVSR-2107	Gurjari / PAU 201	LB
5561	27240	RCPR 25-IR 88964-24-2-1-4	IRRI 123 / IR 05 N372	LS
5562	27241	RP 6263-GSR IR1-5- Y3-Y1-D1	Huang-Hua-Zhan*2 / OM 1723	LS
5563	27242	CB 14530	Bhavani / CB 05501	LS
5564	Local Check			

Table No. 4.14: Grain Yield (Kg/ha) of entries in IVT -AEROB Kharif 2017

Entry No.	IET No.	II				Zone II (2)	III								
		PUN		HAR			OD		BI		BI		BI (1)		
		LDN		KUL			Mean	CTK		@PSA		PTN-ICAR		Mean	
5501	27185	1636		3950		2793		5185	9 *	3167		1806		1806	
5502	27186							3935		1083					
5503	27187							4420		1500		2028		2028	
5504	27188	4597	2	5050		4824	9	3705		1833		4325		4325	5%
5505	27189	2776		5350		4063		3150		4500	3 *	2508		2508	
5506	27190	4017	6	5300		4659		3510		3833	4	3693		3693	
5507	27191	2443		5150		3796		5830	1 *	2500		4263		4263	3%
5508	27192	3613		5600		4606		3050		2333		2525		2525	
5509	27193			6000		6000	1 * 20%	5755	2 *	2833		1496		1496	
5510	27194	3794		5550		4672		4640		3000		2175		2175	
5511	27195	1844		5100		3472		4350		1833		2933		2933	
5512	27196	3374		5850		4612		4750		1500		4769	6	4769	6 16%
5513	27197	3400		5000		4200		2975		3500	6	2933		2933	
5514	27198	2724		4400		3562		2645		3000		1631		1631	
5515	CR Dhan 201 (NC)	3390		5800		4595		2975		3167		3940		3940	
5516	27199	3314		5800		4557		4875		3000		3311		3311	
5517	27200	2826		5050		3938		3700		1500		5522	2 *	5522	2 * 34%
5518	27201	3079		4900		3989		3545		2333		3478		3478	
5519	27202	3707		6900	2	5304	3 6%	4290		3333	9	3214		3214	
5520	27203	2967		4750		3859		3495		2500		2658		2658	
5521	27204	3996	8	6400	3	5198	5 4%	2735		3167		5875	1 *	5875	1 * 42%
5522	27205	2937		5850		4394		3050		1833		1297		1297	
5523	26247	2500		6200	6	4350		3560		3333		1194		1194	
5524	27206							3800		2167					
5525	25123	2574		5250		3912		3025		2167		4363	9	4363	9 6%
5526	27207	2917		5900		4409		4225		3500	7	2485		2485	
5527	27208	2866		7100	1	4983	7	5400	5 *	2167		2792		2792	
5528	27209	2537		4550		3544		4175		2167		2428		2428	
5529	27210	3896	9	5400		4648		4050		1667		1951		1951	
5530	27211	3247		5700		4474		3750		3333		4286		4286	4%
5531	PA 6129 (HC)	3516		5650		4583		5200	8 *	2500		3982		3982	
5532	27212	2157		6150	8	4154		3990		1500		3733		3733	
5533	27213	1691		6200	7	3946		4340		2000		1703		1703	
5534	27214	2370		6400	4	4385		4065		1500		3871		3871	
5535	27215	2103		5750		3926		5580	3 *	3167		3514		3514	
5536	27216	3763		4350		4056		3760		2000		2575		2575	
5537	27217	2601		5450		4026		3675		1500		3708		3708	
5538	Zonal Check -ZC	2940		4950		3945		3800		2500		4123		4123	
5539	27218	2533		5550		4041		5270	6 *	1333		5036	5 *	5036	5 * 22%
5540	27219							3875		2167		2210		2210	
5541	27220	3159		5150		4154		3820		2167		3056		3056	
5542	27221	4154	5	4550		4352		3860		1667		3858		3858	
5543	27222			4750		4750		4005		1167		1293		1293	
5544	27223	1723		3100		2411		3705		3167		1504		1504	
5545	27224	2664		5100		3882		2950		2833		4010		4010	
5546	27225	2301		4700		3501		3200		3167		1064		1064	
5547	27226	2596		5300		3948		3060		3167		3189		3189	
5548	27227							3800		2333		2311		2311	
5549	27228	2179		5050		3614		4245		1667		2004		2004	
5550	27229	1996		4350		3173		4085		2167		2665		2665	
5551	27230	2031		6100	9	4066		4735		2500		3854		3854	
5552	27231	1620		5300		3460		3995		1833		4604	8	4604	8 12%
5553	27232	2629		5200		3914		5230	7 *	2500		3789		3789	
5554	27233	2824				2824		4190		1167		1319		1319	
5555	27234	2056		5550		3803		4340		3167		2760		2760	
5556	27235	1743		3850		2796		3815		3000		3793		3793	
5557	27236	3323		3750		3536		3975		3333		4642	7	4642	7 13%
5558	27237	5761	1 *	6000		5881	2 * 18%	4060		4667	2 *	3036		3036	
5559	27238	3323		6050		4686		4430		3667	5	3963		3963	
5560	27239	3896		5850		4873	8	3175		3167		5519	3 *	5519	3 * 34%
5561	27240	4206	4	6300	5	5253	4 5%	5575	4 *	3500	8	5257	4 *	5257	4 * 27%
5562	27241	4009	7	5150		4579		3625		4833	1 *	2924		2924	
5563	27242	2791		5100		3946		3955		2167		3221		3221	
5564	Local Check	4523	3	5450		4986	6	4175		2333		3426		3426	
	Exp Mean	2985		5345		4175		4033		2551		3184		3184	
	C.D. 5%	1026		1359		854		966		826		909		909	
	C.V. %	17.16		12.70		14.60		11.99		16.20		14.28		14.28	
	Sowing Date	05-07-2017		10-07-2017				31-07-2017		07-07-2017		08-07-2017			
	Planting Date														
	Local ©	PR 126		HKR-48				CR Dhan 202		Rajendra Neelam		Rajendra Bhagwati			
* Superior to Best Check % Superior over Best Check @ not included in means															

Table No. 4.14 contd : Grain Yield (Kg/ha) of entries in IVT -AEROB Kharif 2017

Entry No.	IET No.	III				Zone III (4)	V								
		JH		U.P.			M.P.		CG		CG		CG (1)		
		RCI		VRN			@REW		@RPR		JDP		Mean		
5501	27185	2550		3520		3265		362		2013		3769		3769	
5502	27186	2850				3393		311		377		2644		2644	
5503	27187	3150		3500		3274		292		1421		3963		3963	
5504	27188	6100	3 *	5020		4788	6 11%	743		2149		4461		4461	
5505	27189	2950		4730		3335		627		2568		5275		5275	
5506	27190	4200		4860		4066		1246		2213		5151		5151	
5507	27191	4300		4030		4606	7%			2283		5695		5695	
5508	27192	5400	5	5470		4111		834		2016		5484		5484	
5509	27193	4100		5000		4088				1516		3306		3306	
5510	27194	3800		5040		3914		378		2136		5486		5486	
5511	27195	2550		4980		3703		410		2478		4850		4850	
5512	27196	2350		6110	4 *	4495	4%	1489		3310	2	7256	1 *	7256	1 * 24%
5513	27197	3800		5340		3762		3071	5 *	2065		5164		5164	
5514	27198	3550		5650	7	3369		2243	*	2812		4413		4413	
5515	CR Dhan 201 (NC)	4650		4560		4031				1791		5846		5846	
5516	27199	5350	8	5610	9	4787	7 11%			2938	9	4794		4794	
5517	27200	3550		5180		4488	4%	2940	6 *	2899		5331		5331	
5518	27201	3000		3590		3403				1174		4638		4638	
5519	27202	3850		5760	5 *	4278		261		2857		6481	3	6481	3 11%
5520	27203	3350		4550		3513				1231		4222		4222	
5521	27204	5650	4	6360	3 *	5155	2 * 19%	2914	7 *	3710	1 *	6138	7	6138	7 5%
5522	27205	2300		4870		2879		349		1337		3969		3969	
5523	26247	4150		4490		3349		1234		2544		4354		4354	
5524	27206	1250				2525						2638		2638	
5525	25123	4700		5170		4314		1107		2940	8	6244	6	6244	6 7%
5526	27207	3700		5340		3937				1848		5819		5819	
5527	27208	5400	6	5120		4678	9 8%	267		2634		4981		4981	
5528	27209	4800		3130		3633		1728	*	1734		6024	8	6024	8 3%
5529	27210	5200		3950		3788		379		1549		5096		5096	
5530	27211	4550		5040		4407	2%	286		1943		4706		4706	
5531	PA 6129 (HC)	6450	2 *	6790	1 *	5605	1 * 30%	1298		3003	5	6569	2	6569	2 12%
5532	27212	3850		4780		4088		1478		2031		5944	9	5944	9 2%
5533	27213	3100		4880		3506		574		1832		4944		4944	
5534	27214	4750		4680		4341	1%	1429		2910		5763		5763	
5535	27215	4050		5130		4568	6%	1148		2642		5413		5413	
5536	27216	3950		2780		3266		1069		1420		3943		3943	
5537	27217	2500		6760	2 *	4161		1463		2967	7	6419	4	6419	4 10%
5538	Zonal Check -ZC	4700		4640		4316		1046		2484		5500		5500	
5539	27218	5000		3840		4787	8 11%	830		1854		6258	5	6258	5 7%
5540	27219	2400		3070		2889		499		658		4164		4164	
5541	27220	4150		5760	6 *	4196				1641		4738		4738	
5542	27221	4250		3750		3929		3095	4 *	2281		4715		4715	
5543	27222	3550		3370		3055				569		4231		4231	
5544	27223	2550		3120		2720				644		3894		3894	
5545	27224	3850		5450		4065		3625	1 *	2897		5536		5536	
5546	27225	3850		5290		3351				2288		4669		4669	
5547	27226	4600		5010		3965		507		2171		5453		5453	
5548	27227	2150		4247		3127				1044		4975		4975	
5549	27228	3300		4980		3632		58		1648		4656		4656	
5550	27229	3900		4970		3905		2184	*	2229		5419		5419	
5551	27230	5250	9	4540		4595	6%	3480	3 *	2645		5875		5875	
5552	27231	4000		4280		4220		302		3079	4	4606		4606	
5553	27232	3400		3710		4032		135		1703		5000		5000	
5554	27233	4750		5180		3860		2471	*	3275	3	5883		5883	1%
5555	27234	2650		3870		3405		1048		693		4185		4185	
5556	27235	2750		4250		3652		2912	8 *	1331		4219		4219	
5557	27236	5000		5040		4664	8%	3577	2 *	2623		5225		5225	
5558	27237	6900	1 *	5440		4859	5 * 13%	438		2681		5019		5019	
5559	27238	3150		3270		3703		1400		2806		5088		5088	
5560	27239	5400	7	5620	8	4929	3 * 14%	715		2567		5150		5150	
5561	27240	4000		4710		4885	4 * 13%	2556	9 *	2971	6	5901		5901	1%
5562	27241	2800		4270		3405		484		1487		3575		3575	
5563	27242	3250		3090		3379		1386		1356		5246		5246	
5564	Local Check	4150		4910		4165				2837		4496		4496	
	Exp Mean	3929		4701		3962		1294		2123		5013		5013	
	C.D. 5%	1308		830		505		600		718		1316		1316	
	C.V.%	16.66		8.83		12.94		23.08		16.91		13.13		13.13	
	Sowing Date	04-07-2017		07-07-2017				07-07-2017		03-07-2017		12-07-2017			
	Planting Date														
	Local ©	Birsa Dhan-201		HUR-3022						Indira Aerobic 1		Indira Aerobic-1			

Table No. 4.14 contd : Grain Yield (Kg/ha) of entries in IVT -AEROB Kharif 2017

Entry No.	IET No.	Zone V (1)		VI			VII			Overall (8)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
				GU		MH	KA							
		Mean		@VYR		@PBN		MND		Mean				
5501	27185	3769		1146		2489		1787		3025		93	96	272
5502	27186	2644				2231		1978		2852		103	84	235
5503	27187	3963		3308	4	2022		1987		3174		103	79	268
5504	27188	4461		3412	3	2098		3451		4589	9 3%	84	87	257
5505	27189	5275		2570		2471		3194		3742		87	95	246
5506	27190	5151		2162		2076		3850		4323		85	87	285
5507	27191	5695		1563		2364		2271		4248		86	89	281
5508	27192	5484		2526		2711		3062		4275		85	84	274
5509	27193	3306		2135		3053		3928		4226		100	121	218
5510	27194	5486		2397		2751		3463		4244		85	91	280
5511	27195	4850		1979		3409	3 *	2971		3697		94	100	282
5512	27196	7256	1 * 24%	1953		2591		2566		4628	7 4%	90	98	275
5513	27197	5164		3126	6	2227		3533		4018		83	98	257
5514	27198	4413		4818	1 *	2356		3481		3562		84	96	285
5515	CR Dhan 201 (NC)	5846		2995	9	2698		3847		4376		84	101	278
5516	27199	4794		2526		2551		3451		4563	3%	89	102	288
5517	27200	5331		3073	8	2062		4589	4	4469	1%	84	110	267
5518	27201	4638		1589		2116		2497		3591		82	88	248
5519	27202	6481	3 11%	1667		2573		2606		4601	8 4%	91	94	281
5520	27203	4222		1510		2076		2343		3542		91	94	306
5521	27204	6138	7 5%	4531	2 *	3142	5	2871		5003	2 * 13%	85	94	275
5522	27205	3969		2813		2018		2693		3371		102	87	272
5523	26247	4354		1406		2116		3460		3739		89	98	294
5524	27206	2638				2609		2962		2662		102	86	239
5525	25123	6244	6 7%	3099	7	3053		4704	1	4504	2%	82	116	288
5526	27207	5819		1901		2756		3481		4233		95	87	298
5527	27208	4981		1615		3102	8	2539		4525	2%	91	94	276
5528	27209	6024	8 3%	2214		2307		3693		3917		79	85	320
5529	27210	5096		2760		2871		2874		4052		85	93	276
5530	27211	4706		2135		2476		3599		4360		88	109	256
5531	PA 6129 (HC)	6569	2 12%	3256	5	2924		4082		5280	1 * 19%	86	88	276
5532	27212	5944	9 2%	2309		3138	7	4257	8	4358		85	101	281
5533	27213	4944		2662		3444	2 *	2871		3716		87	91	289
5534	27214	5763		2344		2738		4176	9	4509	2%	83	101	278
5535	27215	5413		2240		2133		3590		4391		85	107	265
5536	27216	3943		2449		3080	9	2440		3445		88	94	283
5537	27217	6419	4 10%	2396		2116		3086		4275		92	105	270
5538	Zonal Check -ZC	5500		2136		2329		3801		4307		82	105	267
5539	27218	6258	5 7%	2058		2933		3847		4667	6 5%	86	89	275
5540	27219	4164				2160		2150		2978		104	90	255
5541	27220	4738		1719		2244		2823		4082		89	90	266
5542	27221	4715		2526		2071		2841		3997		78	99	245
5543	27222	4231				2178		3874		3582		101	103	215
5544	27223	3894		1641		2440		2274		2734		98	88	244
5545	27224	5536		2865		2164		4260	7	4228		84	108	263
5546	27225	4669		1224		2453		3219		3537		96	99	270
5547	27226	5453		2031		2813		3744		4119		86	85	280
5548	27227	4975				2218		3194		3446		98	88	268
5549	27228	4656		1354		2831		2832		3656		94	92	291
5550	27229	5419		2162		3004		3536		3865		87	87	307
5551	27230	5875		2240		2364		3961		4543	2%	84	93	301
5552	27231	4606		2500		3582	1 *	3732		4017		91	98	287
5553	27232	5000		1198		3022		3125		4010		93	97	273
5554	27233	5883	1%	2344		2964		4698	2	4121		84	101	272
5555	27234	4185		1510		2342		2437		3481		92	98	290
5556	27235	4219		1737		2044		2633		3382		82	100	254
5557	27236	5225		1615		2222		4671	3	4453		81	100	282
5558	27237	5019		2396		3142	6	2645		4858	5 * 9%	87	92	274
5559	27238	5088		1563		2702		3675		4118		85	95	296
5560	27239	5150		2735		3062		4523	5	4892	4 * 10%	86	105	273
5561	27240	5901	1%	2526		3218	4 *	3768		4965	3 * 12%	83	101	273
5562	27241	3575		1849		3067		2264		3577		94	98	264
5563	27242	5246		1433		2209		2174		3603		86	91	278
5564	Local Check	4496		1615		2036		4360	6	4436		84	99	305
	Exp Mean	5013		2264		2574		3270		4058		88	96	274
	C.D. 5%	1239		904		456		946		384		2		21
	C.V. %	12.37		19.94		8.86		14.47		13.63		3.51		14.09
	Sowing Date			19-07-2017		16-07-2017		14-09-2017						
	Planting Date													
	Local ©			NAUR 1		Avishkar		KMP- 175						

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Table No 4.15 : Days to 50% Flowering of entries in IVT -AEROB Kharif 2017

Entry No.	IET No.	II		Zone II	III							Zone III	V				Zone V	VI		Zone VI	VII	Overall
		PUN	HAR	(2)	OD	BI	BI	BI (2)	JH	U.P.	(5)	M.P.	CG	CG	CG (2)	(3)	GU	MH	(2)	KA	(13)	
		LDN	KUL	Mean	CTK	PSA	PTN-ICAR	Mean	RCI	VRN	Mean	REW	RPR	JDP	Mean	Mean	VYR	PBN	Mean	MND	Mean	
5501	27185	102	90	96	86	89	92	90	99	89	91	108	98	93	95	99	98	96	97	76	93	
5502	27186				85	113		113	114		104	116	114	94	104	108		100	100	90	103	
5503	27187				84	105	104	104	108	100	100	109	111	110	111	110	98	102	100	110	103	
5504	27188	79	77	78	77	78	80	79	88	71	78	78	114	86	100	93	78	88	83	95	84	
5505	27189	88	78	83	77	82	86	84	91	85	84	86	96	93	94	92	82	90	86	97	87	
5506	27190	87	81	84	85	71	79	75	87	102	84	81	87	83	85	84	80	89	85	99	85	
5507	27191	82	80	81	82	88	80	84	86	103	88	85	86	83	84	84	83	86	84	97	86	
5508	27192	83	79	81	73	77	85	81	88	103	85	77	84	88	86	83	83	90	86	100	85	
5509	27193		91	91	78	102	111	106	109	98	99	114	110	110	110	111	97	96	96	89	100	
5510	27194	80	78	79	76	84	78	81	91	74	80	96	86	87	86	89	79	95	87	106	85	
5511	27195	96	86	91	82	90	93	92	98	81	89	101	95	105	100	100	91	99	95	107	94	
5512	27196	95	86	90	79	91	85	88	95	78	85	87	94	92	93	91	84	97	90	107	90	
5513	27197	84	83	84	82	77	79	78	86	72	79	83	88	85	86	85	81	85	83	96	83	
5514	27198	85	78	81	84	75	80	78	91	72	80	83	91	94	92	89	79	89	84	100	84	
5515	CR Dhan 201 (NC)	84	79	81	79	75	82	78	90	77	80	87	91	90	90	89	84	86	85	89	84	
5516	27199	91	83	87	87	89	88	88	95	84	88	99	96	63	79	86	91	95	93	97	89	
5517	27200	86	83	85	81	79	79	79	88	76	80	82	85	88	86	85	83	86	84	93	84	
5518	27201	82	78	80	86	85	76	80	92	71	82	89	78	82	80	83	81	79	80	95	82	
5519	27202	100	89	95	85	96	93	94	99	86	91	78	89	91	90	86	87	95	91	100	91	
5520	27203	90	81	85	75	91	96	94	92	86	88	95	95	88	91	93	91	99	95	101	91	
5521	27204	83	78	80	69	86	82	84	92	73	80	84	92	89	90	88	82	94	88	101	85	
5522	27205	101	90	95	85	102	106	104	108	96	99	112	110	110	110	110	95	99	97	112	102	
5523	26247	93	83	88	82	89	81	85	95	84	86	90	95	79	87	88	93	95	94	98	89	
5524	27206				84	97		97	118		100			115	115	115		100	100	97	102	
5525	25123	85	83	84	79	76	80	78	88	73	79	84	83	87	85	85	82	87	84	89	82	
5526	27207	99	89	94	84	92	95	93	102	84	91	106	105	92	98	101	91	99	95	95	95	
5527	27208	90	86	88	80	88	92	90	87	86	86	98	108	92	100	99	87	89	88	97	91	
5528	27209	75	73	74	78	73	75	74	87	69	76	77	86	89	87	84	76	86	81	92	79	
5529	27210	82	77	80	82	87	86	86	90	73	83	83	88	88	88	86	85	90	87	96	85	
5530	27211	88	82	85	84	86	84	85	95	79	85	97	92	90	91	93	91	90	90	93	88	
5531	PA 6129 (HC)	85	84	85	83	86	84	85	90	72	83	82	88	90	89	86	82	90	86	100	86	
5532	27212	87	82	85	78	88	84	86	91	75	83	85	91	87	89	87	87	87	87	88	85	
5533	27213	93	86	89	73	91	90	90	91	79	84	85	90	88	89	88	84	88	86	100	87	
5534	27214	90	83	86	77	76	82	79	87	75	79	83	88	87	87	86	79	85	82	89	83	
5535	27215	90	83	87	75	82	81	81	90	74	80	90	91	88	89	89	78	90	84	93	85	
5536	27216	89	87	88	78	94	88	91	90	87	87	87	96	87	91	90	82	91	86	87	88	
5537	27217	95	89	92	77	92	91	92	99	83	88	92	95	90	92	92	89	99	94	102	92	
5538	Zonal Check -ZC	86	80	83	76	76	78	77	86	75	78	82	84	87	86	84	81	91	86	87	82	
5539	27218	90	80	85	74	91	85	88	91	81	84	83	98	87	92	89	83	90	86	89	86	
5540	27219				75	104	103	103	109	103	99	111	112	111	111	111		103	103	109	104	
5541	27220	93	87	90	80	82	92	87	90	78	84	95	96	92	94	94	85	89	87	95	89	
5542	27221	80	76	78	79	77	75	76	86	70	77	79	78	78	78	78	77	80	78	85	78	
5543	27222		91	91	82	102	111	106	109	99	100	110	111	107	109	109		98	98	94	101	
5544	27223	95	87	91	83	93	99	96	100	90	93	100	111	106	108	106	100	104	102	111	98	
5545	27224	86	85	86	79	81	78	80	87	76	80	93	85	88	86	88	82	89	85	85	84	
5546	27225	103	91	97	72	94	100	97	107	83	91	95	101	108	104	101	98	97	97	105	96	
5547	27226	85	81	83	80	79	85	82	88	75	81	96	88	90	89	91	82	89	86	97	86	
5548	27227				83	106	97	101	107	71	93	103	110	95	102	103		95	95	111	98	
5549	27228	99	89	94	71	88	101	95	107	86	91	109	96	95	95	100	89	100	94	92	94	
5550	27229	90	81	85	84	88	91	89	87	81	86	84	90	91	90	88	85	89	87	91	87	
5551	27230	89	81	85	76	86	82	84	88	73	81	89	86	86	86	87	84	88	86	91	84	
5552	27231	93	88	90	88	91	83	87	89	86	87	98	91	104	97	97	82	97	89	99	91	
5553	27232	94	89	91	79	93	90	91	102	84	89	101	99	91	95	97	98	98	98	98	93	
5554	27233	86		86	79	82	85	83	86	73	81	95	84	88	86	89	82	80	81	95	84	
5555	27234	87	83	85	85	106	85	95	100	80	91	92	95	90	92	92	99	98	98	98	92	
5556	27235	82	79	81	76	83	87	85	84	75	81	84	90	79	84	84	78	87	82	87	82	
5557	27236	77	79	78	79	76	78	77	86	71	78	80	85	82	83	82	86	90	88	92	81	
5558	27237	86	83	84	79	82	90	86	90	82	84	101	91	64	77	85	85	99	92	102	87	
5559	27238	88	83	86	74	86	80	83	88	81	82	83	91	88	89	87	82	86	84	93	85	
5560	27239	83	79	81	87	83	79	81	86	80	83	88	89	92	90	90	87	89	88	93	86	
5561	27240	80	80	80	77	87	81	84	88	73	81	81	87	85	86	84	86	86	86	90	83	
5562	27241	94	89	91	77	84	93	88	100	87	88	108	99	104	101	103	97	96	96	99	94	
5563	27242	88	83	85	78	83	82	82	91	82	83	92	89	89	89	90	84	85	84	89	86	
5564	Local Check	82	83	83	83	86	83	84	96	84	86		89	82	85	85	82	77	79	85	84	
	Exp Mean	88	83	86	79	87	87	87	94	81	86	92	93	9								

Table No 4.16 : Plant Height (cm) of entries in IVT -AEROB Kharif 2017

Entry No.	IET No.	II		Zone II (2)	III							Zone III (5)	V				Zone V (3)	VI		Zone VI (2)	VII KA	Overall (13) Mean
		PUN	HAR		OD	BI	BI	BI (2)	JH	U.P.	M.P.		CG	CG	CG (2)	GU		MH				
		LDN	KUL	Mean	CTK	PSA	PTN-ICAR	Mean	RCI	VRN	Mean	REW	RPR	JDP	Mean	Mean	VYR	PBN	Mean	MND		
5501	27185	97	113	105	119	115	100	108	105	119	112	70	103	89	96	87	95	59	77	65	96	
5502	27186				111	109		109	94		105	62	98	87	93	82		50	50	63	84	
5503	27187				107	91	71	81	91	89	90	58	86	96	91	80	96	41	69	47	79	
5504	27188	86	102	94	122	91	96	94	105	97	102	67	82	82	82	77	90	42	66	65	87	
5505	27189	103	103	103	110	118	95	107	102	101	105	74	104	104	104	94	101	48	75	74	95	
5506	27190	93	104	99	116	83	85	84	100	98	96	68	92	92	92	84	89	45	67	63	87	
5507	27191	85	93	89	120	96	100	98	96	102	103	61	94	99	97	85	99	49	74	68	89	
5508	27192	81	87	84	117	90	92	91	92	110	100	53	88	85	87	75	93	46	70	65	84	
5509	27193		161	161	121	154	112	133	114	150	130	84	144	96	120	108	138	85	112	88	121	
5510	27194	85	102	94	117	103	109	106	93	111	107	61	92	90	91	81	96	54	75	69	91	
5511	27195	96	118	107	118	124	98	111	108	114	113	64	103	107	105	91	119	63	91	74	100	
5512	27196	99	120	110	102	97	116	106	103	121	108	68	103	105	104	92	117	51	84	71	98	
5513	27197	106	107	106	106	110	127	119	100	95	108	85	111	95	103	97	111	57	84	71	98	
5514	27198	91	106	98	121	105	106	105	100	103	107	73	108	92	100	91	108	59	84	82	96	
5515	CR Dhan 201 (NC)	102	130	116	123	98	118	108	106	110	111	73	101	104	103	93	101	65	83	78	101	
5516	27199	108	121	115	121	113	122	118	97	117	114	70	105	100	103	92	118	64	91	75	102	
5517	27200	128	123	126	118	108	124	116	109	124	117	94	112	115	113	107	118	69	94	86	110	
5518	27201	93	100	96	112	105	97	101	90	109	102	62	88	95	91	81	84	48	66	61	88	
5519	27202	91	122	107	109	99	112	105	100	113	107	57	101	111	106	90	95	55	75	61	94	
5520	27203	102	119	110	117	100	89	94	99	112	103	59	97	101	99	86	91	60	76	72	94	
5521	27204	95	103	99	119	103	96	100	91	111	104	79	102	95	98	92	100	55	78	68	94	
5522	27205	82	102	92	188	74	84	79	93	98	107	55	85	88	87	76	87	48	68	54	87	
5523	26247	93	118	106	113	109	109	109	108	114	110	93	98	91	94	94	100	58	79	71	98	
5524	27206				101	111		111	98		103			96	96	96		42	42	71	86	
5525	25123	130	142	136	115	126	121	124	128	120	122	83	127	116	122	109	124	72	98	100	116	
5526	27207	82	102	92	115	107	71	89	106	102	100	48	86	96	91	77	96	54	75	67	87	
5527	27208	103	113	108	122	119	93	106	97	115	109	60	96	94	95	83	96	48	72	68	94	
5528	27209	77	95	86	122	90	94	92	88	93	97	61	85	94	89	80	85	51	68	69	85	
5529	27210	94	104	99	126	97	94	95	100	116	107	56	95	96	96	83	102	58	80	67	93	
5530	27211	120	127	124	131	113	122	118	115	139	124	56	113	119	116	96	121	65	93	83	109	
5531	PA 6129 (HC)	88	98	93	96	85	97	91	105	108	98	60	97	95	96	84	97	48	73	68	88	
5532	27212	97	119	108	114	103	105	104	102	124	109	77	108	109	109	98	114	58	86	85	101	
5533	27213	80	103	91	116	81	79	80	111	108	99	72	96	90	93	86	94	86	90	64	91	
5534	27214	92	117	104	119	103	92	98	107	116	107	72	108	105	106	95	113	84	99	80	101	
5535	27215	101	117	109	132	122	124	123	100	98	115	91	108	112	110	103	113	90	102	81	107	
5536	27216	98	98	98	118	93	108	101	90	99	102	72	98	90	94	87	95	92	94	69	94	
5537	27217	105	111	108	131	95	87	91	109	126	110	81	114	111	112	102	114	102	108	79	105	
5538	Zonal Check - ZC	122	113	117	121	124	113	119	96	103	112	79	106	113	110	99	114	92	103	71	105	
5539	27218	90	99	94	105	81	103	92	82	95	93	56	93	97	95	82	98	90	94	68	89	
5540	27219				124	91	97	94	100	97	102	63	86	92	89	80		104	104	47	90	
5541	27220	91	90	90	110	103	91	97	98	106	102	53	93	87	90	78	92	91	92	60	90	
5542	27221	108	100	104	126	105	107	106	102	105	109	74	94	105	99	91	97	80	89	79	99	
5543	27222		117	117	119	133	100	116	99	118	114	67	96	96	96	86		99	99	86	103	
5544	27223	85	86	86	101	90	81	85	114	98	97	60	84	95	90	80	89	104	97	62	88	
5545	27224	122	119	120	117	112	121	116	97	121	114	77	113	115	114	101	115	89	102	87	108	
5546	27225	100	101	100	124	124	95	110	89	111	109	73	112	100	106	95	94	98	96	71	99	
5547	27226	78	87	83	126	81	91	86	80	92	94	65	81	90	85	78	78	90	84	70	85	
5548	27227				116	92	73	83	96	96	95	72	77	99	88	83		95	95	60	88	
5549	27228	84	81	83	112	111	77	94	92	110	101	73	105	95	100	91	82	101	92	66	92	
5550	27229	83	87	85	112	96	83	90	98	96	97	64	91	91	91	82	77	90	84	66	87	
5551	27230	87	100	94	117	88	94	91	104	101	101	67	93	100	96	87	98	88	93	66	93	
5552	27231	91	106	99	124	103	114	108	98	94	107	60	108	98	103	88	104	98	101	75	98	
5553	27232	89	97	93	120	105	106	105	118	108	111	75	96	91	93	87	91	99	95	73	97	
5554	27233	115		115	108	109	100	104	97	108	104	74	107	116	111	99	108	81	95	85	101	
5555	27234	96	105	101	117	87	102	95	99	115	104	76	96	103	99	92	93	99	96	81	98	
5556	27235	94	106	100	113	113	102	107	118	112	112	85	108	95	101	96	96	87	92	69	100	
5557	27236	106	106	106	121	95	117	106	99	101	107	82	106	100	103	96	101	89	95	80	100	
5558	27237	101	98	100	108	100	97	99	101	99	101	46	96	90	93	77	95	99	97	71	92	
5559	27238	97	97	97	118	103	105	104	102	115	108	63	97	94	95	84	95	87	91	66	95	
5560	27239	104	112	108	123	120	130	125	101	112	117	82	104	101	102	95	112	90	101	77	105	
5561	27240	100	92																			

Table No. 4.17: Panicles/ M² of entries in IVT -AEROB Kharif 2017

Entry No.	IET No.	II		Zone II (2)	III							Zone III	V				Zone V (3)	VI		Zone VI	VII	Overall
		PUN	HAR		OD	BI	BI	BI (2)	JH	U.P.	M.P.		CG	CG	CG (2)	GU		MH	(2)			
		LDN	KUL	Mean	CTK	PSA	PTN-ICAR	Mean	RCI	VRN	Mean	REW	RPR	JDP	Mean	Mean	VYR	PBN	Mean	MND	Mean	
5501	27185	420	299	359	247	233	157	195	259	259	231	113	341	234	287	229	244	198	221	534	272	
5502	27186				200	147		147	323		223	133	163	277	220	191		184	184	456	235	
5503	27187				253	152	272	212	365	391	286	172	193	265	229	210	335	173	254	385	268	
5504	27188	440	247	343	202	188	181	184	241	323	227	111	312	315	313	246	270	184	227	333	257	
5505	27189	405	238	322	213	211	187	199	131	276	203	126	370	255	312	250	261	196	228	330	246	
5506	27190	575	253	414	229	250	243	246	243	329	258	231	354	340	347	308	166	180	173	313	285	
5507	27191	515	282	398	174	215	232	223	336	330	257	76	269	400	334	248	292	206	249	323	281	
5508	27192	470	231	351	220	223	145	184	274	332	239	134	362	298	330	265	260	225	242	384	274	
5509	27193		242	242	212	215	99	157	169	294	198	30	287	268	277	195	226	261	243	309	218	
5510	27194	445	227	336	161	237	244	240	275	341	252	126	367	321	344	271	267	245	256	391	280	
5511	27195	465	243	354	162	214	223	218	253	317	233	168	346	335	341	283	257	279	268	408	282	
5512	27196	450	298	374	228	175	265	220	241	287	239	195	300	319	309	271	204	195	199	425	275	
5513	27197	480	203	342	160	244	184	214	210	283	216	203	265	350	307	272	239	201	220	327	257	
5514	27198	505	279	392	197	235	218	226	271	296	243	250	385	278	331	304	240	205	223	344	285	
5515	CR Dhan 201 (NC)	475	250	362	223	207	233	220	316	321	260	108	259	388	324	252	318	215	267	303	278	
5516	27199	430	279	354	193	225	255	240	335	328	267	160	355	274	314	263	353	210	281	343	288	
5517	27200	435	227	331	200	180	169	175	293	318	232	267	278	323	300	289	300	181	240	306	267	
5518	27201	430	220	325	228	196	208	202	243	289	233	87	309	262	286	219	206	187	196	364	248	
5519	27202	495	239	367	239	246	218	232	323	329	271	99	278	307	293	228	196	225	211	466	281	
5520	27203	520	325	423	250	176	278	227	258	408	274	130	303	386	344	273	206	176	191	558	306	
5521	27204	415	242	329	200	184	208	196	226	299	223	277	364	260	312	300	319	247	283	333	275	
5522	27205	475	300	387	207	161	158	159	290	371	237	112	292	279	285	228	318	175	246	395	272	
5523	26247	505	231	368	192	206	249	227	211	338	239	336	306	254	280	299	351	180	265	459	294	
5524	27206				215	193		193	190		199			270	270	270		215	215	351	239	
5525	25123	490	347	419	206	198	191	194	217	308	224	190	266	352	309	269	280	258	269	446	288	
5526	27207	565	280	422	223	207	259	233	333	428	290	83	291	260	276	211	352	245	299	344	298	
5527	27208	540	259	399	260	192	228	210	220	245	229	120	337	268	302	242	258	270	264	395	276	
5528	27209	485	261	373	247	191	271	231	305	435	290	262	361	427	394	350	320	199	259	395	320	
5529	27210	425	280	353	221	163	229	196	268	335	243	100	329	331	330	253	291	229	260	395	276	
5530	27211	405	216	310	272	244	202	223	249	242	241	119	280	225	252	208	271	204	237	398	256	
5531	PA 6129 (HC)	405	290	347	218	182	154	168	231	328	222	203	358	311	334	290	263	258	260	391	276	
5532	27212	515	284	399	218	170	146	158	211	314	211	227	297	363	330	295	241	265	253	412	281	
5533	27213	480	334	407	214	157	152	154	260	391	235	152	323	345	334	273	241	283	262	425	289	
5534	27214	520	270	395	182	171	186	178	232	314	217	233	373	293	333	299	286	230	258	326	278	
5535	27215	480	241	361	192	218	178	198	268	318	235	164	340	316	328	273	242	182	212	313	265	
5536	27216	455	241	348	234	148	297	222	297	358	267	169	324	398	361	297	207	252	229	299	283	
5537	27217	445	232	338	215	147	238	192	291	311	240	224	348	274	311	282	304	179	241	306	270	
5538	Zonal Check -ZC	510	259	384	235	197	168	182	188	283	214	149	315	328	321	264	331	186	258	326	267	
5539	27218	395	328	361	235	178	219	198	245	337	242	139	346	317	331	267	262	254	258	320	275	
5540	27219				147	193	287	240	249	374	250	220	192	287	240	233		194	194	411	255	
5541	27220	400	242	321	204	156	187	172	264	330	228	85	347	292	319	241	336	191	264	425	266	
5542	27221	345	226	285	205	188	165	176	188	298	209	227	359	168	264	251	306	183	244	330	245	
5543	27222		277	277	228	140	156	148	216	368	221	95	148	252	200	165		175	175	313	215	
5544	27223	435	245	340	274	213	206	209	283	283	252	117	166	252	209	178	182	210	196	306	244	
5545	27224	320	238	279	261	226	217	221	261	319	256	189	367	285	326	280	292	179	235	272	263	
5546	27225	545	224	384	208	217	218	217	271	281	239	156	343	256	299	251	168	209	188	418	270	
5547	27226	440	249	344	225	215	209	212	239	298	237	181	343	321	332	282	270	253	261	395	280	
5548	27227				215	180	223	201	330	461	282	182	172	245	208	200		198	198	476	268	
5549	27228	530	298	414	251	197	223	210	294	321	257	89	351	247	299	229	283	253	268	449	291	
5550	27229	545	258	401	216	199	238	218	365	368	277	220	369	289	329	292	303	254	279	364	307	
5551	27230	470	269	370	200	149	235	192	314	365	252	278	350	409	380	346	301	182	241	394	301	
5552	27231	480	254	367	234	160	223	191	301	317	247	108	363	274	319	248	267	285	276	473	287	
5553	27232	495	225	360	218	210	194	202	288	335	249	116	321	253	287	230	255	268	261	371	273	
5554	27233	380		380	195	169	155	162	292	309	224	188	349	353	351	296	267	256	262	350	272	
5555	27234	460	220	340	189	223	266	244	288	459	285	113	319	355	337	262	332	231	281	317	290	
5556	27235	480	220	350	208	207	233	220	254	290	238	208	280	198	239	222						

ADVANCE VARIETY TRIAL 2 – RICE BIOFORTIFICATION (AVT-2- BIOFORT)

Locations: 31**Test Entries: 11**

Checks: **Yield Checks:** BPT 5204 (Late) & IR64 (Mid Early)
Micronutrient checks: Kalanamak and Chittimuthyalu.

Table:5.1

The trial was constituted with 11 test entries, 2 yield checks: IR64 (Mid early) and BPT 5204 (Late) as well as 2 micronutrient checks: Chittimutyalu and Kalanamak. It was conducted at 31 locations situated in Zone I, II, III, V, VI and VII across 17 states. Data was received from 24 locations except Khudwani, Bhubaneswar, Sabour, Hahathwara, Kolkata, Raipur and Karaikal. Seed samples were received from 21 centers viz., Malan, Ludhiana, Cuttack, Chinsura, Pusa, Varanasi, Raipur, Rewa, Sakoli, Sindewahi, Karjat, Shirgaon, Navsari, Nawagam, IIRR-Hyderabad, Maruteru, Aduthurai, Gangavathi, Mugad, Moncompu, and Pattambi. Seed samples from each centre were subjected to iron and zinc analysis in polished rice through X-ray Fluorescence spectrophotometer (XRF) available at IIRR.

The yield data from Malan (2595 Kg/ha), Masoda (3833 Kg/ha), Rewa (3454 Kg/ha), Sakoli (3644 Kg/ha), Sindewahi (1176 Kg/ha), Karjat (3709 Kg/ha), IIRR (2169 Kg/ha), Pattambi (1740 Kg/ha), Mandya (3433 Kg/ha), Brahmavar (1908 Kg/ha), Mugad (688 Kg/ha) was not considered due to low experimental yield (< 4000 Kg/ha). Mean yield of locations ranged from 688 kg/ha (Mugad) to 7432 Kg/ha (Gangavati) while CV of locations ranged from 5.79% (Gangavati) to 28.68% (IIRR). Mean yield of test entries ranged from 4597 kg/ha (Chittimutyalu) to 6098 kg/ha (IET 25470). Among checks, IR 64 topped in yield (5964 Kg/ha) followed by BPT 5204 (5444 Kg/ha). Flowering duration ranged from 90 days (IET 25475 and IR64) to 110 days (BPT 5204) whereas panicles/m² from 269 (IET 25470) to 297 (IET 25446). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 5.2, 5.3, 5.4 and 5.5.

Information on mean iron, zinc and protein content of test entries and locations was presented in Tables 5.7, 5.8 and 5.9. Among the micronutrient checks, Chittimutyalu possessed 23.9 ppm Zinc, 3 ppm iron and 9.59 % proteins while Kalanamak contained 20.7 ppm zinc, 3 ppm iron and 8.06 % proteins. Three entries namely IET 25443, IET 25475 and IET 25477 showed yield superiority over the yield checks (IR 64 and BPT 5204) possessing Zn content of > 24 ppm. The performance of these entries on the basis of overall mean and zonal mean was discussed below.

IET 25443 (RP 4993-300-22-18-1-4-1) from the cross BPT 5204/Chittimutyalu recorded 4728 Kg/ha. It had a flowering duration of 108 days and medium slender grains. IET 25443 ranked second in Zone III (5197 Kg/ha, 2nd rank) with 113 days to 50% flowering and indicated 10% yield advantage over BPT 5204. In West Bengal it was the first ranking entry (5902 Kg/ha) with 22.6% and 17.8% yield gain over IR 64 and BPT 5204 respectively. In Zone VII it recorded mean grain yield of 4864 kg/ha and statewide it stood 3rd in AP (5584 Kg/ha) with 9.1% and 9.4% yield improvement over IR 64 and BPT 5204 respectively. Quality wise it exhibited 61.5% HRR, 4.0 ASV, 25.63% AC and 22mm GC. Although it had recorded high Zinc (25ppm) in polished rice, quality wise it is inferior as it has high AC (25.63%) along with low GC (22 mm) (Table 5.6).

IET 25475 (R-RHZ-SM-14), a derivative of the cross Swarna / Moroberekan was found promising (5102 Kg/ha). It possessed short bold grains with 90days flowering duration. It exhibited 3.9% yield superiority over BPT 5204 in zone III (4896 kg/ha, 7th rank). Statewise it was promising in Bihar (4444 kg/ha, 6th rank) outyielding the check, IR 64 by 14.7% and BPT 5204 by 12.9%; in West Bengal (5902 Kg/ha) with 22.6% yield gain over IR 64 and 17.8% over BPT 5204. In zone VI, it stood 6th position (5236 Kg/ha) outperforming BPT 5204 by 9.2% yield gain. Statewise it ranked 2nd in Maharashtra (4959 Kg/ha) with 44.6 % yield advantage over BPT 5204. In Zone VII it recorded 5115 Kg/ha yield and was found promising in Andhra Pradesh (5686 Kg/ha, 2nd rank) and outyielded IR 64 and BPT 5204 by 11.1% and 11.4 % respectively. Quality wise it showed 57% HRR, 4.0 ASV, 27.57% AC and 23 mm GC. It recorded 25.3 ppm of zinc in polished rice. But it had poor quality with high AC (25.75%) along with 23 mm GC.

Micronutrient status and yield of entries in AVT-2 (Biofort)

S No	Entry (IET)	DFP	Overall mean Yield (Kg/ha)	% yield gain over IR 64	% yield gain over BPT 5204	Zinc (ppm)	Iron (ppm)	Protein %	Remarks
1	25461	92	5210	-12.30	-4.30	23.1	2.5	7.83	-
2	25443	108	4728	-20.42	-13.15	25.0	2.5	9.00	Dropped due to poor quality (AC:25.63 GC :22 mm)
3	25475	90	5102	-14.12	-6.28	25.3	2.6	8.09	Dropped due to poor quality (AC:25.75 GC :23 mm)
4	25470	93	6098	12.01	12.01	19.8	2.5	7.85	-
5	25451	102	5661	-4.71	3.99	21	3.2	8.88	-
6	25467	103	5706	-3.96	4.81	22.4	2.7	7.57	-
7	25458	103	5774	-2.81	6.06	22.7	3.1	8.37	-
8	24775	103	5177	-12.86	-4.90	19.9	2.9	9.37	-
9	25446	94	5225	-12.05	-4.02	23.2	3.2	7.93	-
10	24774	103	5212	-12.27	-4.26	20.2	2.3	7.57	-
11	25477	100	4791	-19.36	-11.99	25.5	2.6	7.83	Promising in West Bengal (Zone III) (Zn).
IR 64 (YC)		90	5941			18.5	1.8		7.17
BPT 5204 (YC)		110	5444			18.1	2.6		7.83
Chittimuthyalu (MC)		104	4597			23.9	3.0		9.59
Kalanamak (MC)		103	4609			20.7	3.0		8.06

YC: Yield Check, MC: Micronutrient Check

IET 25477 (R-RHZ-LI-23), a derivative of the cross Lalmati / IR 681444B-13-2-1-1 with 100 days to 50% flowering and medium slender grain yielded 4275 Kg/ha. It was promising in Uttar Pradesh (3803 Kg/ha, 8th rank) with 66.1% yield advantage over BPT 5204. In Zone VII it recorded 5494Kg/ha yield and was found superior in Andhra Pradesh (5337 Kg/ha, 6th rank) with yield gain of 4.2% over IR 64 and 4.5 % over BPT 5204. Although it displayed high zinc content (25.5ppm), it's quality is poor owing to low HRR (51.4%).

Three years performance of promising entries during 2016 to 2018

Three entries viz., IET 25443 (RP 4993-300-22-18-1-4-1), IET 25475 (R-RHZ-SM-14) and IET 25477 (R-RHZ-LI-23) completed 3 years of testing in biofortification trials. None of them showed yield superiority over the yield checks (IR 64 and BPT 5204) in overall mean during 3 years. (2015, 2016 and 21017). But they possessed >24 ppm Zinc and superior to micronutrient checks (Kalanamak and Chittimutyalu) ie., 25 ppm, 25.3 ppm and 25.5 ppm in IET 25443, 25475 and 25477 respectively.

Three years performance of the entries IET 25443, IET 25475 and 25477 (2015-17) Corrected – we considered only 5% yield.

S.NO	IET N0	Year	Overall mean GY/FD/GT	% Over IR-64/ BPT 5204	Zone	Yield Kg/ha FD	% IR-64	% BPT 5204	State Rank	Yield kg/ha	% IR-64	%BPT 5204
1	25443 BPT 5204 / Chittimutyalu	2017	4728 108 MS	- -	Z-III-2	5197 (113)	3	10	WB-1	5902 (100)	22.6	17.8
					Z-VII	4864(98)	-	-	AP-3	5584 (111)	9.1	9.4
		2016	4660	- -	Z- III	4624 (104)	-	-	WB-7	4787 (104)	-	6.2
									UP-1	6942 (92)	24.7	28.5
					Z -V-2	4577 (106)	8.3	15.2	MH6	4210 (91)	0.02	21.7
		2015	3629 109 MS	- -	Z-III	3295 (116)	-	-	OD	3874 (140)	29.2	10.1
					Z V	3641 (116)	4.8	-	CG	3093 (121)	89.9	-
					Z VI	3543 (99)	-	-	MH	4414 (107)	-	0.2
					Z VII	4152	12.6	2.6	TN	3030 (101)	13.5	-
									KE	6837 (97)	26.4	57.8
2	25475 (R-RHZ-SM-14)	2017	5102 90 SB	- -	Z-I II	4896 (90)	-	3.9	BI-6	4444 (61)	14.7	12.9
									WB-1	5902 (86)	22.6	17.8
					Z- VI-6	5236 (88)	-	9.26	MH-2	4959 (85)	-	44.6
					Z-VII	5115 (90)	-	-	AP-2	5686 (83)	11.1	11.4
		2016	4478 93 SB	- -	Z II-3	4485 (121)	-	47.7	PUN-3	4485 (121)	-	47.7
					Z III-5	4956 (99)	-	1.347	OD-1	6957 (105)	89.5	35.8
									WB-5	4920 (100)	-	9.16
		2015	3881 91 SB	- -	Z III	4367 (98)	13.6	4.8	WB	4888 (86)	24.2	17.0
									UP-7	5013 (101)	11.0	4.4
					Z V	4147 (83)	19.4	-	CG	3774 (83)	131.8	8.9
					Z VI	3496 (85)	-	-	-	-	-	-
					Z VII	2935 (91)	-	-	KA	3043 (92)	2.0	15.1

S.NO	IET N0	Year	Overall mean GY/FD/GT	% Over IR-64/ BPT 5204	Zone	Yield Kg/ha FD	% IR-64	% BPT 5204	State Rank	Yield kg/ha	% IR-64	%BPT 5204
3	25477 R-RHZ-LI-23	2017	4791 100 MS	- -	Z III	4275 (101)	-	-	UP-8	3803 (106)	-	66.1
					Z VII	5494 (102)	-	-	AP-6	5337 (99)	4.26	4.57
		2016	4360 97 MS	- -	Z II-8	3616 (106)	-	19.1	PUN-8	3616 (106)	-	19.1
					Z III-9	4676 (107)	-	-	OD-2	6522 (105)	77.6	27.3
									WB	5359 (101)	0.37	18.9
					Z V	3363 (86)	-	-	MH-5	3523 (86)	-	1.8
					Z VII-9	5743 (95)	-	-	KE-5	5743 (85)	-	-
		2015	3620 101 LB	- -	Z III	3656 (115)	-	-	WB	4948 (102)	25.8	18.5
					Z V	3752 (94)	8.0	-	CG	2518 (92)	54.6	-
									MH	4987 (91)	-	0
									MH	4591 (97)	-	4.2
					Z VI	4108 (93)	2.2	6.7	GU	4064 (98)	2.5	5.1
									TN	2381 (105)	-	-
									KA	2921 (91)	-	10.5

IET 25443 showed yield superiority continuously for 2 years (2016 and 2017) in West Bengal in zone III. In 2nd year (2016) although it couldnot establish yield improvement in zone III, it performed well in West Bengal (4787 Kg/ha) and superior to BPT 5204 check by 6.2%. Similarly in the 3rd year (2017), it recorded yield superiority of 10% yield gain over BPT 5204 and 3% over IR 64 in zone III. And statewide it was promising in West Bengal (5902 Kg/ha) with 22.6% and 17.8% yield improvement over IR 64 and BPT 5204 respectively. IET 25443 was considered promising in West Bengal. Although it had recorded high Zinc (25ppm) in polished rice, quaitywise it is inferior as it recorded high AC (25.63%) along with low GC (22 mm) and therefore it is dropped from trial.

IET 25475 could not show yield superiority over IR 64 and BPT 5204 checks in overall mean for 3 years. However it established superior performance continuously in all 3 years of testing in West Bengal state of Zone III. It showed yield advantage over IR 64 by 24.2% and BPT 5204 by 17% during 1st year (2015). Similarly in 2nd year (2016) it exhibited superior performance over BPT 5204 check by 9.16% and in 3rd year, 22.6% and 17.8 % yield gain over IR 64 and BPT 5204 respectively in West Bengal. However Due to poor quality of the entry possessing high AC (25.75%) along with 23 mm GC , it is discontinued from the trial.

IET 25477 could not show yield superiority over IR 64 and BPT 5204 checks in overall mean for 3 years.. But it recorded yield improvement continuously for 2 years (2015 and 2016) in Zone 3. In the 1st year (2015) it performed well in West Bengal with 25.8% and 18.5% yield gain over IR 64 and BPT 5204 respectively. In the second year (2016) it's performance was on par with IR 64 with 0.37% yield gain and excelled over BPT 5204 by

18.9% in West Bengal. Although it displayed high zinc content (25.5 ppm) and yield superiority in West Bengal (Zone-III) due to poor grain quality (51.4%), it is discontinued.

ADVANCE VARIETY TRIAL 1- BIOFORTIFICATION (AVT1- BIOFORT)

Locations: 31

Test Entries: 12

Checks: **Yield Checks:** BPT 5204 (Late) & IR64 (Mid Early)
Micronutrient checks: Kalanamak and Chittimuthyalu.

Table:5.10

Advance Variety Trial -1 Biofortification trial was constituted with 12 test entries and 4 checks viz., BPT 5204 (Yield check-Late) and IR 64 (Yield check-Mid early); Kalanamak and Chittimuthyalu (Micro nutrient checks). Trial material was sent to 31 locations but data was received from 25 locations spanning Zones I, II, III, V, VI and VII. The centres Khudwani, Bhubaneswar, Sabour, Kolkata, Karaikal and Raipur could not send the data. The experimental mean yield at Malan (2661 kg/ha), Cuttack (3727 Kg/ha), Hathwara (3680 Kg/ha), Rewa (3576 Kg/ha), Sindewahi (2338 Kg/ha), IIRR (3083 Kg/ha), Coimbatore (3592 Kg/ha), Pattambi (3058 Kg/ha), Brahmavar (882 Kg/ha) and Mugad (2371 Kg/ha) was found to be lower than 4000 Kg/ha while low CV of < 5% was reported in Masoda (3.91%). Hence the data was not considered from the aforesaid locations for analysis.

Experimental mean yield of locations ranged from 882 kg/ha at Brahmavar to 7929 kg/ha at Moncompu while CV ranged from 3.9% at Masoda to 21.6 % at Cuttack. Among the checks, IR 64 was the top yielder (5308 Kg/ha) in overall mean followed by BPT 5204 (4640 Kg/ha). Also it was found to be the best check in the zones II (5416 Kg/ha), III (5378 Kg/ha), VI (4719 Kg/ha) and VII (5963 Kg/ha) while BPT 5204 topped in Zone V (4022 Kg/ha). The seed samples obtained from each centre were analyzed for iron, zinc and protein content in polished rice through X-ray Fluorescence Spectrophotometer (XRF). Information on mean iron, zinc and protein content of test entries and locations was presented in Tables 5.16, 5.17 and 5.18. The entries with below 100 days flowering duration were compared with IR64 and the remaining entries with > 100 days flowering duration were compared with BPT5204 while assessing yield performance. The data on yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 5.11, 5.12, 5.13 and 5.14. The promising entries based on overall mean as well as zonal mean are discussed below.

Performance of the promising entries in AVT-1 Biofort, Kharif-2017

S.NO	IET No/ Designation/ Cross Combination	Zn (ppm)	Overall Mean GY/ FD/GT	Yield gain % over IR-64 & BPT 5204	Zone/ Rank	Yield (Kg/ha)/ FD	Yield gain % IR 64 BPT 5204	State /Rank	Yield (kg/ha)/ FD	Yield gain % IR 64 BPT 5204
1	IE 26383 RP 5115-111- 24-3-1-1 IET 17280/ Pusa Basmai 1	23.9	4797 96 SB	- 3.3	Z one V- 8	4372 (98)	9.6 8.7	MH-8	4372 (93)	9.6 8.7

IET 26383 (RP 5115-111-24-3-1-1) a derivative of the cross IET 17280/Pusa Basmati 1 with 96 days flowering duration possessing short bold grains recorded overall

mean grain yield of 4797 kg/ha. It recorded 3.3% yield superiority over BPT 5204 (yield check). Zone wise it exhibited 9.6% yield gain (4372 kg/ha) over IR 64 with 98 days to 50% flowering in zone V. Statewise it outyielded IR 64 by 9.6% in Maharashtra (4372 Kg/ha, 8th rank) in Zone V. Quality wise it recorded 68.2% HRR, 24.6 % AC, 22 mm and 4 ASV (Table 5.15). It recorded 23.9 ppm Zinc, 3.1 ppm iron and 9.34 % protein in the polished rice. Considering its superiority in yield, grain quality and Zinc content, IET 26383 is promoted to 3rd year of testing (AVT-2-Biofort) for Zone V.

Performance of the entries with high proteins in AVT-1 Biofort, Kharif-2017

S.NO	IET No/ Designation/ Cross Combination	Proteins (%)	Overall Mean GY/ FD/GT	Yield gain % over IR-64 & BPT 5204	Zone/ Rank	Yield (Kg/ha)/ FD	Yield gain % IR 64 BPT 5204		State /Rank	Yield (kg/ha)/ FD	Yield gain % IR 64 BPT 5204	
1	26378 RTN 0603-2-2- 13 MO6/RTN -8-12	10.08	5456 94 MS	2.80 -1.16	Zone -II-1	6970 (100)	-	68.3	PU	6970 (100)	-	68.3
					Zone V-6	5061 (98)	27	-	MH	5061 (92)	26.9	-
					Zone VI	4877 (95)	2.9	-	MH	4711(94)	1.94	
									GU	5218 (95)	14.9	
					Zone VII	5977 (94)	0.22	-	KE	9378 (90)	62.8	
									KA	5986 (101)	-	14.6
2	26375 IR 82475-110-2- 21-2 IR 68144-2B-2- 2-3-1-120/IR 64	10.38	5246 92 MS	- -	Zone -II- 2	6706 (97)	23.8	-	PU	6706 (97)	23.8	-

Micronutrient status and yield of entries in AVT-1 (Biofort)

S No	Entry (IET)	DFF	Overall mean Yield (Kg/ha)	% yield gain over IR 64	% yield gain over BPT 5204	Zinc (ppm)	Iron (ppm)	Protein %	Remarks
1	26380	109	5103	-4	10	16.7	2.5	8.43	
2	25253	102	5098	-4	10	18.3	2.1	9.54	
3	26376	88	4843	-9	4	22.1	2.9	8.93	
4	26386	92	5726	8	23	20.1	2.2	8.84	
5	26385	110	5004	-6	8	18.4	2.4	9.67	
6	26383	96	4797	-10	3	23.9	3.1	9.34	Promoted to Zone V in AVT-2 Biofort- (Zn)
7	26377	99	4680	-12	1	19.6	2.5	8.49	
8	26396	90	5113	-4	10	19.5	2.3	9.56	
9	26373	104	5483	3	18	20.6	2.7	9.22	
10	26378	94	5456	3	18	19	2.8	10.08	Possess high protein content (10.08%). But dropped due to poor quality (HRR: 42.6%, AC: 26.3% & GC : 23)
11	26375	92	5246	-1	13	23.6	3.0	10.38	Promoted to AVT- 2-Biofort (Proteins) for Zone 2

S No	Entry (IET)	DFP	Overall mean Yield (Kg/ha)	% yield gain over IR 64	% yield gain over BPT 5204	Zinc (ppm)	Iron (ppm)	Protein %	Remarks
12	26398	110	5256	-1	13	16.3	2.1	9.66	
	IR 64 (YC)	93	5308			19.9	2.2	8.61	
	BPT 5204 (YC)	105	4640			20.6	2.3	9.71	
	Kalanamak (MC)	107	4030			20.8	3.3	9.16	
	Chittimutyalu (MC)	109	3270			21.4	4.8	9.51	

The following entries qualify for 3rd year of testing (AVT-2-Biofort)

Based on Zn:

Zone V: IET 26383

Based on protein content

Zone II: IET 26375

INITIAL VARIETY TRIAL- BIOFORTIFICATION (IVT- BIOFORT)

Locations: 23

Test Entries: 31

Checks: **Yield Checks:** BPT 5204 (Late) & IR64 (Mid Early)
Micronutrient checks: Kalanamak and Chittimutyalu.

Table:5.19

The trial was constituted with 31 test entries and two checks for yield- IR64 (Mid early) and Samba Mahsuri (Late) as well as 2 more checks for micronutrient content- Chittimutyalu and Kalanamak. The trial was sent to 31 locations covering Zone, I, II, III, V, VI and VII spreading over 11 states and the data was received from 23 locations. Of these the data from Malan, Masodha, Varanasi, Sindewahi, Hyderabad, Coimbatore, Aduthurai, Pattambi, Mandya, Brahmapur, and Mugad were not considered for analysis due low experimental yield. Over all mean yield of the entries ranged from 3734 kg/ha (Kalanamak) to 6223 kg/ha (IET 271667). IET 27177 has recorded 85 days to 50% flowering, while IET 27163 recorded 107 days. IET 27157 recorded 78cm plant height and IET 27171 recorded 153cm. Number of panicles per sq.m ranged from 263 (IET 27181) to 335 (IET 27161). Since there were several entries with varied number of days to 50% flowering two yield checks IR64 and BPT 5204 were compared based on flowering duration. The data on yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 5.20, 5.21, 5.22 and 5.23.

Harvested seed samples received from centres were analysed for iron and zinc content in polished rice through X-ray Fluorescence Spectrophotometer (XRF) at IIRR. Values in ppm for iron and zinc content in polished rice and the mean of lowest and highest values recorded across locations and across entries are given in Tables 5.25 and 5.26. Biofortification trial targets to identify entries with both high zinc and yield.

On overall basis, Nine entries viz., IETs 27155, 27160, 27162, 27163, 27166, 27167, 23964, 27174, 27181 showed required yield superiority, however found inferior in Zinc, iron and protein content. *On the basis of Iron content none of the entries had considerable level and no entry exhibited more than 10% protein content (Table 5.27). Therefore, entries with required yield superiority and zinc content are discussed zone wise and were qualified for second year of testing*

Performance of the entries in Northern zone

IET 27170 (R-RHZ-M1-81) obtained from a cross combination of Mora and IR 94046-31 with 93 days to 50% flowering, 98 cm plant height with long bold grain type. In Zone II, it showed yield advantage of 35% (6988 kg/ha) over best check and zinc content of 26.4 ppm. It recorded HRR (55.6%), Amylose content (23.84), GC (49) and desirable ASV (4) (Table 5.24). Hence, promoted for second year of testing.

IET 27159 (HURS-17-6-IR82475-110-2-2-1-2) derived from the cross IR68144-2B-2-2-3-1-12/IR 64 with 92 days to 50% flowering, 90cm plant height with long slender grain type. It recorded yield advantage of 6.7% over best check with grain yield of 5524 kg/ha and 31.4 ppm of zinc in Zone II. It recorded HRR (47.6%), Amylose content (15.42 %), GC (63) and desirable ASV (5). Therefore, not recommended for testing due to poor quality.

IET 27155 (CR2822-1-B-1-2B-1-2B-1) in a cross derivative of Naveen/ARC 10063 with 95 days to 50% flowering, 126 cm plant height, 295 panicles/m² with medium slender grain type recorded mean yield of 5379 kg/ha in Zone II with yield advantage of 3.9% over best check and zinc content in of 27.5 ppm. It recorded HRR (51.6%), Amylose content (24.49%), GC (22) and desirable ASV (4). Hence, not considered for further testing due to low HRR.

IET 27180 (RP Bio 5477-N22-M-363) obtained from N22 mutant with 93 days to 50% flowering, 93 cm plant height with short bold grain type. It showed grain yield of 5262 kg/ha (1.7%) over best check and 24.9 ppm of zinc in Zone II. It recorded HRR (43.1%), Amylose content (24.93), GC (32) and desirable ASV (4). Therefore, not recommended for further testing due to poor quality.

Performance of the entries in western zone

IET 27169 (RP 4993 300-74-6-20-3-1) from the cross BPT 5204 / Chittimutyalu with 104 days to 50% flowering, 95 cm plant height with medium slender grain type had an yield of 4703 kg/ha (16.4%) over best check and zinc content of 24.9 ppm in Zone VI. It recorded HRR (58.3%), Amylose content (24.87), GC (23) and desirable ASV (5). Hence, promoted for second year of testing.

IET 27179 (CR 2826-1-1-2-4B-2-1) derived from the cross Swarna/ARC 10075 with 103 days to 50% flowering, 102 cm plant height medium slender grain type. The grain yield was 4998 kg/ha with 23.7% yield advantage over best check and 27.2 ppm zinc content in Zone VI. It recorded HRR (65.5 %), Amylose content (25.72), GC (23) and desirable ASV (4). Hence, promoted for second year of testing.

Entries promoted to second year of testing:

Zone II: IETs 27170

Zone VI: IET 27169 and IET 27179.

Yield performance of Zinc superior entries in IVT-Biofort, Kharif 2017

IET NO	Yield in Kg/ha, DFF, % of yield advantage & Zinc content in ppm of the entries																		Remarks
	Zone II			Zone III			Zone V			Zone VI			Zone VII			Over all mean			
	Yield/ DFF	%Yield over best check	Zinc	Yield/ DFF	%Yield over best check	Zinc	Yield/ DFF	%Yield over best check	Zinc	Yield/ DFF	%Yield over best check	Zinc	Yield/ DFF	%Yield over best check	Zinc	Yield/ DFF	%Yield over best check	Zinc	
27155	5379 95	4.3	27.5	5335 91	8.9	17.2	4920 89	24.7	18	5295 92	11.3	18.5	7634 88	10.5	20.3	5865 90	13.90	18.9	Dropped*
27159	5524 92	6.7	31.4	5082 100	17.1	22.8	3686 85	-6.6	24.8	4391 92	-7.7	23.3	6766 92	-2.1	23.3	5193 94	0.8	23.6	Dropped*
27169	-	-	-	5059 116	16.6	19.5	3996 105	4.3	18.7	4703 104	16.4	24.9	5631 98	-18.5	21.4	4989 104	2.6	20.6	Promoted to Z- VI
27170	6988 93	35	26.4	4028 96	-17.7	16.6	4594 85	16.4	16.7	4752 90	-0.1	22.0	6846 87	-0.9	19.1	5268 90	2.3	18.7	Promoted to Z-II
27179	4042 122	-33.2	27.2	4481 110	3.2	17.3	4766 105	24.4	19.2	4998 103	23.7	27.2	6327 98	-8.5	23	5102 104	4.9	22.0	Promoted to Z-VI
27180	5262 93	1.7	24.9	4800 88	-2.0	18	5378 90	36.3	19	4458 94	-6.3	21.4	6213 87	-10.1	18.9	5186 90	0.7	19.1	Dropped*
BPT 5204	4862			4340			3830			4040			6429			4862			
IR 64	5151			4897			3947			4757			6911			5151			

*: Dropped due to poor quality

Table No. 5.1: Composition of entries in Advance Variety Trial 2 –Biofortification (AVT 2-BIOFORT), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
3rd year of testing:				
5601	25461	R-RHZ-MI-30	Moroberekan / IR 681444B-18-2-1-1	LB
5602	25443	RP 4993-300-22-18-1-4-1	BPT 5204 / Chittimutyalu	SB
5603	25475	R-RHZ-SM-14	Swarna / Moroberekan	SB
5604	IR 64 (Yield Check)			LS
5605	25470	R-RHZ-R56	IR 91181-96-1-1-1-2	LB
5606	25451	RP 5898-19-8-6-1-1-1	RP Bio 226*1 / CSR 27	MS
5607	25467	RP 5898-101-9-3-1-1	RP Bio 226*1 / CSR 27	MS
5608	25458	RP 5898-101-3-2-1-1	RP Bio 226*1 / CSR 27	MS
5609	BPT 5204 (Yield Check)			MS
5610	24775	RP 4920-Bio -51(B)	BPT 5204 / O. rufipogon	MS
5611	25446	R-RHZ-HI-11	HMT / IR 681444B-18-2-1-1	SB
5612	24774	RP 5917-HP-8-IR 94064	IR 91153-AC 316 / IR 05F102	LB
5613	Chittimutyalu (Micro Nutrient Check)			SB
5614	25477	R-RHZ-LI-23	Lalmati / IR 681444B-13-2-1-1	MS
5615	Kalanamak (Micro Nutrient Check)			MS

Table No. 5.2 : Grain Yield (Kg/ha) of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	III										Zone III (4)								
		I	II																	
		H.P.	PUN	OD	BI	WB	U.P.	U.P.	U.P. (1)											
@MLN	LDN	CTK	PSA	CHN	@MSD	VRN	Mean	Mean												
5601	25461	1493	3676	3082	4762	3	4815	7	4823	2 *	3716	9	3716	9	4094					
5602	25443			6452	3	3238		5902	1 *	3635	9				5197	2 3%				
5603	25475	2153	9	5452	3226	4444	6	4699	4810	3 *	7216	1 *	7216	1 *	4896	7				
5604	IR 64 (Yield Check)	4375	1	5639	9	5520	6	3873	4815	8	4378	4	6045	2	6045	2	5063	6		
5605	25470	3403	2	7139	2	5448	7	4317	8	4704	3632	6024	3	6024	3	5123	4	1%		
5606	25451	2431	7	6526	6	5090	9	4698	4	4991	6	3418	4303	7	4303	7	4771	8		
5607	25467	2847	4	6940	4	7384	2	5111	1 *	4370		3369	4753	5	4753	5	5405	1	7%	
5608	25458	2465	6	7013	3	5663	5	4540	5	5370	2	4092	5	4680	6	4680	6	5063	5	
5609	BPT 5204 (Yield Check)	2153		7194	1	7599	1	3937	9	5010	5	3914	6	2289		2289		4708	9	
5610	24775	2292	8	6759	5	5376	8	4444	7	4717		3782	7	2761		2761		4325		
5611	25446	2500	5	5751	8	5018		5048	2 *	5037	4	5548	1 *	5448	4	5448	4	5138	3	1%
5612	24774	2118		6270	7	4803		3841		5333	3	3142		2878		2878		4214		
5613	Chittimutyalu (Micro Nutrient Check)				5090	2032	4259	2810										3794		
5614	25477	2917	3	4418		5735	4	2857		4704	3770	8	3803	8	3803	8	4275			
5615	Kalanamak (Micro Nutrient Check)				3369	3238	4778	9	2365									3795		
	Exp Mean	2595		6065	5257	4025	4900	3833		4493		4493		4493				4678		
	C.D. 5%	412		779	792	891	417	426		710		697						351		
	C.V.%	9.37		7.58	9.01	13.23	5.09	6.65		9.33		9.18						9.29		
	Sowing Date	14-06-2017		09-06-2017	23-06-2017	25-06-2017	12-07-2017	01-07-2017		09-06-2017										
	Planting Date	11-07-2017		10-07-2017	04-08-2017	29-07-2017	20-08-2017	30-07-2017		02-07-2017										
	Local @																			

~* Superior to Samba Mahsuri / IR-64

@ not included in means

~* Superior to Samba Mahsuri / IR-64

@ not included in means

Table No. 5.2 contd : Grain Yield (Kg/ha) of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	V						VI						Zone VI (3)								
		M.P.		MH	MH		MH		MH (1)	GU		GU	GU (2)									
		@REW	@SKL	@SND	@KJT	SHR	Mean	NWG	NVS	Mean	Mean											
5601	25461	3767	6	3151		854		3655	9	3956	7	3956	7	4561	8	5094		4828		4537		
5602	25443	3138		3623	8	1987	1 *	3926	4	3543		3543		3596		4960		4278		4033		
5603	25475	3947	5	2723		798		3562		4959	2	4959	2	6404	4	4345		5374	8	5236	6	
5604	IR 64 (Yield Check)	3171		3614	9	1002		3734	8	5930	1	5930	1	7895	1	6280	6	7087	2	6702	1	
5605	25470	3201		3249		1448	4	3816	6	3956	8	3956	8	6754	2	6096	7	6425	5	5602	5	
5606	25451	3210	9	4198	4	1171	8	3799	7	3384		3384		6491	3	7773	2	7132	1	1%	5883	3
5607	25467	3970	4	3478		1390	5	4295	2	3733	9	3733	9	6228	5	7475	3	6852		3	5812	4
5608	25458	4600	3	4207	3	1253	6	4169	3	4584	4	4584	4	5088	7	8259	1	6673		4	5977	2
5609	BPT 5204 (Yield Check)	2736		3791	6	1614	2	3926	5	3429		3429		3947		6999	4	5473		6	4792	9
5610	24775	5118	2	3906	5	609		3573		4584	5	4584	5	3947		4410		4179			4314	
5611	25446	3271	8	4572	2 *	1104	9	4307	1	4730	3	4730	3	5789	6	5139		5464		7	5220	7
5612	24774	2043		4754	1 *	1515	3	3517		4102	6	4102	6	4123		6354	5	5238		9	4860	8
5613	Chittimuthyalu (Micro Nutrient Check)	5236	1	2639		862		3193		3225		3225		4474		5680	8	5077			4460	
5614	25477	929		3678	7	830		3085		3321		3321		4561	9	5422	9	4992			4435	
5615	Kalanamak (Micro Nutrient Check)	3473	7	3082		1203	7	3077		3257		3257		3772		4340		4056			3790	
	Exp Mean	3454		3644		1176		3709		4046		4046		5175		5908		5542			5043	
	C.D. 5%	785		593		264		725		1177		1177		505		1396		723			507	
	C.V.%	13.58		9.74		13.41		11.69		17.39		17.39		5.83		14.12		11.30			10.74	
	Sowing Date	29-06-2017		19-06-2017		15-06-2017		13-06-2017		13-06-2017						16-06-2017						
	Planting Date	25-07-2017		12-07-2017		13-07-2017		11-07-2017		05-07-2017						15-07-2017						
	Local ©																					

Table No. 5.2 contd : Grain Yield (Kg/ha) of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	VII																
		A.P.		TEL		TN		TN		TN (2)		KE		KE		KE (1)		
		MTU		@IIRR		CBT		ADT		Mean		@PTB		MNC		Mean		
5601	25461	5256	7	1627		4623	9	4744	6	4684	7	3195	1 *	10987	1	10987	1	5%
5602	25443	5584	3	2449	4	2488		4019		3253		2809	2 *	5227		5227		
5603	25475	5686	2	2070		3832		5031	3	4432	9	2260	3	5232		5232		
5604	IR 64 (Yield Check)	5119		2449	5	5191	7	4215	9	4703	6	1547	9	8017	5	8017		5
5605	25470	5913	1	2717	2	5546	4	4240	7	4893	5	4%	1759	6	8295	3	8295	3
5606	25451	5425	5	1580		5747	3	5838	1 *	5792	1 *	23%	2174	4	4833		4833	
5607	25467	4924		1975		3529		4767	5	4148		1687	7	7050		7050		
5608	25458	5195	8	2449	6	5806	2	4190		4998	4	6%	2070	5	7083	9	7083	9
5609	BPT 5204 (Yield Check)	5104		2180	8	5486	5	3648		4567	8	1463		7967	6	7967		6
5610	24775	5426	4	2449	7	5239	6	4917	4	5078	3	8%	1178		8283	4	8283	4
5611	25446	5177	9	3239	1	2824		5110	2 *	3967		1316		7233	8	7233		8
5612	24774	5114		2133	9	6208	1	4228	8	5218	2	11%	1373		6584		6584	
5613	Chittimuthyalu (Micro Nutrient Check)	4036		1738		4062		3692		3877		711		7283	7	7283		7
5614	25477	5337	6	2528	3	4457		3554		4005		1656	8	6315		6315		
5615	Kalanamak (Micro Nutrient Check)	5057		948		4721	8	3681		4201		904		10450	2	10450		2
	Exp Mean	5224		2169		4651		4391		4521		1740		7389		7389		
	C.D. 5%	1105		1040		1145		874		676		726		999		999		
	C.V.%	12.65		28.68		14.72		11.89		12.94		24.94		8.08		8.08		
	Sowing Date	04-07-2017		23-06-2017		18-08-2017		05-07-2017				21-06-2017		23-06-2017				
	Planting Date	07-08-2017		17-07-2017		29-09-2017		28-07-2017				22-07-2017		17-07-2017				
	Local ©																	

Table No. 5.2 contd : Grain Yield (Kg/ha) of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	VII					Zone VII (5)	Overall (13)	Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		KA	KA	KA	KA	KA (1)					
		@MND	@BRM	GNV	@MGD@	Mean					
5601	25461	2760	2166	8455	1322	8455	6813	5210	92	101	272
5602	25443	528	1628	7003	788	7003	4864	4728	108	91	285
5603	25475	3015	1894	5795	344	5795	5115	5102	90	92	271
5604	IR 64 (Yield Check)	5143	2363	8692	2257	8692	6247	5941	90	98	278
5605	25470	5392	1949	10840	1367	10840	6967	6098	93	98	269
5606	25451	4372	1700	8487	417	8487	6066	5661	102	94	287
5607	25467	3941	1719	7913	350	7913	5637	5706	103	93	279
5608	25458	4984	2390	7587	252	7587	5972	5774	103	93	287
5609	BPT 5204 (Yield Check)	3998	2289	8160	178	8160	6073	5444	110	89	281
5610	24775	3648	1507	6439	484	6439	6061	5177	103	91	287
5611	25446	2379	1705	5619	854	5619	5193	5225	94	82	297
5612	24774	2077	1700	7917	229	7917	6010	5212	103	105	275
5613	Chittimuthyalu (Micro Nutrient Check)	3069	1763	6734	243	6734	5161	4597	104	89	277
5614	25477	3921	1831	7804	394	7804	5494	4791	100	99	292
5615	Kalanamak (Micro Nutrient Check)	2413	2015	4032	837	4032	5588	4609	103	136	276
	Exp Mean	3443	1908	7432	688	7432	5817	5305	100	96	281
	C.D. 5%	719	370	720	161	557	430	252	1		10
	C.V.%	12.49	11.59	5.79	13.97	4.49	10.24	10.66	1.78		11.39
	Sowing Date	28-08-2017	04-07-2017								
	Planting Date	22-09-2017	04-08-2017								
	Local ©										
	~ Superior to Samba Mahsuri / IR-64 @ not included in means										

Table No. 5.3: Days to 50% Flowering of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	I		III					Zone III (5)	V			Zone V (3)	VI					
		H.P.	PUN	OD	BI	WB	U.P.	U.P. (2)		M.P.	MH	MH		MH	MH	MH (4)	GU	GU	GU (2)
		MLN	LDN	CTK	PSA	CHN	MSD	VRN		REW	SKL	SND		KJT	SHR	Mean	NWG	NVS	Mean
5601	25461	111	94	90	67	85	90	92	91	85	93	97	92	90	79	88	101	90	95
5602	25443			113	114	100	124		124	113	120	119	126	121	124	119	122	118	119
5603	25475	98	91	96	61	86	90	87	89	84	100	87	93	94	87	73	85	99	91
5604	IR 64 (Yield Check)	101	94	90	62	90	94	84	89	84	95	83	89	89	87	77	84	105	89
5605	25470	105	94	95	65	90	94	87	90	86	97	87	107	97	92	77	90	102	96
5606	25451	112	109	111	72	105	106	103	105	100	115	99	104	106	104	88	99	112	101
5607	25467	116	108	107	72	104	114	97	106	99	114	98	107	106	99	89	98	115	100
5608	25458	116	108	108	72	105	115	99	107	100	109	98	106	104	98	89	98	116	101
5609	BPT 5204 (Yield Check)	127	116	113	82	110	119	114	117	108	119	107	115	114	111	101	109	117	112
5610	24775	117	107	100	71	104	116	109	113	100	114	100	93	102	101	81	94	118	91
5611	25446	107	101	97	65	91	100	93	97	89	96	87	90	91	90	73	85	107	89
5612	24774	117	111	108	70	106	122	105	114	102	114	100	102	105	97	86	96	116	98
5613	Chittimuthyalu (Micro Nutrient Check)			117	80	104	125		125	107	109	119	125	115	99	107	112	114	102
5614	25477	101	106	102	80	109	109	104	106	101	101	88	88	92	92	72	85	121	95
5615	Kalanamak (Micro Nutrient Check)			104	115	95	120		120	109	118	119	123	120	117	121	120	104	90
	Exp Mean	111	103	103	76	99	109	98	104	97	107	98	104	103	99	89	98	111	98
	C.D. 5%	2	2	3	2	0	1	2	1	1	8	1	1	3	2	4	1	2	3
	C.V.%	0.92	1.25	1.65	1.75	0.00	0.64	1.07	0.82	1.20	4.62	0.52	0.55	2.60	0.99	2.88	1.40	1.24	1.70

Table No. 5.3contd : Days to 50% Flowering of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	Zone VI (4)	VII											Zone VII (10)	Overall (24)
			A.P.	TEL	TN	TN	TN (2)	KE	KE	KE (2)	KA	KA	KA		
			Mean	MTU	IIRR	CBT	ADT	Mean	PTB	MNC	Mean	MND	BRM	GNV	MGD@
5601	25461	90	81	94	92	83	87	98	100	99	89	95	94	109	97
5602	25443	120	111	107	82	97	90	91	90	91	86	96	96	126	101
5603	25475	88	83	93	89	81	85	112	90	101	90	96	92	98	94
5604	IR 64 (Yield Check)	90	85	97	88	83	86	106	76	91	84	96	102	97	95
5605	25470	92	86	100	97	85	91	91	80	86	93	96	120	107	104
5606	25451	101	101	97	101	82	92	104	76	90	102	95	123	121	110
5607	25467	101	103	107	105	90	98	116	76	96	104	98	124	121	112
5608	25458	101	102	106	106	100	103	109	82	95	104	86	122	121	108
5609	BPT 5204 (Yield Check)	110	114	107	101	97	99	110	99	105	106	95	120	125	112
5610	24775	98	105	103	101	97	99	108	82	95	104	96	124	120	111
5611	25446	90	87	94	88	96	92	91	100	95	90	96	124	104	103
5612	24774	99	102	102	107	101	104	90	82	86	102	86	124	126	109
5613	Chittimuthyalu (Micro Nutrient Check)	106	114	108	89	98	94	84	97	91	84	85	100	129	99
5614	25477	95	99	93	95	91	93	116	95	106	89	97	124	125	108
5615	Kalanamak (Micro Nutrient Check)	108	103	105	86	95	91	85	76	81	83	96	98	122	100
	Exp Mean	99	98	101	95	92	93	101	87	94	94	98	112	116	104
	C.D. 5%	1	3	6	1	2	1	2	1	1	4	2	2	1	1
	C.V.%	1.73	1.91	3.47	0.85	1.32	1.12	1.31	0.91	1.14	2.48	1.11	1.28	0.27	1.43

Table No. 5.4 : Plant Height (cm) of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	I	II	III						Zone III	V			Zone V	VI					
		H.P.	PUN	OD	BI	WB	U.P.	U.P.	U.P. (2)	(5)	M.P.	MH	MH	(3)	MH	MH	MH (4)	GU	GU	GU (2)
		MLN	LDN	CTK	PSA	CHN	MSD	VRN	Mean	Mean	REW	SKL	SND	Mean	KJT	SHR	Mean	NWG	NVS	Mean
5601	25461	87	101	107	114	100	98	118	108	107	83	115	89	95	111	123	109	93	126	110
5602	25443			121	90	90	85		85	96	59	98	94	84	94	116	100	82	111	97
5603	25475	77	94	101	108	102	102	105	104	104	77	98	74	83	92	105	92	96	111	104
5604	IR 64 (Yield Check)	83	110	116	105	100	83	110	97	103	89	116	70	91	98	119	101	110	120	115
5605	25470	81	104	118	111	110	88	111	99	107	79	117	85	94	102	115	105	106	122	114
5606	25451	73	105	116	98	95	85	103	94	99	71	91	92	85	95	120	100	86	115	101
5607	25467	74	100	114	82	100	82	100	91	95	68	95	82	82	96	120	98	96	122	109
5608	25458	75	101	96	96	95	85	90	88	92	75	98	74	82	94	115	95	104	110	107
5609	BPT 5204 (Yield Check)	66	94	101	84	78	90	120	105	94	68	96	84	83	95	120	99	82	123	103
5610	24775	68	106	108	91	80	95	97	96	94	76	98	82	85	93	107	95	94	118	106
5611	25446	63	76	92	92	85	98	95	97	92	65	85	65	72	89	103	85	84	93	89
5612	24774	84	121	113	98	105	103	121	112	108	72	119	98	97	118	122	114	99	128	113
5613	Chittimuthyalu (Micro Nutrient Check)			90	76	88	90		90	86	80	96	95	90	104	134	107	89	104	96
5614	25477	77	115	127	89	90	90	120	105	103	90	116	76	94	97	117	101	107	127	117
5615	Kalanamak (Micro Nutrient Check)			161	145	155	162		162	156	105	155	136	132	162	162	154	154	158	156
	Exp Mean	76	102	112	99	98	96	107	101	102	77	106	86	90	103	120	104	99	119	109
	C.D. 5%		0	0	0	0	0	0				0	0					0	0	0
	C.V.%		0.00	0.00	0.00	0.00	0.00					0.00	0.00					0.00	0.00	0.00

Table No5.4 contd : Plant Height (cm) of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	Zone VI (4)	VII													Zone VII (10)	Overall (24)
			A.P.	TEL	TN	TN	TN (2)	KE	KE	KE (2)	KA	KA	KA	KA	KA (4)		
		Mean	MTU	IIRR	CBT	ADT	Mean	PTB	MNC	Mean	MND	BRM	GNV	MGD@	Mean	Mean	Mean
5601	25461	113	97	96	88	104	96	145	114	130	79	65	98	69	78	95	101
5602	25443	101	113	98	65	88	77	105	105	105	73	61	104	59	74	87	91
5603	25475	101	106	99	83	94	89	106	88	97	70	69	81	65	71	86	92
5604	IR 64 (Yield Check)	112	118	108	90	95	93	121	100	111	76	71	85	64	74	93	98
5605	25470	111	114	103	95	104	100	83	105	94	73	72	92	64	75	90	98
5606	25451	104	112	99	91	95	93	94	133	113	72	65	90	62	72	91	94
5607	25467	109	104	102	85	91	88	102	112	107	78	68	92	61	75	89	93
5608	25458	106	103	100	84	91	88	99	153	126	74	70	85	58	72	92	93
5609	BPT 5204 (Yield Check)	105	107	92	83	99	91	105	98	101	56	61	85	55	64	84	89
5610	24775	103	101	94	90	96	93	95	123	109	63	67	85	67	70	88	91
5611	25446	92	91	82	69	78	74	99	103	101	60	52	84	67	65	78	82
5612	24774	117	115	115	101	113	107	89	169	129	76	71	121	57	81	103	105
5613	Chittimuthyalu (Micro Nutrient Check)	108	104	101	75	93	84	83	101	92	80	59	68	61	67	82	89
5614	25477	112	121	101	88	109	99	103	105	104	78	74	103	54	77	94	99
5615	Kalanamak (Micro Nutrient Check)	159	163	153	118	127	123	104	104	104	83	121	141	77	105	119	136
	Exp Mean	110	111	103	87	99	93	102	114	108	73	69	94	63	75	91	96
	C.D. 5%			0	0			0	0		0	0					
	C.V.%			0.00	0.00			0.00	0.00		0.00	0.00					

Table No. 5.5: Panicles/ M² of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	I	II	III						Zone III	V			Zone V
		H.P.	PUN	OD	BI	WB	U.P.	U.P.	U.P. (2)	(5)	M.P.	MH	MH	(3)
		MLN	LDN	CTK	PSA	CHN	MSD	VRN	Mean	Mean	REW	SKL	SND	Mean
5601	25461	228	240	304	212	363	285	217	251	276	177	226	190	198
5602	25443			297	196	385	269		269	287	194	248	212	218
5603	25475	173	279	281	244	286	300	257	279	274	206	248	210	221
5604	IR 64 (Yield Check)	283	314	299	230	275	282	299	291	277	233	260	242	245
5605	25470	228	266	294	206	264	239	227	233	246	181	285	242	236
5606	25451	248	301	344	228	341	220	315	267	289	266	315	222	268
5607	25467	258	310	309	247	319	208	310	259	279	204	232	220	219
5608	25458	250	329	355	225	330	253	304	278	293	265	246	251	254
5609	BPT 5204 (Yield Check)	288	308	302	240	330	286	285	286	289	217	264	217	233
5610	24775	265	290	272	271	341	294	304	299	296	212	288	236	245
5611	25446	248	308	305	282	319	323	375	349	321	197	272	288	253
5612	24774	220	286	295	261	319	267	247	257	278	190	233	176	200
5613	Chittimuthyalu (Micro Nutrient Check)			318	215	362	257		257	286	189	233	241	221
5614	25477	237	317	311	222	374	270	308	289	297	291	249	258	266
5615	Kalanamak (Micro Nutrient Check)			301	230	352	266		266	287	144	256	193	198
	Exp Mean	244	296	306	234	330	268	287	277	285	211	257	227	232
	C.D. 5%	50	51	47	44	46	27	18	17	16	89	41	4	
	C.V.%	12.21	10.18	9.26	11.32	8.28	5.95	3.75	5.23	7.99	25.26	9.44	1.11	

Table No. 5.5 contd: Panicles/ M² of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	VI						Zone VI (4)	VII				
		MH KJT	MH SHR	MH (4) Mean	GU NWG	GU NVS	GU (2) Mean		A.P. MTU	TEL IIRR	TN CBT	TN ADT	TN (2) Mean
5601	25461	175	169	190	277	225	251	212	253	351	317	348	332
5602	25443	179	209	212	271	148	209	201	312	331	328	332	330
5603	25475	163	146	192	286	162	224	189	290	332	340	296	318
5604	IR 64 (Yield Check)	164	184	212	296	135	215	194	277	314	348	267	308
5605	25470	177	224	232	289	145	217	209	244	342	318	261	290
5606	25451	220	215	243	287	189	238	228	253	262	325	303	314
5607	25467	235	217	226	286	185	236	231	312	258	335	267	301
5608	25458	200	219	229	279	159	219	214	330	280	353	300	327
5609	BPT 5204 (Yield Check)	205	215	225	274	187	230	220	310	337	327	271	299
5610	24775	203	177	226	275	192	233	212	400	356	323	267	295
5611	25446	214	155	232	284	172	228	206	374	332	315	341	328
5612	24774	177	145	183	275	144	210	185	293	353	378	306	342
5613	Chittimuthyalu (Micro Nutrient Check)	184	171	207	277	193	235	206	238	366	370	229	299
5614	25477	181	184	218	277	152	215	199	308	464	338	284	311
5615	Kalanamak (Micro Nutrient Check)	194	189	208	272	120	196	193	297	298	353	313	333
	Exp Mean	191	188	216	280	167	224	207	299	332	338	292	315
	C.D. 5%	24	26	14	4	6	6	10	43	51	41	53	29
	C.V.%	7.38	8.36	7.78	0.77	2.28	2.36	5.86	8.49	9.23	7.25	10.85	7.83

Table No. 5.5 contd: Panicles/ M² of entries in AVT 2-Biofort Kharif 2017

Entry No.	IET No.	VII								Zone VII (10)	Overall (24)
		KE	KE	KE (2)	KA	KA	KA	KA	KA (4)		
		PTB	MNC	Mean	MND	BRM	GNV	MGD@	Mean	Mean	Mean
5601	25461	282	231	257	355	308	525	270	364	324	272
5602	25443	332	280	306	400	347	436	284	367	338	285
5603	25475	311	247	279	380	357	503	196	359	325	271
5604	IR 64 (Yield Check)	248	307	277	355	380	459	228	355	318	278
5605	25470	369	256	312	360	313	500	235	352	320	269
5606	25451	273	231	252	390	382	513	242	382	317	287
5607	25467	282	229	256	410	316	526	214	366	315	279
5608	25458	249	220	234	415	346	496	228	371	322	287
5609	BPT 5204 (Yield Check)	240	238	239	365	327	475	231	349	312	281
5610	24775	191	209	200	435	292	532	273	383	328	287
5611	25446	260	227	243	415	375	504	231	381	337	297
5612	24774	240	198	219	455	393	528	231	402	338	275
5613	Chittimuthyalu (Micro Nutrient Check)	253	214	234	430	356	505	235	381	319	277
5614	25477	298	306	302	395	313	476	189	343	337	292
5615	Kalanamak (Micro Nutrient Check)	278	258	268	440	311	506	217	369	327	276
	Exp Mean	274	243	259	400	341	499	233	368	325	281
	C.D. 5%	124	59	66	52	5	59	62	22	20	10
	C.V.%	27.07	14.46	22.02	7.85	0.85	7.04	15.91	7.36	11.81	11.39

Table 5.6: Grain quality characteristics of entries in AVT 2-Biofortification, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
5601	25461	78.2	69	53.5	6.16	2.14	2.87	LB	VOC	4.8	320	10.6	1.72	7.0	23.02	47	NS
5602	25443	78	67.7	61.5	5.09	2.04	2.49	SB	VOC	5.4	200	8.9	1.74	4.0	25.63	22	NS
5603	25475	77.7	65.8	57	5.66	2.57	2.2	SB	VOC	4	245	9.3	1.64	4.0	27.57	23	NS
5604	IR 64	77.5	65.8	50.1	6.47	2.4	3.02	LS	VOC	4.3	240	10.4	1.60	4.0	23.23	59	NS
5605	25470	77	71	57.1	6.26	2.17	2.88	LB	VOC	5.4	190	12.4	1.98	4.0	23.26	70	NS
5606	25451	73.8	65.6	61	4.91	1.88	2.61	MS	VOC	4.7	260	9.1	1.85	7.0	24.64	22	NS
5607	25467	77	68.6	55.4	5.16	1.85	2.78	MS	A	5.3	290	9.6	1.86	4.0	22.99	23	NS
5608	25448	76.6	66.8	43.4	4.98	1.84	2.7	MS	VOC	4.7	325	10.2	2.04	7.0	26.31	24	NS
5609	BPT 5204	78.2	70.3	57.5	5.13	1.87	2.74	MS	A	4.2	180	9.8	1.91	4.0	24.58	22	NS
5610	24775	76	66.8	44.6	5.13	1.85	2.77	MS	VOC	4.1	200	9.4	1.83	4.0	23.11	22	NS
5611	25446	77.6	66	54.4	5.11	2.05	2.49	SB	VOC	4.7	160	9.3	1.76	4.0	21.58	62	NS
5612	24774	78.4	66.3	52.1	6.72	2.37	2.83	LB	OC	4.6	265	10.2	1.51	4.0	23.64	43	NS
5613	Chitti Mutyalu	74.3	67.3	65.7	3.86	2.07	1.86	SB	A	4.2	170	6.3	1.63	4.0	23.52	22	NS
5614	25477	76.7	62.4	51.4	5.67	2.16	2.62	MS	VOC	5.1	195	8.7	1.53	4.0	24.2	71	NS
5615	Kalanamak	78	68.1	50.7	4.89	1.94	2.52	MS	OC	4.1	215	8.5	1.73	4.0	23.58	42	SS

HULL: Hulling (%); MILLING (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 5.7: Iron content in ppm for polished rice samples of entries in AVT 2-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	MLN	LDN	CTK	CHN	PSA	VRN	RPR	REW	SKL	SND
5601	25461	2.4	2	2.3	2.2	1.7	2.8	3.2	2.3	1.5	3.4
5602	25443			1.9	2.2	2.4		2.9	1.5	1.8	1.3
5603	25475	3.2	2.4	1.6	1.4	2.1	1	2	1.9	2.7	3
5604	IR 64 (Yield Check)	2.8		0.9	1.5	1.5	2.7	1.2	1.4	1.9	1
5605	25470	2.1	2	1.1	3	2.9	2.3	2.2	2.6	2.9	3.3
5606	25451	5.3	2.8	2.9	3.7	3.8	3.7	2.2	1.7	3.1	1.9
5607	25467	3.3	2.1	1.1	4.2	3.8	1.8	2.4	2	4	2.5
5608	25458	3.3	2.1	4	4.7	3.4	1.2	2.2	4.5	2.4	2.4
5609	BPT 5204 (Yield Check)	3.4	1.7	2.4	3.4	2	3.6	1.7	3.2	1.5	1.4
5610	24775	3.2	2.6	3.4	3.3	2.6	2.4	1.7	1.9	2	1.8
5611	25446	3.4	2.6	3.1	3.9	2.4	3.1	2.9	2.6	3.6	2.5
5612	24774	2.6	1	2.6	3.1	1.9	0.9	1	2.7	2.8	1.4
5613	Chittimuthyalu (Micro Nutrient Check)			2	3.3	2.2		4.8	3.4	3.8	2.5
5614	25477	3.6	1.6	2.9	2.4	2.6	1.7	1.7	2.7	1.5	2.5
5615	Kalanamak (Micro Nutrient Check)			2.6	3.2	2.4		2.5	1.8	2.9	3.3
	Mean	3.2	2.1	2.3	3.0	2.5	2.3	2.3	2.4	2.6	2.3

Table No. 5.7 contd: Iron content in ppm for polished rice samples of entries in AVT 2-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	KJT	SHR	NVS	NWG	IIRR	MTU	ADT	GNV	MGD	MNC	PTB	Mean
5601	25461	3.6	4.1	3.2	1.9	2.4	3.3	1.6	1.5	2	2.3	3.7	2.5
5602	25443	1.6	4.9	2.9	2.9	4.3	2.9	1.7	2.7	1.6	2.3	2.7	2.5
5603	25475		3.4	5.1	3.5	3	2.5		2.6	1.5	1.3	4.7	2.6
5604	IR 64 (Yield Check)	2.7	2.2	2.6	2	1.2	2.9	1.3	1.3	1.2	2.1	1.9	1.8
5605	25470	1.7	2.4	4	1.8	1.6	3		1.2	1.7	1.3	6.3	2.5
5606	25451	3.2	5.2	2.9	3.7	3.1	2.2		2.9	1.7	3.7	4	3.2
5607	25467		2.3	2.3	3.8	3.2	2.8	2.7	3.2		1.8	2.6	2.7
5608	25458	2.8	5.5	2.5	4.2	2.6	3.2	2.9	2.7		2.1	2.9	3.1
5609	BPT 5204 (Yield Check)	3.3	4.2	1.5	4.5	2.2	2	2	3.3	2.3	1.6	4	2.6
5610	24775	4.2	3.4	4.7	5.1	2.9	3.1	4	3.8	1.4	1.3	3	2.9
5611	25446	4.8	4.1	3.9	3.5	2.9	2.6	2.8	2.8	3.3	2.2	3.3	3.2
5612	24774	1.9	3.3	2.7	4.2	2	1	2.2	2.4	1.3	4.4	1.9	2.3
5613	Chittimuthyalu (Micro Nutrient Check)	2.6	3.7	2.7	4.6	2.4	2.4	3.5	3	1.6	1.8	3.1	3.0
5614	25477	3.4	4.4	2.9	3.4	2.8	3.1	2.1	2		1.3	3.1	2.6
5615	Kalanamak (Micro Nutrient Check)	4.3	1.7		4	3.7	2.8	4.9	3.1		1.7	2.8	3.0
	Mean	3.1	3.7	3.1	3.5	2.7	2.7	2.6	2.6	1.8	2.1	3.3	2.7

Table No. 5.8: Zinc content in ppm for polished rice samples of entries in AVT 2-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	MLN	LDN	CTK	CHN	PSA	VRN	RPR	REW	SKL	SND
5601	25461	18.9	29.5	24.5	24.1	14.4	26.5	26.7	15.4	22.4	26.7
5602	25443			26.6	25.2	25.8		24	17.1	26.1	21.8
5603	25475	21.2	34.4	29.1	24.9	15.6	22.4	22.7	16.9	25.6	29.3
5604	IR 64 (Yield Check)	13.8		17.5	18.7	15.2	17.2	19.9	12	17.5	18.9
5605	25470	16.8	26.5	20.8	21.1	13.9	21.1	24.5	13	19.5	16.1
5606	25451	19.3	29.2	27.1	20.1	17.6	16.7	20.2	15.4	16.7	19.6
5607	25467	20.8	27.6	24.7	23.5	15.2	19	22.9	14.9	27.3	21.3
5608	25458	18.8	28.9	26.3	23.4	17.7	17.4	20.8	15.7	21.6	20.4
5609	BPT 5204 (Yield Check)	13.5	22	21.3	16.9	17.6	15.7	15.9	12.4	16.2	15.2
5610	24775	16	24.6	19.6	18	15.4	16.5	16.9	12.5	18	24.6
5611	25446	20.6	32.7	25.4	21.8	11.2	25.8	25	13.2	23.1	28.3
5612	24774	16.9	27.4	28.1	18.2	12.8	17.9	14.7	11.1	20.4	21.7
5613	Chittimuthyalu (Micro Nutrient Check)			24.5	19	19.4		27.9	13.3	26.2	23.1
5614	25477	19.8	29.5	34.2	23.1	19.8	20.3	11.6	16.3	25.3	31.8
5615	Kalanamak (Micro Nutrient Check)			23.7	18.7	14.8		17.5	13.6	20.4	16.5
	Mean	18.0	28.4	24.9	21.1	16.4	19.7	20.7	14.2	21.8	22.4

Table No. 5.8 contd: Zinc content in ppm for polished rice samples of entries in AVT 2-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	KJT	SHR	NVS	NWG	IIRR	MTU	ADT	GNV	MGD	MNC	PTB	Mean
5601	25461	20.1	29.2	26.8	20.7	22.2	22.7	26.4	16.6	16.9	22.4	31.3	23.1
5602	25443	23.1	28.3	25.6	27.3	24.1	24	30	22	17.7	21.5	39.3	25.0
5603	25475		31.5	27.6	28.6	20.3	25.2		24.2	20.8	19.3	41.6	25.3
5604	IR 64 (Yield Check)	16.3	21.2	20.3	16.1	15.7	19	25.4	14.8	11.4	24.1	34	18.5
5605	25470	18.7	28.2	22	17.8	16.4	17.3		15.6	8.8	19.9	37.7	19.8
5606	25451	17.2	30.2	22.4	24.3	20.7	21.2		18.9	11.4	22.3	29.4	21.0
5607	25467		24.3	22	23.4	19.1	19.4	26.8	19		20.8	34.1	22.4
5608	25458	19	34.2	22.6	23.8	21.7	18.8	27.7	18.3		24.2	32.1	22.7
5609	BPT 5204 (Yield Check)	16.4	24.2	17.9	21.9	15.7	15.2	25.2	13.4	11.2	22.4	30.6	18.1
5610	24775	17.1	29.1	22.3	22.1	19.9	18.1	25.3	18	9.9	21.7	31.3	19.9
5611	25446	22.9	28	28.7	18.9	17	24.2	26.5	19.7	18	22.3	33.9	23.2
5612	24774	19.4	28.7	21.2	23.9	20.2	16.7	27.9	14.2	11.2	25.9	25.7	20.2
5613	Chittimuthyalu (Micro Nutrient Check)	17.4	35.1	25.4	25.3	17	20.4	31.9	21.3	10.6	27.2	44.5	23.9
5614	25477	25	42.6	33.7	29.6	19.6	27.3	26	21.8	11	21.4	44.9	25.5
5615	Kalanamak (Micro Nutrient Check)	19.8	25.6		20.3	18.5	20.4	23.3	17.8		20.2	40.3	20.7
	Mean	19.4	29.4	24.2	22.9	19.2	20.7	26.9	18.4	13.2	22.4	35.4	21.9

Table No.5.9: Protein (%) for polished rice samples of entries in AVT 2- Biofortification analyzed at NRRI, Cuttack, Kharif 2017.

Entry No.	IET NO.	MTU	GNVI	RPR	SHR	PTB	NVS	CTK	MNC	SND	Mean
5601	25461	8.40	7.13	5.41	7.84	8.42	8.32	9.09	7.08	6.78	7.61
5602	25443	7.34	8.21	7.10	9.24		10.40	7.30	7.20	5.89	7.83
5603	25475	8.58	8.59	6.43	10.34	13.46	11.29	9.41	6.37	6.57	9.00
5604	IR 64	6.41	6.44	5.24	7.43	10.25	9.31	9.78	6.01	3.71	7.18
5605	25470	6.74	7.07	5.58	9.09	13.25	9.24	9.29	6.29	6.24	8.09
5606	25451	6.78	7.63	5.79	9.90	10.04	8.49	8.92	6.73	6.33	7.85
5607	25467	7.12	7.53	6.19	11.62	13.22	8.24	8.25	8.87		8.88
5608	25458	7.76	6.78	6.02	9.45	9.51	7.32	8.24	6.98	6.06	7.57
5609	BPT 5204	7.16	7.92	6.00	9.43	9.34	7.60	9.13	6.08		7.83
5610	24775	8.46	9.02	7.30	11.00	8.32	10.12	9.41	5.56	6.10	8.37
5611	25446	9.35	9.68	6.93	10.99	9.95	11.03	9.84	8.71	7.87	9.37
5612	24774	6.79	8.24	5.35	10.40	10.38	8.34	7.91	8.24	5.74	7.93
5613	Chittimuthyalu	8.64	8.40	10.09	10.13	14.67	9.94	9.17	8.14	7.22	9.60
5614	25477	6.04	6.52	5.24	10.45	12.02	7.87	6.54	6.70	6.74	7.57
5615	Kalanamak	9.88	10.87	7.39	7.11	10.14		7.96	5.81	5.35	8.06

Table No 5.10: Composition of entries in Advance Variety Trial 1 –Biofortification (AVT 1-BIOFORT), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
2nd year of testing:				
5701	26380	CR 2830-PLS-156	ARC10075 / Swarna	SB
5702	25253	R-GM-AS 43	Abhaya / Swarna	LS
5703	26376	CB 14740	Rasacadam / JGL 384	MS
5704	26386	RP 5507-B-42-22-13-3	Swarna / IRGC 63248 // Swarna Sub-1	LS
5705	BPT 5204 (Yield Check)			MS
5706	26385	CR 2830-PLS-30	ARC10075 / Swarna	SB
5707	Kalanamak (Micro Nutrient Check)			MS
5708	26383	RP 5115-111-24-3-1-1	IET 17280 / Pusa Basmati 1	SB
5709	26377	RP 5977-MS-M-37-3-2-3-4-3	BPT 5204 ems mutant	MS
5710	26396	R-GM-ATN- 47	Abhaya / TN 1	LS
5711	26373	CR 2819-1-5-3-B-8-2B-1	TRC-87-251 / ARC10063	SB
5712	26378	RTN 0603-2-2-13	M 06 / RTN-8-12	SB
5713	Chittimuthyalu (Micro Nutrient Check)			SB
5714	26375	IR 82475-110-2-2-1-2	IR 68144-2B-2-2-3-1-120 / IR 64	LS
5715	IR 64 (Yield Check)			LS
5716	26398	CR 2830-PLS-17	ARC10075 / Swarna	SB

Table No. 5.11 : Grain Yield (Kg/ha) of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	I		II		III							
		H.P.		PUN		OD		BI		W.B		W.B	
		@MLN		LDN		@CTK		PSA		CHN		@HTW	
5701	26380	2049		4338		4852	5	4413		5815	1*	4567	3*
5702	25253	2396	7	4349		5030	3	5175	3	5296	2	4933	1*
5703	26376	4201	1*	5656	5	2830		4889	8	4222		3000	
5704	26386	3576	2	5424	6	2200		5079	5	4593		4167	4
5705	BPT 5204 (Yield Check)	1944		4140		3785	8	3810		4815	8	3133	
5706	26385	2222	9	2858		5348	1	4413		5267	3	4100	6
5707	Kalanamak (Micro Nutrient Check)					2467		2603		4926	6	3207	
5708	26383	2951	6	4788	8	2674		3333		4815	9	3233	9
5709	26377	1458		4196		2696		4444		4926	7	3200	
5710	26396	2396	8	5778	4	3600	9	4952	7	4444		3467	8
5711	26373	1979		5801	3	5281	2	5048	6	4704		4007	7
5712	26378	3229	5	6970	1*	3363		4521	9	4407		4167	5
5713	Chittimuthyalu (Micro Nutrient Check)					1756		1079		4296		2933	
5714	26375	3403	3	6706	2*	4459	6	5460	1	5148	4	2793	
5715	IR 64 (Yield Check)	3299	4	5416	7	4259	7	5206	2	5000	5	3213	
5716	26398	2153		4437	9	5030	4	5175	4	4704		4767	2*
	Exp Mean	2661		5061		3727		4350		4836		3680	
	C.D. 5%	586		708		1342		1197		509		1096	
	C.V.%	13.12		8.33		21.60		16.50		6.31		17.86	
	Sowing Date	14-06-2017		13-06-2017		23-06-2017		25-06-2017		12-07-2017		10-07-2017	
	Planting Date	11-07-2017		13-07-2017		12-08-2017		29-07-2017		20-08-2017		08-08-2017	
	Local @												

~* Superior to Samba Mahsuri / IR-64

@ not included in means

Table No. 5.11 contd: Grain Yield (Kg/ha) of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	III						Zone III (3)		V				Zone V (1)	
		U.P.		U.P.		U.P. (1)		Mean		M.P.		MH		Mean	
		@MSD		VRN		Mean		Mean		@REW		SKL		@SND	
5701	26380	5132	4*	2616		2616		4281		3340		5148	1*	3462	4*
5702	25253	4480	7	3993		3993		4821	8	3925	6	5006	5*	2990	5*
5703	26376	4051		6753	2	6753	2	5288	5	4840	2	3446		1518	
5704	26386	4733	5*	6858	1	6858	1	5510	1 2%	3974	5	3655		1608	
5705	BPT 5204 (Yield Check)	4433	8	2385		2385		3670		4527	4	4022		2130	8
5706	26385	5251	2*	3189		3189		4290		3590	7	4728	6*	3823	2*
5707	Kalanamak (Micro Nutrient Check)	2578						3765		2369		2867		2051	9
5708	26383	2897		4839	7	4839	7	4329		2883		4372	8	2226	7
5709	26377	3805		3928		3928		4433		2709		4210	9	2354	6
5710	26396	4569	6	6562	3	6562	3	5319	4			4592	7*	1541	
5711	26373	5169	3*	6484	4	6484	4	5412	2 1%	3343	9	5078	3*	3561	3*
5712	26378	5483	1*	6039	5	6039	5	4989	6	3525	8	5061	4*	1891	
5713	Chittimuthyalu (Micro Nutrient Check)	4378	9					2688		1904		2089		1081	
5714	26375	2646		4247	9	4247	9	4952	7	5063	1	3874		1611	
5715	IR 64 (Yield Check)	2810		5927	6	5927	6	5378	3	2888		3987		1227	
5716	26398	2853		4516	8	4516	8	4798	9	4763	3	5122	2*	4333	1*
	Exp Mean	4079		4881		4881		4681		3576		4204		2338	
	C.D. 5%	266		1030		1030		593		911		548		454	
	C.V.%	3.91		12.57		12.57		13.53		15.23		7.81		11.64	
	Sowing Date	25-06-2017		16-06-2017						7-1-17		6-19-17		6-15-17	
	Planting Date	24-07-2017		03-07-2017						7-28-17		7-14-17		7-13-17	
	Local @														

Table No 5.11 contd : Grain Yield (Kg/ha) of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	VI										Zone VI (4)		VII		
		MH	MH	MH (3)	GU	GU	GU (2)	A.P.	TEL							
		KJT	SHR	Mean	NWG	NVS	Mean	Mean	MTU	@IIRR						
5701	26380	3467	4363	8 4326	9	3439	5647	3 4543	6	4229		6679	2	4739	1 *	
5702	25253	3730	4948	2 4561	6	3086	5238	5 4162		4251	9	5009	8	2212		
5703	26376	3353	3704	3501		3263	4417	3840		3684		4538		3712	7	
5704	26386	4150	7 3630	3812		6614	1 * 4508	9 5561	1 * 16%	4725	5	5587	4	2054		
5705	BPT 5204 (Yield Check)	3107	3919	3683		4321	5 5238	6 4780	4	4146		5085	7	3002		
5706	26385	5653	1 * 4378	7 4919	1 6%	3616	5294	4 4455	9	4735	4	5259	5	4660	2 *	
5707	Kalanamak (Micro Nutrient Check)	3066	2874	2936		1675	3980	2828		2899		4228		1422		
5708	26383	3352	3844	3856		3880	7 4274	4077		3838		4499		2844		
5709	26377	4016	9 4481	5 4236		3968	6 4440	4204		4227		4387		1580		
5710	26396	4649	6 4563	4 4601	5	3880	8 4337	4109		4357	7	3848		3870	4	
5711	26373	4031	8 4356	9 4488	7	4674	3 4325	4500	8	4346	8	5137	6	3791	6	
5712	26378	4909	3 4163	4711	3 2%	5908	2 * 4528	8 5218	2 * 9%	4877	2 3%	4867	9	3239	8	
5713	Chittimuthyalu (Micro Nutrient Check)	3056	2807	2651			3040	3040		2968		3821		585		
5714	26375	4744	5 4704	3 4441	8	4409	4 5897	1 5153	3 * 8%	4938	1 4%	4306		3870	5	
5715	IR 64 (Yield Check)	4802	4 5074	1 4621	4	3880	9 5198	7 4539	7	4739	3	7393	1	3239	9	
5716	26398	4965	2 4422	6 4836	2 5%	3439	5802	2 4620	5	4657	6	5751	3	4502	3 *	
	Exp Mean	4066	4139	4136		4004	4760	4394		4246		5025		3083		
	C.D. 5%	475	1117	433		386	662	347		350		790		962		
	C.V.%	7.01	16.19	11.17		5.76	8.34	6.84		10.19		9.43		18.72		
	Sowing Date	6-13-17	6-13-17				6-8-17					04-07-2017		23-06-2017		
	Planting Date	7-11-17	7-5-17				7-10-17					07-08-2017		17-07-2017		
	Local ©															

Table No. 5.11 contd : Grain Yield (Kg/ha) of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	VII																
		TN		TN		TN (1)		KE		KE		KE (1)		KA		KA		
		@CBT		ADT		Mean		@PTB		MNC		Mean		MND		@BRM		
5701	26380	4313	5	6360	1 *	6360	1 *	49%	2658		7217		7217		4911	6	1853	2 *
5702	25253	2191		3194		3194			3102	8	8050	8	8050	8	5478	4	1957	1 *
5703	26376	3066		3165		3165			2146		6370		6370		5615	3	1324	3
5704	26386	4429	4	3360		3360			2891	9	7817	9	7817	9	8518	1 *	805	7
5705	BPT 5204 (Yield Check)	5710	2	3425		3425			3436	4	7033		7033		6309	2	814	6
5706	26385	3483	7	5727	2 *	5727	2 *	34%	3361	7	8553	7	8553	7	3768		570	
5707	Kalanamak (Micro Nutrient Check)	2858		4275	5	4275	5		3374	6	9843	2	9843	2	3739		663	
5708	26383	3662	6	3423		3423			3897	2	9867	1	9867	1	4341		987	5
5709	26377	3474	8	3517		3517			2802		9013	5	9013	5	3322		789	8
5710	26396	1593		3340		3340			2565		8933	6	8933	6	4952	5	677	9
5711	26373	6375	1	5454	3 *	5454	3 *	28%	3778	3	7667		7667		4852	7	425	
5712	26378	2943		3667	8	3667			4405	1 *	9378	4	9378	4	4674		285	
5713	Chittimuthyalu (Micro Nutrient Check)	2241		3533	9	3533			2281		6283		6283		2885		614	
5714	26375	4787	3	3708	7	3708			2417		5567		5567		4674		589	
5715	IR 64 (Yield Check)	2875		3869	6	3869			2438		5758		5758		4745	8	1198	4
5716	26398	3469	9	4804	4	4804	4	12%	3378	5	9517	3	9517	3	4686	9	562	
	Exp Mean	3592		4051		4051			3058		7929		7929		4842		882	
	C.D. 5%	880		804		804			645		1158		1158		1091		225	
	C.V.%	14.68		11.90		11.90			12.65		8.76		8.76		13.51		15.31	
	Sowing Date	18-08-2017	05-07-2017						21-06-2017		23-06-2017				28-08-2017		04-07-2017	
	Planting Date	20-09-2017	28-07-2017						18-07-2017		17-07-2017				22-09-2017		03-08-2017	
	Local ©																	

Table No 5.11 contd : Grain Yield (Kg/ha) of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	VII						Zone VII (5)	Overall (14)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²	
		KA		KA		KA (2)								
		GNV	@MGD@			Mean	Mean		Mean					
5701	26380	7035		3031	5	5973	9	6440	3 * 8%	5103	8	109	94	297
5702	25253	8814	4 *	2387	9	7146	3 5%	6109	6 2%	5098	9	102	106	291
5703	26376	8407	5	2405	8	7011	4 3%	5619		4843		88	99	293
5704	26386	10372	1 *	2833	6	9445	1 * 38%	7131	1 * 20%	5726	1 * 8%	92	101	298
5705	BPT 5204 (Yield Check)	7356	8	2249		6832	6	5842		4640		105	93	315
5706	26385	7353	9	3683	1	5560		6132	5 3%	5004		110	97	306
5707	Kalanamak (Micro Nutrient Check)	4279		3050	3	4009		5273		4030		107	142	284
5708	26383	7526	7	2607	7	5933		5931	9	4797		96	101	280
5709	26377	6673		1126		4998		5382		4680		99	139	280
5710	26396	6756		1633		5854		5566		5113	7	90	94	287
5711	26373	9151	3 *	1937		7001	5 2%	6452	2 * 8%	5483	2 3%	104	120	287
5712	26378	7298		1695		5986	8	5977	7	5456	3 3%	94	99	305
5713	Chittimuthyalu (Micro Nutrient Check)	3083		772		2984		3921		3270		109	137	289
5714	26375	10000	2 *	2033		7337	2 7%	5651		5246	6	92	97	288
5715	IR 64 (Yield Check)	8051	6	3448	2	6398	7	5963	8	5308	4	93	104	290
5716	26398	6247		3043	4	5466		6201	4 4%	5256	5	110	96	291
	Exp Mean	7400		2371		6121		5849		4972		100	107	293
	C.D. 5%	655		444		627		467		241		1		11
	C.V.%	5.30		11.23		8.87		11.07		11.30		1.74		11.71
	Sowing Date													
	Planting Date													
	Local ©													

Table No. 5.12 : Days to 50% Flowering of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	I		II		III							Zone III	V			Zone V (3)	VI					
		H.P.	PUN	OD	BI	WB	WB	WB (2)	U.P.	U.P.	U.P. (2)	(6)	M.P.	MH	MH	MH		MH	MH	MH (4)	GU	GU	GU (2)
		MLN	LDN	CTK	PSA	CHN	HTW	Mean	MSD	VRN	Mean	Mean	REW	SKL	SND	Mean		KJT	SHR	Mean	NWG	NVS	Mean
5701	26380	126	122	115	77	126	104	115	117	118	118	110	114	106	112	111	113	103	109	112	110	111	
5702	25253	118	115	106	73	106	108	107	115	103	109	102	111	100	102	105	110	103	104	93	111	102	
5703	26376	93	82	90	66	92	111	102	95	73	84	88	88	81	83	84	83	99	87	86	112	99	
5704	26386	105	97	103	62	95	95	95	102	84	93	90	95	87	90	91	89	84	88	91	96	93	
5705	BPT 5204 (Yield Check)	129	115	118	77	95	110	103	122	88	105	102	115	101	107	108	104	65	94	119	108	113	
5706	26385	129	126	112	76	126	86	106	128	120	124	108	114	107	112	111	112	104	109	115	117	116	
5707	Kalanamak (Micro Nutrient Check)			104	117	93	99	96	126		126	108	120	116	121	119	119	105	115	117	122	119	
5708	26383	109	100	102	73	92	99	96	102	89	95	93	109	93	93	98	92	85	90	95	96	95	
5709	26377	112	99	103	68	100	102	101	115	91	103	97	103	97	106	102	100	87	98	96	95	95	
5710	26396	108	96	102	64	95	110	103	98	89	94	93	27	88	92	69	95	84	90	89	94	91	
5711	26373	119	103	107	67	139	107	123	110	98	104	105	110	104	105	106	107	89	101	94	96	95	
5712	26378	108	100	103	68	90	96	93	99	90	95	91	101	92	100	98	95	87	94	94	96	95	
5713	Chittimuthyalu (Micro Nutrient Check)			108	128	106	113	110	132		132	117	124	127	130	127	119	105	121		122	122	
5714	26375	101	97	96	76	95	96	95	112	85	98	93	95	92	90	92	91	58	83	94	95	94	
5715	IR 64 (Yield Check)	98	93	103	68	121	89	105	101	82	92	94	93	85	86	88	88	105	91	94	93	94	
5716	26398	127	123	114	77	126	107	117	124	120	122	111	114	108	111	111	110	95	106	114	108	111	
	Exp Mean	113	105	105	77	106	102	104	112	95	104	100	102	99	102	101	102	91	99	100	104	102	
	C.D. 5%	1	1	2	2	0	4	2	1	2	1	1	8	1	1		2	3	1	3	3	2	
	C.V. %	0.74	0.64	1.09	1.67	0.00	2.44	1.89	0.69	1.04	0.82	1.50	4.49	0.56	0.57		1.03	1.96	1.10	1.67	1.95	1.69	

Table No. 5.12 contd: Days to 50% Flowering of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	Zone VI (4)	VII														Zone VII (10)	Overall (25)
			A.P.	TEL	TN	TN	TN (2)	KE	KE	KE (2)	KND	KA	KA	KA	KA	KA (4)		
		Mean	MTU	IIRR	CBT	ADT	Mean	PTB	MNC	Mean	MND	BRM	GNV	MGD@	Mean	Mean	Mean	
5701	26380	109	108	107	104	103	103	110	64	87	107	98	125	121	113	105	109	
5702	25253	104	100	105	98	89	94	109	82	96	90	76	123	113	100	98	102	
5703	26376	95	83	94	90	78	84	89	62	75	84	98	99	86	92	86	88	
5704	26386	90	84	97	98	83	91	96	62	79	93	97	105	111	102	93	92	
5705	BPT 5204 (Yield Check)	99	116	106	102	102	102	114	76	95	98	97	122	113	107	105	105	
5706	26385	112	111	107	103	104	104	115	83	99	107	96	122	118	111	107	110	
5707	Kalanamak (Micro Nutrient Check)	116	102	105	89	95	92	113	82	98	82	96	100	121	100	99	107	
5708	26383	92	87	98	101	87	94	104	79	92	98	95	123	99	104	97	96	
5709	26377	94	100	101	107	89	98	98	86	92	108	96	122	103	107	101	99	
5710	26396	90	87	97	90	85	87	95	76	86	90	95	107	107	100	93	90	
5711	26373	96	99	104	102	96	99	111	100	106	109	96	120	118	111	105	104	
5712	26378	93	87	97	90	88	89	98	81	90	92	96	104	111	101	94	94	
5713	Chittimuthyalu (Micro Nutrient Check)	115	105	106	90	102	96	106	68	87	82	94	116	112	101	98	109	
5714	26375	84	88	104	89	86	88	104	67	85	85	92	118	103	99	93	92	
5715	IR 64 (Yield Check)	95	87	95	88	82	85	91	102	97	83	87	107	98	94	92	93	
5716	26398	107	117	108	102	101	101	114	83	99	107	86	125	118	109	106	110	
	Exp Mean	99	98	102	96	92	94	104	78	91	95	93	115	109	103	98	100	
	C.D. 5%	1	3	4	1	3	1	2	1	1	5	3	2	0	1	1	1	
	C.V.%	1.66	1.82	2.56	0.88	1.66	1.32	1.31	0.42	1.06	2.96	1.68	0.83	0.23	1.62	1.65	1.74	

Table No. 5.13 : Plant Height (cm) of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	I		II		III										Zone III (6)			V			Zone V (3)		VI					
		H.P.	PUN	OD	BI	WB	WB (2)	U.P.	U.P.	U.P. (2)	Mean			M.P.	MH	MH	Mean		REW	SKL	SND	Mean		MH	MH	MH (4)	GU	GU	GU (2)
5701	26380	64	94	93	87	95	95	98	109	104	96	64	86	96	82	103	118	101	116	122	119								
5702	25253	81	101	108	101	110	109	109	104	121	109	75	115	116	102	120	130	120	129	141	135								
5703	26376	91	100	108	113	95	143	119	90	112	101	110	85	112	95	97	97	106	102	126	94	110							
5704	26386	90	106	99	105	100	102	101	87	108	97	100	83	113	91	96	102	118	106	139	128	134							
5705	BPT 5204 (Yield Check)	65	91	109	91	90	89	89	76	112	94	94	73	87	91	83	96	113	97	115	138	127							
5706	26385	69	88	103	94	93	93	97	119	108	100	100	66	89	104	86	114	121	107	119	138	128							
5707	Kalanamak (Micro Nutrient Check)			137	174	118	130	124	165		165	145	112	149	165	142	167	165	162	150	173	161							
5708	26383	83	103	101	73	110	108	109	90	114	102	99	79	111	118	103	108	123	115	131	138	135							
5709	26377	119	139	134	133	135	154	145	150	171	160	146	109	148	152	136	160	155	154	165	162	164							
5710	26396	76	89	98	107	94	91	92	92	108	100	98		93	105	99	102	109	102	111	130	120							
5711	26373	103	133	127	103	110	133	122	130	136	123	123	91	113	125	110	126	151	129	129	157	143							
5712	26378	78	100	96	105	94	89	91	101	100	101	98	81	100	103	95	104	119	106	116	129	123							
5713	Chittimuthyalu (Micro Nutrient Check)			101	157	144	89	116	157		157	130	79	157	146	127	166	171	160		170	170							
5714	26375	88	98	104	81	102	96	99	85	103	94	95	85	111	84	93	103	108	102	102	130	116							
5715	IR 64 (Yield Check)	90	107	101	103	108	108	105	118	112	107	83	121	82	95	107	123	108	113	112	112								
5716	26398	65	92	100	100	90	91	91	89	113	101	97	63	93	102	86	111	123	107	114	112	113							
	Exp Mean	83	103	108	108	106	107	106	107	117	112	109	82	112	111	102	118	128	117	125	136	131							
	C.D. 5%	0	0	0	0	0	0	0	0	0				0	0			0											
	C.V.%	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00				0.00	0.00			0.00											

Table No. 5.13 contd : Plant Height (cm) of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	Zone VI (4)	VII														Zone VII (10)	Overall (25)
			A.P.	TEL	TN	TN	TN (2)	KE	KE (2)	KA	KA	KA	KA	KA	KA	KA (4)		
		Mean	MTU	IIRR	CBT	ADT	Mean	PTB	MNC	Mean	MND	BRM	GNV	MGD@	Mean		Mean	
5701	26380	115	113	106	92	106	99	87	108	97	72	77	85	63	74	91	94	
5702	25253	130	121	121	101	101	101	116	96	106	84	76	97	74	83	99	106	
5703	26376	106	101	105	90	93	91	102	100	101	87	71	95	75	82	92	99	
5704	26386	122	110	118	91	93	92	102	109	106	88	63	109	75	84	96	101	
5705	BPT 5204 (Yield Check)	115	110	103	91	91	91	108	100	104	80	57	86	61	71	88	93	
5706	26385	123	115	110	92	97	94	116	98	107	70	61	94	74	75	93	97	
5707	Kalanamak (Micro Nutrient Check)	164	170	157	122	142	132	153	96	125	117	109	137	123	121	133	142	
5708	26383	125	105	110	95	99	97	104	91	98	81	81	91	81	83	94	101	
5709	26377	161	170	134	134	134	134	156	91	124	115	107	143	98	116	128	139	
5710	26396	113	98	109	75	96	85	99	96	98	75	64	78	65	71	86	94	
5711	26373	141	127	137	137	123	130	129	80	105	109	86	121	88	101	114	120	
5712	26378	117	109	114	93	94	93	107	119	113	77	102	90	66	84	97	99	
5713	Chittimuthyalu (Micro Nutrient Check)	169	168	157	146	149	147	165	106	135	116	64	152	119	113	134	137	
5714	26375	111	113	110	91	93	92	107	108	107	82	62	100	79	81	94	97	
5715	IR 64 (Yield Check)	114	119	120	92	94	93	103	135	119	84	71	104	89	87	101	104	
5716	26398	115	109	106	93	95	94	109	104	107	94	65	92	80	83	95	96	
	Exp Mean	127	123	120	102	106	104	117	102	109	89	76	105	82	88	102	107	
	C.D. 5%				0	0			0		0	0	0					
	C.V.%				0.00		0.00		0.00		0.00	0.00	0.00					

Table No. 5.14 : Panicles/ M² of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	I	II	III								Zone III	V			Zone V (3)	VI					
		H.P.	PUN	OD	BI	WB	WB (2)	U.P.	U.P.	U.P. (2)	(6)	M.P.	MH	MH	MH		MH	MH (4)	GU	GU	GU (2)	
		MLN	LDN	CTK	PSA	CHN	HTW	Mean	MSD	VRN	Mean	Mean	REW	SKL	SND		Mean	KJT	SHR	Mean	NWG	NVS
5701	26380	238	290	189	233	341	399	370	304	279	291	291	227	240	241	236	226	214	230	270	225	248
5702	25253	225	282	272	217	297	367	332	281	261	271	282	256	213	222	230	235	209	220	271	223	247
5703	26376	219	321	249	240	308	298	303	268	262	265	271	188	259	181	209	228	157	206	269	203	236
5704	26386	228	286	292	198	264	383	324	283	278	281	283	189	178	255	207	252	195	220	288	188	238
5705	BPT 5204 (Yield Check)	250	343	327	199	407	307	357	302	267	285	302	315	307	280	300	221	226	258	276	237	257
5706	26385	238	304	272	206	319	378	349	324	285	305	297	227	226	240	231	316	180	241	271	151	211
5707	Kalanamak (Micro Nutrient Check)			233	204	286	358	322	263		263	269	224	235	243	234	223	131	208	171	183	177
5708	26383	203	273	190	187	341	372	356	279	220	249	265	227	199	236	221	231	119	196	272	261	267
5709	26377	187	249	157	227	330	390	360	273	189	231	261	176	178	231	195	259	127	199	272	191	232
5710	26396	190	255	216	175	319	357	338	280	292	286	273		206	260	233	230	185	220	272	173	223
5711	26373	163	262	250	253	297	373	335	318	267	303	296	215	207	203	209	235	152	199	277	165	221
5712	26378	194	271	312	271	374	366	370	330	268	299	320	193	242	252	229	252	177	231	284	270	277
5713	Chittimuthyalu (Micro Nutrient Check)			221	261	374	313	343	290		290	292	90	224	210	174	224	115	193		133	133
5714	26375	200	248	225	246	374	344	359	255	270	263	286	136	167	251	185	228	192	210	275	232	254
5715	IR 64 (Yield Check)	155	247	254	189	275	361	318	286	286	286	275	194	160	228	194	233	179	200	274	278	276
5716	26398	240	273	236	234	286	389	338	230	233	232	268	247	238	247	244	250	199	233	269	230	250
	Exp Mean	209	279	244	221	325	360	342	285	263	275	283	207	217	236	220	240	172	217	267	209	237
	C.D. 5%	44	49	68	76	47	75	43	35	21	19	23	90	28	6	28	32	23	12	9	7	5
	C.V. %	12.66	10.47	16.84	20.74	8.75	12.44	10.89	7.36	4.70	6.05	12.30	26.10	7.80	1.61	13.54	7.91	7.95	6.81	1.96	2.10	1.64

Table No. 5.14 contd: Panicles/ M² of entries in AVT 1- Biofort Kharif 2017

Entry No.	IET No.	Zone VI (4)	VII													Zone VII (10)	Overall (25)
		Mean	A.P. MTU	TEL IIRR	TN CBT	TN ADT	TN (2) Mean	KE PTB	KE MNC	KE (2) Mean	KA MND	KA BRM	KA GNV	KA MGD@	KA (4) Mean	Mean	
5701	26380	234	306	466	298	322	310	343	278	310	383	351	478	284	374	351	297
5702	25253	234	277	352	302	284	293	448	269	359	393	373	467	291	381	346	291
5703	26376	214	392	355	345	289	317	496	253	375	425	314	466	340	386	367	293
5704	26386	231	271	422	360	274	317	613	298	455	370	293	504	301	367	370	298
5705	BPT 5204 (Yield Check)	240	277	343	337	238	288	623	282	453	398	333	526	266	381	362	315
5706	26385	229	306	421	283	329	306	547	280	413	447	336	448	315	386	371	306
5707	Kalanamak (Micro Nutrient Check)	177	284	288	285	284	284	458	269	363	427	392	481	322	406	349	284
5708	26383	221	231	313	377	280	328	455	296	375	383	271	472	326	363	340	280
5709	26377	212	220	397	302	277	289	486	260	373	558	295	474	287	403	356	280
5710	26396	215	242	342	283	269	276	534	300	417	423	348	466	280	377	348	287
5711	26373	207	235	390	343	347	345	446	273	360	373	314	514	287	372	352	287
5712	26378	246	306	407	328	263	296	576	180	378	377	324	537	273	378	357	305
5713	Chittimutyalu (Micro Nutrient Check)	157	266	401	270	293	281	630	256	443	447	335	448	277	377	362	289
5714	26375	232	310	341	318	306	312	490	260	375	373	370	492	291	381	355	288
5715	IR 64 (Yield Check)	241	288	388	270	300	285	555	253	404	397	373	444	385	400	365	290
5716	26398	237	255	413	293	321	307	365	193	279	417	376	481	361	409	347	291
	Exp Mean	221	279	377	312	292	302	504	263	383	412	337	480	305	384	356	293
	C.D. 5%	11	48	85	31	53	13	132	79	78	90	6	49	35	25	21	11
	C.V. %	5.88	10.34	13.50	5.92	10.78	3.80	15.71	17.94	17.55	13.13	1.12	6.15	6.85	8.17	11.60	11.71

Table No. 5.15: Grain quality characteristics of entries in AVT 1- Biofortification, Kharif 2017

Entry No.	IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
5701	26380	75.4	65.7	50.7	5.12	2.2	2.32	SB	VOC	5	195	8.3	1.62	4	26.89	22	NS
5702	25253	78.7	67.6	51.2	6.31	2.02	3.12	LS	VOC	4.6	295	10.4	1.64	7	26.63	23	NS
5703	26376	77	68.1	61	5.4	1.99	2.71	MS	VOC	4.8	140	8.1	1.5	4	28.04	22	NS
5704	26386	79.9	71.7	46.7	6.46	2.09	3.09	LS	VOC	4.4	205	10.2	1.57	4	23.05	76	NS
5705	BPT 5204	77.9	68.9	65.9	5.16	2.05	2.51	MS	VOC	4.1	190	8.2	1.58	4	24.58	22	NS
5706	26385	77.2	69.8	61.3	5.24	2.2	2.38	SB	VOC	4.7	150	8.3	1.58	4	26.63	22	NS
5707	KALANAMAK	77	68.7	62.7	4.97	1.98	2.51	MS	VOC	4.8	175	8.6	1.73	4	23.2	40	SS
5708	26383	79	70.3	68.2	4.5	2.08	2.16	SB	VOC	4.4	175	8.2	1.82	4	24.66	22	NS
5709	26377	78.4	68.9	58.5	5.46	1.95	2.8	MS	VOC	4.5	220	11.4	1.81	4	24.02	33	SS
5710	26396	79.5	68.6	59.6	6.7	2.05	3.26	LS	VOC	4.7	300	11.3	1.68	7	26.19	22	NS
5711	26373	76.9	68.5	63.6	5.59	2.46	2.27	SB	VOC	4.3	175	8.5	1.52	5	26.78	22	NS
5712	26378	80	70.2	42.6	5.18	2.08	2.49	SB	A	4.7	175	7.7	1.48	4	26.31	23	MS
5713	CHITTI MUTYALU	76.4	68.8	66.6	3.92	2.03	1.93	SB	VOC	4.2	200	8.4	2.143	5	22.61	23	SS
5714	26375	79.6	70.5	64	7.21	2.07	3.48	LS	A	4	235	9.9	1.37	5	17.8	61	NS
5715	IR 64	79	67.9	55.8	6.52	2.08	3.13	LS	VOC	4.1	220	10.4	1.59	4	24.55	73	NS
5716	26398	75.7	66.9	59.5	5.23	2.24	2.33	SB	VOC	4.7	190	8.5	1.62	4	27.83	22	NS

HULL: Hulling (%); MILLING (%): HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB::Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No.5.16:Iron content in ppm for polished rice samples of entries in AVT 1-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	MLN	LDN	CTK	CHN	PSA	VRN	RPR	SKL	SND	KJT
5701	26380	2.2	2.2	2.5	3.9	1.7	2.9	1.4	0.9	1.2	1.6
5702	25253	2.5	1.3	1.3	1.9	2.2	0.8		1.6	1.8	3.2
5703	26376	2.5	2.2	3.2	2.9	3.8	3.5	3.1	2.6	1.2	2.7
5704	26386	2.2	1.2	2.1	3.2	1.5	1.5	1.8	1.7	2.4	3.2
5705	BPT 5204 (Yield Check)	3.5	2.1	2.2	2.3	2.2	2.1	2.2	2	2.6	2
5706	26385	2.4	2.9	1.5	3.1	3.1	1.3	1.4	2.6	1.9	2.5
5707	Kalanamak (Micro Nutrient Check)		1	3.5	2.2	3.1		2.6	2.9	2.4	3.5
5708	26383	2.8	2.8	3.6	6	3.1	1.6	2.3	2.2	2.4	
5709	26377	2.4	2.3	1.7	4.2	2.4	1.5	2.7	1.8	1.9	3.7
5710	26396	2.1	2.3	2.2	2	2.5	1.9	1.6	1.5	3	2.7
5711	26373	1.8	3	2.9	4.3	3.6	1.9	2.1	2.2	2.1	1.6
5712	26378	3.2	2.8	1.8	4.2	2.6	2.5	2	2.2	1.7	3.1
5713	Chittimuthyalu (Micro Nutrient Check)			2	5.7	4.9		2.2	3.3	3.4	4.3
5714	26375	2	2.5	2	2.4	2.6	1	5.7	3	2.1	5.3
5715	IR 64 (Yield Check)	1.6	0.7	2.8	7	1.2	1.2	2	2	1.2	2.1
5716	26398	2.2	1.5	1.7	2.7	2.5	1.3	1	1.1	1.2	1.6
	Mean	2.5	2.0	2.3	3.5	2.8	1.8	2.3	2.1	2.1	2.9

Table No.5.16 contd:Iron content in ppm for polished rice samples of entries in AVT 1-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	SHR	NVS	NWG	IIRR	MTU	ADT	GNV	MGD	MNC	PTB	Mean
5701	26380	2.5	1.7	10.6	2.7	2.2	1.7	1.7	1.6	2	3.5	2.5
5702	25253	2.6	1.8	3.8	1.8	2	2.3	2.1	1.5	1.8	3.1	2.1
5703	26376	3.8	2.8	5	2.2	3.2	2.5	2.6	1.5	2	3.7	2.9
5704	26386	2.3	3.6	3.1	1.9	2.4	1.8	2.1	1.7	1.7	3.5	2.2
5705	BPT 5204 (Yield Check)	2.1	2	2.6	2.3	2.1	1.5	1.5	2.8	2.2	4.4	2.3
5706	26385	2	3.1	3.6	2.4	3.4	1.6	1.8	1.2	2.7	3.3	2.4
5707	Kalanamak (Micro Nutrient Check)	6.4	5.3	4.5	3.3	3.1	3.6	2.9	1.9	3.5	3.2	3.3
5708	26383	3.3	4.2	2.2	2.6	2.6	2.9	3.1	5.6	2.5	3.5	3.1
5709	26377	3	2.3	2.3	2.2	2.2	2.1	1.4	1.6	3.2	4.4	2.5
5710	26396	4.3	1.6	2.5	2.5	2	1.8	1	2.1	2.6	3.8	2.3
5711	26373	4.5	3.3	3.6	2.8	2.9	1.6	1.9	1.1	2.5	3.5	2.7
5712	26378	3.4	2.4	3	2.5	4.5	3.4	1.8	3	1.7	4.9	2.8
5713	Chittimuthyalu (Micro Nutrient Check)	7.7		4.6	4.9	3.9	2.1	4.3	2.9	3.6	16.7	4.8
5714	26375	3.2	2.5	5.6	1.4	2.8		3.4	2.4	1.3	5.3	3.0
5715	IR 64 (Yield Check)	2.3	1.6	3.3	1.6	1.8	3.2	2.6	0.7	3.2	2.8	2.2
5716	26398	2.1	3.7	3.3	2.5	2.1	2.8	1.7	0.5	2.4	3.7	2.1
	Mean	3.5	2.8	4.0	2.5	2.7	2.3	2.2	2.1	2.4	4.6	2.7

Table No.5.17: Zinc content in ppm for polished rice samples of entries in AVT 1-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	MLN	LDN	CTK	CHN	PSA	VRN	RPR	SKL	SND	KJT
5701	26380	15.3	22.6	14.7	14.3	12.8	12.3	16.1	12.3	11.8	15.4
5702	25253	15.6	24.2	16	15.1	10.5	13.4		16.3	19.7	16.1
5703	26376	18.1	28.5	24.1	21.9	18.6	20.7	20.6	18.7	21.3	18.7
5704	26386	15.3	25.6	19	15.6	14.7	16.3	18.4	17	22.6	20.5
5705	BPT 5204 (Yield Check)	15.9	27.6	17.6	18.6	14.9	19.2	16.8	17.5	22.5	18.2
5706	26385	18.1	26.3	15.6	16.7	12.8	15.7	13.6	14.8	16.4	15.2
5707	Kalanamak (Micro Nutrient Check)		25.9	20.6	18.9	16.3		17.7	18.5	19.9	18.1
5708	26383	18.4	27.4	26.1	27.7	16.7	15.7	28.3	20.2	22.7	
5709	26377	14.1	27.4	18.6	17.6	15.9	19.2	19.8	16.7	16.3	19.1
5710	26396	14.3	26.6	19.6	17.6	14.5	18.2	19.4	16.2	22.3	17.6
5711	26373	17.8	27.7	21	19.7	15.2	21.5	18.9	15.8	18.2	18.9
5712	26378	14.8	21.3	18.6	18	15.5	15.4	15.3	15.9	19.1	16.3
5713	Chittimuthyalu (Micro Nutrient Check)			20.9	19.7	17.4		18.3	19.6	17.5	22.1
5714	26375	18.7	28.5	21.6	21.3	17.2	22.5	24.8	22.2	27.4	24
5715	IR 64 (Yield Check)	15.7	23.8	16.9	20.9	15.4	17.7	19.8	18.8	23.8	16.3
5716	26398	15.1	22.9	14.4	15.1	13.2	14.4	12.2	13.5	13.3	14.6
	Mean	16.3	25.9	19.1	18.4	15.1	17.4	17.9	17.2	19.8	18.1

Table No.5.17: Zinc content in ppm for polished rice samples of entries in AVT 1-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	SHR	NVS	NWG	IIRR	MTU	ADT	GNV	MGD	MNC	PTB	Mean
5701	26380	24.6	15.9	18.1	15.2	14.6	18.1	12.5	12.2	24.7	30.9	16.7
5702	25253	29.1	19.2	13.8	20	14.6	22.9	15.4	11.4	24.8	29.9	18.3
5703	26376	33.7	25.2	18.2	18	19.2	25.1	16.6	13.2	28	33.3	22.1
5704	26386	27.9	28.7	17.7	19.1	18.7	24.2	14.6	12.3	20.9	32	20.1
5705	BPT 5204 (Yield Check)	26.7	25.7	21.1	19.5	17.2	28	17.3	12.5	24	31.6	20.6
5706	26385	26.8	20.4	19.4	19.2	14.7	19.7	14.3	11.9	25.2	32.1	18.4
5707	Kalanamak (Micro Nutrient Check)	25.1	22.1	20.6	19.5	21.2	25	17.7	11.9	26.2	29.2	20.8
5708	26383	34.4	29.3	18.1	23	22.1	27.9	20.5	21.7	26.3	28	23.9
5709	26377	27.8	24.9	15.1	18.5	15.8	21.5	14.2	16	21.5	31.3	19.6
5710	26396	26.9	22.2	15.8	21.1	16.5	20.8	13.3	12.5	23.2	30.6	19.5
5711	26373	29	24.9	17.1	15.9	19.6	21.4	15.8	15.6	28.2	29.4	20.6
5712	26378	24.5	20.4	14.9	16.8	19.8	28.6	14.4	13.1	25.1	32.1	19.0
5713	Chittimuthyalu (Micro Nutrient Check)	26.5		26.1	20.9	21.4	21.9	19.7	15.4	26.1	28.3	21.4
5714	26375	28.8	26.6	20.5	22.6	22.4		18.3	15.3	32.5	32.6	23.6
5715	IR 64 (Yield Check)	21.1	21.6	16.3	16.5	21.2	26.5	16.2	12.9	23.6	33.4	19.9
5716	26398	25.9	14.7	18	13.6	15.1	19.1	10.5	10.2	23.7	26.2	16.3
	Mean	27.5	23.1	18.1	18.7	18.4	23.5	15.7	13.6	25.1	30.7	20.1

Table No.5.18: Protein (%)for polished rice samples of entries in AVT 1-Biofortification analyzed at NRRI, Cuttack, Kharif 2017.

Entry No.	IET No.	CTK	MTU	GNV	RPR	PTB	NVS	ADT	MNC	SND	Mean
5701	26380	9.06	8.8	7.9	6.1	9.75	8.67	10.23	8	7.38	8.43
5702	25253	10.03	9.86	9.55	6.12	11.01	13.12	10.02	7.02	9.14	9.54
5703	26376	10.52	9.08	7.79	5.33	11.67	11.52	9.27	8.55	6.68	8.93
5704	26386	11.05	10.15	8.33	5.53	10.6		9.47	8.13	7.5	8.84
5705	BPT 5204	10.19	8.99	6.88	7.53	12.57	12.07	11.49	8.29	9.37	9.71
5706	26385	9.57	9.93	8.23	7.54	11.63	12.47	10.41	9.12	8.1	9.67
5707	Kalanamak	10.07	9.51	9.06	7.52	10.38	9.8	10.02	8.33	7.76	9.16
5708	26383	11.42	7.9	7.81	7.32	9.85	12.94	10.14	7.95	8.75	9.34
5709	26377	8.87	7.72	7.91	6.07	10.83	9.56	9.71	7.86	7.87	8.49
5710	26396	10.98	9.75	7.82	5.97	12.55	12.67	9.36	8.19	8.71	9.56
5711	26373	10.58	9.22	6.29	6.18	12.25	11.52	10.22	9.44	7.27	9.22
5712	26378	11.49	9.71	8.95	8.52	13.61	10.52	12.32	6.91	8.65	10.08
5713	Chittimuthyalu	9.216	9.59	11.63	9.43	10.14			8	8.59	9.51
5714	26375	10.13	11.95	9.76	8	13.44	12.79	11.74	7.76	7.88	10.38
5715	IR 64	9.24	8.1	7.33	5.48	10.72	10.5	10.2	8	7.9	8.61
5716	26398	10.35	10.02	8.87	8.44	10.28	11.42	10.41	9.09	8.04	9.66

Table No 5.19: Composition of entries in Initial Variety Trial –Biofortification (IVT-BIOFORT), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st year of testing:				
5801	27155	CR 2822-1-B-1-2B-1-2B-1	Naveen / ARC10063	SB
5802	27156	RP 6112-MS-132-8-6-1-52-4-8	BPT 5204 Mutant	MS
5803	27157	R-RHZ-IH-82	IR68144 B / HMT	MS
5804	27158	RP 4993 300-36-26-14-7-1	BPT 5204 / Chittimutyalu	SB
5805	27159	HURS 17-6-IR 82475-110-2-2-1-2	IR 68144-2B-2-2-3-1-12 / IR 64	LS
5806	27160	NVSR-351	IET 19389 / NAUR-1	LS
5807	27161	AD 09219	ADT(R) 45 / ACK 03002	MS
5808	27162	KNM 1638	JGL 1172 / JGL 17004	MS
5809	27163	CR 2830-PLS-118	ARC10075 / Swarna	SB
5810	BPT 5204 (Yield Check)			MS
5811	27164	R-RHP-IM-84	IR 68144 B / Moro-5	MS
5812	27165	CRAC 3994-3-2	Doubled haploid of CR Dhan 701	LS
5813	27166	NP-9164	NP55 / NP 14	MS
5814	27167	NVSR-335	IET 19384 / NAUR-1	SB
5815	27168	RP 6112-MS-167-1-3-2-5-8-4	BPT 5204 Mutant	MS
5816	27169	RP 4993 300-74-6-20-3-1	BPT 5204 / Chittimutyalu	LS
5817	27170	R-RHZ-MI-81	Moro / IR 94046-31	LB
5818	27171	RP Bio 5479-3005	Jalmagna / Swarna	LB
5819	27172	NVSR-386	IET 19384 / Acharmati	MS
5820	23964	WGL-505	BPT-5204 / RYP-1	MS
5821	27173	RP 6112-MS-35-2-4-6-3-2-1	BPT 5204 Mutant	MS
5822	27174	CR 2830-PLS-146	ARC10075 / Swarna	MS
5823	27175	RP Bio 5479-2735	Jalmagna / Swarna	SB
5824	27176	R-RHZ-IB-80	IR68144 B / Bas-1-78	SS
5825	Kalanamak (Micro Nutrient Check)			MS
5826	IR 64 (Yield Check)			LS
5827	27177	R-RHP-MA-83	MTU 1010 / Abhaya-3	LS
5828	27178	RP 5977-MS-M-127-1-9-6-5-8-4	BPT 5204 Mutant	MS
5829	27179	CR 2826-1-1-2-4B-2-1	Swarna / ARC 10075	SB
5830	27180	RP Bio 5477-N22-M-363	N 22 Mutant	SB

Entry No.	IET No.	Designation	Cross Combination	Grain Type
5831	27181	RP 5977-MS-52-2-6-5-4-8-1	BPT 5204 Mutant	SS
5832	27182	CRAC 3994-2-5	Doubled haploid of CR Dhan 701	LS
5833	27183	RP 5456-121-39-6-5-3-2-1	Rasi / MO 1	SB
5834	Chittimuthyalu (Micro Nutrient Check)			SB
5835	27184	RP 4993 - 300-192-14-8-9-1	BPT 5204 / Chittimuthyalu	SB

Table No. 5.20 : Grain Yield (Kg/ha) of entries in IVT - Biofort Kharif 2017

Entry No.	IET No.	I		II		III								Zone III (3)				
		H.P.		PUN		OD		BI		W.B		U.P.				U.P.		
		@MLN		LDN		CTK		PSA		CHN		@MSD		@VRN		Mean		
5801	27155	3216	7	5379	5	6217	5 *	4911		4877		3969		5747	4	5335	5 *	9%
5802	27156	2851		3043		6680	2 *	2768		4012		3464		1869		4487		
5803	27157	1462		2312		5688	8 *	3750		4259		5053	2	2220		4566		
5804	27158	439				5357	*	2321		4074						3918		
5805	27159	2997		5524	4	6614	3 *	2768		5864	3 *	4608	8	4631		5082	6	4%
5806	27160	2485		5317	6	3902		5893	1	6481	1 *	4874	4	3169		5425	4 *	11%
5807	27161	2412		4748		3968		5625	5	4877		4787	6	6580	1	4823		
5808	27162	3216	8	5765	3	3241		5804	2	4753		5452	1	6088	2	4599		
5809	27163	1243				5622	9 *	5625	6	5494	4	3025		3681		5580	2 *	14%
5810	BPT 5204 (Yield Check)	950		6050	2	3836		4554		4630		3491		1469		4340		
5811	27164	3070	9	4675		5754	7 *	5000		4259		4874	5	5313	8	5004		2%
5812	27165					3902		3125		4630		4894	3			3886		
5813	27166	1754		3652		4563		4643		4259		3105		4470		4489		
5814	27167	4020	2	3942		6283	4 *	5625	7	5370	7	3364		5369	6	5759	1 *	18%
5815	27168	2558		4066		3836		4643		4383		3191		3113		4287		
5816	27169	292				4497		5804	3	4877				3075		5059	9	3%
5817	27170	3070		6988	1 *	2976		4107		5000		3072		5156	9	4028		
5818	27171					3373		3036		4877		2493				3762		
5819	27172	1754		4491		3307		4018		5494	5	3052		4681		4273		
5820	23964	2632		5232	8	6085	6 *	5714	4	4877		3903		5069		5558	3 *	14%
5821	27173	365		3121		3968		3839		4877		2580		2405		4228		
5822	27174	2412				4563		4554		6111	2 *	3168		2455		5076	7	4%
5823	27175	3801	4	3685		3532		4464		4630		2055		4460		4209		
5824	27176	1901		4874		4563		2232		4753		4535	9	1280		3850		
5825	Kalanamak (Micro Nutrient Check)					2910		2857		4630		2593				3466		
5826	IR 64 (Yield Check)	4020	3	5175	9	4299		5268		5123	9	4761	7	5505	5	4897		
5827	27177	2339		3754		4630		5357	9	4012		3630		5320	7	4666		
5828	27178	3363	6	3110		4365		4464		4259		2493		2125		4363		
5829	27179	1316		4042		3902		4911		4630		3697		4930		4481		
5830	27180	4678	1	5262	7	3836		5625	8	4938		3231		4685		4800		
5831	27181	2193				4431		4375		4259		2168		1625		4355		
5832	27182	3582	5	5063		2579		5000		5247	8	3757		6063	3	4275		
5833	27183	658		2600		6746	1 *	2946		5494	6	4156		3370		5062	8	3%
5834	Chittimuthyalu (Micro Nutrient Check)	497				3836		1875		4630		2294				3447		
5835	27184					3373		4375		4259		3358				4002		
	Exp Mean	2308		4475		4492		4339		4834		3610		3997		4555		
	C.D. 5%	667		828		550		747		506		725		1167		361		
	C.V.%	14.14		8.97		6.02		8.47		5.15		9.85		14.26		6.92		
	Sowing Date	22-06-2017		20-06-2017		23-06-2017		30-06-2017		12-07-2017		01-07-2017		22-06-2017				
	Planting Date	13-07-2017		21-07-2017		22-07-2017		24-07-2017		26-08-2017		30-07-2017		07-07-2017				
	Local ©																	
~* Superior to Samba Mahsuri / IR-64		@ not included in means																

~* Superior to Samba Mahsuri / IR-64

@ not included in means

Table No 5.20 contd : Grain Yield (Kg/ha) of entries in IVT - Biofort Kharif 2017

Entry No.	IET No.	V				Zone V (1)	VI										Zone VI (4)						
		MH		MH			MH		MH (3)		GU		GU		GU (2)								
		SKL		@SND			Mean		KJT		SHR		Mean		NWG			NVS		Mean		Mean	
5801	27155	4920	*	2628		4920	* 25%	4712	8	6417	5	5350	2* 15%	4896		5155	6	5025	7	1%	5295	2	11%
5802	27156	1750		1932		1750		3290		2813		2617		5208		4129		4669			3860		
5803	27157	4348		3011		4348	10%	3137		3719		3735		4271		4038		4155			3791		
5804	27158	2064		1804		2064		3044		8365	1*	4491		4792		3942		4367			5036	4	6%
5805	27159	3686		3317		3686		4367		4229		4094		4479		4487		4483			4391		
5806	27160	5654	2*	3089		5654	2* 43%	5410	3	2250		4438		6563	2	5780	1*	6171	2*	24%	5001	5	5%
5807	27161	5223	6*	1719		5223	6* 32%	5458	2	2323		4335		4479		3937		4208			4049		
5808	27162			3139				4031		5479	9	4755	6 2%	4896		3499		4197			4476		
5809	27163	5585	4*	4482	2	5585	4* 42%	4095		2021		3900		4792		4786		4789			3923		
5810	BPT 5204 (Yield Check)	3830		4013	4	3830		3626		2552		3336		5729	6	4252		4991		8	4040		
5811	27164	3745		753		3745		3905		3156		3602		3438		4231		3834			3682		
5812	27165													3542		4696		4119			4119		
5813	27166	4564		3253		4564	* 16%	3932		4719		4405		5521	8	3803		4662			4494		
5814	27167	5947	1*	4219	3	5947	1* 51%	4553		3844		4781	5 3%	7396	1*	5235	5	6315	1*	27%	5257	3	11%
5815	27168	5207	7*	3409	9	5207	7* 32%	3055		4083		4115		6563	3	4573		5568	3	12%	4568		
5816	27169	3996		2536		3996	1%	3166		6125	6	4429		5938	5	3584		4761			4703		
5817	27170	4594		2763		4594	* 16%	4681	9	4271		4515		4688		5369	3	5028	6	1%	4752		9
5818	27171	3255		2493		3255		3100		2073		2809		3021		3184		3102			2844		
5819	27172	5160	8*	2862		5160	8* 31%	4414		2917		4163		4792		3072		3932			3798		
5820	23964	5138	9*	3864	5	5138	9* 30%	5267	4	3792		4732	7 2%	4896		3862		4379			4454		
5821	27173	3771		2251		3771		4005		4521		4099		5521	9	5288	4	5405	5	8%	4834	7	2%
5822	27174	5654	3*	4553	1*	5654	3* 43%	3961		2333		3983		5625	7	3520		4573			3860		
5823	27175	4287		1477		4287	9%	4949	6	3615		4283		2604		2927		2766			3524		
5824	27176	3160		1584		3160		5669	1*	2250		3693		4063		4915	8	4489			4224		
5825	Kalanamak (Micro Nutrient Check)	2573		2436		2573		3045		2906		2842		4583		3392		3988			3482		
5826	IR 64 (Yield Check)	3947		2457		3947		3127		6875	3	4649	9	4271		4754		4513			4757		8
5827	27177	4165		2159		4165	6%	4084		6802	4	5017	3 8%	2083		3649		2866			4155		
5828	27178	3000		3516	8	3000		3013		2833		2949		5104		4733		4919			3921		
5829	27179	4766	*	3182		4766	* 21%	4527		5740	7	5011	4 8%	5417		4311		4864			4998	6	5%
5830	27180	5378	5*	2592		5378	5* 36%			3510		4444		4479		5385	2	4932		9	4458		
5831	27181	4941	*	2741		4941	* 25%	3015		8333	2*	5430	1* 17%	6146	4	4888	9	5517	4	11%	5596	1*	18%
5832	27182	4287		3608	6	4287	9%	3609		5510	8	4469		4167		3312		3739			4150		
5833	27183	4681	*	3587	7	4681	* 19%	5206	5	4208		4698	8 1%	3750		5064	7	4407			4557		
5834	Chittimuthyalu (Micro Nutrient Check)	1941		1903		1941		4733	7	3938		3537		5000		2911		3956			4145		
5835	27184	2963		2578		2963		3354		5229		3849		4688		3622		4155			4223		
	Exp Mean	4187		2821		4187		4047		4228		4155		4783		4237		4510			4328		
	C.D. 5%	716		483		457		858		1348		577		1466		916		845			568		
	C.V.%	8.40		8.42		5.35		10.41		15.67		12.12		15.08		10.64		13.29			13.27		
	Sowing Date	20-06-2017		22-06-2017				21-06-2017		21-06-2017				27-06-2017		22-06-2017							
	Planting Date	11-07-2017		21-07-2017				15-07-2017		06-07-2017				17-08-2017		21-07-2017							
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Table No. 5.20 contd : Grain Yield (Kg/ha) of entries in IVT - Biofort Kharif 2017

Entry No.	IET No.	VII															
		A.P.		TEL		TN		TN		KE		KE		KE (1)		KA	
		MTU		@IIRR		@CBT		@ADT		@PTB		MNC		Mean		@MND	
5801	27155	5605	3	3472		2120		2516		3651		7600		7600		4869	1 *
5802	27156	4236		2852		3690		4684	5	2780		7525		7525		2744	
5803	27157	4009		4340	2	3143		3206		3719	8	5538		5538		1686	
5804	27158	3365		1587		2393		4166	9	2074		5010		5010		2093	
5805	27159	4167		4216	4	2028		3134		5070	1	7225		7225		4051	7
5806	27160	4446		3596	8	5568	6	3528		2682		9825	4	9825	4 21%	4596	4 *
5807	27161	4381		3968	5	2500		4156		3260		9975	3 *	9975	3 23%	4186	5
5808	27162	5018	9	2728		5013	8	3450		3655	9	9350	7	9350	7 15%	4038	8
5809	27163	5222	4	3720	7	2875		4016		3722	7	10775	2 *	10775	2 * 33%	2038	
5810	BPT 5204 (Yield Check)	4421		3348		2538		4038		4430	2	8125		8125		1923	
5811	27164	3905		2976		3633		4528	7	2019		6775		6775		3221	
5812	27165							3331				6475		6475			
5813	27166	5012		2852		5013	9	2609		3236		9600	6	9600	6 18%	2122	
5814	27167	4928		4340	3	5770	5	5388	2 *	4164	4	10800	1 *	10800	1 * 33%	4109	6
5815	27168	4246		2604		5900	4	4619	6	3386		7975		7975		2987	
5816	27169	3515		2976		3205				2287		7925		7925		3378	
5817	27170	5212	5	3596	9	2023		4861	3	2389		6500		6500		4750	3 *
5818	27171	3531		2604		2650		3344		3059		6175		6175		2814	
5819	27172	3922		3348		5153	7	3728		3748	6	9125	8	9125	8 12%	2353	
5820	23964	4599		3100		4943		3184		3525		8850		8850	9%	2635	
5821	27173	3979		2232		5995	3	4784	4	2171		8200		8200	1%	2821	
5822	27174	3178		3472		2830		5872	1 *	3835	5	9075	9	9075	9 12%	1718	
5823	27175	5744	2	1612		2213		4057		2836		5483		5483		4776	2 *
5824	27176	3748		992		2775		3150		1074		6925		6925		2019	
5825	Kalanamak (Micro Nutrient Check)	5186	7	1612		2173		3025		1602		5075		5075		3013	
5826	IR 64 (Yield Check)			5084	1	4290				2599		6050		6050		3776	
5827	27177	6160	1 *	2604		2645		2978		2866		6500		6500		3583	
5828	27178	5188	6	2852		3645		3863		3385		7200		7200		2628	
5829	27179	5167	8	1984		2505		4438	8	4243	3	8475		8475	4%	2712	
5830	27180	4508		1488		6078	2	3284		2119		7325		7325			
5831	27181	3644		1860		3480		4113		2539		9650	5	9650	5 19%	3686	
5832	27182	4039		3224		4365		3647		3210		8525		8525	5%	3837	9
5833	27183	3529		3968	6	2928		3956		2594		7225		7225		2282	
5834	Chittimuthyalu (Micro Nutrient Check)	3408		2604		7688	1	4122		1669		6750		6750		2981	
5835	27184	2875		2480		2000		3038		1549		6430		6430		2628	
	Exp Mean	4367		2950		3699		3843		2975		7715		7715		3123	
	C.D. 5%	936		1445		980		843		1254		1840		1840		453	
	C.V.%	10.53		24.07		13.02		10.77		20.71		11.74		11.74		7.13	
	Sowing Date	03-07-2017		26-06-2017		18-08-2017		06-07-2017		28-07-2017		23-06-2017				13-09-2017	
	Planting Date	09-08-2017		18-07-2017		29-09-2017		29-07-2017		23-08-2017		17-07-2017				05-10-2017	
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Table No 5.20 contd : Grain Yield (Kg/ha) of entries in IVT - Biofort Kharif 2017

Entry No.	IET No.	VII								Zone VII (3)			Overall (12)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		KA		KA		KA		KA (1)									
		@BRM		GNV		@MGD@		Mean		Mean		Mean					
5801	27155	4627	4 *	9696	2 *	1596		9696	2 * 25%	7634	4 10%	5865	2 * 14%	90	116	295	
5802	27156	1893		6663		1118		6663		6142		4343		104	92	265	
5803	27157	3918	8	3635		841		3635		4394		4059		93	78	317	
5804	27158	2103		7061		928		7061		5145		4490		103	86	298	
5805	27159	3401		8907	4 *	1064		8907	4 * 15%	6766		5193	1%	94	94	302	
5806	27160	3762		8343	9	3115	4	8343	9 7%	7538	5 9%	5822	3 * 13%	98	118	315	
5807	27161	3942	7	8157				8157	5%	7504	6 9%	5263	9 2%	88	92	335	
5808	27162	3576		8728	6 *			8728	6 * 12%	7699	3 * 11%	5506	7 * 7%	94	96	320	
5809	27163	5889	1 *	8096				8096	4%	8031	2 * 16%	5647	4 * 10%	107	98	280	
5810	BPT 5204 (Yield Check)	3864		6740		3891	2	6740		6429		4862		106	93	294	
5811	27164	4087	5	8654	7			8654	7 11%	6445		4791		90	101	293	
5812	27165					3919	1			6475		4395		96	103	271	
5813	27166	4688	3 *	7635				7635		7416	7 7%	5159		104	96	290	
5814	27167	3365		10753	1 *			10753	1 * 38%	8827	1 * 28%	6223	1 * 21%	101	110	303	
5815	27168	4904	2 *	8356	8	1709		8356	8 8%	6859		5082		102	111	291	
5816	27169	3089		5452		643		5452		5631		4989		104	87	316	
5817	27170	2212		8827	5 *	1328		8827	5 * 14%	6846		5268	8 2%	90	100	304	
5818	27171	3888	9	4577		785		4577		4761		3655		96	153	274	
5819	27172	1490		7026		2096	9	7026		6691		4811		93	101	279	
5820	23964	2097		7776		1678		7776		7075	8 2%	5507	6 * 7%	97	105	286	
5821	27173	3882		7920		2026		7920	2%	6700		4918		101	121	288	
5822	27174	1641		7942		3451	3	7942	2%	6732		5138		105	95	284	
5823	27175	2169		6869		1881		6869		6032		4399		87	126	279	
5824	27176	2644		6731		2161	7	6731		5801		4490		91	93	295	
5825	Kalanamak (Micro Nutrient Check)	1863		3917		2653	5	3917		4726		3734		100	140	285	
5826	IR 64 (Yield Check)	2716		7772		2519	6	7772		6911	9	5151		88	102	292	
5827	27177	3089		6282		2153	8	6282		6314		4790		85	84	299	
5828	27178	2788		7712				7712		6700		4582		104	95	287	
5829	27179	2422		5340				5340		6327		5102		104	91	287	
5830	27180	1773		6804		1156		6804		6213		5186	1%	90	131	281	
5831	27181	2386		7362				7362		6885		5550	5 * 8%	105	105	263	
5832	27182	4038	6	7138		1035		7138		6567		4873		91	108	272	
5833	27183	2464		9372	3 *			9372	3 * 21%	6709		5068		93	99	278	
5834	Chittimuthyalu (Micro Nutrient Check)	3347		6112				6112		5424		4103		105	94	298	
5835	27184	2800		5369		521		5369		4891		4231		98	85	298	
	Exp Mean	3142		7286		1844		7286		6489		4933		97	103	292	
	C.D. 5%	426		950		204		950		782		301		1		14	
	C.V. %	6.66		6.41		5.34		6.41		10.52		10.75		2.06		11.50	
	Sowing Date	04-07-2017		21-07-2017		21-06-2017											
	Planting Date	29-07-2017		10-09-2017													
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Table No. 5.21: Days to 50% Flowering of entries in IVT - Biofort Kharif 2017

Entry No.	IET No.	I	II	III							Zone III (5)	V		Zone V (2)	VI						
		H.P.	PUN	OD	BI	W.B	U.P.	U.P.	U.P. (2)	MH		MH	MH		MH	MH (4)	GU	GU	GU (2)		
		MLN	LDN	CTK	PSA	CHN	MSD	VRN	Mean	Mean	SKL	SND	Mean	KJT	SHR	Mean	NWG	NVS	Mean		
5801	27155	97	95	91	84	98	103	81	92	91	84	94	89	89	73	85	107	100	103		
5802	27156	115	114	107	107	126	125	110	117	115	104	111	107	103	93	102	118	111	114		
5803	27157	119	108	91	95	110	100	100	100	99	94	102	98	95	83	93	101	92	97		
5804	27158			108	119	122				116	105	122	113	103	100	107	120	113	117		
5805	27159	97	92	87	82	141	112	82	97	100	80	91	85	91	75	84	108	95	101		
5806	27160	101	102	94	94	114	116	91	103	102	93	104	98	92	79	92	111	91	101		
5807	27161	93	84	88	86	106	111	78	94	93	82	81	82	89	75	82	104	94	99		
5808	27162	105	101	91	86	105	105	90	97	95		98	98	95	81	91	104	96	100		
5809	27163	124		108	107	118	124	114	119	114	107	111	109	103	100	105	119	113	116		
5810	BPT 5204 (Yield Check)		114	92	106	114	125	119	122	111	104	117	111	105	92	104	121	110	115		
5811	27164	100	91	88	83	109	111	81	96	94	87	89	88	89	75	85	104	89	96		
5812	27165			94	91	106	112		112	101							106	92	99		
5813	27166	116	115	108	104	111	120	100	110	109	102	103	103	102	90	99	112	107	109		
5814	27167	107	110	106	104	107	115	98	106	106	101	105	103	99	88	98	112	98	105		
5815	27168	110	105	103	102	111	116	101	108	106	99	105	102	101	83	97	117	110	113		
5816	27169			105	117	126		118	118	116	102	108	105	103	94	102	123	98	110		
5817	27170	96	93	90	91	121	102	79	90	96	82	88	85	87	80	84	101	93	97		
5818	27171			72	105	102	115		115	98	107	109	108	91	100	102	113	106	109		
5819	27172	103	97	87	89	104	110	79	95	94	87	102	94	96	84	92	106	94	100		
5820	23964	105	103	85	99	106	114	89	101	98	95	105	100	96	81	94	112	96	104		
5821	27173	110	113	100	124	107	118	99	108	109	93	98	96	101	82	94	117	103	110		
5822	27174	122		110	112	115	110	115	112	112	109	111	110	104	101	106	119	116	117		
5823	27175	94	83	80	80	103	104	81	93	89	76	87	81	82	68	78	103	88	96		
5824	27176	108	92	107	82	109	111	83	97	98	84	90	87	87	78	84	105	87	96		
5825	Kalanamak (Micro Nutrient Check)			107	110	108	119		119	111	116	115	115	107	107	111	113	111	112		
5826	IR 64 (Yield Check)	94	94	90	85	106	110	75	93	93	83	85	84	90	71	82	105	89	97		
5827	27177	96	87	85	83	101	97	80	88	89	83	89	86	85	69	81	104	85	94		
5828	27178	110	112	108	108	111	119	103	111	110	102	109	105	103	94	102	117	110	113		
5829	27179	118	122	114	105	115	116	100	108	110	102	109	105	94	92	99	115	110	113		
5830	27180	104	93	81	84	84	110	82	96	88	88	91	90		84	88	105	94	99		
5831	27181	117		112	108	116	131	111	121	115	102	109	106	105	91	102	119	113	116		
5832	27182	104	98	91	83	105	112	81	96	94	86	89	87	92	78	86	107	91	99		
5833	27183	110	103	93	85	101	108	84	96	94	90	104	97	96	80	92	105	93	99		
5834	Chittimuthyalu (Micro Nutrient Check)	115		113	119	108	130		130	117	115	121	118	114	105	114	116	111	114		
5835	27184			108	105	106	122		122	110	105	109	107	108	98	105	114	89	101		
	Exp Mean	107	101	97	98	110	114	93	104	102	95	102	98	97	86	95	111	99	105		
	C.D. 5%	2	4	3	4	0	1	2	1	1	1	3	2	3	9	2	4	4	2		
	C.V.%	0.79	2.06	1.31	2.06	0.00	0.48	0.94	0.69	1.17	0.60	1.36	1.16	1.30	4.92	2.47	1.61	2.07	1.17		

Table No. 5.21 contd : Days to 50% Flowering of entries in IVT - Biofort Kharif 2017

Entry No.	IET No.	Zone VI (4)	VII													Zone VII (9)	Overall (22)
			A.P.	TEL	TN	TN	TN (2)	KE	KE	KE (2)	KA	KA	KA	KA (3)			
		Mean	MTU	IIRR	CBT	ADT	Mean	PTB	MNC	Mean	MND	BRM	GNV	Mean	Mean	Mean	
5801	27155	92	83	94	98	102	100	87	65	76	90	64	107	87	88	90	
5802	27156	106	108	106	104	84	94	93	62	77	104	65	119	96	94	104	
5803	27157	93	81	91	91	80	85	84	81	82	85	75	90	83	84	93	
5804	27158	109	117	106	85	101	93	95	83	89	85	73	101	86	94	103	
5805	27159	92	89	92	93	89	91	97	82	89	93	78	117	96	92	94	
5806	27160	93	103	97	107	104	106	93	90	92	98	74	117	96	98	98	
5807	27161	90	85	90	91	85	88	88	76	82	84	69	101	84	85	88	
5808	27162	94	92	95	93	85	89	87	97	92	91	77	110	93	92	94	
5809	27163	109	113	93	105	102	103	94	84	89	108	75	122	102	99	107	
5810	BPT 5204 (Yield Check)	107	116	100	107	103	105	97	82	89	113	72	116	100	100	106	
5811	27164	89	83	92	91	84	87	87	84	86	87	65	121	91	88	90	
5812	27165	99				83	83		83	83					83	96	
5813	27166	102	112	99	103	103	103	87	90	89	114	76	117	102	100	104	
5814	27167	99	109	100	101	102	101	90	86	88	96	77	119	97	98	101	
5815	27168	103	109	104	105	99	102	93	85	89	99	76	117	97	98	102	
5816	27169	104	119	106	94		94	99	83	91	92	80	116	96	98	104	
5817	27170	90	85	93	92	86	89	87	82	85	87	66	104	85	87	90	
5818	27171	102	98	91	88	90	89	88	87	88	82	77	100	86	89	96	
5819	27172	95	99	94	101	101	101	89	65	77	98	65	105	89	91	93	
5820	23964	96	104	91	99	98	99	90	75	83	96	76	115	96	94	97	
5821	27173	101	104	96	108	101	104	89	75	82	94	80	111	95	95	101	
5822	27174	110	79	105	103	105	104	95	73	84	114	72	121	102	96	105	
5823	27175	85	113	92	91	91	91	85	77	81	84	65	96	82	88	87	
5824	27176	89	90	92	92	89	91	91	73	82	93	68	106	89	88	91	
5825	Kalanamak (Micro Nutrient Check)	109	99	100	85	94	89	85	73	79	77	75	94	82	87	100	
5826	IR 64 (Yield Check)	88		92	89		89	89	77	83	85	70	94	83	85	88	
5827	27177	85	80	89	79	80	79	84	84	84	82	63	90	78	81	85	
5828	27178	106	108	106	100	102	101	98	74	86	96	78	117	97	98	104	
5829	27179	103	103	107	107	103	105	97	73	85	100	76	121	99	98	104	
5830	27180	94	81	91	90	95	92	88	72	80		72	111	91	87	90	
5831	27181	107	113	100	104	104	104	99	76	87	96	66	118	93	97	105	
5832	27182	92	85	93	91	87	89	89	80	84	88	72	102	87	87	91	
5833	27183	93	88	92	101	91	96	88	82	85	97	65	100	87	89	93	
5834	Chittimuthyalu (Micro Nutrient Check)	111	106	103	102	96	99	89	82	86	84	76	102	87	93	105	
5835	27184	102	101	100	91	94	92	88	84	86	80	72	97	83	90	98	
	Exp Mean	98	98	97	96	94	95	90	79	85	93	72	108	91	92	97	
	C.D. 5%	3	4	9	1	3	2	3	2	2	5	3	5	2	1	1	
	C.V.%	2.64	1.92	4.34	0.50	1.75	1.24	1.37	1.20	1.30	2.74	2.02	2.27	2.36	2.43	2.06	

Table No 5.22 : Plant Height (cm) of entries in IVT - Biofort Kharif 2017

Entry No.	IET No.	I	II	III							Zone III	V		Zone V	VI						
		H.P.	PUN	OD	BI	WB	U.P.	U.P.	U.P. (2)	(5)	MH	MH	(2)	MH	MH	MH (4)	GU	GU	GU (2)		
		MLN	LDN	CTK	PSA	CHN	MSD	VRN	Mean	Mean	SKL	SND	Mean	KJT	SHR	Mean	NWG	NVS	Mean		
5801	27155	109	126	110	109	118	103	150	127	118	137	115	126	124	135	128	119	139	129		
5802	27156	67	82	108	85	103	83	112	97	98	95	98	97	105	118	104	91	104	98		
5803	27157	65	67	76	82	77	80	102	91	83	96	80	88	105	109	97	79	78	78		
5804	27158			89	65	80				78	93	85	89	106	105	97	86	93	90		
5805	27159	86	90	107	101	83	86	110	98	97	95	92	93	102	108	99	102	99	101		
5806	27160	94	111	132	116	105	121	135	128	122	139	113	126	135	123	128	124	136	130		
5807	27161	77	86	92	127	85	99	112	106	103	98	75	87	94	108	94	94	101	97		
5808	27162	77	92	99	106	85	94	109	102	99		87	87	100	120	102	101	115	108		
5809	27163	56		110	109	93	84	118	101	103	97	110	104	111	122	110	86	119	102		
5810	BPT 5204 (Yield Check)		76	102	95	72	90	125	108	97	98	92	95	110	102	101	91	126	108		
5811	27164	84	104	105	109	90	117	125	121	109	114	84	99	108	119	106	95	114	105		
5812	27165			120	97	80	111		111	102							107	127	117		
5813	27166	65	80	108	94	74	96	108	102	96	112	95	103	104	117	107	99	130	115		
5814	27167	87	99	101	111	80	110	123	116	105	124	106	115	110	132	118	110	134	122		
5815	27168	91	110	106	103	104	120	124	122	111	116	109	113	116	120	115	109	143	126		
5816	27169			85	84	80		124	124	93	84	77	80	97	102	90	81	101	91		
5817	27170	94	98	105	108	95	85	118	102	102	115	93	104	111	125	111	103	121	112		
5818	27171			148	176	130	155		155	152	168	174	171	186	195	181	160	185	173		
5819	27172	88	96	107	111	87	90	123	106	104	118	91	104	112	125	111	103	135	119		
5820	23964	87	108	107	114	93	102	120	111	107	123	110	116	118	119	117	108	140	124		
5821	27173	90	122	131	124	118	105	148	127	125	138	126	132	146	148	140	111	144	127		
5822	27174	60		99	96	80	85	128	107	98	96	92	94	104	115	102	83	120	102		
5823	27175	121	126	110	149	104	120	161	140	129	138	118	128	140	161	139	133	134	133		
5824	27176	70	90	96	105	128	87	105	96	104	99	85	92	103	125	103	84	104	94		
5825	Kalanamak (Micro Nutrient Check)			166	147	94	158		158	141	173	140	156	148	161	155	157	178	168		
5826	IR 64 (Yield Check)	86	95	104	121	105	101	117	109	109	120	81	101	112	120	108	103	127	115		
5827	27177	76	84	83	90	72	87	103	95	87	97	83	90	99	99	94	81	89	85		
5828	27178	69	85	100	105	78	100	107	103	98	112	85	99	106	112	104	93	118	106		
5829	27179	65	74	106	98	68	85	105	95	92	98	85	91	100	114	99	84	108	96		
5830	27180	116	93	132	149	125	130	155	143	138	151	142	147		146	146	145	129	137		
5831	27181	79		109	109	100	102	126	114	109	117	106	112	112	117	113	104	120	112		
5832	27182	88	109	121	112	104	116	136	126	118	149	93	121	110	131	121	103	109	106		
5833	27183	75	85	95	101	92	89	123	106	100	120	104	112	103	118	111	101	104	103		
5834	Chittimuthyalu (Micro Nutrient Check)	71		108	83	68	98		98	89	96	94	95	112	128	107	87	95	91		
5835	27184			96	74	73	90		90	83	95	85	90	103	102	96	85	114	99		
	Exp Mean	82	95	108	108	92	102	122	112	106	116	100	108	114	124	113	103	121	112		
	C.D. 5%	0	0		0	0	0				0	0		0	0	0	0	0	0		
	C.V.%	0.00	0.00		0.00	0.00	0.00				0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00		

Table No. 5.22 contd : Plant Height (cm) of entries in IVT - Biofort Kharif 2017

Entry No.	IET No.	Zone VI	VII													Zone VII	Overall
		(4)	A.P.	TEL	TN	TN	TN (2)	KE	KE	KE (2)	KA	KA	KA	KA	KA (4)	(10)	(23)
		Mean	MTU	IIRR	CBT	ADT	Mean	PTB	MNC	Mean	MND	BRM	GNV	MGD	Mean	Mean	Mean
5801	27155	129	144	130	90	93	91	133	123	128	78	89	119	70	89	107	116
5802	27156	105	118	92	75	112	93	110	106	108	58	75	76	55	66	88	92
5803	27157	92	90	87	46	76	61	105	82	93	49	67	53	49	55	70	78
5804	27158	98	104	95	77	103	90	109	87	98	60	63	79	55	64	83	86
5805	27159	103	113	108	63	90	76	139	104	121	71	74	85	62	73	91	94
5806	27160	129	138	129	99	118	108	143	136	140	86	93	119	76	93	114	118
5807	27161	99	100	97	74	90	82	105	89	97	72	64	82		73	86	92
5808	27162	109	115	106	83	93	88	108	102	105	73	77	80		77	93	96
5809	27163	109	121	97	78	101	89	103	108	106	64	80	87		77	93	98
5810	BPT 5204 (Yield Check)	107	117	104	70	92	81	109	97	103	60	72	77	67	69	86	93
5811	27164	109	110	98	81	94	88	109	109	109	74	83	88		82	94	101
5812	27165	117				91	91		125	125				70	70	95	103
5813	27166	113	114	100	86	95	90	106	114	110	65	80	81		75	93	96
5814	27167	122	126	132	98	116	107	131	119	125	85	92	99		92	111	110
5815	27168	122	127	127	111	111	111	122	126	124	87	98	106	79	93	109	111
5816	27169	95	110	99	75		75	99	92	95	67	66	78	52	66	82	87
5817	27170	115	120	117	71	102	86	109	98	103	75	88	87	67	79	93	100
5818	27171	181	179	153	105	135	120	165	162	164	121	135	133	97	122	139	153
5819	27172	119	115	115	92	102	97	103	114	108	76	70	81	72	75	94	101
5820	23964	121	130	112	86	113	99	115	116	116	86	78	83	55	75	97	105
5821	27173	137	155	129	77	125	101	138	126	132	97	105	106	77	96	114	121
5822	27174	105	157	98	97	104	101	104	104	104	53	75	80	69	69	94	95
5823	27175	142	114	122	99	124	111	160	130	145	109	105	130	83	107	118	126
5824	27176	104	99	100	68	86	77	115	88	101	66	75	82	69	73	85	93
5825	Kalanamak (Micro Nutrient Check)	161	173	132	104	142	123	152	150	151	102	79	142	105	107	128	140
5826	IR 64 (Yield Check)	116		123	82		82	113	90	101	80	107	91	72	88	95	102
5827	27177	92	88	92	69	82	75	87	85	86	72	79	71	67	72	79	84
5828	27178	108	121	100	82	94	88	106	108	107	59	59	79		66	90	95
5829	27179	102	111	99	77	94	85	111	103	107	64	79	73		72	90	91
5830	27180	140	158	156	116	128	122	126	137	132		126	127	67	107	127	131
5831	27181	113	115	108	91	101	96	111	122	117	81	82	103		89	101	105
5832	27182	113	117	126	85	114	99	125	127	126	78	75	96	62	78	101	108
5833	27183	106	104	115	94	103	98	112	113	113	64	80	90		78	97	99
5834	Chittimuthyalu (Micro Nutrient Check)	106	115	109	93	95	94	104	110	107	65	65	85		72	93	94
5835	27184	101	91	103	64	88	76	85	98	92	56	75	74	46	63	78	85
	Exp Mean	115	121	112	84	103	93	117	111	114	74	83	92	68	80	97	103
	C.D. 5%	0		0	0	0	0		0			0	0	0			
	C.V.%	0.00		0.00	0.00	0.00	0.00		0.00			0.00	0.00	0.00			

Table No. 5.23: Panicles/ M² of entries in IVT - Biofort Kharif 2017

Entry No.	IET No.	I	II	III						Zone III	V		Zone V	VI					
		H.P.	PUN	OD	BI	WB	U.P.	U.P.	U.P. (2)	(5)	MH	MH	(2)	MH	MH	MH (4)	GU	GU	GU (2)
		MLN	LDN	CTK	PSA	CHN	MSD	VRN	Mean	Mean	SKL	SND	Mean	KJT	SHR	Mean	NWG	NVS	Mean
5801	27155	230	281	296	209	396	267	258	263	285	279	248	263	201	128	214	275	130	202
5802	27156	300	287	325	221	281	260	297	278	276	199	208	203	136	168	178	275	167	221
5803	27157	350	290	267	215	479	305	285	295	310	313	269	291	193	163	234	271	130	200
5804	27158			337	225	380				314	199	282	240	185	153	205	273	151	212
5805	27159	280	281	327	216	297	286	302	294	286	207	254	230	196	146	200	272	160	216
5806	27160	210	337	345	215	281	294	274	284	281	257	209	233	187	213	216	283	155	219
5807	27161	358	294	389	252	479	308	314	311	348	334	269	302	196	147	237	272	170	221
5808	27162	228	274	347	213	347	325	215	270	289		273	273	193	170	212	273	151	212
5809	27163	210		321	199	281	233	275	254	262	239	218	228	188	202	212	275	129	202
5810	BPT 5204 (Yield Check)		320	348	273	248	278	279	278	285	252	219	235	198	155	206	279	156	217
5811	27164	248	267	300	247	314	310	246	278	283	212	218	215	186	180	199	267	196	232
5812	27165			269	215	479	301		301	316							267	143	205
5813	27166	255	277	382	223	347	280	246	263	295	281	222	251	195	179	219	278	154	216
5814	27167	325	320	287	257	330	276	263	269	282	283	223	253	203	159	217	286	142	214
5815	27168	270	241	345	242	330	284	188	236	278	279	175	227	163	149	191	282	160	221
5816	27169			355	351	462		254	254	355	261	243	252	176	218	224	279	146	212
5817	27170	290	294	361	266	462	262	293	278	329	246	252	249	202	141	210	272	176	224
5818	27171			333	229	248	245		245	264	201	242	221	172	118	183	265	136	201
5819	27172	178	248	361	248	281	272	213	243	275	243	176	209	194	221	208	274	141	207
5820	23964	203	271	320	332	347	292	253	273	309	249	218	234	184	127	194	274	150	212
5821	27173	270	290	288	283	330	255	237	246	279	231	231	231	196	185	210	277	153	215
5822	27174	380		345	298	314	268	243	255	293	279	242	260	209	197	232	277	178	227
5823	27175	223	251	293	241	264	233	243	238	255	216	248	232	196	172	208	264	167	215
5824	27176	353	261	364	294	347	302	289	295	319	242	243	242	189	167	210	270	174	222
5825	Kalanamak (Micro Nutrient Check)			371	169	363	275		275	294	228	209	218	186	136	189	268	151	209
5826	IR 64 (Yield Check)	325	277	356	192	264	306	273	290	278	203	276	239	159	167	201	271	190	230
5827	27177	255	287	358	273	347	273	288	280	308	329	264	296	188	130	227	262	186	224
5828	27178	330	297	287	206	347	266	261	264	273	241	222	231	162	145	192	275	208	241
5829	27179	310	300	327	297	281	277	272	274	290	219	202	210	191	168	195	277	161	219
5830	27180	215	257	363	177	314	270	193	231	263	235	149	192		215	199	272	176	224
5831	27181	215		322	237	314	252	259	256	277	226	209	218	173	122	182	282	170	226
5832	27182	255	267	331	178	347	265	264	265	277	205	253	229	187	213	214	271	162	217

Table No. 5.23 contd: Panicles/ M² of entries in IVT - Biofort Kharif 2017

Entry No.	IET No.	Zone VI	VII													Zone VII	Overall
		(4)	A.P.	TEL	TN	TN	TN (2)	KE	KE	KE (2)	KA	KA	KA	KA	KA (4)	(10)	(23)
		Mean	MTU	IIRR	CBT	ADT	Mean	PTB	MNC	Mean	MND	BRM	GNV	MGD	Mean	Mean	Mean
5801	27155	183	267	389	313	297	305	548	244	396	395	446	464	238	386	360	295
5802	27156	186	241	320	265	283	274	340	247	293	325	248	474	230	319	297	265
5803	27157	189	300	405	313	336	324	707	314	510	315	393	450	228	346	376	317
5804	27158	190	248	364	285	283	284	726	247	486	325	365	450	191	333	348	298
5805	27159	193	333	391	288	292	290	737	250	493	350	377	490	226	361	373	302
5806	27160	209	294	349	483	271	377	695	290	493	420	402	487	303	403	399	315
5807	27161	196	314	422	303	279	291	778	260	519	375	431	423		410	398	335
5808	27162	196	442	402	385	300	343	597	254	425	365	465	517		449	414	320
5809	27163	198	277	328	270	292	281	408	254	331	380	441	455		425	345	280
5810	BPT 5204 (Yield Check)	197	307	404	303	295	299	438	257	347	345	431	478	209	366	347	294
5811	27164	207	317	358	335	250	293	608	230	419	320	392	457		390	363	293
5812	27165	205				266	266		274	274				226	226	255	271
5813	27166	201	363	334	393	242	317	351	217	284	330	361	469		386	340	290
5814	27167	197	356	374	508	300	404	359	234	296	405	334	456		398	369	303
5815	27168	188	290	356	530	267	398	310	244	277	425	402	511	244	395	358	291
5816	27169	205	244	440	310		310	567	244	405	345	416	475	219	364	362	316
5817	27170	198	343	391	250	313	281	487	230	359	370	395	454	237	364	347	304
5818	27171	173	228	362	300	271	285	484	200	342	400	338	474	245	364	330	274
5819	27172	207	284	322	443	217	330	370	240	305	390	327	494	289	375	337	279
5820	23964	183	356	314	303	279	291	491	244	367	410	368	405	202	346	337	286
5821	27173	203	294	330	438	287	362	389	187	288	425	403	423	223	368	340	288
5822	27174	215	271	355	295	313	304	351	217	284	350	206	481	175	303	301	284
5823	27175	200	297	453	280	258	269	349	254	301	445	415	456	196	378	340	279
5824	27176	200	310	329	275	284	279	402	217	309	330	466	526	165	372	330	295
5825	Kalanamak (Micro Nutrient Check)	185	271	397	275	289	282	436	237	336	430	276	516	230	363	335	285
5826	IR 64 (Yield Check)	196		354	323		323	391	267	329	405	460	454	230	387	360	292
5827	27177	191	290	391	230	233	232	474	270	372	380	481	386	310	389	345	299
5828	27178	197	277	347	468	258	363	296	254	275	355	402	417		391	341	287
5829	27179	199	281	338	263	270	266	357	250	303	390	393	494		425	337	287
5830	27180	221	340	309	535	246	390	285	170	227		365	486	338	396	341	281
5831	27181	187	251	327	243	292	267	194	180	187	405	305	555		422	306	263
5832	27182	208	264	431	353	225	289	292	177	234	385	307	488	149	332	307	272
5833	27183	204	234	341	340	283	311	254	273	264	360	393	412		388	321	278
5834	Chittimutthyalu (Micro Nutrient Check)	207	281	365	495	308	402	402	244	323	345	306	468		373	357	298
5835	27184	207	307	380	248	279	263	334	280	307	325	391	533	210	365	329	298
	Exp Mean	197	296	367	342	277	310	447	241	343	373	379	470	230	374	346	292
	C.D. 5%	9	56	88	35	56	32	204	61	98	61	12	82	30	27	27	14
	C.V.%	4.52	9.26	11.86	5.09	9.84	7.25	22.46	12.50	20.26	8.06	1.54	8.57	6.33	7.21	12.59	11.50

Table No.5.24: Grain quality characteristics of entries in IVT- Biofortification, Kharif 2017

Entry No.	IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
5801	27155	76.7	67	51.6	5.41	2.25	2.4	SB	VOC	4.4	100	8.9	1.64	4	24.49	22	SS
5802	27156	79.3	68.1	61.4	4.94	1.9	2.6	MS	VOC	4.2	175	8.2	1.65	4	23.64	22	NS
5803	27157	78.8	66.2	42	5.33	1.82	2.92	MS	VOC	4.8	125	8.4	1.57	4	23.32	23	NS
5804	27158	79.3	70.3	65.1	4.64	1.91	2.42	SB	VOC	4.1	140	7.6	1.63	4	23.43	23	NS
5805	27159	75.8	59.7	47.6	6.86	1.89	3.62	LS	A	5.3	245	10.6	1.54	5	15.42	63	NS
5806	27160	78.2	67	52.11	6.02	1.85	3.25	LS	VOC	5.5	220	8.7	1.44	4	24.93	23	NS
5807	27161	75.6	67.3	64.9	5.18	1.96	2.64	MS	VOC	4.8	50	9.8	1.89	3	24.4	22	NS
5808	27162	79.1	67.9	63.8	4.92	1.8	2.73	MS	VOC	4.2	155	10.3	2.09	4	24.25	22	NS
5809	27163	78.4	69.5	63.8	5.22	2.23	2.34	SB	A	4.6	205	8.2	1.57	4	25.69	23	NS
5810	BPT 5204	78.1	70	62	5.05	1.88	2.68	MS	VOC	5.3	140	9.8	1.94	4	24.64	24	NS
5811	27164	78.5	63.5	37.5	5.96	2.17	2.74	MS	VOC	5.3	195	10	1.67	4	27.54	48	NS
5812	27165	77.8	67.9	61	6.31	1.97	3.2	LS	VOC	4.6	50	9.6	1.52	5	27.19	25	NS
5813	27166	79.3	71.3	45.4	5.03	1.86	2.7	MS	A	5.5	85	8.6	1.7	4	24.22	22	MS
5814	27167	77.2	68.4	49.4	5.04	2.19	2.3	SB	A	5.6	150	9.5	1.88	4	25.98	22	NS
5815	27168	77.8	69	62.5	5.19	2.03	2.55	MS	VOC	5.5	170	8.9	1.71	4	23.78	22	NS
5816	27169	80.4	68.3	58.3	6.74	1.95	3.45	LS	VOC	4.2	125	9.5	1.4	5	24.87	23	MS
5817	27170	78.6	68.9	55.6	6.35	2.16	2.93	LB	VOC	5.5	170	10.5	1.65	4	23.84	49	NS
5818	27171	77.5	67.6	67.4	6.27	2.39	2.62	LB	OC	4.6	200	9.9	1.57	4	24.52	53	NS
5819	27172	80	71.6	51.8	5.51	2.02	2.72	MS	VOC	5	160	10.5	1.9	4	23.84	22	NS
5820	23964	82.7	71.3	70	4.86	1.86	2.61	MS	VOC	4.7	90	8.9	1.83	3	24.9	22	NS
5821	27173	78.2	67.8	64.5	5.3	1.81	2.92	MS	VOC	5.5	230	9.9	1.86	4	26.92	23	NS
5822	27174	76.3	66.4	60.4	5.44	2.16	2.51	MS	A	5.5	180	8.7	1.59	4	25.25	22	NS
5823	27175	78.9	66.3	55.4	5.66	2.44	2.31	SB	OC	4.6	155	8.3	1.46	4	22	73	NS
5824	27176	79	68.8	65.7	5.83	1.79	3.25	SS	A	5.5	265	7.6	1.3	7	25.22	22	NS
5825	KALANAMAK	76.3	68.1	61.9	5.26	2.06	2.55	MS	VOC	4.6	100	8.9	1.69	4	24.02	41	NS
5826	IR 64	78.3	62.7	45.2	6.31	2.09	3.01	LS	VOC	4.1	160	11.2	1.77	5	24.87	63	NS
5827	27177	80.8	67.7	42.1	6.67	1.98	3.36	LS	VOC	4.6	155	9.8	1.46	4	25.9	37	NS
5828	27178	79.5	70	62	5.01	1.94	2.58	MS	VOC	4.2	140	8.9	1.77	4	22.82	22	NS
5829	27179	77.4	66.9	65.5	4.88	1.91	2.45	SB	VOC	4	115	9.6	1.96	4	25.72	23	NS
5830	27180	75	64.3	43.1	5.98	2.57	2.32	SB	VOC	4.7	145	9.3	1.55	4	24.93	32	NS
5831	27181	82	71.9	62	5.8	1.87	3.1	SS	A	5	260	9.9	1.7	7	22.79	25	NS
5832	27182	76	66.5	59.7	6.46	2.24	3.15	LS	VOC	4.7	115	9.4	1.45	4	25.61	38	NS
5833	27183	79.6	69	56.7	5.33	2.57	2.07	SB	VOC	4	210	9.7	1.81	4	23.93	22	NS
5834	CHITI MUTYALU	74.8	68.5	67.2	3.84	2.05	1.87	SB	A	4.1	155	6.7	1.74	4	22	27	NS
5835	27184	79	64.9	43	5	2.01	2.48	SB	VOC	4.2	200	9.2	1.84	5	25.13	42	NS

HULL: Hulling (%); MILLING (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 5.25: Iron content in ppm for polished rice samples of entries in IVT-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	MLN	LDN	CTK	CHN	PSA	VRN	RPR	SKL	SND	KJT
5801	27155	3	1.6	3	3.5	2.6	1.8	3.5	1.9	2.3	1.2
5802	27156	2.8	2.2	2.4	4	1.2	1.2	2.1	1.6	2.4	1.6
5803	27157	2.5	2.3	4.7	2.1		2.5	2.8	2.5	1.6	3.5
5804	27158	3.9		1	4.4	3		2.4	2.3	2.4	2.1
5805	27159	3	2.2	2.4	1.8	2.2	2.9	3.3	1.6	2.1	1.9
5806	27160	2.6	1.4	3	1.6	2.6	0.9	1.7	1.9	1.4	1.6
5807	27161	2.9	2.3	3.4	4.4	2	1.6	4.2	2.8	2	2.5
5808	27162	2.1	1.3	2.6	2.2	2.2	1.2	1.8		1.5	1.8
5809	27163	2			1.7	0.9	1.7	2.3	1.7	2.1	1.8
5810	BPT 5204 (Yield Check)	4.2	2.7		4.1	2.4	2	2.8	1.8	1.7	1.8
5811	27164	2.2	1.1	1.9	2.1	2.1	1.6	2.8	1.8	1.8	2.4
5812	27165			1.9	3.2	1.6		2.7			
5813	27166	2.7	1.5	1.8	3.5	1.9	2.2	2.4	1.3	1.1	1.1
5814	27167	2.2	1.5	1.3	2.8	2.8	2.3	1.1	1.7	1.6	1.8
5815	27168	3	1.7		2.5	3.2	2.9	1.9	2.2	1.3	0.9
5816	27169	1.6		2.4	2.4	2.9	5.6	1.6	3	2.1	
5817	27170	1.5	0.9	1	2.1	2.5	1.3	2.4	1.5	1.8	
5818	27171				4.8	2.9		1.8	1.5	0.9	
5819	27172	2.7	1.4	2.4	2.9	2.1	1.7	1.8	1.5	1.4	
5820	23964	2	1.7	2.4	1.8	1.8	1.9	1.5	2.1	1.4	
5821	27173	1.4	2.4	2.9	2.6		1	1.8	1.8	2.2	1.2
5822	27174	1.8		2.3	3.9	2	1.9	1.3	0.7	2.6	0.4
5823	27175	1.7	1.6	1.6	5.4	2	1.3	2.1	3.9	3.9	1.7
5824	27176	2.8	2.1	2.6	3	1.4	3.6	2.6	2.7	3.4	2.2
5825	Kalanamak (Micro Nutrient Check)			2.2	1.7	3.2		2.5	1.4	1.8	1.4
5826	IR 64 (Yield Check)	2.4	1.8	1.6	1.5	1.7	1	1.7	1.4	1.8	1.2
5827	27177	3	1.5	2.8	2.4	1.5	0.8	1.2	2.8	1.4	1.5
5828	27178	3.5	1.6	1.1	2.2	1.5	2.9	2	1.4	1.6	1.6
5829	27179	2.8	2.1	1.7	1.9	1.9	2.4	2.5	2.4	1.8	2.4
5830	27180	3.6	0.6	1.1	3.6	1.1	0.7	0.8	1.7	1.7	
5831	27181	2.3		3.1	2.7	1.6	1.9	2.9	2.2	1.9	1.6
5832	27182	1.9	2.9	3.8	2.8	2.1	2.1	2.3	2.3	1.5	1.6
5833	27183	2.4	2.1	2.4	1.5	1.9	1.6	1.1	2.2	1.3	1.9
5834	Chittimuthyalu (Micro Nutrient Check)	2.7		2.8	2.4	2.1		3.1	4	3.2	2
5835	27184			2.5	1.5	1.7		1.8	1.9	1.2	0.9
	Mean	2.6	1.8	2.3	2.8	2.1	2.0	2.2	2.1	1.9	1.7

Table No 5.25 contd.: Iron content in ppm for polished rice samples of entries in IVT-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	SHR	NVS	NWG	IIRR	MTU	ADT	GNV	MGD	MNC	PTB	Mean
5801	27155	3.2	2.3	3.3	2.3	2.7	2.4	2.1		2.2	3.1	2.5
5802	27156	4.8	2.5	3.4	1.7	2.4	2.6	2.7	2	1.3	3.5	2.4
5803	27157	4.2	2.8	3.4	2.8	3.3	4.2	2.9	5.1	1.7	5.7	3.2
5804	27158	4.9	3	8.8	3.2	3.5	2.2	3.5	3.4	1.9	3.4	3.3
5805	27159	3.8	2	3.6	2.6	3	2.5	2.5	1.1	1.7	3.3	2.5
5806	27160	2.1	1.1	3	1.7	1.5	2.2	1.9	0.7	1.5	3.9	1.9
5807	27161	2.5	5.1	1.9	1.9	2.7	3.3	2.5	1.1	3.3	3.9	2.8
5808	27162	1.9	3.2	3.4	2.8	4.1		2.1	1.5	2.4	3.3	2.3
5809	27163	3	2.9	3.7	1.8	2.4	2.2	1.3	1.3	2.6	4	2.2
5810	BPT 5204 (Yield Check)	2.6	2.6	3.4	4	2.6	2.6	2.1	0.6	2.3	2.9	2.6
5811	27164	1.9	3.5	2.2	3.8	2	2.7	2.2		1.1	3.6	2.3
5812	27165		2.1	2.5			2.1		1			2.1
5813	27166	3.7	6.9	2.9	2.4	3	2.2	1.3		2.6	3.2	2.5
5814	27167	3.1	2	2.1	2	2.2	1.6	1.1		1.6	2.3	2.0
5815	27168	4.5	2.6	2.5	1.6	1.5	2	2.5	1.7	3	3.5	2.4
5816	27169	4.8	4.1	2.7	2.5	2.9		2		2.8	14.1	3.6
5817	27170	2.6	1.1	4.2	1.8	3.1	1.2	1.6	3.4	2	2	2.0
5818	27171	5.8	2.2	3	1.8	2.5	1.5	1.7	1	1.4	3.9	2.4
5819	27172	2.8	2.5	2.7	1.5	2.4	1.7	1.8	2.4	2	4.1	2.2
5820	23964	3.9	4.1	1.7	2.4	1.7	2.2	3.3	2.2	2.4	4.2	2.4
5821	27173	3	2.2	2.3	2.3	1.6	2.5	2.4	3	2.3	2.5	2.2
5822	27174	7	1.6	3.6	1.5	1.7	1.4	2.2	1.7		2.9	2.3
5823	27175	3.6	3.6	4.3	1.8	2	1.5	1.3	1	1.4	3.1	2.4
5824	27176	7.6	5.1	6.2	3.2	2	2	1.5		2.2	4.1	3.2
5825	Kalanamak (Micro Nutrient Check)	1.9	2.6	4.4	2.1	3.5	3.8	3.4	1.7	2.5	5.3	2.7
5826	IR 64 (Yield Check)	3.3	2.2	2.3	2.7		2.1	2	3.4	2.4	3.2	2.1
5827	27177	2.4	3.9	1.9	1.7	3.5	2.4	1.6	0.7	1.5	5.3	2.2
5828	27178	4.4	2.3	2.1	2.4	2.4	1.6	2.7	2.1		3.2	2.2
5829	27179	4.5	3.4	2.5	1.6	1.8	4.1	4		2.9	3.9	2.7
5830	27180	5.5	1.9	1.5	1.4	2.8	2.6	1.6	3.4	1	4	2.1
5831	27181	3.9	3.2	2.2	1.8	2.2	2.6	1.9		3	8.1	2.7
5832	27182	2.9	4.4	1.7	3.3	1.5	2	1.9	4	3	5.6	2.7
5833	27183	2.8	2.9	3.3	2.7	2.1	2.3	1.9	1.6		3.1	2.2
5834	Chittimuthyalu (Micro Nutrient Check)	5.1	3.5	4.3	2.1	2.9	3.3	2.2	3.4	3	4.2	3.1
5835	27184	4.4	3.4	2.5	2.5	2.3	1.8	1.3	1.7	2.2	4.2	2.2
	Mean	3.8	3.0	3.1	2.3	2.5	2.4	2.2	2.1	2.2	4.1	2.5

Table No. 5.26: Zinc content in ppm for polished rice samples of entries in IVT-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	I	II	III	III	III	III	III	V	V	V	V
		MLN	LDN	CTK	CHN	PSA	VRN	Mean	RPR	SKL	SND	Mean
5801	27155	12.5	27.5	21	15	16.4	16.3	17.2	19.9	16.2	17.9	18
5802	27156	16.9	25.9	23.2	21	15.3	19.8	19.8	17.6	18.3	26.6	20.8
5803	27157	17.5	28.6	26.8	17.3		23.7	22.6	27.4	25.3	19.1	23.9
5804	27158	17.9		17.3	21.4	19.5		19.4	22.4	21.3	19.1	20.9
5805	27159	18.9	31.4	29	20.8	16.3	25.1	22.8	25.7	25.4	23.4	24.8
5806	27160	15.4	20.6	20.3	18	14.6	9.3	15.6	15.4	16	13.9	15.1
5807	27161	15.5	22	20.6	18.3	22	16.6	19.4	17.8	17.7	18.8	18.1
5808	27162	13.3	23.9	24.1	19.5	17.2	17.9	19.7	19		17.7	18.4
5809	27163	18.1			14.8	22	13.5	16.8	14.2	17.8	15.2	15.7
5810	BPT 5204 (Yield Check)	19.3	26.5		18.9	21.1	16	18.7	16.7	17.4	17.1	17.1
5811	27164	17.4	28.9	22.9	20.1	16.6	19.3	19.7	19.3	19.4	21.9	20.2
5812	27165			23.1	20.6	21.3		21.7	18.7			18.7
5813	27166	15	20.9	18.7	20.7	15	14.2	17.2	16.4	15.7	13.4	15.2
5814	27167	11.1	20.7	16.1	16.3	18	13.1	15.9	15.2	14.7	13.9	14.6
5815	27168	14.3	27.9		17.7	21.1	22.1	20.3	17.8	16.3	16.5	16.9
5816	27169	13.2		23.7	17.9	18.2	18.2	19.5	17.2	21.2	17.6	18.7
5817	27170	12.3	26.4	18.9	17.9	12.7	16.8	16.6	16.4	16.7	17.1	16.7
5818	27171				21.6	22.6		22.1	20.9	20.3	15.7	19
5819	27172	15.8	22.1	20.9	16.8	18.9	17.5	18.5	19.7	16.8	14.1	16.9
5820	23964	15.4	23	19.8	18.4	13.2	16.8	17.1	16.8	15.9	14.9	15.9
5821	27173	14.2	24.6	22.6	20.6		16.4	19.9	18.3	16.5	17.1	17.3
5822	27174	15.6		21.6	13.4	15.7	16	16.7	12.7	14.5	11.7	13
5823	27175	10.9	29.2	22.3	25	21	17.3	21.4	19.6	19.1	20.3	19.7
5824	27176	16.4	31.2	31.1	20.1	14.3	30.9	24.1	21.3	22.2	25.9	23.1
5825	Kalanamak (Micro Nutrient Check)			24.2	18.3	18.7		20.4	17.9	17.7	14.8	16.8
5826	IR 64 (Yield Check)	16.8	25.8	20.6	19.9	13.2	16.9	17.7	19.1	20.5	18.9	19.5
5827	27177	21.3	29.9	28.5	29.6	18.6	20	24.2	19.6	23.2	23.7	22.2
5828	27178	16	25.1	25.3	20.7	17.6	18.1	20.4	23.8	18.5	17.8	20
5829	27179	18	27.2	15.5	17.7	15.3	20.8	17.3	20.4	19.9	17.3	19.2
5830	27180	13.4	24.9	21.2	17.5	18.1	15.1	18	18.6	17.1	21.3	19
5831	27181	14		22.1	16.3	22.6	15.2	19.1	19.5	16.9	19	18.5
5832	27182	12	26.2	26.5	19.4	15.9	18.7	20.1	20.8	19.9	19.9	20.2
5833	27183	17	29.6	24.1	18.8	20.1	24.3	21.8	21.9	20.6	19.2	20.6
5834	Chittimuthyalu (Micro Nutrient Check)	14.9		18.4	21.1	13.6		17.7	25.5	27	23.5	25.3
5835	27184			24	18.1	22		21.4	19.5	19.5	18.9	19.3
	Mean	15.5	26	22.4	19.1	17.8	18.1	19.4	19.2	19	18.3	18.8

Table No. 5.26 contd: Zinc content in ppm for polished rice samples of entries in IVT-Biofortification analyzed at IIRR, Hyderabad Kharif 2017

Entry No.	IET No.	VI	VI	VI	VI	VI	VII	VII	VII	VII	VII	VII	VII	VII
		KJT	SHR	NVS	NWG	Mean	IIRR	MTU	ADT	GNV	MGD	MNC	PTB	Mean
5801	27155	15.2	26	15.1	17.5	18.5	13.8	14	27	18.9		17.8	30.4	20.3
5802	27156	20.1	28.2	16.8	18	20.8	15.4	16.7	23.4	16	11.8	21.5	27	18.8
5803	27157	23.7	33.1	22.1	22.6	25.4	20	25.5	33.4	28.5	17.7	24.2	38.2	26.8
5804	27158	20.4	27.3	19.5	27.1	23.6	23.1	22.6	27.8	19.5	11.2	22	35.6	23.1
5805	27159	23	28.9	20.9	20.5	23.3	19.8	22.8	31	20.8	9.7	26	33.2	23.3
5806	27160	13.3	24.6	16.3	17	17.8	16.3	15.8	22.7	12.6	11.8	17.8	24.1	17.3
5807	27161	16.8	28.1	23.5	15.7	21	14.6	20.5	21	14.3	9.9	20.8	33.3	19.2
5808	27162	17.8	30.5	17.8	17.4	20.9	18.7	20.6		16.6	7.8	20.5	31.4	19.3
5809	27163	17.1	26	18.3	19.2	20.2	16.6	16.5	23.5	13.9	9.1	20.7	36.1	19.5
5810	BPT 5204 (Yield Check)	19	27.1	20.2	20.6	21.7	17.1	16.3	24.3	15.9	10.2	20.3	24.1	18.3
5811	27164	17.1	21.6	22.2	22.2	20.8	13.7	22.3	25.5	18.8		22.5	33.7	22.8
5812	27165			28.3	17.9	23.1			28.3		12.7			20.5
5813	27166	14.1	23.6	27.2	20.8	21.4	16.1	20.9	23.6	12.9		18.9	28.1	20.1
5814	27167	13.9	23	20.6	15.7	18.3	19	13.6	20.6	12.4		19.6	22.5	18
5815	27168	17.2	23	19.9	17	19.3	14.6	18.1	21.1	17.1	11.6	18.3	28.3	18.4
5816	27169		27.9	25.6	21.3	24.9	17.8	20.8		15.7		22.5	30.3	21.4
5817	27170		25.1	21.9	19.1	22	16.9	16.3	23.4	13.2	14.4	19	30.8	19.1
5818	27171		32.4	22.5	24.8	26.6	18.2	19	24.2	15.4	11.2	20.7	32.8	20.2
5819	27172		25.9	27	20.5	24.5	17.2	17.5	24.7	20.2	15.1	19.6	33	21
5820	23964		22.2	25	18.1	21.8	16.5	18.5	24.3	15.3	13.6	20.2	28.7	19.6
5821	27173	16.9	23.4	20.8	19.9	20.3	16.3	17.4	26.3	12.9	14.8	19.6	26.8	19.2
5822	27174	14.1	25.5	15.6	17.8	18.3	12.8	18	23	13.2	12		31.7	18.5
5823	27175	17.5	18.2	23.1	21.5	20.1	19.3	15.6	25.7	15.6	11.1	20	36.3	20.5
5824	27176	19.7	37.9	31.6	21.3	27.6	16.7	24.6	28	15.7		22.5	39.1	24.4
5825	Kalanamak (Micro Nutrient Check)	17.5	21.9	16.1	21.4	19.2	16.5	19.5	26.3	18.1	19.3	22.1	33.9	22.2
5826	IR 64 (Yield Check)	17	25.8	21.9	20.4	21.3	18.1		25.7	15.5	11.4	21.4	33.6	21
5827	27177	17.9	25.6	26.9	23.5	23.5	17	27.1	33.6	20.2	9.6	28	39.9	25.1
5828	27178	18.6	29.4	19.9	23.3	22.8	14.3	16.5	21.5	14.3	15.2		30	18.6
5829	27179	20.5	41.4	22.1	24.9	27.2	14.9	22.2	31.1	14.4		23.8	31.3	23
5830	27180		28.1	16.7	19.3	21.4	13.9	18	22.9	14	9.6	21.3	32.3	18.9
5831	27181	17.6	23.6	16	17.1	18.6	15.1	20.9	24.7	13.2		19.3	40.4	22.3
5832	27182	16.4	28.8	21.5	13.8	20.1	20	20.4	14.7	13.8	7.9	19.1	34.7	18.7
5833	27183	20.6	27.9	22.6	22.8	23.5	22.3	23.3	27.8	12.4	7.7		37.8	21.9
5834	Chittimuthyalu (Micro Nutrient Check)	17.3	30.2	22.5	25.4	23.9	18.6	23	32.8	20.8	14.6	26.1	35.7	24.5
5835	27184	17.5	28.7	18.3	24.6	22.3	18.4	18.2	24.4	17	11.3	25.4	35.4	21.4
	Mean	17.8	27.1	21.3	20.3	21.6	17	19.5	25.4	16.2	11.9	21.3	32.4	20.5

Table No.5.27: Protein (%) for polished rice samples of entries in IVT- Biofortification analyzed at NRRI, Cuttack, Kharif 2017.

Entry No.	IET No.	CTK	MTU	GNV	RPR	SKL	SHR	MEAN
5801	27155	9.27	8.02	8.62	6.98	6	9.9	8.13
5802	27156	10.19	7.87	6.93	7.88	8	7.69	8.09
5803	27157	9.96	10.89	10.73	7.06	7.46	8.58	9.11
5804	27158	9.85	9.42	7.14	7.05	6.73	9.96	8.36
5805	27159	11.31	11.43	6.23	9.45	8.65	6.96	9.00
5806	27160	7.95	6.92	6.09	4.43	4.61	6.57	6.10
5807	27161	9.74	10.76	6.14	6.59	6.4	8.87	8.08
5808	27162	8.78	11.07	8.03	5.9		9.68	8.69
5809	27163	9.08	11.45	7.07	6.06	5.77	10.88	8.39
5810	BPT 5204	8.71	8.57	9.25	6.74	6.52	8.42	8.04
5811	27164	9.04	12.31	6.78	5.87	5.5	5.8	7.55
5812	27165	9.29			8.01			8.65
5813	27166	8.14	11.72	7.91	6.09	5.7	7.99	7.93
5814	27167	10.2	10.87	7.1	6.88	4.56	8.67	8.05
5815	27168	9.4	9.57	8.87	7.41	7.39	7.63	8.38
5816	27169	9.28	9.63	6.22	7.26	8.21	9.05	8.28
5817	27170	9.75	10.87	6.13	6.6	6.15	7.4	7.82
5818	27171	10.71	8.3	7.29	6.17	5	7.14	7.43
5819	27172	9.96	8.43	6.97	5.32	4.93	10.17	7.63
5820	23964	9.54	9.29	7.51	7.45	6.44	6.68	7.82
5821	27173	8.32	8.18	5.53	6.45	5.84	7.33	6.94
5822	27174	9.73	9.3	6.58	7.96	5.49	12.25	8.55
5823	27175	8.57	9.69	8.16	7.82	6.95	8.32	8.25
5824	27176	10.45	10.22	6.35	6.1	6.88	11.48	8.58
5825	Kalanamak	9.47	10.1	9.6	8.36	7.75	7.75	8.84
5826	IR 64	10.5		7.56	7.22	6.36	7	7.73
5827	27177	12.44		7.9	7.98	6.82	6.26	8.28
5828	27178	9.75	8.03	7.96	7.92	8.11	9.23	8.50
5829	27179	10.6	10.01	8.02	8.79	8.41	11.91	9.62
5830	27180	9.14		7.77	6.4	5.41	11.47	8.04
5831	27181	7.12	8.7	5.07	6.52	4.35	5.87	6.27
5832	27182	10	10.36	7.37	7.88	6.44	9.68	8.62
5833	27183	9.315	9.18	5.76	8.09	7.28	5.47	7.52
5834	Chittimuthyalu	7.89	10.48	8	9.95	8.87	10.26	9.24
5835	27184	9.25		7.81	6.95	6.73	9.99	8.15

ADVANCE VARIETY TRIAL 2- MEDIUM SLENDER (AVT 2-MS)**Locations: 29****Test Entries: 12**

**Checks: WGL 14 (National-1), BPT 5204 (National-2), Table:6.1
Improved Samba Mahsuri (Eastern and Central),
Ketekejoha (North Eastern), Karjat-6 (Western), ADT
49 (Southern)- (Zonal), DRRH3 (Hybrid) and Local
check**

AVT2-MS trial comprised twelve entries with three hybrid and nine varietal entries in third year of testing and WGL14 and BPT 5204 as National checks, Improved Samba Mahsuri in the Eastern and Central Zones, Ketekejoha in the North Eastern, Karjat in the Western and ADT 49 in the Southern Zones as Zonal checks, DRRH3 as Hybrid check and a local check. The trial was sent to 38 locations but nine locations *viz.*, Bhubaneswar, Chiplima, Titabar, Gerua-ICAR, Lembuchera, Jagitial, Trichy, Sirsi and Kurumbapet failed to send data. Of the data received from 29 locations, seven locations Ludhiana, Kaul, Cuttack, Pusa, Ranchi, Pundibhari, and Arundathi Nagar used a non-MS grain type cultivar as local check and at Mugad, trial was conducted under rainfed conditions with severe drought stress, hence data from these eight locations was not considered in the analysis.

Overall mean yield of the entries ranged from 4640 Kg/ha (Zonal check) to 5948 Kg/ha (IET 24993). Experimental mean yield varied from 1662 Kg/ha at Sindewahi to 8645 Kg/ha at Gangavathi. CV at the locations ranged from 4.76% at Masodha to 22.99% at Aduturai. Days to 50% flowering ranged from 94 (IET 24995) to 117 (IET 25512), plant height from 96 cm (BPT 5204) to 117 cm (IET 25523) and panicles/m² from 278 (IET 25489) to 340 (IET 25512). The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 6.2, 6.3, 6.4 and 6.5. In the calculation of mean yield, data was not considered from Masodha and Aduturai due to low and high CV% respectively and from Sindewahi, Nawagam and Navsari due to low experimental mean yield.

Overall Performance of Promising entries in Advance Variety Trial-2-Medium Slender (AVT 2-MS) during Kharif 2017

Rank	IET No/ Designation/ Cross combination	GY/ DF	% Yield Adv over NC/ZC/ LC/HC	% Increase over BVC & HC in Zones			
				Rank	Yield	% BVC	% HC
1	IET 24993 PR 15108 (Hybrid)	5948 104	17.64 26.55 28.19 11.07 15.90	Z III-6 Z V-2	5715 4862	12 19	15.95 12
	WGL14 (NC1) BPT 5204 (NC2) Zonal Check (ZC) Local check (LC) Hybrid Check (HC)	5056 4700 4640 5355 5132					

Performance of the entries on overall basis

On overall basis, only one entry IET 24993, recorded required superiority over the best varietal and hybrid checks as detailed below.

IET 24993 (PR 15108), a hybrid with mean yield of 5948 Kg/ha and 104 days to 50% flowering recorded 17.64, 26.55, 28.19, 11.07 and 15.9 % yield superiority over NC1, NC2, ZC, LC and HC respectively. It ranked second in Central zone with 19 and 12 % and sixth in Eastern Zone with 12 and 15.95% yield advantage over BVC and HC respectively.

Zonal performance of Promising Entries in Advance Variety Trial-2-Medium Slender (AVT 2-MS) during Kharif 2017

Rank	IET No/Designation/ Cross combination	GY/ DFF	% Yield Adv over NC/ZC/L C/HC	% Increase over BVC & HC in States			
				Rank	Yield	% BVC	% HC
Eastern Zone							
1	IET 24990 MR 8666 (Hybrid)	7585 104	48.23 76.15 64.78 73.33 53.89	OD-2 UP-1	6238 8933	53.53 34.8	155.55 20.44
2	IET 25512 RGL 7011 RGL 11414/Ganjan Local	6439 119	25.84 49.54 39.89 47.14 30.64	OD-1	6439	58.48	---
3	IET 25523 CR 3505-7-1-1-1-2-1 IR 36/Vijetha	6286 106	22.85 45.98 36.56 43.65 27.53	OD-6 UP-2	4346 8227	6.97 24.14	78.04 10.92
4	IET 25493 (RTN 28-1-5-3-2) IR 64/KJT 182	6190 109	20.97 43.75 34.48 41.45 25.58	UP-3	7777	17.35	4.85
5	IET 25515 CB 12186 CO 43/CB 05501	6168 110	20.54 43.24 34 40.95 25.14	OD-3	6182 6155	52.15	153.26
	WGL14 (NC1) BPT 5204 (NC2) Zonal Check (ZC) Local check (LC) Hybrid Check (HC)	5117 4306 4603 4376 4929					
Central Zone							
1	IET 25523 (CR 3505-7-1-1-1-2-1) IR 36/Vijetha	4913 107	21.01 23.82 20.3 32.53 13.18	CG-2	5255	29.24	16.26

Rank	IET No/Designation/ Cross combination	GY/ DFF	% Yield Adv over NC/ZC/L C/HC	% Increase over BVC & HC in States			
				Rank	Yield	% BVC	% HC
3	IET 25493 (RTN 28-1-5-3-2) IR 64/KJT 182	4820 114	18.72 21.47 18.02 30.02 11.03	CG-3	5223	28.46	15.55
4	IET 24990 MR 8666 (Hybrid)	4596 112	13.2 15.83 12.54 23.98 5.87	CG-6	4882	20.07	8
5	IET 25521 (AD 13121) CR 1009/ADT 49	4504 128	10.94 13.51 10.28 21.5 3.75	CG-1	5686	39.84	25.8
6	IET 25495 MTU 1190 (MTU 2142-9- 2-1) MTU 1081/Swarna Sub1	4407	8.55 11.06 7.9 18.9 1.52	CG-3	5000	22.97	10.62
7	IET 25489 (CR 3511-3-2-2-5-1-1) IR 36/Surendra	4406	8.52 11.04 7.88 18.86 1.52	CG-8	4439	9.17	-
	WGL14 (NC1) BPT 5204 (NC2) Zonal Check (ZC) Local check (LC) Hybrid Check (HC)	4060 3968 4084 3707 4341					
Western Zone							
1	IET 25523 (CR 3505-7-1-1-1-2-1) IR 36/Vijetha	6383 100	11.47 35.9 47.31 22.8 18.34	MH-1	5779	10	--
2	IET 25495 MTU 1190 (MTU 2142-9- 2-1) MTU 1081/Swarna Sub1	6098 106	6.5 29.83 40.73 17.31 13.05				
	WGL14 (NC1) BPT 5204 (NC2) Zonal Check (ZC) Local check (LC) Hybrid Check (HC)	5726 4697 4333 5198 5394					

Performance of the entries on Zonal basis

One entry, IET 25523 was found promising in three zones (III, V & VI), three entries in two zones viz., IETs 24990 and 25493 in Eastern and Central Zones and IET 25495 in

Central and Western Zones and four entries only in one zone viz., IETs 25512 and 25515 in Eastern Zone, and IETs 25521 and 25489 in Central Zone based on the required superiority over the BVC or BVC and HC. Zonal performance of the entries is described below.

Eastern, Central and Western Zones: IET 25523 (CR 3505-7-1-1-1-2-1) derived from the cross of IR 36/Vijetha ranked third in Eastern Zone with 22.85% yield advantage over BVC and ranked first both in Central and Western Zones with 20.3% and 11.47% yield advantage over the BVC respectively.

Eastern and Central Zones: IET 24990 (MR 8666), a hybrid ranked first in Eastern Zone with 48.23 and 53.89 % yield advantage over BVC and HC respectively while in Central Zone, it ranked fourth with 12.54 and 5.87% yield advantage over BVC and HC respectively. IET 25493 (RTN 28-1-5-3-2), a derivative of the cross IR 64/KJT 182 ranked fourth and third with 20.97 and 18.02% yield advantage over BVC in Eastern and Central Zones respectively.

Central and Western Zones: IET 25495 (MTU 1190 [MTU 2142-9-2-1]) derived from MTU 1081 and Swarna Sub1 ranked 6th and 2nd with 8 and 6.5% yield advantage over the BVC in Central and Western Zones respectively.

Eastern Zone: IET 25512 (RGL 7011) derived from the cross of RGL 11414/Ganjan local ranked third in Eastern Zone with 25.84 % yield advantage over the BVC and IET 25515 (CB 12186), a derivative of the cross CO 43/CB 05501 ranked fifth with 20.54% yield advantage over the BVC in the Eastern Zone.

Central Zone: IET 25521 (AD 13121) derived from the cross of CR 1009/ADT 49 ranked fifth in the Central Zone with 10.28% yield advantage over the BVC. IET 25489 (CR 3511-3-2-2-5-1-1), derived from the cross of IR 36/Surendra ranked seventh in the Central Zone with 7.9% yield advantage over the BVC.

Three years performance of the entries

IET 24993 (PR 15108), a hybrid entry outperformed BVC and HC on overall basis in all the three years during 2015, 2016 and 2017. In Central Zone, it showed superior performance over the checks only for two consecutive years 2016 and 2017. In Eastern Zone, it registered yield advantage of 20 & 11, 12 & 26 and 12 & 16 over BVC and HC in 2015, 2016 and 2017 respectively. **Hence, it is recommended for Eastern Zone.** It possesses desirable quality parameters in terms of high HRR (66.6%) and intermediate AC (24.31%) (Table 6.6).

IET 25523 (CR 3505-7-1-1-1-2-1) a derivative of the cross IR 36/Vijetha outperformed BVC in all the three years only in the Central zone with 19, 7 and 20 % yield advantage in 2015, 2016 and 2017 respectively. Though it recorded required yield advantage over the BVC in Eastern and Western Zones in 2017, no yield superiority was observed in the previous years. **Hence, IET 25523 is recommended for the Central Zone.** It recorded high HRR of 67.9%, intermediate AC of 23.14%, ASV of 4.0 and a hard GC of 22mm.

IET 25493 (RTN 28-1-5-3-2), derived from the cross of IR 64/KJT 182 recorded yield advantage of 17, 21 and 18 % over the BVC in the Central Zone in 2015, 2016 and 2017 respectively. **Hence, it is recommended for the Central Zone.** It possesses HRR of 64%, AC of 22%, ASV of 5.0 and GC of 23 mm.

Three years performance of the entries on overall basis in AVT2-MS, Kharif 2017

S. No	Entry	Year	Overall		Zone III		Zone V		Zone VI		Remarks
			Yield	% BVC & HC	Yield	% BVC & HC	Yield	% BVC & HC	Yield	% BVC & HC	
1	24993 (H)	2017	5948	11,16	5715	12,16	4862	19,12	-	-	Promoted Z- III
		2016	6043	5,14	5885	12,26	6237	28,28	-	-	
		2015	6026	36, 8	5643	20,11	-	-	5421	37,22	
2	25495	2017	-	-	-	-	4407	8	6098	7,13	Promoted Z- V
		2016	6387	11,20	5998	15,28	6301	30,29	6480	13,28	
		2015	5576	17,-	5650	7,-	5674	37,-	-	-	

Three years performance of the entries on Zonal basis in AVT2-MS, Kharif 2017

S. No	Entry	Year	Zone III		Zone V		Zone VI		Remarks
			Yield	% BVC & HC	Yield	% BVC & HC	Yield	% BVC & HC	
1	24990 (H)	2017	7585	48,54	4596	13,6	-	-	Promoted Z -III
		2016	5890	13,26	5535	14,13	6274	9,24	
		2015	5787	23,13	-	-	4995	26,12	
2	25512	2017	6439	26,31	-	-	-	-	Discontinued
		2016	5593	7,19	-	-	-	-	
		2015	-	-	4453	8,-	-	-	
3	25523	2017	6286	23,28	4913	20,13	6383	11,18	Promoted Z- V
		2016	-	-	5193	7,6	-	-	
		2015	-	-	4945	19,-	-	-	
4	25493	2017	6190	21,26	4820	18,11	-	-	Promoted Z- V
		2016	5876	12,25	5869	21,20	-	-	
		2015	-	-	4840	17,-	-	-	
5	25515	2017	6168	21,25	-	-	-	-	Discontinued
		2016	5692	9,21	-	-	-	-	
		2015	-	-	5445	32	-	-	
6	25521	2017	-	-	4504	10,4	-	-	Promoted Z- V
		2016	6101	17,30	5334	10,9	-	-	
		2015	-	-	4869	18,-	-	-	
7	25489	2017	-	-	4406	8,-	-	-	Promoted Z- V
		2016	-	-	5137	6,5	-	-	
		2015	-	-	4505	9,-	-	-	

IET 24990 (MR 8666) a hybrid out performed BVC and HC in all the three years in the Eastern Zone, while it showed superior performance only in two years (2016 and 2017) in Central and in two years (2015 and 2016) in Western Zone. It recorded 23&13, 13 &26 and 48 & 53 % yield advantage over the BVC and HC in 2015, 2016 and 2017 respectively in the Eastern Zone. **Hence, it is recommended for the Eastern Zone.** It showed high HRR of 67%, intermediate AC of 22.58%, ASV of 5.0 and hard GC of 24 mm.

IET 25495 [MTU 1190 (MTU 2142-9-2-1)] derived from the cross of MTU 1081/Swarna Sub1 recorded required yield advantage on overall basis and in Eastern Zone only for two years 2015 and 2016, but was found promising in Central Zone with 37, 30 and 8 % yield advantage over BVC in 2015, 2016 and 2017 respectively. **Hence IET 25495 is recommended for Central Zone.** It registered high HRR of 71.6%, intermediate AC of 24.9%, ASV of 4.0 and hard GC of 33 mm.

IET 25512 (RGL 7011), a derivative of the cross RGL 11414/Ganjan Local recorded 8% yield advantage in Central Zone 2015 while it showed superior performance with 7 and 26% yield advantage in 2016 and 2017 in Eastern Zone. As no promising performance was observed for all the three years in any of the Zones, **IET 25512 is discontinued.** Similarly, IET 25515 (CB 12186), derived from the cross of CO 43/CB 05501 recorded 32% yield advantage in Central Zone 2015 while it showed superior performance with 9 and 21% yield advantage in 2016 and 2017 in Eastern Zone. As no promising performance was observed for all the three years in any of the Zones, **IET 25515 is discontinued**

IET 25521 (AD 13121), derived from the cross between CR 1009 and ADT 49 outperformed BVC in Central Zone with 18, 10 and 10% yield superiority in 2015, 2016 and 2017 respectively, hence **recommended for the Central Zone.** It recorded HRR of 65.7%, AC of 24.08%, ASV of 4.0 and GC of 50 mm.

IET 25489 (CR 3511-3-2-2-5-1-1), derived from the cross of IR 36/Surendra outperformed BVC in the Central Zone with 9, 6, 8% superiority during 2015, 2016 and 2017 respectively Hence, **IET 25489 is recommended for Central Zone.** It registered HRR of 64.4 %, AC of 23.61 %, ASV of 5.0 and a GC of 24 mm.

Based on required superiority over the BVC in case of varietal entries and BVC and HC in case of hybrid entries, the following nine entries were found promising in AVT 2 -MS:

Overall: IET 24993 (PR 15108)

Eastern, Central and Western Zones: IET 25523 (CR 3505-7-1-1-1-2-1)

Eastern and Central Zones: IET 25493 (RTN 28-1-5-3-2) and IET 24990 (MR 8666)

Central and Western Zones: IET 25495 (MTU 1190 [MTU 2142-9-2-1])

Eastern Zone: IET 25512 (RGL 7011) and IET 25515 (CB 12186)

Central Zone: IET 25521 (AD 13121) and IET 25489 (CR 3511-3-2-2-5-1-1).

ADVANCED VARIETY TRIAL 1 – MEDIUM SLENDER (AVT 1-MS)**Locations: 38****Test Entries: 21**

Checks: WGL 14 (National-1), BPT 5204 (National-2), Table:6.7
Improved Samba Mahsuri (Eastern and Central),
Ketekejoha (North Eastern), Karjat-6 (Western), ADT
49 (Southern)- (Zonal), DRRH3 (Hybrid) and Local
check

The ‘Advanced Variety Trial 1 – Medium Slender (AVT 1 – MS)’ was constituted with 21 test entries (14 varieties and 7 hybrids), two national checks (WGL 14 and BPT 5204), a zonal check, a local check and a hybrid check (DRRH-3). The trial was sent to 38 locations spread over six zones, but the data was received from only 30 centres. The data from eight centres (Chiplima, Pundibhari, Titabar, Lembucherra, Jagtial, Trichy, Sirsi and Kurumbapet) was not received. The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 6.8, 6.9, 6.10 and 6.11.

Performance of entries in Zone III of AVT-1 MS

Rank	IET No./ Designation/ Cross Combination	Overall mean GY/ DF/ GT	Yield adv (%) over NC-1/NC- 2/ZC /LC/HC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ ha)	% BVC & HC
1	25804 US 303 -	6668 106 MS	23.4 23.2 24.7 6.4 4.0	UP-1	8876	19.8 16.3
2	26273 R 2054-685-1-205-1 R 1033-2559-1-1/Gopal Bhog	6629 102 MS	22.7 22.5 24.0 5.8	UP-3	8544	15.3
	WGL 14 (NC-1)	5402 108				
	BPT 5204 (NC-2)	5412 112				
	Improved Samba Mahsuri (ZC)	5346 105				
	Local Check (LC)	6267 115				
	DRRH-3 (HC)	6412 102				

Zonal Performance of Entries in AVT 1-MS

Zone III – among the ten locations (Cuttack, Bhubaneswar, Jeypore, Chiplima, Pusa, Ranchi, Chinsurah, Pundibhari, Masodha and Varanasi), data from only four locations (Cuttack, Jeypore, Masodha and Varanasi) was used for analysis based on the grain type maintained. Among these four locations, the data from Masodha was not considered due to low CV i.e., <5.0% (4.91%). The CV ranged from 4.91% (Masodha) to 9.8% (Jeypore). Further, the experimental mean across locations was 4465 kg/ha at Jeypore to 7045 kg/ha at Varanasi. The range of grain yield among the entries in this zone was from 4525 kg/ha (IET 25800) to 6668 kg/ha (IET 25804). The 50% flowering duration varied from 95 days (IET 25798) to 118 days (IET 26258). Similarly, panicles/m² exhibited a range from 245 (IET 26267 and DRRH-3) to 299 (IET 26274). IET 25804 (hybrid) and IET 26273 were the best performing entries with a mean grain yield of 6668 kg/ha and 6629 kg/ha respectively. IET 25804 showed a yield advantage of 4.0% over DRRH-3 (hybrid check) and 6.4% over the best check variety (local check). Whereas, IET 26273 had a 5.8% yield advantage over the local check, the best check variety. IET 25804 ranked first in UP exhibiting a yield advantage of 19.8% and 16.3% over the best check variety and hybrid check. Similarly, IET 26273 stood third in UP with a grain yield of 8544 kg/ha. It out-yielded the best check variety by 15.3%. **IET 25804 is not promoted owing to lower yield advantage with both the hybrid check (4.0%) and best variety check (6.4%). Similarly, IET 26273 also is not promoted owing to its poor cooking quality (AC -27.01; GC – 34.0; AC – 4.0; HRR - 55.9). It has low GC and ASV values (Table 6.12).**

Performance of entries in Zone IV of AVT-1 MS

Rank	IET No./ Designation/ Cross Combination	Overall mean GY/ DF/ GT	Yield adv (%) over NC-1/NC- 2/ZC /LC/HC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ ha)	% BVC & HC
1	26267 MTU 1219 (MTU 2223-7-2-1-1- 1-1) IR 64/PLA 99-1-3-1-3	6521 124 MS	22.2 37.8 47.0 39.5	AS-1	6521	22.2
2	25802 ARRH-7576 -	6419 116 MS	20.3 35.7 44.7 37.4 55.2	AS-2	6419	20.3
3	26263 MTU 1239 (MTU II 369-72-4-1- 1-1) MTU 1075/BM 71	6269 124 MS	17.4 32.5 41.3 34.2	AS-3	6269	17.4
WGL 14 (NC-1)		5338 120				
BPT 5204 (NC-2)		4731 125				
Ketekeijoha (ZC)		4436 115				
Local Check (LC)		4673 121				
DRRH-3 (HC)		4137 117				

Zone IV – though this zone had four test centres (Titabar, Gerua, Lembucherra and Arundhuti Nagar) data was not received from two centres (Titabar and Lembucherra). Further, the data from Arundhuti Nagar was not considered due to low yield i.e., 2133 kg/ha. The mean grain yield ranged from 4137 kg/ha (DRRH-3) to 6521 kg/ha (IET 26267). The 50% flowering and panicles/m² exhibited a range from 112 days (IET 25795) to 125 days (BPT 5204) and 215 (IET 25802) to 281 (local check) respectively. IET 26267 (6521 kg/ha), IET 25802 (6419 kg/ha) and IET 26263 (6269 kg/ha) were the best performing entries of this zone. IET 26267 and IET 26263 exhibited a yield advantage of 22.2% and 17.4% over the best variety check, WGL 14 (NC). A yield advantage of 20.3% and 55.5% was realised by IET 25802 over the best variety check (WGL 14) and hybrid check (DRRH-3). Further, another entry, IET 25800 out-yielded both the best check and hybrid check by 16.5% and 50.3% respectively. **IET 26267 is not promoted due to the poor cooking quality, i.e., low GC values (AC – 26.72; GC – 22.0; ASV – 5.0; HRR – 68.2).**

Performance of entries in Zone V of AVT-1 MS

Performance of entries in Zone V of AP FPMIS						
Rank	IET No./ Designation/ Cross Combination	Overall mean GY/ DF/ GT	Yield adv (%) over NC-1/NC- 2/ZC /LC/HC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ ha)	% BVC & HC
1	25800	5799	40.2	CG-3	6275	37.0
	PHI-16108	102	65.4			49.8
	-	MS	46.5	MH-1	5324	29.8
			56.1			63.0
			55.5			
2	26267	5795	40.0	CG-1	7091	54.8
	MTU 1219 (MTU 2223-7-2- 1-1-1-1)	114	65.3			
	IR 64/PLA 99-1-3-1-3	MS	46.4			
			55.9			
3	26227	5458	31.9	MH-2	5127	25.0
	OR 2560-6	107	55.7			
	Pratiskhya/IR 32253-7	MS	37.9			
			46.8			
WGL 14 (NC-1)		4137				
		109				
BPT 5204 (NC-2)		3506				
		114				
Improved Samba Mahsuri (ZC)		3958				
		109				
Local Check (LC)		3716				
		11				
DRRH-3 (HC)		3729				
		105				

Zone V – three centres spread over two states Chhattisgarh (Raipur) and Maharashtra (Sindewahi and Sakoli) were part of this zone. The data from Sindewahi was not considered owing to low grain yield (2230 kg/ha). The lowest CV was recorded at Raipur (6.3%) and highest at Sindewahi (14.8%). The range of mean grain yield was from 3506 kg/ha (BPT

5204) to 5799 kg/ha (IET 25800). IET 25798 took 92 days for 50% flowering whereas, IET 26263 took 116 days. A wide range of 160 (DRRH-3) to 263 (IET 25800) was observed for panicles/m². The top three highest yielding entries in this zone were IET 25800 (5799 kg/ha), IET 26267 (5795 kg/ha) and IET 26227 (5458 kg/ha). These three entries out-yielded the best check variety by 40.2%, 40.0% and 31.9% respectively. Additionally, IET 25800 (hybrid) had a yield advantage of 55.5% over the hybrid check (DRRH-3). Further, IET 25800 (6275 kg/ha) was ranked third in Chhattisgarh with a yield advantage of 37.0% over the best variety check and 49.8% over the hybrid check. Further, it ranked first in Maharashtra and out-yielded the best check and hybrid check by 29.8% and 63.0% respectively. Similarly, IET 26267 stood first in Chhattisgarh with a yield advantage of 54.8% while IET 26227 was ranked second in Maharashtra with 25.0% higher yield over the best check (WGL 14, National Check). Interestingly, there are several other entries with yield advantage over the best check variety (WGL 14, National Check): IET 25804 (28.1%), IET 25795 (23.8%), IET 26269 (21.5%), IET 26263 (16.2%), IET 25802 (15.3%), and IET 26273 (11.4%). Three entries also exhibited yield advantage over the hybrid check (DRRH-3): IET 25804 (42.1%), IET 25795 (36.8%), and IET 25802 (27.9%). **Based on poor quality parameters, three test entries, IET 26267 (AC – 26.72; GC – 22; ASV – 5.0; HRR – 68.2), IET 26269 (AC – 25.78; GC – 22.0; ASV – 7.0; HRR – 66.8), and IET 26273 (AC – 27.01; GC – 34.0; ASV – 4.0; HRR – 55.9) have not been promoted though they showed yield advantage over the best check.**

Performance of entries in Zone VI of AVT-1 MS

Rank	IET No./ Designation/ Cross Combination	Overall mean GY/ DF/ GT	Yield adv (%) over NC-1/NC-2/ZC /LC/HC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ha)	% BVC & HC
1	25800 PHI-16108 -	6125 99 MS	15.7 50.5 32.6 21.8 10.9	GU-1	6996	30.5 9.6
2	25802 ARRH-7576 -	6098 98 MS	15.2 49.8 32.0 21.2 10.5	MH-2	6245	19.3 34.0
3	25798 TMRH-124 -	6081 96 MS	14.8 49.4 31.7 20.9 10.1	MH-1	6378	21.9 36.9
WGL 14 (NC-1)		5295 106				
BPT 5204 (NC-2)		4070 108				
Karjat-6 (ZC)		4619 87				
Local Check (LC)		5030 96				
DRRH-3 (HC)		5521 97				

Zone VI – Karjat, Shirgaon, Nawagam and Navsari were the four test centres under this zone. The CV ranged from 8.85% (Navsari) to 17.07% (Shirgaon). The experimental mean varied from 4310 kg/ha (Shirgaon) to 6207 kg/ha (Nawagam). The mean yield was lowest in BPT 5204 (4070 kg/ha) and highest in IET 25800 (6125 kg/ha). The days to 50% flowering for the tested entries ranged from 87 (Zonal Check) to 110 (IET 26263). Similarly, the panicles/m² were lowest in IET 25804 (211) and highest in IET 25798 (252). Interestingly, three hybrids (IET 25800, IET 25802 and IET 25798) were the top three entries in this trial. The three entries (IET 25800, IET 25802 and IET 25798) expressed 10.9%, 10.5% and 10.1% yield advantage over the hybrid check (DRRH-3). Also, these three entries out-yielded the best check variety by 15.7%, 15.2% and 14.8% respectively. Additionally, the yield of IET 25793 was 11.2% and 6.7% higher than the best variety check (WGL 14) and hybrid check (DRRH-3). Similarly, IET 26227 out-yielded WGL 14, the best variety check by 7.7%. **Whereas, IET 25793 (AC – 24.22; GC – 56.0; ASV – 5.0; HRR – 58.8), though also a promising hybrid is not promoted owing to its low HRR.**

Performance of entries in Zone VII of AVT-1 MS

Rank	IET No./ Designation/ Cross Combination	Overall mean GY/ DF/ GT	Yield adv (%) over NC-1/NC- 2/ZC /LC/HC	% Increase over Best Check		
				State		
				Rank	Yield (Kg/ ha)	% BVC & HC
1	26227 OR 2560-6 Pratiskhya/IR 32253-7	6680 107 MS	15.0 38.9 34.1 7.2	TEL-1	7306	15.8 24.4
2	26263 MTU 1239 (MTU II 369-72- 4-1-1-1) MTU 1075/BM 71	6637 111 MS	14.3 38.0 33.2 6.5	TEL-2 TN-1	7122 6686	12.9 21.3 8.1 44.3
3	25800 PHI-16108 -	6626 102 MS	14.1 37.8 33.0 6.3 10.0	-	-	-
WGL 14 (NC-1)		5809 106				
BPT 5204 (NC-2)		4810 110				
ADT 49 (ZC)		4981 107				
Local Check (LC)		6233 105				
DRRH-3 (HC)		6020 101				

Zone VII – this zone is probably the largest zone with 15 test centres spread across Andhra Pradesh (Maruteru, Nellore, Bapatla), Telangana (Warangal, Rajendranagar, Jagtial and Kunaram), Tamil Nadu (Coimbatore, Aduthurai, and Trichy), Karnataka (Mandya, Mugad, Sirsi and Gangavathi) and Puducherry (Kurumbapet). The data from four centres (Jagtial, Trichy, Sirsi, and Kurumbapet) was not received and data from Mugad was not considered for mean owing to its low yield (2127 kg/ha). The CV was lowest at Gangavati (6.03%) and highest at Aduthurai (19.9%). Further, the experimental mean ranged from 2127 kg/ha (Mugad) to 8644 kg/ha (Gangavati). The range of flowering duration in this zone was from 95 days (IET25798) to 111 days (IET 26263). The minimum number of panicles/m² were observed in the Zonal Check (360) and maximum in IET 25800/IET 25798 (388). Two entries, IET 26227 and IET 26263 demonstrated 7.2% and 6.5% higher yield compared to the best variety check. **Though the hybrid entry (IET 25800) out-yielded the hybrid check (DRRH-3) by 10.0%, it expressed only 6.3% higher yield in comparison to best variety check, the local check, therefore, it is not promoted.**

List of entries qualified for promotion to AVT 2 –MS:

Zone IV: IET 25802, IET 26263, IET 25800

Zone V: IET 25800, IET 26227, IET 25804, IET 25795, IET 25802, IET 26263

Zone VI: IET 25800, IET 25802, IET 26227, IET 25798

Zone VII: IET 26227, IET 26263

INITIAL VARIETY TRIAL – MEDIUM SLENDER GRAIN (IVT-MS)**Locations: 38****Test Entries: 60**

**Checks: WGL 14 (National-1), BPT 5204 (National-2), Table: 6.13
Improved Samba Mahsuri (Northern, Eastern and Central), Ketekejoha (North Eastern), Karjat-6 (Western), ADT 49 (Southern)- (Zonal) and Local check**

Initial Variety Trial – Medium Slender grain (IVT-MS) was constituted with entries which included 60 test entries and four checks. WGL-14 and BPT 5204 were used as National checks, Improved Samba Mahsuri in Northern Eastern and Central, Ketekejoha in North-Eastern zone, Karjat-6 in Western and ADT-49 in Southern zone as Zonal checks and a Local check. Trial was sent to 38 locations but data was not received from 14 locations namely Chiplima, Pundibhari, Varanasi, Titabar, Gerua-ICAR, Lembucherra, Arundhuti Nagar, Nellore, Jagtial, Kunaram, Trichy, Mandya, Sirsi and Kurumbapet. Data from Sindewahi (2124kg/ha) and Mugad (1733kg/ha) was not considered in estimating overall and zonal mean yield due to low experimental mean and Rajendranagar due to high CV (20.25%) and Karjat (20.83%).

CV% at experimental locations varied from 5.58 at Masodha to 20.83% at Karjat. Experimental mean at locations ranged from 1733 kg/ha at Mugad to 7561 kg/ha at Gangavathi. Overall mean yield of entries varied from 4113 kg/ha (IET 27129) to 6509 kg/ha (IET 27118), days to 50% flowering from 92 (IET 27102 and 27107) to 119 days (IET 27129), plant height from 91 cm (IET 27139) to 143 cm (IET 27129) and panicles/m² ranged from 264 (IET 27129) to 324 (IET 27109). The analysis of yield, days to 50% flowering, plant height, panicle/m² and cooking quality is presented in tables 6.14, 6.15, 6.16, 6.17 and 6.18.

On the basis of overall mean, 8 entries (IETs 27118, 27128, 27103, 27117, 27110, 27135, 27136 and 27127), while on zonal mean IETs 27125, 27118, 27114, 27113, 27136, 27141, 27143 and 27149 in third zone and IETs 27108, 27151, 27115, 27095, 27109, 27102, 27150, 27133, 27135, 27127, 27136, 27118, 27100, 27101, 27112, 27142, 27103, 27128, 27117, 27110 in fifth zone. IETs 27117, 27128, 27122, 27132 and 27141 in sixth zone and IET 27128, 27110, 27135, 27127, 27118 in seventh zone, exhibited required yield superiority of more than 5% over the best checks in the respective zones.

However, sixteen entries viz., IETs 27095, 27097, 27101, 27108, 27110, 27111, 27115, 27117, 27122, 27125, 27126, 27127, 27130, 27135, 27142 and 27153 are dropped as they do not qualify for MS grain type. Overall performance of top three entries is discussed below.

Performance of entries on overall basis

IET 27118 (MTU 1263) derivative of the cross CMS42B and IR68897B ranked first on overall mean yield with MS grain type, 110 days to 50% flowering and overall mean yield of 6509 kg/ha. It expressed 17, 32, 41 and 23% yield superiority over NC1, NC2, ZC and LC, respectively. It ranked fourth, ninth and first with 10, 19 and 18% yield advantage over best check in Zones III, V and VII, respectively. It ranked first in Two states Telengana (8701

kg/ha) and Tamil Nadu (7458 kg/ha) with 27 and 25%, respectively, second in Andhra Pradesh (8549 kg/ha) with 16% and third in Odisha (5774 kg/ha) with 21% and sixth in Gujarat (5615 kg/ha) with 5% yield advantage over the best check. Quality wise also it recorded good HRR (61.8%), ASV (5.0), intermediate AC (23.61%) and GC (22.00 mm), hence promoted for second year testing.

Overall performance of the entries based on yield in Initial Variety Trial– Medium Slender Grain kharif 2017

Rank	IET No/ Designation/ Cross Combination	GY/ FD/ GT	Yield adv. Over NC1/NC2/ZC/LC	Zone	
				Rank/Yield	% BC
1	IET 27118 (MTU 1263) CMS42B/IR68897B	6509 110 MS	17 32 41 23	Z III-4 Z V-9 Z VII-1	10 19 18
2	IET 27128 (MTU 1270) BPT5204/MTU1075	6216 112 MS	12 26 35 18	Z V-3 Z VI-3 Z VII-5	29 7 9
3	IET 27103 (MTU1260) (MTU2077/NLR3042)/ MTU1081	6008 113 MS	8.3 21 30.5 13.7	Z V-5	25
4	IET 27135 (R1607-321-1-34-1) SR12/ Chinni Kapoor	6002 105 SB	8.2 21 30.3 13.6	Z VII-2	14
5	IET 27117 ORJ1135 (RR615Mutant)	5980 107 SB	7.2 21.4 29.9 13.2	Z V-2 Z VI-5	31 6
	<i>WGL 14 (NC1)</i> BPT 5204 (NC2)	5544 4925			
	Zonal check	4603			
	Local check	5281			

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BC- Best Check

IET 27128 (MTU 1270) derivative of the cross BPT5204 and MTU1075 ranked second on overall mean yield with MS grain type, 112 days to 50% flowering and overall mean yield of 6216kg/ha. It expressed 12, 26, 35 and 18% yield superiority over NC1, NC2, ZC and LC, respectively. It ranked third, third and fifth with 29, 7 and 9% yield advantage over best check in Zones V, VI and VII respectively. It ranked second in two states Maharashtra (5999 kg/ha), and Telangana (8295 kg/ha) with 20 and 21%, respectively and third in Tamil Nadu (6952 kg/ha) with 16% yield advantage over the best check. **It recorded low HRR (54.6%) with ASV (6.0), AC (19.33%) and GC (66.00 mm), hence not promoted due to low HRR and low AC.**

IET 27103 (MTU1260) derived from (MTU2077/NLR3042)/MTU1081 ranked third on overall basis with mean yield of 6008 kg/ha, 113 days to 50% flowering and MS grain type. It recorded 8.3, 21, 30.5 and 13.7% yield superiority over the NC1, NC2, ZC and LC, respectively. It ranked fourth in Zone V with 25% yield superiority over the best check. It ranked 4th in Odisha with 17%, 3rd in Maharashtra with 19% and 5th in Tamil Nadu with 10%

superiority over BC. It recorded poor HRR (48%), ASV (4.0), AC (22.17%) and GC (42.00 mm) hence not promoted.

Performance of promising entries based on yield in Initial Variety Trial– Medium Slender grain kharif 2017

S. No.	IET No.	Overall %BVC	Z-III %BVC	Z-V %BVC	Z-VI %BVC	Z-VII %BVC	Quality traits					Remarks
							GT	HRR	ASV	AC	GC	
1	27095			9%			LS	63.1	5	20.82	22	dropped
2	27100			20%			MS	63.3	5	21.88	25	promoted
3	27101			21%			SB	60.8	5	20.91	26	dropped
4	27102			10%			MS	65	4	22.93	25	promoted
5	27103	8		25%			MS	48	4	22.17	42	dropped
6	27108			6%			SB	56.7	7	22.61	40	dropped
7	27109			9%			MS	66.6	5	21.09	22	promoted
8	27110	8		39%		9%	SB	52.1	5	23.34	38	dropped
9	27112			21%			MS	68.3	4	21.32	22	promoted
10	27113		9%				MS	66.5	4	21.64	22	promoted
11	27114		6%				MS	58.7	5	21.23	22	promoted
12	27115			7%			SB	66.5	5	23.58	32	dropped
13	27117	8		31%	6%		SB	58.5	5	22.5	23	dropped
14	27118	17	10%	19%		18%	MS	61.8	5	23.61	22	promoted
15	27122				12%		SS	67.1	4	20.62	46	dropped
16	27125		11%				SB	64.5	4	19.85	23	dropped
17	27127	5		17%		14%	LB	67.5	5	20.41	23	dropped
18	27128	12		29%	7%	9%	MS	54.6	6	19.33	66	dropped
19	27132				7%		MS	63.1	4	22.99	25	promoted
20	27133			14%			MS	59.7	4	29.67	23	dropped
21	27135	8		14%		14%	SB	56.5	6.5	23.14	23	dropped
22	27136	5	14%	17%			MS	64	5	21.12	23	promoted
23	27141		7%		24%		MS	67.1	3	20.47	51	promoted
24	27142			22%			LS	62.2	5	21.58	23	dropped
25	27143		13%				MS	69.7	7	22.38	23	promoted
26	27145		7%				MS	68	4	21.85	23	promoted
27	27149		5%				MS	62.1	4.5	21.67	23	promoted
28	27150			10%			MS	58.7	5	20.59	23	promoted
29	27151			6%			MS	61.4	7	23.58	71	promoted
	Best check (Yield)	5544 (NC1)	5019 (NC1)	4712 (NC1)	5128 (ZC)	6911 (NC1)						

On the basis of required yield advantage of more than 5% over best check on overall/zonal mean basis, MS grain type and other quality parameters the following entries are promoted to second year of testing in AVT1-MS.

Overall basis: IET 27118, IET 27136

Third zone: IET 27113, IET 27114, IET 27143, IET 27145, IET 27149, IET 27141

Fifth zone: IET 27100, IET 27102, IET 27109, IET 27112, IET 27150, IET 27151

Sixth zone: IET 27132, IET 27141.

Table No. 6.1: Composition of entries in Advance Variety Trial 2–Medium Slender Grain (AVT 2-MS), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
3rd year of testing:				
5901	25493	RTN 28-1-5-3-2	IR-64 / KJT-182	MS
5902	24993	PR-15108 (Hybrid)	-	MS
5903	25512	RGL 7011	RGL 11414 / Ganjam Local	MS
5904	25520	RP 5950-24-6-2-1-1-B	Sona / Mandya Vijaya // B95-1	MS
5905	WGL 14 (NC)			MS
5906	25495	MTU 1190 (MTU 2142-9-2-1)	MTU 1081 / Swarna Sub1	MS
5907	25515	CB 12 186	CO 43 / CB 05 501	MS
5908	BPT 5204 (NC)			MS
5909	25508	NP-9359-9	PRN-5031 / PRN-9361	MS
5910	24990	MR-8666 (Hybrid)	-	MS
5911	24995	SRH-5400 (Hybrid)	-	MS
5912	Improved Samba Mahsuri (Eastern and Central), Ketekejoa (North Eastern), Karjat-6 (Western), ADT 49 (Southern) – ZC			
5913	25523	CR 3505-7-1-1-1-2-1	IR 36 / Vijetha	MS
5914	DRR H-3			MS
5915	25521	AD 13121	CR 1009 / ADT 49	MS
5916	25489	CR 3511-3-2-2-5-1-1	IR 36 / Surendra	LB
5917	Local Check			

Table No. 6.2 : Grain Yield (Kg/ha) of entries in AVT 2-MS Kharif 2017

Entry No.	IET No.	III				Zone III (2)	V			Zone V (2)
		OD	U.P.	U.P.	U.P. (1)		CG	MH	MH	
		JYP	@MSD	VRN	Mean		RPR	@SND	SKL	
5901	25493	4603 5 *#	4332 8	7777 3 *	7777 3 * 17%	6190 4 *# 21%	5223 3 *#	1973 7	4416 4	4820 3 *# 18%
5902	24993	4076 8 #	4624 7 *	7355 5 *	7355 5 * 11%	5715 6 *# 12%	5013 4 *	2089 5 *	4711 1	4862 2 *# 19%
5903	25512	6439 1 *#				6439 2 *# 26%	1335	583	2711	2023
5904	25520	3715 #	4883 6 *	6559 7	6559 7	5137 7	3968	1349	3893	3930
5905	WGL 14 (NC)	3608 #	2954	6627 6	6627 6	5117 8	3863	1672 9	4258 7	4060
5906	25495	3183 #	5041 5 *	4936	4936	4060	5000 5 *	2092 4 *	3813	4407 6 * 8%
5907	25515	6182 3 *#	2851	6155 8	6155 8	6168 5 *# 21%	3780	2267 2 *	3936	3858
5908	BPT 5204 (NC)	2776	2916	5837	5837	4306	4066 9	941	3871	3968
5909	25508	2269	5188 3 *	5883 9	5883 9	4076	3330	1533	3751	3541
5910	24990	6238 2 *#	5401 2 *	8933 1 *#	8933 1 *# 35%	7585 1 *# 48%	4882 6 *	2145 3 *	4310 6	4596 4 *# 13%
5911	24995	3552 #	5106 4 *	4832	4832	4192	3738	1658	4498 3	4118 9 1%
5912	Zonal Check (ZC)	3479 #	3129	5726	5726	4603	4013	1256	4154 9	4084
5913	25523	4346 6 #	3181	8227 2 *#	8227 2 *# 24%	6286 3 *# 23%	5255 2 *#	2503 1 *#	4572 2	4913 1 *# 20%
5914	DRR H-3 (HC)	2441	5524 1 *	7417 4 *	7417 4 * 12%	4929 9	4520 7	1949 8	4163 8	4341 8 * 6%
5915	25521	5041 4 *#	2496	2956	2956	3998	5686 1 *#	635	3322	4504 5 * 10%
5916	25489	4316 7 #	2706	5108	5108	4712	4439 8	2051 6	4373 5	4406 7 * 8%
5917	Local Check	4063 9 #	4264 9	4689	4689	4376	3571	1556	3843	3707
	Exp Mean	4137	4037	6188	6188	5132	4217	1662	4035	4126
	C.D. 5%	369	321	587	587	340	635	413	631	235
	C.V.%	5.36	4.76	5.68	5.68	5.74	9.05	14.94	9.40	4.94
	Sowing Date	28-06-2017	01-07-2017	13-06-2017			20-06-2017	15-06-2017	19-06-2017	
	Planting Date	02-08-2017	30-07-2017	28-07-2017			15-07-2017	26-07-2017	16-07-2017	
	Local ©	Pratikshya	Sambha Sub-1	HUR-917			Dubraj Selection 1	PKV-HMT	PDKV Kisan	
* Superior to Best Check % Superior over Best Check @ not included in means										
# Superior to Hybrid Check % Superior over Hybrid Check										

Table No 6.2 contd : Grain Yield (Kg/ha) of entries in AVT 2-MS Kharif 2017

Entry No.	IET No.	VI						Zone VI (2)	VII	
		MH	MH	MH (3)	GU	GU	A.P.		A.P.	
		KJT	SHR	Mean	@NWG	@NVS	MTU		BPT	
5901	25493	5624	5478 3 #	5173 6	3175	4128 2 #	5551 8	5079 8	4701	
5902	24993	7518 3	4483 6	5571 2 6%	4762 2	3926 3 #	6001 3 5%	6179 3 #	6299 4 #	
5903	25512	8236 1 *	3067	4671		1311	5651 6	4366	5836 5 #	
5904	25520	5840	3300	4344	3704 9	3396 5 #	4570	4636	5136 8	
5905	WGL 14 (NC)	6419 9	5033 5 #	5237 5	3792 8	2991 8	5726 5	2955	4123	
5906	25495	7007 4	5189 4 #	5336 3 2%	2910	2934 9	6098 2 6%	6477 1 *#	5503 7 #	
5907	25515	4793	3911	4213	2822	1709	4352	5260 5 #	4892	
5908	BPT 5204 (NC)	5195	4200 9	4422	2381	3228 6	4697	5255 6 #	5525 6 #	
5909	25508	6583 7	3272	4535	2910	2735	4928	4837 9	4519	
5910	24990	6419	4250 8	4993 8	4321 4	2521	5335	6196 2 #	7052 1 #	
5911	24995	7568 2	3650	5239 4	4056 6	4239 1 #	5609 7	3975	6682 2 #	
5912	Zonal Check (ZC)	5243	3422	4273	2557	2923	4333	4240	6636 3 #	
5913	25523	6437 8	6328 1 *#	5779 1 # 10%	4497 3	2444	6383 1 # 11%	4740	3275	
5914	DRR H-3 (HC)	6905 5	3883	4984 9	4145 5	2829	5394 9	4257	4571	
5915	25521	6354	5528 2 #	5068 7		1709	5941 4 4%	4617	3444	
5916	25489	6652 6	3578	4867	3968 7	3026 7	5115	5089 7	4901 9	
5917	Local Check	6063	4333 7	4746	6526 1 #	3846 4 #	5198	5321 4 #	4204	
	Exp Mean	6403	4289	4909	3768	2935	5346	4910	5135	
	C.D. 5%	1550	1063	636	773	408	912	954	804	
	C.V.%	14.55	14.91	13.85	12.27	8.36	14.80	11.68	9.41	
	Sowing Date	14-06-2017	13-06-2017			20-06-2017		04-07-2017	19-08-2017	
	Planting Date	12-07-2017	04-07-2017			08-07-2017		05-08-2017	20-09-2017	
	Local ©	Karjat 9	Karjat 6			GNR-2		BPT 5204	BPT 5204	

Table No. 6.2 contd : Grain Yield (Kg/ha) of entries in AVT 2-MS Kharif 2017

Entry No.	IET No.	VII								
		A.P.	A.P. (3)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (1)
		NLR	Mean	WGL	RNR	KNM	Mean	CBT	@ADT	Mean
5901	25493	4321 7	4700 9	3868	5296 6	6101	5088	5683 6 #	5430 8	5683 6 #
5902	24993	5415 1 #	5964 1 # 23%	4973 8 #	4606	6922 6	5500 9	7038 1 #	6435 2 #	7038 1 # 9%
5903	25512	5208 2 #	5137 4 # 6%	3554	3754	8604 2 #	5304	6322 4 #	6133 4	6322 4 #
5904	25520	4630 6	4800 8 #	5806 4 #	6119 3 #	7043 5	6323 1 # 8%	5080 8	4308	5080 8
5905	WGL 14 (NC)	3367	3482	6015 2 #	5050 7	6507	5857 5 #	4694	4090	4694
5906	25495	4781 4 *	5587 2 # 15%	4127	6156 2 #	7249 4	5844 7 #	5563 7 #	6795 1 #	5563 7 #
5907	25515	4680 5	4944 6 # 2%	5985 3 #	4050	8745 1 #	6260 2 # 7%	4314	5287 9	4314
5908	BPT 5204 (NC)	2856	4545	4278	4852 8	5526	4885	4283	5993 5	4283
5909	25508	3171	4175	5227 7 #	5952 4	6631	5937 3 # 1%	5080 9	4607	5080 9
5910	24990	3367	5538 3 # 14%	5578 6 #	5857 5	5020	5485	6402 3 #	5490 6	6402 3 #
5911	24995	4214 8	4957 5 # 2%	5624 5 #	7175 1 #	5010	5936 4 # 1%	4577	4127	4577
5912	Zonal Check (ZC)	3653	4843 7 #	3378	4317	4798	4164	4513	5008	4513
5913	25523	4978 3 #	4331	4352 9	4614	7699 3 #	5555 8	5822 5 #	3875	5822 5 #
5914	DRR H-3 (HC)	3855 9	4228	3914	4767 9	6876 9	5186	4278	4183	4278
5915	25521	3715	3926	3830	3746	6616	4731	3760	5483 7	3760
5916	25489	2082	4024	3629	4746	6922 7	5099	4377	6222 3 #	4377
5917	Local Check	3535	4353	6117 1 #	4550	6877 8	5848 6 #	6429 2 #	4973	6429 2 #
	Exp Mean	3990	4679	4721	5036	6656	5471	5189	5202	5189
	C.D. 5%	1034	540	636	1265	752	528	1058	1990	1058
	C.V.%	15.58	12.33	8.10	15.11	6.79	10.33	12.25	22.99	12.25
	Sowing Date	13-09-2017		24-06-2017	21-06-2017	03-07-2017		01-08-2017	29-08-2017	
	Planting Date	21-10-2017		24-07-2017	22-07-2017	05-08-2017		29-08-2017	27-09-2017	
	Local ©	NLR 34449		WGL-32100	Telangana Sona (RNR 15048)	RNR 15048		CO 52	ADT 50	

Table No. 6.2 contd : Grain Yield (Kg/ha) of entries in AVT 2-MS Kharif 2017

Entry No.	IET No.	VII			Zone VII (9)	Overall (15)	Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		KA	KA	KA (2)					
		MND	GNV	Mean					
5901	25493	5090	5747	5418	5098	5267	106	104	323
5902	24993	6114	8519	7316	6230	5948	104	112	298
5903	25512	7667	10526	9096	6204	5545	117	110	340
5904	25520	5976	9910	7943	6037	5441	105	107	297
5905	WGL 14 (NC)	4915	8401	6658	5114	5056	104	111	304
5906	25495	4711	8628	6669	5911	5488	108	115	313
5907	25515	6007	9604	7806	5949	5486	105	116	306
5908	BPT 5204 (NC)	4297	7679	5988	4950	4700	109	96	325
5909	25508	5732	10298	8015	5716	5102	104	112	295
5910	24990	3419	6612	5016	5500	5636	105	113	305
5911	24995	4723	9561	7142	5727	5292	94	110	308
5912	Zonal Check (ZC)	3890	8141	6016	4841	4640	104	109	313
5913	25523	5284	8154	6719	5435	5605	102	117	295
5914	DRR H-3 (HC)	5952	9176	7564	5294	5132	101	110	293
5915	25521	5278	7612	6445	4735	4767	116	111	283
5916	25489	4824	8798	6811	5041	4922	102	115	278
5917	Local Check	7132	9603	8367	5974	5355	105	103	327
	Exp Mean	5354	8645	6999	5515	5257	105	110	306
	C.D. 5%	957	761	602	309	238	0		10
	C.V. %	10.74	5.29	7.46	10.47	10.95	1.32		8.86
	Sowing Date	22-08-2017							
	Planting Date	12-09-2017							
	Local ©	Thanu							

Table No. 6.3 : Days to 50% Flowering of entries in AVT 2-MS Kharif 2017

Entry No.	IET No.	III				Zone III (3)	V			Zone V (3)	VI						Zone VI (4)
		OD	U.P.	U.P.	U.P. (2)		CG	MH	MH		MH	MH	MH (4)	GU	GU	GU (2)	
		JYP	MSD	VRN	Mean		RPR	SND	SKL		KJT	SHR	Mean	NWG	NVS	Mean	
5901	25493	115	110	102	106	109	112	125	106	114	112	91	108	103	105	104	103
5902	24993	111	98	99	99	103	108	118	104	110	106	91	104	107	102	105	102
5903	25512	119				119	136	139	134	136	125	128	131		112	112	122
5904	25520	109	100	101	101	103	112	118	107	112	110	89	106	108	107	107	103
5905	WGL 14 (NC)	111	105	100	103	105	112	124	104	113	97	83	102	106	106	106	98
5906	25495	113	118	107	113	113	113	125	113	117	116	94	112	113	100	106	106
5907	25515	109	120	101	111	110	106	111	104	107	107	86	102	109	111	110	103
5908	BPT 5204 (NC)	113	121	106	114	113	115	126	109	117	111	93	110	112	111	112	107
5909	25508	111	107	99	103	106	108	118	104	110	110	88	105	104	103	104	101
5910	24990	110	105	96	101	104	111	122	103	112	106	89	105	106	107	107	102
5911	24995	101	90	93	92	95	99	106	96	100	98	80	95	103	67	85	87
5912	Zonal Check (ZC)	111	115	105	110	110	111	116	107	111	117	78	104	88	90	89	93
5913	25523	107	115	95	105	106	106	115	99	107	111	82	102	104	103	104	100
5914	DRR H-3 (HC)	107	95	97	96	100	104	115	102	107	105	82	101	104	100	102	98
5915	25521	120	96	124	110	113	125	134	125	128	125	105	122		100	100	110
5916	25489	111	120	96	108	109	106	114	100	107	105	82	100	101	100	100	97
5917	Local Check	108	117	111	114	112	119	123	106	116	95	96	105	105	98	101	98
	Exp Mean	111	108	102	105	107	112	120	107	113	109	90	107	105	101	103	101
	C.D. 5%	2	0	1	1	1	2	1	1	1	2	2	1	2	2	2	1
	C.V. %	1.24	0.00	0.85	0.63	0.87	0.95	0.44	0.54	0.60	0.92	1.51	0.90	1.30	1.36	1.29	1.27

Table No. 6.3 contd: Days to 50% Flowering of entries in AVT 2-MS Kharif 2017

Entry No.	IET No.	VII														Zone VII (10)	Overall (20)
		A.P.	A.P.	A.P.	A.P. (3)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KA	KA	KA (2)		
		MTU	BPT	NLR	Mean	WGL	RNR	KNM	Mean	CBT	ADT	Mean	MND	GNV	Mean		
5901	25493	106	93	103	101	102	110	106	106	102	96	99	98	115	107	103	106
5902	24993	104	92	104	100	105	106	105	105	102	94	98	102	116	109	103	104
5903	25512	108	98	105	104	132	119	115	122	100	109	105	92	115	104	109	117
5904	25520	107	96	107	103	106	103	108	106	100	94	97	96	115	105	103	105
5905	WGL 14 (NC)	104	88	105	99	106	106	107	106	102	98	100	100	108	104	102	104
5906	25495	110	92	106	103	115	117	110	114	100	95	98	89	109	99	104	108
5907	25515	107	93	104	101	112	105	109	109	101	98	100	96	116	106	104	105
5908	BPT 5204 (NC)	111	91	107	103	114	114	116	115	107	99	103	100	114	107	107	109
5909	25508	105	89	106	100	105	106	108	106	105	95	100	97	112	105	103	104
5910	24990	106	92	104	101	107	107	108	107	102	99	101	99	116	108	104	105
5911	24995	98	93	90	94	102	102	106	103	91	86	88	86	95	90	95	94
5912	Zonal Check (ZC)	103	90	105	100	110	113	107	110	106	100	103	100	115	108	105	104
5913	25523	108	96	103	102	102	97	107	102	93	92	92	90	109	100	100	102
5914	DRR H-3 (HC)	102	92	103	99	101	106	105	104	100	90	95	95	115	105	101	101
5915	25521	118	90	114	107	135	121	125	127	112	111	111	101	120	111	115	116
5916	25489	98	90	104	97	105	103	107	105	99	93	96	91	115	103	101	102
5917	Local Check	113	92	94	100	105	103	98	102	102	111	106	95	115	105	103	105
	Exp Mean	106	92	104	101	110	108	109	109	101	98	100	96	113	104	104	105
	C.D. 5%	3	1	3	1	2	3	1	1	2	3	2	5	2	3	1	0
	C.V. %	1.59	0.93	1.67	1.35	0.85	1.93	0.50	1.24	1.01	2.03	1.59	3.09	0.92	2.08	1.58	1.32

Table No. 6.4 : Plant Height (cm) of entries in AVT 2-MS Kharif 2017

Entry No.	IET No.	III				Zone III		V			Zone V (3)		VI						Zone VI (4)	
		OD	U.P.	U.P.	U.P. (2)			CG	MH	MH			MH	MH	MH (4)	GU	GU	GU (2)		
		JYP	MSD	VRN	Mean	Mean	Mean	RPR	SND	SKL	Mean	Mean	KJT	SHR	Mean	NWG	NVS	Mean	Mean	Mean
5901	25493	93	95	119	107	102	108	86	122		105	111	105	106	129	114	122		115	
5902	24993	94	110	129	119	111	118	96	130		115	124	120	118	132	124	128		125	
5903	25512	94				94	108	99	131		112	115	115	115	120	126	123		119	
5904	25520	90	102	126	114	106	116	84	123		108	121	112	110	111	124	118		117	
5905	WGL 14 (NC)	90	108	125	117	108	107	109	118		111	124	117	117	111	129	120		120	
5906	25495	91	115	139	127	115	119	104	132		118	136	121	123	128	129	129		129	
5907	25515	96	120	116	118	111	114	98	129		113	121	122	117	127	127	127		124	
5908	BPT 5204 (NC)	89	90	109	99	96	98	87	101		95	109	95	98	122	108	115		108	
5909	25508	95	107	126	117	109	115	94	133		114	127	120	119	116	115	116		120	
5910	24990	80	125	134	130	113	132	97	124		118	121	122	116	116	139	127		124	
5911	24995	91	122	125	123	113	110	95	126		110	116	110	112	130	121	125		119	
5912	Zonal Check (ZC)	76	90	109	100	92	103	85	99		96	93	92	92	106	306	206		149	
5913	25523	92	123	142	133	119	121	96	132		116	132	120	120	133	130	131		129	
5914	DRR H-3 (HC)	79	105	130	118	105	123	97	130		117	124	113	116	123	120	122		120	
5915	25521	97	95	137	116	110	124	88	126		113	120	119	113	117	131	124		122	
5916	25489	98	110	138	124	115	128	91	133		117	116	116	114	129	136	133		124	
5917	Local Check	72	75	112	94	87	146	84	120		117	117	107	107	111	126	118		115	
	Exp Mean	89	106	126	116	107	117	94	124		112	119	113	113	121	136	128		122	
	C.D. 5%		0	0				0	0		0		0		0					
	C.V. %		0.00	0.00				0.00	0.00		0.00		0.00		0.00					

Table No. 6.4 contd : Plant Height (cm) of entries in AVT 2-MS Kharif 2017

Entry No.	IET No.	VII														Zone VII (10)	Overall (20)
		A.P.	A.P.	A.P.	A.P. (3)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KA	KA	KA (2)		
		MTU	BPT	NLR	Mean	WGL	RNR	KNM	Mean	CBT	ADT	Mean	MND	GNV	Mean	Mean	Mean
5901	25493	121	124	77	107	125	102	97	108	93	93	93	70	96	83	100	104
5902	24993	132	119	81	110	130	102	104	112	105	104	105	81	101	91	106	112
5903	25512	129	114	88	110	129	105	116	116	97	105	101	86	112	99	108	110
5904	25520	127	126	80	111	128	104	107	113	96	99	97	80	86	83	103	107
5905	WGL 14 (NC)	135	119	79	111	130	102	118	117	101	100	101	86	102	94	107	111
5906	25495	136	123	79	113	139	105	119	121	96	97	96	82	112	97	109	115
5907	25515	139	115	92	116	137	105	127	123	107	106	107	99	117	108	114	116
5908	BPT 5204 (NC)	111	131	66	102	115	85	86	95	84	79	81	66	83	75	91	96
5909	25508	133	115	87	112	141	100	123	121	100	105	103	90	107	98	110	112
5910	24990	136	125	85	115	126	109	107	114	102	99	100	83	106	95	108	113
5911	24995	130	108	84	107	135	105	115	118	99	95	97	80	104	92	105	110
5912	Zonal Check (ZC)	118	119	79	105	125	99	106	110	98	96	97	85	104	95	103	109
5913	25523	151	92	91	111	135	105	128	122	97	101	99	92	121	107	111	117
5914	DRR H-3 (HC)	126	119	84	110	119	101	114	111	105	100	102	85	100	93	105	110
5915	25521	122	112	91	108	133	111	98	114	100	102	101	93	104	99	107	111
5916	25489	137	116	91	114	131	112	112	118	99	106	102	93	104	99	110	115
5917	Local Check	107	90	59	85	120	110	120	117	103	109	106	81	93	87	99	103
	Exp Mean	129	116	82	109	129	103	112	115	99	100	99	84	103	94	106	110
	C.D. 5%	0		0		0		0			0		0	0	0		
	C.V. %	0.00		0.00		0.00		0.00			0.00		0.00	0.00	0.00		

Table No. 6.5 : Panicles/ M² of entries in AVT 2-MS Kharif 2017

Entry No.	IET No.	III				Zone III		V			Zone V (3)		VI						Zone VI (4)	
		OD	U.P.	U.P.	U.P. (2)			CG	MH	MH			MH	MH	MH (4)	GU	GU	GU (2)		
		JYP	MSD	VRN	Mean	Mean	Mean	RPR	SND	SKL	Mean	Mean	KJT	SHR	Mean	NWG	NVS	Mean	Mean	Mean
5901	25493	291	274	358	316	308	212	223	268		234	282	159	233	269	374	322		271	
5902	24993	273	277	302	290	284	204	169	188		187	254	176	197	279	197	238		226	
5903	25512	280				280	249	247	266		254	300	183	249		202	202		228	
5904	25520	235	289	276	283	267	208	206	230		215	276	154	216	273	216	244		230	
5905	WGL 14 (NC)	253	253	297	275	267	211	228	198		212	243	154	206	272	217	244		221	
5906	25495	229	299	332	315	286	250	264	237		250	295	203	250	267	210	238		244	
5907	25515	260	279	323	301	287	213	181	263		219	216	159	205	267	443	355		271	
5908	BPT 5204 (NC)	258	266	306	286	276	259	287	281		276	254	184	251	264	310	287		253	
5909	25508	275	306	259	282	280	218	211	259		229	266	161	224	268	213	240		227	
5910	24990	244	308	294	301	282	227	231	238		232	262	186	229	275	316	295		260	
5911	24995	233	296	315	306	281	239	238	225		234	238	152	213	274	328	301		248	
5912	Zonal Check (ZC)	244	271	334	303	283	233	309	249		264	258	189	251	265	310	287		255	
5913	25523	222	278	344	311	281	237	211	263		237	242	172	222	272	227	249		228	
5914	DRR H-3 (HC)	260	292	318	305	290	182	226	219		209	262	137	211	269	204	237		218	
5915	25521	229	209	310	260	249	225	232	199		219	219	157	202		227	227		201	
5916	25489	249	222	272	247	248	207	175	224		202	293	140	208	270	230	250		233	
5917	Local Check	231	291	323	307	282	210	313	276		266	241	157	247	287	320	303		251	
	Exp Mean	251	276	310	293	278	223	232	240		232	259	166	224	271	267	269		240	
	C.D. 5%	57	25	16	14	21	20	9	35		11	45	19	14	6	48	25		17	
	C.V. %	13.56	5.45	3.02	4.22	7.87	5.42	2.24	8.78		5.21	10.47	6.91	7.98	1.22	10.73	7.91		8.79	

Table No. 6.5 contd : Panicles/ M² of entries in AVT 2-MS Kharif 2017

Entry No.	IET No.	VII															Zone VII	Overall (20)
		A.P.	A.P.	A.P.	A.P. (3)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KA	KA	KA (2)	(10)		
		MTU	BPT	NLR	Mean	WGL	RNR	KNM	Mean	CBT	ADT	Mean	MND	GNV	Mean	Mean		
5901	25493	317	240	483	347	393	386	145	308	477	432	454	337	550	443	376	323	
5902	24993	273	277	478	343	350	391	165	302	458	443	451	367	442	404	364	298	
5903	25512	433	279	520	411	387	411	167	322	482	521	501	373	475	424	405	340	
5904	25520	246	276	467	330	378	409	183	323	338	388	363	340	543	442	357	297	
5905	WGL 14 (NC)	310	323	418	350	386	414	156	319	395	384	389	407	556	481	375	304	
5906	25495	337	290	420	349	367	441	180	329	344	383	364	393	516	455	367	313	
5907	25515	284	308	362	318	410	396	167	325	372	382	377	437	401	419	352	306	
5908	BPT 5204 (NC)	321	295	580	399	380	411	165	318	408	443	426	327	505	416	383	325	
5909	25508	326	310	406	347	352	378	187	306	303	419	361	390	386	388	346	295	
5910	24990	297	298	371	322	352	416	154	307	448	361	405	343	477	410	352	305	
5911	24995	323	323	387	344	381	394	167	314	337	467	402	353	494	423	363	308	
5912	Zonal Check (ZC)	308	309	357	325	386	389	145	307	475	419	447	363	450	407	360	313	
5913	25523	266	272	493	344	378	356	189	308	345	384	364	387	370	378	344	295	
5914	DRR H-3 (HC)	262	290	398	316	351	416	185	317	327	443	385	373	443	408	349	293	
5915	25521	284	284	389	319	348	413	172	311	267	396	331	433	387	410	337	283	
5916	25489	279	238	336	284	372	398	172	314	332	384	358	410	354	382	327	278	
5917	Local Check	310	312	500	374	377	414	178	323	498	480	489	373	448	411	389	327	
	Exp Mean	305	290	433	342	373	402	169	315	389	419	404	377	459	418	362	306	
	C.D. 5%	48	43	101	38	20	39	26	16	39	76	41	55	51	36	17	10	
	C.V. %	9.38	8.94	13.98	11.73	3.26	5.88	9.13	5.52	6.02	10.97	8.83	8.74	6.75	7.53	9.13	8.86	

Table No. 6.6: Grain quality characteristics of entries in AVT 2-MS, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	Aroma
5901	25493	76.0	67.0	64.0	5.34	1.95	2.73	MS	A	5.6	220	9.1	1.7	5.0	22	23	NS
5902	24993	81.0	70.7	66.6	5.19	1.91	2.71	MS	VOC	5.4	210	9	1.73	4.0	24.31	24	NS
5903	25512	77.7	68.8	66.1	5.50	2.09	2.63	MS	VOC	4.6	210	8.3	1.5	5.0	24.52	22	NS
5904	25520	78.7	70.8	68.9	5.09	1.74	2.92	MS	A	5.2	190	8.9	1.69	4.0	22.52	23	NS
5905	WGL-14	77.9	63.9	58.7	5.05	1.86	2.71	MS	A	4.1	265	9	1.78	4.0	24.55	22	NS
5906	25495	81.7	72.8	71.6	5.10	1.80	2.83	MS	VOC	5.4	250	8.9	1.74	5.0	24.9	33	NS
5907	25515	80.3	70.0	65.1	5.07	1.94	2.59	MS	VOC	4	225	8	1.57	5.0	24.58	26	NS
5908	BPT 5204	77.3	66.4	63.6	4.74	1.75	2.70	MS	A	4.7	240	9	1.89	5.0	24.46	25	NS
5909	25508	77.8	67.6	64.2	5.02	1.69	2.97	MS	A	4.7	225	8.7	1.73	4.0	24.49	22	NS
5910	24990	79.2	69.3	67.0	5.36	1.79	2.99	MS	A	5	285	8.6	1.6	5.0	22.58	24	NS
5911	24995	79.8	69.2	62.7	5.38	1.82	2.95	MS	VOC	5.4	300	8.4	1.56	6.0	25.46	22	MS
5912	ADT-49	75.8	67.5	64.8	4.76	1.82	2.61	MS	A	5.4	210	7.5	1.57	7.0	23.32	25	NS
5913	25523	77.6	69.6	67.9	5.36	1.93	2.77	MS	VOC	5.3	195	10.1	1.88	4.0	23.14	22	NS
5914	DRRH-3	80.3	68.4	66.3	5.25	2.01	2.61	MS	VOC	5	230	10.3	1.96	4.0	24.14	24	NS
5915	25521	78.9	69.9	65.7	5.15	1.95	2.64	MS	A	5	255	9.6	1.86	4.0	24.08	50	NS
5916	25489	78.2	70.2	64.4	6.16	2.22	2.77	LB	VOC	5	190	10.7	1.73	5.0	23.61	24	NS

HULL: Hulling (%); MILLING (%): HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 6.7: Composition of entries in Advance Variety Trial 1–Medium Slender Grain (AVT 1-MS), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
2nd year of testing:				
6001	25800	<i>PHI-16108 (Hybrid)</i>	-	MS
6002	26273	R 2054-685-1-205-1	R 1033-2559-1-1 / Gopal Bhog	MS
6003	26219	CB 12 122	BPT 5204 / CO 48	SS
6004	26263	MTU 1239 (MTU II 369-72-4-1-1-1)	MTU 1075 / BM 71	MS
6005	25796	<i>PHI -16107 (Hybrid)</i>	-	MS
6006	26258	AD 10202	I.W. Ponni / IPM	MS
6007	WGL 14 (NC)			MS
6008	26227	OR 2560-6	Pratishkya / IR 32253-7	MS
6009	26231	RP 4926-352-99-76-23-18	Swarna /RAU 3041	MS
6010	DRRH-3 (HC)			MS
6011	26243	WGL-825	Kavya / MTU 1001	MS
6012	26267	MTU 1219 (MTU 2223-7-2-1-1-1-1)	IR 64 / PLA 99-1-3-1-3	MS
6013	25804	<i>US 303 (Hybrid)</i>	-	MS
6014	25795	<i>NK 18672 (Hybrid)</i>	-	MS
6015	26218	BPT 2808	BPT 2231 / NLR 145	MS
6016	25793	<i>MEPH-129 (Hybrid)</i>	-	MS
6017	26275	PRNP 38	NPG6 / NPG14	MS
6018	Improved Samba Mahsuri (Eastern and Central), Ketekejoha (North Eastern), Karjat-6 (Western), ADT 49 (Southern) -- ZC			
6019	25798	<i>TMRH-124 (Hybrid)</i>	-	MS
6020	26274	RP 5599-312-63-5-1	MTU 1010 / KMR 3	MS
6021	26222	GNV 14-05	Selection in BPT-5204 / SIRI 12-53	MS
6022	26269	MGD-1601	IET-2254-1-26 Sel.	MS
6023	BPT 5204 (NC)			MS
6024	25802	<i>ARRH-7576 (Hybrid)</i>	-	MS
6025	26244	CB 13 168	CO 50 / IET 19577	MS
6026	Local Check			

Table No. 6.8 : Grain Yield (Kg/ha) of entries in AVT 1-MS ZONE 3 Kharif 2017

Entry No.	IET No.	III									
		OD		OD		OD (2)		U.P.		U.P.	
		CTK		JYP		Mean		@MSD		VRN	Mean
6001	25800	5105		3812		4458		5510	4 #	4658	4658
6002	26273	7357	3	3987		5672	5	3644		8544	3 *# 15%
6003	26219	7733	2	4228		5981	2	4141	#	6779	6779
6004	26263	5586		5340	3 #	5463		3314		8280	4 *# 12%
6005	25796	5856		5216	5 #	5536	8	5155	9 #	7345	7345
6006	26258	5255		4367		4811		3519		7235	7235
6007	WGL 14 (NC)	5030		3765		4398		5499	5 #	7411	9
6008	26227	6757	5	3853		5305		3219		7993	6 *# 8%
6010	DRRH-3 (HC)	7357	4	4244		5801	3	3759		7633	8 3%
6011	26243	5480		4573		5027		4883	#	5889	5889
6012	26267	6682	6	4784	8	5733	4	4092		7083	7083
6013	25804	5480		5648	1 *#	5564	7	5185	7 #	8876	1 *# 20%
6014	25795	5556		5021	6 #	5288		5731	1 #	6588	6588
6015	26218	6306	9	3940		5123					
6016	25793	5556		4830	7	5193		5646	2 #	6942	6942
6018	Zonal Check (ZC)	5556		4244		4900		4624	#	6238	6238
6019	25798	5856		5370	2 #	5613	6	5586	3 #	8278	5 *# 12%
6020	26274	6336	8	4367		5352		5387	6 #	7808	7 5%
6021	26222	6231		3601		4916		4433	#	3892	3892
6023	BPT 5204 (NC)	6682	7	2762		4722		3614		6792	6792
6024	25802	6306		4717		5512	9	3294		8546	2 *# 15%
6025	26244	5390		5283	4 #	5337				6464	6464
6026	Local Check	8333	1 #	4743	9	6538	1 #	5175	8 #	5725	5725
	Exp Mean	6165		4465		5315		4543		7045	7045
	C.D. 5%	887		720		594		368		610	610
	C.V.%	8.74		9.80		9.75		4.91		5.25	5.25
	Sowing Date	23-06-2017		27-06-2017				05-07-2017		13-06-2017	
	Planting Date	02-08-2017		31-07-2017				04-08-2017		30-06-2017	
	Local ©	CR dhan-907		Pratikshya				Sambha Sub-1		HUR 917	
* Superior to Best Check % Superior over Best Check @ not included in means											
# Superior to Hybrid Check % Superior over Hybrid Check											

Table No. 6.8 contd. : Grain Yield (Kg/ha) of entries in AVT 1-MS ZONE 3 Kharif 2017

Entry No.	IET No.	Zone III (3)		Overall (3)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		Mean		Mean				
6001	25800	4525		4525		99	108	277
6002	26273	6629	2 6%	6629	2 6%	102	97	247
6003	26219	6247	8	6247	8	107	101	272
6004	26263	6402	6 2%	6402	6 2%	117	104	257
6005	25796	6139		6139		100	101	265
6006	26258	5619		5619		118	89	277
6007	WGL 14 (NC)	5402		5402		108	104	295
6008	26227	6201	9	6201	9	102	107	274
6010	DRRH-3 (HC)	6412	5 2%	6412	5 2%	102	110	245
6011	26243	5314		5314		105	108	256
6012	26267	6183		6183		114	106	245
6013	25804	6668	1 6%	6668	1 6%	106	106	272
6014	25795	5721		5721		97	111	278
6015	26218	5123		5123		117	105	250
6016	25793	5776		5776		97	106	290
6018	Zonal Check (ZC)	5346		5346		105	88	268
6019	25798	6501	4 4%	6501	4 4%	95	104	268
6020	26274	6170		6170		103	91	299
6021	26222	4575		4575		99	101	261
6023	BPT 5204 (NC)	5412		5412		112	96	285
6024	25802	6523	3 4%	6523	3 4%	100	112	251
6025	26244	5712		5712		107	113	282
6026	Local Check	6267	7	6267	7	115	99	283
	Exp Mean	5875		5875		105	103	270
	C.D. 5%	439		439		1		14
	C.V. %	8.02		8.02		1.14		6.47

Table No. 6.8 contd : Grain Yield (Kg/ha) of entries in AVT 1-MS Zone 4 Kharif 2017

Entry No.	IET No.	IV				Zone IV (1)		Overall (1)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		AS		TR								
		GER		@ARD		Mean		Mean				
6001	25800	6218	4 *#	2036		6218	4 *# 16%	6218	4 *# 16%	115	111	262
6004	26263	6269	3 *#	1860		6269	3 *# 17%	6269	3 *# 17%	124	108	245
6005	25796	5842	5 #	2197	5	5842	5 # 9%	5842	5 # 9%	124	106	266
6007	WGL 14 (NC)	5338	7 #	2508	2 #	5338	7 #	5338	7 #	120	112	251
6008	26227	5218	9 #	2810	1 #	5218	9 #	5218	9 #	118	113	261
6010	DRRH-3 (HC)	4137		1863		4137		4137		117	121	250
6012	26267	6521	1 *#	2184	6	6521	1 *# 22%	6521	1 *# 22%	124	113	249
6013	25804	4795		2308	3	4795		4795		113	106	259
6014	25795	5577	6 #	2067	9	5577	6 # 4%	5577	6 # 4%	112	118	249
6018	Zonal Check (ZC)	4436		2225	4	4436		4436		115	101	260
6019	25798	5244	8 #	2162	7	5244	8 #	5244	8 #	115	119	242
6023	BPT 5204 (NC)	4731		2111	8	4731		4731		125	93	256
6024	25802	6419	2 *#	1759		6419	2 *# 20%	6419	2 *# 20%	116	114	215
6026	Local Check	4673		1778		4673		4673		121	112	281
	Exp Mean	5387		2133		5387		5387		118	110	253
	C.D. 5%	787		560		847		847		6		27
	C.V.%	8.70		15.65		9.39		9.39		4.34		9.31
	Sowing Date	26-06-2017		03-07-2017								
	Planting Date	01-08-2017		03-08-2017								
	Local ©	Mahsuri		CO-51								
	* Superior to Best Check % Superior over Best Check @ not included in means											

Table No. 6.8 contd. : Grain Yield (Kg/ha) of entries in AVT 1-MS ZONE 5 Kharif 2017

Entry No.	IET No.	V									Zone V (2)	Overall (2)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²			
		CG		MH		MH		MH (1)		Mean									
		RPR	@SND	SKL	Mean	Mean	Mean												
6001	25800	6275	3 #	2529	5 #	5324	1 #	5324	1 #	30%	5799	1 #	40%	5799	1 #	40%	102	113	263
6002	26273	5008	8 #	1964		4210	8 #	4210	8 #	3%	4609	9 #	11%	4609	9 #	11%	108	93	216
6004	26263	6099	4 #	2649	4 #	3513		3513			4806	7 #	16%	4806	7 #	16%	116	112	213
6005	25796	4820		1874		4089		4089			4454	#	8%	4454	#	8%	111	116	238
6007	WGL 14 (NC)	4171		2302	8 #	4103	9	4103	9		4137			4137			109	118	224
6008	26227	5789	5 #	3048	3 #	5127	2 #	5127	2 #	25%	5458	3 #	32%	5458	3 #	32%	107	122	238
6010	DRRH-3 (HC)	4190		2372	7 #	3267		3267			3729			3729			105	109	160
6012	26267	7091	1 #	2057	9	4499	6 #	4499	6 #	10%	5795	2 #	40%	5795	2 #	40%	114	118	208
6013	25804	5588	7 #	3284	1 #	5012	3 #	5012	3 #	22%	5300	4 #	28%	5300	4 #	28%	107	108	208
6014	25795	5779	6 #	1766		4421	7 #	4421	7 #	8%	5100	5 #	23%	5100	5 #	23%	100	118	205
6016	25793	4543		1640		3368		3368			3956			3956			98	108	261
6018	Zonal Check (ZC)	4418		1556		3498		3498			3958			3958			109	101	240
6019	25798	4010		2494	6 #	4725	4 #	4725	4 #	15%	4368	#	6%	4368	#	6%	92	110	239
6022	26269	6498	2 #	3269	2 #	3556		3556			5027	6 #	22%	5027	6 #	22%	108	161	195
6023	BPT 5204 (NC)	4581		1378		2431		2431			3506			3506			114	97	235
6024	25802	4881	9	2013		4659	5 #	4659	5 #	14%	4770	8 #	15%	4770	8 #	15%	108	119	206
6026	Local Check	3818		1716		3614		3614			3716			3716			113	125	252
	Exp Mean	5151		2230		4083		4083			4617			4617			107	115	224
	C.D. 5%	540		549		682		682			418			418			1		14
	C.V.%	6.30		14.80		10.04		10.04			7.86			7.86			0.75		6.84
	Sowing Date	20-06-2017		15-06-2017		20-06-2017													
	Planting Date	15-07-2017		26-07-2017		14-07-2017													
	Local ©	Dubraj Selection 1		PKV-HMT		PKV Kisan													
* Superior to Best Check % Superior over Best Check @ not included in means																			
# Superior to Hybrid Check % Superior over Hybrid Check																			

Table No. 6.8 contd : Grain Yield (Kg/ha) of entries in AVT 1-MS ZONE 6 Kharif 2017

Entry No.	IET No.	VI										Zone VI (4)			Overall (4)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²			
		MH		MH		MH (2)		GU		GU										GU (2)		
		KJT	SHR	Mean		NWG		NVS		Mean		Mean		Mean								
6001	25800	7035	2 #	3475		5255	6	7639	1	6353	1 #	31%	6125	1 #	16%	6125	1 #	16%	99	118	236	
6004	26263	6891	3 #	3253		5072	9	7253	2	4629	5941	6 * 11%	5506		4%	5506	*	4%	110	118	236	
6005	25796	6278	7	4869	6	5573	5 7%	6944	5	4925	5935	7 * 11%	5754	6	9%	5754	6 #	9%	107	114	221	
6007	WGL 14 (NC)	6521	5 #	3944	8	5233	7	6096		4619	5357		5295			5295			106	115	232	
6008	26227	5157		4879	5	5018		7176	3	5608	4	6392	2 * 19%	5705	7	8%	5705	7 #	8%	101	118	226
6010	DRRH-3 (HC)	5093		4222	7	4658		7022	4	5747	2	6384	3 * 19%	5521	9	4%	5521	9 * 4%	97	121	223	
6012	26267	5542		3616		4579		6404	8	5681	3	6043	4 * 13%	5311			5311		106	115	239	
6013	25804	6743	4 #	3606		5175	8	6250	9	5524	6	5887	8 * 10%	5531	8	4%	5531	8 * 4%	98	113	211	
6014	25795	5951		5298	4 *	5625	4 7%	6173		5594	5	5883	9 * 10%	5754	5	9%	5754	5 #	9%	95	125	228
6016	25793	7115	1 #	5354	3 *	6234	3 # 19%	6250		4838		5544		3%	5889	4 * 11%	5889	4 #	11%	93	119	227
6018	Zonal Check (ZC)	5986	9	3919	9	4952		3164		5406	7	4285		4619			4619		87	98	213	
6019	25798	6458	6 #	6298	1 #	6378	1 # 22%	6250		5319	8	5784	8%	6081	3 #	15%	6081	3 #	15%	96	105	252
6020	26274	5110		3742		4426		4861		5284	9	5072		4749			4749		100	106	214	
6023	BPT 5204 (NC)	4903		2773		3838		4244		4361		4302		4070			4070		108	104	226	
6024	25802	6227	8	6263	2 #	6245	2 # 19%	6636	7	5266		5951	5 * 11%	6098	2 #	15%	6098	2 #	15%	98	126	212
6026	Local Check	5944		3455		4699		6944	6	3776		5360		5030			5030		96	112	238	
	Exp Mean	6060		4310		5185		6207		5183		5695		5440			5440		100	114	227	
	C.D. 5%	1338		1227		1015		941		765		474		515			515		1		3	
	C.V.%	13.25		17.07		16.97		9.09		8.85		7.22		11.71			11.71		1.16		1.87	
	Sowing Date	14-06-2017		13-06-2017						16-06-2017												
	Planting Date	12-07-2017		05-07-2017						15-07-2017												
	Local ©	Kariat 9		Kariat 6						GNR-2												

Table No. 6.8 contd : Grain Yield (Kg/ha) of entries in AVT 1-MS ZONE 7 Kharif 2017

Entry No.	IET No.	VII							
		A.P.	A.P.	A.P.	A.P. (3)	TEL	TEL	TEL	TEL (3)
		MTU	NLR	BPT	Mean	WGL	RNR	KNM	Mean
6001	25800	5592	4804 7 #	7675 4	6023 4 * 8%	7009 2 #	7265 4	5405	6559 4 # 4%
6004	26263	6357 3	3648	6135	5380	7676 1 #	6963 6	6727 5	7122 2 *# 13%
6005	25796	6087 5	4877 5 *#	6143	5702 8 2%	6403 4 #	6252 9	5302	5986 9
6007	WGL 14 (NC)	6061 6	3356	7345 6	5587	6322 7 #	5363	6215 8	5967
6008	26227	5664 9	4815 6 *#	7385 5	5955 6 6%	6396 5 #	7109 5	8413 1 *#	7306 1 *# 16%
6009	26231	5441	4475 8	6456	5458	5546	5082	6041 9	5556
6010	DRRH-3 (HC)		3765	8849 1 *	6307 2 * 13%	5226	5684	6705 6	5871
6012	26267	6723 1	3636	6802 8	5720 7 2%	6339 6 #	6245	6835 4	6473 5 3%
6013	25804	5981 7	3777	7056 7	5605 9	5430	6407 7	6484 7	6107 8
6014	25795	6584 2	5645 1 *#	6770 9	6333 1 * 13%	5136	7613 3 #	4675	5808
6017	26275	5202	5101 3 *#	8603 2	6302 3 * 13%	6421 3 #	5266	5805	5831
6018	Zonal Check (ZC)	5121	3642	8016 3	5593	3540	3611	4094	3748
6019	25798	5857 8	5483 2 *#	3742	5027	5221	7845 2 #	5332	6133 7
6023	BPT 5204 (NC)	5027	3384	2754	3722	5622 9	6334 8	4839	5598
6024	25802	6286 4	5073 4 *#	6655	6005 5 7%	5541	8288 1 *#	6965 3	6931 3 # 10%
6026	Local Check	5255	3788 9	4996	4680	6052 8 #	5897	6974 2	6308 6
	Exp Mean	5816	4329	6586	5572	5867	6327	6051	6082
	C.D. 5%	755	729	779	420	802	1627	713	642
	C.V.%	7.76	10.10	7.09	8.06	8.19	15.42	7.07	11.28
	Sowing Date	04-07-2017	13-09-2017	19-08-2017		07-07-2017	20-06-2017	04-07-2017	
	Planting Date	05-08-2017	21-10-2017	19-09-2017		03-08-2017	21-07-2017	06-08-2017	
	Local ©	BPT 5204	NLR 34449	BPT 5204		WGL-32100	Telangana Sona (RNR 15048)	RNR 15048	
* Superior to Best Check % Superior over Best Check @ not included in means									
# Superior to Hybrid Check % Superior over Hybrid Check									

Table No. 6.8 contd: Grain Yield (Kg/ha) of entries in AVT 1-MS ZONE 7 Kharif 2017

Entry No.	IET No.	VII						
		TN	TN	TN (2)	KA	KA	KA	KA (2)
		CBT	ADT	Mean	MND	@MGD	GNV	Mean
6001	25800	7197 2 #	4670 9	5934 7 #	6799 5	3969 1 #	9846 3 #	8322 3 #
6004	26263	5975 7 #	7397 2 #	6686 1 # 8%	7095 2	3449 3	8397 9	7746 7
6005	25796	4575	4567	4571	6954 3	2458 7	9253 6 #	8104 5 #
6007	WGL 14 (NC)	5088	5002 8	5045	6044	1183	7288	6666
6008	26227	6501 4 #	5277 6	5889 8 #	5780	1716 9	9458 4 #	7619 8
6009	26231	6295 6 #	5647 4	5971 5 #	6426	1495	8474 8	7450 9
6010	DRRH-3 (HC)	4681	4583	4632	6527 9	3159 4	8163	7345
6012	26267	5142 9	7573 1 #	6358 2 # 3%	6630 8	1974 8	7641	7136
6013	25804	7648 1 *#	4385	6017 4 #	6315	1617	8282	7299
6014	25795	5260 8	5462 5	5361 9	8465 1 *#	883	7679	8072 6 #
6017	26275	6816 3 #	5068 7	5942 6 #	6934 4	1091	9397 5 #	8166 4 #
6018	Zonal Check (ZC)	4380	4428	4404	5707	1035	7276	6491
6019	25798	3034	3695	3365	6687 7	2956 5	10663 1 #	8675 1 # 2%
6023	BPT 5204 (NC)	4205	4602	4403	4223	593	7106	5665
6024	25802	4755	3658	4206	3839	2932 6	9170 7 #	6504
6026	Local Check	6337 5 #	6032 3	6184 3 #	6791 6	3515 2	10208 2 #	8500 2 #
	Exp Mean	5493	5128	5310	6326	2127	8644	7485
	C.D. 5%	1243	1702	1068	824	517	869	554
	C.V.%	13.57	19.90	17.43	7.81	14.58	6.03	6.41
	Sowing Date	01-08-2017	28-08-2017		28-08-2017			
	Planting Date	29-08-2017	27-09-2017		12-09-2017			
	Local ©	CO52	ADT 50		Thanu			

Table No. 6.8 contd: Grain Yield (Kg/ha) of entries in AVT 1-MS ZONE 7 Kharif 2017

Entry No.	IET No.	Zone VII (10)		Overall (10)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		Mean		Mean				
6001	25800	6626	3 *# 6%	6626	3 *# 6%	102	104	388
6004	26263	6637	2 *# 6%	6637	2 *# 6%	111	101	371
6005	25796	6041	9	6041	9	107	103	361
6007	WGL 14 (NC)	5809		5809		106	103	368
6008	26227	6680	1 *# 7%	6680	1 *# 7%	107	102	377
6009	26231	5988		5988		109	118	372
6010	DRRH-3 (HC)	6020		6020		101	100	365
6012	26267	6357	5 # 2%	6357	5 # 2%	110	103	385
6013	25804	6177	8	6177	8	104	102	364
6014	25795	6329	6 2%	6329	6 2%	101	110	366
6017	26275	6461	4 # 4%	6461	4 # 4%	108	95	362
6018	Zonal Check (ZC)	4981		4981		107	98	360
6019	25798	5756		5756		95	95	388
6023	BPT 5204 (NC)	4810		4810		110	90	362
6024	25802	6023		6023		101	107	363
6026	Local Check	6233	7	6233	7	105	100	382
	Exp Mean	6058		6058		105	102	371
	C.D. 5%	334		334		1		16
	C.V.%	10.86		10.84		1.47		8.66

Table No. 6.9 : Days to 50% Flowering of entries in AVT 1- ZONE 3 Kharif 2017

Entry No.	IET No.	III						Zone III (4)	Overall (4)
		OD	OD	OD (2)	U.P.	U.P.	U.P. (2)		
		CTK	JYP	Mean	MSD	VRN	Mean	Mean	Mean
6001	25800	89	109	99	109	90	100	99	99
6002	26273	101	113	107	108	87	98	102	102
6003	26219	103	119	111	115	90	103	107	107
6004	26263	90	120	105	135	121	128	117	117
6005	25796	87	109	98	104	102	103	100	100
6006	26258	92	123	108	135	123	129	118	118
6007	WGL 14 (NC)	105	111	108	118	97	108	108	108
6008	26227	91	112	102	115	90	103	102	102
6010	DRRH-3 (HC)	87	121	104	106	93	100	102	102
6011	26243	91	108	100	114	105	110	105	105
6012	26267	91	110	101	135	120	128	114	114
6013	25804	92	121	107	113	96	105	106	106
6014	25795	86	112	99	102	88	95	97	97
6015	26218	91	143	117				117	117
6016	25793	86	107	97	105	90	98	97	97
6018	Zonal Check (ZC)	87	107	97	118	108	113	105	105
6019	25798	87	103	95	106	82	94	95	95
6020	26274	91	113	102	108	101	105	103	103
6021	26222	88	102	95	119	88	104	99	99
6023	BPT 5204 (NC)	91	119	105	120	119	120	112	112
6024	25802	86	112	99	112	91	102	100	100
6025	26244	87	127	107		106	106	107	107
6026	Local Check	110	112	111	119	117	118	115	115
	Exp Mean	92	115	103	115	100	107	105	105
	C.D. 5%	3	2	2	0	2	1	1	1
	C.V.%	2.18	1.10	1.63	0.00	0.99	0.66	1.22	1.14

Table No. 6.9 : Days to 50% Flowering of entries in AVT 1-MS ZONE 4 Kharif 2017

Entry No.	IET No.	IV		Zone IV (2)	Overall (2)
		AS	TR		
		GER	ARD	Mean	Mean
6001	25800	111	119	115	115
6004	26263	123	125	124	124
6005	25796	122	125	124	124
6007	WGL 14 (NC)	113	128	120	120
6008	26227	111	125	118	118
6010	DRRH-3 (HC)	109	124	117	117
6012	26267	123	125	124	124
6013	25804	112	114	113	113
6014	25795	108	116	112	112
6018	Zonal Check (ZC)	121	109	115	115
6019	25798	105	125	115	115
6023	BPT 5204 (NC)	123	127	125	125
6024	25802	109	122	116	116
6026	Local Check	122	120	121	121
	Exp Mean	115	122	118	118
	C.D. 5%	4	12	6	6
	C.V.%	2.19	5.75	4.34	4.34

Table No. 6.10 : Plant Height (cm) of entries in AVT 1-MS ZONE 4 Kharif 2017

Entry No.	IET No.	IV		Zone IV (2)	Overall (2)
		AS	TR		
		GER	ARD	Mean	Mean
6001	25800	115	106	111	111
6004	26263	111	106	108	108
6005	25796	108	104	106	106
6007	WGL 14 (NC)	115	110	112	112
6008	26227	108	118	113	113
6010	DRRH-3 (HC)	118	124	121	121
6012	26267	114	112	113	113
6013	25804	112	100	106	106
6014	25795	123	114	118	118
6018	Zonal Check (ZC)	95	107	101	101
6019	25798	110	129	119	119
6023	BPT 5204 (NC)	100	86	93	93
6024	25802	125	103	114	114
6026	Local Check	141	82	112	112
	Exp Mean	114	107	110	110
	C.D. 5%	0	0		
	C.V.%	0.00	0.00		

Table No. 6.9 contd: Days to 50% Flowering of entries in AVT 1- MS ZONE 5 Kharif 2017

Entry No.	IET No.	V				Zone V (3)	Overall (3)
		CG	MH	MH	MH (2)		
		RPR	SND	SKL	Mean	Mean	Mean
6001	25800	103	108	96	102	102	102
6002	26273	107	115	101	108	108	108
6004	26263	117	122	109	116	116	116
6005	25796	113	116	103	110	111	111
6007	WGL 14 (NC)	112	115	100	108	109	109
6008	26227	106	117	99	108	107	107
6010	DRRH-3 (HC)	103	111	101	106	105	105
6012	26267	111	125	107	116	114	114
6013	25804	108	110	102	106	107	107
6014	25795	99	108	94	101	100	100
6016	25793	99	105	91	98	98	98
6018	Zonal Check (ZC)	110	115	101	108	109	109
6019	25798	92	99	83	91	92	92
6022	26269	108	115	101	108	108	108
6023	BPT 5204 (NC)	114	121	106	114	114	114
6024	25802	106	113	106	109	108	108
6026	Local Check	119	116	106	111	113	113
	Exp Mean	108	114	100	107	107	107
	C.D. 5%	2	2	1	1	1	1
	C.V.%	0.88	0.85	0.55	0.79	0.77	0.75

Table No. 6.9 contd: Days to 50% Flowering of entries in AVT 1- MS ZONE 6 Kharif 2017

Entry No.	IET No.	VI						Zone VI (4)	Overall (4)
		MH	MH	MH (2)	GU	GU	GU (2)		
		KJT	SHR	Mean	NWG	NVS	Mean	Mean	Mean
6001	25800	104	88	96	106	100	103	99	99
6004	26263	117	101	109	120	102	111	110	110
6005	25796	111	93	102	112	110	111	107	107
6007	WGL 14 (NC)	108	90	99	115	110	112	106	106
6008	26227	108	91	99	102	102	102	101	101
6010	DRRH-3 (HC)	103	81	92	108	97	102	97	97
6012	26267	109	97	103	118	100	109	106	106
6013	25804	107	79	93	109	98	104	98	98
6014	25795	98	83	91	101	99	100	95	95
6016	25793	96	75	86	105	96	100	93	93
6018	Zonal Check (ZC)	93	77	85	88	90	89	87	87
6019	25798	117	78	98	102	89	95	96	96
6020	26274	106	86	96	110	99	104	100	100
6023	BPT 5204 (NC)	110	92	101	119	111	115	108	108
6024	25802	108	88	98	101	95	98	98	98
6026	Local Check	95	94	94	105	91	98	96	96
	Exp Mean	106	87	96	107	99	103	100	100
	C.D. 5%	2	2	1	2	2	1	1	1
	C.V.%	1.04	1.15	1.09	1.08	1.46	1.25	1.18	1.16

Table No. 6.9 contd : Days to 50% Flowering of entries in AVT 1- MS ZONE 7 Kharif 2017

Entry No.	IET No.	VII															Zone VII (11)	Overall (11)
		A.P.	A.P.	A.P.	A.P. (3)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KA	KA	KA	KA (3)		
		MTU	NLR	BPT	Mean	WGL	RNR	KNM	Mean	CBT	ADT	Mean	MND	MGD	GNV	Mean	Mean	Mean
6001	25800	101	101	92	98	101	105	107	105	100	93	97	99	119	109	109	102	102
6004	26263	115	111	93	106	114	118	119	117	105	102	103	97	124	122	114	111	111
6005	25796	110	105	92	102	105	110	114	110	105	98	102	100	125	115	113	107	107
6007	WGL 14 (NC)	107	101	89	99	104	109	110	108	104	97	101	100	126	120	115	106	106
6008	26227	106	103	93	101	101	109	113	107	105	100	103	101	127	120	116	107	107
6009	26231	114	107	91	104	112	112	110	111	107	99	103	103	125	122	117	109	109
6010	DRRH-3 (HC)		98	94	96	97	100	107	101	94	96	95	90	116	114	107	101	101
6012	26267	114	106	92	104	114	115	123	117	103	98	101	97	123	123	114	110	110
6013	25804	107	108	94	103	101	90	108	100	103	94	98	100	121	115	112	104	104
6014	25795	98	103	86	96	98	97	105	100	100	92	96	88	124	115	109	101	101
6017	26275	110	105	97	104	110	112	119	113	101	97	99	92	126	120	113	108	108
6018	Zonal Check (ZC)	108	108	90	102	110	111	110	110	106	100	103	94	120	119	111	107	107
6019	25798	87	95	92	92	91	96	105	97	93	83	88	84	124	98	102	95	95
6023	BPT 5204 (NC)	113	109	91	104	108	110	120	113	106	100	103	102	131	115	116	110	110
6024	25802	88	97	92	92	99	103	108	103	100	97	99	101	105	116	107	101	101
6026	Local Check	114	94	96	101	104	103	97	101	105	105	105	96	130	115	114	105	105
	Exp Mean	106	103	92	100	104	106	111	107	102	97	100	97	123	116	112	105	105
	C.D. 5%	2	2	3	2	2	2	1	1	2	4	2	5	1	3	2	1	1
	C.V.%	1.35	1.39	2.19	1.64	1.12	1.12	0.39	0.92	1.03	2.58	1.89	2.91	0.26	1.51	1.69	1.53	1.47

Table No. 6.10 : Plant Height (cm) of entries in AVT 1-MS ZONE 3 Kharif 2017

Entry No.	IET No.	III						Zone III (4)	Overall (4)
		OD	OD	OD (2)	U.P.	U.P.	U.P. (2)		
		CTK	JYP	Mean	MSD	VRN	Mean		
6001	25800	124	87	105	95	126	111	108	108
6002	26273	114	78	96	82	113	97	97	97
6003	26219	98	88	93	94	125	109	101	101
6004	26263	117	92	105	83	124	104	104	104
6005	25796	93	92	92	84	134	109	101	101
6006	26258	117	77	97	55	108	81	89	89
6007	WGL 14 (NC)	106	92	99	90	129	110	104	104
6008	26227	125	96	111	80	128	104	107	107
6010	DRRH-3 (HC)	118	87	102	107	129	118	110	110
6011	26243	113	93	103	102	125	113	108	108
6012	26267	123	93	108	83	127	105	106	106
6013	25804	115	92	104	90	127	109	106	106
6014	25795	98	93	96	110	144	127	111	111
6015	26218	121	90	105				105	105
6016	25793	113	90	101	92	129	111	106	106
6018	Zonal Check (ZC)	95	79	87	72	107	90	88	88
6019	25798	107	90	99	100	121	110	104	104
6020	26274	93	80	86	75	118	96	91	91
6021	26222	113	92	102	90	108	99	101	101
6023	BPT 5204 (NC)	115	75	95	85	111	98	96	96
6024	25802	113	99	106	92	143	117	112	112
6025	26244	109	98	103		133	133	113	113
6026	Local Check	117	90	103	75	112	94	99	99
	Exp Mean	111	89	100	87	124	106	103	103
	C.D. 5%		0		0				
	C.V.%		0.00		0.00				

Table No. 6.10 contd: Plant Height (cm) of entries in AVT 1-MS ZONE 5 Kharif 2017

Entry No.	IET No.	V				Zone V (3)	Overall (3)
		CG	MH	MH	MH (2)		
		RPR	SND	SKL	Mean		
6001	25800	115	112	114	113	113	113
6002	26273	99	88	91	89	93	93
6004	26263	116	119	102	111	112	112
6005	25796	114	123	110	117	116	116
6007	WGL 14 (NC)	118	123	113	118	118	118
6008	26227	121	124	122	123	122	122
6010	DRRH-3 (HC)	121	118	87	103	109	109
6012	26267	124	114	115	115	118	118
6013	25804	116	119	89	104	108	108
6014	25795	138	118	97	108	118	118
6016	25793	115	98	110	104	108	108
6018	Zonal Check (ZC)	105	103	95	99	101	101
6019	25798	110	106	113	110	110	110
6022	26269	159	182	141	161	161	161
6023	BPT 5204 (NC)	105	97	90	94	97	97
6024	25802	131	127	100	113	119	119
6026	Local Check	158	104	112	108	125	125
	Exp Mean	121	116	106	111	115	115
	C.D. 5%		0	0	0		
	C.V.%		0.00	0.00	0.00		

Table No. 6.10 contd : Plant Height (cm) of entries in AVT 1-MS ZONE 6 Kharif 2017

Entry No.	IET No.	VI						Zone VI (4)	Overall (4)
		MH KJT	MH SHR	MH (2) Mean	GU NWG	GU NVS	GU (2) Mean		
6001	25800	115	115	115	114	130	122	118	118
6004	26263	122	113	117	113	125	119	118	118
6005	25796	112	114	113	111	119	115	114	114
6007	WGL 14 (NC)	122	120	121	97	123	110	115	115
6008	26227	117	115	116	112	128	120	118	118
6010	DRRH-3 (HC)	121	116	119	117	128	122	121	121
6012	26267	120	110	115	96	134	115	115	115
6013	25804	115	113	114	102	121	112	113	113
6014	25795	120	123	122	129	129	129	125	125
6016	25793	114	104	109	117	141	129	119	119
6018	Zonal Check (ZC)	107	96	101	89	100	95	98	98
6019	25798	95	104	99	102	119	111	105	105
6020	26274	97	105	101	110	111	110	106	106
6023	BPT 5204 (NC)	104	96	100	98	117	108	104	104
6024	25802	123	114	119	125	143	134	126	126
6026	Local Check	119	109	114	113	107	110	112	112
	Exp Mean	114	110	112	109	123	116	114	114
	C.D. 5%	0	0	0					
	C.V.%	0.00	0.00	0.00					

Table No. 6.10 contd : Plant Height (cm) of entries in AVT 1-MS ZONE 6 Kharif 2017

Entry No.	IET No.	VII														Zone VII (11)	Overall (11)	
		A.P.	A.P.	A.P.	A.P. (3)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KA	KA	KA			KA (3)
		MTU	NLR	BPT	Mean	WGL	RNR	KNM	Mean	CBT	ADT	Mean	MND	MGD	GNV			Mean
6001	25800	125	85	117	109	120	114	112	115	102	100	101	84	86	102	90	104	104
6004	26263	116	82	115	104	121	106	104	110	97	103	100	86	81	102	90	101	101
6005	25796	129	81	130	113	123	109	107	113	101	108	105	81	76	94	83	103	103
6007	WGL 14 (NC)	134	78	130	114	121	105	112	113	98	106	102	80	73	95	83	103	103
6008	26227	127	84	89	100	121	106	116	114	99	108	104	86	81	104	90	102	102
6009	26231	145	89	120	118	134	143	136	138	113	118	115	93	87	118	100	118	118
6010	DRRH-3 (HC)		81	118	99	119	107	109	112	104	104	104	82	76	101	86	100	100
6012	26267	115	85	106	102	121	108	105	111	102	115	108	88	84	103	91	103	103
6013	25804	125	82	130	112	119	106	106	110	107	105	106	74	77	91	80	102	102
6014	25795	135	92	109	112	134	113	118	121	99	119	109	92	86	113	97	110	110
6017	26275	126	72	113	104	118	102	86	102	91	95	93	74	76	88	79	95	95
6018	Zonal Check (ZC)	118	83	107	103	113	105	103	107	91	106	98	83	77	90	83	98	98
6019	25798	118	78	107	101	109	105	110	108	86	90	88	73	79	90	81	95	95
6023	BPT 5204 (NC)	113	66	116	98	108	100	97	102	86	85	86	65	66	83	71	90	90
6024	25802	137	92	117	115	123	104	129	119	106	110	108	89	72	104	88	107	107
6026	Local Check	105	62	89	85	120	111	123	118	103	112	108	82	100	94	92	100	100
	Exp Mean	124	81	113	106	120	109	111	113	99	105	102	82	80	98	87	102	102
	C.D. 5%		0			0				0	0		0					
	C.V. %		0.00			0.00				0.00	0.00		0.00					

Table No. 6.11 : Panicles/ M² of entries in AVT 1-MS ZONE 3 Kharif 2017

Entry No.	IET No.	III						Zone III (4)	Overall (4)
		OD CTK	OD JYP	OD (2) Mean	U.P. MSD	U.P. VRN	U.P. (2) Mean		
6001	25800	197	273	235	302	337	319	277	277
6002	26273	231	215	223	260	281	270	247	247
6003	26219	215	280	247	284	308	296	272	272
6004	26263	215	253	234	257	302	279	257	257
6005	25796	207	251	229	303	300	302	265	265
6006	26258	250	262	256	267	330	298	277	277
6007	WGL 14 (NC)	287	284	285	294	316	305	295	295
6008	26227	267	280	273	240	310	275	274	274
6010	DRRH-3 (HC)	224	260	242	272	224	248	245	245
6011	26243	248	233	241	287	257	272	256	256
6012	26267	201	251	226	282	245	263	245	245
6013	25804	281	246	264	297	261	279	272	272
6014	25795	258	244	251	307	304	305	278	278
6015	26218	270	231	250				250	250
6016	25793	275	233	254	297	354	326	290	290
6018	Zonal Check (ZC)	269	213	241	270	319	295	268	268
6019	25798	256	222	239	306	287	297	268	268
6020	26274	360	258	309	302	277	290	299	299
6021	26222	214	280	247	282	267	274	261	261
6023	BPT 5204 (NC)	240	273	257	267	359	313	285	285
6024	25802	248	231	239	256	270	263	251	251
6025	26244	304	258	281		284	284	282	282
6026	Local Check	257	280	268	290	303	297	283	283
	Exp Mean	251	253	252	282	295	289	270	270
	C.D. 5%	50	47	36	27	13	14	18	14
	C.V.%	12.05	11.37	12.45	5.73	2.64	4.15	8.34	6.47

Table No. 6.11 contd : Panicles/ M² of entries in AVT 1-MS ZONE 4 Kharif 2017

Entry No.	IET No.	IV		Zone IV (2)	Overall (2)
		AS	TR		
		GER	ARD	Mean	Mean
6001	25800	235	288	262	262
6004	26263	201	289	245	245
6005	25796	221	312	266	266
6007	WGL 14 (NC)	193	308	251	251
6008	26227	208	314	261	261
6010	DRRH-3 (HC)	185	316	250	250
6012	26267	185	312	249	249
6013	25804	195	322	259	259
6014	25795	202	296	249	249
6018	Zonal Check (ZC)	246	274	260	260
6019	25798	199	286	242	242
6023	BPT 5204 (NC)	253	258	256	256
6024	25802	182	247	215	215
6026	Local Check	280	282	281	281
	Exp Mean	213	293	253	253
	C.D. 5%	47	41	31	27
	C.V.%	13.16	8.41	10.69	9.31

Table No 6.11 contd : Panicles/ M² of entries in AVT 1-MS ZONE 5 Kharif 2017

Entry No.	IET No.	V				Zone V (3)	Overall (3)
		CG	MH	MH	MH (2)		
		RPR	SND	SKL	Mean	Mean	Mean
6001	25800	218	304	268	286	263	263
6002	26273	186	198	264	231	216	216
6004	26263	193	227	218	222	213	213
6005	25796	214	264	236	250	238	238
6007	WGL 14 (NC)	206	240	224	232	224	224
6008	26227	205	282	226	254	238	238
6010	DRRH-3 (HC)	158	163	160	161	160	160
6012	26267	195	205	224	214	208	208
6013	25804	199	193	233	213	208	208
6014	25795	203	186	225	206	205	205
6016	25793	201	317	265	291	261	261
6018	Zonal Check (ZC)	196	260	264	262	240	240
6019	25798	193	307	216	262	239	239
6022	26269	166	194	225	210	195	195
6023	BPT 5204 (NC)	214	272	220	246	235	235
6024	25802	166	204	247	225	206	206
6026	Local Check	202	276	279	278	252	252
	Exp Mean	195	241	235	238	224	224
	C.D. 5%	19	25	35	21	15	14
	C.V.%	5.85	6.30	8.98	7.64	7.19	6.84

Table No. 6.11 contd : Panicles/ M² of entries in AVT 1-MS ZONE 6 Kharif 2017

Entry No.	IET No.	VI						Zone VI (4)	Overall (4)
		MH	MH	MH (2)	GU	GU	GU (2)		
		KJT	SHR	Mean	NWG	NVS	Mean	Mean	Mean
6001	25800	249	181	215	293	221	257	236	236
6004	26263	234	206	220	289	215	252	236	236
6005	25796	236	172	204	290	186	238	221	221
6007	WGL 14 (NC)	251	195	223	281	201	241	232	232
6008	26227	232	182	207	291	199	245	226	226
6010	DRRH-3 (HC)	225	181	203	291	194	242	223	223
6012	26267	252	217	234	282	205	243	239	239
6013	25804	214	139	176	282	209	246	211	211
6014	25795	214	220	217	279	200	240	228	228
6016	25793	238	214	226	282	173	228	227	227
6018	Zonal Check (ZC)	216	186	201	262	187	225	213	213
6019	25798	249	234	242	283	243	263	252	252
6020	26274	212	181	196	273	192	232	214	214
6023	BPT 5204 (NC)	243	221	232	268	173	221	226	226
6024	25802	197	183	190	283	186	235	212	212
6026	Local Check	280	193	236	286	194	240	238	238
	Exp Mean	234	194	214	282	199	240	227	227
	C.D. 5%	21	20	16	8	7	8	8	3
	C.V.%	5.29	6.22	6.54	1.62	2.16	2.73	4.25	1.87

Table No. 6.11 contd : Panicles/ M² of entries in AVT 1-MS ZONE 7 Kharif 2017

Entry No.	IET No.	VII															Zone VII	Overall
		A.P.	A.P.	A.P.	A.P. (3)	TEL	TEL	TEL	TEL (3)	TN	TN	TN (2)	KA	KA	KA	KA (3)	(11)	(11)
		MTU	NLR	BPT	Mean	WGL	RNR	KNM	Mean	CBT	ADT	Mean	MND	MGD	GNV	Mean	Mean	Mean
6001	25800	282	483	275	347	354	526	191	357	432	389	411	415	354	569	446	388	388
6004	26263	304	478	288	357	365	508	191	355	358	354	356	460	287	490	412	371	371
6005	25796	310	520	277	369	366	507	150	341	365	334	349	390	245	512	382	361	361
6007	WGL 14 (NC)	279	467	304	350	363	479	154	332	363	367	365	385	326	565	425	368	368
6008	26227	306	418	324	349	365	493	176	345	422	399	411	425	326	498	416	377	377
6009	26231	268	420	326	338	378	554	145	359	408	331	370	430	266	559	418	372	372
6010	DRRH-3 (HC)		362	269	316	372	503	136	337	417	322	369	395	336	538	423	365	365
6012	26267	269	580	328	392	355	507	145	336	353	421	387	415	301	563	426	385	385
6013	25804	268	406	304	326	350	493	180	341	435	313	374	390	375	489	418	364	364
6014	25795	273	371	266	304	371	538	134	348	435	411	423	440	242	550	441	366	366
6017	26275	293	387	233	304	388	551	163	367	463	390	427	375	270	474	373	362	362
6018	Zonal Check (ZC)	315	357	268	313	364	462	158	328	413	399	406	395	266	566	409	360	360
6019	25798	301	493	353	382	351	512	213	359	360	443	402	380	291	577	416	388	388
6023	BPT 5204 (NC)	308	398	255	320	371	480	196	349	362	398	380	375	273	562	403	362	362
6024	25802	259	389	328	325	362	493	176	344	348	312	330	425	336	568	443	363	363
6026	Local Check	308	336	381	341	367	488	174	343	487	356	421	395	326	585	435	382	382
	Exp Mean	289	429	299	340	365	506	168	346	401	371	386	406	301	541	416	371	371
	C.D. 5%	36	101	59	41	18	44	18	18	32	76	35	24	65	26	25	16	16
	C.V.%	7.51	14.18	11.82	12.77	2.96	5.23	6.34	5.45	4.72	12.35	7.85	3.54	12.93	2.93	6.41	8.72	8.66

Table No. 6.12: Grain quality characteristics of entries in AVT 1-MS, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	Aroma
6001	25800	76.6	66.9	61.1	5.15	1.93	2.66	MS	VOC	4.6	190	9.3	1.8	4.0	20.5	22	NS
6002	26273	77.5	64.4	55.9	4.87	1.94	2.51	MS	VOC	5.3	225	7.4	1.51	4.0	27.01	34	NS
6003	26219	78.1	69.7	68.2	5.26	1.73	3.04	SS	A	4.7	190	9.9	1.88	4.0	23.78	44	NS
6004	26263	78.2	71.0	68.7	5.68	2.05	2.77	MS	A	4.4	210	10.5	1.84	5.0	24.37	22	NS
6005	25796	79.8	67.7	63.0	5.10	1.92	2.65	MS	VOC	4.8	170	10.1	1.98	4.0	24.87	22	NS
6006	26258	78.7	68.7	61.4	4.81	1.78	2.70	MS	A	4.2	200	8.1	1.68	5.0	25.43	30	NS
6007	WGL-14	79.1	70.2	66.7	5.19	1.87	2.77	MS	A	4.2	165	9.9	1.9	4.0	24.49	22	NS
6008	26227	79.2	70.6	69.5	5.72	2.10	2.72	MS	A	4.7	145	11	1.92	4.0	24.9	22	NS
6009	26231	77.0	67.3	54.0	4.92	1.89	2.60	MS	VOC	5.3	250	7.8	1.58	7.0	23.43	42	NS
6010	DRRH-3	79.2	68.8	63.2	5.24	2.02	2.59	MS	VOC	4.8	210	9.9	1.88	4.0	24.05	22	NS
6011	26243	79.2	68.6	63.0	5.19	1.85	2.80	MS	VOC	5.6	195	9.5	1.83	4.0	24.49	22	NS
6012	26267	79.7	70.1	68.2	5.58	2.05	2.72	MS	VOC	4.7	230	10.4	1.86	5.0	26.72	22	NS
6013	25804	80.3	70.7	64.9	5.20	1.90	2.73	MS	VOC	4.8	165	10.6	2.03	4.0	21.73	50	NS
6014	25795	80.1	69.4	63.4	5.39	2.09	2.57	MS	VOC	4.1	260	11.1	2.05	7.0	24.28	22	MS
6015	26218	77.1	67.0	56.7	5.00	1.81	2.76	MS	A	4.2	190	8.4	1.68	5.0	24.87	24	NS
6016	25793	79.5	70.9	58.8	5.23	1.91	2.73	MS	VOC	4.1	305	9	1.72	5.0	24.22	56	NS
6017	26275	80.0	67.2	61.2	5.12	1.81	2.82	MS	VOC	4.8	285	8.9	1.73	4.0	25.54	48	NS
6018	ADT-49	75.6	68.5	64.6	4.88	1.81	2.69	MS	VOC	4.7	205	8.8	1.8	7.0	19.8	40	NS
6019	25798	79.5	70.1	68.0	5.71	2.00	2.85	MS	VOC	4.7	245	10.5	1.83	4.0	25.84	55	NS
6020	26274	75.9	67.5	53.6	5.09	2.01	2.53	MS	3	4	190	7.9	1.55	4.0	25.28	49	NS
6021	26222	79.8	69.8	65.2	4.97	1.88	2.64	MS	VOC	4.7	180	8.6	1.73	5.0	24.4	22	NS
6022	26269	77.7	70.4	66.8	5.75	2.05	2.80	MS	VOC	5.4	240	10.3	1.79	7.0	25.78	22	NS
6023	BPT 5204	78.5	70.1	65.6	5.02	2.09	2.75	MS	A	5.6	165	8.7	1.73	5.0	24.11	22	NS
6024	25802	80.9	71.7	65.8	5.65	1.82	2.70	MS	VOC	5	220	11.3	2	7.0	24.28	35	NS
6025	26244	79.0	70.0	67.4	5.19	1.91	2.71	MS	VOC	4.2	225	9.3	1.75	5.0	21.44	50	NS

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No 6.13: Composition of entries in Initial Variety Trial –Medium Slender Grain (IVT-MS), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st year of testing:				
6101	27095	OR 2525-4	RP 2525-1476 / IR64	LS
6102	27096	BPT 2776	BPT 2231 / NLR 145	MS
6103	27097	ACK 13005	IR 68890 / Norungan	SB
6104	27098	RP 6112-MS-17-55-3-2-3-4-3-2	BPT 5204 Mutant	MS
6105	27099	JGL 27058	JGL 11470 / BPT 5204	MS
6106	27100	BARC KKV 13	PB 1 Mutant / PB 1	MS
6107	27101	RP 4926-126-85-74-35-21	Swarna / RAU 3041	SB
6108	27102	KNM 4073	JGL 18047 / IR 8222-851 // MTU 1075	MS
6109	27103	MTU 1260	(MTU 2077 / NLR 3042) / MTU 1081	MS
6110	27104	NWGR-13140	GAUR-100 / IR-64	MS
6111	27105	CR4040-1-4-1-3-1	Pooja / CR3697-4-2-4-1-5	MS
6112	27106	PUR-MS-K-46-2	Satabdi / BR 28	MS
6113	27107	RNR 21278	RNR 2465 / NLR 34449	MS
6114	27108	CB 14161	CO 43 / CB 05501	SB
6115	27109	RP 5992-5-3-12-5-3-22-8	RPHR 1005 / RPBio patho 2	MS
6116	27110	R 2053-192-2-135-1	R 1033-2559-1-1 / HUR SG 4-6	SB
6117	WGL 14 (NC)			
6118	27111	RTN 1107-2-4-2-3-6	MO-6 / Palghar 2	SB
6119	27112	CR 3516-11-2-1-1	Birupa / Pusa 44	MS
6120	27113	RP 6112-MS-M93-55-2-3-4-3-2-55	BPT 5204 Mutant	MS
6121	27114	AD 12180	I.W.Ponni / Kalajoha	MS
6122	27115	RP 5440-185-7-2-3-1	IR 64 / IR 155179-313-11-3-9	SB
6123	27116	KNM 3457	JGL 18799 / NLR 34449	MS
6124	27117	ORJ 1135	RR 615 Mutant	SB
6125	27118	MTU 1263	CMS 42B / IR 68897B	MS
6126	27119	Pusa 5001-8-3-4	SYE 131-16-11-12 / BPT 5204	MS
6127	27120	CB 13132	CO (R) 49 / KJTCMS 4B	MS
6128	BPT 5204 (NC)			
6129	27121	CR3589-1-4-1-1-1-1	Satabdi / Annapurna	MS
6130	27122	RNR 23646	WGL -14 / MTU 1081	SS
6131	27123	RP 6112-MS-128-5-2-3-1-4-5	BPT 5204 Mutant	MS
6132	27124	BPT 2782	NLR 145 / MTU 2077	MS
6133	27125	RP 4926-64-16-1-1-1-2-1	Swarna / RAU 3041	SB
6134	27126	JGL 27356	JGL 11470 / GP 295	SS
6135	27127	ORJ 1341(TP 30439)	IIRON 42 ENT.26	LB
6136	27128	MTU 1270	BPT 5204 / MTU 1075	MS
6137	27129	CR3697-1-4-2-3-2	CR662-2-2-1-1-1 / Sarala // CR 780-1937-1-3 / DRR1702	MS
6138	27130	CB 14156	CO 43 / BPT 5204	SB
6139	27131	RP-6162-66-10-10-24	DRR 17B / RP Bio patho 1 / RP bio Patho 2	MS
6140	27132	KJT-20-1-7-14-9	PNL 1 / Sonam	MS
6141	27133	TRC-2017-23	CT 993-5-10-1-M/2 / Samba Mahsuri	MS
6142	Improved Samba Mahsuri (Northern, Eastern & Central), Ketekijoha (North Eastern), Karjat-6 (Western), ADT-49 (Southern)—ZC			
6143	27134	RP 6165-GSY-28	OPV of Improved Samba Mahsuri	MS
6144	27135	R 1607-321-1-34-1	SR 12 (IR 71703-221-1-5-2) / Chinni Kapoor	SB
6145	27136	CR3783-3-2-1-1-1-1	Surendra / Abhaya	MS
6146	27137	RP 6112-MS-50-3-2-3-4-3-2	BPT 5204 Mutant	MS
6147	27138	ACK 14004	IR 8 / ASD 16	MS
6148	27139	RP 6124-1005-18-24-1-2-16-8-20-1-167	RP HR1005 // RP Bio Patho-2 / FBR-1-15 / Abhaya	MS
6149	27140	MTU 1251	MTU 7029 / MTU 1121	MS
6150	27141	KMP-223	BPT 5204 / Pushpa	MS
6151	27142	CR-3938-2-2-1-1-1-4-1	IR 73907-753-2-3 / Pratiksha	LS
6152	27143	RP 5977-MS-16-1-7-2-3-1-2-8	BPT 5204 Mutant	MS
6153	27144	PNP-58	NPG-3 / NPG-26	MS
6154	27145	RP-6162-121-60-38-2	DRR 17B / RPBio patho 1 / RP bio Patho 2	MS
6155	27146	TRC-2017-22	CT 993-5-10-1-M/2 / Samba Mahsuri	MS
6156	27147	CR 3941-4-2-2-1	Sambamahsuri / Wita 12	MS
6157	27148	RTN 1116-4-3-8-2-9	RTN 50-1-1-1 / SYE 13-9-23-23	MS

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Entry No.	IET No.	Designation	Cross Combination	Grain Type
6158	27149	KJT-5-4-14-9-4	PNL 1 / Sonam	MS
6159	Local Check			
6160	27150	AD 13116	ADT 49 / CR 1009	MS
6161	27151	MTU 1262	(BPT 5204 / NLR 34449) / MTU 1075	MS
6162	27152	JGL 27015	JGL 1172 / JGL 17004	SB
6163	27153	PUR-MS-K-110	Pusa Basmati-1 / MTU 1010	MS
6164	27154	RP 6125-1005-1-18-32-11-45-105-3-208	RPHR 1005// RP Bio Patho-2 / Abhaya / Aganni	MS

Table No. 6.14 : Grain Yield (Kg/ha) of entries in IVT -MS Kharif 2017

Entry No.	IET No.	III						Zone III (4)	
		OD	OD	OD (2)		BI	U.P.	Mean	
		CTK	JYP	Mean		PSA	MSD		
6101	27095	5013	5214	5113	7%	5469	4588	5071	1%
6102	27096	3509	4701	4105		4018		4076	
6103	27097	6015 7	3109	4562		4911	6755 1 *	5198	4%
6104	27098	3008	4498	3753		5246		4250	
6105	27099	4511	3002	3757		5692 7	6616 3 *	4955	
6106	27100	2256	3109	2682		5692 8	4039	3774	
6107	27101	4135	4776	4455		5022	3690	4406	
6108	27102	3008	2425	2716		4464	5173	3767	
6109	27103	5263	5951 3 *	5607	4 * 17%	3237		4817	
6110	27104	5602	3034	4318		4911	4953	4625	
6111	27105	4762	5534 7	5148	8%	5134		5143	2%
6112	27106	2381	3483	2932		5134	4122	3780	
6113	27107	5388	2158	3773		5580	3930	4264	
6114	27108	3822	3868	3845		4799		4163	
6115	27109	4649	3344	3997		4464	3251	3927	
6116	27110	4261	5053	4657		5469	4960	4936	
6117	WGL 14 (NC)	5702	3857	4779		4911	5608	5019	
6118	27111	5639	3259	4449		5022	2952	4218	
6119	27112	3133	5577 5	4355		5580	6416 5 *	5177	3%
6120	27113	6454 5	3152	4803		5580	6632 2 *	5455 5	9%
6121	27114	4825	5513 9	5169	8%	5134	5851	5331 8	6%
6122	27115	6491 4	4626	5559 5 *	16%	5246	3823	5046	1%
6123	27116	4637	3259	3948		3795	6150 9 *	4460	
6124	27117	4511	4797	4654		5580	5372	5065	1%
6125	27118	5138	6410 1 *	5774 3 *	21%	5022		5523 4	10%
6126	27119	4261	3066	3663		5246	4189	4190	
6127	27120	3947	4573	4260		3906		4142	
6128	BPT 5204 (NC)	5388	3536	4462		5915 3	4727	4892	
6129	27121	4323	5684 4	5004	5%	6138 1	4255	5100	2%
6130	27122	5075	3835	4455		5469	4624	4751	
6131	27123	5075	3942	4509		4018	6323 6 *	4840	
6132	27124	6015 8	4947	5481 7 *	15%	3571		4844	
6133	27125	4887	5534 8	5211	9%	5692 9	6097	5553 3	11%
6134	27126	4261	2650	3455		3683	6303 7 *	4224	
6135	27127	5764	4209	4987	4%	5804 5	4501	5070	1%
6136	27128	4198	5545 6	4871	2%	5580	4076	4850	
6137	27129	5514	3344	4429		4799	3989	4412	
6138	27130	5263	2821	4042		3906		3997	
6139	27131	6642 2	4060	5351 8	12%	4129	4608	4860	
6140	27132	5576	3910	4743		3348	5785	4655	
6141	27133	5639	2735	4187		4129	2959	3866	
6142	Zonal Check (ZC)	3183	5053	4118		5022	3484	4186	
6143	27134	5639	3878	4759		5357	3029	4476	
6144	27135	3358	5342	4350		6138 2	2945	4446	
6145	27136	5827 9	5139	5483 6 *	15%	5915 4	6031	5728 1 *	14%
6146	27137	5576	2821	4198		5692	6449 4 *	5135	2%
6147	27138	5388	3419	4404		5246	6184 8 *	5059	1%
6148	27139	5514	3846	4680		5357	5552	5067	1%
6149	27140	4361	4188	4274		4241		4263	
6150	27141	5301	4957	5129	7%	5580	5705	5386 6	7%
6151	27142	5702	4829	5265	10%	5022	4139	4923	
6152	27143	6642 3	6293 2 *	6467 1 *	35%	5469	4275	5670 2 *	13%
6153	27144	5514	3408	4461		5692	4887	4875	
6154	27145	7769 1 *	4797	6283 2 *	31%	5804 6	3059	5357 7	7%
6155	27146	3634	3729	3681		5580	2879	3956	
6156	27147	3446	2831	3139		4353	5891	4130	
6157	27148	3045	3216	3130		5022	3441	3681	
6158	27149	6454 6	4156	5305 9	11%	4911	5652	5293 9	5%
6159	Local Check	4637	4562	4599		4688	5588	4869	
6160	27150	4762	4060	4411		5134		4652	
6161	27151	2757	4765	3761		3237		3586	
6162	27152	4135	5449	4792		4576	5233	4848	
6163	27153	2632	2650	2641		4018	3438	3184	
6164	27154	2569	4060	3314		4911	3225	3691	
	Exp Mean	4747	4149	4448		4960	4777	4652	
	C.D. 5%	1088	835	678		1930	536	609	
	C.V. %	11.47	10.08	10.89		19.47	5.58	13.28	
	Sowing Date	23-06-2017	01-07-2017			23-06-2017	01-07-2017		
	Planting Date	26-08-2017	06-08-2017			22-07-2017	30-07-2017		
	Local @	CR dhan-907	Pratikshya			BPT 5204	Samba Sub-1		

* Superior to Best Check % Superior over Best Check @ not included in means

Table No. 6.14 contd : Grain Yield (Kg/ha) of entries in IVT -MS Kharif 2017

Entry No.	IET No.	V			Zone V (2)		VI		
		CG	MH	MH			MH	MH	MH (2)
		RPR	@SND	SKL	Mean		@KJT	SHR	Mean
6101	27095	5328	1719	4949	5138	9%	4213	4800	4874
6102	27096			1995	1995		4189	2656	2325
6103	27097	5415	2173	4118	4767	1%	7363	3322	3720
6104	27098	4540	2457	4118	4329		4595	3656	3887
6105	27099	3931	1967	4015	3973		4108	3089	3552
6106	27100	6422	2585	4846	5634	8 * 20%	4533	4889	4867
6107	27101	6135	2464	5264	5699	6 * 21%	5699	4200	4732
6108	27102	6040	4084	4286	5163	10%	5147	4233	4260
6109	27103	6217	2031	5547	5882	4 * 25%	3442	6422	5985
6110	27104	4575	1811	3674	4125		4175	2444	3059
6111	27105	2380	462	2638	2509		5171	3167	2903
6112	27106	3563	1030	4106	3834		5683	3622	3864
6113	27107	1966	547	3719	2843		2850	2400	3060
6114	27108	6322	1307	3694	5008	6%	3361	6011	4852
6115	27109	5069	2116	5206	5137	9%	3743	4600	4903
6116	27110	7163	3089	5959	6561	1 * 39%	6397	3789	4874
6117	WGL 14 (NC)	5197	3232	4228	4712		4157	2878	3553
6118	27111	4992	1108	3623	4308		5983	3867	3745
6119	27112	5796	2166	5579	5687	7 * 21%	6186	3878	4728
6120	27113	4635	2841	3912	4274		3670	3100	3506
6121	27114	4890	2330	4459	4675		2492	3756	4108
6122	27115	4688	2706	5431	5059	7%	4352	4056	4743
6123	27116	4003	1783	4118	4061		4002	3411	3765
6124	27117	6907	2358	5431	6169	2 * 31%	4977	4478	4954
6125	27118	7485	4119	3732	5609	9 * 19%	3856	3378	3555
6126	27119	5310	2188	2986	4148		3453	5200	4093
6127	27120	4443	1357	2876	3660		3656	3233	3055
6128	BPT 5204 (NC)	5229	2926	3610	4419		3564	4111	3861
6129	27121	4857	3963	4221	4539		6292	4633	4427
6130	27122	2540	1314	4196	3368		4654	6978	5587
6131	27123	4220	1207	4852	4536		3621	5844	5348
6132	27124	5397	2408	3623	4510		2614	5156	4389
6133	27125	5973	3416	2806	4389		4806	2622	2714
6134	27126	4395	2536	3919	4157		2606	4444	4182
6135	27127	5599	952	5393	5496	* 17%	5642	3944	4668
6136	27128	6886	3778	5309	6098	3 * 29%	5163	6689	5999
6137	27129		1364	1770	1770		4132	2889	2329
6138	27130	5672	2472	3160	4416		3135	6433	4796
6139	27131	4355	2301	3205	3780		5504	2111	2658
6140	27132	4165	2031	4897	4531		5602	7500	6199
6141	27133	5393	2330		5393	14%	4019	3056	3056
6142	Zonal Check (Z)	4828	2955	3288	4058		2509	6744	5016
6143	27134	5375	2152	3784	4579		4230	3500	3642
6144	27135	5559	2472	5174	5366	14%	3970	4122	4648
6145	27136	5740	916	5296	5518	* 17%	4254	3811	4554
6146	27137	4530	1392	3810	4170		4270	1989	2899
6147	27138	2880	1016	4414	3647		6048	6889	5652
6148	27139	3271	1300	4151	3711		4490	3911	4031
6149	27140	5723	1889	2239	3981		4224	6644	4442
6150	27141	2475	1449	3777	3126		4749	7422	5600
6151	27142	6742	2088	4710	5726	5 * 22%	5228	4211	4461
6152	27143	4457	1001	4936	4696		4449	4500	4718
6153	27144	4858	2088	3912	4385		2841	1878	2895
6154	27145	3570	2372	4363	3967		4376	2989	3676
6155	27146	3960	2024	2992	3476		3230	3589	3291
6156	27147	3505	1832	3977	3741		4165	3511	3744
6157	27148	5220	2287	3089	4154		4822	2700	2894
6158	27149	4104	1839	3288	3696		3840	4556	3922
6159	Local Check	3865	2308	3687	3776		5323	4622	4155
6160	27150	7058	3026	3295	5176	10%	2549	3289	3292
6161	27151	6634	1584	3320	4977	6%	4002	3589	3455
6162	27152	2750	937	3822	3286		5975	3456	3639
6163	27153	4434	568	3224	3829		3450	3589	3406
6164	27154	3508	5270	3449	3478		5342	2456	2952
Exp Mean		4889	2124	4023	4453		4393	4139	4082
C.D. 5%		1124	300	959	735		1828	1448	725
C.V.%		11.50	7.08	11.93	11.79		20.83	17.50	12.70
Sowing Date		20-06-2017	22-06-2017	19-06-2017			21-06-2017	20-06-2017	
Planting Date		18-07-2017	14-07-2017	12-07-2017			13-07-2017	06-07-2017	
Local ©		Dubraj selection 1	PKV-HMT	PDKV Kisan			Karjat 6	Karjat 6	

Table No. 6.14 contd : Grain Yield (Kg/ha) of entries in IVT -MS Kharif 2017

Entry No.	IET No.	VI			Zone VI (3)	VII		
		GU	GU	GU (2)		A.P.	A.P.	A.P. (2)
		NWG	NVS	Mean		MTU	BPT	Mean
6101	27095	5313	4532	4922	4882	4667	7971	6319
6102	27096	3229	3397	3313	3094		9460 3	9460 1 * 29%
6103	27097	3750	3346	3548	3473	4161	7596	5878
6104	27098	4271	3308	3789	3745	5748 9	5665	5707
6105	27099	5417	4519	4968	4342	4365	5698	5032
6106	27100	3229	3994	3611	4037	4952	4552	4752
6107	27101	3854	4596	4225	4217	4334	6465	5400
6108	27102	5000	5744 2	5372 9	4992	5591	8669 9	7130
6109	27103	5729	3436	4583	5196 7	5595	7576	6585
6110	27104	3125	2596	2861	2722	5885 5	7747	6816
6111	27105	4063	3974	4018	3735		5870	5870
6112	27106	4271	4237	4254	4043		7213	7213
6113	27107	3229	4397	3813	3342	5204	5244	5224
6114	27108	4896	2833	3865	4580	5326	9493 2	7410 8 1%
6115	27109	4688	3776	4232	4354	5236	7556	6396
6116	27110	4375	3288	3832	3817	5592	9229 4	7411 7 1%
6117	WGL 14 (NC)	6250 7	4429	5340	4519		7352	7352 9
6118	27111	3125	3692	3409	3561	4350	5217	4784
6119	27112	6354 6	3910	5132	4714	5122	8149	6635
6120	27113	6458 5	4673	5566 7	4744	6748 3 *	5204	5976
6121	27114	5521	4051	4786	4443	5361	6285	5823
6122	27115	5104	3981	4542	4380	4434	6996	5715
6123	27116	5521	4654	5087	4529	4408	6080	5244
6124	27117	6667 1	5167 8	5917 4	5437 5	6875 2 *	8254	7565 5 3%
6125	27118	6667 2	4564	5615 6	4870	6928 1 *	10171 1 *	8549 2 16%
6126	27119	6042	3385	4713	4875	5326	6726	6026
6127	27120	6146 8	3942	5044	4440	5880 6	8966 5	7423 6 1%
6128	BPT 5204 (NC)	5625	4077	4851	4604	4679	5264	4971
6129	27121	5417	4288	4853	4779	4734	5369	5052
6130	27122	5313	4904	5108	5731 2	5388	5856	5622
6131	27123	6146 9	3436	4791	5142 9	5059	5395	5227
6132	27124	4896	3904	4400	4652	5079	8011	6545
6133	27125	4375	3212	3793	3403	4101	6785	5443
6134	27126	3542	3917	3729	3968	5467	4513	4990
6135	27127	5417	3506	4462	4289		8511	8511 3 16%
6136	27128	6042	3801	4921	5511 3	5700	8860 6	7280
6137	27129		2885	2885	2887		5382	5382
6138	27130	3333	3417	3375	4394	5848 7	8103	6975
6139	27131	4688	4308	4498	3702		6640	6640
6140	27132	4479	4410	4445	5463 4	5150	5165	5157
6141	27133	5208	4949	5079	4404	5935 4	6574	6254
6142	Zonal Check (ZC)	4167	4474	4321	5128		5277	5277
6143	27134	5417	5571 4	5494 8	4829	5379	8505	6942
6144	27135	5833	4244	5038	4733	5292	8794 7	7043
6145	27136	6667 3	5276 7	5971 2	5251 6	5434	6502	5968
6146	27137	6146	5724 3	5935 3	4620	4065	5408	4737
6147	27138	4479	4103	4291	5157 8	4955	4144	4549
6148	27139	3229	4647	3938	3929	4787	6607	5697
6149	27140	4063	2949	3506	4552	5736	7154	6445
6150	27141	5313	6346 1 *	5829 5	6360 1 *	5327	7055	6191
6151	27142	4688	3750	4219	4216	5195	7582	6389
6152	27143	4375	4814	4595	4563	5033	6713	5873
6153	27144	6667 4	5558 5	6112 1	4701	5474	6166	5820
6154	27145	3646	3788	3717	3474	5147	5731	5439
6155	27146	4583	4763	4673	4312	5382	4697	5039
6156	27147	4792	5340 6	5066	4548	5835 8	6133	5984
6157	27148	4896	3801	4349	3799	5122	4513	4817
6158	27149	5104	4833	4969	4831	4503	5395	4949
6159	Local Check	5938	3583	4760	4714	5220	5988	5604
6160	27150	4792	5077 9	4934	4386	5730	8742 8	7236
6161	27151	4688	3141	3914	3806		7668	7668 4 4%
6162	27152	5729	4327	5028	4504	5466	6838	6152
6163	27153	4271	3429	3850	3763		7181	7181
6164	27154	3333	4314	3824	3368	4349	5553	4951
Exp Mean		4914	4176	4542	4407	5234	6784	6152
C.D. 5%		1332	1283	885	613	819	2288	1248
C.V. %		13.56	15.37	13.92	12.22	7.80	16.88	14.67
Sowing Date		27-06-2017	22-06-2017			03-07-2017	24-08-2017	
Planting Date		17-08-2017	20-07-2017			07-08-2017	26-09-2017	
Local ©		GAR-13	GNR-2			BPT 5204	BPT 5204	

Table No. 6.14 contd : Grain Yield (Kg/ha) of entries in IVT -MS Kharif 2017

Entry No.	IET No.	VII							
		TEL	TEL	TEL (1)	TN	TN	TN (2)	KA	
		WGL	@RNR	Mean	CBT	ADT	Mean	@MGD	
6101	27095	3722	6250	3722	5419	6065	5742	4998	1 *
6102	27096	3791	2949	3791	3445	4256	3851		
6103	27097	5329	5821	5329	5034	4807	4920	1151	
6104	27098	3607	4449	3607	3491	4190	3841	3295	7 *
6105	27099	5295	4558	5295	3213	4000	3606	809	
6106	27100	4487	2994	4487	3752	4369	4060	1245	
6107	27101	4487	5506	4487	4916	5565	5241	396	
6108	27102	6363	5301	6363	3828	4051	3939	2129	
6109	27103	6692	5250	6692	6764	6351	6558	10%	
6110	27104	4953	3564	4953	2438	3414	2926	853	
6111	27105	5201	1327	5201	3077	4655	3866		
6112	27106	5697	1788	5697	4458	4417	4437	1693	
6113	27107	3564	4788	3564	3284	5500	4392	1420	
6114	27108	4893	5532	4893	3281	7536	5408		
6115	27109	6282	6769	6282	6127	4756	5441		
6116	27110	7560	7705	7560	6822	6952	6887	15%	1754
6117	WGL 14 (NC)	6863	3179	6863	4430	7414	5922		
6118	27111	4825	5000	4825	4039	4137	4088	681	
6119	27112	5679	5442	5679	6861	4199	5530	634	
6120	27113	7594	5654	7594	3598	5000	4299	3001	9 *
6121	27114	4620	6391	4620	6323	4104	5214	2753	
6122	27115	6402	2173	6402	6500	3360	4930	708	
6123	27116	6889	6314	6889	3711	4664	4187	1215	
6124	27117	7709	5795	7709	5989	4899	5444	4124	3 *
6125	27118	8701	4282	8701	6906	8009	7458	25%	
6126	27119	4709	3603	4709	5083	7185	6134	3%	
6127	27120	6692	4968	6692	4306	5396	4851		
6128	BPT 5204 (NC)	5009	4167	5009	5684	3655	4670		
6129	27121	5620	1833	5620	3052	4202	3627	214	
6130	27122	5684	5654	5684	3311	3143	3227	385	
6131	27123	4872	4160	4872	3630	4438	4034		
6132	27124	5748	4968	5748	4913	4717	4815		
6133	27125	4688	6878	4688	4547	4220	4384	908	
6134	27126	5453	8231	5453	2411	4089	3250	1949	
6135	27127	7872	8103	7872	5649	5649	5649	3101	8 *
6136	27128	8295	9910	8295	7316	6589	6952	16%	4008
6137	27129	5752	3218	5752	3145	3902	3524		
6138	27130	3829	4769	3829	4591	6756	5673	808	
6139	27131	5701	3981	5701	4655	8051	6353	6%	1313
6140	27132	5051	4801	5051	5547	6214	5881	738	
6141	27133	3709	3596	3709	4139	4521	4330	3421	6 *
6142	Zonal Check (ZC)	4239	5596	4239	4692	4167	4429	1656	
6143	27134	4295	5571	4295	5070	6467	5769	1315	
6144	27135	7679	6378	7679	6852	7711	7281	22%	4439
6145	27136	6154	6327	6154	6125	6101	6113	2%	2660
6146	27137	4073	4013	4073	2956	4193	3575	338	
6147	27138	4449	2853	4449	3964	3917	3940		
6148	27139	4038	4064	4038	4555	5411	4983	1469	
6149	27140	4162	5885	4162	3336	5878	4607		
6150	27141	5953	2974	5953	4219	5286	4752	343	
6151	27142	6090	6442	6090	4533	8125	6329	6%	1193
6152	27143	3684	3603	3684	4933	5271	5102		
6153	27144	3983	3571	3983	6300	3667	4983		
6154	27145	4671	2224	4671	5398	3179	4289		
6155	27146	3910	4244	3910	2808	4985	3896	466	
6156	27147	4453	5526	4453	4505	3247	3876	711	
6157	27148	4641	4468	4641	3863	4363	4113	386	
6158	27149	5038	6083	5038	4691	5012	4851		
6159	Local Check	5389	6269	5389	6617	5318	5968	2224	
6160	27150	5393	6327	5393	5639	5824	5732		
6161	27151	3923	2038	3923	6211	4851	5531		
6162	27152	5607	6474	5607	2095	4946	3521	2001	
6163	27153	7568	3769	7568	3752	4500	4126	2073	
6164	27154	6269	5436	6269	3728	5446	4587	3563	5 *
	Exp Mean	5399	4871	5399	4617	5113	4867	1733	
	C.D. 5%	1259	1972	1259	1277	1956	1154	630	
	C.V.%	11.67	20.25	11.67	13.84	19.14	16.94	18.02	
	Sowing Date	07-07-2017	20-06-2017		01-08-2017	28-08-2017		21-06-2017	
	Planting Date	09-08-2017	21-07-2017		29-08-2017	27-09-2017			
	Local ©	WGL-32100	Telangana Sona (RNR 15048)		CO 52	ADT 50			

Table No. 6.14 contd : Grain Yield (Kg/ha) of entries in IVT -MS Kharif 2017

Entry No.	IET No.	VII		Zone VII (6)		Overall (15)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		KA	KA (1)							
		GNV	Mean	Mean	Mean	Mean	Mean			
6101	27095	9308 ⁸	9308 ⁸	6192		5490		97	101	305
6102	27096	5365	5365	5263		4152		113	106	300
6103	27097	7506	7506	5739		5012		101	93	285
6104	27098	5615	5615	4719		4354		96	135	272
6105	27099	8635	8635	5201		4800		98	104	290
6106	27100	5596	5596	4618		4412		101	99	288
6107	27101	8407	8407	5696		5057		106	102	293
6108	27102	10580 ²	10580 ^{2 * 11%}	6514		5297		92	103	298
6109	27103	9327 ⁷	9327 ⁷	7051 ⁶	2%	6008 ^{3 *}	8%	113	111	301
6110	27104	7189	7189	5271		4436		99	96	286
6111	27105	9279 ⁹	9279 ⁹	5616		4595		116	115	296
6112	27106	8971	8971	6151		4691		93	104	279
6113	27107	6788	6788	4931		4157		92	92	282
6114	27108	6026	6026	6092		5200		112	112	310
6115	27109	8151	8151	6351		5144		106	101	324
6116	27110	9048	9048	7534 ⁴	9%	5968 ^{6 *}	8%	111	96	307
6117	WGL 14 (NC)	8497	8497	6911 ⁷		5544		106	116	307
6118	27111	4176	4176	4457		4194		98	134	286
6119	27112	8554	8554	6428		5653 ⁹	2%	104	111	304
6120	27113	8449	8449	6099		5413		103	114	302
6121	27114	8388	8388	5847		5272		112	105	322
6122	27115	7083	7083	5796		5215		106	105	313
6123	27116	8532	8532	5714		4922		94	99	298
6124	27117	7056	7056	6797 ⁸		5980 ^{5 *}	8%	107	110	305
6125	27118	8013	8013	8121 ^{1 *}	18%	6509 ^{1 *}	17%	110	114	313
6126	27119	6321	6321	5892		5002		111	99	311
6127	27120	3699	3699	5823		4858		115	110	309
6128	BPT 5204 (NC)	7359	7359	5275		4925		110	98	304
6129	27121	5929	5929	4818		4848		104	131	311
6130	27122	7494	7494	5146		4921		94	109	281
6131	27123	8452	8452	5307		5047		109	97	291
6132	27124	7798	7798	6044		5270		118	101	302
6133	27125	6654	6654	5166		4813		106	116	291
6134	27126	6349	6349	4714		4360		102	105	282
6135	27127	9506 ⁵	9506 ⁵	7885 ^{3 *}	14%	5821 ⁸	5%	102	109	276
6136	27128	8359	8359	7520 ⁵	9%	6216 ^{2 *}	12%	112	108	307
6137	27129	5987	5987	4834		4113		119	143	264
6138	27130	7244	7244	6062		5027		113	110	283
6139	27131	5840	5840	6177		4928		107	106	285
6140	27132	7526	7526	5775		5248		99	103	292
6141	27133	4667	4667	4924		4544		106	122	304
6142	Zonal Check (ZC)	5817	5817	4838		4603		109	122	301
6143	27134	7708	7708	6237		5265		110	105	300
6144	27135	10981 ^{1 *}	10981 ^{1 *}	7885 ^{2 *}	15%	6002 ^{4 *}	8%	105	107	300
6145	27136	7692	7692	6335		5847 ⁷	5%	101	107	299
6146	27137	8462	8462	4860		4793		107	94	273
6147	27138	7583	7583	4835		4801		93	92	299
6148	27139	6157	6157	5259		4736		95	91	281
6149	27140	4603	4603	5145		4663		117	102	310
6150	27141	7385	7385	5871		5473		94	101	297
6151	27142	8064	8064	6598		5559		110	124	278
6152	27143	9353 ⁶	9353 ⁶	5831		5383		103	140	285
6153	27144	7859	7859	5575		5055		105	111	303
6154	27145	5785	5785	4985		4646		102	123	282
6155	27146	6417	6417	4700		4261		101	123	290
6156	27147	8654	8654	5471		4698		100	123	288
6157	27148	8545	8545	5174		4365		103	116	284
6158	27149	8696	8696	5556		5093		103	106	288
6159	Local Check	9513 ⁴	9513 ⁴	6341		5281		109	104	292
6160	27150	6189	6189	6253		5356		117	109	286
6161	27151	8920	8920	6315		4900		116	105	296
6162	27152	9029	9029	5664		4897		99	107	288
6163	27153	10135 ³	10135 ³	6627 ⁹	7%	4630		96	107	282
6164	27154	6615	6615	5327		4252		94	93	278
	Exp Mean	7561	7561	5803		5035		105	108	294
	C.D. 5%	1142	1142	623		347		1		14
	C.V.%	7.56	7.56	13.38		13.60		1.60		10.69
	Sowing Date	21-07-2017								
	Planting Date	06-09-2017								
	Local ©	GGV-05-01 (Gangavati Sona)								

Table No. 6.15 : Days to 50% Flowering of entries in IVT -MS Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V			Zone V (3)	VI						Zone VI (4)
		OD	OD	OD (2)	BI	U.P.		CG	MH	MH		MH	MH	MH (4)	GU	GU	GU (2)	
		CTK	JYP	Mean	PSA	MSD		RPR	SND	SKL		KJT	SHR	Mean	NWG	NVS	Mean	
6101	27095	115	111	113	95	104	106	100	96	92	96	89	77	88	104	92	98	90
6102	27096	117	125	121	101		114			134	134	132	106	124	108	94	101	110
6103	27097	99	111	105	100	111	105	102	98	96	98	95	83	93	110	94	102	95
6104	27098	113	107	110	101		107	95	91	87	91	91	75	86	108	96	102	92
6105	27099	96	108	102	102	105	103	102	98	89	96	100	78	91	113	93	103	96
6106	27100	97	107	102	108	108	105	109	102	109	106	106	98	103	109	95	102	102
6107	27101	97	130	114	113	116	114	108	109	101	106	105	91	101	112	92	102	100
6108	27102	97	112	105	90	89	97	92	86	86	88	89	72	83	105	89	97	89
6109	27103	117	129	123	126		124	120	119	110	116	125	99	113	108	93	100	106
6110	27104	114	106	110	102	103	106	103	101	99	101	98	79	94	101	92	96	92
6111	27105	116	124	120	102		114	138	134	131	134	127	116	127	106	134	120	121
6112	27106	98	128	113	85	88	100	89	88	83	86	86	73	82	99	88	93	86
6113	27107	117	99	108	89	94	100	113	86	83	94	86	71	81	96	83	89	84
6114	27108	97	127	112	121		115	118	112	112	114	111	95	107	114	91	103	103
6115	27109	119	115	117	109	110	113	105	102	99	102	106	87	98	114	109	111	104
6116	27110	98	133	115	112	120	116	114	108	106	109	111	91	104	110	114	112	106
6117	WGL 14 (NC)	113	117	115	107	115	113	108	106	99	104	101	93	100	114	112	113	105
6118	27111	97	97	97	107	108	102	104	102	100	102	111	89	100	106	100	103	101
6119	27112	118	139	129	109	112	119	105	97	95	99	97	83	93	111	96	103	97
6120	27113	97	106	102	114	107	106	111	108	110	109	106	97	105	115	113	114	108
6121	27114	117	118	118	113	117	116	114	110	106	110	109	98	105	116	113	114	109
6122	27115	98	120	109	106	106	107	105	101	100	102	103	93	99	114	112	113	105
6123	27116	97	108	103	91	104	100	94	87	85	89	87	74	83	107	84	95	88
6124	27117	113	119	116	113	119	116	110	106	106	107	93	96	100	112	115	113	104
6125	27118	114	120	117	115		116	116	111	112	113	111	97	108	115	93	104	104
6126	27119	97	121	109	111	125	113	113	113	110	112	107	95	106	117	111	114	107
6127	27120	119	128	123	118		121	121	119	113	117	123	99	113	115	95	105	108
6128	BPT 5204 (NC)	115	130	123	114	120	120	113	110	105	109	107	96	104	114	109	111	106
6129	27121	114	116	115	108	114	113	103	100	99	100	103	84	96	117	109	113	103
6130	27122	113	99	106	90	100	101	89	84	83	85	88	73	82	102	92	97	89
6131	27123	114	117	116	113	116	115	113	107	102	107	105	97	103	112	108	110	105
6132	27124	117	130	124	126		124	125	119	117	120	124	106	116	111	124	118	116
6133	27125	116	115	116	110	117	114	113	106	105	108	103	89	101	113	113	113	104
6134	27126	113	104	109	111	102	107	109	109	107	108	107	92	104	108	96	102	101
6135	27127	114	108	111	105	108	109	102	97	91	96	101	82	93	117	96	107	99
6136	27128	96	122	109	113	125	114	117	110	110	112	111	92	106	116	124	120	111
6137	27129	95	132	114	111	108	111		135	135	135	136	114	130		138	138	129
6138	27130	113	134	124	126		124	121	117	113	117	109	99	109	112	106	109	106
6139	27131	97	113	105	108	115	108	107	103	101	104	106	96	101	112	94	103	102
6140	27132	97	107	102	90	102	99	98	99	91	96	95	85	92	105	91	98	94
6141	27133	99	117	108	104	111	108	106	102		104	103	85	97	117	105	111	103
6142	Zonal Check (ZC)	100	115	107	109	120	111	112	106	104	107	113	102	106	106	113	109	108
6143	27134	116	118	117	114	116	116	112	105	103	106	113	96	104	112	114	113	109
6144	27135	98	118	108	113	113	110	108	102	104	104	106	86	99	119	98	108	102
6145	27136	97	110	104	95	112	104	104	99	95	99	101	87	95	115	94	104	99
6146	27137	114	120	117	113	112	115	113	105	105	107	107	97	103	116	95	106	104
6147	27138	97	105	101	95	103	100	93	91	88	90	95	73	86	110	88	99	91
6148	27139	117	105	111	90	103	104	91	93	84	89	86	72	84	112	88	100	89
6149	27140	97	130	114	91		106	127	127	125	126	126	114	123	106	134	120	120
6150	27141	118	99	108	85	92	98	88	82	83	84	86	72	81	103	90	97	88
6151	27142	113	123	118	116	124	119	117	116	108	113	116	84	106	116	94	105	102
6152	27143	97	109	103	100	114	105	101	98	99	99	101	82	95	111	112	112	101
6153	27144	100	117	108	108	106	107	111	109	102	107	103	90	101	113	113	113	105
6154	27145	97	115	106	95	105	103	101	94	98	97	101	86	95	106	111	109	101
6155	27146	97	111	104	103	114	106	105	95	101	100	104	80	95	111	91	101	96
6156	27147	113	107	110	90	105	104	100	95	90	95	99	79	90	106	107	106	97
6157	27148	114	109	111	101	107	107	106	105	99	103	101	87	98	108	106	107	100
6158	27149	119	109	114	103	96	107	105	101	96	100	93	88	94	113	104	108	99
6159	Local Check	116	112	114	110	115	113	119	110	107	112	109	99	106	105	108	106	105
6160	27150	97	129	113	121		116	126	118	118	121	109	97	110	116	130	123	113
6161	27151	99	128	113	118		115	127	130	118	125	92	96	109	111	134	123	108
6162	27152	114	106	110	100	107	107	128	90	89	102	86	81	86	114	94	104	94
6163	27153	97	107	102	95	97	99	95	89	86	90	89	73	84	109	93	101	91
6164	27154	110	101	105	90	95	99	95	91	84	90	106	73	88	105	88	96	93
	Exp Mean	107	116	111	105	109	109	108	104	101	104	104	89	99	110	103	107	101
	C.D. 5%	2	2	2	2	1	1	2	2	1	0	2	2	1	3	4	1	2
	C.V.%	1.02	1.07	1.07	1.05	0.69	0.99	0.86	1.04	0.39	0.25	1.10	1.19	0.91	1.48	1.84	0.58	1.52

Table No. 6.15 contd: Days to 50% Flowering of entries in IVT -MS Kharif 2017

Entry No.	IET No.	VII												Zone VII (8)	Overall (19)
		A.P.	A.P.	A.P. (2)	TEL	TEL	TEL (2)	TN	TN	TN (2)	KA	KA	KA (2)		
		MTU	BPT	Mean	WGL	RNR	Mean	CBT	ADT	Mean	MGD	GNV	Mean	Mean	Mean
6101	27095	86	99	92	99	89	94	96	89	92	104	116	110	97	97
6102	27096		101	101	138	100	119	128	84	106		114	114	111	113
6103	27097	106	90	98	101	103	102	103	94	98	111	118	115	103	101
6104	27098	89	97	93	95	89	92	99	89	94	99	102	101	95	96
6105	27099	97	97	97	96	97	97	95	82	88	112	101	106	97	98
6106	27100	86	83	84	99	103	101	101	85	93	111	99	105	96	101
6107	27101	105	102	103	102	113	107	106	98	102	117	102	110	105	106
6108	27102	81	90	85	96	90	93	93	88	90	104	102	103	93	92
6109	27103	121	102	111	116	119	118	105	101	103		114	114	111	113
6110	27104	85	120	102	96	90	93	91	87	89	108	101	105	97	99
6111	27105		91	91	119	112	115	106	96	101		115	115	106	116
6112	27106		93	93	89	112	101	96	87	91	104	99	102	97	93
6113	27107	84	90	87	88	87	88	93	87	90	107	99	103	92	92
6114	27108	121	101	111	120	125	123	116	110	113		122	122	116	112
6115	27109	107	103	105	104	104	104	105	94	100		120	120	105	106
6116	27110	111	102	107	116	112	114	111	99	105	113	122	118	111	111
6117	WGL 14 (NC)		102	102	106	101	103	108	95	101		115	115	104	106
6118	27111	85	93	89	92	97	95	95	86	90	112	87	100	93	98
6119	27112	96	100	98	105	90	98	100	88	94	114	117	115	101	104
6120	27113	107	89	98	99	103	101	93	81	87	112	99	106	98	103
6121	27114	115	121	118	111	111	111	106	102	104	121	122	122	113	112
6122	27115	104	103	103	106	106	106	102	96	99	114	122	118	106	106
6123	27116	95	90	92	96	98	97	95	92	93	112	101	107	97	94
6124	27117	111	98	104	110	111	111	101	89	95	114	100	107	104	107
6125	27118	109	103	106	116	114	115	109	103	106		122	122	111	110
6126	27119	111	113	112	112	112	112	113	101	107		122	122	112	111
6127	27120	115	119	117	119	118	118	119	101	110		122	122	116	115
6128	BPT 5204 (NC)	106	101	103	111	111	111	111	94	102		119	119	107	110
6129	27121	84	103	93	106	109	108	101	85	93		119	119	101	104
6130	27122	110	93	101	94	95	94	93	80	86	111	102	107	97	94
6131	27123	124	102	113	108	110	109	107	96	101		122	122	110	109
6132	27124	107	119	113	124	122	123	113	105	109		124	124	116	118
6133	27125	93	99	96	109	110	110	104	90	97	111	101	106	102	106
6134	27126	118	94	106	97	99	98	89	83	86	111	99	105	99	102
6135	27127		101	101	103	97	100		92	92	110	115	113	103	102
6136	27128	119	103	111	116	119	117	102	98	100	121	121	121	112	112
6137	27129		99	99	139	113	126	112	97	104		127	127	114	119
6138	27130	83	100	91	122	116	119	114	106	110	125	122	124	111	113
6139	27131		101	101	107	113	110	106	101	103	120	122	121	110	107
6140	27132	102	98	100	96	119	108	99	91	95	114	105	110	103	99
6141	27133	109	102	105	106	113	109	107	97	102	112	122	117	108	106
6142	Zonal Check (ZC)		102	102	109	113	111	110	97	103	120	115	118	109	109
6143	27134	106	74	90	114	111	112	110	101	105	129	122	126	108	110
6144	27135	101	92	96	109	109	109	102	95	98	109	115	112	104	105
6145	27136	108	92	100	102	97	99	101	96	98	111	115	113	103	101
6146	27137	84	103	93	108	106	107	105	88	96	131	115	123	105	107
6147	27138	81	88	85	96	89	93	91	81	86	111	98	105	92	93
6148	27139	123	87	105	89	97	93	91	86	88	104	99	102	97	95
6149	27140	87	116	101	135	124	130	121	114	117		120	120	117	117
6150	27141	112	83	97	93	119	106	89	91	90	105	97	101	98	94
6151	27142	101	101	101	115	113	114	105	96	100		122	122	107	110
6152	27143	110	101	106	107	110	108	97	92	94		115	115	104	103
6153	27144	93	100	96	109	110	110	103	96	99		115	115	104	105
6154	27145	101	101	101	103	106	104	102	93	97	121	115	118	105	102
6155	27146	93	100	97	96	104	100	100	94	97	121	109	115	102	101
6156	27147	99	95	97	99	97	98	98	92	95	122	109	116	101	100
6157	27148	99	93	96	101	99	100	101	90	95	122	105	114	101	103
6158	27149	115	93	104	99	103	101	101	92	96	129	109	119	105	103
6159	Local Check	120	89	104	105	104	104	102	106	104	121	115	118	108	109
6160	27150	121	121	121	132	118	125	117	104	110		122	122	119	117
6161	27151		94	94	138	115	127	113	102	107	140	122	131	118	116
6162	27152	83	91	87	97	119	108	95	89	92	104	93	98	96	99
6163	27153		119	119	96	97	96	96	85	90	111	102	107	101	96
6164	27154	89	99	94	91	89	90	91	89	90	112	100	106	95	94
	Exp Mean	102	99	100	106	106	106	102	93	98	114	112	113	104	105
	C.D. 5%	4	3	2	2	6	3	1	9	4	0	3	1	1	1
	C.V.%	1.77	1.54	1.65	1.11	2.70	2.06	0.66	4.59	3.12	0.00	1.22	0.93	2.07	1.60

Table No 6.16 : Plant Height (cm) of entries in IVT –MS Kharif 2017

Entry No.	IET No.	III					Zone III	V			Zone V (3)	VI						Zone VI (4)
		OD	OD	OD (2)	BI	U.P.	(4)	CG	MH	MH		MH	MH	MH (4)	GU	GU	GU (2)	
		CTK	JYP	Mean	PSA	MSD	Mean	RPR	SND	SKL		Mean	KJT	SHR	Mean	NWG	NVS	
6101	27095	98	83	91	104	95	95	107	92	120	106	112	115	110	95	109	102	108
6102	27096	124	88	106	109		107			113	113	124	120	119	86	115	100	111
6103	27097	117	70	94	92	101	95	103	86	101	97	96	106	97	75	81	78	89
6104	27098	113	108	110	143		121	142	141	158	147	139	147	146	102	162	132	137
6105	27099	113	83	98	106	105	102	111	85	129	108	110	118	110	91	113	102	108
6106	27100	107	95	101	108	90	100	114	87	114	105	114	118	108	86	125	105	111
6107	27101	108	78	93	96	97	95	124	98	110	111	115	116	110	94	122	108	112
6108	27102	94	81	87	104	90	92	125	86	123	112	111	114	109	103	118	111	112
6109	27103	113	84	99	106		101	127	110	128	122	126	122	122	101	128	115	119
6110	27104	90	71	81	109	89	90	115	98	115	109	116	114	111	91	118	104	110
6111	27105	121	95	108	115		110	120	113	110	114	124	123	117	111	126	118	121
6112	27106	113	83	98	112	103	103	113	93	114	107	106	119	108	95	125	110	111
6113	27107	117	67	92	99	82	91	83	84	119	95	101	107	103	86	104	95	99
6114	27108	118	87	103	112		106	124	109	120	118	125	123	119	99	116	107	116
6115	27109	113	74	93	99	75	90	115	98	103	105	109	109	105	92	117	105	107
6116	27110	125	71	98	91	85	93	102	101	115	106	106	111	108	83	106	94	101
6117	WGL 14 (NC)	130	92	111	113	115	112	118	116	129	121	119	127	122	97	131	114	118
6118	27111	113	84	98	150	140	122	186	144	174	168	177	161	164	141	144	142	156
6119	27112	93	89	91	117	111	102	115	104	140	119	114	111	117	111	128	119	116
6120	27113	106	83	95	126	100	104	142	119	138	133	139	114	127	114	134	124	125
6121	27114	93	79	86	120	105	99	121	117	129	122	116	116	120	86	117	102	109
6122	27115	113	89	101	114	110	106	118	97	115	110	117	120	112	101	96	99	109
6123	27116	94	73	83	108	92	92	109	87	117	104	105	116	106	96	118	107	109
6124	27117	108	89	99	120	100	104	126	99	132	119	122	123	119	95	117	106	114
6125	27118	95	94	94	112		100	130	118	128	125	128	117	123	104	125	114	118
6126	27119	117	65	91	107	78	92	115	108	106	110	104	108	107	86	110	98	102
6127	27120	112	87	100	112		104	126	98	130	118	120	117	116	97	113	105	111
6128	BPT 5204 (NC)	110	68	89	99	102	95	107	95	98	100	94	116	101	91	113	102	104
6129	27121	133	102	118	137	125	124	120	134	145	133	142	139	140	135	132	133	137
6130	27122	102	95	99	120	110	107	105	93	130	109	120	124	117	109	128	119	120
6131	27123	110	72	91	92	90	91	108	92	112	104	109	104	104	86	99	92	99
6132	27124	106	84	95	91		93	106	105	112	108	111	111	110	83	97	90	101
6133	27125	143	95	119	122	110	118	141	122	124	129	129	130	126	112	123	117	123
6134	27126	131	73	102	107	95	101	117	104	130	117	123	119	119	101	123	112	117
6135	27127	130	88	109	110	97	106	119	99	138	119	117	116	118	106	109	107	112
6136	27128	102	83	92	114	100	100	120	106	116	114	122	124	117	96	120	108	115
6137	27129	146	87	116	120	118	118		171	157	164	148	154	158		153	153	152
6138	27130	97	95	96	102		98	129	109	120	119	123	122	119	96	125	110	116
6139	27131	102	96	99	118	100	104	122	98	116	112	118	119	113	104	130	117	118
6140	27132	110	77	94	102	96	96	111	108	122	114	101	115	111	99	112	106	107
6141	27133	110	101	105	125	127	116	140	134		137	146	141	140	112	123	118	130
6142	Zonal Check (ZC)	108	79	94	100	95	96	105	91	101	99	109	113	104	86	81	84	97
6143	27134	104	86	95	115	100	101	132	98	116	115	124	125	116	89	123	106	115
6144	27135	100	89	94	116	95	100	115	93	109	106	112	110	106	95	135	115	113
6145	27136	105	88	97	123	105	105	109	97	122	109	107	118	111	99	134	117	114
6146	27137	102	74	88	95	93	91	107	98	106	104	113	107	106	86	115	101	105
6147	27138	122	60	91	97	89	92	87	78	107	91	94	102	95	96	106	101	100
6148	27139	115	63	89	92	80	88	95	93	95	94	92	101	95	89	95	92	94
6149	27140	104	79	91	109		97	106	108	105	106	111	115	110	86	114	100	107
6150	27141	122	80	101	105	100	102	100	94	118	104	102	113	107	109	113	111	109
6151	27142	133	81	107	129	119	115	132	135	150	139	151	138	144	114	127	121	133
6152	27143	116	110	113	150	155	133	157	123	175	152	138	138	143	131	152	142	140
6153	27144	110	73	91	121	101	101	119	111	120	117	116	120	117	105	125	115	117
6154	27145	116	98	107	130	125	117	127	133	149	136	129	130	135	121	132	127	128
6155	27146	111	100	106	131	95	109	138	134	141	138	131	138	136	116	138	127	131
6156	27147	112	100	106	127	124	116	141	112	155	136	124	129	130	126	136	131	129
6157	27148	104	99	101	119	117	110	130	102	131	121	127	130	122	107	119	113	121
6158	27149	115	80	97	113	102	102	107	99	125	110	106	108	109	99	121	110	108
6159	Local Check	118	88	103	97	80	96	145	95	113	118	126	104	109	104	100	102	108
6160	27150	106	75	90	103		94	123	107	116	115	122	122	117	92	115	104	113
6161	27151	117	88	103	113		106	99	93	119	104	109	113	109	84	114	99	105
6162	27152	115	84	100	121	106	107	109	112	118	113	118	124	118	101	120	110	116
6163	27153	97	91	94	125	105	104	114	98	135	116	90	126	112	121	128	125	116
6164	27154	115	84	100	86	80	91	99	83	96	93	119	91	97	81	105	93	99
	Exp Mean	112	84	98	112	102	103	119	105	123	116	118	120	117	100	120	110	114
	C.D. 5%	0	0	0	0	0	0	0		0		0						
	C.V.%	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00						

Table No. 6.16 contd : Plant Height (cm) of entries in IVT –MS Kharif 2017

Entry No.	IET No.	VII												Zone VII (8)	Overall (19)
		A.P.	A.P.	A.P. (2)	TEL	TEL	TEL (2)	TN	TN	TN (2)	KA	KA	KA (2)		
		MTU	BPT	Mean	WGL	RNR	Mean	CBT	ADT	Mean	MGD	GNV	Mean	Mean	Mean
6101	27095	117	102	109	101	99	100	93	109	101	75	91	83	98	101
6102	27096		108	108	102	86	94	113	105	109		89	89	100	106
6103	27097	98	83	91	105	99	102	102	86	94	67	97	82	92	93
6104	27098	148	152	150	153	137	145	141	123	132	100	123	112	134	135
6105	27099	112	128	120	117	102	109	102	95	99	66	85	76	101	104
6106	27100	108	96	102	89	103	96	98	85	92	59	85	72	90	99
6107	27101	105	94	100	108	106	107	104	96	100	65	93	79	96	102
6108	27102	114	106	110	122	104	113	99	98	99	73	97	85	102	103
6109	27103	119	118	119	115	104	110	89	92	90		101	101	105	111
6110	27104	109	81	95	94	97	95	81	91	86	58	88	73	87	96
6111	27105		117	117	126	103	115	118	103	110		115	115	114	115
6112	27106		112	112	113	93	103	114	101	107	70	95	82	100	104
6113	27107	92	98	95	100	103	101	88	90	89	52	80	66	88	92
6114	27108	120	120	120	115	99	107	121	102	111		93	93	110	112
6115	27109	118	110	114	108	98	103	94	93	94		99	99	103	101
6116	27110	113	91	102	90	105	97	96	85	90	67	91	79	92	96
6117	WGL 14 (NC)		114	114	123	149	136	103	99	101		94	94	114	116
6118	27111	157	117	137	162	110	136	109	91	100	82	115	98	118	134
6119	27112	130	116	123	139	111	125	118	97	108	66	106	86	110	111
6120	27113	138	110	124	126	106	116	90	87	88	90	106	98	106	114
6121	27114	121	98	109	121	101	111	90	92	91	67	98	83	98	105
6122	27115	118	110	114	120	99	109	106	91	98	61	110	85	102	105
6123	27116	117	105	111	115	104	109	87	86	87	65	87	76	96	99
6124	27117	115	116	116	116	106	111	114	105	109	74	103	89	106	110
6125	27118	134	111	123	124	97	110	100	99	100		114	114	111	114
6126	27119	114	92	103	93	102	98	100	97	99		89	89	98	99
6127	27120	120	107	113	121	91	106	113	103	108		110	110	109	110
6128	BPT 5204 (NC)	108	92	100	100	122	111	100	77	89		76	76	96	98
6129	27121	160	141	151	142	102	122	114	122	118		128	128	130	131
6130	27122	115	118	117	123	97	110	113	91	102	70	103	87	104	109
6131	27123	118	98	108	102	93	97	86	91	88		80	80	95	97
6132	27124	113	102	108	103	109	106	103	86	95		88	88	101	101
6133	27125	134	112	123	111	104	107	106	109	107	77	105	91	107	116
6134	27126	117	104	111	120	105	112	77	87	82	72	83	77	96	105
6135	27127		118	118	118	104	111		105	105	72	108	90	104	109
6136	27128	120	113	117	114	128	121	97	108	103	84	94	89	107	108
6137	27129		161	161	161	102	131	154	140	147		166	166	147	143
6138	27130	118	112	115	109	101	105	122	108	115	76	109	92	107	110
6139	27131		107	107	116	101	109	105	104	104	67	86	76	98	106
6140	27132	106	106	106	113	129	121	95	100	98	75	87	81	102	103
6141	27133	119	137	128	122	103	112	120	115	118	94	127	111	117	122
6142	Zonal Check (ZC)		105	105	106	562	334	91	100	95	81	86	83	161	122
6143	27134	124	99	112	107	103	105	87	93	90	68	98	83	97	105
6144	27135	120	110	115	119	100	110	113	108	111	76	109	93	107	107
6145	27136	130	109	120	122	98	110	102	101	101	73	91	82	103	107
6146	27137	114	100	107	97	78	87	84	82	83	55	83	69	87	94
6147	27138	94	103	98	97	77	87	111	77	94	52	89	71	88	92
6148	27139	100	98	99	101	94	97	109	82	96	54	81	68	90	91
6149	27140	117	102	110	102	98	100	106	87	97		87	87	100	102
6150	27141	109	106	108	114	111	112	99	89	94	60	85	72	97	101
6151	27142	145	126	135	128	131	130	106	108	107	77	118	97	117	124
6152	27143	171	144	158	163	104	134	137	116	127		137	137	139	140
6153	27144	124	109	117	117	121	119	116	92	104		102	102	112	111
6154	27145	133	126	130	141	128	134	91	117	104		95	95	119	123
6155	27146	140	130	135	141	118	129	113	120	116	83	122	102	121	123
6156	27147	127	130	128	141	114	127	116	107	111	91	127	109	119	123
6157	27148	144	127	135	126	102	114	118	113	116	73	108	91	114	116
6158	27149	120	107	114	110	111	110	103	101	102		91	91	106	106
6159	Local Check	107	86	96	102	114	108	103	110	107	76	99	88	100	104
6160	27150	123	109	116	112	102	107	110	108	109		110	110	110	109
6161	27151		124	124	119	103	111	96	94	95		91	91	104	105
6162	27152	93	135	114	125	112	118	87	105	96	79	80	79	102	107
6163	27153		82	82	131	92	112	106	94	100	84	102	93	99	107
6164	27154	91	94	92	93	124	109	75	82	79	77	86	82	90	93
	Exp Mean	120	111	115	117	113	115	104	99	101	72	100	89	105	108
	C.D. 5%					0			0		0	0			
	C.V.%					0.00			0.00		0.00	0.00			

Table No. 6.17 : Panicles/ M² of entries in IVT -MS Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V			Zone V (3)	VI						Zone VI (4)
		OD	OD	OD (2)	BI	U.P.		CG	MH	MH		MH	MH	MH (4)	GU	GU	GU (2)	
		CTK	JYP	Mean	PSA	MSD		RPR	SND	SKL		KJT	SHR	Mean	NWG	NVS	Mean	
6101	27095	267	313	290	204	279	266	268	238	266	257	226	191	230	284	216	250	229
6102	27096	230	310	270	183		241			218	218	195	170	194	276	181	229	205
6103	27097	342	243	292	167	310	265	187	301	253	247	225	213	248	279	177	228	223
6104	27098	288	296	292	206		263	215	228	270	237	183	150	207	280	212	246	206
6105	27099	305	270	287	218	307	275	193	263	228	228	185	215	223	288	203	245	223
6106	27100	178	300	239	264	264	251	248	242	280	257	225	142	222	276	186	231	207
6107	27101	276	280	278	248	253	264	273	274	186	244	227	196	221	279	221	250	231
6108	27102	283	220	251	246	301	262	224	311	313	283	225	214	266	284	239	262	240
6109	27103	327	270	298	223		273	231	227	228	228	184	214	213	284	225	254	227
6110	27104	309	190	249	255	295	262	238	343	260	280	220	138	240	275	184	230	204
6111	27105	309	336	322	213		286	216	208	205	210	216	175	201	280	186	233	214
6112	27106	163	293	228	230	276	240	192	278	206	225	193	201	219	281	227	254	225
6113	27107	297	270	283	263	292	280	201	214	262	225	182	127	196	276	255	265	210
6114	27108	345	306	326	264		305	228	232	276	245	242	194	236	284	195	240	229
6115	27109	328	233	281	224	263	262	206	253	306	255	239	130	232	282	274	278	231
6116	27110	315	260	287	227	288	272	246	316	298	287	238	226	269	281	207	244	238
6117	WGL 14 (NC)	330	263	296	223	306	280	236	209	198	214	216	126	187	291	276	283	227
6118	27111	309	273	291	228	226	259	243	243	289	258	243	197	243	275	220	248	234
6119	27112	330	290	310	271	296	297	224	279	281	261	250	179	247	292	226	259	237
6120	27113	392	246	319	218	323	294	256	228	261	248	208	172	217	293	260	276	233
6121	27114	308	370	339	211	306	298	262	307	293	287	203	170	243	285	242	264	225
6122	27115	374	273	323	200	262	277	260	323	369	317	257	196	286	287	229	258	242
6123	27116	343	270	306	210	319	285	200	304	275	259	215	182	244	286	242	264	231
6124	27117	300	283	291	238	301	280	250	208	285	247	253	161	226	292	202	247	227
6125	27118	295	290	292	250		278	217	221	206	215	214	171	203	294	194	244	218
6126	27119	314	240	277	226	263	261	250	287	251	262	218	181	234	289	182	236	217
6127	27120	391	300	345	228		306	262	243	193	232	227	186	212	289	190	239	223
6128	BPT 5204 (NC)	308	226	267	220	275	257	214	302	247	254	195	165	227	287	207	247	213
6129	27121	332	268	300	188	281	267	248	314	299	287	245	138	249	287	193	240	216
6130	27122	263	290	276	268	279	275	202	279	351	277	193	123	236	287	210	248	203
6131	27123	268	273	270	212	315	267	232	177	234	214	225	134	192	290	187	238	209
6132	27124	276	273	274	220		256	260	307	272	280	176	182	234	283	183	233	206
6133	27125	264	263	263	198	305	257	243	318	215	258	184	196	228	281	182	232	211
6134	27126	265	230	247	203	325	256	250	297	260	269	181	161	225	277	178	228	199
6135	27127	329	323	326	227	253	283	210	213	198	207	170	172	188	286	195	241	206
6136	27128	348	273	311	180	265	267	202	201	294	232	232	184	227	289	192	241	224
6137	27129	273	356	314	180	256	266		206	154	180	165	102	157		198	198	155
6138	27130	274	270	272	198		247	251	223	210	228	232	183	212	276	192	234	221
6139	27131	278	280	279	194	294	261	193	225	213	210	195	188	205	281	195	238	215
6140	27132	318	246	282	199	315	269	220	307	263	263	230	202	250	277	203	240	228
6141	27133	280	320	300	184	233	254	251	293		272	255	141	230	280	219	250	224
6142	Zonal Check (ZC)	308	269	288	204	261	260	249	313	247	269	196	205	240	280	181	231	215
6143	27134	371	273	322	181	241	267	258	285	261	268	172	194	228	286	198	242	212
6144	27135	367	263	315	226	255	278	193	216	244	217	225	191	219	288	188	238	223
6145	27136	374	346	360	229	310	315	183	271	261	238	199	212	235	294	182	238	222
6146	27137	287	266	276	220	315	272	225	236	203	221	195	180	203	290	209	249	218
6147	27138	313	243	278	221	317	274	150	312	313	258	239	202	266	282	230	256	238
6148	27139	309	236	272	178	285	252	190	259	308	252	201	202	242	276	177	226	214
6149	27140	307	373	340	207		296	250	306	195	250	212	229	235	280	222	251	236
6150	27141	366	236	301	193	295	272	197	339	248	261	194	198	245	282	225	254	225
6151	27142	291	243	267	168	256	239	209	262	187	219	227	182	214	278	202	240	222
6152	27143	303	303	303	176	280	266	202	252	208	221	174	179	203	280	191	235	206
6153	27144	289	283	286	209	291	268	233	310	267	270	217	192	247	292	213	253	229
6154	27145	316	226	271	192	243	244	187	303	309	266	182	114	227	278	213	245	197
6155	27146	396	223	309	202	225	261	205	231	201	212	189	184	201	282	190	236	211
6156	27147	362	220	291	206	318	276	257	218	271	249	245	150	221	285	208	246	222
6157	27148	297	350	323	215	260	280	218	287	215	240	226	163	222	284	219	251	223
6158	27149	282	303	292	215	318	279	243	308	216	256	179	205	227	284	179	232	212
6159	Local Check	295	276	286	243	316	283	219	307	221	249	235	146	227	289	181	235	213
6160	27150	258	290	274	216		255	223	205	224	217	198	201	207	278	232	255	227
6161	27151	290	313	301	202		268	262	244	223	243	198	142	202	279	192	235	202
6162	27152	330	346	338	218	300	298	181	281	264	242	228	147	230	283	213	248	218
6163	27153	307	266	286	212	236	255	187	263	209	219	161	206	209	281	218	249	216
6164	27154	327	310	318	207	213	264	177	205	264	215	224	128	205	276	178	227	201
	Exp Mean	307	279	293	215	282	270	224	264	249	246	211	175	225	283	207	245	219
	C.D. 5%	23	75	39	62	35	29	29	27	25	9	39	33	17	8	23	13	15
	C.V. %	3.75	13.54	9.53	14.36	6.21	11.01	6.57	5.09	5.11	3.32	9.18	9.49	7.56	1.46	5.67	3.94	6.92

Table No. 6.17 contd: Panicles/ M² of entries in IVT -MS Kharif 2017

Entry No.	IET No.	VII												Zone VII	Overall (19)
		A.P.	A.P.	A.P. (2)	TEL	TEL	TEL (2)	TN	TN	TN (2)	KA	KA	KA (2)	(8)	
		MTU	BPT	Mean	WGL	RNR	Mean	CBT	ADT	Mean	MGD	GNV	Mean	Mean	
6101	27095	284	402	343	366	398	382	403	436	419	235	526	380	381	305
6102	27096		525	525	361	375	368	333	352	342		499	499	407	300
6103	27097	281	293	287	371	363	367	428	335	381	198	453	325	340	285
6104	27098	244	363	304	370	373	371	293	251	272	226	458	342	322	272
6105	27099	327	452	389	350	347	348	375	369	372	160	456	308	354	290
6106	27100	274	345	309	353	393	373	335	420	377	221	536	378	359	288
6107	27101	300	365	332	348	413	380	400	319	359	230	478	354	356	293
6108	27102	264	422	343	376	375	375	293	419	356	175	481	328	351	298
6109	27103	248	373	310	368	351	360	563	317	440		486	486	386	301
6110	27104	251	404	327	347	389	368	265	269	267	268	530	399	340	286
6111	27105		376	376	391	361	376	390	336	363		540	540	399	296
6112	27106		446	446	366	360	363	325	319	322	160	508	334	355	279
6113	27107	297	360	328	347	389	368	195	419	307	160	548	354	339	282
6114	27108	323	413	368	355	416	385	405	285	345		506	506	386	310
6115	27109	350	620	485	370	422	396	408	435	421		498	498	443	324
6116	27110	297	339	318	366	347	356	500	402	451	216	461	338	366	307
6117	WGL 14 (NC)		508	508	373	421	397	393	368	380		490	490	425	307
6118	27111	274	396	335	366	393	380	350	201	276	193	527	360	337	286
6119	27112	271	382	326	381	368	375	388	352	370	205	513	359	357	304
6120	27113	314	363	338	376	414	395	410	235	322	272	507	389	361	302
6121	27114	310	328	319	371	439	405	503	435	469	258	521	389	395	322
6122	27115	310	455	383	371	356	364	428	285	356	245	470	357	365	313
6123	27116	264	432	348	360	386	373	393	335	364	139	515	327	353	298
6124	27117	317	449	383	365	383	374	340	419	379	237	520	378	378	305
6125	27118	307	525	416	376	391	384	508	334	421		523	523	423	313
6126	27119	297	449	373	363	408	385	448	418	433		510	510	413	311
6127	27120	274	413	343	345	432	389	375	403	389		507	507	393	309
6128	BPT 5204 (NC)	327	322	324	383	401	392	460	436	448		504	504	404	304
6129	27121	274	422	348	363	403	383	438	385	411		529	529	402	311
6130	27122	281	317	299	363	386	375	280	285	283	205	488	347	326	281
6131	27123	347	419	383	353	431	392	340	286	313		523	523	385	291
6132	27124	304	479	391	376	394	385	385	252	318		512	512	386	302
6133	27125	297	446	371	381	409	395	370	302	336	177	501	339	360	291
6134	27126	264	320	292	361	404	383	268	386	327	235	498	366	342	282
6135	27127		395	395	371	380	375		319	319	200	456	328	353	276
6136	27128	284	540	412	363	399	381	618	285	451	200	483	341	396	307
6137	27129		327	327	358	404	381	305	235	270		445	445	346	264
6138	27130	261	380	320	350	376	363	355	369	362	207	495	351	349	283
6139	27131		412	412	368	338	353	370	418	394	207	476	341	370	285
6140	27132	300	343	322	363	389	376	373	368	370	177	462	319	347	292
6141	27133	413	376	394	353	427	390	433	336	384	184	489	336	376	304
6142	Zonal Check (ZC)		394	394	376	394	385	413	386	399	247	489	368	385	301
6143	27134	244	445	345	368	383	375	468	369	418	177	519	348	372	300
6144	27135	320	379	350	360	403	381	630	335	482	216	412	314	382	300
6145	27136	251	455	353	353	348	351	333	319	326	282	484	383	353	299
6146	27137	221	367	294	345	422	384	348	285	316	137	441	289	321	273
6147	27138	261	346	304	370	396	383	373	352	362	256	501	378	357	299
6148	27139	320	370	345	373	384	379	333	284	308	230	429	329	340	281
6149	27140	264	416	340	365	383	374	383	385	384		500	500	385	310
6150	27141	238	297	267	350	365	357	445	369	407	226	592	409	360	297
6151	27142	231	350	290	361	351	356	325	318	321	300	550	425	348	278
6152	27143	290	347	318	363	394	379	363	301	332		529	529	370	285
6153	27144	208	472	340	381	366	374	498	268	383		471	471	380	303
6154	27145	251	363	307	351	391	371	383	301	342		477	477	359	282
6155	27146	343	459	401	383	381	382	435	336	385	156	484	320	372	290
6156	27147	255	442	348	363	333	348	343	353	348	153	493	323	342	288
6157	27148	304	320	312	348	343	346	323	386	354	144	498	321	333	284
6158	27149	257	264	261	358	355	356	365	352	359		498	498	350	288
6159	Local Check	257	248	252	350	350	350	540	285	412	293	494	393	352	292
6160	27150	320	320	320	355	340	347	408	302	355		494	494	363	286
6161	27151		330	330	376	337	356	530	319	424		504	504	399	296
6162	27152	234	380	307	348	401	375	315	268	291	240	501	371	336	288
6163	27153		406	406	360	360	360	358	301	329	209	539	374	362	282
6164	27154	281	406	343	365	371	368	413	251	332	223	471	347	347	278
	Exp Mean	285	395	350	364	384	374	393	337	364	211	497	382	366	294
	C.D. 5%	57	134	73	21	63	31	50	98	55	42	116	65	29	14
	C.V.%	9.98	17.00	15.08	2.88	8.16	6.02	6.34	14.58	10.72	9.80	11.70	12.21	11.32	10.69

Table No. 6.18: Grain quality characteristics of entries in IVT-MS, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
6101	27095	74.4	65.2	63.1	6.52	2.04	3.19	LS	VOC	5.0	20.82	22
6102	27096	80.0	66.4	43.2	4.87	1.80	2.70	MS	VOC	5.0	21.32	22
6103	27097	76.3	63.0	48.0	4.68	2.36	1.98	SB	VOC	4.0	22.14	22
6104	27098	75.8	62.4	59.8	5.38	1.93	2.78	MS	VOC	4.0	22.11	22
6105	27099	79.8	70.1	66.7	4.79	1.80	2.66	MS	VOC	4.0	21.56	22
6106	27100	78.0	66.7	63.3	4.78	1.68	2.79	MS	VOC	5.0	21.88	25
6107	27101	75.8	65.5	60.8	5.37	2.16	2.48	SB	A	5.0	20.91	26
6108	27102	78.2	67.9	65.0	5.28	1.81	2.91	MS	VOC	4.0	22.93	25
6109	27103	75.7	60.0	48.0	4.79	1.81	2.64	MS	A	4.0	22.17	42
6110	27104	79.9	69.0	67.1	5.12	1.84	2.78	MS	A	5.0	21.73	22
6111	27105	76.1	65.9	62.6	5.41	1.84	2.94	MS	A	7.0	20.53	22
6112	27106	77.8	64.7	57.3	5.40	1.97	2.74	MS	VOC	4.0	21.06	22
6113	27107	77.9	69.5	64.7	5.02	1.70	2.95	MS	VOC	7.0	21.79	22
6114	27108	78.8	65.6	56.7	4.63	1.88	2.46	SB	A	7.0	22.61	40
6115	27109	77.4	68.3	66.6	4.81	1.76	2.73	MS	A	5.0	21.09	22
6116	27110	77.9	66.7	52.1	5.09	2.14	2.37	SB	A	5.0	23.34	38
6117	WGL-14 (NC)	76.3	67.7	65.1	5.42	1.90	2.85	MS	A	4.0	23.08	22
6118	27111	77.7	65.7	62.0	5.52	2.38	2.31	SB	OC	4.0	22.17	22
6119	27112	77.7	69.8	68.3	5.38	1.90	2.83	MS	A	4.0	21.32	22
6120	27113	77.5	68.0	66.5	4.97	1.69	2.94	MS	A	4.0	21.64	22
6121	27114	68.9	60.0	58.7	4.74	1.61	2.94	MS	A	5.0	21.23	22
6122	27115	81.4	67.0	65.3	5.03	2.19	2.29	SB	VOC	5.0	23.58	32
6123	27116	74.8	66.0	63.8	4.97	1.87	2.65	MS	A	4.0	20.18	24
6124	27117	75.2	61.7	58.5	5.13	2.10	2.39	SB	A	5.0	22.55	23
6125	27118	78.4	67.3	61.8	5.62	2.08	2.70	MS	VOC	5.0	23.61	22
6126	27119	76.4	66.7	62.0	4.68	1.82	2.57	MS	A	5.0	20.85	23
6127	27120	78.1	67.4	58.1	4.73	1.68	2.81	MS	VOC	7.0	21.82	25
6128	BPT 2504 (NC)	75.0	66.6	65.3	5.05	1.79	2.82	MS	VOC	5.0	21.38	22
6129	27121	78.6	69.3	67.2	5.47	2.16	2.53	MS	VOC	5.0	22.46	29
6130	27122	79.6	69.0	67.1	5.69	1.74	3.27	SS	VOC	4.0	20.62	46
6131	27123	80.0	71.4	70.0	5.14	1.85	2.71	MS	VOC	4.0	21.41	23
6132	27124	77.4	68.5	59.9	4.88	1.80	2.71	MS	A	5.0	21.85	28
6133	27125	78.2	68.9	64.5	4.42	2.05	2.15	SB	VOC	4.0	19.85	23
6134	27126	76.5	65.4	63.0	4.80	1.53	3.13	SS	A	4.0	19.06	23
6135	27127	79.6	69.0	67.5	6.29	2.28	2.75	LB	VOC	5.0	20.41	23
6136	27128	79.3	64.6	54.6	5.38	2.06	2.61	MS	VOC	6.0	19.33	66
6137	27129	80.3	70.1	61.2	5.54	2.04	2.71	MS	A	7.0	18.89	23
6138	27130	76.3	68.4	60.2	4.66	1.87	2.49	SB	VOC	5.0	19.59	23
6139	27131	77.8	63.0	56.6	5.00	1.68	2.97	MS	VOC	7.0	21.85	25
6140	27132	78.5	69.1	63.1	4.77	1.89	2.52	MS	VOC	4.0	22.99	25
6141	27133	75.0	62.1	59.7	4.88	1.66	2.93	MS	A	4.0	21.67	23
6142	ADT-49	73.5	65.4	62.9	4.88	1.86	2.61	MS	A	7.0	21.56	28
6143	27134	75.9	66.3	54.9	4.78	1.80	2.65	MS	VOC	6.0	20.94	23
6144	27135	76.6	60.8	56.5	5.71	2.43	2.45	SB	VOC	6.5	23.14	23
6145	27136	76.6	65.9	64.0	5.06	1.95	2.59	MS	A	5.0	21.12	23
6146	27137	81.0	71.7	69.2	5.14	1.86	2.76	MS	VOC	4.0	21.61	23
6147	27138	77.8	68.8	65.2	4.75	1.86	2.55	MS	VOC	5.0	20.32	23
6148	27139	79.7	68.8	65.8	4.50	1.77	2.54	MS	A	3.0	17.60	47
6149	27140	76.1	66.7	61.7	4.92	1.92	2.56	MS	A	4.0	20.21	23
6150	27141	80.9	69.3	67.1	5.40	1.89	2.85	MS	VOC	3.0	20.47	51
6151	27142	77.2	67.0	62.2	6.26	1.94	3.22	LS	A	5.0	21.58	23
6152	27143	79.3	71.1	69.7	5.95	2.23	2.66	MS	A	7.0	22.38	23
6153	27144	77.5	68.5	67.2	5.23	1.76	2.97	MS	VOC	4.0	18.86	23
6154	27145	80.5	70.7	68.0	4.93	1.90	2.59	MS	A	4.0	21.85	23
6155	27146	75.5	65.7	64.0	5.22	1.75	2.98	MS	A	3.5	16.69	23
6156	27147	77.0	67.1	65.6	5.22	1.75	2.98	MS	VOC	3.0	19.24	51
6157	27148	78.5	68.8	65.2	5.13	1.93	2.65	MS	VOC	4.0	21.17	23
6158	27149	81.4	68.7	62.1	4.97	1.80	2.76	MS	VOC	4.5	21.67	23
6160	27150	74.0	63.2	58.7	4.97	1.78	2.79	MS	A	5.0	20.59	23
6161	27151	77.9	67.0	61.4	4.54	1.77	2.56	MS	VOC	7.0	23.58	71
6162	27152	75.5	64.1	57.1	4.87	1.77	2.75	MS	VOC	7.0	20.82	97
6163	27153	79.7	70.0	67.7	5.37	2.30	2.33	SB	VOC	4.0	23.99	27
6164	27154	79.1	68.0	62.8	4.93	1.74	2.83	MS	VOC	4.0	20.97	23

HULL: Hulling (%); MILLING (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

VARIETY TRIALS-HILLS

The variety trials under hill ecology were conducted in different elevations to identify high yielding cultures with cold, drought tolerance and resistance to pests and diseases under irrigated as well as rainfed uplands. The early and medium duration trials were evaluated under irrigated transplanted conditions whereas the upland trials were conducted at direct seeded rainfed situation. The trials were evaluated under low hills (≤ 950 msl), medium hills (951 to 1500 msl) and high hills (≥ 1501 msl). The trial was sent for evaluation at Malan, ICAR-Barapani, CAU-Barapani, Lamphalpet, Wangbal, CAU-Imphal, Daulakhan, Sirsi and Ponnampet under low hills; Rajouri, Palampur, Almora, Bageshwar and Kalimpong under medium hills; Khudwani, Wadura, Bandipore, Pombay and Upper Shillong under high hills.

A total of 5 trials namely IVT-E(H), AVT-1E(H), IVT-M(H), AVT-1M(H) and IVT-U(H) were conducted with 11, 24, 15, 23 and 17 entries respectively thus making a total of 90 entries. Each trial was evaluated at low, medium and high hills: IVT-E(H) and AVT-1E(H) at 22 locations (8 low, 6 medium, 8 high), IVT M(H) and AVT-1M(H) at 25 locations (14 low, 3 medium, 8 high), IVT-U(H) at 7 locations (4 low, 2 medium and 1 high). The trials were sent to 19 locations to conduct 62 experiments. The data of 57 experiments received from 18 locations indicating 91.9%.

List of centres and elevations

I.Low Elevation:	
Northern Hills:	
Malan	950 msl
CAU, Barapani	940 msl
Lamphelpat-ICAR	774 msl
Imphal CAU	774 msl
Daulakhan	350 msl
Upper Shillong (Umktieh)	870msl
Wangbal	731msl
Southern Hills:	
Sirsi	619 msl
Ponnampet	867 msl
II. Medium Elevation:	
Northern Hills:	
Rajouri	960 msl
Almora-ICAR	1250 msl
Palampur	1290 msl
Bageshwar	1320 msl
Kalimpong	1208 msl
III. High Elevation:	
Pombay	2000 msl
Wadura	1560 msl
Bandipore	1680 msl
Khudwani	1560 msl
Umium (Barapani)-ICAR (Trial conducted at Upper Shillong)	1980 msl

ADVANCE VARIETY TRIAL -1- EARLY (HILLS) AVT - 1- E (H)**Locations : 11****Test Entries : 08****Checks : Vivekdhan 86 (NC), Shalimar Rice 3 (ZC) and Table: 7.1
Local**

AVT-1-EH trial was comprised of eight test entries and three checks namely Vivekdhan 86 (NC), Shalimar Rice 3 (ZC) and local check. Among 08 test entries, three were in third year of testing and five in second year of testing. The trial was sent to 11 locations of which two locations fall in northern low hills at Malan, Daulakhan and Upper Shillong, one in southern low hills at Ponnampet and three in northern medium hills at Almora, Rajouri and Palampur, four in high hills at Khudwani, Pombay, Bandipore and Wadura.

The overall mean grain yield across altitudes ranged from 3007 kg/ha (IET 25826) to 5874 kg/ha (Shalimar Rice 3; ZC). The mean flowering duration ranged from 80 days (IET 25154) to 101 days (IET 25826). The panicles/m² ranged from 282 (IET 24197) to 358 (IET 25154), while plant height ranged from 83 cm (IET 25826) to 118 cm (Local check). The performance of entries was discussed elevation wise. Under southern low hills at Ponnampet and in medium hills at Rajouri, the experimental mean yield was low 1804 and 1427 kg/ha respectively due to cold at reproductive stage hence not included in overall mean. Information pertaining to yield, flowering, plant height, panicles/m² and quality are presented in the tables 7.2, 7.3, 7.4, 7.5 and 7.6.

On overall yield basis as well as under high elevation, none of the entry was superior in yield performance to the best check (Zonal check), however in the Low and medium northern hills, four entries viz., IET's 24197, 25826, 25819 and 25818 recorded yield superiority of more than 5 % over the best check. Hence performances of these entries are discussed elevation wise.

Low northern hills

The mean grain yield of the test entries ranged from 3773 kg/ha (Local check) to 5053 kg/ha (IET 24197). Days to 50% flowering ranged from 77 days (Shalimar Rice 3) to 94 days (IET 24197), panicles/m² ranged from 219 (Vivekdhan 86, NC) to 329 (IET 25826) and plant height ranged from 99 cm (IET 25818) to 130 cm (IET 25819). Among the checks, zonal check was the best check (4754 kg/ha). Of the 08 test entries, 4 entries (IET's 24197, 25826, 25819 and 25818) yielded 21, 21, 9 and 8 % higher than the best check respectively. The performance of top ranking entries are discussed below.

IET 24197 (TRC 2014-8-IR 83928-B-B-9-1) a derivative from the cross IR 78878-208-B-1-2/IR 74371-54-1-1 ranked first with grain yield of 5053 kg/ha. It showed 21 % yield advantage over the best check (Zonal check) with 1st rank at Upper shilling (3813 kg/ha) and second at Daulakhan (6617 kg/ha). Quality wise it recorded 53.3% HRR, Intermediate AC of 24.1%, 4.0 ASV, 39mm GC and very occasional chalkiness.

IET 25826 (TRC 2016-2) ranked second with a grain yield of 5034 kg/ ha yield. It was developed from the cross Fulbadam/ Naveen. It exhibited 21 % yield superiority over the best

check (Zonal check). It ranked 1st with significantly higher yield (6867 kg/ha) than best check in Daulakhan location. It has 91 days of flowering duration. It exhibited good HRR (65.5%), AC (25.1%), GC (58 mm), ASV (4) and very occasional chalkiness.

The third ranking entry, IET 25819 (VL 32224), a derivative from the cross Vivekdhan 82/ VL 31629 gave 9 % yield advantage over the best check (Zonal check) with a mean yield of 4554 kg/ha. It has 87 days to 50 % flowering duration. It ranked 1st with significantly higher yield (5299 kg/ha) to best check at Malan. It showed very good HRR (67.5%), AC (22.08%), ASV (4), GC (50mm) and very occasional chalkiness.

Performance of promising entries at low altitude (northern hills) in AVT-1-EH, Kharif 2017.

Rank	IET No./designation/ cross combination	GY (kg/ha)/ days to 50% flowering/ grain Type	% yield advantages over best check (ZC)
1	24197 TRC 2014-8-IR 83928-B-B-9-1 IR 78878-208-B-1-2/IR 74371-54-1-1	5053 94 MS	21
2	25826 TRC 2016-2 Fulbadam/ Naveen	5034 91 LS	21
3	25819 VL 32224 Vivekdhan 82/ VL 31629	4554 87 LS	9
4	25818 TRC 2016-9(IR83399-B-B-52-1) IRRI 105/IR 78877-163-B-1-1	4477 87 MS	8
	Vivekdhan 86 (National check)	3799 82	
	Shalimar Rice 3 (Zonal check)	4162 77	
	Local check	3773 85	

The fourth ranking entry, IET 25818 [TRC 2016-99IR83399-B-B-52-1)] derived from the cross IRRI 105/IR 78877-163-B-1-1. It exhibited 8 % yield superiority over the best check (Zonal check). It ranked second at Upper shilling with grain yield of 3247 kg/ha. It has 87 days of flowering duration. It recorded high HRR (69.6%), AC (24.84%), GC (55mm), ASV (7) and very occasional grain chalkiness.

Based on yield superiority over best check, under low elevation IET 25826, IET 25819 and IET 25818 promoted for 3rd year of testing in AVT-2 E-H.

Medium northern hills

The mean grain yield ranged from 2069 kg/ha (IET 25154) to 4445 kg/ha (IET 25819). Among the checks national check was the top yielder (3931 kg/ha) followed by local check (3048 kg/ha) and zonal check (2430 kg/ha). The mean flowering duration ranged from 74 days (IET 25154) to 102 days (IET 25826); plant height ranged from 77 cm (Local check) to 86 cm (IET's 25819, 24195 and 24197) whereas panicles/m² ranged from 259 (Vivekdhan 86; NC) to 315 (IET 25828).

Performance of promising entries at medium altitude in AVT-1– EH, Kharif-2017

Rank	IET No. / Designation / Cross combination	GY (kg/ha)/ days to 50% flowering/ grain type	Percentage of yield advantage over the best check (NC)
1	25819 VL 32224 Vivekdhan 82/ VL 31629	4445 84 LS	13.0%
	Vivekdhan 86 (NC)	3931 86	
	Shalimar Rice 3 (ZC)	2430 79	
	Local check	3048 81	

IET 25819 (VL 32224), a derivative from the cross Vivekdhan 82/ VL 31629 occupied first rank in grain yield (4445 kg/ha). It showed 13 % yield advantage over the best check (Vivekdhan 86). It possessed long slender grains and 84 days to 50% flowering duration. It ranked 1st with significantly higher yield to best check at Almora (3889 kg/ha) and Palampur (5000 kg/ha). It recorded very good HRR (67.5%), AC (22.08%), ASV (4), GC (50mm) and very occasional chalkiness.

Based on yield advantage over the best check IET 25819 qualified for promotion to 3rd year of testing in AVT-2 E-H.

High hills

The trial was conducted at 4 locations namely Khudwani, Pombay, Bandipore and Wadura. The mean grain yield of test entries ranged from 1897 kg/ha (IET 25826) to 8879 kg/ha (Shalimar Rice 3; ZC). Days to 50% flowering ranged from 87 days (IET's 25827, 25154 and local check) to 109 days (IET 25826). Plant height ranged from 83 cm (IET 25826) to 118 (local check) whereas panicles/m² ranged from 260 (IET 24197) to 494 (IET 25154).

Zonal check (Shalimar Rice 3) ranked 1st in high hills, hence none of the entries was promoted to AVT-2-EH under high elevation

Three entries namely IET Nos. 25154, 24195 and 24197 have been evaluated for three years in early hill trials (2014 to 2017). As per the recommendations of 52nd ARGGM, IET No's 24195 and 24197 were tested again during 2017. The IET 25154 [SKUA-484 (K 1313-24-3)] recorded significant yield superiority in the first two consecutive years (2015 & 2016) under high elevation but not in third year of testing in 2017. It showed yield advantage of 16 % over best check during 2015 under medium northern hills, but not in 2016 and 2017. Another entry namely IET 24195 (TRC 2013-11-IR 84898-B-171-CRA 43-1) was found promising in low altitude (northern hills) continuously for two years 2014 and 2015 over the best check (2014: 11%, 2015: 40%), but not in third year of testing in 2017. The third entry IET 24197 (TRC 2014-8-IR 83928-B-B-9-1) recorded significant yield superiority in two years (2015 & 2017) under low altitude (northern hills) in overall mean. It was superior to best check by 23.0% (2015) and 9% (2017) yield advantage in low (Northern) hills during

second and third year of testing respectively. Yield performance information of these 3 entries is furnished in the table mentioned below.

Three years' performance of entries IET 25154, 24195 and IET 24197 in early hills during 2014, 2015, 2016 and /or 2017 in overall mean

S. No	IET No. / Designation / Cross Combination	Year	Yield advantage % over the best check				
			Low elevation		Medium elevation		High elevation
			Northern	Southern	Northern	Southern	
1	25154 SKUA-484 (K 1313-24-3) SKUA-46/ Dular	2015 (IVT-EH)	-	-	16	-	5
		2016 (AVT1-EH)	-	-	-	-	20.9
		2017 (AVT-1-EH)	-	-	-	-	-
2	24195 TRC 2013-11-IR 84898-B-171-CRA 43-1 IR 78877-208-B-1-2 / IR 78878-53-2-2-2	2014 (IVT-EH)	11	-	-	-	-
		2015 (AVT-1-EH)	40	42	18	11	-
		2016 (AVT-1-EH)	-	-	-	-	-
		2017 (AVT-1-EH)	-	-	-	-	-
3	24197 TRC 2014-8-IR 83928-B-B-9-1 IR 78878-208-B-1-2/IR 74371-54-1-1	2014 (IVT-EH)	-	-	10	-	-
		2015 (AVT-1-EH)	23	5	-	38	-
		2016 (AVT-1-EH)	-	-	-	-	-
		2017 (AVT-1-EH)	21	-	-	-	-

State wise performance of IET 25154, 24195 and IET 24197 in early hills during three years (2014 to 2017)

S No	IET No. / Designation / Cross combination	Year	Elevation						
			Low			Medium			High
			Northern		Southern	Northern		Southern	
			ME	H.P	KA	WB	UT	AP	
1	25154 SKUA-484 (K 1313-24-3) SKUA-46/ Dular	2015 (IVT-EH)	-	-	-	-	-	-	5.20
		2016 (AVT-1-EH)	-	-	-	-	-	-	-
		2017 (AVT-1-EH)	-	-	-	-	-	-	-
2	24195 TRC 2013-11-IR 84898- B-171-CRA 43-1 IR 78877-208-B-1-2/ IR 78878-53-2-2-2	2014 (IVT-EH)	-	11	-	-	-	-	-
		2015 (AVT-1-EH)	-	40	42	5.0	-	10.8	-
		2016 (AVT-1-EH)	-	-	-	-	-	-	-
		2017 (AVT-1-EH)	-	11.0	-	-	-	-	-

S No	IET No. / Designation / Cross combination	Year	Elevation						
			Low			Medium			High
			Northern		Southern	Northern		Southern	
			ME	H.P	KA	WB	UT	AP	
3	24197 TRC 2014-8-IR 83928-B-B-9-1 IR 78878-208-B-1-2/ IR 74371-54-1-1	2014 (IVT-EH)	-	-	-	-	9.64	-	-
		2015 (AVT-1-EH)	-	23.03	5.31	-	38.1	37.8	-
		2016 (AVT-1-EH)	-	-	-	-	-	-	-
		2017 (AVT-1-EH)	27.9	19.0	5.6	-	-	-	-

The two entries viz., IET 25154 and IET 24195 could not show consistent yield superiority over best check in three years of testing under any elevation.

IET 24197 show superiority performance over best check in 2015 (Second year) and 2017 (Third year) in northern low elevation only. The entry IET 24197 also showed superior performance over best check in 2015 (Second year) and 2017 (Third year) in the state of Himachal Pradesh and Karnataka. Hence IET 24197 found promising for the states of Himachal Pradesh and Karnataka only.

IET 24195 showed yield superiority over the best check in all three years of testing in the state of Himachal Pradesh only.

INITIAL VARIETY TRIAL-EARLY (HILLS) IVT – E (H)

Locations : 11 **Test Entries : 21**
Checks : Vivekdhan 86 (NC), Shalimar Rice 3 (ZC) and Local **Table 7.7**

IVT – E (H) trial was constituted with 24 entries including 21 test entries and 3 checks – Vivekdhan 86 (NC), Shalimar Rice 3 (ZC) and a local check. The trial was sent to 11 different locations and data was received from all the 11 locations. The data from Ponnampet (Low Southern), Almora and Rajouri (Medium Northern) was not considered since the experimental mean yield was less than 2500kg/ha. The information pertaining to yield, flowering, plant height and panicles are presented in the tables 7.8, 7.9, 7.10 and 7.11.

Low Altitude Northern Hills

IVT – Early (H) at low altitude was conducted at three locations – Malan, Dhaulakuan and Upper Shillong. The mean yield of the entries ranged from 1678 kg/ha (IET 26572) to 4282 kg/ha (IET 26564). Days to 50% flowering ranged from 68 days (IET 26570) to 103

days (IET 26573). Similarly, plant height also exhibited a range from 99 cm (IET 26566, IET 26573 and IET 26577) to 137 cm (IET 26571). The panicles/m² ranged from 169 (IET 26574) to 280 (IET26573). The performance of the entries is discussed below.

Performance of promising entries at Northern Low elevated hills in Initial Variety Trial - Early Hills (IVT-E H), Kharif 2017.

S.No	IET No. Designation/Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain Type	% Yield superiority over NC/ZC/LC
1	26564 TRC 2017-9 Fulbadam/Swarna	4282 90 LS	23.8 32.6 41.4
2	26566 UPR 3968-1-1-1-1 Pant Dhan 10/NDR 2065	4174 91 LS	20.7 29.2 37.9
3	26565 HPR 2870 HPR 2143/AC 19146//VL 30424	3821 88 LS	10.5 18.3 26.2
	Vivekdhan 86 (NC)	3458 83	
	Shalimar 3 (ZC)	3230 75	
	Local Check (LC)	3028 86	

IET 26564 (TRC 2017-9), a derivative of the cross Fulbadam/Swarna was the best performing entry (first rank) with mean grain yield of 4282 kg/ha. IET 26564 exhibited a yield advantage of 23.8% over the best check, Vivekdhan 86. The grain type was long slender with 90 days flowering duration.

The second ranking entry in the trial with a mean grain yield of 4174 kg/ha was IET 26566 (UPR 3968-1-1-1-1), derived from the cross Pant Dhan10/NDR2065. A yield advantage of 20.7% was exhibited by IET 26566 over Vivekdhan 86 (NC), the best check. It has long slender grains with days to 50% flowering of 91 days.

Among the test entries evaluated, IET 26565 (HPR 2870), obtained from the cross HPR2143/AC19146//VL30424 stood third with mean grain yield of 3821 kg/ha. IET 26565 showed a yield advantage of 10.5% over the best check, Vivekdhan 86. The grain type of IET 26565 was long slender with a flowering duration of 88 days.

IET 26561 (UPR 3971-7-1-1-1), derived from the cross Pant Dhan10/UPRI2008-29 was ranked fourth with mean grain yield of 3755 kg/ha. IET 26561 exhibited a yield advantage of 8.6% over Vivekdhan 86 (NC). It has long slender grains with 92 days flowering duration.

The fifth ranked entry was IET 26573 (TRC 2017-1), a derivative of the cross Bhalum 3/Naveen. It had a mean grain yield of 3713 kg/ha. IET 26573 exhibited a yield advantage of 7.4% over the best check, Vivekdhan 86. It has long slender grains with days to 50% flowering of 103 days.

IET 26575 (HPR 2890), obtained from the cross HPR 2143/AC 19180/VL30424 was ranked sixth with 3710 kg/ha as its mean grain yield. IET 26575 had a yield advantage of 7.3% over Vivekdhan 86 (NC), best check. The grain type was long slender with 103 days as its days to 50% flowering.

Medium Altitude Hills

Though the IVT – E (H) was evaluated at three locations – Almora (UK), Rajouri (J&K) and Palampur (H.P), the data from Almora and Rajouri was not included in the analysis owing to the mean experimental yield being less than 2500 kg/ha (2451 kg/ha @ Almora; 838 kg/ha @ Rahouri). The mean grain yield of the test entries in the medium hills was 375 kg/ha (IET 26573) to 5333 kg/ha (IET 26576). The flowering duration ranged from 69 days (IET 26570 and IET 26574). The plant height showed a range from 75 cm (IET 26558 and IET 26572) to 96 cm (IET 26571). The panicles/m² ranged from 248 (IET 26567) to 307 (IET 26576) among the test entries while it showed an overall range of 246 (Vivekdhan 86, NC) to 346 (Local Check, LC). The best performing entries performance is discussed below.

Performance of promising entries at Northern Medium elevated hills in Initial Variety Trial - Early Hills (IVT-E H), Kharif 2017.

S.No	IET No. Designation/Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain Type	% Yield superiority over NC/ZC/LC
1	26576 SKAU 500 (K 1356-6-4) SR-1/Dular	5333 74 LB	50.6 50.6 7.6
	Vivekdhan 86 (NC)	3542 75	
	Shalimar 3 (ZC)	3542 74	
	Local Check (LC)	4958 85	

Among the 21 test entries evaluated, IET 26576 (SKAU 500 [K 1356-6-4]), a derivative of the cross SR-1/Dular occupied the first rank with a mean grain yield of 5333 kg/ha. This entry exhibited a yield advantage of 7.6% over the best check, Local Check (LC). It possessed long bold grain and had a flowering duration of 74 days. Also, this was the only entry with a yield advantage of >5.0% under medium hills category.

High Altitude Hills

The trial was evaluated at four high altitude locations (Khudwani, Pombay, Bandipore and Wadura). The mean yield of the entries ranged from 2828 kg/ha (IET 26573) to 9264 kg/ha (IET 26563). Days to 50% flowering ranged from 79 days (IET 26570) to 108 days (IET 26567, IET 26573, and IET 26575). Similarly, plant height also exhibited a range from 75 cm (IET 26560) to 120 cm (IET 26574). The panicles/m² ranged from 229 (IET 26571) to Shalimar Rice 3 (ZC). The performance of the best performing entries is discussed below.

Performance of promising entries at High elevated hills in Initial Variety Trial - Early Hills (IVT-E H), Kharif 2017.

S.No	IET No. Designation/Cross Combination	Grain Yield (Kg/ha) Days to 50% Flowering Grain Type	% Yield superiority over NC/ZC/LC
1	26563 SKAU 496 (K 11-1-1-3) Chenab/IR 24	9264 86 SB	200.5 5.3 15.5
	Vivekdhan 86 (NC)	3083 105	
	Shalimar 3 (ZC)	8799 87	
	Local Check (LC)	8019 88	

IET 26563 (SKAU 496 [K 11-1-1-3]), obtained from the cross Chenab/IR 24 was ranked first with mean grain yield of 9264 kg/ha. IET 26563 had a yield advantage of 5.3% over the best check, Shalimar 3 (ZC). It had short bold grains with days to 50% flowering of 86 days. This was the only entry with a yield advantage of >5% over the best check (Shalimar 3, ZC), therefore no other entry was considered.

Based on grain yield superiority over the best check, the following entries have been considered for promotion under the different elevation levels:

- ❖ **Low Altitude Northern Hills:** IET 26561, IET 26564, IET 26565, IET 26566, IET 26573, and IET 26575
- ❖ **Medium Altitude Hills:** IET 26576
- ❖ **High Altitude Hills:** IET 26563

Table 7.1: Composition of entries in Advanced Variety Trial 1- Early Hills, AVT 1-E (H), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
2nd year of testing:				
2601	25826	TRC 2016-2	Fulbadam / Naveen	LS
2602	25828	HPR 2651	VL 221 / RP 2421 // IR 53915	LS
2603	Vivekdhan 86 (NC)			
2604	25819	VL 32224	Vivekdhan 82 / VL 31629	LS
2605	Shalimar Rice 3 (ZC)			
2606	25827	SKUA-491 (K 09-12-6-1-1-2)	China 1007 / SKUA 389	SB
2607	25818	TRC 2016-9 (IR83399-B-B-52-1)	IRRI 105 / IR 78877-163-B-1-1	MS
3rd Year of testing:				
2608	25154	SKUA-484 (K 1313-24-3)	SKUA-46 / Dular	SB
2609	Local Check			
2610	24195 (Repeat)	TRC 2013-11-IR 84898-B-171-CRA 43-1	IR 78877-208-B-1-2 / IR 78878-53-2-2-2	SB
2611	24197 (Repeat)	TRC 2014-8-IR 83928-B-B-9-1	IR 78878-208-B-1-2 / IR 74371-54-1-1	MS

Table No. 7.2 : Grain yield (kg/ha) of entries in AVT1-E (H), Kharif 2017

Elevations				Low Northern								Low Southern	
Entry	IET NO	Himachal Pradesh						MEGHALAYA(1)		Low Northern(3)		Karnataka	
		MALAN		Dhaulakuan		HP(2)		UPPER SHILLONG				PONNAMPET	
		MLN		DLK				USG		Mean	@PNP		
2601	25826			6867	1 *	6867	1 * 44%	3200	3 * 7%	5034	2 * 21%	2246	3
2602	25828	5014	2	5150	7	5082	6 * 7%	2200	9	4121	7	1245	9
2603	Vivekdhan 86 (NC)	4929	3	4367		4648	10	2100	10	3799	10	1759	7
2604	25819	5299	1 *	5317	5	5308	4 * 12%	3047	4	4554	3 * 9%	2045	6
2605	Shalimar Rice 3 (ZC)	4274	9	5233	6	4754	9	2980	5	4162	6	1690	8
2606	25827	4701	7	4867	9	4784	8	2600	6	4056	8	968	10
2607	25818	4701	6	5483	4	5092	5 * 7%	3247	2 * 9%	4477	4 * 8%	2167	5
2608	25154	4815	4	4850	10	4833	7	2013		3893	9	448	
2609	Local Check	3989	10	5117	8	4553		2213	8	3773		2207	4
2610	24195	4359	8	6267	3 *	5313	3 * 12%	2453	7	4360	5	2740	1 *
2611	24197	4729	5	6617	2 *	5673	2 * 19%	3813	1 * 28%	5053	1 * 21%	2332	2 *
	EXP. Mean	4681		5467		5173		2715		4298		1804	
	CD	492.25		370.18				709.43				420.67	
	CV%	5.01		3.25				12.53				11.18	
	D/S	06-07-2017		06-06-2017				04-07-2017				07-11-2017	
	D/P	07-07-2017		07-04-2017				28-07-2017				13-08-2017	
	Local Check Name	HPR 1068		HPR 2880				Kbasoo				Tunga (IET 13901)	
@ Indicates location not included in the mean													

Table No. 7.2 contd. : Grain yield (kg/ha) of entries in AVT1-E (H), Kharif 2017

Elevations		Medium-Northern								High			
Entry	IET NO	UK		J& K		HP		Medium-Northern(2)		Jammu & Kashmir			
		Almora ICAR		Rajouri		Palampur				KHU DWANI		Pombay	
		ALM		@ RJR		PLM				KHD		PMB	
2601	25826	3764	3	1400	8	2639		3202	6	1878		1627	
2602	25828	3667	4	1667	1	3958	5	3813	3	3167	8	2416	8
2603	Vivekdhan 86 (NC)	3833	2	1467	4	4028	4	3931	2	2009	10	2233	9
2604	25819	3889	1	1400	7	5000	1	4445	1 * 13%	4720	5	3600	5
2605	Shalimar Rice 3 (ZC)	1456	8	1633	2	3403	7	2430	9	9142	1	7951	1
2606	25827	1167	10	1167		3194	10	2181	10	8149	4	5978	4
2607	25818	3189	6	1467	3	4167	3	3678	5	3431	7	2729	7
2608	25154	944		1433	6	3194	9	2069		8867	2	7753	2
2609	Local Check	1178	9	1333	9	4917	2	3048	8	8238	3	6771	3
2610	24195	3586	5	1433	5	3819	6	3703	4	4151	6	3244	6
2611	24197	2989	7	1300	10	3194	8	3092	7	2153	9	2049	10
	EXP. Mean	2697		1427		3774				5082		4214	
	CD	557.98		694.78		1062.82				690.65		413.17	
	CV%	9.92		23.34		13.50				6.51		4.70	
	D/S	24-05-2017		05-06-2017		16-06-2017				19-05-2017		20-05-2017	
	D/P	23-06-2017		02-07-2017		14-07-2017				15-06-2017		17-06-2017	
	Local Check Name	VLD 85		K-39		HPR 1068				Shalimar Rice 4		Shalimar Rice 4	

Table No. 7.2 contd. : Grain yield (kg/ha) of entries in AVT1-E (H), Kharif 2017

Entry	IET NO	High				J&K(4)		High(4)		Overall (9)	
		Jammu & Kashmir									
		Bandipore		Wadura							
2601	25826	BNP		WDR		Mean(4)		Mean(4)		Mean	
2602	25828	2067		2016	9	1897		1897		3007	
2603	Vivekdhan 86 (NC)	2867	8	2718	8	2792	8	2792	8	3462	8
2604	25819	2187	10	1969	10	2100	10	2100	10	3073	10
2605	Shalimar Rice 3 (ZC)	4480	5	4382	5	4296	5	4296	5	4415	5
2606	25827	9504	1	8920	1	8879	1	8879	1	5874	1
2607	25818	7860	4	7531	4	7380	4	7380	4	5116	4
2608	25154	3196	7	3038	7	3099	7	3099	7	3687	7
2609	Local Check	8716	2	8762	2	8525	2	8525	2	5546	2
2610	24195	8131	3	7571	3	7678	3	7678	3	5347	3
2611	24197	3647	6	3578	6	3655	6	3655	6	3900	6
	EXP. Mean	2531	9	1898		2158	9	2158	9	3330	9
	CD	5017		4762		4769		4769		4251	
	CV%	517.65		614.56							
	D/S	4.95		6.19							
	D/P	22-05-2017		20-05-2017							
	Local Check Name	21-06-2017		20-06-2017							
	Shalimar Rice 4				Shalimar Rice 4						

Table No. 7.3: Days to 50% flowering of entries in AVT 1-E (H), Kharif 2017

Elevations		Low Northern				Southern Low	Medium Northern		
Entry No.	IET NO	Himachal Pradesh		Meghalaya		Karnataka	Uttarakhand	Jammu & Kashmir	Himachal Pradesh
		MALAN	Dhaulakuan	UPPER SHILLONG		@PONNAMPET	Almora ICAR	@Rajouri	Palampur
		MLN	DLK	USG	Mean	@PNP	ALM	@RJR	PLM
2601	25826		104	78	91	107	110	86	95
2602	25828	97	94	70	87	103	90	71	79
2603	Vivekdhan 86 (NC)	91	91	65	82	81	92	76	81
2604	25819	96	96	69	87	89	86	76	81
2605	Shalimar Rice 3 (ZC)	83	81	68	77	88	83	72	75
2606	25827	83	87	67	79	80	82	75	76
2607	25818	97	95	69	87	81	94	77	82
2608	25154	82	81	71	78	80	76	69	72
2609	Local Check	91	89	76	85	99	82	75	80
2610	24195	96	98	69	88	99	95	70	80
2611	24197	103	102	76	94	99	104	82	90
	CV%	1.17	15.76	0.74		1.53	1.20	3.21	1.20
@ Indicates location not included in the mean									

Table No. 7.3 contd.: Days to 50% flowering of entries in AVT 1-E (H), Kharif 2017

Elevations		Medium Northern	High				High(4)	Overall(10)
Entry No.	IET NO		Jammu & Kashmir					
			KHUDWANI	Pombay	Bandipore	Wadura		
			Mean	KHD	PMB	BNP		
2601	25826	102	108	112	105	111	109	101
2602	25828	85	102	105	100	103	102	91
2603	Vivekdhan 86 (NC)	86	106	109	103	109	107	92
2604	25819	84	96	100	94	98	97	89
2605	Shalimar Rice 3 (ZC)	79	87	91	85	90	88	81
2606	25827	79	86	93	83	85	87	82
2607	25818	88	96	99	94	97	97	90
2608	25154	74	85	90	83	88	87	80
2609	Local Check	81	85	90	84	87	87	84
2610	24195	87	101	108	99	86	99	90
2611	24197	97	105	112	103	108	107	98
	CV%		0.99	0.99	1.12	1.30		

Table No. 7.4: Plant height (cm) of entries in AVT 1-E (H), Kharif 2017

Elevations		Low Northern	Low Northern	Mean	Low Southern	Medium-Northern		
Entry No.	IET NO	Himachal Pradesh	Himachal Pradesh		Southern Hills	Uttarakhand	Jammu & Kashmir	Himachal Pradesh
		MALAN	Dhaulakuan		PONNAMPET	Almora ICAR	Rajouri	Palampur
		MLN	DLK		PNP	ALM	RJR	PLM
2601	25826		108	108	77.09	127	31	84.2
2602	25828	133.7	122	128	101.00	127	31.53	85.8
2603	Vivekdhan 86 (NC)	123.0	125	124	90.67	128	32.43	93
2604	25819	128.3	132	130	94.89	117	38.17	101.5
2605	Shalimar Rice 3 (ZC)	119.7	110	115	95.22	125	35.93	94
2606	25827	125.3	119	122	93.00	124	33.2	92.6
2607	25818	96.7	101	99	68.34	131	35	72.2
2608	25154	114.7	109	112	76.00	127	39.03	82.2
2609	Local Check	104.7	107	106	96.56	125	34.33	72
2610	24195	119.0	116	118	95.89	125	39.87	92.6
2611	24197	113.7	124	119	96.61	131	34.33	94.4

Table No. 7.4 contd: Plant height (cm) of entries in AVT 1-E (H), Kharif 2017

Elevations		Medium-Northern	High				
Entry No.	IET NO	Mean	Jammu & Kashmir				Mean
			KHUDWANI	Pombay	Bandipore	Wadura	
			KHD	PMB	BNP	WDR	
2601	25826	81	87.5	78.5	83.4	84.0	83
2602	25828	81	122.9	109.3	116.3	114.5	116
2603	Vivekdhan 86 (NC)	85	112.2	107.4	116.4	110.1	111
2604	25819	86	114.9	104.5	116.0	112.3	112
2605	Shalimar Rice 3 (ZC)	85	118.2	106.7	114.3	118.9	115
2606	25827	83	113.0	105.3	109.6	108.3	109
2607	25818	80	88.2	76.1	89.3	90.4	86
2608	25154	83	118.2	108.3	119.8	113.2	115
2609	Local Check	77	122.8	110.4	121.1	118.9	118
2610	24195	86	100.8	89.7	103.0	98.8	98
2611	24197	86	86.2	76.4	88.4	86.7	84

Table 7.5: Panicles/m² of entries in AVT 1-E (H), Kharif 2017

Elevations		Low Northern			Low Northern	Low Southern	Medium-Northern		
Entry No.	IET NO	Himachal Pradesh		Meghalaya		Southern Hills	Uttarakhand	Jammu & Kashmir	Himachal Pradesh
		MALAN	Dhaulakuan	UPPER SHILLONG		PONNAMPET	Almora ICAR	Rajouri	Palampur
		MLN	DLK	USG	Mean	PNP	ALM	RJR	PLM
2601	25826		379	278	329	319	299	207	436
2602	25828	198	363	200	254	319	237	257	451
2603	Vivekdhani 86 (NC)	188	274	195	219	329	226	239	312
2604	25819	148	347	287	261	218	249	241	399
2605	Shalimar Rice 3 (ZC)	180	309	263	251	292	234	229	339
2606	25827	195	282	241	239	232	227	270	371
2607	25818	213	307	287	269	327	234	275	364
2608	25154	175	296	189	220	402	229	245	427
2609	Local Check	172	339	202	238	249	246	219	456
2610	24195	238	273	227	246	277	233	208	369
2611	24197	248	345	335	309	276	223	233	398
	CV%	13.93	4.43	14.15		5.23	4.26	18.36	14.25

Table 7.5 contd.: Panicles/m² of entries in AVT 1-E (H), Kharif 2017

Elevations		Medium-Northern	High				High	Overall
Entry No.	IET NO		Jammu & Kashmir					
			KHUDWANI	Pombay	Bandipor e	Wadura		
			Mean	KHD	PMB	BNP		
2601	25826	314	339	236	328	362	316	318
2602	25828	315	447	352	419	425	411	333
2603	Vivekdhan 86 (NC)	259	381	263	376	335	339	283
2604	25819	296	486	334	439	394	413	322
2605	Shalimar Rice 3 (ZC)	268	556	363	443	491	463	336
2606	25827	290	527	349	489	471	459	332
2607	25818	291	330	230	326	334	305	293
2608	25154	300	551	404	506	516	494	358
2609	Local Check	307	489	348	479	469	446	333
2610	24195	270	390	250	358	366	341	290
2611	24197	285	289	208	240	303	260	282
	CV%		4.02	5.34	4.59	4.85		

Table 7.6: Grain quality characteristics of entries in AVT 1-E (H), Kharif 2017

Entry No.	IET NO	HULL	MILL	HRR%	K/L	K/B	L/B	Grain type	Grain Chalk	ASV	AC	GC
2601	25826	78	68.1	65.5	6.52	2.09	3.11	LS	VOC	4	25.08	58
2602	25828	79.4	68.7	62.5	6.79	2.46	2.76	LB	OC	4	28.13	30
2603	Vivekdhan 86 (NC)	81.4	71.5	63.8	5.49	2.45	2.24	SB	VOC	4	24.99	22
2604	25819	77.6	68.6	67.5	5.62	2.3	2.44	SB	VOC	4	22.08	50
2605	Shalimar Rice 3 (ZC)	78.8	67.6	66.3	5.34	2.43	2.19	SB	VOC	4	25.16	22
2606	25827	79	66.2	63.8	5.73	2.14	2.67	MS	VOC	4	26.54	22
2607	25818	81.8	70.7	69.6	5.74	2.45	2.34	SB	VOC	7	24.84	55
2608	25154	79.5	70.4	69.5	5.64	2.5	2.25	SB	VOC	7	24.08	22
2609	Local check	77.2	61.1	17.3	5.72	2.3	2.48	SB	VOC	4	25.31	33
2610	24195	79.4	70.3	64.9	6.26	2.36	2.65	LB	OC	4	21.97	38
2611	24197	77.4	67.8	53.3	6.63	2.14	3.09	LS	VOC	4	24.08	39

Table 7.7: Composition of entries in Initial Variety Trial - Early Hills, IVT -E (H), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st Year of testing				
2701	26557	VL 32112	VL 66 / BL 245	LB
2702	26558	SKAU 494 (K-1416-14-3)	Pureline selection for early maturity from Pusa Sugandha-3	LS
2703	26559	HPR 2842	Kalizini / HPR 2143 // HPR 2143	LS
2704	26560	TRC 2017-5	Kataktara / Naveen	LS
2705	26561	UPR 3971-7-1-1-1	Pant Dhan 10 / UPRI 2008-29	LS
2706	26562	VL 32109	VL 66 / BL 245	LB
2707	26563	SKAU 496 (K 11-1-1-3)	Chenab / IR 24	SB
2708	26564	TRC 2017-9	Fulbadam / Swarna	LS
2709	26565	HPR 2870	HPR 2143 / AC 19146 // VL 30424	LS
2710	Vivekdhan 86 (NC)			
2711	26566	UPR 3968-1-1-1-1	Pant Dhan 10 / NDR 2065	LS
2712	26567	VL 32110	VL 66 / BL 245	LB
2713	26568	SKAU 498 (K08-2-18-1-5)	Vivek Dhan-82 / Jehlum	LB
2714	26569	HPR 2660	HPR 1149 / HPU 2216 // HPR 2363	LS
2715	26570	SKAU 495 (K 10-1-1-1)	Jehlum / Shalimar Rice-1	LB
2716	Shalimar Rice 3 (ZC)			
2717	26571	VL 40437	VL 31638 / VL 30928	LS
2718	26572	SKAU 497 (K 11-24-1-7)	SKUA 292 / IR 28	SB
2719	26573	TRC 2017-1	Bhalum 3 / Naveen	LS
2720	26574	SKAU 499 (K 09-2-2-1)	SKUA 292 / Shalimar Rice-2	LB
2721	26575	HPR 2890	HPR 2143 / AC 19180// VL 30424	LS
2722	26576	SKAU 500 (K 1356-6-4)	SR-1 / Dular	LB
2723	Local Check			
2724	26577	SKAU 420 (K 1416-9)	Pureline Selection for early maturity from Pusa Sugandh-3	LS

Table No. 7.8: Grain yield (Kg/ha) of entries in IVT-E (H), Kharif 2017

Elevations		Low Northern								Low Northern(3)		Low Southern	
Entry No.	IET NO	Himachal Pradesh				HP(2)		MEGHALAYA(1)				Karnataka	
		MALAN		Dhaulakuan				USG				@PONNAMPET	
		MLN		DLK								@PNP	
2701	26557	4090	6	4472	5 *	4281	3 * 7%	2100		3554	8	2000	
2702	26558	2855		3361		3108		2500		2905		2758	8
2703	26559	3009		3806	*	3408		2900	6	3238		3091	5
2704	26560	3819		4486	3 *	4153	10	1900		3402		2626	9
2705	26561	3897	10	4417	7 *	4157	9	2950	5	3755	4 * 9%		
2706	26562	4012	8	4417	6 *	4215	7 * 6%	2150		3526	9	2111	
2707	26563	2045		2917		2481		1800		2254		859	
2708	26564	3318		5528	1 *	4423	2 * 11%	4000	2 * 42%	4282	1 * 24%	2869	7
2709	26565	4012	7	4472	4 *	4242	6 * 6%	2980	4 * 6%	3821	3 * 10%	2152	
2710	Vivekdhan 86 (NC)	4475	2	3500		3988		2400		3458	10	2384	10
2711	26566	3935	9	5486	2 *	4711	1 * 18%	3100	3 * 10%	4174	2 * 21%	3677	2
2712	26567	4668	1	3722	*	4195	8 * 5%	1780		3390		2101	
2713	26568	2662		2083		2373		1800		2182		1485	
2714	26569	3549		3319		3434		2650	9	3173		2869	6
2715	26570	2353		1611		1982		2240		2068		859	
2716	Shalimar Rice 3 (ZC)	3704		3167		3436		2820	8	3230		2101	
2717	26571	3434		3500		3467		2860	7	3265		1899	
2718	26572	1042		1752		1397		2240		1678		444	
2719	26573	2701		4389	8 *	3545		4050	1 * 44%	3713	5 * 7%	3525	3
2720	26574	4360	4	2583		3472		1950		2964		1758	
2721	26575	4282	5	4278	9 *	4280	4 * 7%	2570	10	3710	6 * 7%	3313	4
2722	26576	4398	3	4111	10 *	4255	5 * 7%	2280		3596	7	1747	
2723	Local Check	3704		3389		3547		1990		3028		4101	1
2724	26577	3009		3972	*	3491		2260		3080		2263	
	Exp. Mean	3472		3697		3585		2511		3227		2304	
	CD	669.8		391.46				400.01				632.46	
	CV%	9.33		5.12				7.7				13.24	
	D/S	06-07-2017		06-06-2017				04-07-2017				07-11-2017	
	D/P	07-10-2017		07-03-2017				31-07-2017				08-12-2017	
	Local Check Name	HPR 1068		HPR 2880				Khawlich				Tunga (IET 13901)	

Table No. 7.8 contd.: Grain yield (Kg/ha) of entries in IVT-E (H), Kharif 2017

Elevations		Medium Northern						Medium Northern(1)		High	
Entry No.	IET NO	Uttarakhand		Jammu & Kashmir		Himachal Pradesh(1)				Jammu & Kashmir	
		Almora ICAR		@Rajouri		Palampur		Mean		KHU DWANI	
		@ALM		@RJR		PLM				KHD	
2701	26557	3796	5 *	1300	5 *	5167	2	5167	2	4765	
2702	26558	2472		1300	4 *	3333		3333		7850	10
2703	26559	4056	2 *	1500	2 *	4167	5	4167	5	5650	
2704	26560	3241	7	1500	1 *	3208		3208		5488	
2705	26561	2037		1200	9	3958	7	3958	7	4750	
2706	26562	3556	6 *	500		3292		3292		7050	
2707	26563	278		600		3542		3542		9765	3
2708	26564	3870	4 *	600		3542		3542		3260	
2709	26565	3102	9	350		4583	4	4583	4	3150	
2710	Vivekdhan 86 (NC)	3148	8	500		3542		3542		2885	
2711	26566	2074		400		3292		3292		3243	
2712	26567	3926	3 *	700		3500		3500		4678	
2713	26568	222		550		3542		3542		9550	4
2714	26569	2889		1450	3 *	3667	9	3667	9	8250	8
2715	26570	880		350		2292		2292		8650	7
2716	Shalimar Rice 3 (ZC)	2267		600		3542	10	3542	10	9950	2
2717	26571	4213	1 *	800	10	2667		2667		4001	
2718	26572	250		550		3167		3167		8150	9
2719	26573	1926		650		375		375		2635	
2720	26574	1472		500		2708		2708		9400	5
2721	26575	3056		550		3708	8	3708	8	3080	
2722	26576	324		1200	8	5333	1 * 8%	5333	1 * 8%	9990	1
2723	Local Check	2676		1200	7	4958	3	4958	3	8910	6
2724	26577	3083	10	1250	6	3958	6	3958	6	6950	
	Exp. Mean	2451		838		3543		3543		6335	
	CD	689.2		272.52		655.92				707.84	
	CV%	13.6		15.73		8.95				5.4	
	D/S	24-05-2017		05-06-2017		15-06-2017				19-05-2017	
	D/P	24-06-2017		02-07-2017		15-07-2017				15-06-2017	
	Local Check Name	VLD 85		K-39		HPR 1068				Shalimar Rice 4	

Table No. 7.8 contd.: Grain yield (Kg/ha) of entries in IVT-E (H), Kharif 2017

Elevations		High						J&K(4)		High(4)		Overall(8)	
Entry No.	IET NO	Jammu & Kashmir											
		Pombay		Bandipore		Wadura							
		PMB		BNP		WDR		Mean		Mean		Mean	
2701	26557	3335		4275		3540		3979		3979		3968	
2702	26558	6340	6	7750	8	6900	10	7210	10	7210	10	5111	8
2703	26559	3565		5540		5110		4966		4966		4218	
2704	26560	3505		5500		5355		4962		4962		4158	
2705	26561	3370		4125		3515		3940		3940		3873	
2706	26562	4440		6800		6685		6244		6244		4856	10
2707	26563	7985	1 *	9515	2 *	9790	1	9264	1 * 5%	9264	1 * 5%	5920	3
2708	26564	3135		3980		3435		3453		3453		3775	
2709	26565	3105		3500		3470		3306		3306		3659	
2710	Vivekdhan 86 (NC)	2700		3550		3195		3083		3083		3281	
2711	26566	3350		3405		2785		3196		3196		3575	
2712	26567	3775		5335		4995		4696		4696		4057	
2713	26568	7520	2	9540	1 *	9075	3	8921	2	8921	2	5722	5
2714	26569	6070	8	8405	7	6585		7328	8	7328	8	5312	7
2715	26570	6065	9	7485	10	7720	6	7480	7	7480	7	4802	
2716	Shalimar Rice 3 (ZC)	7460	3	8415	6	9370	2	8799	4	8799	4	6054	2
2717	26571	3325		3595		4030		3738		3738		3427	
2718	26572	6020	10	7505	9	7530	8	7301	9	7301	9	4676	
2719	26573	2120		3500		3055		2828		2828		2853	
2720	26574	7450	4	8505	5	7670	7	8256	5	8256	5	5578	6
2721	26575	2920		4070		3325		3349		3349		3529	
2722	26576	7390	5	8870	3	8975	4	8806	3	8806	3	6418	1 * 6%
2723	Local Check	6225	7	8615	4	8325	5	8019	6	8019	6	5765	4
2724	26577	5725		6805		7515	9	6749		6749		5024	9
	Exp. Mean	4871		6191		5915		5828		5828		4567	
	CD	521.8		527.43		640.83							
	CV%	5.18		4.12		5.24							
	D/S	20-05-2017		22-05-2017		20-05-2017							
	D/P	17-06-2017		21-06-2017		20-06-2017							
	Local Check Name	Shalimar Rice 4		Shalimar Rice 4		Shalimar Rice 4							

Table No. 7.9: Days to 50% flowering of entries in IVT-E (H), Kharif 2017

Elevations		Low Northern			Low Northern	Low Southern	Medium Northern		
Entry No.		Himachal Pradesh		Meghalaya		Karnataka	Uttarakhand	Jammu & Kashmir	Himachal Pradesh
		MALAN	Dhaulakuan	UPPER SHILLONG		PONNAMPET	Almora ICAR	Rajouri	Palampur
		IET NO	MLN	DLK		USG	Mean	PNP	ALM
2701	26557	91	87	62	80	89	85	85	62
2702	26558	91	84	62	79	99	84	84	71
2703	26559	97	92	70	86	103	96	96	54
2704	26560	98	8	69	87	103	91	91	58
2705	26561	105	100	71	92		96	96	45
2706	26562	91	90	66	82	81	81	81	58
2707	26563	78	77	66	74	81	77	77	61
2708	26564	106	98	68	90	103	108	108	48
2709	26565	101	94	68	88	105	99	99	58
2710	Vivekdhan 86 (NC)	97	91	63	83	88	89	89	47
2711	26566	106	98	69	91	103	101	101	66
2712	26567	91	90	34	72	88	91	91	53
2713	26568	78	76	62	72	80	79	79	53
2714	26569	96	90	70	85	92	96	96	67
2715	26570	76	69	60	68	82	68	68	57
2716	Shalimar Rice 3	83	79	62	75	89	79	79	54
2717	26571	98	98	65	87	103	91	91	44
2718	26572	78	104	67	83	80	79	79	55
2719	26573	128	106	76	103	111	109	109	64
2720	26574	83	79	66	76	81	83	83	45
2721	26575	101	94	67	87	104	102	102	45
2722	26576	90	90	63	81	82	82	82	57
2723	Local Check	96	87	74	86	115	83	83	58
2724	26577	97	92	77	89	103	93	93	47
	CV%	0.62	0.64	12.29		0.76	0.87	3.55	2.20

Table No. 7.9 contd.: Days to 50% flowering of entries in IVT-E (H), Kharif 2017

Elevations		Medium Northern	High				High
Entry No.			Jammu & Kashmir				
			KHUDWANI	Pombay	Bandipore	Wadura	
			IET NO	Mean	KHD	PMB	
2701	26557	78	107	111	105	108	107
2702	26558	85	87	91	86	89	88
2703	26559	84	102	108	98	103	102
2704	26560	84	95	101	90	94	95
2705	26561	70	105	108	105	103	105
2706	26562	73	105	108	102	107	105
2707	26563	73	84	93	85	83	86
2708	26564	86	103	110	98	104	104
2709	26565	87	105	109	102	106	105
2710	Vivekdhan 86 (NC)	75	104	110	105	103	105
2711	26566	90	105	108	102	107	105
2712	26567	77	107	112	107	108	108
2713	26568	70	83	90	82	81	84
2714	26569	85	99	101	99	98	99
2715	26570	69	78	84	79	76	79
2716	Shalimar Rice 3 (ZC)	74	85	92	83	87	87
2717	26571	79	101	108	99	103	102
2718	26572	71	84	88	85	89	86
2719	26573	94	108	112	105	109	108
2720	26574	69	89	94	85	91	90
2721	26575	83	107	113	105	107	108
2722	26576	74	92	97	95	90	93
2723	Local Check	85	87	94	84	88	88
2724	26577	81	93	95	92	91	92
	CV%		0.94	1.03	1.19	0.88	

Table No. 7.10: Plant height (cm) of entries in IVT-E (H), Kharif 2017

Elevations		Low Northern			Low Southern	Medium Northern		
Entry No.	IET NO	Himachal Pradesh		Low Northern	Karnataka	Uttarakhand	Jammu & Kashmir	Himachal Pradesh
		MALAN	Dhaulakuan		PONNAMPET	Almora ICAR	Rajouri	Palampur
		MLN	DLK	Mean	PNP	ALM	RJR	PLM
2701	26557	119.5	109	114	86.05	124	40.3	95.6
2702	26558	100.0	101	101	68.21	110	32.9	83.2
2703	26559	105.0	107	106	69.38	109	40	94
2704	26560	108.0	102	105	75.88	112	32.4	87
2705	26561	101.5	103	102		105	43.8	82
2706	26562	118.5	109	114	92.05	131	38.7	88.2
2707	26563	105.5	108	107	90.18	116	45.9	97.4
2708	26564	100.5	110	105	84.18	124	42.2	90
2709	26565	110.5	108	109	70.35	120	35.3	98.4
2710	Vivekdhan 86 (NC)	123.5	117	120	96.68	123	42.1	103.8
2711	26566	94.5	103	99	75.02	125	29.4	74
2712	26567	116.0	104	110	89.35	126	34.4	122.2
2713	26568	114.5	112	113	95.49	118	40.3	94.4
2714	26569	108.5	98	103	87.15	112	40.9	79.2
2715	26570	102.5	99	101	73.65	116	45.3	83
2716	Shalimar Rice 3 (ZC)	114.0	108	111	90.49	126	38.9	89.4
2717	26571	147.5	126	137	105.65	133	36.9	119
2718	26572	105.5	109	107	71.99	106	25.1	93
2719	26573	91.5	107	99	67.15	109	37.2	83.2
2720	26574	129.0	115	122	96.32	133	34.3	88
2721	26575	109.0	98	104	76.77	119	41.2	87.4
2722	26576	122.5	105	114	94.27	122	48.4	88
2723	Local Check	97.0	106	102	95.47	121	30.5	80.6
2724	26577	100.0	98	99	68.13	107	45.2	75

Table No. 7.10 contd.: Plant height (cm) of entries in IVT-E (H), Kharif 2017

Elevations		Medium Northern	High				High
Entry No.	IET NO		Jammu & Kashmir				
			KHUDWANI	Pombay	Bandipore	Wadura	
		Mean	KHD	PMB	BNP	WDR	Mean
2701	26557	87	110.5	97.5	110.5	106.0	106
2702	26558	75	90.0	80.5	91.4	93.8	89
2703	26559	81	92.4	79.1	88.2	86.4	86
2704	26560	77	78.5	67.6	77.4	75.5	75
2705	26561	77	80.3	67.1	83.2	82.2	78
2706	26562	86	119.2	104.3	114.1	113.4	113
2707	26563	86	115.9	99.7	118.4	116.5	113
2708	26564	85	96.5	80.6	92.0	94.2	91
2709	26565	84	84.6	69.3	88.0	81.4	81
2710	Vivekdhan 86 (NC)	90	96.5	70.3	94.6	94.4	89
2711	26566	76	76.5	83.6	82.0	71.4	78
2712	26567	94	117.1	65.2	118.0	115.9	104
2713	26568	84	117.0	102.3	113.4	118.1	113
2714	26569	77	96.8	103.1	98.8	93.3	98
2715	26570	81	106.2	83.1	110.8	105.0	101
2716	Shalimar Rice 3 (ZC)	85	118.6	106.0	116.4	116.4	114
2717	26571	96	116.9	103.1	115.2	115.0	113
2718	26572	75	118.3	104.7	121.4	119.5	116
2719	26573	76	84.5	64.0	83.8	82.7	79
2720	26574	85	129.4	109.5	121.8	118.7	120
2721	26575	83	84.4	64.8	85.9	84.0	80
2722	26576	86	117.9	104.3	116.3	115.5	113
2723	Local Check	77	117.8	100.9	113.1	121.0	113
2724	26577	76	83.7	81.6	84.2	85.5	84

Table 7.11: Panicles/m² of entries in IVT-E (H), Kharif 2017

Elevations		Low Northern			Low Northern	Low Southern	Medium Northern		
Entry No.	IET NO	Himachal Pradesh		Meghalaya		Karnataka	Uttarakhand	Jammu & Kashmir	Himachal Pradesh
		MALAN	Dhaulakuan	UPPER SHILLONG		PONNAMPET	Almora ICAR	Rajouri	Palampur
		MLN	DLK	USG	Mean	PNP	ALM	RJR	PLM
2701	26557	170	239	186	198	418	271	189	381
2702	26558	160	293	223	225	287	267	169	372
2703	26559	195	281	257	244	534	242	201	386
2704	26560	175	324	175	225	418	236	193	354
2705	26561	160	338	264	254	.	257	174	418
2706	26562	195	326	201	241	447	277	197	420
2707	26563	143	250	240	211	483	256	182	438
2708	26564	135	290	310	245	410	255	192	363
2709	26565	170	337	282	263	497	223	196	400
2710	Vivekdhan 86 (NC)	165	238	216	206	512	252	143	344
2711	26566	180	280	284	248	410	236	146	409
2712	26567	158	237	236	210	526	257	126	361
2713	26568	168	135	223	175	409	244	201	449
2714	26569	235	198	245	226	395	254	175	403
2715	26570	198	134	189	174	554	246	194	374
2716	Shalimar Rice 3 (ZC)	168	260	261	230	395	286	181	318
2717	26571	158	319	272	250	307	258	198	407
2718	26572	133	340	206	226	729	266	187	421
2719	26573	208	307	325	280	507	262	180	427
2720	26574	120	220	166	169	434	242	201	374
2721	26575	180	366	234	260	361	252	199	407
2722	26576	168	319	199	229	564	240	179	502
2723	Local Check	160	372	163	232	303	289	172	577
2724	26577	180	284	204	223	376	281	184	408
		16.44	3.36	3.69		4.99	5.05	14.72	14.55

Table 7.11 contd.: Panicles/m² of entries in IVT-E (H), Kharif 2017

Elevations		Medium Northern	High				High
Entry No.	IET NO		Jammu & Kashmir				
			Mean	KHUDWANI	Pombay	Bandipore	
			KHD	PMB	BNP	WDR	Mean
2701	26557	280	355	279	338	334	327
2702	26558	269	431	322	399	388	385
2703	26559	276	403	313	358	399	368
2704	26560	261	281	261	299	254	274
2705	26561	283	372	271	333	355	333
2706	26562	298	363	273	353	379	342
2707	26563	292	492	369	435	457	438
2708	26564	270	337	240	358	326	315
2709	26565	273	390	294	333	353	343
2710	Vivekdhan 86 (NC)	246	330	235	324	336	306
2711	26566	264	380	236	397	376	347
2712	26567	248	410	296	400	425	383
2713	26568	298	535	365	458	444	451
2714	26569	277	464	333	429	431	414
2715	26570	271	471	319	448	481	430
2716	Shalimar Rice 3 (ZC)	262	533	371	489	492	471
2717	26571	288	283	177	220	236	229
2718	26572	291	453	309	393	437	398
2719	26573	290	365	234	328	352	320
2720	26574	272	522	317	464	486	447
2721	26575	286	342	248	354	336	320
2722	26576	307	500	365	429	469	441
2723	Local Check	346	530	316	460	507	453
2724	26577	291	500	354	493	458	451
			5.15	5.36	3.31	3.27	

ADVANCE VARIETY TRIAL 1-MEDIUM (HILLS) AVT 1-M (H)

Locations : 13

Test Entries : 12

**Checks : National -Vivekdhan 62; Zonal-VL Dhan 65 Table: 7.12
(North and South), RC Maniphou 11 (North East)
and Local**

Advanced Variety Trial 1-Medium (Hills) [AVT 1- M (H)] trial was conducted at 13 locations. The trial was constituted with 12 entries and three checks (National check, zonal check and local check). The trial was conducted at three different elevations viz., low elevation (<950 msl), medium elevation (950-1500 msl) and high elevation (>1500 msl). Data received from Lamphelpat (low CV), Wangbal (low CV), Umiam-ICAR (low mean yield) and Rajouri (high CV) was not considered for analysis. Overall mean yield across altitudes ranged from 2742 kg/ha (Vivekdhan 62, NC) to 4356 kg/ha (Local check). The information pertaining to yield, flowering, plant height, panicles/m² and quality data are presented in the tables 7.13, 7.14, 7.15, 7.16 and 7.17.

High Elevated Hills

At high elevations (>1500 msl), the data from three locations (Khudwani, Pombay and Bandipore) was used for analysis. The mean yield at high elevation ranged from 1714 kg/ha (IET 25834) to 6542 kg/ha (IET 25832), days to 50% flowering ranged from 95 days (IET 25832) to 111 days (IET 25833), plant height from 67 cm (IET 25839) to 107 cm (IET 28532), number of panicles/m² from 277 (Vivekdhan 62) to 438 (IET 25832).

IET 25832 (SKUA-487-K-09-26-4-4) derived from cross Pusa Sugandh 3/Mushkbudji recorded 6542kg/ha with 95 days to 50% flowering at high elevation. The entry out yielded the best check with 10% higher yield. It possess short bold grain type and registered 58.7% HRR, 4ASV, 27.04% AC, and 35mm GC as desirable grain quality. ***On the basis of yield superiority over best check, the test entry IET 25832 (SKUA-487-K-09-26-4-4) is promoted to third year of testing.***

Performance of promising entries at higher elevations in AVT 1 – M (H) during Kharif 2017

Rank	IET No/Designation/ Cross combination	Grain Yield(kg/ha) days to 50% flowering/ type	% yield superiority over best check	Remarks
1	25832 SKUA-487-K-09-26-4-4) Pusa Sugandh 3/Mushkbudji	6542 95 SB	10	Promoted to 3 rd year of testing
	Vivekdhan 62 (NC)	2201 109		
	Zonal Check (ZC)	2085 108		
	Local Check	5925 104		

Northern Medium elevation

At northern medium elevation, the data from Almora was used for data analysis. The yield ranged from 488 kg/ha (IET 25832) to 4622 kg/ha (IET 25838), days to 50% flowering ranged from 70 days (IET 25843) to 87 days (IET 25833); plant height ranged from 64 cm (IETs 25834, 24207) to 85 cm (IET 25843); number of panicles/m² ranged from 209 (IET 25842) to 232 (IET 25833).

In this elevation, five test entries IETs 25838 (28%), 25830 (26%), 25841 (24%), 25833 (23%) and 25836 (13%) out yielded the best check (National check).

IET 25838 (HPR 2748) derived from cross HS/T23//IR66295 recorded 4622kg/ha with 73 days to 50% flowering in the medium northern elevation. The entry out yielded the best check with 28% higher yield than the best check. It possess long slender grain type and registered undesirable milling and cooking quality i .e., low HRR of 50.3%, 3 ASV, 24.64% AC and hard GC of 45mm. **Hence, IET 25838 qualified for third year of testing.**

IET 25830 (VL 32237) derived from cross VL Dhan 85/VL 31631 recorded 4560 kg/ha with 74 days to 50% flowering in the medium northern elevation. The entry out yielded the best check with 26% higher yield than the best check. It possesses long slender grain type and registered undesirable grain qualities, i.e., 65.6% HRR, 7ASV, AC 25.37% and GC 23mm. **Hence, IET 25830 promoted to third year of testing.**

IET 25841 (RCM-33-MC-45-7-2-17) derived from cross IR 64/Phougak registered 4492kg/ha with 84 days to 50% flowering in the medium northern elevation. The entry recorded 24% higher yield best check in the region. It possess long slender grain type and

registered very good HRR of 70.2%, 5ASV, 5ASV, 26.66% AC and 43mm GC as desirable grain quality. *Hence, the test entry IET 25841 (RCM-33 -MC-45-7-2-17) is promoted to third year of testing.*

Performance of promising entries at northern medium elevation in AVT 1 – M (H) Kharif 2017

Rank	IET No/Designation/ Cross combination	Grain Yield(kg/ha) days to 50% flowering/ grain type	% superiority yield over best check	Remarks
1	25838 HPR 2748 HS/T23//IR66295	4622 73 LS	28	Promoted to 3 rd year of testing
2	25830 VL 32237 VL Dhan 85/VL 31631	4560 74 LS	26	Promoted to 3 rd year of testing
3	25841 RCM-33-MC-45-7-2-17 IR 64/Phougak	4492 84 LS	24	Promoted to 3 rd year of testing
4	25833 TRC 2016-4 Bhalum3/Naveen	4453 87 LS	23	Promoted to 3 rd year of testing
5	25836 TRC 2016-3 Bhalum/Naveen	4095 85 SB	13	Promoted to 3 rd year of testing
	Vivekdhan 62 (NC)	3366 79		
	Zonal Check (ZC)	3613 82		
	Local Check	3079 78		

IET 25833(TRC 2016-4) derived from cross Bhalum3/Naveen registered 4453kg/ha with 87 days to 50% flowering in the medium northern elevation. The tests entry recorded 23% higher yield over best check in the region. The entry possess long slender grain type and registered 65%.HRR, 4ASV, 25.93 %AC, and 59mm GC as desirable grain quality. *Hence, IET 25833(TRC 2016-4) is promoted to third year of testing.*

IET 25836 (TRC 2016-3) derived from cross Bhalum/Naveen recorded 4095kg/ha with 85 days to 50% flowering in the northern medium elevation. The entry registered 13% yield superiority over best check in this region. It possess short bold grain type and registered 52.3% HRR, 4ASV, 22.3 %AC, and 48mm GC as desirable grain quality. *Hence, the test entry IET 25836 (TRC 2016-3) is promoted to third year of testing.*

Northern Low elevations

In this elevation, data received from four locations viz., CAU Barapani, Upper Shillong, Malan and Dhaulakuan was used for analysis. The overall mean grain yield in this ranged from 3057 kg/ha (IET 25830) to 4607 kg/ha (IET 25836), while days to 50% flowering ranged from 85 days (IETs 25842 and 25832) to 104 days (IET 25842); plant height ranged from 90 cm (IET 25833) to 125 cm (IET 25830) and panicles/m² ranged from 219 (IET 25841) to 254 (IET 25843).

In this elevation, none of the test entries showed yield superiority over the best check (zonal check).

Southern Low elevation

In this elevation, data from Sirsi, Karnataka was used for analysis. The overall grain yield in this region ranged from 1711 kg/ha (Vivekdhan 62 – National check) to 5100 g/ha (IET 25836), while days to 50% flowering arranged between 64 days (IET 25832) to 97 days (IET 25836 and 25833); plant height ranged from 82 cm (IET 25833) to 151 cm (IET 25830) and number of panicles/m² ranged from 294 (IET 25830) to 403 (IET 25843).

In this elevation, none of the entries showed yield superiority over the best check (local check).

Three Years Performance of entries IET 24207 Medium hills during 2014, 2015 and 2016 in overall mean

IET No/ Designation/ Cross combination	Year	Yield Advantage % over best check					
		Elevation				Medium	
		Low	Medium		High	Northern	Southern
		Southern	Northern	Southern		UK	TN
24207 HPR 2696 HS/T-23/IR 66295-36-2	2014	-	-	-	-	-	10.8
	2015	-	12	-	-	12	-
	2016	-	-	-	-	-	-
	2017	-	-	-	-	-	-

IET 24207 (HPR 2696) derived from the cross HS/T-23/IR 66295-36-2 did not show yield superiority over best check in any state during 2016 and 2017. However it recorded 10.8% and 12.1% yield superiority over best check in the state of Tamil Nadu (Year 2014) and Uttarakhand (Year 2015) respectively. It recorded 42% HRR, 4 ASV, 24.34% AC and 22 GC. Since, this entry did not show consistent performance over two years in any states, therefore discontinued.

INITIAL VARIETY TRIAL- MEDIUM (HILLS) IVT-M (H)**Locations: 15****Test Entries: 20****Checks : Vivekdhan 62 (NC), VL Dhan 65 (ZC for North & South), RC Maniphou 11 (ZC for North East) and Local Table: 7.18**

Initial Variety Trial – Medium (Hills) comprised of 23 entries including 20 test entries and 3 checks viz., Vivekdhan 62 (National Check), VL Dhan 65 (Zonal Check for North & South), RC Maniphou 11 (Zonal Check for North East) and Local check. The trial was sent to 15 locations of various altitudes. The data was not received from 3 locations viz. Imphal (CAU), Wadura (Khudwani) and Rajouri. The data from Wangbal had low CV and data from ICAR-Umiam reported low experimental mean grain yield (1359 kg/ha), the data from Lamphelpat-ICAR was incomplete. Hence data from Wangbal, ICAR-Umiam, Barapani and Lamphelpat-ICAR were not included in overall mean and analysis. Overall mean yield ranged from 2761 kg/ha (IET 26583) to 5358 (local check); days to 50% flowering ranged from 87 days (IET 26586 and IET 26591) to 116 days (IET 26587); plant height ranged from 84 cm (IET 26587) to 129 cm (National check) and number of panicles/m² ranged from 243 (IET 26585) to 300 (local check). Six entries showed more than 5% yield advantage over best check at low altitude locations in northern region, while none of the entries showed more than 5% yield advantage over best check at low altitude location in southern region. The data pertaining to yield, flowering, plant height and panicles/m² are presented in the tables 7.19, 7.20, 7.21 and 7.22. In medium elevation, six entries and in high elevation 2 entries recorded required level of yield superiority over the best check. Performance of the test entries at different elevations is discussed below.

Low altitude Northern (≤ 950 MSL)

IVT-M (H) was conducted at 6 locations Lamphelpat, Wangbal, Upper Shillong, CAU-Umiam, Malan and Dhaulakuan. The data from Lamphelpat was incomplete and the data from Wangbal showed low CV, hence the data from these locations was not included in overall mean and analysis. The mean grain yield of the entries ranged from 1930 kg/ha (IET 26583) to 4236 (IET 26596); days to 50% flowering ranged from 85 days (IET 26586) to 124 days (IET 26587); plant height ranged from 84 cm (IET 26587) to 130 cm (National check), number of panicles/m² ranged from 206 (IET 26580) to 271 (IET 26588). Among the checks, zonal check recorded highest grain yield of 3541 kg/ha.

IET 26596 (VL 32130) a derivative of the cross VL 10689/UPRI 2005-15 ranked first with a mean grain yield of 4236 kg/ha, Short Bold grain with 97 days to 50% flowering. It showed 20% yield superiority over the best check.

IET 26594 (HPR 2929) derived from the cross Kalizini/HPR 2143//HPR 2143 ranked second with a mean yield of 4053 kg/ha with 100 days to 50% flowering having long slender grain type. It showed 14% yield superiority over the best check.

IET 26585 (TRC 2017-4) a derivative of the cross Kataktara/Naveen ranked third with a mean grain yield of 3939 kg/ha, Long Slender grain with 99 days to 50% flowering. It showed 11% yield superiority over the best check.

**Performance of promising entries at Northern Low elevated Hills in Initial variety Trial -
Medium Hills IVT- M (H), Kharif 2017.**

Rank	IET No/Designation/ Cross combination	Grain Yield(Kg/ha) Days to 50% flowering/ Grain type	%yield superiority over best check (ZC)
1	26596 VL 32130 VL 10689/UPRI 2005-15	4236 97 SB	20
2	26594 HPR 2929 Kalizini/HPR 2143//HPR 2143	4053 100 LS	14
3	26585 TRC 2017-4 Kataktara/Naveen	3939 99 LS	11
4	26582 HPR 2768 Him 1/IR 53915	3878 100 LS	10
5	26597 UPR 3991-32-2-1-1 Pant Dhan 19/UPRI 2008-16	3770 102 LS	6
6	26579 HPR 2922 HPU 741/HPR 1149	3724 97 LS	5
	Vivek Dhan 62 (NC)	2359 97	
	Zonal Check (ZC)	3541 108	
	Local Check	3523 102	

Low altitude Southern (≤ 950 MSL)

The trial was conducted in only one location i.e., Sirsi, Karnataka. None of the entries showed required yield superiority against the best check (Local check – 5989 kg/ha). Hence none of the entries were promoted to AVT1- M (H).

Medium altitude hills (951-1500 MSL)

IVT-M (H) was evaluated only at one location i.e. Almora (1250 MSL) in Uttarakhand. Hence entries with more than 10% yield advantage over the best check were considered for promotion. The mean grain yield at medium altitude ranged from as low as 258 kg/ha (IET 26578) to 6563 kg/ha (IET 26580). The days to 50% flowering ranged from 76 days (IET 26591) to 122 days (IET 26587); plant height ranged from 92 cm (IET 26583) to 133 cm (National check) and number of panicles/m² ranged from 204 (IET 26578) to 273 (IET 26594). Among the checks, zonal check recorded highest grain yield of 4766 kg/ha followed by local check 4180 kg/ha.

Performance of promising entries at Northern Medium elevated Hills in Initial variety Trial - Medium Hills IVT- M (H), Kharif 2017.

Rank	IET No/Designation/ Cross combination	Grain Yield(Kg/ha) Days to 50% flowering/ Grain type	%yield superiority over best check (ZC)
1	26580 VL 32131 VL 10689/UPRI 2005-15	6563 97 SB	38
2	26582 HPR 2768 Him 1/IR 53915	6406 95 LS	34
3	26596 VL 32130 VL 10689/UPRI 2005-15	6234 96 SB	31
4	26588 VL 40387 VL 31634/Pusa Basmati 1	5648 103 LS	19
5	26585 TRC 2017-4 Kataktara/Naveen	5352 99 LS	12
	Vivek Dhan 62 (NC)	3594 98	
	Zonal Check (ZC)	4766 98	
	Local Check (LC)	4180 98	

IET 26580 (VL 32131) a derivative of the cross VL 10689/UPRI 2005-15 ranked first with grain yield of 6563 kg/ha. It showed 38% yield advantage over best check (zonal check). It possessed short bold grain type and attained 50% flowering in 97 days.

The second ranking entry **IET 26582** (HPR 2768) derived from the cross Him 1/IR 53915 yielded 6406 kg/ha with 34% higher grain yield over the best check. It has taken 95 days to attain 50% flowering and had Long Slender grains.

The entry **IET 26596** (VL 32130) derive from the cross VL 10689/UPRI 2005-15 ranked third and yielded 6234 kg/ha with 31% higher yield than the best check. It has taken 96 days to attain 50% flowering and had Short Bold grain type.

High altitude (≥ 1501 MSL)

The trial was conducted at four locations *viz.*, ICAR-Umiam (conducted at Upper Shillong), Khudwani, Pombay and Bandipore under high altitude. The data from ICAR-Umiam was not included in overall mean and analysis due to low mean (1359 kg/ha). The overall mean grain yield at this altitude ranged from 2430 kg/ha (zonal check) to 8698 kg/ha (IET 26578); days to 50% flowering ranged from 67 days (IET 26587) to 108 days (National check); while number of panicles/m² ranged from 240 (IET 26585) to 372 (IET 26578) and plant height ranged from 67 cm (IET 26587) to 108 cm (National check). Among the checks, local check emerged as best check with grain yield of 5358 kg/ha.

Performance of promising entries at High elevated Hills in Initial variety Trial - Medium Hills IVT- M (H), Kharif 2017.

Rank	IET No/Designation/ Cross combination	Grain Yield (Kg/ha) Days to 50% flowering/ Grain type	% yield superiority over best check (Local check)
1	26578 SKAU 501(K 08-20-11) SR-1/VL Dhan 62	8698 99 LS	9
2	26591 SKAU 502 (K 08-24-11) SR-1/VL Dhan 209	8532 87 LB	7
	Vivek Dhan 62 (NC)	3532 113	
	Zonal Check (ZC)	2430 112	
	Local Check (LC)	7988 99	

IET 26578 [SKAU 501 (K-08-20-11)] a derivative of the cross SR-1/VL Dhan 62, occupied first rank in grain yield (8698 kg/ha). It showed significantly higher yield (9835 kg/ha) and ranked first at Khudwani, ranked first at Pombay (7605 kg/ha) and ranked 3rd at Bandiore (8655 kg/ha). It showed 9% yield advantage over the best check (local check). It possessed long bold grain with 99 days to 50% flowering, it ranked first in the state of Jammu and Kashmir with 9% yield advantage over the best check.

IET 26591 [SKAU 502 (K 08-24-11)] derived from the cross SR-1/VL Dhan 209 yielded 8532 kg/ha with 7% higher yield than the best check. It recorded 87 days to 50% flowering duration with long bold grain type.

On the basis of more than 5% yield superiority over the best check, IET 26596 (VL 32130), IET 26594 (HPR 2929), IET 26585 (TRC 2017-4), IET 26582 (HPR 2768), IET 26597 (UPR-3991-32-2-1-1) and IET 26579 (HPR 2922) are qualified for promotion to AVT-1 M (H) under northern low elevation.

Under low altitude southern region, none of the test entries showed required yield superiority over best check, hence none of the entries was promoted in this region.

Under medium altitude locations of northern region, IET 26580 (VL 32131), IET 26582 (HPR 2768), IET 26596 (VL 32130), IET 26588 (VL 40387) and IET 26585 (TRC 2017-4) are promoted to AVT-1 M (H).

Under high altitude of northern regions, only two entries IET 26578 [SKAU 501(K 08-20-11)] and IET 26591 [SKAU 502 (K 08-24-11)] were found to be superior over the best check and hence promoted to AVT-1 M (H) in this region.

Table 7.12: Composition of entries in Advance Variety Trial 1- Medium Hills, AVT 1-M (H), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
2nd year of testing				
2801	25836	TRC 2016-3	Bhalum 3 / Naveen	SB
2802	25830	VL 32237	VL Dhan 85 / VL 31631	LS
2803	25839	UPRI 3908-18-2-1-1	UPR 26 / UPR 2654-12-1-1 / Pant Dhan 16	LB
2804	25832	SKUA-487 (K-09-26-4-4)	Pusa Sugandh 3 / Mushkbudji	SB
2805	Vivekdhan 62 (NC)			
2806	25833	TRC 2016-4	Bhalum 3 / Naveen	LS
2807	25842	SKUA-488 (K09-24-7-3)	Pusa Sugandh 3 / Kamad	SB
2808	25841	RCM-33 (MC-45-7-2-17)	IR 64 / Phougak	LS
2809	VL Dhan 65 (ZC for North & South), RC Maniphou 11 (ZC for North East)			
2810	25843	HPR 2726	HS / T 23 // IR 67011	LS
2811	25840	VL 32194	VL Dhan 81 / Vandana	LS
2812	25838	HPR 2748	HS / T 23 // IR 66295	LS
2813	25834	UPRI 2014-2	PR 29232-B-17-2-1-1 / IR 64	LS
3rd year of testing:				
2814	24207	HPR 2696	HS / T 23 / IR 66295-36-2	LS
2815	Local Check			

Table No. 7.13 : Grain yield (kg/ha) of entries in AVT1-M (H), Kharif 2017

Elevations		Low Northern														
Entry No.	IET NO	Manipur			Meghalaya				Meghalaya(2)		Himachal Pradesh				HP(2)	
		Lamphelp at- ICAR	Wangbal		CAU, Barapani		UPPER SHILLONG				MALAN		Dhaulakuan			
		@LPP	@WBL		CAU-UMM		USG	Mean	MLN		DLK	Mean				
2801	25836	3833	2733		4008	10	4350	2 *	4179	4	5186	3	4883	1 *	5035	1 * 11%
2802	25830	2773	3913	6 *	3336		2700	8	3018		3924		2267		3096	
2803	25839	2940	4467	2 *	4059	8	4447	1 *	4253	3	3904		4333	4 *	4119	5
2804	25832	2887	4000	5 *	4921	5	2273		3597	7	4254	10	2233		3244	
2805	Vivekdhan 62 (NC)	2967	3667	9	4312	6	2040		3176		4798	4	1850		3324	
2806	25833	3053	5333	1 *	3695		3173	6	3434	8	4118		4017	5 *	4068	7
2807	25842	2333	2667		4015	9	2350		3183		5361	2	2867		4114	6
2808	25841	3167	3667	8	5018	4	2950	7	3984	5	4468	7	4467	3 *	4468	4
2809	Zonal Check (ZC)	3220	2833		5210	2	3810	3	4510	1	5381	1	3717	7	4549	2
2810	25843	2740	4333	4 *	3241		3350	5	3296	9	4507	6	2883	10	3695	9
2811	25840	2707	4333	3 *	5218	1	3380	4	4299	2	4274	9	3783	6	4029	8
2812	25838	2800	1133		5156	3	2650	9	3903	6	4274	8	2867		3571	
2813	25834	2767	3833	7	3577		2143		2860		4507	5	4517	2 *	4512	3
2814	24207	2800	3600	10	3167		2553	10	2860		4138		3217	8	3678	10
2815	Local Check	3167	3333		4090	7	2447		3269	10	3749		3150	9	3450	
	EXP Mean	2943.6	3590		4202		2974.45		3588.1		4456		3403		3930	
	CD	0	0.00		835.02		1019.95				1115.91		367.72			
	CV%	0	0.00		9.70		16.74				12.23		5.27			
	D/S	25-05-2017	10-07-2017		10-06-2017		04-07-2017				12-06-2017		06-06-2017			
	D/P	20-06-2017	31-07-2017		17-07-2017		29-07-2017				08-07-2017		07-03-2017			
	Local Check Name		Punshi		Shahsarang		Saila				HPR 2143		HPR 1156			
@ Indicates location is not included in the mean																

Table No. 7.13 contd : Grain yield (kg/ha) of entries in AVT1-M (H), Kharif 2017

Elevations		Northern Low(4)		Low Southern				Medium Northern						Medium Northern(1)	
Entry No.	IET NO			Karnataka				Uttarakhand		UK(1)		J&K			
				Sirsi		Southern Low(1)		Almora ICAR				Rajouri			
		Mean		SRS		Mean		ALM		Mean		@RJR		Mean	
2801	25836	4607	1	5100	1	5100	1	4095	5 *	4095	5 * 13%	1733	4	4095	5 * 13%
2802	25830	3057		4067	7	4067	7	4560	2 *	4560	2 * 26%	1267	10	4560	2 * 26%
2803	25839	4186	4	4111	6	4111	6	3802	6 *	3802	6 * 5%	1667	6	3802	6 * 5%
2804	25832	3420		1844		1844		488		488		1567	7	488	
2805	Vivekdhan 62 (NC)	3250		1711		1711		3366	9	3366	9	1967	1	3366	9
2806	25833	3751	6	3144	10	3144	10	4453	4 *	4453	4 * 23%	1833	3	4453	4 * 23%
2807	25842	3648	9	1511		1511		2512		2512		1867	2	2512	
2808	25841	4226	3	3722	8	3722	8	4492	3 *	4492	3 * 24%	933		4492	3 * 24%
2809	Zonal Check (ZC)	4530	2	3467	9	3467	9	3613	7	3613	7	1700	5	3613	7
2810	25843	3495	10	2778		2778		3125	10	3125	10	1367	9	3125	10
2811	25840	4164	5	4322	4	4322	4	3379	8	3379	8	1467	8	3379	8
2812	25838	3737	7	3111		3111		4622	1 *	4622	1 * 28%	800		4622	1 * 28%
2813	25834	3686	8	4322	3	4322	3	3122		3122		833		3122	
2814	24207	3269		4233	5	4233	5	2663		2663		633		2663	
2815	Local Check	3359		4911	2	4911	2	3079		3079		1033		3079	
	EXP Mean	3759		3490		3490		3425		3425		1378		3425	
	CD			1231.72				1458.61				890.15			
	CV%			17.23				20.79				31.54			
	D/S			21-06-2017				25-05-2017				06-06-2017			
	D/P							27-06-2017				02-07-2017			
	Local Check Name			MGD-101				VLD 61				K-39			

Table No. 7.13 contd : Grain yield (kg/ha) of entries in AVT1-M (H), Kharif 2017

Elevations		High								J&K(3)		High(3)		Overall(9)	
Entry No.	IET NO	Meghalaya		Jammu & Kashmir											
		ICAR-Umian		KHUDWANI		Pombay		Bandipore							
		@UMM-ICAR		KHD		PMB		BNP		Mean		Mean		Mean	
2801	25836	1315		2347	8	1878		1764		1996		1996		3735	3
2802	25830	1297		2204		1993		2156	8	2118	10	2118	10	3023	
2803	25839	1342		2322	9	2289	7	2184	7	2265	7	2265	7	3495	7
2804	25832	1347		7187	1 *	5707	1 *	6733	1 *	6542	1 * 10%	6542	1 * 10%	3960	2
2805	Vivekdhan 62 (NC)	1363	10	2311	10	2311	6	1982		2201	9	2201	9	2742	
2806	25833	1552	4	1896		1791		1860		1849		1849		3127	
2807	25842	1586	3	5164	3	4373	3	5078	3	4872	3	4872	3	3692	4
2808	25841	1509	5	1760		2011	9	1800		1857		1857		3410	9
2809	Zonal Check (ZC)	1610	2	2431	6	1800		2024	10	2085		2085		3495	6
2810	25843	1359		4811	4	2329	5	4082	4	3741	4	3741	4	3456	8
2811	25840	1391	9	2284		3309	4	2153	9	2582	5	2582	5	3567	5
2812	25838	1470	6	3058	5	2004	10	2502	5	2521	6	2521	6	3360	10
2813	25834	1423	8	1727		1691		1724		1714		1714		3037	
2814	24207	1431	7	2347	7	2111	8	2329	6	2262	8	2262	8	2973	
2815	Local Check	2580	1	6498	2	5331	2	5947	2	5925	2	5925	2	4356	1
	EXP Mean	1505		3223		2729		2955		2969		2969		3429	
	CD	450.71		473.79		260.99		416.07							
	CV%	14.62		7.18		4.67		6.87							
	D/S	21-05-2017		19-05-2017		20-05-2017		23-05-2017							
	D/P	28-06-2017		18-06-2017		17-06-2017		22-06-2017							
	Local Check Name	NEH Meega Rice 1		Shalimar Rice 4		Shalimar Rice 4		Shalimar Rice 4							

Table No. 7.14: Days to 50% flowering of entries in AVT 1-M (H), Kharif 2017

Elevations		Low Northern					Low Northern	Low Southern
Entry No.	IET NO	Manipur	Meghalaya		Himachal Pradesh	Himachal Pradesh		Karnataka
		Lamphelpat- ICAR	CAU, Barapani	UPPER SHILLONG	MALAN	Dhaulakuan		Sirsi
		@LPP	CAU-UMM	USG	MLN	DLK	Mean	SRS
2801	25836	98	102	78	99	103	96	97
2802	25830	86	110	67	93	87	89	68
2803	25839	96	112	76	106	96	98	86
2804	25832	78	113	64	81	81	85	64
2805	Vivekdhani 62 (NC)	83	108	67	99	94	92	72
2806	25833	95	116	84	109	106	104	97
2807	25842	78	103	66	86	85	85	68
2808	25841	98	98	81	107	100	97	89
2809	Zonal Check (ZC)	119	106	78	93	96	93	85
2810	25843	92	106	73	93	86	90	76
2811	25840	96	113	73	100	97	96	80
2812	25838	93	107	74	99	91	93	83
2813	25834	95	113	75	100	94	96	86
2814	24207	93	113	73	95	89	93	84
2815	Local Check	121	116	78	91	85	93	95
	CV%	0.00	3.51	4.62	1.23	0.63		0.29

Table No. 7.14 contd.: Days to 50% flowering of entries in AVT 1-M (H), Kharif 2017

Elevations		Medium Northern		Medium Northern	High				High
Entry No.	IET NO	Uttarakhand	Jammu & Kashmir		Meghalaya	Jammu & Kashmir			
		Almora ICAR	Rajouri		ICAR- Umiam	KHUDWANI	Pombay	Bandipore	
		ALM	RJR			UMM-ICAR	KHD	PMB	
2801	25836	108	62	85	113	106	111	107	109
2802	25830	96	51	74	110	104	109	106	107
2803	25839	98	61	80	109	108	111	112	110
2804	25832	81	67	74	107	87	92	92	95
2805	Vivekdhan 62 (NC)	97	60	79	112	106	109	108	109
2806	25833	106	67	87	114	110	110	110	111
2807	25842	97	60	79	107	99	106	103	104
2808	25841	106	61	84	105	108	112	110	109
2809	Zonal Check (ZC)	96	67	82	107	106	112	108	108
2810	25843	94	45	70	112	98	101	99	103
2811	25840	96	60	78	114	105	110	108	109
2812	25838	98	48	73	111	105	111	105	108
2813	25834	97	67	82	112	106	111	107	109
2814	24207	98	60	79	111	107	108	109	109
2815	Local Check	100	56	78	128	93	97	96	104
	CV%	1.15	3.02		2.88	1.08	1.00	0.83	

Table No. 7.15: Plant height (cm) of entries in AVT 1-M (H), Kharif 2017

Elevations		Low Northern					Low Northern	Low Southern	Medium Northern	
Entry No.	IET NO	Manipur		Meghalaya	Himachal Pradesh			Karnataka	Uttarakhand	Jammu & Kashmir
		Lamphelpat-ICAR	Wangbal	CAU Barapani	MALAN	Dhaulakuan		Sirsi	Almora ICAR	Rajouri
		LPP	WBL	CAU-UMM	MLN	DLK		Mean	SRS	ALM
2801	25836	104	80	92	86	93	91	96	99	31
2802	25830	152	100	118	134	122	125	151	133	32
2803	25839	110	80	98	85	79	90	84	101	32
2804	25832	128	100	108	119	115	114	125	121	38
2805	Vivekdhan 62 (NC)	150	79	104	137	132	120	142	131	36
2806	25833	96	75	107	90	84	90	82	109	33
2807	25842	126	100	107	131	111	115	126	121	35
2808	25841	107	100	111	100	104	104	96	106	39
2809	Zonal Check (ZC)	102	78	87	126	116	102	129	129	34
2810	25843	138	100	108	138	124	122	131	131	40
2811	25840	136	101	105	117	122	116	126	128	34
2812	25838	117	74	106	108	105	102	100	111	33
2813	25834	104	100	89	85	94	94	88	94	35
2814	24207	103	88	86	94	95	93	96	98	30
2815	Local Check	102	85	83	109	111	98	106	126	30

Table No. 7.15 contd.: Plant height (cm) of entries in AVT 1-M (H), Kharif 2017

Elevations		Medium Northern	High				High
Entry No.	IET NO		Meghalaya		Jammu & Kashmir		
			ICAR-Umiam	KHUDWANI	Pombay	Bandipore	
Mean	UMM-ICAR	KHD	PMB	BNP	Mean		
2801	25836	65	65	78	56	72	68
2802	25830	82	80	123	110	117	107
2803	25839	67	56	74	64	74	67
2804	25832	80	67	127	114	118	107
2805	Vivekdhani 62 (NC)	84	63	110	101	107	95
2806	25833	71	71	91	80	87	82
2807	25842	78	70	128	109	120	106
2808	25841	73	59	79	67	78	71
2809	Zonal Check (ZC)	82	74	90	77	85	82
2810	25843	85	63	120	102	115	100
2811	25840	81	61	99	87	91	84
2812	25838	72	47	88	77	85	74
2813	25834	64	75	75	60	78	72
2814	24207	64	59	78	65	72	69
2815	Local Check	78	74	120	105	116	104

Table 7.16: Panicles/m² of entries in AVT 1-M (H), Kharif 2017

Elevations		Low Northern						Low Northern	Low Southern
Entry No.	IET NO	Manipur		Meghalaya		Himachal Pradesh			Karnataka
		Lamphelpat-ICAR	Wangbal	CAU, Barapani	UPPER SHILLONG	MALAN	Dhaulakuan		Sirsi
		LPP	WBL	CAU-UMM	USG	MLN	DLK		Mean
2801	25836	237	253	230	308	253	250	259	399
2802	25830	184	235	175	276	205	232	225	294
2803	25839	205	354	246	322	253	217	278	350
2804	25832	200	302	189	261	177	230	232	314
2805	Vivekdhani 62 (NC)	193	279	204	268	162	217	226	343
2806	25833	213	389	198	297	248	190	264	300
2807	25842	170	249	242	274	177	279	244	323
2808	25841	217	270	186	233	192	215	219	310
2809	Zonal Check (ZC)	220	246	238	307	247	231	254	370
2810	25843	192	299	208	280	247	238	254	403
2811	25840	200	382	271	279	255	254	288	360
2812	25838	201	265	208	242	312	241	254	393
2813	25834	205	283	127	238	203	287	228	399
2814	24207	190	361	205	150	263	236	243	383
2815	Local Check	215	342	188	283	208	285	261	343
	CV%	4.66	0.10	11.56	12.88	15.66	2.73		6.72

Table 7.16 contd: Panicles/m² of entries in AVT 1-M (H), Kharif 2017

Elevations		Medium Northern		Medium Northern	High				High
Entry No.	IET NO	Uttarakhand	Jammu & Kashmir		Meghalaya	Jammu & Kashmir			
		Almora ICAR	Rajouri		ICAR-Umiam	KHUDWANI	Pombay	Bandipore	
		ALM	RJR		Mean	UMM-ICAR	KHD	PMB	
2801	25836	217	211	214	274	394	268	336	318
2802	25830	269	217	243	284	407	254	360	326
2803	25839	233	216	224.5	273	380	278	395	332
2804	25832	214	208	211	299	549	383	521	438
2805	Vivekdhani 62 (NC)	270	225	247.5	281	307	216	303	277
2806	25833	257	208	232.5	261	340	244	317	291
2807	25842	222	196	209	304	504	378	454	410
2808	25841	260	220	240	276	366	208	322	293
2809	Zonal Check (ZC)	281	185	233	281	327	203	302	278
2810	25843	272	224	248	283	512	316	431	386
2811	25840	239	228	233.5	288	339	217	343	297
2812	25838	247	214	230.5	286	319	184	282	268
2813	25834	231	206	218.5	289	348	217	353	302
2814	24207	243	190	216.5	314	382	235	380	328
2815	Local Check	263	183	223	305	561	372	493	433
	CV%	4.77	15.29		6.89	6.60	3.37	4.70	

Table 7.17: Grain quality characteristics of entries in AVT1-M (H), Kharif 2017

Entry No.	IET NO	HULL	MILL	HRR%	K/L	K/B	L/B	Grain type	Grain Chalk	ASV	AC	GC
2801	25836	79.4	69.6	52.3	5.15	2.24	2.29	SB	VOC	4	22.23	48
2802	25830	79.9	67.2	65.6	6.92	2.16	3.2	LS	VOC	7	25.37	23
2803	25839	79.2	60.1	34.6	6.17	2.35	2.62	LB	VOC	3	24.55	58
2804	25832	79.3	67.7	58.7	5.67	2.47	2.29	SB	OC	4	27.04	35
2805	Vivekadhan-62	80.4	61.5	58.5	5.21	2.53	2.05	SB	OC	4	24.31	23
2806	25833	78	68.4	65	6.78	2.06	3.29	LS	A	4	25.93	59
2807	25842	80	69.7	63.9	5.27	2.51	2.09	SB	OC	4	26.95	22
2808	25841	79.4	72.4	70.2	6.67	2.17	3.07	LS	OC	5	26.66	43
2809	VL DHAN 65 (ZC)	75.7	58.7	33.3	6.34	2.19	2.89	LB	VOC	4	25.84	32
2810	25843	78.1	63.8	49.1	6.77	1.97	3.43	LS	VOC	3	26.48	22
2811	25840	77.1	66.2	65.1	6.39	2.2	2.9	LB	VOC	4	26.72	46
2812	25838	77.7	60.2	50.3	6.91	1.91	3.61	LS	VOC	3	24.64	45
2813	25834	79.4	67.2	54.8	6.56	1.91	3.43	LS	VOC	3	24.61	75
2814	24207	78.5	63.7	42.4	6.3	1.72	3.66	LS	VOC	4	24.34	47
2815	Local check	78	53.2	9.1	6.4	2.51	2.54	LB	OC	4	27.37	22

Table 7.18: Composition of entries in Initial Variety Trial - Medium Hills, IVT-M (H), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st Year of testing				
2901	26578	SKAU 501 (K 08-20-11)	SR-1 / VL Dhan 62	LB
2902	26579	HPR 2922	HPU 741 / HPR 1149	LS
2903	26580	VL 32131	VL 10689 / UPRI 2005-15	SB
2904	26581	RCPL 1-300	BDJ 2087 / RCPL 3-8	LB
2905	26582	HPR 2768	Him 1 / IR 53915	LS
2906	26583	MC 41-2-1-1 (RCM-36)	KD-2-6-3 / Phougak	LB
2907	26584	UPR 4011-12-2-1-1	IR 24 / UPRI 2008-3	LS
2908	Vivekdhan 62 (NC)			
2909	26585	TRC 2017-4	Kataktara / Naveen	LS
2910	26586	SKAU 483 (K 1331-3-1)	SKUA 339 / China 1039	LB
2911	26587	MC 41-2-1-10 (RCM-35)	KD-2-6-3 / Phougak	LB
2912	26588	VL 40387	VL 31634 / Pusa Basmati 1	LS
2913	26589	HPR 2921	HPU 741 / HPR 1149	LS
2914	VL Dhan 65 (ZC for North & South), RC Maniphou 11 (ZC for North East)			
2915	26590	TRC 2017-7	Fulbadam / Swarna	LB
2916	26591	SKAU 502 (K 08-24-11)	SR-1 / VL Dhan 209	LB
2917	26592	HPR 2871	IR 578931 / HPR 2083	LS
2918	26593	VL 32094	VL 85 / VOHP 3102	LS
2919	26594	HPR 2929	Kalizini / HPR 2143 // HPR 2143	LS
2920	26595	TRC 2017-2	Bhalum 3 / Naveen	LS
2921	26596	VL 32130	VL 10689 / UPRI 2005-15	SB
2922	26597	UPR 3991-32-2-1-1	Pant Dhan 19 / UPRI 2008-16	LS
2923	Local Check			

Table 7.19 : Grain yield (kg/ha) of entries in IVT-M (H), Kharif 2017

Elevations		Low Northern											
Entry No.	IET NO	Manipur				Meghalaya(2)				Meghalaya(2)		Himachal Pradesh	
		Lamphelpat-ICAR	Wangbal	UPPER SHILLONG	CAU, Barapani							MALAN	Dhaulakuan
		@LPP	@WBL	USG	CAU-UMM	Mean		MLN		DLK			
2901	26578	5020	7	2500	2450	7	719	1585		3806	7	3556	
2902	26579	4030		3333	7	2900	7	3377	9	3139	7	3646	
2903	26580	3700		2000		2370		2558		2464		4087	5
2904	26581	3000		3000		2450		2760		2605		2845	
2905	26582	2910		3533	2 *	3200	2	1662		2431		4928	0
2906	26583	5750	4	3333	6	3000	6	3915	6 *	3458	4 * 10%	0	
2907	26584	3900		3500	4 *	1950		4046	4 *	2998	9	3766	8
2908	Vivekdhan 62 (NC)	4000		1400		2200		1162		1681		4728	1
2909	26585	5090	5	2833		2310		3900	7 *	3105	8	3686	10
2910	26586	4010		2667				438		438		3285	
2911	26587	6910	1	2500				4092	3 *	4092	1 * 30%	481	
2912	26588	3680		4500	1 *			2169		2169		3646	
2913	26589	3130		3033	10	2270		3104	10	2687		4407	3
2914	Zonal Check (ZC)	5830	3	3300	8	3400	1	1392		2396		4287	4
2915	26590	3830		3400	5	3100	4	2362		2731		2644	
2916	26591	3180		1667		2000		1242		1621		2925	
2917	26592	5050	6	2960		1970		1258		1614		3926	6
2918	26593	4150		3500	3 *	2640	8	2965		2803	10	3045	
2919	26594	4700	8	1867		3160	3	4200	1 *	3680	2 * 17%	3686	9
2920	26595	4630	9	3000		2300		1346		1823		3566	
2921	26596	4160		2500		2500	10	3958	5 *	3229	5	4487	2
2922	26597	4580	10	2400		3000	5	4108	2 *	3554	3 * 13%	3526	
2923	Local Check	6830	2	3133	9	2600	9	3685	8	3143	6	3446	
	Exp. Mean	4437.83		2863.5		2588.5		2626.89				3428.1	
	CD	0		0		281.35		651.04				1047	
	CV%	0		0		5.19		11.95				14.69	
	D/S	22-05-2017		10-07-2017		04-07-2017		10-06-2017				12-06-2017	
	D/P	22-06-2017		31-07-2017		01-08-2017		08-07-2017				10-07-2017	
	Local Check Name			Punshi		Ryngkang		Shahsarang				HPR 2143	

Table 7.19 contd : Grain yield (kg/ha) of entries in IVT-M (H), Kharif 2017

Elevations		Low Northern				Low Southern		Medium Northern		Medium Northern(1)	
Entry No.	IET NO	HP(2)		Northern Low(4)		Karnataka		Uttarakhand(1)			
						Sirsi		Almora ICAR			
		Mean		Mean		SRS		ALM		Mean	
2901	26578	3681		2633		2644		258		258	
2902	26579	4309		3724	6 * 5%	3922		4531		4531	
2903	26580	4960	3 * 6%	3712	7	4656		6563	1 *	6563	1 * 38%
2904	26581	4076		3340		5589	6	4023		4023	
2905	26582	5325	1 * 14%	3878	4 * 10%	5044	9	6406	2 *	6406	2 * 34%
2906	26583	403		1930		5700	4	3750		3750	
2907	26584	4425	10	3711	8	5233	8	3688		3688	
2908	Vivekdhan 62	3038		2359		3211		3594		3594	
2909	26585	4774	5	3939	3 * 11%	4933		5352	5 *	5352	5 * 12%
2910	26586	2768		1991		3111		766		766	
2911	26587	1060		2071		5289	7	3563		3563	
2912	26588	4018		3401		4478		5648	4 *	5648	4 * 19%
2913	26589	4607	7	3647	9	4133		4039		4039	
2914	Zonal Check (ZC)	4685	6	3541	10	5667	5	4766	7	4766	7
2915	26590	4197		3464		5944	3	4549	9	4549	9
2916	26591	3143		2382		1611		820		820	
2917	26592	4602	8	3108		5033	10	4539	10	4539	10
2918	26593	3884		3343		3933		5117	6 *	5117	6 * 7%
2919	26594	4427	9	4053	2 * 14%	4089		4445		4445	
2920	26595	4811	4	3317		4922		4609	8	4609	8
2921	26596	5244	2 * 12%	4236	1 * 20%	4589		6234	3 *	6234	3 * 31%
2922	26597	3985		3770	5 * 6%	6144	1	4297		4297	
2923	Local Check	3904		3523		5989	2	4180		4180	
	Exp. Mean					4602.9		4162.47			
	CD					1334.06		1033.17			
	CV%					13.98		11.97			
	D/S					21-06-2017		24-05-2017			
	D/P							26-06-2017			
	Local Check Name					MGD-101		VLD 61			

Table 7.19 contd : Grain yield (kg/ha) of entries in IVT-M (H), Kharif 2017

Elevations		High								J&K(3)		High(3)		Overall(9)	
Entry No.	IET NO	Meghalaya		Jammu & Kashmir											
		ICAR-Uman		KHU DWANI		Pombay		Bandipore							
@UMM-ICAR		KHD		PMB		BNP		Mean		Mean		Mean			
2901	26578	399		9835	1 *	7605	1 *	8655	3 *	8698	1 * 9%	8698	1 * 9%	4392	4
2902	26579	1373		7430	6	5795	5	6475	6	6567	6	6567	6	4783	3
2903	26580	1419		2630		2430		3180		2747		2747		3812	
2904	26581	1531	8	3105		2555		3040		2900		2900		3519	
2905	26582	922		2745		2630		3020		2798		2798		3929	9
2906	26583	1477	10	2350		3005		2320		2558		2558		2761	
2907	26584	1411		3605	9	3020		3360		3328		3328		3750	
2908	Vivekdhan 62 (NC)	644		3350		3200	10	4045	9	3532	9	3532	9	2982	
2909	26585	1663	6	3395		3070		3955	10	3473	10	3473	10	4051	8
2910	26586	243		9535	3	6850	3	8730	2 *	8372	3	8372	3	4371	5
2911	26587	1770	4	2605		2655		2355		2538		2538		2835	
2912	26588	1203		3530	10	3245	9	3640		3472		3472		3843	
2913	26589	1722	5	8155	5	5610	6	7060	5	6942	5	6942	5	4843	2
2914	Zonal Check (ZC)	772		2515		2335		2440		2430		2430		3543	
2915	26590	1310		2625		2455		3035		2705		2705		3607	
2916	26591	689		9615	2	6995	2 *	8985	1 *	8532	2 * 7%	8532	2 * 7%	4173	6
2917	26592	698		3345		2660		3465		3157		3157		3497	
2918	26593	1645	7	4480	8	3345	8	5020	8	4282	8	4282	8	3919	10
2919	26594	2330	2	3335		2355		2775		2822		2822		3690	
2920	26595	747		5365	7	3750	7	5575	7	4897	7	4897	7	4165	7
2921	26596	1529	9	2400		2270		2645		2438		2438		3898	
2922	26597	1778	3	3295		2380		3675		3117		3117		3874	
2923	Local Check	3990	1	9175	4	6605	4	8185	4	7988	4	7988	4	5358	1
	Exp. Mean	1359.28		4713.91		3774.78		4592.83							
	CD	372.84		703.73		557.05		617.69							
	CV%	13.23		7.2		7.12		6.48							
	D/S	21-05-2017		19-05-2017		21-05-2017		23-05-2017							
	D/P	29-06-2017		16-06-2017		17-06-2017		22-06-2017							
	Local Check Name	NEH Megha Rice		Shalimar Rice 4		Shalimar Rice 4		Shalimar Rice 4							

Table 7.20: Days to 50% flowering of entries in IVT-M (H), Kharif 2017

Elevation		Low Northern				Low Northern	Low Southern	Medium Northern
Entry No.	IET NO	Manipur	Meghalaya	Himachal Pradesh			Karnataka	Uttarakhand
		Lamphelpat- ICAR	CAU, Barapani	MALAN	Dhaulakuan		Sirsi	Almora ICAR
		LPP	CAU-UMM	MLN	DLK		Mean	SRS
2901	26578	79	114	86	84	91	75	101
2902	26579	90	113	94	91	97	80	96
2903	26580	89	117	96	95	99	79	96.5
2904	26581	104	122	111	104	110	101	114
2905	26582	91	117	99	92	100	86	94.5
2906	26583	110	100	128	133	118	110.5	117
2907	26584	104	120	106	103	108	93	107
2908	Vivekdhan 62 (NC)	91	109	94	93	97	81.5	97.5
2909	26585	94	111	96	95	99	82.5	98.5
2910	26586	79	105	78	78	85	69	79.5
2911	26587	110	124	128	134	124	107	121.5
2912	26588	104	119	107	100	107	93	102.5
2913	26589	88	114	92	91	96	74.5	96
2914	Zonal Check (ZC)	119	117	100	98	108	83	98
2915	26590	104	114	110	105	108	96	111.5
2916	26591	79	113	76	78	86	65.5	75.5
2917	26592	88	116	92	91	97	76	97.5
2918	26593	91	115	99	97	100	82.5	98
2919	26594	93	115	99	94	100	89	101.5
2920	26595	95	115	96	95	100	81	99
2921	26596	88	109	92	98	97	81	95.5
2922	26597	95	117	101	96	102	89	103
2923	Local Check	110	123	92	84	102	91	97.5
	CV%	0.00	2.80	0.66	0.54		1.14	1.21

Table 7.20 contd: Days to 50% flowering of entries in IVT-M (H), Kharif 2017

Elevation		High				High	Overall
Entry No.	IET NO	Meghalaya	Jammu & Kashmir				
		ICAR-Umiam	KHUDWANI	Pombay	Bandipore		
		UMM-ICAR	KHD	PMB	BNP		
2901	26578	118.5	92.5	95.5	89.5	99	93
2902	26579	117.5	101	105	99	106	99
2903	26580	127.5	106.5	110.5	104.5	112	102
2904	26581	126	107	109.5	106.5	112	110
2905	26582	116	109	112.5	105	111	102
2906	26583	117.5	107.5	111.5	106	111	114
2907	26584	117.5	104.5	109	104	109	107
2908	Vivekdhan 62 (NC)	123	107.5	112.5	107.5	113	102
2909	26585	122.5	104.5	108.5	102	109	101
2910	26586	123.5	85.5	90	87	97	87
2911	26587	122	104.5	108	105	110	116
2912	26588	124	105	110	104	111	107
2913	26589	123	96	99.5	93	103	97
2914	Zonal Check (ZC)	123	107	113	105.5	112	106
2915	26590	124	106	108.5	105	111	108
2916	26591	113	88	92	86.5	95	87
2917	26592	126	104	106.5	102	110	100
2918	26593	124	104.5	107.5	100	109	102
2919	26594	115	103	108	104	108	102
2920	26595	120.5	102.5	105.5	98.5	107	101
2921	26596	121	104.5	108.5	103	109	100
2922	26597	125	105	110	103	111	104
2923	Local Check	119	92.5	95.5	90	99	99
	CV%	5.32	1.21	0.72	0.98		

Table 7.21: Plant height (cm) of entries in IVT-M (H), Kharif 2017

Elevation		Low Northern					Low Northern
Entry No.	IET NO	Manipur		Meghalaya	Himachal Pradesh		
		Lamphelpat- ICAR	Wangbal	CAU, Barapani	MALAN	Dhaulakuan	
		LPP	WBL	CAU-UMM	MLN	DLK	
2901	26578	120	100	100	118	140	115
2902	26579	123	100	91	111	106	106
2903	26580	131	100	113	120	126	118
2904	26581	114	100	81	90	117	100
2905	26582	84	100	73	88	92	87
2906	26583	118	87	81	71	69	85
2907	26584	113	100	92	108	114	105
2908	Vivekdhani 62 (NC)	158	100	109	150	132	130
2909	26585	115	100	89	107	119	106
2910	26586	115	100	95	107	128	109
2911	26587	116	78	67	70	89	84
2912	26588	157	88	115	132	139	126
2913	26589	112	100	88	108	122	106
2914	Zonal Check (ZC)	109	82	65	126	137	104
2915	26590	107	84	73	87	107	92
2916	26591	116	100	84	115	119	107
2917	26592	111	100	84	117	120	106
2918	26593	135	101	124	133	139	126
2919	26594	111	100	87	105	99	100
2920	26595	114	100	94	107	118	106
2921	26596	123	100	107	119	119	114
2922	26597	106	100	94	111	126	107
2923	Local Check	107	100	88	111	110	103

Table 7.21 contd: Plant height (cm) of entries in IVT-M (H), Kharif 2017

Elevation		Low Southern	Medium Northern	High				High
Entry No.	IET NO	Karnataka	Uttarakhand	Meghalaya	Jammu & Kashmir			
		Sirsi	Almora ICAR	ICAR-Umiam	KHUDWANI	Pombay	Bandipore	
		SRS	ALM	UMM-ICAR	KHD	PMB	BNP	
2901	26578	194	126	92	118	103	114	107
2902	26579	157	120	70	98	84	96	87
2903	26580	185	123	78	86	71	86	80
2904	26581	145	123	68	80	61	83	73
2905	26582	142	94	76	74	62	77	72
2906	26583	146	92	79	68	59	64	68
2907	26584	148	110	76	77	65	80	74
2908	Vivekdhan 62 (NC)	202	133	90	122	105	117	108
2909	26585	162	116	72	88	72	85	79
2910	26586	164	113	56	113	98	109	94
2911	26587	144	95	88	60	55	65	67
2912	26588	192	129	69	112	92	112	96
2913	26589	154	114	77	91	76	90	83
2914	Zonal Check (ZC)	203	126	84	93	75	90	86
2915	26590	140	105	83	72	59	76	72
2916	26591	167	103	84	115	92	112	101
2917	26592	164	117	83	86	70	83	80
2918	26593	203	131	81	113	91	113	100
2919	26594	152	115	83	76	59	77	74
2920	26595	167	124	90	88	74	91	86
2921	26596	183	120	84	84	72	82	80
2922	26597	169	112	90	90	77	89	87
2923	Local Check	178	125	93	114	94	112	104

Table 7.22: Panicles/M² of entries in IVT-M (H), Kharif 2017

Elevation		Low Northern					Low Northern
Entry No.	IET NO	Manipur		Meghalaya	Himachal Pradesh		
		Lamphelpat- ICAR	Wangbal	CAU, Barapani	MALAN	Dhaulakuan	
		LPP	WBL	CAU-UMM	MLN	DLK	
2901	26578	210	314	156	160	375	243
2902	26579	189	317	258	148	380	258
2903	26580	173	279	129	155	293	206
2904	26581	162	289	212	208	251	224
2905	26582	159	322	161	293	355	258
2906	26583	218	341	171	128	339	239
2907	26584	188	326	160	118	361	231
2908	Vivekdhan 62 (NC)	178	296	204	133	263	215
2909		215	317	116	195	279	224
2910	26586	199	268	136	125	309	207
2911	26587	236	288	248	133	391	259
2912	26588	196	321	247	243	347	271
2913	26589	183	309	218	225	347	256
2914	Zonal Check (ZC)	220	323	191	130	401	253
2915	26590	197	331	161	195	336	244
2916	26591	195	319	129	130	321	219
2917	26592	210	344	176	205	290	245
2918	26593	183	302	171	145	256	211
2919	26594	190	326	218	170	287	238
2920	26595	207	299	138	165	311	224
2921	26596	201	287	236	160	312	239
2922	26597	206	326	186	163	273	231
2923	Local Check	232	345	171	185	341	255
	CV%	0.00	0.00	12.06	14.78	2.74	

Table 7.22 contd: Panicles/M² of entries in IVT-M (H), Kharif 2017

Elevation		Low Southern	Medium Northern	High				High
Entry No.	IET NO	Karnataka	Uttarakhand	Meghalaya	Jammu & Kashmir			
		Sirsi	Almora ICAR	ICAR-Umiam	KHUDWANI	Pombay	Bandipore	
		SRS	ALM	UMM-ICAR	KHD	PMB	BNP	
2901	26578	372	204	193	527	328	438	372
2902	26579	373	244	148	461	309	372	323
2903	26580	380	264	125	360	233	317	259
2904	26581	350	252	115	363	220	320	255
2905	26582	344	247	159	365	230	355	277
2906	26583	383	229	155	375	231	352	278
2907	26584	389	212	173	358	266	337	284
2908	Vivekdhan 62 (NC)	399	239	200	320	211	342	268
2909	26585	347	251	107	329	205	320	240
2910	26586	290	225	149	535	318	343	336
2911	26587	357	239	159	330	217	383	272
2912	26588	337	249	155	360	250	325	273
2913	26589	343	255	145	535	360	368	352
2914	Zonal Check (ZC)	416	256	150	396	212	367	281
2915	26590	469	212	205	365	272	339	295
2916	26591	370	235	160	550	355	373	360
2917	26592	334	234	148	391	272	401	303
2918	26593	389	270	195	398	246	358	299
2919	26594	399	273	160	372	285	341	290
2920	26595	380	234	150	413	309	354	307
2921	26596	356	272	166	352	258	321	274
2922	26597	327	236	160	315	198	289	241
2923	Local Check	360	256	129	560	306	418	353
	CV%	12.03	5.93	10.90	5.06	6.74	11.94	

INITIAL VARIETAL TRIAL - UPLAND (HILLS) IVT-U (H)

Locations: 10

Test Entries: 14

Checks : Sukaradhan-1 (NC), Vivek dhan 154 (ZC for Northern and Southern), Bhalum-1 (ZC for North East) and Local check

7.23

The Initial Variety Trial - Upland (Hills) comprised of 17 entries including three check viz., Sukaradhan-1 (National Check), Vivek dhan 154 (Zonal check for Northern and Southern), Bhalum-1 (Zonal check for North East) and local check was conducted at 10 locations spanning across the hill states of Manipur, Meghalaya, Uttarakhand, Himachal Pradesh and West Bengal. One entry is in third year of testing and the remaining 13 entries are in first year of testing. The trial was conducted at low elevated Hills (<950 MSL) locations viz., Wangbal, Malan, Barapani (CAU), Lamphelpat-ICAR, Upper Shillong (Umktieh) and Imphal (CAU); Medium elevated (951-1500 MSL) locations viz., Almora-ICAR, Bageswar, and Kalimpong; High elevated (>1500 MSL) location viz., Umiam-Barapani-ICAR. Data from seven locations was received and data from Lamphelpat-ICAR, Imphal (CAU) and Kalimpong was not received. Although, the data was received from seven locations, the data from Wangbal was not included in over-all mean due to low CV (3.92%). The data pertaining to yield, flowering, plant height, panicles/m² and quality are presented in tables 7.24, 7.25, 7.26, 7.27 and 7.28.

Over all mean grain yield ranged from 1105 kg/ha (IET-26604) to 2431 kg/ha (local check); The experimental mean yield was in the range of 1482 kg/ha Barapani (CAU) to 2672 kg/ha (Malan), while the CV% varied from 3.92% (Wangbal) to 15.95% (ICAR-Umiam). Performance of entries under different elevations was discussed below.

Low Elevation Hills:

In this ecosystem, the trial was conducted at six locations of low elevation hills viz., Wangbal, Malan, Barapani (CAU), Upper Shillong (Umktieh), Lamphelpat-ICAR and Imphal (CAU). The data from Lamphelpat-ICAR and Imphal (CAU) was not received and the data from Wangbal was not considered due to low CV (3.92%). Therefore, the mean data of Barapani (CAU), Malan and Upper Shillong (Umktieh) was used for analysis of performance of entries. The grain yield ranged from 1075 kg/ha (IET 26604) to 2919 kg/ha (IET 26602); days to 50% flowering varied from 84 days (IET 26601 and IET 26610) to 107 days (IET 26604); number of panicles/m² ranged between 195 (IET 26598) and 294 (IET 26608). Among checks, local check registered highest grain yield (2767 kg/ha) followed by National check (2450 kg/ha) and then zonal check (1548 kg/ha).

IET 26602 (TRC 2017-3) is a derivative from the cross Bhalum 3 / Naveen with long slender grain and 85 days to 50% flowering ranked first and recorded grain yield of 2919 kg/ha. It recorded 5.49% yield advantage over best check (local check), 19.14% over National check and about 88.56% over zonal check. It ranked first at Barapani (CAU) and fourth at Upper Shillong (Umktieh). However, except IET 26602, no other entry recorded required yield advantage over the best check in low elevated hills.

Performance of promising entries at Northern Low elevated Hills in Initial Variety Trial – Upland Hills IVT – U (H) Kharif 2017.

Rank	IET No/Designation/ Cross combination	Grain Yield(kg/ha) days to 50% flowering/ grain type	% yield superiority over NC/ZC/LC
1	26602 TRC 2017-3 Bhalum3 / Naveen	2919 85 LS	19.14 88.56 5.5
	Sukaradhan 1 (NC)	2450 86	
	Zonal Check (ZC)	1548 94	
	Local Check	2767 90	

Medium Elevation Hills:

The trial was sent to three medium elevated locations viz; Almora-ICAR, Bageswar and Kalimpong. As the data was not received from Kalimpong, analysis for the performance of entries were done using the data from the locations of Almora ICAR and Bageswar only. The grain yield ranged from 1420 kg/ha (local check) to 2369 kg/ha (IET 26598); days to 50% flowering varied between 81 days (zonal check) and 89 days (IET 26598, IET 26601, IET 26603, IET 26610, IET 25170 and National check); number of panicles/m² ranged from

209 (zonal check) to 251 (local check). Among the checks, zonal check yielded (1589 kg/ha) better than national check (1490 kg/ha) and local check (1420 kg/ha).

IET 26598 (VL 20083) a derivative from the cross combination VL 66 / HPR 2143 with short bold grain and 89 days to 50% flowering ranked first and registered grain yield of 2369 kg/ha with an outstanding yield advantage of 49% over best check and outperformed all the checks. It stood in second position at both Almora ICAR and Bageshwar.

The second rank was obtained by IET 26605 (VL 20073), a derivative from VL 6394 / VL 122 cross with long bold grain and 86 days to 50% flowering out ranged all the checks and showed a yield superiority of 45% (2301 kg/ha) over the best check. It scored first at Bageswar and fourth at Almora ICAR.

IET 26609 (VL20076) occupied third position, which is a derivative of cross VL22/VL971 had 86 days to 50% flowering with long bold type grain and 2291 kg/ha of yield. It outperformed all the checks, with yield advantage of 44% over the best check. It ranked first at Almora- ICAR and fourth at Bageshwar.

Performance of promising entries at Northern Medium elevated Hills in Initial Variety Trial – Upland Hills IVT – U (H) Kharif 2017.

Rank	IET No/Designation/ Cross combination	Grain Yield(kg/ha) days to 50% flowering/ grain type	% yield superiority over (NC)/(ZC)/(LC)
1	26598 VL 20083 VL 66 / HPR 2143	2369 89 SB	59 49 67
2	26605 VL 20073 VL 6394 / VL 122	2301 86 LB	54 45 62
3	26609 VL 20076 VL 22 / VL 971	2291 86 LB	54 44 61
4	26601 VL 20080 VL 66 / VL 30424	2214 89 LB	49 39 56
	Sukaradhan 1 (NC)	1490 89	
	Zonal Check (ZC)	1589 81	
	Local Check	1420 82	

Three years performance of the promising entries

IET 25170 (HPR 2703) derived from the cross RP 2421 / VL 221 did not show any yield superiority over the best check in any of the elevations especially northern medium elevated hills in 2017. However, it recorded 15% and 7.3% yield superiority over the best check for two consecutive years (2015 and 2016) in northern medium elevated hills. Quality wise, it recorded 42.6% of HRR and desirable cooking quality parameters; AC (24.84%), 32mm (GC) and 4.0 ASV.

Three Years Performance of entries IET 25170 Upland hills during 2015, 2016 and 2017 in overall mean

Rank	IET No / Designation / Cross combination	Year	Yield Advantage % over best check				
			Low elevation	Medium elevation	Northern Medium		
			Northern	Northern	UK	UT	WB
1	25170 HPR 2703 RP 2421 / VL 221	2015		15	49		
		2016		7.3		7.38	
		2017		-5.5			

Among the entries tested in first year, based on more than 5% yield superiority over the best check, one entry IET 26602 was promoted in **northern low elevated** hill trial and four entries IET 26598, IET 26605, IET 26609 and IET 26601 were promoted in **northern medium elevated** hills for second year of testing.

Table 7.23: Composition of entries in Initial Variety Trial -Upland (Hills) IVT-U (H), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st year of testing				
3001	26598	VL 20083	VL 66 / HPR 2143	SB
3002	26599	TRC 2017-6	Kataktara / Naveen	LS
3003	26600	HPR 2652	VL 221 / RP 2421 // IR 53915	LS
3004	26601	VL 20080	VL 66 / VL 30424	LB
3005	26602	TRC 2017-3	Bhalum 3 / Naveen	LS
3006	26603	HPR 2883	HPR 2143 / AC 19180 // VL 30424	LS
3007	Sukaradhan 1 (NC)			
3008	26604	RCPL 1-145	IR 61979-79-138-1-3-2-21 / UPR 142501-4	LS
3009	26605	VL 20073	VL 6394 / VL 122	LB
3010	26606	HPR 2874	HPR 2143 / AC 19146 // VL 30424	LS
3011	26607	TRC 2017-8	Fulbadam / Swarna	MS
3012	Vivek Dhan 154 (ZC for North & South), Bhalum-1 (ZC for North East)			
3013	26608	HPR 2869	HPR 2143 / AC 19146 // VL 30424	LS
3014	26609	VL 20076	VL 22 / VL 971	LB
3015	26610	HPR 2410	HPU 741 / IR 18482	LS
3rd year of testing				
3016	25170	HPR 2703	RP 2421 / VL 221	LB
3017	Local Check			

Table No. 7.24 : Grain yield (Kg/ha) of entries in IVT-U (H), Kharif 2017

Elevation		Low Northern										NORTHERNLOW (3)	
Entry No.	IET NO	Meghalaya				MEGHALAYA(2)		Himachal Pradesh		Manipur			
		CAU, Barapani		UPPER SHILLONG				MALAN		Wanghal			
		CAU-UMM		USG		Mean		MLN		@WBL		Mean	
3001	26598	1238		1600		1419		2247		500		1695	
3002	26599	1280	9	1950		1615	9	3255	6	2867	9	2162	9
3003	26600	1296	8	3100	1 *	2198	4	3432	3	2127		2609	3
3004	26601	1275	10	1800		1538		2205		750		1760	
3005	26602	2714	1 *	2800	4 *	2757	1 * 26%	3244	7	3500	2 *	2919	1 * 5%
3006	26603	847		2650	5 *	1749	8	2769	9	3000	8	2089	
3007	Sukaradhan 1 (NC)	1379	6	2500	7	1940	7	3472	2	3250	3	2450	5
3008	26604	1106		2050	9	1578	10	70		3097	6	1075	
3009	26605	1271		1700		1486		2637	10			1869	
3010	26606	1490	5	2800	3 *	2145	6	2369		2113		2220	8
3011	26607	1307	7			1307		3140	8	4500	1 *	2224	7
3012	Zonal Check (ZC)	905				905		2190		2500		1548	
3013	26608	2537	3 *	2900	2 *	2719	2 * 25%	2101		3083	7	2513	4
3014	26609	2556	2 *	2500	6	2528	3 * 16%	1707		1667		2254	6
3015	26610	902		2000		1451		3280	5	3100	5	2061	
3016	25170	728		2350	8	1539		3362	4	2500	10	2147	10
3017	Local Check	2365	4	2000	10	2183	5	3937	1	3233	4	2767	2
	Exp. Mean	1482.13		2313.33				2671.57		2611.67			
	CD	363.96		628.4				585.1		208.94			
	CV%	12.06		13.26				10.75		3.92			
	D/S	29-05-2017		06-08-2017				10-07-2017		20-07-2017			
	D/P							31-07-2017					
	Local Check Name	Bhalum-3		HPR 2656				Punshi		Maroo			
@ indicates location is not included in the means													

Table No. 7.24 contd : Grain yield (Kg/ha) of entries in IVT-U (H), Kharif 2017

Elevation		Medium Northern				UK (2)		MEDIUM NORTHERN(2)		High(1)		overall (6)	
Entry No.	IET NO	Uttarakhand								MEGHALAYA(1)			
		Almora ICAR		Bageswar						ICAR-Umiam			
		ALM		BGS		Mean		Mean		UMM-ICAR		Mean	
3001	26598	2171	2 *	2567	2 *	2369	1 * 49%	2369	1 * 49%	1336		1860	9
3002	26599	1335		1227		1281		1281		1382	9	1738	
3003	26600	1748	5 *	1373		1561	6	1561	6	1399	8	2058	4
3004	26601	2041	3 *	2387	3 *	2214	4 * 39%	2214	4 * 39%	1376	10	1847	10
3005	26602	1408	7 *	1613	8	1511	8	1511	8	2485	2	2377	2
3006	26603	1077		1647	7	1362		1362		914		1651	
3007	Sukaradhan 1 (NC)	1292		1687	6	1490	9	1490	9	1489	6	1970	6
3008	26604									1194		1105	
3009	26605	2033	4 *	2569	1 *	2301	2 * 45%	2301	2 * 45%	1372		1930	8
3010	26606	1335	10	960		1148		1148		1609	5	1761	
3011	26607									1411	7	1953	7
3012	Zonal Check (ZC)	1305		1873	5	1589	5	1589	5	977		1450	
3013	26608	1090		1247		1169		1169		2072	3	1991	5
3014	26609	2248	1 *	2333	4 *	2291	3 * 44%	2291	3 * 44%	1870	4	2202	3
3015	26610	1335	9	1387		1361		1361		974		1646	
3016	25170	1421	6 *	1600	9	1511	7	1511	7	785		1708	
3017	Local Check	1339	8	1500	10	1420	10	1420	10	3442	1	2431	1
	Exp. Mean	1545.22		1731.24						1534.46			
	CD	470.44		383.74						498.45			
	CV%	14.86		10.82						15.95			
	D/S	06-06-2017		01-06-2017						22-05-2017			
	D/P									30-06-2017			
	Local Check Name			VLD 221						NEH Megha Rice 1			

Table No. 7.25: Days to 50% flowering of entries in IVT-U (H), Kharif 2017

Elevation		Low Northern			Low Northern	Medium Northern		Medium Northern	High
Entry No.	IET NO	Meghalaya		Himachal Pradesh		Uttarakhand			Meghalaya
		CAU, Barapani	UPPER SHILLONG	MALAN		Almora ICAR	Bageswar		ICAR-Umiam
		CAU-UMM	USG	MLN		Mean	ALM		BGS
3001	26598	97	82	87	89	84	93	89	112
3002	26599	89	84	89	87	85	90	87	113
3003	26600	97	83	88	89	83	94	88	110
3004	26601	87	80	86	84	83	95	89	104
3005	26602	89	80	85	85	83	90	86	127
3006	26603	88	82	86	85	84	93	89	119
3007	Sukaradhan 1 (NC)	88	83	86	86	85	93	89	109
3008	26604	113	100		107				108
3009	26605	95	79	86	87	83	88	86	116
3010	26606	100	82	88	90	87	86	86	116
3011	26607	101		89	95				118
3012	Zonal Check (ZC)	110		77	94	75	87	81	118
3013	26608	97	78	86	87	86	90	88	124
3014	26609	93	79	85	86	83	90	86	125
3015	26610	85	82	85	84	83	95	89	125
3016	25170	87	83	86	85	84	93	89	122
3017	Local Check	98	85	86	90	76	88	82	125
	CV%	3.36	1.87	3.62		1.01	2.12		2.86

Table No. 7.26: Plant height (cm) of entries in IVT-U (H), Kharif 2017

Elevation		Low Northern			Low Northern	Medium Northern		Medium Northern	High
Entry No.	IET NO	Meghalaya		Himachal Pradesh		Uttarakhand			Meghalaya
		CAU, Barapani	UPPER SHILLONG	MALAN		Almora ICAR	Bageswar		ICAR-Umiam
		CAU-UMM	USG	MLN		Mean	ALM		BGS
3001	26598	129	122	100	117	109	101	105	41
3002	26599	94	96	90	93	95	69	82	77
3003	26600	123	115	100	113	106	84	95	45
3004	26601	126	118	100	115	109	102	105	83
3005	26602	100	89	80	90	91	77	84	89
3006	26603	85	102	96	95	91	78	85	80
3007	Sukaradhan 1 (NC)	112	108	100	107	96	91	93	44
3008	26604	119		109	114				69
3009	26605	120	130		125	97	108	103	53
3010	26606	86	94	94	91	97	76	87	55
3011	26607	67	68	79	71				65
3012	Zonal Check (ZC)	92	94	115	100	91	78	84	63
3013	26608	100	106	100	102	90	73	81	67
3014	26609	118	120	115	117	112	101	107	45
3015	26610	104	115	100	106	101	97	99	47
3016	25170	106	99	90	99	98	76	87	81
3017	Local Check	107	93	81	94	90	81	86	88

Table 7.27: Panicles/m² of entries in IVT-U (H), Kharif 2017

Elevation		Low Northern				Low Northern	Medium Northern		Medium Northern	High
State	IET NO	Meghalaya		Himachal Pradesh	Manipur		Uttarakhand			Meghalaya
		CAU, Barapani	UPPER SHILLONG	MALAN	Wangbal		Almora ICAR	Bageswar		ICAR-Umiam
		CAU-UMM	USG	MLN	WBL		Mean	ALM		BGS
3001	26598	224	174	180	200	195	277	217	247	258
3002	26599	170	189	290	227	219	271	209	240	289
3003	26600	159	274	302	279	254	269	196	232	253
3004	26601	163	179	268	203	203	259	225	242	299
3005	26602	185	247	327	259	255	256	210	233	297
3006	26603	174	254	300	300	257	228	198	213	258
3007	Sukaradhan 1 (NC)	150	203	372	309	259	265	236	250	32
3008	26604	137	191		313	213				273
3009	26605	162	206	228		199	262	235	249	292
3010	26606	206	294	312	313	281	229	197	213	210
3011	26607	197		355	290	281				292
3012	Zonal Check (ZC)	212		287	327	275	208	211	209	240
3013	26608	199	302	277	398	294	241	190	216	306
3014	26609	173	261	250	204	222	262	225	244	227
3015	26610	152	192	313	299	239	234	197	216	246
3016	25170	202	189	410	279	270	257	227	242	304
3017	Local Check	156	194	272	312	233	266	236	251	307
	CV%	11.38	18.39	0.44	11.90		3.97	4.86		10.86

Table 7.28: Grain quality characteristics of entries in IVT-U (H), Kharif 2017

Entry No.	IET NO	HULL	MILL	HRR%	K/L	K/B	L/B	Grain type	Grain Chalk	ASV	AC	GC
3007	Sukardhan-1	77.8	68.1	51.6	6.06	1.98	3.06	LS	VOC	4	24.58	40
3012	Vivekdhan-154	78.4	65.3	28.3	6.37	2.3	2.76	LB	VOC	4	26.63	37
3016	IET 25170	77	66.4	42.6	5.3	2.26	2.34	SB	VOC	4	24.84	32
3017	VL Dhan 221	78.4	65.3	22.7	5.51	2.3	2.39	SB	VOC	4	26.69	26

ADVANCE VARIETY TRIAL 1 - AROMATIC SHORT GRAIN (AVT 1 - ASG)

Locations : 23

Test Entries : 09

Checks : Shobini (National), Badshah bhog (Northern & Central), CR Sugandh Dhan 907 (Eastern & North eastern), Sugandha Samba (Western & Southern)- (Zonal), Dubraj & Ketekijoha (Quality) and Local check **Table: 8.1**

Advance Variety Trial-1 Aromatic Short Grain (AVT1-ASG) comprised of 4 entries and 5 checks: National check: Shobini, Zonal checks: CR Sugandh Dhan 907, Badshahbhog, Sugandha Samba; Quality checks: Ketekijoha and Dubraj and local check. Among the 4 test entries, two cultures IET 25419 and IET 24617 were in the third year of testing whereas the other two entries (IET 26205 and IET 26216) were in second year of testing. The trial was conducted at 23 locations covering the zones 2, 3, 4, 5, 6 and 7 across the country. The data from Mugad was not considered for analysis as the trial was conducted under direct seeded conditions. Drought affected the crop adversely at Radhanagari and Varanasi during flowering and grain filling stages. At Waraseoni the crop experienced drought at flowering while at Raipur the active tillering stage coincided with drought. The data from the locations Kanpur and Masoda(Uttar Pradesh), Pundibari (West Bengal), Gerua (Assam), Arundhatinagar (Tripura), Waraseoni (Madhya Pradesh), Raipur (Chhattisgarh), Radhanagari (Maharashtra), Nawagam and Navsari (Gujarat), Portblair (Andaman & Nicobar), Pattambi (Kerala) and Mugad (Karnataka) was excluded from the data analysis due to low experimental mean yield (< 4 t/ha). Similarly at Jagadapur (Chhattisgarh), and Phondaghat (Maharashtra) the CV values were found to be very high (22.97%) and very low (0.46) respectively and therefore mean yield data was not considered. The overall mean yield ranged from 3759 Kg/ha (Dubraj) to 5330 Kg/ha (IET 26205) whereas flowering duration ranged from 104 days (IET 24617) to 115 days (Ketekijoha) and Panicles/m² ranged from 235 (Dubraj) to 291 (IET 26216). Information pertaining to yield, flowering, plant height, panicles/m² and quality data are presented in the tables 8.2, 8.3, 8.4, 8.5 and 8.6. Among the checks, Shobini topped in yield (4663 Kg/ha) followed by zonal check (4525 Kg/ha) and local check (4395 Kg/ha). Grain quality parameters were analysed at ICAR- Indian Institute of Rice Research, Hyderabad for 16 physico-chemical characters using the seed samples grown at Raipur.

Overall mean performance of test entries

IET 26205 (CN 1987-4-35) derived from the cross IET 21261 // MTU 7029 / Geetanjali stood first (5330 Kg/ha) with 107 days to 50% flowering duration and medium slender grains. It registered 14%, 18% and 21% yield superiority over national, zonal and local checks respectively. This entry ranked 1st in Zone 3 and showed 19% yield gain over best check (BC) State-wise it ranked 1st in West Bengal with 13% yield advantage over BC. Quality-wise it showed 55.1% HRR, intermediate amylose content (25.3%), 4 ASV, 32 mm

GC and strong scent. Due to undesirable quality parameters (*ie.*, when AC is between 25 - 27, GC should be > 40 mm), IET 26205 is discontinued from further testing.

IET 25419 (HUR-156), a derivative of the cross Taroari Basmati dwarf mutant-2 / MTU 7029 stood second (5220 Kg/ha) in overall mean yield with 106 days flowering duration possessing short slender grains. . It outperformed the national check by 12%, zonal check by 15% and local check by 19% . In eastern zone (Zone 3) it ranked 2nd with 15% yield superiority over best check (NC). Statewise it registered 32% yield gain over best check (NC) in Uttar Pradesh. Quality wise it recorded 59% HRR, intermediate amylose content (23.5%) , 23 mm GC, 5 ASV and mild scent.

IET 24617 (RP 4926-215-111-74-21-12), a derivative of Swarna / RAU 3041 cross ranked 3rd (5012 Kg/ha) with 104 days to 50% flowering and medium slender grains. It was superior to national zonal and local check by 7%, 11% and 14% respectively. It secured 3rd position in Eastern zone (Zone 3) with 7% yield advantage over best check (Shobini) whereas statewise it got 2nd position in West Bengal and 3rd position in Uttar Pradesh with 5 and 13% yield improvement over the best check (Shobini) respectively. Qualitywise it recorded 63.2 % HRR, 23.7% amylose content, 4 ASV, 22 mm GC but could not record scent.

Overall performance of promising entries in Advance Variety Trial 1 - Aromatic Short Grain (AVT 1 – ASG), Kharif, 2017

Rank	IET No/ Designation/ Cross Combination	Overall mean GY (Kg/ha)FD/GT	Yield adv. (%) over NC/ZC/LC	Yield increase over the best check			
				State		Zone	
				Rank	% BC	Rank	% BC
1	26205 CN 1987-4-35 IET 21261//MTU 7029/Geetanjali	5330 107 MS	14 18 21	WB-1	13 (ZC)	Z-III (1)	19
2	25419 HUR-156 Taroari Basmati dwarf mutant- 2/MTU 7029	5220 106 SS	12 15 19	UP-1	32 (NC)	Z-III (2)	15
3	24617 (R) RP 4926-215-111- 74-21-12 Swarna/RAU 3041	5012 104 MS	7 11 14	WB-2 UP-3	5 13 (NC)	Z-III (3)	7
	Shobini (NC)	4663 105					
	Zonal check (ZC)	4525 110					
	Local check (LC)	4395 110					

Zonal performance of entries

Zone III (Eastern): This zone consisted of 8 locations namely Cuttack and Jeypore (Odisha), Chinsura, Bankura, Hatwara and Pundibari (West Bengal); Masoda and Varanasi (UP). The location mean yield at Pundibari and Masoda was found to be < 4t/ha and therefore not included while analyzing the data. The mean yield ranged from 3713 Kg/ha (Dubraj) to 5616 Kg/ha (IET 26205) while flowering duration ranged from 106 days (IET 24617) to 117 days (Zonal check) (Table -). Among the checks, National check (Shobini) topped in yield (4714 Kg/ha) followed by local check (4458 Kg/ha) and zonal check (4409 kg/ha). Three entries namely IET 26205, IET 25419 and IET 24617 outperformed the best varietal check (Shobini) in zone III and performance of these entries was described in detail under overall mean performance.

Zone-wise performance of the entries in AVT-1 ASG, Kharif - 2017

Rank	IET No/ Designation/ Cross Combination	Yield (Kg/ha)/FD/GT	Yield adv. % over NC,ZC,LC	State/ rank	Yield (kg/ha)	% yield Increase over the best check
Promising in Zone III						
1	26205 CN 1987-4-35 IET 21261//MTU 7029/Geetanjali	5616 107 MS	19 27 26	WB-1 UP-2	5169 7612	13 (ZC) 29 (NC)
2	25419 HUR-156 Taroari Basmati dwarf mutant-2/ MTU 7029	5426 108 SS	15 23 22	UP-1	7743	32 (ZC)
3	24617 (R) RP 4926-215-111- 74-21-12 Swarna/RAU 3041	5027 106 MS	7 14 13	WB-2 UP-3	4831 6646	5 (ZC) 13 (NC)
	Shobini (NC)	4714 108				
	Zonal check (ZC)	4409 117				
	Local check (LC)	4458 113				

Performance of entries during 3 years

Two entries namely IET 25419 (HUR-156) and IET 24617 (RP 4926-215-111-74-21-12) completed three years of testing (2015 to 2017) in Aromatic short grain trials of AICRP.

IET 25419 (HUR-156) exhibited yield superiority of 6% and 12% and in overall mean over the best check (Shobini) for two years *ie.*, 2015 and 2017 respectively). Zone-wise also it recorded 15% yield gain over the best check for two years during 2015 and 2017 in zone III. Statewise it outyielded the best check continuously for 3 years (2015 to 2017) in Uttar Pradesh (2015: 23 %; 2016: 19% and 2017:32%). Thus it was found promising for the state of Uttar pradesh in Zone III (Eastern).

Three years performance of the entries IET 25419 and IET 24617

S.N	IET No	Year	Overall mean GY/FD/GT	% Yield adv over best check	Zone/Rank	Yield Kg/ha	% yield gain over best check	State/ Rank	Yield Kg/ha	% yield gain over best Check	Remarks
1	25419	2017	5220 106 SS	12 (NC)	Z-III-2	5426	15	UP-1	7743	32	Promising in Zone III
		2016	5104 105 SS	1 (NC)	ZIII-4	5190	-	UP-1	5407	19	
					Z-VI-5	4339	7.0	GU-2	4536	12	
					Z-VII-1	5500	33	TN-1	5500	33	
		2015	4495 102 SS	6 (NC)	Z-III-1	4660	15	WB-4 UP-1	3941 6850	7.7 23	
					Z-IV-1	4824	21	TR-1	4824	21	
2	24617	2017	5012 104 MS	7 (NC)	Z-III-3	5027	7	WB-2 UP-3	4831 6646	5 13	Discontinued
					Z-VI-1	4965	2	MH-1	4965	2	
		2015	4496 103 MS	-	Z-IV-5	3467	38	TR-5	3467	31	
					Z-VI-4	4721	-	MH-2	5944	17	
		2014	4361 108 MS	11 (LC)	Z-III-6 (R3)	4338	11	UP-4 CG-5	4431 4379	45 7	
					Z-VI -3 (R4)	5345	51	MH-3 GU-3	4686 6004	24 53	

In overall mean IET 24617 (RP 4926-215-111-74-21-12), a repeat entry in 2017 registered yield superiority consistently for 2 years (11% in 1st year-2014 and 7% in 3rd year-2017) over the best check. In zone III it exhibited consistent yield improvement over the best check for 2 years (11 % in 2014 and 7 % in 2017). Statewise it's performance was consistently superior in Uttar Pradesh for 2 years (2014: 45% and 2017: 13%). In zone 6 it registered yield improvement of 51% over best check and in Maharashtra it showed 24% yield gain over the best check during 2014. Similarly during 2015 the entry has outperformed the best check by 17% in Maharashtra in zone VI. However since it could not record scent, it is discontinued.

INITIAL VARIETY TRIAL – AROMATIC SHORT GRAIN (IVT-ASG)**Locations : 26****Test Entries : 17**

Checks : Shobini (National), Badshah bhog (Northern & Central), CR Sugandh Dhan 907 (Eastern & North eastern), Sugandha Samba (Western & Southern)- (Zonal), Dubraj & Ketekijoha (Quality) and Local check **Table: 8.7**

Initial Variety Trial- Aromatic Short Grain was constituted with 17 test entries and 6 checks viz., Shobini (NC), 3 **Zonal** checks: Badshah bhog (Northern and Central), CR Sugandh dhan 907 (Eastern & North Eastern), Sugandh Samba (Western & Southern), and 2 **quality** checks: Dubraj (QC), Ketikijoha (QC) and Local check. The trial was conducted in seven zones namely Zone 2 (Northern) : UP, Zone 3 (Eastern) : Odisha, West Bengal and part of UP, Zone 4 (North eastern): Assam and Tripura , Zone 5 (Central) : Madhya Pradesh and Chhattisgarh, Zone 6 (western) : Maharashtra and Gujarat and Zone 7 (southern): Andaman and Nicobar islands, Kerala and Karnataka. The trial data was received from 17 locations covering 9 states and 7 zones across the country. Nine locations viz., Chiplima, Pundibari, Hathwara, Jabalpur, Radhanagari, Arundhatinagar, Ambikapur, Port Blair and Mugad failed to send data.

Data from the locations Kanpur, Bankura, Masoda, Varanasi, Waraseoni, Nawagam and Navsari was not considered for analysis as the mean yield values are lower than 4t/ha. Similarly data from the locations Chinsura (Low CV: 2.27%), Gerua (Low mean: 3t/ha and high CV: 29.7%) and Phondaghat (Low CV: 1.27% & mean: 3.97 t/ha) was excluded from analysis. The overall mean yield ranged from 3592 Kg/ha (IET 27016) to 5867 Kg/ha (IET 27026) while flowering duration ranged from 99 days (IET 27029) to 117 days (IET 27021) . Among the entries, IET 27016 was tall with 143 cm height, while IET 27013 was the shortest with 88 cm . IET 27018 recorded 238 panicles /m² whereas IET 27019 recorded a maximum of 297 panicles/m². Information pertaining to yield, flowering, plant height, panicles/m² and quality data are presented in the tables 8.8, 8.9, 8.10, 8.11 and 8.12. Among the yield checks, Shobini is the top yielder (5355 Kg/ha) followed by Zonal check 4255 Kg/ha and Local check (4118 Kg/ha). Grain quality parameters were analysed at ICAR-Indian Institute of Rice Research, Hyderabad for 16 physico-chemical characters using the seed samples grown at Raipur.

On overall mean basis a single entry IET 27026 (CR 2948-2-4-6) has registered 10% yield advantage over the best check (Shobini) which is discussed below.

IET 27026 (CR 2948-2-4-6) derived from the cross, JJ 92/Tulsi phool ranked first (5867Kg/ha) possessing 106 days flowering duration and medium slender grains. It recorded 10 % yield gain over the best check, Shobini (NC) whereas 38% over Zonal check and 43% over local check. The entry occupied 1st rank in Zone 3 (Eastern) with 13% yield superiority over the best varietal check (Shobini). Statewise it ranked 1st in Odisha with 13% yield gain over the best varietal check (Shobini). In Zone 5 (Central) it outperformed the best check (Shobini) by 19% and ranked 1st in Chhattisgarh with 19% yield superiority over Shobini, the best check. Qualitywise it recorded 58.5%. HRR, high amylose content (27.04%), ASV (4

mm), 33 mm GC and possessed no aroma. Hence it is not considered for promotion to 2nd year of testing in AVT-1-(ASG) trial.

Overall performance of the promising entries in Initial Variety Trail-Aromatic Short Grain (IVT-ASG) Kharif- 2017

Rank	IET NO/ Designation/ Cross Combination	GY/FD /GT	Yield adv. % over NC, ZC, LC	% yield Increase over the best check			
				Zone		State	
				Rank	BC (NC)	Rank	BC (NC)
1	27026	5867	10	Z-III-1	13	OD-1	13
	CR 2948-2-4-6	106	38	Z-V-1	19	CG-1	19
	JJ 92/Tulsi phool	MS	43				
	Shobini (NC)	5355					
		104					
	Zonal check (ZC)	4255					
		107					
	Local check (LC)	4118					
		104					

Zonal performance of promising entries

Zone 3 (Eastern): It consisted of 6 locations namely Cuttack and Jeypore (Odisha), Chinsura and Bankura (West Bengal); Masoda and Varanasi (UP). The data from Chinsura, Bankura Masoda and Varanasi are not included in analysis due to low mean and low CV. The location mean yield ranged from 4151 Kg/ha (Jeypore) to 4947 Kg/ha (Cuttack)) while CV ranged from 8.55 % (Jeypore) to 11.21 % (Cuttack). The mean grain yield of test entries ranged from 3007 kg/ha (IET 27016) to 6381 Kg/ha (IET 27026) while days to 50% flowering ranged from 103 days (IET 27027) to 118 days (IET 27021). Among checks national check yielded high (5666 Kg/ha). Two entries namely IET 27026 (CR 2948-2-4-6) and IET 27028 (CR 2982-2-4-6) showed >5% yield superiority *ie.*, 13% and 6% respectively over the best check (Shobini).

Qualitywise IET 27026 exhibited 58.5% HRR, high amylose content (27.04%), 4 mm ASV, 33 mm GC and no aroma and therefore not considered for promotion. IET 27028 recorded low HRR (42.3%), intermediate amylose content (23%), 5 ASV, 56 mm gel consistency and no scent . Hence it is not qualified for promotion to next year of testing.

Zone 5 (Central): This zone represented 3 locations *viz.*, Waraseoni (MP), Raipur and Jagadalpur (Chhattisgarh). However the mean yield of Waraseoni was < 4t/ha and so not included while analysing the data. The experimental mean yield ranged from 4062 Kg/ha (Raipur) to 5382 Kg/ha (Jagadalpur) while CV ranged from 8.28 % (Jagadalpur) to 9.4% (Raipur). The mean yield of entries across centres ranged from 3571 Kg/ha (IET 27029) to 6408 Kg/ha (IET 27026). Days to 50% flowering ranged from 96 days (IET 27020) to 111 days (IET Nos. 27019, 27022 and 27028). In addition to IET 27026 (6408 kg/ha) another entry IET 27015 (6018 Kg/ha) registered the yield advantage of 19% and 12% respectively over the best check (Shobini). Qualitywise IET 27026 (CR 2948-2-4-6) exhibited 58.5% HRR,

high amylose content (27.04%), 4 mm ASV, 33 mm GC and no aroma and hence it is not eligible for promotion to 2nd year of testing whereas IET 27015 (Improved Zeera Shankar) recorded 50.8% HRR, 4 ASV, high amylose content (26.26%) and 22 mm gel consistency and moderate scent. Due to undesirable quality parameter *ie.*, when AC is between 25-27, then GC should be > 40 mm) IET 27015 is not eligible for promotion to 2nd year of testing.

Zone wise performance of the promising entries in Initial Variety Trail-Aromatic Short Grain (IVT-ASG), Kharif -2017

Rank	IET NO/ Designation/ Cross Combination	GY/FD/GT	Yield adv. % over NC/ZC/LC	% Yield increase over the Best check	
				State/ Rank	% BC
Promising in Zone III					
2	27028 CR 2982-2-4-6 NDR-359/Ketekijoha	6008 117 LS	6	OD-2	6
	Shobini (NC)	5666 110			
	Zonal Check (ZC)	4901 116			
	Local Check (LC)	3651 111			
Promising in Zone V					
2	27015 Improved Luchai Selection of land race Luchai	6018 102 SB	12 37 26	CG-2	12
	Shobini (NC)	5368 98			
	Zonal Check (ZC)	4394 108			
	Local Check (LC)	4782 97			
Promising in Zone VI					
1	27015 Improved Luchai Selection of land race Luchai	5213 101 SB	11 17 24	MH-1	11
2	27021 CR 2963-2-6-1 MTU-1071/Dhusara	5064 115 MS	8 14 20	MH-2	8
3	27020 HUR-17-1 HUBR 2-1/Pize-1-1-2-1-2	4967 96 SB	6 11 18	MH-3	6
	Shobini (NC)	4704 98			
	Zonal Check (ZC)	4463 97			
	Local Check (LC)	4214 98			

Zone 6 (Western) : This zone consisted of Phondaghat, Karjat and Palghar (Maharashtra); Nawagam and Navsari (Gujarat) but data from from Navsari, Nawagam and Pondaghat is excluded due to low mean grain yield (< 4t/ha). The experimental mean yield ranged from 4349 Kg/ha (Palghar) to 4801 Kg/ha (Karjat) while CV ranged from 10.05 % (Palghar) to 12.6% (Karjat). The mean yield of entries ranged from 4214 Kg/ha (Local check) to 5213 Kg/ha (IET 27015). Days to 50% flowering ranged from 96 days (IET Nos. 27014, 27016, 27027 and 27020) to 115 days (IET No. 27021). Three entries namely IET 27015 (Improved Luchai), IET 27021 (CR 2963-2-6-1) and IET 27020 (HUR 17-1) recorded 11%, 8% and 6% and yield advantage over the best check (Shobini).

Qualitywise IET 27015 recorded 50.8% HRR, high amylose content (26%), 4 ASV, 22 mm gel consistency and moderate scent while IET 27021 exhibited low HRR (41.5%), 4 ASV, intermediate amylose content (24%) and gel consistency (31 mm) and moderate scent. IET 27020 recorded low HRR (29.3%), high amylose content (25.8%), high ASV (7 mm), 24 mm GC and slight scent.

Since IET 27015 recorded low gel consistency (22 mm) along with high AC (26%) while IET 27021 exhibited low HRR (41.5%) and IET 27020 had shown both low HRR (29.3%) and low GC (24 mm) along with high AC (25.8%), they are not eligible for promotion to 2nd year of testing.

Performance of entries in IVT-ASG, Kharif, 2017

SNo	Entry	Yield advantage % over the best check			Remarks
		Zone III	Zone V	Zone VI	
1	IET 27026	13	19	-	Dropped due to poor quality (AC: 27.04% GC (33 mm), Aroma absent
2	IET 27028	6	-	-	Dropped due to poor quality (HRR: 42.3%)
3	IET 27015	-	12	-	Dropped due to poor quality (AC: 26%, GC: 22 mm)
4	IET 27021	-	-	8	Dropped due to poor quality (HRR: 41.5%)
5	IET 27020	-	-	6	Dropped due to poor quality (HRR: 29.3%, AC: 25.8%, GC: 24 mm)

Entries promoted to 2nd year of testing (AVT-1-ASG): None

Table No. 8.1: Composition of entries in Advance Variety Trial 1-Aromatic Short Grain (AVT 1-ASG), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
2 nd year of testing:				
4701	26205	CN 1987-4-35	IET 21261 // MTU 7029 / Geetanjali	MS
4702	Dubraj (QC)			SB
3 rd year of testing:				
4703	25419	HUR-156	Taroari Basmati dwarf mutant-2 / MTU 7029	SS
4704	Badshabhog (Northern & Central), CR Sugandh Dhan 907 (Eastern & North Eastern), Sugandh Samba (Western & Southern)-- ZC			
4705	24617 (R)	RP 4926-215-111-74-21-12	Swarna / RAU 3041	MS
4706	Ketekijoha (QC)			MS
2 nd year of testing:				
4707	26216	TTB 105-11-9	Savitri / Badshabhog	SB
4708	Shobini (NC)			SS
4709	Local Check (LC)			

Table No. 8.2 : Grain Yield (Kg/ha) of entries in AVT 1-ASG Kharif 2017

Entry No.		IET No.		II				III												Zone III (6)										
				U.P.	OD	OD	OD (2)	W.B	W.B	W.B	W.B	W.B (3)	U.P.	U.P.	U.P. (1)															
				@KNP	CTK	JYP	Mean	CHN	BNK	@PNB	HTW	Mean	@MSD	VRN	Mean	Mean														
4701	26205	3130	1	5755	4	4823	2	5289	3	5222	1*	4435	4	3584	5	5850	1*	5169	1*	13%	3650	5	7612	2*	7612	2*	5616	1*	19%	
4702	Dubraj (QC)			4900	8	3892	6	4396	9	4037	7	3021	9	3974	4	4275	4	3778	9*		3417	6	2155	6	2155	6	3713	9*		
4703	25419	2957	3	6553	1	4388	3	5470	1	3%	5074	2	4873	3	4164	3	3925	6	4624	3*	1%	4117	3	7743	1*	7743	1*	5426	2*	15%
4704	Zonal Check (ZC)	2202	4	6496	3	4164	4	5330	2	4037	8	5409	1	3107	7	4325	3	4590	4*		3867	4	2022	7	2022	7	4409	6*		
4705	24617 (R)	2015	5	6553	2	2475	9	4514	8	4926	3	5166	2	4809	1	4400	2	4831	2*	5%	4217	2	6646	3*	6646	3*	5027	3*	7%	
4706	Ketekijoha (QC)	1853	7	5356	7	3832	7	4594	6	4519	5	3801	7	3069	9	3700	7	4007	7*		733	9					4242	7*		
4707	26216	1839	8	5584	5	3946	5	4765	5	4111	6	3801	8	3087	8	3425	8	3779	8*		2433	8					4173	8*		
4708	Shobini (NC)	3094	2	4900	9	5133	1	5016	4	4000	9	4240	5	4626	2	4125	5	4122	5*		4683	1	5888	4	5888	4	4714	4*		
4709	Local Check (LC)	1965	6	5527	6	3561	8	4544	7	4741	4	4094	6	3234	6	3240	9	4025	6*		3383	7	5588	5	5588	5	4458	5*		
	Exp Mean	2382		5736		4024		4880		4519		4316		3739		4141		4325			3389		5379		5379		4659			
	C.D. 5%	226		793		379		427		346		787		731		896					327		594		594					
	C.V.%	6.45		9.47		6.46		8.73		5.25		12.49		13.40		14.83					6.61		7.44		7.44					
	Sowing Date					29-06-2017										10-07-2017					05-07-2017									
	Planting Date					03-08-2017										03-08-2017					01-08-2017									
	Local ©					Kalajeera										Gobindbhog					NDR 6093									
* Superior to Best Check % Superior over Best Check @ not included in means																														

* Superior to Best Check % Superior over Best Check @ not included in means

Table No. 8.2 contd : Grain Yield (Kg/ha) of entries in AVT 1-ASG Kharif 2017

Entry No.	IET No.	IV				V				VI				MH (2)	
		AS	TR	M.P.	CG	MH	MH	MH	MH	MH	MH	MH	MH		
		@GER	@ARD	@WRS	@RPR	@JDP	@PDG	@RDN	KJT	PLG	Mean	Mean	Mean		
4701	26205	4556	1	3978	1*	4349	2*	5391	1*	6173	1	7333	1*	2227	6
4702	Dubraj (QC)	3933	5	2578	4	2989	8	3606	7	5148	2	5235	7	1657	7
4703	25419	4411	2	3311	2	4161	3	4214	2	4621	5	5444	5	2335	5
4704	Zonal Check (ZC)	4172	4	1844	8	3239	6	4103	3	2708	9	5412	6	3536	2
4705	24617 (R)	3633	6	2933	3	4382	1*	3869	6	5050	3	7000	2*	3321	3
4706	Ketekijoha (QC)	3397	7	1822	9	3161	7	2844	9	3421	8	3444	9	1268	9
4707	26216	2997	9	1911	7	2657	9	2933	8	3563	6	4837	8	1326	8
4708	Shobini (NC)	4247	3	2533	5	3717	4	4060	5	4835	4	6588	3	4597	1
4709	Local Check (LC)	3394	8	1993	6	3592	5	4070	4	3485	7	5634	4	2829	4
	Exp Mean	3860	2545	3572	3899	4334	5659	2566	4683	4249	4466				
	C.D. 5%	502	1162	463	631	1453	38	426	1007	499	753				
	C.V.%	8.91	31.29	8.88	11.09	22.97	0.46	11.37	14.73	8.05	11.23				
	Sowing Date	26-06-2017		24-06-2017		16-06-2017			14-06-2017	15-06-2017					
	Planting Date	31-07-2017		21-07-2017		07-07-2017			09-07-2017	10-07-2017					
	Local ©	Ketekijoha		JR 503		Vishnubhog			Karjat 6	Palghar 1					

Table No. 8.2 contd : Grain Yield (Kg/ha) of entries in AVT 1-ASG Kharif 2017

Entry No.	IET No.	VI		Zone VI (2)		VII			Overall (8)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		GU	GU			A&N	KE	KA					
		@NWG	@NVS	Mean		@POB	@PTB	@MGD@	Mean				
4701	26205	3998	1	3155	7	4472	6 *	2769	7	6236	1 *	5330	1 * 14%
4702	Dubraj (QC)	1734	7	2853	9	3895	9 *	2851	6	1410	9	3179	2
4703	25419	2998	4	4000	3	4602	4 *	2933	4	4287	4	1972	4
4704	Zonal Check (ZC)	2763	5	4496	1	4876	2 *	3207	3	4181	5	1623	5
4705	24617 (R)	3998	2	3893	4	4965	1 * 2%	2933	5	4480	3	1192	6
4706	Ketekijoha (QC)			2897	8	3993	8 *	2522	8	2990	7	681	9
4707	26216			3313	6	4676	3 *	2522	9	3012	6	793	8
4708	Shobini (NC)	3645	3	4222	2	4508	5 *	3591	2	4565	2	1030	7
4709	Local Check (LC)	2646	6	3346	5	4206	7 *	3618	1	2869	8	2196	3
	Exp Mean	3112		3575		4466		2994		3781		1796	
	C.D. 5%	490		685				370		586		276	
	C.V.%	10.61		13.13				8.46		10.61		10.52	
	Sowing Date												
	Planting Date												
	Local ©												

Table No. 8.3: Days to 50% Flowering of entries in AVT 1-ASG Kharif 2017

Entry No.	IET No.	II		III										Zone III	IV		Zone IV	V			
		U.P.	OD	OD	OD (2)	W.B	W.B	W.B	W.B	W.B (4)	U.P.	U.P.	U.P. (2)	(8)	AS	TR	(2)	M.P.	CG	CG	CG (2)
		KNP	CTK	JYP	Mean	CHN	BNK	PNB	HTW	Mean	MSD	VRN	Mean	Mean	GER	ARD	Mean	WRS	RPR	JDP	Mean
4701	26205	97	102	115	109	104	114	112	101	108	118	92	105	107	119	84	101	105	115	116	115
4702	Dubraj (QC)		102	108	105	96	104	130	110	110	107	129	118	111	118	85	101	110	124	125	125
4703	25419	97	104	119	111	104	113	113	109	110	103	97	100	108	120	85	103	99	112	105	109
4704	Zonal Check (ZC)	113	110	120	115	106	115	131	101	113	118	132	125	117	125	87	106	120	126	105	116
4705	24617 (R)	106	103	114	108	96	109	110	108	106	107	98	103	106	112	87	99	102	109	106	108
4706	Kelekijoha (QC)	116	102	117	109	101	116	134	113	116	112		112	113	126	88	107	123	130	102	116
4707	26216	119	110	112	111	101	109	133	106	112	93		93	109	126	88	107	117	128	122	125
4708	Shobini (NC)	100	104	111	107	107	112	118	100	109	112	100	106	108	120	88	104	102	113	105	109
4709	Local Check (LC)	108	116	104	110	107	116	132	110	116	104	113	109	113	126	83	104	96	113	116	115
	Exp Mean	107	106	113	109	103	112	124	106	111	108	109	108	110	121	86	104	108	119	111	115
	C.D. 5%	2	2	2		1	0	2	3		0	1			2	1		2	1	0	
	C.V.%	1.09	1.23	1.29		0.61	0.00	1.11	1.87		0.00	0.79			1.16	1.09		1.20	0.61	0.00	

Table No. 8.3 contd : Days to 50% Flowering of entries in AVT 1-ASG Kharif 2017

Entry No.	IET No.	Zone V (3)	VI								Zone VI (6)	VII			Zone VII (3)	Overall (23)
			MH	MH	MH	MH	MH (4)	GU	GU	GU (2)		A&N	KE	KA		
		Mean	PDG	RDN	KJT	PLG	Mean	NWG	NVS	Mean	Mean	POB	PTB	MGD@	Mean	Mean
4701	26205	112	105	115	105	97	105	108	100	104	105	119	110	116	115	107
4702	Dubraj (QC)	120	118	113	122	95	112	116	103	109	111	101	107	127	112	111
4703	25419	105	102	112	99	102	104	110	104	107	105	96	109	114	106	106
4704	Zonal Check (ZC)	117	102	100	100	102	101	104	102	103	102	93	108	115	105	110
4705	24617 (R)	106	101	112	101	101	104	102	99	101	103	95	108	116	106	104
4706	Ketekijoha (QC)	118	122	115	123	111	118		119	119	118	117	111	126	118	115
4707	26216	122	122	115	101	97	109		116	116	110	120	110	137	122	113
4708	Shobini (NC)	107	100	101	102	96	100	107	102	104	101	98	111	116	108	105
4709	Local Check (LC)	108	106	113	105	95	105	115	99	107	105	115	110	125	117	110
	Exp Mean	113	109	111	106	99	106	109	105	107	106	106	109	121	112	109
	C.D. 5%		1	1	2	2		2	1			0	1	0		
	C.V.%		0.49	0.55	0.97	1.16		1.48	0.83			0.00	0.94	0.18		

Table No. 8.4: Plant Height (cm) of entries in AVT 1-ASG Kharif 2017

Table No. 6.7: Plant Height (cm) of entries in RVP-1 ASG Kharif 2017																						
Entry No.	IET No.	II												Zone III		IV		V				Zone V
		U.P.	OD	OD (2)	W.B	W.B	W.B	W.B	W.B (4)	U.P.	U.P.	U.P. (2)	(8)	AS	TR	Zone IV (2)	M.P.	CG	CG	CG (2)	(3)	
		KNP	CTK	JYP	Mean	CHN	BNK	PNB	HTW	Mean	MSD	VRN	Mean	Mean	GER	ARD	Mean	WRS	RPR	JDP	Mean	Mean
4701	26205	119	113	99	106	95	110	116	134	114	92	116	104	109	119	108	113	127	115	111	113	117
4702	Dubraj (QC)	158	115	98	106	123	111	138	158	132	131	163	147	129	118	105	111	186	134	136	135	152
4703	25419	109	100	85	93	104	92	115	131	110	107	114	110	106	120	98	109	130	105	99	102	111
4704	Zonal Check (ZC)	171	111	81	96	93	95	121	110	105	81	96	88	98	125	105	115	182	163	158	160	167
4705	24617 (R)	115	96	92	94	100	95	116	102	103	100	126	113	103	111	92	101	136	105	103	104	114
4706	Kelekijoha (QC)	132	102	116	109	128	116	147	116	127	131		131	122	126	109	117	134	128	134	131	132
4707	26216	116	130	103	116	122	110	142	106	120	130		130	120	126	93	109	142	127	130	129	133
4708	Shobini (NC)	121	148	86	117	95	90	121	143	112	88	115	101	111	121	107	114	122	107	99	103	109
4709	Local Check (LC)	161	105	124	114	125	118	151	110	126	97	106	102	117	126	115	120	136	97	140	119	124
	Exp Mean	134	113	98	106	109	104	129	123	117	106	119	112	113	121	103	112	144	120	123	122	129
	C.D. 5%	0	0			0	0	0	0		0				0	0		0	0			
	C.V. %	0.00	0.00			0.00	0.00	0.00	0.00		0.00				0.00	0.00		0.00	0.00			

Table No. 8.4contd : Plant Height (cm) of entries in AVT 1-ASG Kharif 2017

Entry No.	IET No.	VI								Zone VI (6)		VII			Zone VII (3)	Overall (23)
		MH	MH	MH	MH	MH (4)	GU	GU	GU (2)	Mean	Mean	A&N	KE	KA		
		PDG	RDN	KJT	PLG	Mean	NWG	NVS	Mean			POB	PTB	MGD@		
4701	26205	125	109	125	129	122	129	137	133	126	127	117	80	108	115	
4702	Dubraj (QC)	166	107	166	136	144	164	192	178	155	131	132	81	115	137	
4703	25419	133	89	129	117	117	117	135	126	120	117	115	79	104	110	
4704	Zonal Check (ZC)	123	80	120	117	110	125	128	127	115	115	107	68	97	116	
4705	24617 (R)	127	85	127	117	114	136	139	137	122	130	107	78	105	110	
4706	Ketekijoha (QC)	160	114	132	136	135		148	148	138	158	139	82	126	128	
4707	26216	155	119	167	139	145		157	157	147	129	136	70	112	126	
4708	Shobini (NC)	123	80	121	105	107	130	133	132	115	109	109	72	96	111	
4709	Local Check (LC)	111	134	109	100	114	129	139	134	120	125	163	72	120	121	
	Exp Mean	136	102	133	122	123	133	145	140	128	127	125	76	109	119	
	C.D. 5%	0		0				0			0	0				
	C.V.%	0.00		0.00				0.00			0.00	0.00				

Table No. 8.5 : Panicles/ M² of entries in AVT 1-ASG Kharif 2017

Entry No.	IET No.	II				III							Zone III	IV		Zone IV	V				Zone V	
		U.P.	OD	OD	OD (2)	W.B	W.B	W.B	W.B	W.B (4)	U.P.	U.P.	U.P. (2)	(8)	AS	TR	(2)	M.P.	CG	CG	CG (2)	(3)
		KNP	CTK	JYP	Mean	CHN	BNK	PNB	HTW	Mean	MSD	VRN	Mean	Mean	GER	ARD	Mean	WRS	RPR	JDP	Mean	Mean
4701	26205	382	307	397	352	308	337	326	322	323	439	335	387	346	231	103	167	263	214	331	272	269
4702	Dubraj (QC)		268	316	292	330	289	264	301	296	382	239	311	299	190	87	138	276	165	242	203	228
4703	25419	428	322	404	363	275	343	210	307	284	502	349	426	339	231	93	162	240	216	277	246	244
4704	Zonal Check (ZC)	415	333	331	332	275	277	240	313	276	355	273	314	300	193	95	144	258	222	263	242	247
4705	24617 (R)	397	363	371	367	264	188	256	306	254	454	346	400	319	230	88	159	254	231	324	277	270
4706	Ketekijoha (QC)	381	327	358	343	253	322	282	290	287	489		489	332	236	74	155	362	204	332	268	299
4707	26216	398	424	358	391	242	343	375	302	316	460		460	358	214	87	150	274	243	313	278	277
4708	Shobini (NC)	424	354	338	346	308	332	241	313	298	339	290	314	314	219	85	152	330	209	353	281	297
4709	Local Check (LC)	359	402	368	385	297	222	356	306	295	444	296	370	336	219	52	135	299	208	276	242	261
	Exp Mean	398	344	360	352	284	295	283	307	292	429	304	374	326	218	85	151	284	212	301	257	266
	C.D. 5%	16	56	61		24	36	47	29		42	8			37	11		61	12	51		
	C.V.%	2.73	11.13	11.69		5.89	8.36	11.32	6.42		6.78	1.76			11.67	9.22		14.64	3.82	11.52		

Table No. 8.5 contd. : Panicles/ M² of entries in AVT 1-ASG Kharif 2017

Entry No.	IET No.	VI								Zone VI (6)	VII			Zone VII (3)	Overall (23)
		MH	MH	MH	MH	MH (4)	GU	GU	GU (2)		A&N	KE	KA		
		PDG	RDN	KJT	PLG	Mean	NWG	NVS	Mean		POB	PTB	MGD@		
4701	26205	188	221	187	191	197	160	187	174	189	244	265	238	249	268
4702	Dubraj (QC)	177	205	208	185	194	111	175	143	177	278	196	277	250	235
4703	25419	187	285	211	180	216	151	180	165	199	244	262	291	265	269
4704	Zonal Check (ZC)	189	230	220	178	204	154	207	181	196	333	292	277	300	258
4705	24617 (R)	208	274	242	181	226	160	216	188	214	278	257	270	268	268
4706	Ketekijoha (QC)	252	320	210	187	242		175	175	229	289	348	214	283	281
4707	26216	251	328	205	186	242		193	193	232	322	338	263	308	291
4708	Shobini (NC)	214	266	199	177	214	155	199	177	202	300	270	287	285	270
4709	Local Check (LC)	213	272	182	183	212	150	216	183	202	311	265	231	269	266
	Exp Mean	209	267	207	183	216	149	194	174	203	289	277	261	275	267
	C.D. 5%	19	27	22	12		17	5			75	92	37		
	C.V.%	6.15	7.02	7.26	4.49		7.78	1.94			17.90	22.83	9.70		

Table No. 8.6: Grain quality characteristics of entries in AVT1-ASG, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
4701	26205	77.3	65.0	55.1	5.65	2.04	2.74	MS	VOC	5.0	1.7	8.7	1.53	4.0	25.37	32	SS
4702	Dubraj	79.0	66.1	61.0	4.84	1.99	2.43	SB	A	4.8	115	9.6	1.77	4.0	25.57	43	SS
4703	25419	70.4	65.6	59.0	5.80	1.65	3.51	SS	VOC	4.7	195	8.5	1.46	5.0	23.55	23	MS
4704	Sugand Sambha	77.9	68.1	50.6	4.89	1.83	2.63	MS	A	4.8	210	8.0	1.94	4.0	24.20	47	SS
4705	24617	76.7	67.4	63.2	5.05	2.00	2.52	MS	VOC	4.1	90	7.9	1.56	4.0	23.76	22	NS
4706	Ketekijoha	79.5	69.8	65.9	5.63	1.88	2.99	MS	A	4.4	200	9.3	1.65	7.0	25.37	57	SS
4707	26216	76.3	67.1	66.5	3.57	1.80	1.98	SB	VOC	4.5	205	6.5	1.82	4.0	23.26	27	MS
4708	Shobini	75.4	64.2	46.4	5.34	1.72	3.10	SS	VOC	4.8	125	8.6	1.61	4.0	23.99	22	SS
4709	C.G.S.Bhog (LC)	77.9	65.5	57.5	4.39	2.22	1.97	SB	OC	4.5	140	7.9	1.79	4.0	26.81	22	SS

HULL: Hulling (%); Milling (%): HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB::Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 8.7: : Composition of entries in Initial Variety Trial —Aromatic Short Grain (IVT-ASG), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st year of testing:				
4801	27013	CR 2618-3-2-1	Pusa 44 / Dhusara	SS
4802	27014	R 2053-202-2-145-1	R 1033-2559-1-1 / HUR SG 4-6	SS
4803	27015	Improved Luchai	Selection of land race Luchai	SB
4804	27016	Improved Jeera-Shankar	Selection of land race Jeera Shankar	SB
4805	27017	RP 4926-145-123-110-11-5	Swarna / RAU 3041	SB
4806	27018	JR 14-1	NPT 100 / HMT	MS
4807	Shobini (NC)			SS
4808	27019	RTR – 104	Mutant Dubraj	MS
4809	27020	HUR 17-1	HUBR 2-1 / Pize-1-1-2-1-2	SB
4810	27021	CR 2963-2-6-1	MTU 1071 / Dhusara	MS
4811	27022	Improved Chinnor	Selection of land race Chinnor	MS
4812	27023	R 1661-1372-1-601-1	R 1004-5552-1-1 / HUR SG 4-6	LS
4813	27024	CR 2979-1-4-1	Swarna / Kalanamak	SS
4814	Dubraj (QC)			SB
4815	27025	HUR 17-2	TBD / MTU 7029-3-2-1-1-2	LS
4816	27026	CR 2948-2-4-6	JJ 92 / Tulsi phool	MS
4817	27027	RTR - 31	Mutant Jawaphool	SB
4818	Badshabog (Northern & Central), CR Sugandh Dhan 907 (Eastern & North Eastern), Sugandha Samba (Western & Southern)—ZC			
4819	27028	CR 2982-2-4-6	NDR 359 / Ketekijoha	LS
4820	Ketekijoha (QC)			MS
4821	27029	Improved Kali Kamod	Selection of land race kali kamod	MS
4822	Local Check			

Table No. 8.8 : Grain Yield (Kg/ha) of entries in IVT - ASG Kharif 2017

Entry No.	IET No.	II		III										Zone III (2)						
		U.P.		OD	OD	OD (2)		W.B		W.B	U.P.	U.P.								
		@KNP	CTK	JYP	Mean	@CHN	@BNK	@MSD	@VRN	Mean										
4801	27013	3351	4 *	4516	5795	2	5156	6	4926	7	3436	2	2017	5530	3	5156	6			
4802	27014	1042		4229	5094	9	4661		4667		2485		3167	4	5250	7	4661			
4803	27015	3261	5	5591	6	4942	5266	5	4556		2558		2567		5483	4	5266	5		
4804	27016	3664	2 *	4229		1784	3007		4111		2067		2000		3188		3007			
4805	27017	1766		4659		3573	4116		4963	6	3038	7	3273	3	4389	9	4116			
4806	27018	3714	1 *	5735	5	2626	4180		4333		2924	8	3033	8	3536		4180			
4807	Shobini (NC)	1313		5806	4	5526	4	5666	3	5259	2	3070	6	3150	6	5416	6	5666	3	
4808	27019	2199		5090		5175	8	5133	7	4852	9	2894	9	2767		2173		5133	7	
4809	27020	1404		5305	7	5526	5	5415	4	5037	4	2857		2500		5419	5	5415	4	
4810	27021			4237		3193	3715		4593		2757							3715		
4811	27022	2326		5090		2175	3633		4000		3144	3	3000	9	1958		3633			
4812	27023	1511		5161	9	1632	3396		4704		3116	5	2933		3700		3396			
4813	27024	3465	3 *	4803		4895	4849	9	4852		2339		3350	1	4555	8	4849		9	
4814	Dubraj (QC)	2110		5233	8	4433	4833		4556		2120		2533		3180		4833			
4815	27025	1986		5950	2	3292	4621		5000	5	2120		3167	5	6403	1 *	4621			
4816	27026	1590		5950	3	6813	1 * 6381	13%	5222	3	2632		3100	7	5703	2	6381	1 *	13%	
4817	27027	1300		4014		3485	3750		4630		1997		3300	2	3230		3750			
4818	Zonal Check (ZC)	2853	8	4516		5287	7	4901	8	4926	8	2412		2833		2142		4901	8	
4819	27028	1569		6308	1	5708	3	6008	2	5296	1	3874	1 *	2283		1830		6008	2	6%
4820	Ketekijoha (QC)	3098	6	4086		5392	6	4739		4778		3143	4	2367		2180		4739		
4821	27029	2523	9	4014		1982	2998		4370		2677		1833		3334		2998			
4822	Local Check	2921	7	4301		3000	3651		4852		2831		2833		3846		3651			
	Exp Mean	2332		4947		4151	4549		4749		2750		2762		3926		4549			
	C.D. 5%	423		914		585	532		178		629		326		469		503			
	C.V. %	10.99		11.21		8.55	10.20		2.27		13.89		7.15		7.24		9.64			
	Sowing Date	04-07-2017		11-07-2017		01-07-2017			12-07-2017				05-07-2017		04-07-2017					
	Planting Date	24-07-2017		02-08-2017		13-08-2017			25-08-2017				01-08-2017		27-07-2017					
	Local @	Sakkar chini		Ketekijoha		Kalajeera			GANDHES WARI				NDR 6093		HUR-917					
	* Superior to Best Check	% Superior over Best Check		@ not included in means																

* Superior to Best Check % Superior over Best Check @ not included in means

Table No. 8.8 contd: Grain Yield (Kg/ha) of entries in IVT - ASG Kharif 2017

Entry No.	IET No.	IV		V						Zone V (2)		VI							
		AS		M.P.		CG	CG	CG (2)	Mean	Mean	MH		MH	MH	MH (2)				
		@GER		@WRS		RPR	JDP	Mean			@PDG		KJT	PLG	Mean				
4801	27013	4963	1	3718	4	5129	4	5858	6	5493	3 2%	5493	3 2%	4267	8	4360	4265	4312	
4802	27014	2729		4173	1 *	4714	7	6191	3	5453	5 2%	5453	5 2%	4833	3	4454	4489	4	4471
4803	27015	3492	9	4047	2	5220	3	6815	1 *	6018	2 * 12%	6018	2 * 12%	3922		6089	1 *	4337	5213 1 11%
4804	27016	1266		3605	5	3114		4836		3975		3975		3033		4248	4239	4244	
4805	27017	3053		2349		4361		6157	4	5259	7	5259	7	3500		5080	7	4236	4658 9
4806	27018	2179		2234		2959		4218		3588		3588		3733		4197	4495 3	4346	
4807	Shobini (NC)	3999	2	3303		4923	6	5813	7	5368	6	5368	6	5000	2	4956	8	4451	6 4704 7
4808	27019	3529	8	3739	3	5536	2	5421		5478	4 2%	5478	4 2%	3267		4611		4201	4406
4809	27020	2955		2627		3786		5082		4434		4434		4500	4	5476	3	4457	5 4967 3 6%
4810	27021	2796		2785		2083		3841		2962		2962		2822		5863	2	4265	5064 2 8%
4811	27022	2882		3350		2914		4728		3821		3821		3644		4654		4403	9 4529
4812	27023	2711		2330		2864		5728	8	4296		4296		3778		4076		4287	4181
4813	27024	3657	6	3448	7	3729		5700	9	4714		4714		4500	5	4324		4265	4294
4814	Dubraj (QC)	3571	7	3152		4636	8	5400		5018	8	5018	8	4333	7	5137	6	4527	1 4832 5 3%
4815	27025	2839		3236		4304		5457		4880		4880		4478	6	5441	4	4271	4856 4 3%
4816	27026	3993	3	3599	6	6136	1 *	6680	2 *	6408	1 * 19%	6408	1 * 19%	5167	1 *	4898	9	4283	4591
4817	27027	3730	4	3105		4986	5	4899		4942	9	4942	9	4267	9	4415		4343	4379
4818	Zonal Check (ZC)	3724	5	3285		3936		4853		4394		4394		4167		4793		4132	4463
4819	27028	2485		2637		3922		5904	5	4913		4913		3567		4867		4520	2 4694 8
4820	Kelekijoha (QC)	2668		2451		2864		5373		4118		4118		2700		5167	5	4441	7 4804 6 2%
4821	27029	1148		3418	9	2873		4270		3571		3571		3800		4450		4413	8 4431
4822	Local Check	1758		3440	8	4379	9	5185		4782		4782		4167		4058		4369	4214
	Exp Mean	3006		3183		4062		5382		4722		4722		3975		4801		4349	4575
	C.D. 5%	1475		662		629		734		480		487		83		998		721	585
	C.V. %	29.79		12.62		9.40		8.28		8.85		8.98		1.27		12.62		10.05	11.15
	Sowing Date	11-07-2017		08-07-2017				05-07-2017						07-07-2017		12-07-2017		14-07-2017	
	Planting Date	01-09-2017		30-07-2017				26-07-2017						29-07-2017		04-08-2017		03-08-2017	
	Local ©	KunKuni Joha		JR 503				Vishnubhog						Karjat-2		Karjat 6		Palghar 1	

Table No. 8.8 contd: Grain Yield (Kg/ha) of entries in IVT - ASG Kharif 2017

Entry No.	IET No.					Zone VI (2)		VII	Overall (7)		Days to 50% Flowering	Plant Height (cm)	Panicles / M²	
		GU		GU				KE						
		@NWG		@NVS		Mean		PTB		Mean				
4801	27013	3634		2639		4312		2456		4626		108	88	296
4802	27014	5639	1 *	3218		4471		7972	2 *	5306	5	104	117	265
4803	27015	4010		3440		5213	1 11%	4728		5389	2 1%	107	126	258
4804	27016	4261	7	3653		4244		2694		3592		103	143	280
4805	27017	3634		4051	8	4658	9	5843		4844		105	109	279
4806	27018	4135	9	3347		4346		4355		4083		102	110	238
4807	Shobini (NC)	3383		3880		4704	7	6010	8	5355	4	104	107	258
4808	27019	3759		3787		4406		5905	9	5134	7	110	93	297
4809	27020	4511	4	4565	4	4967	3 6%	7230	3 *	5266	6	101	94	296
4810	27021	2506		3986	9	5064	2 8%	6065	7	4221		117	100	262
4811	27022	2256		3907		4529		2592		3794		105	133	252
4812	27023	4135		3176		4181		3983		3961		105	106	284
4813	27024	3383		4157	6	4294		5236		4707		104	100	273
4814	Dubraj (QC)	4887	3	3579		4832	5 3%	4108		4782		105	125	268
4815	27025	4261	8	3380		4856	4 3%	5549		4895	9	105	102	291
4816	27026	4386	6	4074	7	4591		6308	6	5867	1 * 10%	106	97	285
4817	27027	3509		4931	1	4379		4207		4336		100	119	276
4818	Zonal Check (ZC)	4511	5	2889		4463		2266		4255		107	109	273
4819	27028	3634		3463		4694	8	6456	5	5384	3 1%	111	103	262
4820	Kelekijoha (QC)	5013	2	4731	2	4804	6 2%	8087	1 *	5059	8	107	122	289
4821	27029	3133		4639	3	4431		6765	4 *	4110		99	139	289
4822	Local Check	3383		4338	5	4214		3532		4118		104	110	296
	Exp Mean	3907		3810		4575		5107		4686		105	112	276
	C.D. 5%	754		840		632		732		287		0		13
	C.V. %	11.71		13.38		12.03		8.70		10.09		1.08		11.77
	Sowing Date			06-07-2017										
	Planting Date			28-07-2017										
	Local ©			Narmada										

Table No. 8.9: Days to 50% Flowering of entries in IVT - ASG Kharif 2017

Entry No.	IET No.	II	III									Zone III	IV	V				
		U.P.	OD	OD	OD (2)	W.B	W.B	W.B (2)	U.P.	U.P.	U.P. (2)	(6)	AS	M.P.	CG	CG	CG (2)	
		KNP	CTK	JYP	Mean	CHN	BNK	Mean	MSD	VRN	Mean	Mean	GER	WRS	RPR	JDP	Mean	
4801	27013	115	117	134	126	124	110	117	114	97	106	116	120	98	102	100	101	
4802	27014	108	117	122	119	125	103	114	111	99	105	113	119	96	100	100	100	
4803	27015	111	116	124	120	124	104	114	118	103	111	115	121	101	105	100	102	
4804	27016	113	117	104	111	126	97	112	105	105	105	109	109	110	101	96	98	
4805	27017	114	120	118	119	124	98	111	112	97	105	112	119	98	99	100	99	
4806	27018	109	104	112	108	106	92	99	115	110	113	107	108	102	106	102	104	
4807	Shobini (NC)	108	118	115	117	119	97	108	112	98	105	110	121	96	100	100	100	
4808	27019	125	126	116	121	121	86	104	120	118	119	115	112	110	117	106	111	
4809	27020	110	117	124	121	106	86	96	110	89	100	105	112	94	96	99	97	
4810	27021		104	133	119	122	113	118				118	122	121	123	125	124	
4811	27022	104	115	109	112	106	87	97	103	124	114	107	110	123	109	102	105	
4812	27023	114	103	124	114	125	94	110	112	91	102	108	121	103	99	104	101	
4813	27024	106	116	122	119	121	82	102	117	93	105	109	123	99	99	102	100	
4814	Dubraj (QC)	110	128	105	117	119	84	102	110	108	109	109	110	105	109	102	105	
4815	27025	114	105	132	119	124	89	107	112	99	106	110	123	96	101	99	100	
4816	27026	111	119	112	115	126	86	106	118	101	110	110	125	101	102	102	102	
4817	27027	112	123	108	116	102	81	92	103	103	103	103	106	96	99	97	98	
4818	Zonal Check (ZC)	113	119	118	118	137	89	113	112	120	116	116	111	106	112	106	109	
4819	27028	112	117	131	124	125	96	111	114	120	117	117	124	110	115	110	112	
4820	Ketekijoha (QC)	116	116	111	114	116	80	98	121	121	121	111	111	108	117	107	112	
4821	27029	114	125	100	113	95	75	85	102	105	104	100	106	96	101	96	98	
4822	Local Check	109	115	106	111	124	116	120	95	109	102	111	108	93	99	100	99	
	Exp Mean	112	116	117	117	119	93	106	111	105	108	110	116	103	105	102	104	
	C.D. 5%	3	3	2	2	0	0		0	2	1	1	3	2	1	0	0	
	C.V.%	1.46	1.37	1.14	1.28	0.00	0.00		0.00	0.97	0.65	0.93	1.52	1.33	0.57	0.12	0.38	

Table No. 8.9 contd: Days to 50% Flowering of entries in IVT - ASG Kharif 2017

Entry No.	IET No.	Zone V (3)	VI							Zone VI (5)	VII KE	Overall (17)
			MH	MH	MH	MH (3)	GU	GU	GU (2)			
		Mean	PDG	KJT	PLG	Mean	NWG	NVS	Mean	Mean	PTB	Mean
4801	27013	100	97	101	96	98	114	96	105	101	93	108
4802	27014	98	95	96	91	94	110	89	99	96	93	104
4803	27015	102	96	100	96	97	112	100	106	101	93	107
4804	27016	102	90	98	96	95	100	96	98	96	91	103
4805	27017	99	97	95	98	97	114	95	105	100	92	105
4806	27018	103	96	95	95	96	105	94	99	97	90	102
4807	Shobini (NC)	98	96	94	92	94	108	99	104	98	94	104
4808	27019	111	110	107	95	104	114	104	109	106	90	110
4809	27020	96	94	96	92	94	103	94	99	96	97	101
4810	27021	123	121	117	98	112	126	114	120	115	100	117
4811	27022	111	102	101	94	99	102	102	102	100	93	105
4812	27023	102	103	102	96	100	112	95	103	101	95	105
4813	27024	100	95	98	91	95	107	95	101	97	94	104
4814	Dubraj (QC)	105	105	102	94	100	100	102	101	101	90	105
4815	27025	99	94	98	99	97	113	96	105	100	94	105
4816	27026	102	99	97	94	97	113	94	103	99	98	106
4817	27027	97	98	94	97	96	100	92	96	96	88	100
4818	Zonal Check (ZC)	108	96	97	94	96	106	94	100	97	95	107
4819	27028	111	109	101	94	101	119	100	110	105	98	111
4820	Ketekijoha (QC)	110	109	103	91	101	109	97	103	102	91	107
4821	27029	97	95	102	94	97	99	94	96	97	91	99
4822	Local Check	97	94	101	94	97	114	85	100	98	101	104
	Exp Mean	103	100	100	95	98	109	97	103	100	93	105
	C.D. 5%	1	1	2	2	1	2	2	1	1	1	0
	C.V.%	0.77	0.82	1.11	1.35	1.03	1.13	1.41	1.18	1.15	0.55	1.08

Table No. 8.10 : Plant Height (cm) of entries in IVT - ASG Kharif 2017

Entry No.	IET No.	II		III								Zone III	IV		V			
		U.P.	OD	OD	OD (2)	W.B	W.B	W.B (2)	U.P.	U.P.	U.P. (2)	(6)	AS	M.P.	CG	CG	CG (2)	
		KNP	CTK	JYP	Mean	CHN	BNK	Mean	MSD	VRN	Mean	Mean	GER	WRS	RPR	JDP	Mean	
4801	27013	70	108	70	89	78	81	80	75	91	83	84	80	103	95	86	91	
4802	27014	105	116	91	103	85	116	101	104	117	111	105	104	122	107	107	107	
4803	27015	106	110	102	106	110	126	118	109	135	122	115	120	130	139	123	131	
4804	27016	138	106	97	101	128	142	135	137	161	149	128	119	162	153	142	147	
4805	27017	119	121	83	102	90	101	96	98	120	109	102	98	123	106	99	103	
4806	27018	111	125	74	100	82	115	99	100	116	108	102	99	133	119	102	111	
4807	Shobini (NC)	76	106	84	95	85	106	96	112	100	106	99	89	118	118	95	107	
4808	27019	68	111	73	92	83	95	89	85	83	84	88	90	97	92	90	91	
4809	27020	89	81	68	74	83	105	94	86	94	90	86	91	105	97	87	92	
4810	27021		141	73	107	69	104	87				97	83	107	96	91	93	
4811	27022	79	108	101	105	130	139	135	127	159	143	127	120	158	145	145	145	
4812	27023	88	115	93	104	70	92	81	86	106	96	94	100	123	106	100	103	
4813	27024	110	140	75	107	80	110	95	98	100	99	101	78	103	105	94	100	
4814	Dubraj (QC)	122	102	100	101	125	138	132	75	136	105	113	127	146	136	125	131	
4815	27025	69	131	76	103	82	99	91	97	105	101	98	99	118	117	98	108	
4816	27026	76	133	72	102	76	103	90	76	97	86	93	79	103	116	92	104	
4817	27027	113	92	82	87	112	123	118	125	124	124	110	119	128	130	117	123	
4818	Zonal Check (ZC)	136	116	78	97	82	106	94	86	86	86	92	91	157	154	135	145	
4819	27028	95	111	86	98	85	107	96	98	89	94	96	89	120	106	99	102	
4820	Ketekijoha (QC)	69	119	100	110	115	126	121	131	119	125	118	118	127	134	125	129	
4821	27029	114	92	99	95	125	129	127	148	164	156	126	132	165	152	135	143	
4822	Local Check	99	111	106	109	70	123	97	91	91	91	99	149	141	105	130	117	
	Exp Mean	98	113	86	99	93	113	103	102	114	108	103	103	127	119	110	115	
	C.D. 5%		0	0	0	0	0	0	0	0		0		0	0			
	C.V.%		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00	0.00			

Table No. 8.10 contd : Plant Height (cm) of entries in IVT - ASG Kharif 2017

Entry No.	IET No.	Zone V (3)	VI							Zone VI (5)	VII	Overall (17)
			MH	MH	MH	MH (3)	GU	GU	GU (2)		KE	
		Mean	PDG	KJT	PLG	Mean	NWG	NVS	Mean	Mean	PTB	Mean
4801	27013	95	86	99	96	94	86	110	98	95	83	88
4802	27014	112	129	168	139	145	118	138	128	138	129	117
4803	27015	131	141	149	110	134	133	156	144	138	151	126
4804	27016	152	146	162	158	155	166	172	169	161	147	143
4805	27017	109	119	124	105	116	104	127	116	116	117	109
4806	27018	118	120	129	101	117	110	138	124	120	102	110
4807	Shobini (NC)	110	104	115	156	125	103	131	117	122	115	107
4808	27019	93	95	100	135	110	88	85	87	101	104	93
4809	27020	96	98	94	99	97	101	111	106	101	104	94
4810	27021	98	84	107	116	102	91	122	106	104	112	100
4811	27022	149	154	156	111	141	151	155	153	145	121	133
4812	27023	110	107	114	154	125	105	124	115	121	117	106
4813	27024	101	106	80	111	99	94	121	108	102	104	100
4814	Dubraj (QC)	136	124	149	114	129	146	125	136	132	129	125
4815	27025	111	107	114	97	106	102	113	107	107	114	102
4816	27026	104	98	109	112	106	91	114	103	105	104	97
4817	27027	125	124	140	89	118	146	143	144	128	116	119
4818	Zonal Check (ZC)	149	100	106	111	106	91	99	95	101	116	109
4819	27028	108	113	103	121	113	91	117	104	109	123	103
4820	Ketekijoha (QC)	129	126	123	130	126	136	135	136	130	136	122
4821	27029	150	161	168	94	141	164	171	168	152	151	139
4822	Local Check	125	86	96	107	97	82	108	95	96	177	110
	Exp Mean	119	115	123	117	118	114	128	121	119	121	112
	C.D. 5%		0		0							
	C.V.%		0.00		0.00							

Table No. 8.11 : Panicles/ M² of entries in IVT - ASG Kharif 2017

Entry No.	IET No.	II	III									Zone III	IV	V			
		U.P.	OD	OD	OD (2)	W.B	W.B	W.B (2)	U.P.	U.P.	U.P. (2)	(6)	AS	M.P.	CG	CG	CG (2)
		KNP	CTK	JYP	Mean	CHN	BNK	Mean	MSD	VRN	Mean	Mean	GER	WRS	RPR	JDP	Mean
4801	27013	409	269	395	332	308	341	324	387	346	367	341	235	463	227	341	284
4802	27014	372	285	293	289	352	219	285	391	233	312	295	197	311	255	283	269
4803	27015	353	237	362	299	319	384	352	385	238	311	321	168	317	219	204	211
4804	27016	354	305	231	268	341	302	322	394	310	352	314	248	347	244	284	264
4805	27017	322	249	355	302	286	381	334	347	242	295	310	203	329	214	294	254
4806	27018	326	286	242	264	264	345	304	269	143	206	258	151	243	209	210	210
4807	Shobini (NC)	372	281	329	305	264	282	273	291	248	270	282	216	257	209	261	235
4808	27019	374	380	527	454	352	276	314	394	266	330	366	205	258	227	233	230
4809	27020	438	322	418	370	341	386	364	358	264	311	348	217	269	207	289	248
4810	27021		370	355	363	297	250	273				318	190	230	192	296	244
4811	27022	255	312	244	278	253	388	321	284	279	282	294	225	254	215	261	238
4812	27023	330	362	410	386	363	338	351	360	257	309	348	194	212	238	284	261
4813	27024	354	335	329	332	341	290	316	383	263	323	323	228	280	214	278	246
4814	Dubraj (QC)	399	331	342	336	275	344	310	367	205	286	311	205	228	237	260	248
4815	27025	400	313	423	368	341	290	315	398	261	329	338	208	277	250	325	287
4816	27026	332	363	457	410	319	267	293	362	284	323	342	201	323	214	310	262
4817	27027	205	326	260	293	396	324	360	345	279	312	322	248	341	202	264	233
4818	Zonal Check (ZC)	311	295	380	337	352	374	363	420	214	317	339	199	265	233	195	214
4819	27028	247	302	326	314	286	274	280	354	255	304	299	200	285	221	275	248
4820	Ketekijoha (QC)	316	334	251	293	275	250	263	336	278	307	287	254	330	244	247	245
4821	27029	318	325	240	282	297	309	303	352	285	318	301	235	311	257	260	258
4822	Local Check	325	295	362	328	286	385	336	331	261	296	320	244	333	284	294	289
	Exp Mean	339	313	342	327	314	318	316	357	258	308	317	212	294	228	270	249
	C.D. 5%	23	73	55	52	41	24	23	56	29	19	19	26	73	12	67	34
	C.V.%	4.17	14.22	9.78	13.89	7.91	4.64	6.28	9.46	6.87	8.28	9.32	7.51	15.03	3.19	15.06	11.77

Table No. 8.11 contd.: Panicles/ M² of entries in IVT - ASG Kharif 2017

Entry No.	IET No.	Zone V	VI							Zone VI	VII	Overall
		(3)	MH	MH	MH	MH (3)	GU	GU	GU (2)	(5)	KE	(17)
		Mean	PDG	KJT	PLG	Mean	NWG	NVS	Mean	Mean	PTB	Mean
4801	27013	344	312	224	189	242	263	146	205	227	173	296
4802	27014	283	242	157	183	194	273	144	208	200	317	265
4803	27015	247	189	219	189	199	267	140	203	201	204	258
4804	27016	291	231	223	180	211	268	140	204	208	366	280
4805	27017	279	270	187	194	217	265	170	218	217	434	279
4806	27018	221	241	169	195	202	267	153	210	205	339	238
4807	Shobini (NC)	242	254	171	202	209	263	147	205	207	343	258
4808	27019	239	288	207	194	230	265	160	212	223	449	297
4809	27020	255	217	226	201	215	268	191	230	221	417	296
4810	27021	239	194	216	187	199	250	182	216	206	464	262
4811	27022	243	223	196	199	206	238	168	203	205	285	252
4812	27023	245	252	222	209	228	265	173	219	224	358	284
4813	27024	257	228	202	184	205	263	177	220	211	302	273
4814	Dubraj (QC)	242	228	218	173	206	271	155	213	209	317	268
4815	27025	284	249	240	186	225	267	172	220	223	351	291
4816	27026	282	261	245	203	236	268	159	213	227	271	285
4817	27027	269	263	192	168	208	264	238	251	225	373	276
4818	Zonal Check (ZC)	231	245	208	190	214	269	130	199	208	366	273
4819	27028	260	310	197	177	228	265	153	209	220	328	262
4820	Ketekijoha (QC)	274	278	231	191	233	270	219	244	238	603	289
4821	27029	276	351	238	200	263	263	177	220	246	490	289
4822	Local Check	303	351	211	192	251	262	137	199	231	486	296
	Exp Mean	264	258	209	190	219	264	165	214	217	365	276
	C.D. 5%	33	8	26	16	10	9	11	7	7	123	13
	C.V.%	13.47	1.91	7.43	4.96	4.86	2.01	3.96	2.69	4.27	20.47	11.77

Table No. 8.12: Grain quality characteristics of entries in IVT-ASG, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
4801	27013	77.6	65.1	56.7	5.66	1.65	3.4	SS	VOC	4.2	200	9	1.59	4.0	25.78	33	MS
4802	27014	77.2	66.3	47.4	5.11	1.63	3.18	SS	VOC	4.8	140	9.4	1.83	4.0	26.86	40	MS
4803	27015	79.3	70.1	50.8	5.16	2.4	2.15	SB	VOC	4.8	105	9.6	1.86	4.0	26.26	22	MS
4804	27016	78.6	68.4	58.9	3.95	2.22	1.77	SB	VOC	5.2	160	8	2.02	4.0	22.76	43	MS
4805	27017	79.3	66.4	55.6	4.45	2.02	2.2	SB	OC	4.2	160	8.5	1.91	4.0	26.63	36	MS
4806	27018	81.5	66	53.2	4.81	1.87	2.57	MS	VOC	4.7	155	8.3	1.72	4.0	24.93	30	MS
4807	SHOBINI	76	63.6	51.3	5.45	1.62	3.36	SS	VOC	4.4	205	9.9	1.81	4.0	24.9	22	SS
4808	27019	76.4	65.9	54.1	5.39	1.85	2.91	MS	A	4.7	290	10.2	1.89	7.0	23.75	22	MS
4809	27020	75.7	62.7	29.3	4.18	1.94	2.15	SB	VOC	4.5	295	7.4	1.77	7.0	25.81	24	SS
4810	27021	75.5	63.7	41.5	5.56	1.92	2.89	MS	VOC	4.5	215	9.2	1.65	4.0	24.08	31	MS
4811	27022	75.6	66.9	53.3	5.34	1.84	2.9	MS	A	4.5	180	8.5	1.59	4.0	23.64	44	SS
4812	27023	76.5	64.6	55.6	6.29	2.03	3.09	LS	VOC	4.6	225	10.6	1.68	4.0	27.72	50	NS
4813	27024	77.5	65.2	42.9	5.48	1.81	3.02	SS	VOC	4.4	130	9.2	1.67	4.0	26.72	22	SS
4814	DUBRAJ	79	66.1	61.0	4.84	1.99	2.44	SB	A	4.5	185	9.5	1.77	4.0	26.54	45	SS
4815	27025	76.4	64.9	39.9	6.17	1.6	3.85	LS	VOC	4.7	205	8.6	1.39	4.0	23.93	24	SS
4816	27026	77.1	67.1	58.5	5.28	2.08	2.53	MS	VOC	4.3	145	8.4	1.59	4.0	27.04	33	NS
4817	27027	77.2	66.5	40.8	4.21	1.76	2.39	SB	VOC	4.5	190	7.5	1.78	4.0	22.46	22	MS
4818	SUGANDHA SAMBA	77.9	68.1	50.6	4.83	1.83	2.63	MS	A	4.8	215	7.1	1.7	4.0	21.05	31	MS
4819	27028	77.3	65.2	42.3	6.67	2.01	3.31	LS	VOC	4.6	210	9.6	1.43	5.0	23.23	56	MS
4820	KETAKIJOHA	78.1	66.4	61	5.18	1.83	2.83	MS	VOC	4.7	215	10	1.77	7.0	23.32	51	SS
4821	27029	78.3	62.7	29.6	5.13	1.91	2.68	MS	VOC	4.5	195	8.3	1.61	4.0	23.14	66	SS
4822	C.G.S.Bhog	78	67	51.9	4.55	2.2	2.06	SB	OC	4.2	155	8.3	1.82	4.0	26.95	31	NS

INITIAL VARIETY TRIAL – BASMATI (IVT - BT)

Locations: 12

Test Entries: 29

Checks : Pusa Basmati-1 (YC), Pusa Basmati 1121 (YC & QC), Taraori Basmati (QC), Pusa RH 10 (HC) and Local Check

Table: 9.1

Initial Variety Trial – Basmati constituted of 29 entries including 2 hybrid entries and five checks viz., Pusa Basmati-1 (Yield Check), Pusa Basmati 1121 (Yield & Quality Check), Taraori Basmati (Quality Check), Pusa RH10 (Hybrid Check) and local check. Out of 29 test entries two entries IETs 26146 and 26138 are in 2nd year of testing while the remaining 27 entries are in first year of testing. Trial was conducted at 12 typical locations for Basmati cultivation and the data from Malan and Pant Nagar was not considered for analysis due to low experimental mean and data from Karnal was not considered because of low CV. Experimental mean of the locations ranged from 4057 kg/ha at Kaul to 6917 kg/ha at Modipuram while CV ranged from 6.33% at Modipuram to 11.17% at Kaul. Days to 50% flowering ranged from 88 days (IET 26986; IET 26988; IET 27001; IET 27006) to 114 days (Taraori Basmati). Plant height of the entries ranged from 97 cm (IET 27001) to 142 cm (IET 26991) while panicles per sq m ranged from 251 (IET 26146) to 334 (IET 26994). Among the checks, hybrid check Pusa RH10 registered 5907 kg/ha with 3rd rank based on overall mean. The data on yield, days to 50% flowering, plant height and number of panicles/m² are presented in tables 9.2, 9.3, 9.4 and 9.5. Only 9 entries out yielded the best check variety with required yield advantage. The details of best performing top 5 entries in the trial are elaborated below.

IET 26999 (Indam 100-012) a hybrid entry from Indo-American hybrid seeds exhibited significantly superior performance with 26.02% over the best varietal check and 8.16% yield superiority the hybrid check with (1st, 6389 kg/ha) with long slender grains and 108 days to 50% flowering. State-wise performance of this entry recorded 1st rank in Punjab (5983 kg/ha) with 22.15% and 12.93 % yield advantage; and 2nd rank in New Delhi (7571 kg/ha) with 12.93% and 6.78% yield superiority over the best varietal and hybrid checks respectively. Quality wise also it recorded HRR (50.3%), ASV (4.0), AC (22.76%), GC (66.00 mm), 12.6mm of KLAC and strong scent. **Hence it qualifies for promotion to next year of testing**

IET 26138 (Indam 100-017) a hybrid entry from Indo-American hybrid seeds recorded 2nd rank with 19.11% yield advantage over the best varietal check and 2.23% over the hybrid check (2nd, 6039 kg/ha) with long slender grains and 99 days to 50% flowering. State-wise performance revealed that this entry recorded 1st rank in New Delhi (7916 kg/ha) with 18.8% and 11.65% yield advantage and 2nd in Haryana (5200 kg/ha) with 25.3% and 16.85% yield advantage over the best varietal and hybrid checks respectively. Quality wise also it recorded HRR (50.3%), ASV (5.0), AC (23.84%), GC (64.00 mm), 12.9mm KLAC and strong scent. **Owing to its poor performance over the hybrid check it does not qualify for promotion**

Third best entry was the hybrid check, Pusa RH10 with 5907 kg/ha of grain yield.

The fourth best entry IET 26998 derived from RP4594-40-28-40-18-26-11-10-6 Basmati Kota/IET 16313 yielding 5614 kg/ha showed 10.73% yield superiority over the best varietal check. The entry has extra long slender grains and 90 days to 50% flowering. Quality wise it recorded 41.3% HRR, ASV (3), 23.61% AC, 71 mm GC, 12.1mm KLAC and scent. Due to unacceptable quality it may be dropped.

Overall performance of promising of entries in (IVT-BT) Kharif, 2017

S.No.	IET NO./ Designation/ Cross Combination	GY/ FD	Yield adv % Over (BC)/(HC)	Significant superior to checks	Performance, rank % increase over best check		
					State	% Over BC	% Over HC
1	26999 Indam 100 -012 (Hybrid)	6389 108 LS	26.02 8.16(H)	5983 7571	PU (1) ND (2)	22.15 12.93	15.81 6.78
2	26138 Indam 100 -017 (Hybrid)	6.39 99 LS	19.11 2.23(H)	7916 5200	ND (1) HA(2)	18.08 25.30	11.65 16.85
3	Pusa RH 10	5907 91					
4	26998 RP4594-40-28-40-18- 26-11-10-6 Basmati Kota/IET 16313	5614 92 ELS	10.73	5931 6100	PU (2) UP	21.09 10.49	14.81
5	26986 RP4594-44-34-57-20- 28-13-14-7 Basmati Kota/IET 16313	5517 88 LS	8.82	6240 5127	UP (8) PU (9)	13.02 5.00	
6	27005 AUK-1150-2 IET 12016/P-1121//P-1121	5418 106 LS	6.86	6343 7308 6182	UP (7) ND (3) UP	14.89 9.01 11.97	
7	26996 RP4594-57-56-30-92- 100-35-16-10 Basmati Kota/IET 16313	5390 89 ELS	6.31				
8	26993 HUBR17-5 HUBR2-1/Pusa-1460- 3-2-2	5388 110 MS	6.27	5462	PU (3)	11.51	
9	26995 Pusa1692-10-20-1-1-1 PB1509/P1601	5333 89 ELS	5.19	5370 4400 6013	PU(4)	9.64 6.02 8.91	
10	26992 AUK-1150-1 IET19695/P-1121	5327 110 ELS	5.07	4700 5238	HA (5) PU (7)	13.25 6.94	
Pusa Basmati-1 (YC)		4924 106					
Pusa Basmati-1121 (YC & QC)		5070 105					
Tarori Basmati (QC)		3684 114					
Pusa RH 10 (HC)		5907 91					
Local Check (LC)		4522 103					

IET 26986, another derivative from RP4594-40-28-40-18-26-11-10-6 Basmati Kota/IET 16313 recorded 5th rank with 88 days of 50% flowering, 5517 kg/ha of mean grain yield and long slender grains. It established 8.82% yield superiority over the best varietal check and ranked 8th in UP (6240 kg/ha) and 9th in Punjab (51207 kg/ha) yield advantage over the best check. Quality wise, IET 26986 recorded desirable HRR (42.5%), ASV (3.0), AC (22.17%), GC (72.00 mm), 13.6mm KLAC with strong scent. Owing to poor HRR it may be dropped from further testing .

The remaining five entries with more than the required yield advantage over the best check are IETs 27005, 26996, 26993, 26995 and 26992 with their quality parameters are detailed below.

IET No	HRR	ASV	AC	GC	KLAC	Aroma	Remarks
27005	56.4%	7.0	25.98%	22 mm	12.0	SS	Drop
26996	40.6%	3.0	17.1%	65 mm	11.6	SS	Drop
26993	40.5%	7.0	26.89%	22 mm	10.8	SS	Drop
26995	50.6%	7.0	24.14%	35 mm	16.4	SS	Promote
26992	53.9%	7.0	24.34%	22 mm	12.8	SS	Promote

Remaining 20 entries which could not exhibit the required yield advantage of 5 or more than 5% are dropped from the trial. **Therefore, the following three entries merit promotion to next year of testing.**

IETs: 26999, 26995 and 26992.

Table No. 9.1: Composition of entries in Initial Variety Trial–Basmati (IVT-BT), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
2nd year of testing:				
4601	26146	UPR 3957-1-2-2-1	Pant Sugandh Dhan 15 / P 1460-PI-32-6-7-67	LS
4602	26138	<i>Indam 100-017 (Hybrid)</i>	-	LS
1st year of testing:				
4603	26986	RP 4594-44-34-57-20-28-13-14-7	Basmati Kota / IET 16313	LS
4604	26987	SJR 80-1-1	Yamini / Basmati 370	LS
4605	26988	Pusa 1847-12-1-13	PB 1509 / P1790	LS
4606	26989	PAU 6886-4534-1-1-B	IET 17948 / 2* Bas 370 // Pusa Basmati 1121	LS
4607	26990	CSR-TPB-99	Trichy / Pusa Basmati 1	LS
4608	26991	UPR 4021-1-1-1-1	Hansraj / Imp. Pusa Basmati 1	LS
4609	Pusa Basmati-1 (YC)			LS
4610	26992	AUK-1150-1	IET 19695 / P-1121	LS
4611	26993	HUBR 17-5	HUBR 2-1 / Pusa-1460-3-2-2-2	LS
4612	26994	PAU 7555-1655-1-1-B	IET 17948 / 2*Bas 386 // Pusa Basmati 1121	LS
4613	26995	Pusa 1692-10-20-1-1-1	PB 1509 / P1601	LS
4614	26996	RP 4594-57-56-30-92-100-35-16-10	Basmati Kota / IET 16313	LS
4615	26997	NDR 6199	IET 13553 / BAS 370	LS
4616	Pusa Basmati 1121 (Y & QC)			LS
4617	26998	RP 4594-40-28-40-18-26-11-10-6	Basmati Kota / IET 16313	LS
4618	26999	<i>Indam 100-012 (Hybrid)</i>	-	LS
4619	27000	CSR-TPB-31	Trichy / Pusa Basmati 1	LS
4620	Pusa RH 10 (HC)			LS
4621	27001	Pusa 1925-13-168-3	PB 1609 / PB 1509	LS
4622	27002	UPR 4022-6-2-1-1	Imp. Pusa Basmati 1 / Pusa Sugandh 4	LS
4623	27003	NDR 6285	IET 16310 / TYPE 3	LS
4624	Taroari Basmati (QC)			LS
4625	27004	SJR 92-2-2	IR 75483-385-2-2 / PB 1	LS
4626	27005	AUK-1150-2	IET 12016 / P-1121 // P-1121	LS
4627	27006	<i>Pusa RH 51 (Basmati Hybrid)</i>	Pusa 24A / PRR 205	LS
4628	27007	SJR 82-2-3	RR 564 / MAUB-13	LS
4629	27008	RP 4594-36-26-39-16-22-8-7-3	Basmati Kota / IET 16313	LS
4630	27009	HKR06-443-66	Super Bas / HBC 19	LS
4631	27010	SJR - 70-1-1	Vasumati / Taroari Basmati	LS
4632	27011	UPR 4032-10-1-1-1	Pusa Sugandh 4 / Imp. Pusa Basmati 1	LS
4633	27012	RP 4594-55-49-76-42-53-20-15-8	Basmati Kota / IET 16313	LS
4634	Local Check			

Table No. 9.2 : Grain Yield (Kg/ha) of entries in IVT -BT Kharif 2017

Entry No.	IET No.	Basmati GI											
		H.P.	ND	UT	PUN	PUN	PUN	PUN	PUN (4)	HAR	HAR	HAR (1)	
		@MLN	IAR	@PNT	GDP	LDN	RUN	KPT	Mean	KUL	@KRL	Mean	
4601	26146	3167	5760	3059	3168	4827	5094	5640	4682	5300	5041	5300	1* 28%
4602	26138	3750	7916	3115	4174	5955	5396	5687	5303	5200	6581	5200	2* 25%
4603	26986	3500	7062	3466	4761	5136	4852	5759	5127	4300	5811	4300	4%
4604	26987	3000	4010	3401	3719	4264	5182	5038	4551	4250	5363	4250	2%
4605	26988	2500	5801	1422	4770	4570	4867	5333	4885	4050	5425	4050	
4606	26989	2667	5857	2849	3232	4946	4771	5297	4562	4600	6160	4600	6 11%
4607	26990	750	6098	2975	4408	4207	5233	6264	5028	4150	6191	4150	
4608	26991	1667	5346	2651	2938	4452	5166	5631	4547	4250	5724	4250	2%
4609	Pusa Basmati-1 (YC)	1417	5767	3801	5510	4569	4687	4743	4877	4150	3954	4150	
4610	26992	3667	6791	3105	5069	5438	5216	5227	5238	4700	6086	4700	5 13%
4611	26993	1333	6945	1830	5087	4642	6162	5957	5462	3900	6618	3900	
4612	26994	3083	5570	2535	4073	5229	4316	5410	4757	5200	5436	5200	3* 25%
4613	26995	1917	5693	1629	5372	5795	4884	5430	5370	4400	5971	4400	6%
4614	26996	3583	7308	2645	4945	4705	4945	5896	5123	4000	5771	4000	
4615	26997	3917	6208	3216	4483	4505	5368	5174	4882	4200	5522	4200	1%
4616	Pusa Basmati 1121 (Y & QC)	1917	6704	3301	5119	4505	4575	5394	4898	4050	5154	4050	
4617	26998	4583	6806	2986	6033	5813	5225	6653	5931	4100	5403	4100	
4618	26999	3750	7571	3392	3783	6839	6672	6637	5983	4500	6681	4500	8 8%
4619	27000	2833	6155	2532	4978	3960	4904	4609	4613	3350	6534	3350	
4620	Pusa RH 10 (HC)	3833	7090	2848	4720	5279	4855	5811	5166	4450	6620	4450	9 7%
4621	27001	2250	5800	1819	4178	4827	4570	5687	4816	4150	5941	4150	
4622	27002	2208	5610	2633	4486	5421	5327	5154	5097	4800	5821	4800	4 16%
4623	27003	2917	3945	2071	6230	5027	4905	4883	5261	4600	4382	4600	7 11%
4624	Taroari Basmati (QC)	1000	4660	995	3545	4137	4051	4137	3967	3600	4076	3600	
4625	27004	2083	5556	3165	3976	4771	5325	4079	4538	3700	4879	3700	
4626	27005	3833	6685	2881	5969	4975	4238	5214	5099	3850	5100	3850	
4627	27006		6135	1943	4913	4718	4877	5730	5059	3400	4803	3400	
4628	27007	1917	3936	3566	4362	3549	3803	4856	4142	2900	4422	2900	
4629	27008	3750	7006	2401	3779	4861	5030	5545	4804	3450	5212	3450	
4630	27009	1583	5790	2707	4068	4344	4202	5067	4420	3350	5210	3350	
4631	27010	3417	4077	1906	4591	5478	4706	5455	5057	3050	4376	3050	
4632	27011	2417	4813	3271	3251	4355	4490	5349	4361	3450	5739	3450	
4633	27012	3500	6312	2810	4908	4796	4573	5171	4862	3350	5087	3350	
4634	Local Check	2333	5367	4193	4362	3557	4399	4875	4298	3200	4385	3200	
	Exp Mean	2729	5946	2739	4499	4837	4908	5376	4905	4057	5455	4057	
	C.D. 5%	866	886	1604	686	720	839	997	404	922	6	922	
	C.V. %	15.59	7.32	28.79	7.50	7.31	8.40	9.12	8.34	11.17	0.05	11.17	
	Sowing Date	01-06-2017	14-06-2017	13-06-2017	23-06-2017	17-06-2017	15-06-2017	16-06-2017		13-06-2017	23-06-2017		
	Planting Date	06-07-2017	10-07-2017	05-07-2017	24-07-2017	20-07-2017	14-07-2017	18-07-2017		12-07-2017	20-07-2017		
	Local @	HPR 2612	PB1509 (4634)	P.Bas.2	Pb Bas 4	Pb Bas 4	Pb Bas 4	PB-4		CSR-30	Basmati CSR30		
~* Superior to LC ~# Superior to QC ~\$ Superior to YC ~£ Superior to Q&Y @ not included in means													
# Superior to Hybrid Check % Superior over Hybrid Check													

Table No. 9.2 contd : Grain Yield (Kg/ha) of entries in IVT -BT Kharif 2017

Entry No.	IET No.	Basmati GI								Region Basmati GI		Overall (9)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		U.P.		U.P. (2)		J&K		(9)	Mean	Mean	Mean					
		NGN	MDP	Mean		CHT										
4601	26146	4488		7596	6	6042	9%	5000		5208	3%	5208	3%	101	124	251
4602	26138	6084	4 *	8442	3	7263	3 * 32%	5500	1	6039	2 * 19%	6039	2 * 19%	99	116	275
4603	26986	5818	6 *	6663		6240	8 * 13%	5300	4	5517	5 * 9%	5517	5 * 9%	88	117	258
4604	26987	5020	*	5829		5425		5000		4701		4701		104	119	255
4605	26988	4036		6758		5397		4550		4971		4971		88	101	301
4606	26989	3930		7967	4	5948	8%	4900		5056		5056		105	116	309
4607	26990	3025		6971		4998		3600		4884		4884		106	123	308
4608	26991	3311		6217		4764		4700		4668		4668		106	142	270
4609	Pusa Basmati-1 (YC)	3956		5888		4922		5050		4924		4924		106	112	299
4610	26992	3617		7133		5375		4750		5327	5%	5327	5%	110	126	305
4611	26993	3843		6804		5324		5150	6	5388	8 * 6%	5388	8 * 6%	110	109	266
4612	26994	3457		7500	9	5479		4150		4989		4989		99	111	334
4613	26995	4701	*	7325		6013	9%	4400		5333	9 5%	5333	9 5%	89	103	301
4614	26996	5319	*	7046		6182	* 12%	4350		5390	7 * 6%	5390	7 * 6%	89	119	260
4615	26997	4894	*	7154		6024	9%	3800		5087		5087		97	110	273
4616	Pusa Basmati 1121 (Y & QC)	3338		6646		4992		5300	5	5070		5070		105	117	318
4617	26998	4887	*	7313		6100	* 10%	3700		5614	4 * 11%	5614	4 * 11%	92	121	274
4618	26999	6662	2 *	9438	1*#	8050	1 * 46%	5400	2	6389	1*# 26%	6389	1*# 26%	108	123	272
4619	27000	2527		6758		4642		3700		4549		4549		108	119	316
4620	Pusa RH 10 (HC)	7307	1 *	8500	2 *	7904	2 * 43%	5150	7	5907	3 * 17%	5907	3 * 17%	91	110	269
4621	27001	5020	*	7242		6131	* 11%	3900		5042		5042		88	97	315
4622	27002	3690		7308		5499		5350	3	5239	3%	5239	3%	101	111	265
4623	27003	3491		5829		4660		3950		4762		4762		92	117	282
4624	Taroari Basmati (QC)	2453		3275		2864		3300		3684		3684		114	147	312
4625	27004	5931	5 *	7738	5	6834	5 * 24%	5000		5120	1%	5120	1%	95	116	281
4626	27005	5352	9 *	7333		6343	7 * 15%	5150	8	5418	6 * 7%	5418	6 * 7%	106	127	279
4627	27006	5193	*	7188		6190	9 * 12%	3950		5123	1%	5123	1%	88	110	274
4628	27007	4328		5642		4985		4400		4197		4197		94	111	292
4629	27008	5366	8 *	5883		5625	2%	3750		4963		4963		90	117	263
4630	27009	3511		6504		5007		5100	9	4660		4660		105	117	331
4631	27010	4488		4833		4661		4300		4553		4553		93	123	304
4632	27011	5426	7 *	7342		6384	6 * 16%	4300		4753		4753		100	116	261
4633	27012	6223	3 *	7521	8	6872	4 * 24%	4500		5262	4%	5262	4%	89	115	258
4634	Local Check	3451		7592	7	5521		3900		4522		4522		103	110	316
	Exp Mean	4534		6917		5725		4538		5068		5068		99	117	287
	C.D. 5%	728		891		571		926		285		282		1		19
	C.V.%	7.89		6.33		7.06		10.02		8.59		8.49		1.23		11.85
	Sowing Date	20-06-2017		23-06-2017				12-06-2017								
	Planting Date	14-07-2017		17-07-2017				07-07-2017								
	Local ©	Vallabh Bas.21		P B 1509				Basmati 564								

Table No. 9.3: Days to 50% Flowering of entries in IVT -BT Kharif 2017

Entry No.	IET No.	Basmati GI															Region Basmati GI	Overall (12)
		H.P.	ND	UT	PUN	PUN	PUN	PUN	PUN (4)	HAR	HAR	HAR (2)	U.P.	U.P.	U.P. (2)	J&K	(12)	
		MLN	IAR	PNT	GDP	LDN	RUN	KPT	Mean	KUL	KRL	Mean	NGN	MDP	Mean	CHT	Mean	Mean
4601	26146	122	97	85	97	103	103	103	101	103	90	96	103	96	99	109	101	101
4602	26138	118	103	94	100	102	96	103	100	100	86	93	98	93	95	95	99	99
4603	26986	106	86	86	87	93	86	91	89	87	82	85	83	82	83	85	88	88
4604	26987	121	105	97	102	110	100	106	104	101	108	105	101	96	98	98	104	104
4605	26988	103	83	84	86	94	84	91	89	83	104	93	82	79	80	90	88	88
4606	26989	116	106	104	110	109	106	108	108	106	94	100	107	97	102	104	105	105
4607	26990	128	108	101	101	108	104	105	104	108	92	100	111	100	105	103	106	106
4608	26991	126	104	106	96	107	107	110	105	108	92	100	107	98	103	109	106	106
4609	Pusa Basmati-1 (YC)	125	105	105	99	104	103	101	102	108	114	111	106	99	103	104	106	106
4610	26992	125	107	130	100	111	104	105	105	110	97	104	117	101	109	109	110	110
4611	26993	134	106	104	102	116	110	118	111	111	103	107	106	101	104	113	110	110
4612	26994	112	105	94	92	103	96	104	99	102	89	95	101	95	98	96	99	99
4613	26995	104	88	83	81	97	89	95	90	87	83	85	87	83	85	90	89	89
4614	26996	110	85	85	88	92	87	95	91	88	82	85	88	83	86	85	89	89
4615	26997	112	86	91	101	101	95	101	99	100	87	93	97	91	94	100	97	97
4616	Pusa Basmati 1121 (Y & QC)	118	107	101	105	109	105	103	105	107	97	102	108	99	103	103	105	105
4617	26998	110	86	92	87	92	87	98	91	90	106	98	87	83	85	89	92	92
4618	26999	126	110	105	109	110	108	113	110	110	97	103	103	97	100	113	108	108
4619	27000	125	107	101	104	114	103	108	107	111	94	103	117	101	109	109	108	108
4620	Pusa RH 10 (HC)	113	88	89	93	93	91	93	92	92	83	88	89	83	86	91	91	91
4621	27001	104	88	82	96	95	87	91	92	83	82	83	84	80	82	91	88	88
4622	27002	125	103	97	100	101	103	103	102	103	94	99	101	84	93	104	101	101
4623	27003	113	84	88	95	97	91	90	93	89	86	87	95	88	91	94	92	92
4624	Taroari Basmati (QC)	131	120	132	114	114	111	112	112	111	101	106	109	105	107	113	114	114
4625	27004	114	93	94	92	101	95	101	97	92	86	89	95	88	91	94	95	95
4626	27005	125	108	102	96	110	103	106	104	108	95	101	111	101	106	104	106	106
4627	27006		82	81	96	88	85	91	90	82	82	82	84	109	96	89	88	88
4628	27007	111	98	96	89	94	95	94	93	91	85	88	97	84	91	100	94	94
4629	27008	112	84	88	93	92	88	97	92	83	83	83	85	84	84	90	90	90
4630	27009	117	107	104	96	109	105	107	104	109	101	105	108	96	102	105	105	105
4631	27010	112	98	88	97	96	92	89	93	90	86	88	89	87	88	90	93	93
4632	27011	125	97	88	96	101	100	101	100	108	88	98	102	93	98	103	100	100
4633	27012	112	86	88	95	92	87	97	93	84	84	84	85	80	83	85	89	89
4634	Local Check	106	87	95	107	116	111	110	111	113	111	112	100	83	92	103	103	103
	Exp Mean	117	97	96	97	102	97	101	99	99	92	96	98	92	95	99	99	99
	C.D. 5%	4	0	3	1	3	2	2	1	0	4	2	1	2	1	2	1	1
	C.V.%	1.77	0.00	1.80	0.64	1.54	1.10	1.11	1.16	0.25	2.08	1.45	0.45	1.28	0.93	1.10	1.36	1.23

Table No. 9.4 : Plant Height (cm) of entries in IVT -BT Kharif 2017

Entry No.	IET No.	Basmati GI															Region Basmati GI	Overall (12)
		H.P.	ND	UT	PUN	PUN	PUN	PUN	PUN (4)	HAR	HAR	HAR (2)	U.P.	U.P.	U.P. (2)	J&K		
		MLN	IAR	PNT	GDP	LDN	RUN	KPT	Mean	KUL	KRL	Mean	NGN	MDP	Mean	CHT		
4601	26146	101	138	126	98	122	131	118	117	123	130	126	125	145	135	128	124	124
4602	26138	99	137	105	115	103	113	124	114	119	127	123	119	133	126	104	116	116
4603	26986	104	129	105	117	102	112	127	114	119	127	123	107	132	120	120	117	117
4604	26987	106	123	118	115	109	120	121	116	126	128	127	108	134	121	115	119	119
4605	26988	89	106	98	104	93	100	117	104	107	100	103	91	119	105	94	101	101
4606	26989	101	125	111	142	105	116	116	120	120	121	121	98	134	116	104	116	116
4607	26990	101	143	125	124	114	126	121	121	124	125	124	107	141	124	126	123	123
4608	26991	112	161	134	168	130	139	145	145	143	145	144	131	159	145	134	142	142
4609	Pusa Basmati-1 (VC)	93	124	127	121	98	110	102	108	104	122	113	107	125	116	113	112	112
4610	26992	105	148	114	122	119	128	115	121	123	132	128	125	149	137	134	126	126
4611	26993	83	127	121	126	103	109	113	113	104	106	105	85	125	105	103	109	109
4612	26994	97	118	100	123	105	104	123	114	117	113	115	99	127	113	107	111	111
4613	26995	89	110	91	118	94	102	107	105	104	105	104	98	122	110	98	103	103
4614	26996	109	132	112	139	104	115	126	121	110	123	117	106	138	122	115	119	119
4615	26997	98	126	96	107	95	107	118	106	118	116	117	104	132	118	102	110	110
4616	Pusa Basmati 1121 (Y & QC)	104	133	107	122	108	112	123	116	127	115	121	102	137	120	115	117	117
4617	26998	114	130	106	125	112	117	125	120	133	122	127	108	140	124	119	121	121
4618	26999	98	136	118	125	115	125	130	124	104	132	118	125	149	137	123	123	123
4619	27000	97	138	123	126	115	120	118	120	114	118	116	118	128	123	116	119	119
4620	Pusa RH 10 (HC)	93	114	105	114	96	105	126	110	120	110	115	110	128	119	102	110	110
4621	27001	89	101	92	113	85	97	105	100	87	101	94	92	111	101	97	97	97
4622	27002	94	116	111	127	99	110	116	113	107	111	109	107	125	116	105	111	111
4623	27003	99	134	117	107	110	119	133	117	122	119	120	110	134	122	104	117	117
4624	Taroori Basmati (QC)	119	172	124	152	157	157	179	161	153	149	151	123	159	141	123	147	147
4625	27004	103	122	105	126	106	118	124	119	103	123	113	113	138	126	111	116	116
4626	27005	105	151	126	120	120	127	133	125	126	121	124	119	154	136	127	127	127
4627	27006		115	99	113	99	115	115	110	104	115	109	99	127	113	108	110	110
4628	27007	97	118	116	120	105	111	112	112	108	115	111	86	132	109	110	111	111
4629	27008	109	128	111	101	108	116	121	111	115	123	119	107	139	123	126	117	117
4630	27009	96	131	114	111	110	117	121	115	124	124	124	103	139	121	110	117	117
4631	27010	102	149	112	112	118	120	118	117	124	139	132	109	141	125	127	123	123
4632	27011	99	140	117	119	104	112	116	113	112	129	121	104	138	121	107	116	116
4633	27012	100	121	111	116	109	111	118	113	115	118	116	119	130	124	112	115	115
4634	Local Check	85	101	118	102	85	91	102	95	152	145	149	96	118	107	127	110	110
	Exp Mean	100	129	112	120	107	116	121	116	118	122	120	108	135	121	114	117	117
	C.D. 5%	0	0	0	0	0	0	0	0	0	0							
	C.V.%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							

Table No. 9.5 : Panicles/ M² of entries in IVT -BT Kharif 2017

Entry No.	IET No.	Basmati GI															Region	Overall (12)
		H.P.	ND	UT	PUN	PUN	PUN	PUN	PUN (4)	HAR	HAR	HAR (2)	U.P.	U.P.	U.P. (2)	J&K	Basmati GI	
		MLN	IAR	PNT	GDP	LDN	RUN	KPT	Mean	KUL	KRL	Mean	NGN	MDP	Mean	CHT	Mean	
4601	26146	165	313	153	328	208	167	235	234	253	355	304	299	234	267	303	251	251
4602	26138	168	371	147	180	257	202	363	251	357	318	337	342	266	304	331	275	275
4603	26986	168	316	100	243	234	176	267	230	257	363	310	397	294	345	287	258	258
4604	26987	183	309	121	270	297	166	320	263	263	333	298	292	221	257	290	255	255
4605	26988	190	415	122	265	284	200	328	269	376	515	445	372	267	319	276	301	301
4606	26989	233	473	163	190	380	255	274	275	290	510	400	319	325	322	296	309	309
4607	26990	235	422	144	273	284	243	264	266	337	515	426	322	375	348	282	308	308
4608	26991	210	377	151	290	251	192	291	256	258	410	334	260	261	260	291	270	270
4609	Pusa Basmati-1 (YC)	233	541	175	218	307	244	340	277	271	395	333	281	299	290	287	299	299
4610	26992	265	476	179	220	297	176	241	234	343	430	386	377	355	366	300	305	305
4611	26993	178	326	159	423	244	205	241	278	249	295	272	319	252	285	302	266	266
4612	26994	253	554	171	323	307	192	347	292	298	580	439	343	363	353	282	334	334
4613	26995	198	466	177	228	300	199	439	291	288	393	340	346	297	322	285	301	301
4614	26996	180	292	159	175	323	192	314	251	261	370	315	304	274	289	282	260	260
4615	26997	215	374	153	228	330	202	264	256	272	395	333	302	271	286	273	273	273
4616	Pusa Basmati 1121 (Y & QC)	185	568	168	245	294	223	340	275	376	393	384	351	373	362	304	318	318
4617	26998	205	449	153	213	261	223	288	246	231	363	297	354	262	308	283	274	274
4618	26999	215	425	181	190	294	160	244	222	270	408	339	297	276	286	301	272	272
4619	27000	323	418	179	315	327	218	300	290	260	478	369	312	376	344	283	316	316
4620	Pusa RH 10 (HC)	245	330	157	235	310	158	231	234	229	355	292	409	267	338	297	269	269
4621	27001	238	459	173	243	313	210	347	278	298	475	386	380	360	370	287	315	315
4622	27002	195	418	143	213	271	183	281	237	289	313	301	308	254	281	311	265	265
4623	27003	220	364	151	225	241	202	301	242	305	435	370	387	274	330	286	282	282
4624	Taroari Basmati (QC)	263	466	187	295	244	261	261	265	300	458	379	351	378	364	285	312	312
4625	27004	230	326	141	323	244	225	287	270	292	328	310	384	292	338	297	281	281
4626	27005	255	411	143	213	277	201	258	237	266	383	324	336	310	323	296	279	279
4627	27006		425	152	260	267	187	248	240	235	343	289	339	271	305	284	274	274
4628	27007	190	459	128	325	274	220	350	292	229	363	296	330	351	340	282	292	292
4629	27008	195	350	152	330	244	201	234	252	256	355	306	318	249	283	277	263	263
4630	27009	213	558	170	325	277	280	311	298	278	583	430	348	335	341	301	331	331
4631	27010	178	490	147	238	277	245	271	258	244	628	436	312	330	321	294	304	304
4632	27011	193	326	172	308	257	185	244	248	267	343	305	307	251	279	283	261	261
4633	27012	178	371	151	203	264	211	271	237	242	310	276	311	309	310	275	258	258
4634	Local Check	238	360	183	300	367	269	327	316	334	538	436	260	343	302	278	316	316
	Exp Mean	213	412	156	260	283	208	292	261	281	412	347	331	300	316	290	287	287
	C.D. 5%	55	147	27	60	75	52	99	36	36	145	73	50	57	35	36	23	19
	C.V.%	12.62	17.55	8.60	11.42	13.09	12.32	16.64	13.97	6.27	17.30	14.87	7.46	9.27	7.81	6.02	13.90	11.85

Table No. 9.6: Summary of grain quality characteristics of entries in Initial Variety Trial- Basmati (IVT-BT) conducted at IARI, New Delhi and analyzed at IIRR, Hyderabad Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
4601	26146	77.5	69.1	61.5	7.21	2.01	3.58	LS	A	5.6	310	12.9	1.78	5	21.56	81	SS
4602	26138	79.4	67.8	50.3	7.19	1.76	4.08	LS	VOC	5.6	350	12.9	1.79	5	23.84	64	SS
4603	26986	77.4	64.9	42.5	7.89	1.73	4.56	LS	VOC	5.2	90	13.6	1.72	3	22.17	72	SS
4604	26987	74.1	65.5	58	7.38	1.82	4.05	LS	A	4.6	300	12.3	1.66	7	23.2	22	SS
4605	26988	76.7	64.1	29.7	8.37	1.86	4.5	LS	F	4.2	305	15.1	1.8	5	22.49	35	SS
4606	26989	76.6	66.5	53.6	7.82	1.91	4.09	LS	VOC	4.4	345	16.6	2.12	7	22.44	52	SS
4607	26990	73.6	64.3	53.1	6.72	1.6	4.2	LS	A	4.2	350	14.2	2.11	7	25.87	22	SS
4608	26991	77.5	64.4	43	6.49	1.51	4.29	LS	VOC	5.5	360	10.6	1.63	7	25.75	22	SS
4609	PUSA BASMATI 1	76.5	67.3	51	7.5	1.73	4.33	LS	VOC	4.8	355	16.3	2.17	7	24.02	22	SS
4610	26992	78.9	69.6	53.9	7.92	1.79	4.42	LS	A	4.1	305	12.8	1.61	7	24.34	22	SS
4611	26993	77.5	67.6	40.5	6.37	1.83	3.48	LS	VOC	4.6	310	10.8	1.69	7	26.89	22	SS
4612	26994	74.9	61.8	47.5	7.94	1.86	4.26	LS	VOC	4.8	340	16.4	2.06	7	25.22	22	SS
4613	26995	76.7	66.8	50.6	8.42	1.94	4.34	LS	OC	4	335	16.4	1.94	7	24.14	35	SS
4614	26996	77.7	64.7	40.6	8	1.74	4.59	LS	VOC	4.1	115	11.6	1.45	3	17.1	65	SS
4615	26997	74.7	64.7	47.2	6.78	1.85	3.66	LS	VOC	4.6	265	10.9	1.6	6	16.92	76	SS
4616	PUSA BASMATI-1121	78.8	64.9	51	8.4	1.91	4.39	LS	VOC	5.5	355	18	2.14	7	23.64	22	SS
4617	26998	77.6	63.6	41.3	7.85	1.73	4.53	LS	VOC	4.7	110	12.1	1.54	3	23.61	71	SS
4618	26999	78.6	66.8	50.3	7.43	1.81	4.1	LS	VOC	4.7	245	12.6	1.69	3.5	22.76	66	SS
4619	27000	76.5	65.6	50.8	6.9	1.75	3.94	LS	A	4.2	330	14.2	2.05	7	25.02	22	SS
4620	PUSA RH-10	80.6	68.3	50.5	7.43	1.9	3.91	LS	OC	4.1	315	11.1	1.49	5	22.46	57	SS
4621	27001	77.9	68.6	50.1	8.32	1.93	4.31	LS	OC	5.2	310	18.2	2.18	5	24.78	47	SS
4622	27002	76.3	64.1	44.8	7.35	1.76	4.17	LS	VOC	4.7	355	10.8	1.46	7	25.72	47	SS
4623	27003	80	69.4	46.4	6.4	1.74	3.67	LS	VOC	4.1	295	10.3	1.6	7	28.16	35	SS
4624	TAROARI BASMATI	75.8	66.9	51.2	7.15	1.83	3.9	LS	A	4.8	135	14.9	2.08	5	22.05	28	SS
4625	27004	78	67.2	48.2	8.29	1.86	4.38	LS	VOC	5.2	350	15.1	1.82	7	27.42	23	SS
4626	27005	79	70.4	56.4	8.1	1.86	4.35	LS	A	4.1	280	12	1.48	7	25.98	22	SS
4627	27006	78.8	67.6	59.6	7.88	1.84	4.28	LS	VOC	4.1	285	12.9	1.63	6	22.44	68	SS
4628	27007	78.6	68.3	52.4	7.29	1.84	3.96	LS	VOC	4.5	260	13.5	1.85	7	25.13	33	SS
4629	27008	77.7	64.8	43.2	7.95	1.76	4.51	LS	A	4.4	110	13.5	1.69	3	21.32	72	SS
4630	27009	73.9	63.1	46.6	8.36	1.87	4.47	LS	VOC	4.1	350	18.7	2.23	7	22.88	22	SS
4631	27010	78.9	68.3	53	7.91	1.82	4.34	LS	A	4.1	100	13.8	1.74	4	26.25	60	SS
4632	27011	72.6	62.9	41.8	7.35	1.73	4.24	LS	VOC	4.4	285	10.2	1.38	7	24.05	22	MS
4633	27012	76.4	62.5	30.7	7.74	1.9	4.07	LS	F	4.4	210	11.4	1.47	4	21.58	63	SS
4634	PB 1509	76.3	65.5	31.7	8.5	1.93	4.4	LS	OC	4.7	315	16.9	1.98	5	23.02	69	SS

HULL: Hulling (%); Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 9.7: Summary of grain quality characteristics of entries in Initial Variety Trial- Basmati (IVT-BT) conducted and analyzed at IARI, New Delhi Kharif 2017

Entry No.	Hull %	Mill %	HRR	KL (mm)	KB (mm)	L/B	Grain Type	Grain Chalk	VER	WU (ml)	KLAC (mm)	ER	ASV	AC (%)	GC	Aroma
4601	78.48	70.42	62.70	6.78	1.66	4.08	LS	VOC	4.33	300	10.82	1.60	5	24.37	68.5	S
4602	81.55	71.17	54.58	6.95	1.4	4.96	LS	OC	4.83	390	10.84	1.56	6	22.50	42.5	M
4603	77.95	66.83	54.05	7.46	1.33	5.61	LS	VOC	4.66	130	11.92	1.60	2	21.66	46	M
4604	77.95	71.77	64.20	7.13	1.46	4.88	LS	VOC	4.66	330	11.92	1.67	5	23.61	31	M
4605	77.15	68.07	49.76	7.76	1.5	5.17	ELS	P	5.33	295	14.44	1.86	5	21.79	33.5	S
4606	78.60	69.51	62.72	7.66	1.6	4.78	ELS	P	4.85	255	14.52	1.90	5	19.60	41.5	S
4607	76.58	64.86	57.87	6.66	1.36	4.90	LS	VOC	5.87	330	11.24	1.69	7	20.72	23.5	M
4608	80.00	70.64	59.65	6.43	1.36	4.72	MS	OC	4.57	390	9.71	1.51	7	26.81	25.5	S
4609	77.98	69.24	56.14	7.10	1.56	4.55	LS	P	5.66	355	14.50	2.20	7	26.00	25	M
4610	81.70	74.02	66.31	7.70	1.56	5.26	ELS	ABSENT	4.33	305	12.23	1.59	6	23.38	22.5	M
4611	80.48	70.95	60.20	6.06	1.36	4.46	MS	P	6.40	490	9.59	1.58	7	23.46	18.5	S
4612	78.48	69.27	62.02	6.71	1.63	4.12	LS	OC	6.40	285	14.17	2.11	7	22.22	28	M
4613	78.38	70.72	55.59	7.82	1.6	4.88	ELS	P	5.66	330	14.11	1.80	5	21.02	36	S
4614	78.38	68.08	54.89	7.60	1.4	5.60	ELS	VOC	4.57	135	11.75	1.54	2	20.87	41.5	S
4615*	78.50	70.15	62.54	6.52	1.73	3.77	MS	OC	4.33	365	10.00	1.53	5	17.93	53.5	M
4616	77.08	68.01	59.89	7.88	1.53	5.15	ELS	P	5.33	335	15.17	1.93	6	19.65	48	S
4617	79.20	67.64	54.67	7.55	1.43	5.39	ELS	VOC	6.60	135	11.30	1.50	2	20.52	49.5	M
4618	81.10	72.04	61.10	7.20	1.43	5.03	LS	OC	5.87	150	11.43	1.59	5.2	21.46	56	M
4619	76.13	64.88	57.75	6.56	1.56	4.70	ELS	VOC	5.66	385	12.33	1.88	7	25.79	27	S
4620	82.30	72.48	59.42	6.66	1.4	4.76	LS	OC	6.40	350	10.79	1.62	5	20.70	56	M
4621	80.35	72.26	60.58	7.82	1.63	4.79	ELS	P	5.87	280	15.67	2.01	5	20.90	50.5	S
4622	79.30	69.70	57.73	6.58	1.43	4.60	MS	OC	6.23	390	11.68	1.78	6.5	23.59	34.5	S
4623*	80.75	70.33	60.43	5.86	1.53	3.83	MS	OC	6.80	320	8.67	1.48	7.3	24.25	44.5	S
4624	79.63	71.34	60.78	6.41	1.56	4.11	MS	VOC	6.80	115	11.39	1.78	5	20.47	47.5	S
4625	79.08	69.64	57.38	7.25	1.63	4.45	LS	VOC	6.80	450	12.69	1.75	5	31.02	35	SS
4626	81.88	74.40	65.85	7.34	1.4	5.24	LS	ABSENT	6.40	320	11.16	1.52	7	30.28	26	M
4627	79.78	71.00	55.18	6.66	1.53	4.35	LS	P	6.80	235	12.24	1.84	5	26.20	54.5	S
4628	77.68	68.20	55.25	5.71	1.5	3.81	MS	P	5.33	285	9.66	1.69	4.2	30.39	20	S
4629	79.70	69.87	54.70	7.51	1.46	5.14	ELS	VOC	5.66	140	12.50	1.66	2	27.39	42	SS
4630	76.70	68.31	58.68	7.36	1.56	4.71	LS	P	5.66	360	15.16	2.06	6	27.57	20	SS
4631	78.78	70.11	60.05	7.13	1.53	4.66	LS	VOC	4.57	100	11.10	1.56	1	29.67	40	S
4632	74.88	64.02	50.64	7.38	1.4	4.81	LS	P	4.85	450	11.10	1.45	7	27.24	21	S
4633	77.58	66.61	49.42	6.95	1.4	4.96	LS	P	4.57	185	12.47	1.80	2	22.42	46.5	SS
4634	77.16	67.74	47.73	8.29	1.6	5.18	ELS	P	4.95	290	17.10	2.06	5	19.45	33.5	strong

HULL: Hulling (%); Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB::Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 9.8: Panel Test Scores of entries in Initial Variety Trial- Basmati (IVT-BT), IIRR, Hyderabad Kharif 2017.

IET No.	Appearance	Cohesive- ness	Tender- ness on Touching	Tender- ness on Chewing	Taste	Aroma	Elongation	Overall accepta- bility	Total	Mean	Rank
26986	4.73	3.80	4.26	4.06	3.40	4.20	2.73	3.06	30.24	3.78	IV
26992	4.86	4.26	3.66	3.80	3.06	4.00	2.66	2.80	29.10	3.63	VIII
26993	4.80	2.66	4.13	4.06	3.00	3.80	2.26	2.53	27.24	3.40	XI
26995	4.20	4.00	4.46	4.40	3.60	4.20	3.46	3.26	23.18	2.89	XII
26996	4.40	3.93	4.43	4.26	3.13	4.13	2.86	2.73	29.77	3.72	VI
26998	4.60	3.53	4.33	4.33	3.13	4.13	2.73	2.66	29.44	3.68	IX
26999	4.86	3.60	4.46	4.60	3.13	4.00	2.73	2.80	30.18	3.77	V
27005	4.86	4.60	3.60	4.00	3.13	4.00	2.33	2.86	29.38	3.67	VII
Pusa Bas-1	3.93	4.20	4.66	4.66	3.46	4.06	3.53	3.46	31.96	3.99	II
Pusa Bas.1121	4.60	4.00	4.66	4.66	3.46	4.13	3.93	3.66	33.10	4.13	I
Pusa RH-10	4.80	3.46	4.20	4.40	3.20	3.46	2.73	2.83	29.08	3.63	VIII
T. Bas	4.66	4.46	4.26	4.60	3.46	3.73	3.20	3.00	31.37	3.92	III
BPT 5204	4.66	4.80	3.80	3.86	3.13	2.53	2.40	2.66	27.84	3.48	X
Range	4.0-4.9 Cremish white 3.0-3.9 Red streaks	4.0-4.9 Partially separated 3.0-3.9 Slightly sticky	4.0-4.9 Moderately soft 3.0-3.9 Moderately hard	4.0-4.9 Moderately soft 3.0-3.9 Moderately hard	3.0-3.9 Desira- ble 2.0- 2.9 Tasteless	4.0 Strong 3.0-3.9 Optimu m 2.0- 2.9 Mild 1.0-1.9 no scent	3.0-3.9 Good 2.0-2.9 Moderate	4.0-4.9 Excellent 3.0-3.9 Good 2.0- 2.9 Accepta ble			

Table No. 9.9: Panel Test Scores of entries in Initial Variety Trial- Basmati (IVT-BT), IARI, New Delhi Kharif 2017.

Entry No	Appearance	Cohesiveness	Tenderness on Touching	Tenderness on Chewing	Taste	Aroma	Elongation	Overall Acceptability	Total	Mean	Rank
4601	4.67	3.00	3.67	4.00	2.33	3.00	2.00	1.00	23.67	2.96	32
4602	5.00	3.00	3.00	4.00	3.00	3.67	2.00	2.00	25.67	3.21	26
4603	5.00	3.67	4.33	5.00	3.00	3.00	2.00	2.00	28.00	3.50	13
4604	3.67	3.00	3.67	4.00	2.33	3.67	3.00	2.00	25.33	3.17	28
4605	5.00	4.33	4.33	5.00	3.33	3.67	3.33	3.50	32.50	4.06	3
4606	5.00	5.00	4.33	5.00	4.00	4.00	4.50	5.00	36.83	4.60	1
4607	5.00	5.00	3.00	3.50	2.33	3.67	2.00	2.00	26.50	3.31	22
4608	5.00	5.00	3.67	4.00	3.67	3.67	2.00	2.00	29.00	3.63	9
4609	4.00	4.33	2.67	3.00	3.33	3.67	3.00	2.00	26.00	3.25	25
4610	5.00	4.67	2.33	2.00	2.33	3.00	2.00	2.00	23.33	2.92	33
4611	5.00	2.33	3.67	4.00	3.00	3.00	2.33	1.00	24.33	3.04	30
4612	4.33	4.33	3.00	4.00	3.00	3.00	3.33	2.00	27.00	3.37	19
4613	5.00	2.33	2.67	2.50	3.00	3.00	3.33	2.00	23.83	2.98	31
4614	4.33	3.67	3.00	2.50	2.33	3.00	1.33	2.00	22.16	2.77	34
4615	5.00	4.67	4.67	4.50	3.67	4.00	2.33	4.67	33.50	4.19	2
4616	4.00	2.67	3.50	4.50	3.00	3.00	4.50	2.00	27.17	3.40	18
4617	5.00	4.00	4.67	4.50	3.00	3.00	2.00	1.00	27.17	3.40	17
4618	5.00	4.00	4.67	4.50	3.67	3.00	3.00	2.00	29.83	3.73	7
4619	5.00	5.00	3.33	3.00	4.00	3.33	2.67	2.00	28.33	3.54	12
4620	4.33	5.00	4.33	4.00	3.00	2.67	2.33	1.00	26.67	3.33	20
4621	4.33	5.00	4.33	4.00	3.00	3.33	4.50	3.00	31.50	3.94	5
4622	4.00	4.00	4.00	4.00	4.33	3.33	3.00	2.50	29.17	3.65	8
4623	5.00	4.00	4.33	4.00	3.00	2.33	1.33	1.00	25.00	3.13	29
4624	5.00	5.00	4.67	5.00	4.00	3.67	3.00	2.00	32.33	4.04	4
4625	5.00	5.00	3.33	3.50	3.00	2.67	2.00	2.00	26.50	3.31	21
4626	5.00	5.00	4.00	4.00	3.67	2.00	2.00	2.00	27.67	3.46	15
4627	5.00	3.33	4.00	4.00	3.00	2.00	2.00	2.00	25.33	3.17	27
4628	4.33	4.00	4.67	5.00	3.33	3.33	2.00	2.00	28.67	3.58	11
4629	4.50	3.00	4.00	4.00	3.50	3.50	2.00	2.00	26.50	3.31	23
4630	5.00	3.00	4.00	4.00	3.00	3.50	4.50	2.00	29.00	3.63	10
4631	5.00	3.00	4.00	4.00	3.00	3.50	2.00	2.00	26.50	3.31	24
4632	5.00	3.50	4.00	4.00	3.50	3.50	2.00	2.00	27.50	3.44	16
4633	5.00	2.67	4.00	4.00	3.67	3.50	3.00	2.00	27.83	3.48	14
4634	5.00	4.33	4.00	4.00	4.00	3.50	4.50	2.00	31.33	3.92	6

ADVANCE VARIETY TRIAL- 1-NEW PLANT TYPE**Locations : 20****Test Entries : 14**

Checks : NDR 359 (NC1), Jaya (NC2); Swarna (Eastern & North Eastern) NDR 8002 (Northern and Central), CO-50 (Western and Southern)- (Zonal) and PA 6444 (HC) and Local check

Table: 10.1

NPT trial was constituted during 50th ARGM to evaluate entries with promising yield performance derived from *indica/tropical japonica* crosses possessing ideal plant type or new plant type (NPT) traits *viz.*, high grain number, fewer unproductive tillers, strong culm, ideal plant type with defined leaf angles of 5⁰, 10⁰ and 20⁰ and flag leaf length of 50 cm and width of 2 cm etc. The entries have to be evaluated following a specific spacing of 15X15 cm. AVT 1-NPT comprised 14 entries with 8 entries in second year of testing, one entry in third year of testing and NDR 359 and Jaya as National checks, Swarna in Eastern and North Eastern zones, NDR 8002 in Northern and Central zones and CO-50 in Western and Southern zones as Zonal checks, PA6444 as hybrid check and a local check.

The trial was sent to 24 locations and data was received from 20 locations. But only four locations *viz.*, Cuttack and Pusa in the Eastern zone, Waraseoni and Shirgaon in the Western zone followed the spacing of 15X15 cm as specified in the technical programme. But none of the locations have provided data on NPT traits as specified in the technical programme. Of the four locations, data from Pusa was not considered in the analysis owing to low CV %. Thus NPT entries were evaluated only at three locations (one in the Eastern zone and two in the Western zone) which is accounting to a mere 12.5 % of the total locations. Only three locations in only two zones cannot represent typical irrigated ecosystem in the country. Moreover, the data analysis could not potentially reveal any difference between regular irrigated trials and NPT trial constituted with a specific objective in terms of experimental mean yield, overall mean yield and panicles/m².

It has been observed since the inception of the trial in Kharif 2015, data on NPT traits has not been taken and spacing as specified in the technical programme has not been followed. In 2015 and 2016, 50% of the locations followed 15X15 cm spacing while in 2017, it further dropped down to 16.67%. A comparative study on yield advantage of the checks in 15X15 cm spacing over 20X15 cm spacing was made during the year 2015. With 15X15 cm spacing, a yield advantage of 11, 44, 55, 17 and 43 % was observed in NC1, NC2, ZC, LC and HC over 20X15 cm spacing. Hence, 15X15 cm spacing for NPT trial and promotion of entries based on 10% yield advantage over BVC was strictly advocated from 2016 onwards.

During 52nd ARGM held at Jorhat, Assam, NPT trial was discussed at length and several queries on traits to be evaluated, spacing to be followed were raised by the co-operators. Despite specifying clearly in the technical programme about data on NPT traits to be collected during Kharif 2017, none of the locations followed the technical programme. Only four locations out of 18 locations followed the prescribed spacing of 15X15 cm, however, NPT traits were not evaluated at any of the test locations. Hence, as the very purpose of constitution of NPT trial is not served and it is wastage of resources. Therefore, the performance of the entries is not discussed in this report. In future, if NPT trials are to be

conducted, the technical programme envisaged needs to be followed in true spirit and observations to be recorded accordingly. **Overall performance of the entries in AVT1-NPT is presented here only for reference.**

Overall performance (3 locations only) of the entries in AVT-1-NPT during Kharif 2017

Rank	IET No./Designation Cross Combination	GY/FD/GT (Kg/Ha)	Yield Adv (%) over NC1/NC2/ZC/HC/LC	Zone	
				Rank	%BC
1	IET 26418 (CR 3969-24-1-2-1-1) IR 73907-753-2-3/ Pratiksha	5829 109 LS	41.58 19.66 50.81 36.6 13.36	Z-III-1	41%
2	IET 26420 (CR 3856-44-22-2-1-10-1-5) IR 73963-86-1-5-2-2/ CR 2324-1	5554 113 LS	34.9 14.02 43.69 30.16 8.01	Z-III-7	31%
3	IET 25530 (CR3561-3-2-1-1-1-1) Surendra/Annapurna	5525 103 MB	34.19 13.42 42.94 29.48 7.45	Z-III-3	39%
4	IET 26408 (OR 2573-11) Birupa/IR 76561-AC-8-8	5523 106 LB	34.15 13.38 42.89 29.43 7.41	Z-III-4	38%
	NDR 359 (NC-1)	4871			
	Jaya (NC-2)	4117			
	Zonal Check (ZC)	3865			
	Hybrid Check (HC)	4267			
	Local Check (LC)	5142			

INITIAL VARIETY TRIAL- NEW PLANT TYPE

Locations : 18

Test Entries : 37

Checks : NDR 359 (NC1), Jaya (NC2); Swarna (Eastern & North Eastern) NDR 8002 (Northern and Central), CO-50 (Western and Southern)- (Zonal) and PA 6444 (HC) and Local check **Table: 10.7**

NPT trial was constituted during 50th ARGM to evaluate entries with promising yield performance derived from *indica*/tropical *japonica* crosses possessing ideal plant type or new plant type (NPT) traits *viz.*, high grain number, fewer unproductive tillers, strong culm, ideal plant type with defined leaf angles of 5⁰, 10⁰ and 20⁰ and flag leaf length of 50 cm and width of 2 cm etc. The entries have to be evaluated following a specific spacing of 15X15 cm. Initial Variety Trial –New Plant Type comprised 37 entries with 32 entries in first year of testing and NDR 359 and Jaya as National checks, Swarna in Eastern and North Eastern zones, NDR 8002 in Northern and Central zones and CO-50 in Western and Southern zones as Zonal checks, PA6444 as hybrid check and a local check.

The trial was sent to 24 locations, but data was received only from 18 locations. However, only six locations *viz.*, Cuttack and Pusa in the Eastern zone, Waraseoni, Vyara and Shirgaon in the Western zone and Maruteru a single location in the Southern zone followed the spacing of 15X15 cm as specified in the technical programme. But none of the locations have provided data on NPT traits as specified in the technical programme. Of the six locations, data from Waraseoni and Maruteru was not considered in the analysis owing to low experimental mean yield at such locations. Thus NPT entries were evaluated only at four locations (two in the Eastern zone and two in the Western zone) which is accounting to a mere 14 % of the total locations. Only four locations in only two zones cannot represent typical irrigated ecosystem in the country. Moreover, the data analysis could not potentially reveal any difference between regular irrigated trials and NPT trial constituted with a specific objective in terms of experimental mean yield, overall mean yield and panicles/m².

It has been observed since the inception of the trial in Kharif 2015, data on NPT traits has not been taken and spacing as specified in the technical programme has not been followed. Very few locations followed the spacing of specified 15X15 cm. During 52nd ARGM held at Jorhat, Assam, NPT trial was discussed at length and several queries on traits to be evaluated, spacing to be followed were raised by the co-operators. Despite specifying clearly in the technical programme about data on NPT traits to be collected during Kharif 2017, none of the locations followed the technical programme. Only six locations out of 18 locations followed the prescribed spacing of 15X15 cm, however, NPT traits were not evaluated at any of the test locations. Hence, as the very purpose of constitution of NPT trial is not served and it is wastage of resources. Therefore, the performance of the entries is not discussed in this report. In future, if NPT trials are to be conducted, the technical programme envisaged needs to be followed in true spirit and observations to be recorded accordingly. **The performance of the entries in Eastern zone is presented here only for reference.**

Performance of the entries in the Eastern Zone in IVT-NPT during Kharif 2017

Rank	IET No./Designation Cross Combination	GY/FD/GT (Kg/ha)	Yield Adv (%) over NC1/NC2/ZC/HC/LC
1	IET 27256 (RP6164-IR 118291-6-26-4-B) Parao/Habataki//Parao/ ST12///Parao	6326 LB	25.91 44.99 34.08 8.04
2	IET 27262 (CR 3525-24-6-1-1-1-1) Vijetha/Divya	6199 MS	23.38 42.08 33.08 31.39 5.88
3	ITE 27263 (CR 4113-3-2-1) CR 3724-1/TJ 171-1	6092 LB	21.25 39.62 30.78 29.12 4.05
4	IET 27267 (CR 3856-44-22-2-1-9-1) IR 73963-86-1-5-2-2/CR 2324-1-1	5611 MS	11.68 28.6 20.45 18.92 -
6	IET 27273 (CR 3564-1-1-4-1-1-1-1) Vijetha/N22	5574 SB	10.94 27.75 9.66 18.14 -
	NDR 359 (NC-1)	5024	
	Jaya (NC-2)	4363	
	Zonal Check (ZC)	4658	
	Hybrid Check (HC)	5855	
	Local Check (LC)	4718	

Table No.10.1: Composition of entries in Advance Variety Trial 1–New Plant Type (AVT 1-NPT), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
2 nd year of testing				
6201	26418	CR 3969-24-1-2-1-1	IR 73907-753-2-3 / Pratiksya	LB
6202	26406	OR 2487-13	OR 2076-2 / Ashoka 228	LB
6203	25535	NPT 14-10	NPT 29 / R 296	LS
6204	Jaya (NC)			SB
3 rd year of testing				
6205	25530	CR 3561-3-2-1-1-1-1	Surendra / Annapurna	SB
6206	Swarna (Eastern and North Eastern), NDR 8002 (Northern and Central), CO-50 (Western and Southern) – ZC			
2 nd year of testing				
6207	26420	CR 3856-44-22-2-1-10-1-5	IR 73963-86-1-5-2-2 / CR 2324-1	LB
6208	26408	OR 2573-11	Birupa / I R 76561-AC-8-8	LS
6209	26419	YNP 7060	NPG6 / NPG15	LS
6210	26409	CR 3856-29-14-2-1-1-7-1	IR 73963-86-1-5-2-2 / CR 2324-1	MS
6211	PA 6444 (HC)			MS
6212	26415	CR 3504-12-2-1-1-1-1	IR 36 / Birupa	MS
6213	NDR 359 (NC)			SB
6214	Local Check			

Table No. 10.2: Grain Yield (Kg/ha) of entries in AVT 1-NPT Kharif 2017

Table No. 16-2: Grain Yield (kg/ha) of entries in IV P P I Khan 2017										
Entry No.	IET No.	III				Zone III (1)			V	
		OD		BI					M.P.	
		CTK		@PSA		Mean			WRS	
6201	26418	7088	1 *	4306	8 #	7088	1 *	41%	4870	1 #
6202	26406	6926	5 *	4861	6 #	6926	5 *	38%	3989	9
6203	25535	4782		4306	9 #	4782			4524	4 #
6204	Jaya (NC)	4594		5093	5 #	4594			4192	7
6205	25530	7020	3 *	5509	3 #	7020	3 *	39%	3681	
6206	Zonal Check (ZC)	3857		5741	2 #	3857			2870	
6207	26420	6597	7 *	5880	1 #	6597	7 *	31%	4311	5 #
6208	26408	6971	4 *	5417	4 #	6971	4 *	38%	4221	6
6209	26419	6557	8 *	4444	7 #	6557	8 *	30%	3924	
6210	26409	6728	6 *	3472		6728	6 *	34%	2980	
6211	PA 6444 (HC)	7071	2 *	3843		7071	2 *	40%	3752	
6212	26415	6460	9 *	3981		6460	9 *	28%	4574	3 #
6213	NDR 359 (NC)	5037		2639		5037			4775	2 #
6214	Local Check	4241		4306	#	4241			4190	8
	Exp Mean	5995		4557		5995			4061	
	C.D. 5%	990		372		990			535	
	C.V.%	9.84		4.86		9.84			7.84	
	Sowing Date	24-06-2017		13-06-2017					28-06-2017	
	Planting Date	01-08-2017		22-07-2017					28-07-2017	
	Local ©	Naveen		BPT 5204					MTU 1001	
	* Superior to Best Check % Superior over Best Check @ not included in means									
	# Superior to Hybrid Check % Superior over Hybrid Check									

Table No. 10.2 contd : Grain Yield (Kg/ha) of entries in AVT 1-NPT Kharif 2017

Entry No.	IET No.	VI		Overall (3)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		MH						
		SHR		Mean				
6201	26418	5529	4	5829	1 *# 20%	109	111	311
6202	26406	4583		5166	6 6%	112	117	271
6203	25535	4828	8	4712		98	104	255
6204	Jaya (NC)	3565		4117		98	97	264
6205	25530	5873	1 #	5525	3 * 13%	103	115	270
6206	Zonal Check (ZC)	4868	7	3865		111	105	309
6207	26420	5754	2	5554	2 * 14%	113	123	271
6208	26408	5377	5	5523	4 * 13%	106	120	289
6209	26419	4901	6	5127	8 5%	111	103	335
6210	26409	5648	3	5119	9 5%	111	104	276
6211	PA 6444 (HC)	4603		5142	7 6%	103	110	265
6212	26415	4583		5206	5 7%	102	118	260
6213	NDR 359 (NC)	4802	9	4871		81	83	262
6214	Local Check	4372		4267		105	104	288
	Exp Mean	4949		5002		104	108	281
	C.D. 5%	1248		531		1		38
	C.V.%	15.03		11.33		1.35		16.56
	Sowing Date	13-06-2017						
	Planting Date	05-07-2017						
	Local ©	Ratnagiri 4						

Table No. 10.3: Days to 50% Flowering of entries in AVT 1-NPT Kharif 2017

Entry No.	IET No.	III		Zone III (2)	V	VI	Overall (4)
		OD	BI		M.P.	MH	
		CTK	PSA	Mean	WRS	SHR	Mean
6201	26418	116	121	118	109	89	109
6202	26406	115	122	119	114	96	112
6203	25535	104	108	106	103	78	98
6204	Jaya (NC)	103	101	102	105	83	98
6205	25530	102	119	111	104	87	103
6206	Zonal Check (ZC)	117	120	118	112	94	111
6207	26420	122	121	121	115	96	113
6208	26408	108	120	114	106	90	106
6209	26419	116	124	120	111	93	111
6210	26409	120	118	119	113	93	111
6211	PA 6444 (HC)	108	113	111	106	84	103
6212	26415	114	111	113	100	83	102
6213	NDR 359 (NC)	93	86	89	76	68	81
6214	Local Check	101	120	111	107	91	105
	Exp Mean	110	114	112	106	88	104
	C.D. 5%	3	2	2	2	1	1
	C.V.%	1.85	1.00	1.44	1.05	0.99	1.35

Table No. 10.4 : Plant Height (cm) of entries in AVT 1-NPT Kharif 2017

Entry No.	IET No.	III		Zone III (2)	V	VI	Overall (4)
		OD	BI		M.P.	MH	
		CTK	PSA	Mean	WRS	SHR	Mean
6201	26418	94	111	103	123	115	111
6202	26406	99	117	108	124	127	117
6203	25535	81	110	96	122	105	104
6204	Jaya (NC)	67	111	89	104	107	97
6205	25530	100	119	110	121	120	115
6206	Zonal Check (ZC)	89	112	100	98	123	105
6207	26420	103	139	121	118	131	123
6208	26408	99	133	116	120	128	120
6209	26419	90	101	96	108	111	103
6210	26409	91	108	99	103	112	104
6211	PA 6444 (HC)	93	112	102	123	111	110
6212	26415	109	129	119	112	123	118
6213	NDR 359 (NC)	63	90	76	86	92	83
6214	Local Check	93	95	94	106	121	104
	Exp Mean	91	113	102	112	116	108
	C.D. 5%	0	0	0		0	
	C.V.%	0.00	0.00	0.00		0.00	

Table No. 10.5 : Panicles/ M² of entries in AVT 1-NPT Kharif 2017

Entry No.	IET No.	III		Zone III (2)	V	VI	Overall (4)
		OD	BI		M.P.	MH	
		CTK	PSA	Mean	WRS	SHR	Mean
6201	26418	304	275	289	435	231	311
6202	26406	202	277	240	432	174	271
6203	25535	202	298	250	273	248	255
6204	Jaya (NC)	207	259	233	355	236	264
6205	25530	238	309	273	317	215	270
6206	Zonal Check (ZC)	266	282	274	446	241	309
6207	26420	233	295	264	349	207	271
6208	26408	244	264	254	431	218	289
6209	26419	260	270	265	557	255	335
6210	26409	251	276	264	388	190	276
6211	PA 6444 (HC)	246	232	239	376	204	265
6212	26415	240	254	247	292	253	260
6213	NDR 359 (NC)	220	207	214	353	269	262
6214	Local Check	216	229	222	447	261	288
	Exp Mean	238	266	252	389	229	281
	C.D. 5%	63	82	55	104	31	38
	C.V.%	15.90	18.37	18.82	15.90	8.18	16.56

Table No. 10.6: Grain quality characteristics of entries in AVT 1-NPT, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
6201	26418	78.5	70.5	65.9	6.47	2.3	2.81	LB	VOC	4	21.85	70
6202	26406	76.6	68	64.3	6.44	2.38	2.7	LB	A	4	26.81	57
6203	25535	78.8	66.7	49.3	6.4	1.84	3.47	LS	A	3.5	26.51	80
6204	JAYA	79.2	67.8	50.8	5.62	2.4	2.34	SB	VOC	7	25.54	27
6205	25530	78.1	72.4	63.6	4.8	2.42	1.98	SB	VOC	4	24.66	22
6206	CO-50	80.1	70.8	63.4	5.56	2.27	2.44	SB	OC	4	24.11	24
6207	26420	77.9	68	63	6.45	2.19	2.94	LB	VOC	4	24.2	22
6208	26408	79.6	69.4	59.4	7.05	2.3	3.06	LS	VOC	4	26.75	24
6209	26419	80.1	69.1	61.5	6.35	2.26	2.8	LS	VOC	4	21.23	22
6210	26409	79.9	68.8	62.9	5.93	2.19	2.7	MS	VOC	4	26.01	33
6211	PA 6444	79.9	68.9	52.7	5.23	1.98	2.64	MS	VOC	4	25.52	24
6212	26415	75	66.4	56.9	5.51	1.98	2.78	MS	VOC	7	24.61	23
6213	NDR-359	76.8	61.7	32.3	5.51	2.32	2.37	SB	VOC	7	23.96	22

HULL: Hulling (%); MILLING (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; KLAC: Kernel Length after cooking; WU: Water uptake; VER: Volume expansion ratio; ER: Elongation ratio; ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 10.7: Composition of entries in Initial Variety Trial–New Plant Type (IVT-NPT), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st year of testing				
6301	27243	CR 4039-1-1-2-1-2	Varshadhan / Warda1	SB
6302	27244	KAU PTB 0614-7-8-24	Pranava / Vellari	SB
6303	27245	CR 3511-3-2-4-1-1-2	IR 36 / Surendra	MS
6304	27246	OR 2573-6	Birupa / IR 76561	LB
6305	27247	CN 1517-3-7-12	IR 71456-7-1-2 / NC 678	SB
6306	27248	Pusa NPT-16-12	Pusa44 / IRGC32406	MS
6307	27249	CR 3856-44-22-2-1-7-1	IR 73963-86-1-5-2-2 / CR 2324-1-1	LS
6308	27250	WGL-914	SN22R / MTU-1075	MS
6309	27251	CR 3993-2-24-45-2	CR1009 / <i>O. brachyantha</i> // CR1009	LS
6310	27252	OR 2573-13	Birupa / IR 76561	LB
6311	NDR 359 (NC)			
6312	27253	CR 4030-15-2-2-1-1-1-1	Reeta / CR 2324-4-1	SB
6313	25284	WGL-915	SN22R / IRBBN 39	LB
6314	27254	CR-3938-2-2-1-1-1-2-2	IR 73907-753-2-3 / Pratiksyas	MS
6315	27255	CN 1222-11-8-7	IR42 / Progol // CN 840-9	MS
6316	27256	RP 6164-IR118291-6-26-4-B	Parao / Habataki // Parao / ST12 /// Parao	LB
6317	27257	CR 2875-11-5-4-3	Naveen / Kalakeri	SB
6318	27258	CR 3549-3-5-1-1-1-1	ADT 43 / Annapurna	SB
6319	27259	OR 2487-9	OR 2076-2 / Ashoka 228	LS
6320	Jaya (NC)			
6321	27260	MTU 1217 (MTU 2231-18-1-3)	MTU 101/ CR 2081-14-3-1	SB
6322	27261	Pusa NPT-16-15	CH 24 /P558	LS
6323	27262	CR 3525-24-6-1-1-1-1	Vijetha / Divya	MS
6324	Swarna (Eastern & North Eastern), NDR 8002 (Northern & Central), CO-50 (Western & Southern)—ZC			
6325	27263	CR 4113-3-2-1	CR 3724-1 / TJ 171-1	LB
6326	27264	CR 4048-3-1-2-1-1	Varshadhan / AC.38700	SB
6327	27265	CR 2906-253-81-56-3	IR20 / Dandi	MS
6328	27266	CR 3938-6-2-1-1-1	IR 73907-753-2-3 / Pratiksyas	LS
6329	PA 6444 (HC)			

Entry No.	IET No.	Designation	Cross Combination	Grain Type
6330	27267	CR 3856-44-22-2-1-9-1	IR 73963-86-1-5-2-2 / CR 2324-1-1	MS
6331	27268	CR 3564-1-1-3-1-1	Vijetha / N22	MS
6332	27269	CR 3938-22-1-1-1	IR 73907-753-2-3 / Pratiksysa	LS
6333	27270	RP 6163-IR107480-6-19-53-52-B	IR GA 427 / ST12 // IR GA 427	LB
6334	27271	CR 3969-17-2-2-1-3-1	IR 73907-753-2-3 / Pratiksysa	LB
6335	27272	CR 4047-1-1-2-1-1	Reeta / CR 2285-6-6-3-1 // CR3836-1-7	LB
6336	27273	CR 3564-1-1-4-1-1-1	Vijetha / N22	SB
6337	Local Check			

Table No. 10.8: Grain Yield (Kg/ha) of entries in IVT-NPT Kharif 2017

Entry No.	IET No.	III				Zone III (2)		V		VI			
		OD		BI		Mean		M.P.		GU		MH	
		CTK		PSA				@WRS		VYR		SHR	
6301	27243	6696	3 *	3571		5134	2%	3404				3222	
6302	27244	4484		5692	5	5088	1%	3736		4132		5300	
6303	27245	5850	9	3571		4711		3917		3822		5144	
6304	27246	4486		4129		4308		4531	7	2711		8578	1 *
6305	27247	6031	7 *	3906		4969		4987	3	5520	3	6156	9
6306	27248	5029		4464		4747		4543	6	4767		5267	
6307	27249	5376		3460		4418		3298		4143		6267	8
6308	27250	3533		3906		3720		3479		3476		4022	
6309	27251	5816		3795		4805		3967		4235		4811	
6310	27252	3706		6027	3 #	4866		3992		2400		4678	
6311	NDR 359 (NC)	5137		4911		5024		5444	1 #	4863	9	6933	5
6312	27253	4961		5246		5103	2%	4562	5	4254		5811	
6313	25284	4269		5915	4	5092	1%	2929		3574		4789	
6314	27254	5041		5692	6	5366	7%	3717		4012		7656	4
6315	27255	4519		4799		4659		2240		4286		3089	
6316	27256	5622		7031	1 #	6326	1 * 26%	2722		4643		4456	
6317	27257	4653		4576		4614		3079		5655	2	2544	
6318	27258	4924		4129		4527		3398		3226		5600	
6319	27259	6341	6 *	4688		5514	7 10%	2447		3566		5744	
6320	Jaya (NC)	4597		4129		4363		3154		4503		3722	
6321	27260	5032		4018		4525		2766		2496		3989	
6322	27261	5389		5580	8	5485	8 9%	2247		4493		6544	6
6323	27262	7599	1 #	4799		6199	2 * 23%	2847		4191		4122	
6324	Zonal Check (ZC)	4070		5246		4658		2954		3155		2144	
6325	27263	6491	4 *	5692	7	6092	3 21%	3548		4535		6278	7
6326	27264	4672		3125		3898		4049	9			2689	
6327	27265	4595		6138	2 * #	5366	9 7%	5344	2 #	5492	4	4878	
6328	27266	5135		4018		4577		3698		5169	6	4989	
6329	PA 6444 (HC)	6465	5 *	5246		5855	4 17%	4299	8	6035	1	8033	2
6330	27267	7204	2 *	4018		5611	5 12%	3054		4278		5300	
6331	27268	4867		4576		4722		3949		3827		7789	3
6332	27269	5350		3571		4461		2578		4927	8	3511	
6333	27270	5040		4353		4697		3229		5165	7	4711	
6334	27271	5819		4688		5253	5%	2678		4251		5989	
6335	27272	5305		4799		5052	1%	3855		1664		3878	
6336	27273	5903	8	5246		5574	6 11%	2960		3889		2333	
6337	Local Check	4078		5357	9	4718		4875	4	5385	5	4878	
	Exp Mean	5246		4706		4976		3580		4193		5023	
	C.D. 5%	880		677		1106		859		998		1215	
	C.V. %	8.28		7.09		15.77		11.83		11.72		11.92	
	Sowing Date	20-07-2017		01-07-2017				01-07-2017		29-06-2017		28-06-2017	
	Planting Date	27-08-2017		22-07-2017				05-08-2017		18-07-2017		17-07-2017	
	Local ©	NAVEEN		BPT 5204				MTU 1001		GAR 13		Ratnagiri 4	
	* Superior to Best Check % Superior over Best Check @ not included in means												
	# Superior to Hybrid Check % Superior over Hybrid Check												

Table No. 10.8 contd : Grain Yield (Kg/ha) of entries in IVT-NPT Kharif 2017

Entry No.	IET No.	Zone VI (2)		VII		Overall (4)		Days to 50% Flowering	Plant Height (cm)	Panicles / M ²
				A.P.						
		Mean		@MTU		Mean				
6301	27243	3222		3994		4497		119	119	225
6302	27244	4716		3691		4902		110	123	251
6303	27245	4483		2106		4597		101	133	296
6304	27246	5644	6	4530	7 #	4976		99	131	268
6305	27247	5838	3	3108		5403	7	103	117	286
6306	27248	5017		3963		4882		89	110	279
6307	27249	5205	9	3986		4811		95	116	278
6308	27250	3749		3699		3734		99	119	298
6309	27251	4523		3582		4664		96	135	271
6310	27252	3539				4203		99	127	277
6311	NDR 359 (NC)	5898	2			5461	5	94	112	286
6312	27253	5033		3792		5068		96	122	275
6313	25284	4181		3388		4637		94	134	240
6314	27254	5834	4	4507	8 #	5600	3 3%	94	136	265
6315	27255	3687		2587		4173		96	112	230
6316	27256	4549		1523		5438	6	83	123	256
6317	27257	4099		2642		4357		92	109	273
6318	27258	4413		3124		4470		98	126	284
6319	27259	4655		4747	6 #	5085		105	126	265
6320	Jaya (NC)	4113		3232		4238		92	107	264
6321	27260	3242		4281	9	3884		111	111	269
6322	27261	5519	7	2113		5502	4 1%	97	97	289
6323	27262	4157		3792		5178		101	135	273
6324	Zonal Check (ZC)	2649		1888		3654		107	115	254
6325	27263	5406	8	5470	3 *#	5749	2 5%	101	126	265
6326	27264	2689		3706		3495		121	130	224
6327	27265	5185		5594	2 *#	5276	8	109	133	256
6328	27266	5079		5633	1 *#	4828		112	122	281
6329	PA 6444 (HC)	7034	1 * 19%	3792		6445	1 * 18%	98	123	297
6330	27267	4789		3869		5200		94	131	260
6331	27268	5808	5	4934	5 *#	5265	9	99	120	279
6332	27269	4219		3170		4340		108	136	255
6333	27270	4938		2650		4817		84	125	234
6334	27271	5120		5245	4 *#	5187		110	113	298
6335	27272	2771				3911		110	128	253
6336	27273	3111		3566		4343		101	131	256
6337	Local Check	5132		4079		4925		99	113	283
	Exp Mean	4574		3705		4800		100	122	268
	C.D. 5%	770		680		742		1		24
	C.V.%	11.83		9.02		15.65		1.22		11.34
	Sowing Date			03-07-2017						
	Planting Date			04-08-2017						
	Local ©			MTU1121						

Table No. 10.9 : Days to 50% Flowering of entries in IVT-NPT Kharif 2017

Entry No.	IET No.	III		Zone III (2)	V	VI WES		Zone VI(2)	VII	Overall (6)
		OD	BI		M.P.	GU	MH		A.P.	
		CTK	PSA	Mean	WRS	VYR	SHR	Mean	MTU	Mean
6301	27243	119	111	115	118		119	119	127	119
6302	27244	126	108	117	118	101	94	97	116	110
6303	27245	119	102	110	113	88	87	87	99	101
6304	27246	101	100	100	111	97	87	92	102	99
6305	27247	123	105	114	111	90	85	87	107	103
6306	27248	112	81	97	95	80	72	76	94	89
6307	27249	114	88	101	103	86	82	84	101	95
6308	27250	101	102	101	108	92	89	90	104	99
6309	27251	113	88	100	100	85	95	90	97	96
6310	27252	100	103	102	108	98	88	93		99
6311	NDR 359 (NC)	111	93	102	98	88	82	85		94
6312	27253	114	90	102	101	88	86	87	98	96
6313	25284	101	88	95	105	87	88	87	99	94
6314	27254	119	83	101	101	84	82	83	96	94
6315	27255	99	96	97	111	87	88	87	97	96
6316	27256	101	83	92	85	75	66	70	91	83
6317	27257	102	88	95	104	84	83	83	92	92
6318	27258	103	102	102	107	91	85	88	102	98
6319	27259	112	108	110	117	93	94	93	109	105
6320	Jaya (NC)	101	88	94	102	85	86	85	90	92
6321	27260	124	112	118	120	101	96	99	116	111
6322	27261	111	94	102	109	88	83	85	99	97
6323	27262	121	102	111	104	89	85	87	108	101
6324	Zonal Check (ZC)	121	107	114	115	93	92	92	114	107
6325	27263	104	105	105	110	94	90	92	102	101
6326	27264	119	109	114	109		137	137	132	121
6327	27265	124	109	116	117	99	91	95	112	109
6328	27266	124	115	119	124	93	98	95	119	112
6329	PA 6444 (HC)	115	97	106	104	88	85	86	100	98
6330	27267	111	87	99	101	86	82	84	97	94
6331	27268	121	101	111	105	86	81	83	102	99
6332	27269	121	105	113	118	97	97	97	112	108
6333	27270	110	79	94	85	77	69	73	84	84
6334	27271	120	110	115	120	101	95	98	115	110
6335	27272	123	120	122	128	92	88	90		110
6336	27273	103	101	102	104	88	110	99	98	101
6337	Local Check	100	104	102	106	94	85	89	107	99
	Exp Mean	112	99	106	108	90	89	90	104	100
	C.D. 5%	3	2	2	3	2	1	1	1	1
	C.V.%	1.41	1.10	1.35	1.53	0.91	0.81	0.86	0.71	1.22

Table No. 10.10 : Plant Height (cm) of entries in IVT-NPT Kharif 2017

Entry No.	IET No.	III		Zone III (2)	V	VI WES		Zone VI(2)	VII	Overall (6)
		OD	BI		M.P.	GU	MH		A.P.	
		CTK	PSA	Mean	WRS	VYR	SHR	Mean	MTU	Mean
6301	27243	100	120	110	112		119	119	146	119
6302	27244	105	128	116	103	138	129	133	138	123
6303	27245	107	136	122	115	153	134	143	151	133
6304	27246	102	140	121	129	138	132	135	144	131
6305	27247	98	109	104	113	139	121	130	122	117
6306	27248	90	113	101	110	124	112	118	114	110
6307	27249	99	116	107	113	130	112	121	125	116
6308	27250	101	123	112	120	121	117	119	134	119
6309	27251	108	133	121	132	143	136	139	157	135
6310	27252	96	141	118	129	134	134	134		127
6311	NDR 359 (NC)	90	106	98	114	137	111	124		112
6312	27253	105	125	115	128	122	119	120	134	122
6313	25284	114	133	123	140	146	133	140	138	134
6314	27254	108	134	121	152	154	128	141	141	136
6315	27255	95	111	103	112	122	119	120	115	112
6316	27256	107	124	115	124	135	123	129	126	123
6317	27257	80	107	93	100	135	117	126	116	109
6318	27258	94	125	110	124	139	133	136	140	126
6319	27259	103	127	115	123	135	131	133	134	126
6320	Jaya (NC)	63	118	90	107	132	119	125	104	107
6321	27260	95	109	102	113	120	110	115	118	111
6322	27261	74	100	87	101	112	101	106	95	97
6323	27262	119	138	128	126	141	133	137	151	135
6324	Zonal Check (ZC)	89	99	94	117	123	125	124	136	115
6325	27263	105	139	122	116	134	128	131	135	126
6326	27264	108	136	122	105		119	119	183	130
6327	27265	97	144	121	117	143	138	140	160	133
6328	27266	96	132	114	109	125	130	128	141	122
6329	PA 6444 (HC)	103	121	112	118	142	127	134	127	123
6330	27267	112	135	123	132	145	128	136	136	131
6331	27268	95	117	106	129	125	121	123	130	120
6332	27269	120	138	129	121	136	137	136	162	136
6333	27270	92	135	114	131	141	126	134	125	125
6334	27271	98	114	106	102	109	118	114	137	113
6335	27272	99	142	121	130	132	135	134		128
6336	27273	101	126	113	126	134	162	148	140	131
6337	Local Check	98	96	97	108	125	125	125	126	113
	Exp Mean	99	124	112	119	133	125	129	135	122
	C.D. 5%		0			0	0	0		
	C.V.%		0.00			0.00	0.00	0.00		

Table No. 10.11 : Panicles/ M² of entries in IVT-NPT Kharif 2017

Entry No.	IET No.	III		Zone III (2)	V	VI WES		Zone VI(2)	VII	Overall (6)
		OD	BI		M.P.	GU	MH		A.P.	
		CTK	PSA	Mean	WRS	VYR	SHR	Mean	MTU	Mean
6301	27243	267	210	238	198		193	193	257	225
6302	27244	264	257	260	258	310	229	269	191	251
6303	27245	330	234	282	391	311	256	283	257	296
6304	27246	228	245	236	310	250	268	259	307	268
6305	27247	290	248	269	387	300	267	283	224	286
6306	27248	271	266	268	362	305	224	265	244	279
6307	27249	281	285	283	286	335	228	281	257	278
6308	27250	231	276	253	405	330	268	299	281	298
6309	27251	241	246	243	280	278	261	269	323	271
6310	27252	287	275	281	294	298	234	266		277
6311	NDR 359 (NC)	294	247	270	294	330	268	299		286
6312	27253	294	280	287	267	273	207	240	330	275
6313	25284	248	276	262	206	278	207	242	228	240
6314	27254	277	278	277	286	290	193	241	264	265
6315	27255	224	267	246	261	243	162	203	224	230
6316	27256	251	210	230	255	348	218	283	254	256
6317	27257	244	274	259	372	310	121	216	320	273
6318	27258	234	272	253	321	343	279	311	254	284
6319	27259	257	290	273	264	318	220	269	241	265
6320	Jaya (NC)	251	270	260	317	303	239	271	208	264
6321	27260	274	267	270	283	318	217	267	257	269
6322	27261	254	268	261	355	339	263	301	257	289
6323	27262	281	244	262	270	340	268	304	234	273
6324	Zonal Check (ZC)	221	275	248	311	260	236	248	221	254
6325	27263	271	290	280	281	278	217	247	257	265
6326	27264	251	253	252	276		113	113	228	224
6327	27265	215	277	246	293	288	201	244	261	256
6328	27266	290	255	272	327	350	228	289	234	281
6329	PA 6444 (HC)	310	258	284	317	346	296	321	257	297
6330	27267	224	286	255	274	291	201	246	284	260
6331	27268	257	272	264	305	360	208	284	271	279
6332	27269	330	274	302	219	290	200	245	218	255
6333	27270	188	255	222	233	239	280	260	211	234
6334	27271	297	256	276	311	293	278	285	353	298
6335	27272	257	263	260	185	258	306	282		253
6336	27273	274	259	266	294	280	156	218	271	256
6337	Local Check	257	248	253	327	380	217	298	271	283
	Exp Mean	263	262	262	294	304	227	262	257	268
	C.D. 5%	61	43	40	65	94	23	46	44	24
	C.V.%	11.53	8.10	10.71	10.88	15.23	4.94	12.38	8.35	11.34

ADVANCE VARIETY TRIAL 1 - ALKALINE AND INLAND SALINE TOLERANT VARIETY TRIAL (AVT1 - AL & ISTVT)

Locations : 11

Checks : CSR 36 (Alkaline check), CSR 10 (Early Saline check), FL 478 (Saline Tolerant check), CSR 23 (Inland Saline check), Jaya (Yield check), BPT 5204 (Sensitive check), and local check

Test entries: 8

Table: 11.1

AVT1 - AL & ISTVT was constituted with eight test entries and seven checks namely CSR 36 (Alkaline check), CSR 10 (Early Saline check), FL 478 (Saline Tolerant check), CSR 23 (Inland Saline check), Jaya (Yield check), BPT 5204 (Sensitive check), and local check. Among eight test entries, seven were in second year of testing and one entry IET 25378 was in third year of testing. The trial was sent to 18 locations and data was received from 11 locations. The details of EC and pH of different locations are given in the following table.

EC and pH of different locations in AVT1- AL & ISTVT during Kharif 2017

S. No.	Location	pH	EC (dsm ⁻¹)	Mean (Kg/ha)	Range (Kg/ha)	CV (%)	Remarks
Slight alkalinity (EC<4.0 dsm⁻¹; pH 8.5-9.0)							
1	Karaikal	8.25	0.9	2378	2200-2883	11.18	Data considered for analysis
2	Kanpur (Nawabganj)	8.9	0.93	2865	1438-3772	6.36	Data considered for analysis
Moderate alkalinity (EC<4.0 dsm⁻¹; pH 9.0-9.9)							
3	Lucknow	9.6	1.1	3407	2253-4834	5.11	Data considered for analysis
4	Gautam Buddanagar	9.6	1.2	3031	556-3945	6.79	Data considered for analysis
5	Bojha farm (Kanpur)	9.89	1.72	1823	936-2910	7.22	Data considered for analysis
6	Karnal (Sodic microplot)	9.6	1.2	2867	811-4033	10.38	Due to small plot size (0.15m ²), the data is used for identification of tolerant lines.
Moderate salinity (pH <8.5; EC 7.5-10.0 dsm⁻¹)							
7	Karnal (Saline microplot)	7.5	8	2393	756-3207	11.0	Salinity. Since the plot size is very small 0.45m ² , the data is used for identification of tolerant lines.
Normal condition							
8	Gangavati	8.1-8.95	6.57	4457	2853-5720	4.95	The sensitive check BPT 5204 recorded very high yield (5309 kg/ha), the data is considered under normal condition. The seedlings were 61 days old at the time of transplanting as irrigation water from Tungabadra reservoir was released late.
9	Kumargunj (Masodha)	9.5	-	2110	820-3059	13.37	EC not provided. Based on monitoring report, the data is analysed under normal condition.

S. No.	Location	pH	EC (dsm ⁻¹)	Mean (Kg/ha)	Range (Kg/ha)	CV (%)	Remarks
10	Annamalai Nagar	-	-	4566	3435-5523	3.25	Due to high experimental mean (4566 kg/ha), the data is considered under normal condition. Due to low CV (3.25), the data is not considered for analysis.
11	Kapurthala	9.0	-	4843	3301-6358	6.49	EC not provided. Due to high experimental mean yield (4843 kg/ha) and sensitive check BPT 5204 (3863 kg/ha) and yield check Jaya (5247 kg/ha), the data is considered under normal condition. Monitoring team also reported no salinity stress at this location.

AVT1-AL&ISTVT

Slight alkalinity stress condition

Overall

Data from Nawabganj (Kanpur) in Zone II, and Karaikal in Zone VII were used for analysis under slight alkalinity stress condition. Overall grain mean yield ranged from 1938 kg/ha (IET 23206) to 3258 kg/ha (IET 18710) and days to 50% flowering ranged from 89 days (IET 25988, 25982 and CSR 36) to 100 days (IET 18710).

In overall mean, all alkaline checks flowered in less than 96 days, hence all test entries were compared with highest yielding check. Among the checks, local check recorded maximum yield (3153 kg/ha, 93 days), however, none of the test entries showed superiority over the best check.

Zone II

Trial was conducted at Nawabganj (Kanpur) in Zone II under slight alkalinity stress condition. Grain yield ranged from 1438 kg/ha (BPT 5204) to 4141 kg/ha (IET 18710) and days to 50% flowering 80 days (IET 25982) to 110 days (IET 18710).

Among the early checks, local check recorded maximum yield (3772 kg/ha, 90 days), however none of the early entries (<95 days) showed yield superiority over early best check. Late test entries were compared with CSR 36 (3535 kg/ha, 99 days), ***one entry IET 18710 recorded 17% yield advantage (4141 kg/ha) over the late best check.***

Zone VII

Trial was conducted at Karaikal in Zone VII under slight alkalinity stress condition. Grain yield ranged from 1892 kg/ha (CSR 36) to 2883 kg/ha (IET 25378) and days to 50% flowering ranged from 79 days (CSR 36) to 106 days (Jaya).

The alkaline check CSR 36 recorded lowest yield (1892 kg/ha) which is lower than the sensitive check (BPT 5204, 2542 kg/ha) and flowered in 79 days (earlier than CSR 10, 96 days), hence CSR 36 was not considered for comparison with test entries. Local check

recorded maximum grain yield (2533 kg/ha, 95 days) followed by CSR 10 (2267 kg/ha, 96 days), hence local check was considered as best check to compare with all the test entries irrespective of the flowering duration. None of the test entries found superior to the best check.

Moderate alkaline stress condition

Overall

Data from Bojha farm (Kanpur) in Zone II, Gautambudda nagar and Lucknow in Zone III were used for analysis under moderate alkalinity stress condition. Yield ranged from 1293 kg/ha (BPT 5204) to 3983 kg/ha (IET 25378) and days to 50% flowering from 85 days (FL 478) to 104 days (CSR 36 and BPT 5204).

Among the early checks, local check (3696 kg/ha, 96 days) recorded maximum grain yield followed by CSR 10 (3673 kg/ha, 94 days). ***Among the early test entries (<101 days), IET 25378 (8%) and IET 23206 (5%) recorded yield superiority over the early best check.*** Late entries were compared with CSR 36 (3573 kg/ha, 104 days), ***IET 18710 recorded 5% yield advantage over the late best check.***

Zone II

Data received from Bojha farm (Kanpur) was considered for analysis under alkaline stress condition in Zone II. Grain yield ranged from 936 kg/ha (CSR 36) to 3111 kg/ha (IET 25378) and days to 50% flowering ranged from 82 days (IET 25982) to 103 days (CSR 36).

Alkalinity check CSR 36 recorded lowest yield (936 kg/ha) which is lower than sensitive check BPT 5204 (1183 kg/ha), hence CSR 36 was not considered for comparison with test entries. While CSR 10 recorded maximum yield (2336 kg/ha, 96 days) followed by local check (2274 kg/ha, 91 days). Hence the highest yielding check CSR 10 was considered as best check to compare with all the test entries irrespective of flowering duration. ***Among the test entries, four entries namely IETs 18710 (17%), 22836 (25%), 25378 (33%) and 20329 (21%) recorded yield superiority over the best check.***

Zone III

Trial was conducted at Gautambudda nagar and Lucknow in Zone III under Moderate alkaline stress condition. Grain yield ranged from 1523 kg/ha (BPT 5204) to 4075 kg/ha (IET 25378) and days to 50% flowering ranged from 84 days (IET 20329) to 104 days (CSR 36).

Among the early checks, CSR 10 recorded maximum yield (4010 kg/ha, 91 days), however, none of the early test entries (<96 days) showed yield superiority over the best check. Among the late checks, CSR 36 recorded maximum yield (3376 kg/ha, 104 days), ***while among late entries, IET 18710 recorded 8% (3655 kg/ha, 102 days) yield superiority over the late best check.***

Microplot experiments at Karnal, CSSRI

Data of microplot experiments from Karnal, CSSRI was considered for identification of tolerant lines for alkalinity and inland salinity stress condition. *Four entries namely IETs 18710, 25378, 20329 and 23206 showed significant yield advantage over the best check under both alkalinity and salinity stress condition.*

Entry No.	IET No.	Alkalinity			Inland salinity		
		Yield (Kg/ha)	DF	%EBC-LC	Yield (Kg/ha)	DF	%BC-LC
4901	IET 18710	3922	97	19	3067	104	18
4908	IET 25378	3800	97	15	3089	88	19
4910	IET 20329	4033	86	22	3081	84	19
4915	IET 23206	3992	91	21	3207	95	24
4909	CSR 36 (Alkaline Check)	3967	100		3156	100	
4911	CSR 10 (Early Check)	3000	92		2422	90	
4914	Local Check	3300	89		2589	84	
4907	CSR 23 (Inland Saline Check)	3133	88		2567	79	
4912	FL 478 (Saline Check)	1678	75		907	73	
4903	Jaya (Yield Check)	811	99		915	97	
4913	BPT 5204 (Sensitive Check)	833	105		756	104	

Normal condition

Data received from Kapurthala, Masodha and Gangavati were considered for analysis under normal condition. Grain yield ranged from 2894 kg/ha (FL 478) to 4683 kg/ha (CSR 36) and days to 50% flowering ranged from 97 days (CSR 10) to 108 days (BPT 5204). Salinity tolerant check CSR 36 ranked first and none of the test entries showed yield superiority over the best check.

Performance of promising entries in AVT1-AL&ISTVT

The performance of test entries in AVT1-al&ISTVT are provided in the table and discussed below,

IET 25378 (CSR 2013 M1-10) derived from cross IR 4630-22-2-5-1-3/IR 05N204 has recorded 3111 kg/ha with 96 days in Zone II and 3983 kg/ha with 96 days to 50% flowering in overall under slight and moderate alkalinity stress condition. The entry showed 33% in Zone II and 8% in overall under moderate alkalinity stress condition and 14% in Zone VII under slight alkalinity stress condition. It possesses long slender grain type and recorded 62.1% HRR, 4 ASV, 21.41% AC and 50 mm GC as desirable grain qualities parameters.

IET 22836 (RP 5208-3 (IR 87707-445-B-B-B)) derived from Aday Sel / 3*IR 64 has recorded 2910 kg/ha with 91 days to 50% flowering under alkalinity stress condition. It has recorded 25% higher yield than the best check in Zone II. It possesses long bold grain type and showed 62.9% HRR, 3.5 ASV, 22.44% AC and 72 mm GC as desirable grain qualities. *Hence, the entry IET 22836 (RP 5208-3 (IR 87707-445-B-B-B)) is promoted to third year of testing.*

IET 18710 (CSR 46 (CSR2K 262)) derived from cross IR 72 /CSR 23 has recorded 2735 kg/ha with 99 days in Zone II, 3655 kg/ha with 102 days in Zone III and 3744 kg/ha with 101 days to 50% flowering in overall under moderate alkaline stress condition. It has recorded 4141 kg/ha with 110 days to 50% flowering in Zone II under slight alkalinity stress condition. The entry has recorded required yield advantage over best check in Zone II (17%), Zone III (8%) and overall (5%) under moderate alkalinity stress condition. It has also recorded 17% yield advantage over best check in Zone II under slight alkalinity stress condition. It possesses long bold grain type and recorded low HRR (53.8%), 3.5 ASV, 22.7% AC and 63 mm GC. **Hence, the entry IET 18710 (CSR 46 (CSR2K 262)) is discontinued from further testing due to low HRR (53.8%).**

Similarly, three test entries in second year of testing namely IETs 18710 (HRR-53.8%), 20329 (HRR-51.2%), and 23206 (HRR-50.6%) achieved required yield advantage over the best check under inland salinity and alkalinity stress but due to low HRR, these three entries were discontinued from the further testing.

Performance of promising entries in AVT1-AL&ISTVT during Kharif 2017

IET No. Designation Cross Combination	GT	Moderate Alkalinity Stress Condition										Slight Alkalinity Stress Condition						Remarks
		Zone II (1)			Zone III (2)		Overall (3)					Zone II (1)		Zone VII (1)				
		Kg/ha	FD	BC-CSR10	Kg/ha	FD	LBC-CSR 36	Kg/ha	FD	EBC-LC	LBC-CSR 36	Kg/ha	FD	LBC-CSR 36	Kg/ha	FD	BC-LC	
3 rd year of testing																		
IET 25378 CSR 2013 M1-10 IR 4630-22-2-5-1-3/IR 05 N204	LS	3111	96	33				3983	96	8								Promising
2 nd year of testing																		
IET 22836 RP 5208-3 (IR 87707-445-B-B-B) Aday Sel/3*IR 64	LS	2910	91	25														Promoted
IET 18710 CSR 46 (CSR 2K 262) IR 72/CSR 23	LB	2735	99	17	3655	102	8	3744	101		5	4141	110	17				Dropped due to low HRR (53.8%)
IET 20329 CSR 49 (CSR 2K 242) IR 5711-3B-7-B-9-1-8/NDRK 5032	LS	2838	91	21														Dropped due to low HRR (51.2%)
IET 23206 CSR 52 (CSR 12B23) CSR 23/CSR 27	LS	1677	97					3886	96	5								Dropped due to low HRR (50.6%)
CSR 36 (Alkaline Check)		936	103		3376	104	LBC	3573	104		LBC	3535	99	LBC	1892	79		
CSR 10 (Early Check)		2336	96	BC	4010	91		3673	94			2261	96		2267	96		
Local Check		2274	91		3894	102		3696	96	EBC		3772	90	EBC	2533	95	BC	
BPT 5204 (Sensitive Check)		1183	100		1523	109		1293	104			1438	91		2542	98		
Jaya (Yield Check)		958	101		2205	100		1740	101			2643	83		2450	106		
FL 478 (Saline Check)		1491	85		2332	85		2114	85			1800	92		2325	95		
CSR 23 (Inland Saline Check)		1454	93		3520	90		3391	92			2266	97		2342	98		

Three year performance of IET 25378

IET (25378 (CSR 2013-MI-10)) completed 3 years of testing in AL & ISTVT trial (2015 to 2017). In overall mean it was superior in all 3 years under alkalinity over the best alkaline check. Under inland salinity it showed yield improvement in 1st & 2nd year over the best inland saline check in overall mean.

Under inland salinity its performance was consistent in zone II over the best check for 2 years (2015:16% and 2016: 29 % in zone II). In Haryana state it recorded consistent yield superiority in 1st and 2nd year of testing (2015: 16% and 2016: 29%). But in 3rd year it could not exhibit yield gain in zone - II and state (Haryana).

Under alkalinity, the entry was found promising continuously for 3 years in overall mean. It was superior in zone- II continuously for 2 years (2016 : 50% and 2017 : 33%) over the best alkaline check. Statewise it outyielded the best check continuously for 2 years in Uttar Pradesh (2016: 50% and 2017: 33%). Thus IET 25378 was found promising in Uttar Pradesh under alkalinity.

Three years performance of IET 25378 during 2015, 2016 and 2016

IET No./ Designation/ Cross Combination	GT	Year	Alkalinity/Salinity level	% over BC		
				Overall	Zone wise	State wise
IET 25378 CSR 2013 M1-10 IR 4630-22-2-5- 1-3/IR 05 N204	LS	2015	Moderate alkaline stress	9	VII-9	Puducherry-9
			Alkaline Stress	-	-	-
			Inland Salinity Stress	16	II-16	Haryana-16
			Severe Alkaline Stress	-	-	-
		2016	Moderate alkaline stress	-	-	-
			Alkaline Stress	-	-	-
			Inland Salinity Stress	29	II-29	Haryana-29
			Severe Alkaline Stress	50	II-50	Uttar Pradesh-50
		2017	Slight alkaline stress	-	-	-
			Moderate Alkaline Stress	8	II-33	Uttar Pradesh-33
			Moderate Inland Salinity Stress	-	-	-
			Severe Alkaline Stress	-	-	-

The following entries qualify for 3rd year of testing (AVT-2- AL &ISTVT)

Zone II: IET Nos. 22836, 25378 (Moderate alkalinity)

INITIAL VARIETY TRIAL - ALKALINE AND INLAND SALINE TOLERANT VARIETY TRIAL (IVT - AL & ISTVT)

Locations: 12

Entries: 37

Checks: FL 478 (Saline Tolerant check), CSR 23 (Inland Saline check), Jaya (Yield check), BPT 5204 (Sensitive check), CSR 36 (Alkaline check), CSR 23 (Inland Saline check), CSR 10 (Early Saline check) and local check

Table: 11.7

IVT- AL & ISTVT was constituted with 37 test entries and seven checks namely FL 478, CSR 23, Jaya, BPT 5204, CSR 36, CSR 23, CSR 10 and local check for evaluation across 12 locations in the first year of testing. Among 37 test entries, two hybrids IIRRH-118 and IIRRH-120 were included. The trial was sent to 18 locations but data was received from

12 locations only. Based on EC and pH values, the locations were classified into different levels of alkalinity and inland salinity, the details are mentioned below.

EC and pH of different locations in IVT- AL & ISTVT during Kharif 2017

S No.	Location	pH	EC (dsm ⁻¹)	Mean (Kg/ha)	Range (Kg/ha)	CV (%)	Remarks
Slight Alkaline Stress Condition (EC<4.0 dsm⁻¹ pH 8.5-9.0)							
1	Karaikal	8.25	0.9	2842	1579-4833	8.18	Data is considered for analysis.
2	Kanpur (Nawabganj)	9.0	1.73	3306	1325-4717	9.22	Data is considered for analysis.
Moderate Alkaline Stress Condition (EC<4.0 dsm⁻¹; pH 9.0-9.9)							
3	Gautam Buddanagar	9.6	1.2	2837	980-3969	22.09	Data is considered for analysis.
4	Karnal (Sodic Microplot)	9.6	1.2	2938	558-3990	14.87	Since net area sown is 0.15x1.0 m ² is small, data is considered only for identification of tolerant lines.
5	Kanpur (Bojha farm)	9.86	1.68	1465	183-3072	11.87	Due to low mean yield (1465 kg/ha), the data is not considered for analysis. Besides, alkalinity tolerant checks CSR36 (620 kg/ha), CSR10 (844 kg/ha) and local check (279 kg/ha) recorded very low yield.
6	Lucknow	9.8	1.2	1161	296-2442	13.43	Due to low mean yield (1161 kg/ha), the data is not considered for analysis. Besides, alkalinity check CSR36 (738 kg/ha) and CSR 10 (950 kg/ha) recorded very low yield.
Slight Inland Saline Stress Condition (pH <8.5 dsm⁻¹; EC 4.0-7.5)							
7	Brahmavar	5.5	6-8	2240	646-4211	14.54	Data is considered for analysis
Moderate Inland Saline Stress Condition (pH <8.5; EC 7.5-10.0 dsm⁻¹)							
8	Karnal (Saline Microplot)	7.5	8.0	2224	278-3322	16.87	Since the plot size is very small 0.45m ² , the data is used for identification of tolerant lines.
Normal condition							
9	Gangavati	8.1-8.95	6.5-7.0	4517	1876-6886	5.33	The sensitive BPT 5204 (4573 kg/ha) recorded very high yield. Hence the data is considered under normal stress condition. Sixty one days old seedlings were used for transplanting as canal water release from Tungabadra dam was late.
10	Masodha	9.5	-	2344	113-3373	11.48	Monitoring team reported low salinity/alkalinity stress, hence the data is analysed under normal condition.

S No.	Location	pH	EC (dsm ⁻¹)	Mean (Kg/ha)	Range (Kg/ha)	CV (%)	Remarks
11	Kapurthala	9.0	-	5587	2639-7173	7.16	Many entries recorded 5-6 t/ha yield. The sensitive BPT5204 (4925 kg/ha) recorded very high yield. Hence the data is considered under normal condition.
12	Annamalai Nagar	-	-	4499	3733-5503	2.36	Data is not proper. Hence, data is not considered. CV is very low (2.36).

SLIGHT ALKALINITY STRESS CONDITION

Trial was conducted at Nawabganj (Kanpur) and Karaikal under slight alkalinity stress condition in Zone II and Zone VII respectively.

Overall mean performance

Grain yield ranged from 1591 kg/ha (IET 27089) to 3919 kg/ha (IET 27076) and days to 50% flowering from 81 days (IET 27091) to 104 days (BPT 5204).

Among the checks, early check CSR 10 (1785 kg/ha, 82 days) recorded lower yield than sensitive check BPT 5204 (1883 kg/ha) and it was second lowest yield among the all the entries in the trial, therefore, CSR 10 was not considered to compare with early test entries. Among two alkalinity checks (CSR 36 and local check), CSR 36 recorded maximum grain yield (3706 kg/ha, 94 days), therefore, CSR 36 was considered as best check to compare with all the test entries irrespective of the flowering duration. ***Among the test entries, IET 27076 (6%) and 27077 (6%) recorded required yield advantage over the best check.***

Zone wise performance

Zone II

Trial was conducted at Nawabganj (Kanpur) in Zone II under slight alkalinity stress. Grain yield data ranged from 1325 kg/ha (IET 27093) to 4717 kg/ha (IET 27090) and days to 50% flowering ranged from 79 days (IET 27091) to 116 days (IET 27071). The entry IET 27068 did not record any yield.

Among the early alkalinity checks [CSR36 (94 days) and CSR10 (101 days)], CSR 36 recorded maximum grain yield (4501 kg/ha, 94 days), however, none of the early test entries (<99 days), surpassed the early best check. While late entries (>100 days) were compared with late duration best check - local check (3959 kg/ha, 102 days), none of the entries showed yield superiority over the best late check (local).

Zone VII

Trial was conducted at Karaikal under slight alkalinity stress condition Zone VII. Grain yield ranged from 1579 kg/ha (IET 27086) to 4833 kg/ha (IET IET 27076) and days to 50% flowering from 63 days (CSR 10) to 97 days (BPT 5204).

Among the early checks, local check recorded maximum grain yield (3022 kg/ha, 89 days), ***among the early test entries (<94 days), eight entries (IETs 27064, 27070, 27071, 27072, 27076, 27077, 27079, and 27094) recorded more than 15 % yield advantage over the early best check (local check).*** Among the late checks, CSR 36 recorded maximum grain

yield (2911 kg/ha, 95 days), however, none of the late test entries (>95 days) showed required yield advantage over the best late check.

MODERATE ALKALINITY STRESS CONDITION

Zone III

Trial was conducted at Gautambudda Nagar under moderate alkalinity stress condition in Zone III. Grain yield ranged from 980 kg/ha (Jaya) to 3969 kg/ha (IET 27094) and days to 50% flowering ranged from 80 days (IET 27063) to 122 days (IET 27074).

Among the early checks, CSR 10 recorded maximum grain yield (3064 kg/ha, 93 days), *among the early test entries (<98 days), five entries (IETs 27064, 25983, 27079, 27088, and 27094) out yielded the CSR10.* Among the late checks, local check recorded maximum grain yield (3183 kg/ha, 104 days), however none of the late entries showed yield superiority over the late best check.

SLIGHT INLAND SALINITY STRESS CONDITION

Data from Brahmavar was considered for analysis under slight inland salinity stress condition in Zone VII. Grain yield ranged from 646 kg/ha (IET 27074) to 4211 kg/ha (IET 27064) and days to 50% flowering ranged from 83 days (IET 27072) to 96 days (IET 27079 and BPT 5204).

Among the early salinity checks, local check recorded maximum grain yield (3065 kg/ha, 86 days). *Among the early entries (<91 days), nine entries (IETs 27062, 27064, 27069, 27070, 27071, 27076, 27088, 27091 and 27093) showed yield superiority over the early best check.* Among late salinity checks, FL 478 recorded maximum grain yield (3846 kg/ha, 94 days), however none of the late entries recorded yield superiority over the best check.

Normal condition

Data from Kapurtala, Masodha, Gangavati and Annamalai Nagar were considered for analysis under normal condition. Due to low CV, data from Annamalai Nagar was not considered for analysis. In overall, grain yield ranged from 3142 kg/ha (IET 27091) to 6846 kg/ha (IET 27068) and days to 50% flowering ranged from 90 days (IET 27063) to 117 days (IET 27068). Among checks, CSR 23 recorded maximum yield (5446 kg/ha, 90 days) while among the test entries IET 27068 recorded 26% yield advantage over the best check.

Entry No.	IET No.	Region VII SH(1) Mean	Overall (3)		Days to 50% Flowering
			Mean	BC	
5008	IET 27068	6846	6846	26	117
5014	FL 478 (Saline check)	2530	3178		101
5020	CSR 23 (Inland Saline Check)	6827	5446		99
5031	Jaya (Yield Check)	4957	4565		109
5036	BPT 5204 (Sensitive Check)	4573	3991		113
5039	CSR 36 (Alkaline Check)	4044	4259		103
5042	Local Check	4993	4351		104
5043	CSR 10 (Early check)	2786	3196		93

Microplot analysis at Karnal

Data of alkaline and inland saline microplot experiments from CSSRI Karnal was used for identification tolerant lines for alkalinity and inland salinity stress condition. **Seven test entries namely IETs 27064, 27070, 25976, 25983, 27079, 27088 and IET 27094 showed significant yield advantage over the best check under both alkalinity and salinity.**

Entry No.	IET No.	Alkalinity			Inland Salinity		
		Yield (kg/ha)	FD	% EBC-CSR10	Yield (kg/ha)	FD	% BC-LC
5003	IET 27064	3982	94	23	3150	89	19
5010	IET 27070	3763	90	16	3233	99	22
5019	IET 25976	3990	90	23	3144	90	19
5023	IET 25983	3863	94	19	3322	92	26
5024	IET 27079	3763	97	16	3244	100	23
5034	IET 27088	3740	91	16	3256	88	23
5044	IET 27094	3727	95	15	3144	103	19
5039	CSR 36 (Alkaline Check)	3056	100		2481	92	
5043	CSR 10 (Early check)	3236	92	EBC	2611	92	
5042	Local Check	3267	102	LBC	2644	91	BC
5014	FL 478 (Saline check)	1544	88		978	88	
5020	CSR 23 (Inland Saline Check)	3179	91		2411	90	
5031	Jaya (Yield Check)	1278	102		456	98	
5036	BPT 5204 (Sensitive Check)	2119	91		1289	110	

EBC-Early best check; LBC-Late best check.

Performance of promising entries in IVT-AL&ISTVT

Performance of promising test entries IVT-AL&ISTVT under alkalinity and inland salinity stress condition are provided in the table and discussed below,

IET 27064 (CSR RIL-01-IR75) derived from the cross IR 4630/CSR 11 possesses long bold grain type and recorded 23% (3722 kg/ha, 90 days) under moderate alkalinity, 15% (3512 kg/ha, 92 days) under alkalinity stress and 37% (4212 kg/ha, 92 days) under moderate alkalinity stress over the best check during Kharif 2017 in the first year of testing. Hence the entry is promoted to second year of testing.

IET 27070 (CSR-2748-4441-195) derived from cross CSR 27/MI 48 possesses long slender grain type and recorded 54% under moderate alkalinity (4667 kg/ha, 78 days), 14% (3488 kg/ha, 89 days) under alkalinity stress and 36% (4177 kg/ha, 90 days) under moderate salinity stress condition higher yield over best check. Hence, the entry is promoted to second year of testing.

IET 27076 (RP 6189-HHZ17-Y16-Y3-Sal1) derived from cross Huang-Hua-Zhan*2/CDR22 possesses long slender grain type and recorded 60% (4833 kg/ha, 82 days) in Zone VII, 6% (3919 kg/ha, 86 days) in overall under moderate alkalinity stress and 26% (3852 kg/ha, 91 days) under moderate salinity stress condition. Hence, the entry is promoted to second year of testing.

In conclusion, out of 37 test entries evaluated in IVT-AL&ISTVT under alkaline and inland saline stress condition during first year of testing across 12 locations, 14 test entries namely IETs 27062, 27064, 27069, 27070, 27071, 27072, 27076, 27077, 25983, 27079, 27088, 27091, 27093 and 27094 achieved required level of yield advantage over the best check. Hence, these 14 test entries were promoted to second year of testing which are mentioned below.

Slight Alkalinity Stress

Overall mean: IET 27076 and 27077

Zone VII: IETs 27064, 27070, 27071, 27072, 27076, 27077, 27079, and 27094

Moderate Alkalinity Stress

Zone III: IETs 27064, 25983, 27079 27088, and 27094

Slight Inland Salinity Stress

Overall mean: IETs 27062, 27064, 27069, 27070, 27071, 27076, 27088, 27091 and 27093

List of promoted entries in IVT-AL&ISTVT during Kharif 2017

Entry No.	IET No Designation Cross Combination	Grain Type	Slight Alkaline Stress Condition						Moderate Alkalinity Stress Condition Zone III (1)		Slight Inland Salinity Stress Condition Zone VII(1)		Remarks
			II (1)		VII (1)		Overall (2)						
			Kg/ha DF	%LBC-LC	Kg/ha DF	%EBC-LC	Kg/ha DF	%LBC- CSR36	Kg/ha DF	%EBC- CSR10	Kg/ha DF	%EBC- LC	
1	IET 27062 RP 6185-GSR IR 1-5-S14-S2-Y1 Huang-Hua-Zhan*2 / OM 1723	LS									4087 84	33	Promoted in Zone VII
2	IET 27064 CSR RIL-01-IR 75 IR 4630 / CSR 11	LB			3722 90	23			3512 92	15	4211 92	37	Promoted in Zone III & VII.
3	IET 27069 RP 6276-GSR IR1-12-S8-Y1-Y2 Huang-Hua-Zhan*2 / TE QING	LB									4174 92	36	Promoted in Zone VII
4	IET 27070 CSR-2748-4441-195 CSR 27 / MI 48	LS			4667 78	54					4177 90	36	Promoted in Zone VII
5	IET 27071 RP 6112-MS-T193-5-22-55-33-1-3 BPT 5204 Mutant	SS			3556 78	18					3645 85	19	Promoted in Zone VII
6	IET 27072 TR 13083 ADT 43 / FL 478 // ADT43	MS			4722 84	56							Promoted in Zone VII
7	IET 27076 RP 6189-HHZ 17-Y16-Y3-SAL1 Huang-Hua-Zhan*2 / CDR 22	LS			4833 82	60	3919 86	6			3852 91	26	Promoted in Zone VII and overall
8	IET 27077 RNR 11718 MTU 1010 / NLR 34449	SB			3722 91	23	3915 103	6					Promoted in Zone VII and overall
9	IET 25983 CSR 2711-17 CSR 27 / CSR 11	MS							3627 93	18			Promoted in Zone III
10	IET 27079 CSR RIL-01-IR 165 IR 4630 / CSR 11	SB			3478 86	15			3680 95	20			Promoted in Zone III & VII
11	IET 27088 CSR-2748-4441-193 CSR 27 / MI 48	LB							3736 87	22			Promoted in Zone III
12	IET 27091 RP 6188-GSR IR1-8-S6-S3-S1	MS									3594 89	17	Promoted in Zone

Entry No.	IET No Designation Cross Combination	Grain Type	Slight Alkaline Stress Condition						Moderate Alkalinity Stress Condition Zone III (1)		Slight Inland Salinity Stress Condition Zone VII(1)		Remarks
			II (1)		VII (1)		Overall (2)						
			Kg/ha DF	%LBC-LC	Kg/ha DF	%EBC-LC	Kg/ha DF	%LBC- CSR36	Kg/ha DF	%EBC- CSR10	Kg/ha DF	%EBC- LC	
	Huang-Hua-Zhan*2 / Phalguna												VII
13	IET 27093 RP 6265-GSR IR 1-5-S12-D3-Y2 Huang-Hua-Zhan*2 / OM 1723	MS									3867 91	26	Promoted in Zone VII
14	IET 27094 RP 5989-2-4-8-15-139-62-6-9 Akshyadhan / FB R1-15	LB			3500 93	16			3969 96	30			Promoted in Zone III & VII
	FL 478 (Saline check)		2162 93		3033 80		2597 86		1655 88		3846 94	LBC	
	CSR 23 (Inland Saline Check)		4372 100		2756 92		3564 96		2950 96		930 88		
	Jaya (Yield Check)		3082 89		3100 84		3091 87		980 103		887 96		
	BPT 5204 (Sensitive Check)		1522 111		2244 97		1883 104		2458 111		2758 96		
	CSR 36 (Alkaline Check)		4501 94		2911 95		3706 94		3070 102		2599 91		
	Local Check		3959 102		3022 89		3491 96		3183 104		3065 86	EBC	
	CSR 10 (Early check)		1682 101		1889 63		1785 82		3064 93		1313 85		

Table No. 11.1 : Composition of entries in Advance Variety Trial 1 –Alkaline and Inland Saline Tolerant Variety Trial (AVT 1-AL&ISTVT), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
2 nd year of testing:				
4901	18710 (Repeat)	CSR 46 (CSR 2K 262)	IR 72 / CSR 23	LB
4902	25988	NDRK 50065	NSICRC 106 / Samba Mahsuri	SS
4903	Jaya (Yield Check)			SB
4904	25982	CSAR 1632	AT401 / IR 31868-64-2-3-3-3	SB
4905	22836	RP 5208-3 (IR87707-445-B-B-B)	Aday Sel /*3 IR64	LB
4906	25387 (Repeat)	CSR 2013 M1-27	Cheriviruppu/IR 10205-37-1-3	SB
4907	CSR 23 (Inland Saline Check)			SB
3 rd Year of testing:				
4908	25378	CSR 2013 M1- 10	IR 4630-22-2-5-1-3 / IR 05N204	LS
4909	CSR 36 (Alkaline Check)			LS
2 nd year of testing:				
4910	20329	CSR 49 (CSR 2K 242)	IR 5711-3B-7-B-9-1-8 / NDRK 5032	MS
4911	CSR 10 (Early duration Saline Check)			SB
4912	FL 478 (Saline tolerant Check)			LB
4913	BPT 5204 (Sensitive Check)			MS
4914	Local Check			
4915	23206	CSR 52 (CSR 12B23)	CSR 23 / CSR 27	LB

Table No. 11.2: Grain Yield (Kg/ha) of entries in AVT 1- AL & ISTVT Moderate Alkalinity Kharif 2017

Entry No.	IET No.	II				zone II (1)		III						ZONE III (2)		EBC-CSR10	LBC-CSR36
		HAR		U.P.				U.P.		U.P.		U.P. (2)					
		'@KRL-SODIC		KNP-BJA		Mean	BC-CSR10	GBN		LCK		Mean		Mean			
4901	18710	3922	4	2735	4 *	2735	17	3945	1	3366	8	3655	6 *	3655	6 *		8
4902	25988	3267	7	1178		1178		3422	7	2847		3134	9	3134	9		
4903	Jaya (Yield Check)	811		958		958		997		3413	7	2205		2205			
4904	25982	2489		1310		1310		2868		2700		2784		2784			
4905	22836	2389		2910	2 *	2910	25	3230		4834	1	4032	2 * ...1%	4032	2 * ...1%		
4906	25387	2389		950		950		3061		2559		2810		2810			
4907	CSR 23 (Inland Saline Check)	3133	8	1454	9	1454		3334	9	3706	6	3520	7 *	3520	7 *		
4908	25378	3800	5	3111	1 *	3111	33	3731	5	4419	3	4075	1 * ...2%	4075	1 * ...2%		
4909	CSR 36 (Alkaline Check)	3967	3	936		936		3887	3	2866	9	3376	8	3376	8		
4910	20329	4033	1	2838	3 *	2838	21	3941	2	2253		3097		3097			
4911	CSR 10 (Early Check)	3000	9	2336	5	2336		3347	8	4672	2	4010	3 *	4010	3 *		
4912	FL 478 (Saline Check)	1678		1491	8	1491		1817		2847		2332		2332			
4913	BPT 5204 (Sensitive Check)	833		1183		1183		556		2491		1523		1523			
4914	Local Check	3300	6	2274	6	2274		3438	6	4350	4	3894	4 *	3894	4 *		
4915	23206	3992	2	1677	7	1677		3885	4	3781	5	3833	5 *	3833	5 *		
	Exp Mean	2867		1823		1823		3031		3407		3219		3219			
	C.D. 5%	424		188		188		294		248		263		263			
	C.V.%	10.38		7.22		7		6.79		5.11		5.80		5.80			
	Sowing Date									16-06-2017							
	Planting Date									14-07-2017							
	Local ©									CSR 36							
	* Superior to Best Check % Superior over Best Check @ not included in means																
	BC- % over best check; EBC- % over early best check; LBC- % over late best check																

Table No. 11.2 contd: Grain Yield (Kg/ha) of entries in AVT 1- AL & ISTVT Moderate Alkalinity Kharif 2017

Entry No.	IET No.	Overall (3)			Days to 50% Flowering	Plant Height (cm)	Panicle s/ M ²
		Mean	EBC-LC	LBC-CSR 36			
4901	18710	3744	3 * ...1%		101	105	295
4902	25988	3179			89	107	320
4903	Jaya (Yield Check)	1740			101	91	287
4904	25982	2686			89	93	277
4905	22836	3485	7 *		90	91	315
4906	25387	2670			88	92	260
4907	CSR 23 (Inland Saline Check)	3391	9		92	104	306
4908	25378	3983	1 * ...8%	8	96	96	294
4909	CSR 36 (Alkaline Check)	3573	6 *		104	105	299
4910	20329	3409	8		87	100	275
4911	CSR 10 (Early Check)	3673	5 *		94	84	323
4912	FL 478 (Saline Check)	2114			85	89	257
4913	BPT 5204 (Sensitive Check)	1293			104	90	260
4914	Local Check	3696	4 *		96	116	294
4915	23206	3886	2 * ...5%	5	96	86	323
	Exp Mean	3101			94	97	292
	C.D. 5%	324					
	C.V.%	7.50					
	Sowing Date						
	Planting Date						
	Local ©						

Table No. 11.2 contd : Grain Yield (Kg/ha) of entries in AVT 1-AL & ISTVT Slight Alkalinity Kharif 2017

Entry No.	IET No.	II					VII		Overall (2)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		U.P.			PUD								
		KNP-NWE	EBC-LC	LBC-CSR 36	KRK	BC-LC	Mean	BC-LC					
4901	18710	4141	1*	17	2375	7	3258		100	108	374		
4902	25988	2689	9		2558	2	2624		89	116	382		
4903	Jaya (Yield Check)	2643			2450	6	2547		95	74	305		
4904	25982	3128	7		2200		2664		89	111	399		
4905	22836	3737	3		2558	3	3148		93	103	370		
4906	25387	3118	8		2217		2667		95	102	357		
4907	CSR 23 (Inland Saline Check)	2266			2342	8	2304		98	106	353		
4908	25378	3296	6		2883	1	3090		92	98	372		
4909	CSR 36 (Alkaline Check)	3535	4		1892		2714		89	111	370		
4910	20329	3519	5		2275		2897		95	120	287		
4911	CSR 10 (Early Check)	2261			2267		2264		96	79	347		
4912	FL 478 (Saline Check)	1800			2325	9	2063		94	84	325		
4913	BPT 5204 (Sensitive Check)	1438			2542	4	1990		95	107	350		
4914	Local Check	3772	2		2533	5	3153		93	117	369		
4915	23206	1626			2250		1938		97	99	353		
	Exp Mean	2865			2378		2621		94	102	354		
	C.D. 5%	260			379		320		3	0	36		
	C.V.%	6.36			11.18		9		2.06	0.00	7.07		
	Sowing Date				7-19-17								
	Planting Date				8-22-17								
	Local ©				Try-2								
	* Superior to Best Check % Superior over Best Check												
	BC-% over best check; EBC-% over early best check; LBC- % over late best check												

Table No. 11.2 contd : Grain yield (kg/ha) of entries in AVT 1-AL & ISTVT Moderate Salinity Kharif 2017

Entry No.	IET No.	II NO		Overall ()		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		HAR						
		'@KRL-SALINE		Mean				
4901	18710	3067	5 *	3067	5 *	104	83	100
4902	25988	2556		2556		86	96	118
4903	Jaya (Yield Check)	915		915		97	79	60
4904	25982	2415		2415		82	79	83
4905	22836	2559	9	2559	9	85	83	90
4906	25387	2611	6	2611	6	82	75	58
4907	CSR 23 (Inland Saline Check)	2567	8	2567	8	79	92	95
4908	25378	3089	3 *	3089	3 *	88	89	85
4909	CSR 36 (Alkaline Check)	3156	2 *	3156	2 *	100	81	63
4910	20329	3081	4 *	3081	4 *	84	92	78
4911	CSR 10 (Early Check)	2422		2422		90	67	105
4912	FL 478 (Saline Check)	907		907		73	67	65
4913	BPT 5204 (Sensitive Check)	756		756		104	56	30
4914	Local Check	2589	7	2589	7	84	86	88
4915	23206	3207	1 *	3207	1 *	95	80	165
	Exp Mean	2393		2393		89	80	85
	C.D. 5%	440		440		3		30
	C.V.%	11.00		11.00		6.47		20.67
	Sowing Date	6-23-17						
	Planting Date	7-20-17						
	Local ©	CSR 23						
	* Superior to Best Check % Superior over Best Check							
	BC-% over best check; EBC-% over early best check; LBC- % over late best check							

Table No. 11.2 contd.: Grain Yield (Kg/ha) of entries in AVT 1-AL & ISTVT Normal Kharif 2017

Entry No.	IET No.	II		III		VII				Zone VII (1) Mean		Overall (3) Mean	Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		PUN		U.P.		TN		KA							
		KPT		MSD		@AML@		GNV							
4901	18710	6358	1*	1906		5067	6	5312	5	5312	5	4525	107	106	345
4902	25988	4575		2615	4	5450	3	5299	7	5299	7	4163	105	110	375
4903	Jaya (Yield Check)	5247	6	3059	1	5457	2	3820		3820		4042	99	94	347
4904	25982	4801	8	1973	9	4552	8	5720	1	5720	1	4164	105	100	377
4905	22836	5230	7	2926	2	3563		4037		4037		4064	99	98	337
4906	25387	4003		2305	6	3890		4293	9	4293	9	3534	98	99	367
4907	CSR 23 (Inland Saline Check)	5395	4	2238	8	3435		5431	3	5431	3	4355	105	99	311
4908	25378	4773	9	997		5088	5	4652	8	4652	8	3474	105	99	364
4909	CSR 36 (Alkaline Check)	5868	2	2770	3	4242		5411	4	5411	4	4683	106	105	377
4910	20329	5687	3	1684		5523	1	3005		3005		3459	99	108	356
4911	CSR 10 (Early Check)	4278		1596		5435	4	2959		2959		2944	97	84	377
4912	FL 478 (Saline Check)	3301		2527	5	4782	7	2853		2853		2894	102	88	339
4913	BPT 5204 (Sensitive Check)	3863		820		3733		5309	6	5309	6	3331	108	83	305
4914	Local Check	5273	5	1928		4422	9	5464	2	5464	2	4221	107	100	338
4915	23206	4000		2305	7	3850		3297		3297		3201	100	84	327
	Exp Mean	4843		2110		4566		4457		4457		3804	103	97	350
	C.D. 5%	449		403		212		315		315		389	1	0	41
	C.V.%	6.49		13.37		3.25		4.95		4.95		8	1.00	0.00	9.08
	Sowing Date	19-06-2017		28-06-2017		06-06-2017									
	Planting Date	20-07-2017		01-08-2017		29-06-2017									
				Narendra Usar Dhan 2009											
	Local ©	PR 121				Try-2									
* Superior to Best Check % Superior over Best Check @ not included in means															

Table No. 11.3: Days to 50% Flowering of entries in AVT 1- AL & ISTVT Moderate Alkalinity Kharif 2017

Entry No.	IET No.	II		Zone II (2) Mean	III			ZONE III (2) Mean	Overall (4) Mean
		HAR	U.P.		U.P.	U.P.	U.P. (3)		
		KRL-SODIC	KNP-BJA		GBN	LCK	Mean		
4901	18710	97	102	99	103	102	102	102	101
4902	25988	87	92	89	85	91	89	88	89
4903	Jaya (Yield Check)	99	104	101	102	99	102	100	101
4904	25982	72	92	82	100	92	94	96	89
4905	22836	86	96	91	87	90	91	88	90
4906	25387	82	96	89	86	89	90	87	88
4907	CSR 23 (Inland Saline Check)	88	98	93	86	95	93	90	92
4908	25378	97	95	96	95	96	95	96	96
4909	CSR 36 (Alkaline Check)	100	107	103	105	104	105	104	104
4910	20329	86	97	91	81	87	88	84	87
4911	CSR 10 (Early Check)	92	100	96	91	92	94	91	94
4912	FL 478 (Saline Check)	75	94	85	82	89	88	85	85
4913	BPT 5204 (Sensitive Check)	105	95	100	114	104	104	109	104
4914	Local Check	89	94	91	101	102	99	102	96
4915	23206	91	103	97	99	93	98	96	96
	Exp Mean	89	98	94	94	95	96	94	94
	C.D. 5%	1	2		3	3			
	C.V.%	1.07	1.15		2.17	2.58			

Table No. 11.3 contd : Days to 50% Flowering of entries in AVT 1-AL & ISTVT Slight Alkalinity Kharif 2017

Entry No.	IET No.	II	VII	Overall (2)
		U.P.	PUD	
		KNP-NWB	KRK	Mean
4901	18710	110	90	100
4902	25988	84	93	89
4903	Jaya (Yield Check)	83	106	95
4904	25982	80	98	89
4905	22836	93	93	93
4906	25387	93	97	95
4907	CSR 23 (Inland Saline Check)	97	98	98
4908	25378	92	92	92
4909	CSR 36 (Alkaline Check)	99	79	89
4910	20329	88	102	95
4911	CSR 10 (Early Check)	96	96	96
4912	FL 478 (Saline Check)	92	95	94
4913	BPT 5204 (Sensitive Check)	91	98	95
4914	Local Check	90	95	93
4915	23206	96	98	97
	Exp Mean	92	95	94
	C.D. 5%	3	2	3
	C.V.%	2.61	1.51	2

Table No.11.4 contd : Plant Height (cm) of entries in AVT 1-AL & ISTVT Slight Alkalinity Kharif 2017

Entry No.	IET No.	II	VII	Overall (2)
		U.P.	PUD	
		KNP-NWB	KRK	Mean
4901	18710	106	109	108
4902	25988	106	126	116
4903	Jaya (Yield Check)	78	70	74
4904	25982	102	119	111
4905	22836	104	101	103
4906	25387	77	126	102
4907	CSR 23 (Inland Saline Check)	98	114	106
4908	25378	99	96	98
4909	CSR 36 (Alkaline Check)	99	123	111
4910	20329	127	114	120
4911	CSR 10 (Early Check)	63	94	79
4912	FL 478 (Saline Check)	73	96	84
4913	BPT 5204 (Sensitive Check)	88	125	107
4914	Local Check	109	125	117
4915	23206	76	122	99
	Exp Mean	94	111	102
	C.D. 5%		0	0
	C.V.%		0.00	0

Table No. 11.3 : Days to 50% Flowering of entries in AVT 1-AL & ISTVT Moderate Salinity Kharif 2017

Entry No.	IET No.	II NO
		HAR
		KRL-SALINE
4901	18710	104
4902	25988	86
4903	Jaya (Yield Check)	97
4904	25982	82
4905	22836	85
4906	25387	82
4907	CSR 23 (Inland Saline Check)	79
4908	25378	88
4909	CSR 36 (Alkaline Check)	100
4910	20329	84
4911	CSR 10 (Early Check)	90
4912	FL 478 (Saline Check)	73
4913	BPT 5204 (Sensitive Check)	104
4914	Local Check	84
4915	23206	95
	Exp Mean	89
	C.D. 5%	7
	C.V.%	4.55

Table No. 11.4: Plant Height (cm) of entries in AVT 1-AL & ISTVT Moderate Salinity Kharif 2017

Entry No.	IET No.	II NO
		HAR
		KRL-SALINE
4901	18710	83
4902	25988	96
4903	Jaya (Yield Check)	79
4904	25982	79
4905	22836	83
4906	25387	75
4907	CSR 23 (Inland Saline Check)	92
4908	25378	89
4909	CSR 36 (Alkaline Check)	81
4910	20329	92
4911	CSR 10 (Early Check)	67
4912	FL 478 (Saline Check)	67
4913	BPT 5204 (Sensitive Check)	56
4914	Local Check	86
4915	23206	80
	Exp Mean	80
	C.D. 5%	
	C.V.%	

Table No. 11.3 : Days to 50% Flowering of entries in AVT 1-AL & ISTVT Normal Kharif 2017

Entry No.	IET No.	II	III	VII		Zone VII (1) Mean	Overall (4)
		PUN	U.P.	TN	KA		
		KPT	MSD	AML@	GNV		
4901	18710	107	99	105	118	118	107
4902	25988	102	102	106	111	111	105
4903	Jaya (Yield Check)	109	93	92	103	103	99
4904	25982	100	109	101	111	111	105
4905	22836	103	92	99	103	103	99
4906	25387	101	95	91	107	107	98
4907	CSR 23 (Inland Saline Check)	109	100	106	106	106	105
4908	25378	108	125	83	105	105	105
4909	CSR 36 (Alkaline Check)	106	107	93	117	117	106
4910	20329	102	101	89	105	105	99
4911	CSR 10 (Early Check)	101	94	84	110	110	97
4912	FL 478 (Saline Check)	100	100	96	114	114	102
4913	BPT 5204 (Sensitive Check)	111	102	108	110	110	108
4914	Local Check	109	99	104	114	114	107
4915	23206	110	95	91	105	105	100
	Exp Mean	105	101	96	109	109	103
	C.D. 5%	1	0	3	2	2	1
	C.V.%	0.52	0.00	2.11	1.39	1.39	1

Table No. 11.4 : Plant Height (cm) of entries in AVT 1- AL & ISTVT Moderate Alkalinity Kharif 2017

Entry No.	IET No.	II		Zone II (2) Mean	III			ZONE III (2) Mean	Overall (4) Mean
		HAR	U.P.		U.P.	U.P.	U.P. (3)		
		KRL-SODIC	KNP-BJA		GBN	LCK	Mean		
4901	18710	110	87	98	96	127	103	111	105
4902	25988	113	102	108	101	110	104	106	107
4903	Jaya (Yield Check)	94	76	85	84	109	90	97	91
4904	25982	99	75	87	89	108	91	99	93
4905	22836	83	69	76	93	120	94	106	91
4906	25387	93	76	84	84	117	92	101	92
4907	CSR 23 (Inland Saline Check)	108	83	96	101	124	103	112	104
4908	25378	97	75	86	86	127	96	106	96
4909	CSR 36 (Alkaline Check)	118	83	100	93	126	101	109	105
4910	20329	110	74	92	98	118	97	108	100
4911	CSR 10 (Early Check)	82	85	84	74	94	85	84	84
4912	FL 478 (Saline Check)	89	95	92	75	97	89	86	89
4913	BPT 5204 (Sensitive Check)	85	82	84	72	120	92	96	90
4914	Local Check	107	72	90	156	127	118	141	116
4915	23206	85	62	74	77	119	86	98	86
	Exp Mean	98	80	89	92	116	96	104	97
	C.D. 5%	0			0				
	C.V.%	0.00			0.00				

Table No. 11.4 contd : Plant Height (cm) of entries in AVT 1-AL & ISTVT Normal Kharif 2017

Entry No.	IET No.	II		III		VII		Zone VII (1)	Overall (4)
		PUN	U.P.	TN	KA				
		KPT	MSD	AML@	GNV	Mean	Mean		
4901	18710	122	108	94	100	100	106		
4902	25988	121	108	98	114	114	110		
4903	Jaya (Yield Check)	103	88	107	77	77	94		
4904	25982	101	111	98	88	88	100		
4905	22836	108	112	93	77	77	98		
4906	25387	96	86	116	97	97	99		
4907	CSR 23 (Inland Saline Check)	120	76	90	109	109	99		
4908	25378	92	84	145	75	75	99		
4909	CSR 36 (Alkaline Check)	109	111	107	93	93	105		
4910	20329	119	95	129	88	88	108		
4911	CSR 10 (Early Check)	82	69	135	49	49	84		
4912	FL 478 (Saline Check)	83	102	101	67	67	88		
4913	BPT 5204 (Sensitive Check)	81	82	98	69	69	83		
4914	Local Check	79	97	123	103	103	100		
4915	23206	92	73	109	63	63	84		
	Exp Mean	101	93	110	85	85	97		
	C.D. 5%		0				0		
	C.V.%		0.00				0		

Table No. 11.5 : Panicles/ M² of entries in AVT 1- AL & ISTVT Moderate Alkalinity Kharif 2017

Entry No.	IET No.	II		Zone II	III			ZONE III	Overall
		HAR	U.P.		U.P.	U.P.	U.P. (3)		
		KRL-SODIC	KNP-BJA	Mean	GBN	LCK	Mean	Mean	Mean
4901	18710	215	401	308	190	375	322	283	295
4902	25988	248	420	334	225	388	344	306	320
4903	Jaya (Yield Check)	144	429	287	183	391	334	287	287
4904	25982	163	379	271	203	364	315	283	277
4905	22836	193	403	298	215	448	355	331	315
4906	25387	145	371	258	150	373	298	261	260
4907	CSR 23 (Inland Saline Check)	225	380	303	203	415	332	309	306
4908	25378	120	458	289	193	405	352	299	294
4909	CSR 36 (Alkaline Check)	248	396	322	203	350	316	276	299
4910	20329	200	389	295	185	324	299	254	275
4911	CSR 10 (Early Check)	248	414	331	213	417	348	315	323
4912	FL 478 (Saline Check)	188	378	283	118	344	280	231	257
4913	BPT 5204 (Sensitive Check)	173	417	295	178	274	290	226	260
4914	Local Check	230	372	301	163	413	316	288	294
4915	23206	280	387	334	213	411	337	312	323
	Exp Mean	201	400	300	189	379	323	284	292
	C.D. 5%	15	14		39	13			
	C.V.%	5.14	2.53		14.32	2.40			

Table No. 11.5 contd : Panicles/ M² of entries in AVT 1-AL & ISTVT Slight Alkalinity Kharif 2017

Entry No.	IET No.	II	VII	Overall (2)
		U.P.	PUD	
		KNP-NWB	KRK	Mean
4901	18710	358	390	374
4902	25988	339	425	382
4903	Jaya (Yield Check)	236	374	305
4904	25982	376	422	399
4905	22836	296	445	370
4906	25387	302	412	357
4907	CSR 23 (Inland Saline Check)	279	427	353
4908	25378	305	439	372
4909	CSR 36 (Alkaline Check)	289	451	370
4910	20329	195	379	287
4911	CSR 10 (Early Check)	300	394	347
4912	FL 478 (Saline Check)	236	413	325
4913	BPT 5204 (Sensitive Check)	329	371	350
4914	Local Check	324	415	369
4915	23206	256	449	353
	Exp Mean	295	414	354
	C.D. 5%	30	42	36
	C.V.%	7.06	7.08	7

Table No. 11.5 contd : Panicles/ M² of entries in AVT 1-AL & ISTVT Moderate Salinity Kharif 2017

Entry No.	IET No.	II NO
		HAR
		KRL-SALINE
4901	18710	100
4902	25988	118
4903	Jaya (Yield Check)	60
4904	25982	83
4905	22836	90
4906	25387	58
4907	CSR 23 (Inland Saline Check)	95
4908	25378	85
4909	CSR 36 (Alkaline Check)	63
4910	20329	78
4911	CSR 10 (Early Check)	105
4912	FL 478 (Saline Check)	65
4913	BPT 5204 (Sensitive Check)	30
4914	Local Check	88
4915	23206	165
	Exp Mean	85
	C.D. 5%	30
	C.V.%	20.67

Table No. 11.5 contd : Panicles/ M² of entries in AVT 1-AL & ISTVT Normal Kharif 2017

Entry No.	IET No.	II	III	VII		Zone VII (1) Mean	Overall (4) Mean
		PUN	U.P.	TN	KA		
		KPT	MSD	AML@	GNV		
4901	18710	248	300	499	334	334	345
4902	25988	312	350	524	315	315	375
4903	Jaya (Yield Check)	266	314	531	278	278	347
4904	25982	276	394	507	332	332	377
4905	22836	252	417	384	295	295	337
4906	25387	279	417	481	293	293	367
4907	CSR 23 (Inland Saline Check)	294	264	359	330	330	311
4908	25378	271	317	548	323	323	364
4909	CSR 36 (Alkaline Check)	272	411	492	333	333	377
4910	20329	315	279	555	276	276	356
4911	CSR 10 (Early Check)	302	357	585	265	265	377
4912	FL 478 (Saline Check)	241	392	491	231	231	339
4913	BPT 5204 (Sensitive Check)	285	264	349	321	321	305
4914	Local Check	228	365	434	327	327	338
4915	23206	295	347	430	236	236	327
	Exp Mean	276	346	478	299	299	350
	C.D. 5%	74	61	17	11	11	41
	C.V.%	18.94	12.43	2.43	2.54	2.54	9

Table No. 11.6: Grain quality characteristics of entries in AVT-1-AL&ISTVT, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4901	18710 (R)	77.8	60.1	53.8	6.44	2.27	2.83	LB	VOC	3.5	22.7	63
4902	25988	73.7	63.5	55.3	5.81	1.9	3.05	SS	VOC	4	24.78	70
4903	JAYA	79.8	70.1	68.4	5.47	2.51	2.17	SB	VOC	7	25.34	22
4904	25982	79.8	70.7	68.4	5.31	2.74	1.93	SB	VOC	7	24.87	26
4905	22836	79.4	68.3	62.9	6.48	2.35	2.74	LB	VOC	3.5	22.44	72
4906	25387 (R)	77.6	58.4	51.2	5.53	2.57	2.15	SB	OC	4	25.19	24
4907	CSR-23	76.5	67.1	65.7	5.43	2.22	2.44	SB	A	4	21.35	24
4908	25378	79.3	69.7	62.1	7.04	2.16	3.25	LS	VOC	4	21.41	50
4909	CSR 36	75.4	66.9	60.5	6.75	2.04	3.3	LS	VOC	4	25.52	48
4910	20329	74.7	61.6	51.2	5.93	2.14	2.77	MS	VOC	4	24.75	37
4911	CSR 10	77.4	66.8	59.7	5.03	2.46	2.04	SB	VOC	4	22.55	42
4912	FL-478	75.6	62.8	46.8	6.41	2.35	2.72	LB	VOC	4	24.61	36
4913	BPT 5204	78.7	68.3	61	4.95	1.82	2.71	MS	VOC	4	22.99	22
4914 (LC)		-	-	-	-	-	-				-	-
4915	23206	77.6	64.2	50.6	6.11	2.13	2.86	LB	VOC	5	26.25	22

HULL: Hulling (%); Milling (%); HRR: rice recovery (%); KL: Kernal length(mm); KB:Kernal breadth(mm);SS: short slender, L/B Length and breadth ratio; Grain Chalk:Grain Chalkiness;VOC:Very occasionally present; A: Absent;MS:Medium slender, ASV:Alkali spreading value; AC: Amylose content(%); GC:Gel consistency; LB Long bold; SB::short bold; LS: Long slender

Table No. 11.7: Composition of entries in Initial Variety Trial –Alkaline and Inland Saline Tolerant Variety Trial (IVT-AL&ISTVT), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
1st year of testing:				
5001	27062	RP 6185-GSR IR 1-5-S14-S2-Y1	Huang-Hua-Zhan*2 / OM 1723	LS
5002	27063	KR 09011	P-200-124-4-1-1-1-1(Mutant of Pokkali)	MS
5003	27064	CSR RIL-01-IR 75	IR 4630 / CSR 11	LB
5004	25978	NDRK 50059	NDRK 5007 / BM5	SB
5005	27065	RP 5440-302-100-7-6-3-2	IR 64 / IR 155179-313-11-3-9	MS
5006	27066	RP 6182-HHZ5-SAL 14-SAL2-Y1	Huang-Hua-Zhan*2 / OM 1723	LS
5007	27067	NDRK 50053	PSBRC 90 / HP3319-2-2	SB
5008	27068	CR 3993-12-13-33-1	CR 1009 / <i>O. brachyantha</i> // CR 1009	SB
5009	27069	RP 6276-GSR IR1-12-S8-Y1-Y2	Huang-Hua-Zhan*2 / TE QING	LB
5010	27070	CSR-2748-4441-195	CSR 27 / MI 48	LS
5011	27071	RP 6112-MS-T193-5-22-55-33-1-3	BPT 5204 Mutant	SS
5012	25986	PAU 7114-3480-1-1-1-0	PAU 201 / PAU 3699-13-2-3-1 // PAU 201 /// PR 114(Xa 38)	MS
5013	27072	TR 13083	ADT 43 / FL 478 // ADT43	MS
5014	FL 478 (Saline tolerant check)			
5015	27073	RP 6180-GSR IR1-8-S14-S3-Y2	Huang-Hua-Zhan*2 / Phalguna	LS
5016	27074	PAU 4254-14-1-2-2-2-4-1	PAU 3116 / PAU 3127	LS
5017	27075	RP 6268-GSR IR 1-12-S8-Y1-	Huang-Hua-Zhan*2 / CDR 22	LS

Entry No.	IET No.	Designation	Cross combination	Grain type
		S1		
5018	27076	RP 6189-HHZ 17-Y16-Y3-SAL1	Huang-Hua-Zhan*2 / CDR 22	LS
5019	25976	CSR 2748-197	CSR 27 / MI 48	LS
5020	CSR 23 (Inland Saline Check)			
5021	27077	RNR 11718	MTU 1010 / NLR 34449	SB
5022	27078	RP 6184-GSR IR 1-5-D7-Y3-S1	Huang-Hua-Zhan*2 / OM 1723	LB
5023	25983	CSR 2711-17	CSR 27 / CSR 11	MS
5024	27079	CSR RIL-01-IR 165	IR 4630 / CSR 11	SB
5025	27080	RP 6277-GSR IR1-15-D7-S4-S1	Huang-Hua-Zhan*2 / PSB RC 66	MS
5026	27081	PAU 5563-23-1-1	PR 12 // MR 219 / PAU 3429-7-5-2-4-1	MS
5027	27082	RP 6192-GSR IR1-5-S14-S2-Y2	Huang-Hua-Zhan*2 / OM 1723	LS
5028	27083	NDR 50055	Jaya / Narendra Usar Dhan-3	MS
5029	27084	RP 6176-HHZ 14-SAL10-DT1-DT1	Huang-Hua-Zhan*2 / R 644	LB
5030	27085	CSR 16-18-12	IR10 R 548 / IR 55174	MS
5031	Jaya (Yield Check)			
5032	27086	RP 6223-GSR IR 1-5-S8-D2-S1	Huang-Hua-Zhan*2 / OM 1723	LB
5033	27087	IIRRH-118 (Hybrid)	-	MS
5034	27088	CSR-2748-4441-193	CSR 27 / MI 48	LB
5035	27089	RP 6187-HHZ12-DT10-SAL1-DT1	Huang-Hua-Zhan*2 / TE QING	LS
5036	BPT 5204 (Sensitive Check)			
5037	27090	IIRRH-120 (Hybrid)	-	MS
5038	27091	RP 6188-GSR IR1-8-S6-S3-S1	Huang-Hua-Zhan*2 / Phalguna	MS
5039	CSR 36 (Alkaline Check)			
5040	27092	RP 6266-GSR IR1-12-S2-Y3-Y2	Huang-Hua-Zhan*2 / TE QING	MS
5041	27093	RP 6265-GSR IR 1-5-S12-D3-Y2	Huang-Hua-Zhan*2 / OM 1723	MS
5042	Local Check			
5043	CSR 10 (Early duration saline check)			
5044	27094	RP 5989-2-4-8-15-139-62-6-9	Akshyadhan / FB R1-15	LB

Table No. 11.8 : Grain Yield (Kg/ha) of entries in IVT -AL & ISTVT Moderate Alkalinity Kharif 2017

Entry No.	IET No.	II				Zone II	III			
		HAR		U.P.			U.P.		U.P. (1)	
		'@KRL-SODIC		@KNP-BJA	Mean		GBN	@ LCK	Mean	
5001	27062	1916		2662	4 *	2386		296		2386
5002	27063	558		2312	8 *	1629				1629
5003	27064	3982	2 *	970		3512	5	500		3512
5004	25978	3250		1758	*	2838				2838
5005	27065	3356		3072	1 *	2719				2719
5006	27066	3056		494		2993		1775	7	2993
5007	27067	3269		1567		2782				2782
5008	27068	1289		807		2840				2840
5009	27069	3433	9	1112		2834		750		2834
5010	27070	3763	4	1856	*	3488	6	458		3488
5011	27071	1378		1789	*	2531				2531
5012	25986	2893		1502		2641		375		2641
5013	27072	3033		2487	5 *	2306		1325		2306
5014	FL 478 (Saline check)	1544		183		1655				1655
5015	27073	3120		1813	*	2410		608		2410
5016	27074	3093		340		2866		1658	9	2866
5017	27075	3416		519		3089		367		3089
5018	27076	3448	8	536		2206		2442	1 *	2206
5019	25976	3990	1 *	607		3311	7	1233		3311
5020	CSR 23 (Inland Saline Check)	3179		1703		2950		483		2950
5021	27077	3009		1677		2507				2507
5022	27078	3283		948		3278	8	508		3278
5023	25983	3863	3	912		3627	4			3627
5024	27079	3763	5	1140		3680	3	442		3680
5025	27080	2656		2900	3 *	2710		2158	3 *	2710
5026	27081	3267		569		3200		1208		3200
5027	27082	2538		1362		3173		2317	2 *	3173
5028	27083	3413		1538		3220		992		3220
5029	27084	3308		2380	7 *	3080		1542		3080
5030	27085	3167		1969	*	3142		675		3142
5031	Jaya (Yield Check)	1278		1888	*	980		1675	8	980
5032	27086	2618		2008	*	3249	9	2008	4 *	3249
5033	27087	1722		2979	2 *	1420		1550		1420
5034	27088	3740	6	2403	6 *	3736	2	767		3736
5035	27089	3033		956		2145				2145
5036	BPT 5204 (Sensitive Check)	2119		1112		2458				2458
5037	27090	2322		625		2850		2000	5	2850
5038	27091	3189		2012	*	3048		1308		3048
5039	CSR 36 (Alkaline Check)	3056		620		3070		738		3070
5040	27092	3400		2281	9 *	2993		942		2993
5041	27093	3322		1906	*	3080		1108		3080
5042	Local Check	3267		279		3183		1783	6	3183
5043	CSR 10 (Early check)	3236		844		3064		950		3064
5044	27094	3727	7	1083		3969	1	1383		3969
	Exp Mean	2938		1465		2837		1161		2837
	C.D. 5%	611		243		877		219		877
	C.V.%	14.87		11.87		22.09		13.43		22
	Sowing Date							6-23-17		
	Planting Date							7-25-17		
	Local @							CSR 36		
	* Superior to Best Check % Superior over Best Check @ not included in means									
	BC-% over best check; EBC-% over early best check; LBC- % over late best check									

Table No. 11.8 contd : Grain Yield (Kg/ha) of entries in IVT -AL & ISTVT Moderate Alkalinity Kharif 2017

Entry No.	IET No.	Zone III (1) Mean			Overall (1) Mean		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
			EBC-CSR10	LBC-LC					
5001	27062	2386			2386		97	82	169
5002	27063	1629			1629		83	88	225
5003	27064	3512	15		3512		95	97	162
5004	25978	2838			2838		87	100	187
5005	27065	2719			2719		103	87	205
5006	27066	2993			2993		97	87	140
5007	27067	2782			2782		88	88	184
5008	27068	2840			2840		89	89	166
5009	27069	2834			2834		91	89	160
5010	27070	3488			3488		89	85	179
5011	27071	2531			2531		109	83	231
5012	25986	2641			2641		101	86	166
5013	27072	2306			2306		90	87	220
5014	FL 478 (Saline check)	1655			1655		90	82	197
5015	27073	2410			2410		89	93	174
5016	27074	2866			2866		111	89	160
5017	27075	3089			3089		95	87	124
5018	27076	2206			2206		91	91	181
5019	25976	3311			3311		95	98	198
5020	CSR 23 (Inland Saline Check)	2950			2950		95	93	180
5021	27077	2507			2507		115	95	223
5022	27078	3278			3278		89	88	139
5023	25983	3627	18		3627		94	107	194
5024	27079	3680	20		3680		94	104	186
5025	27080	2710			2710		89	89	153
5026	27081	3200			3200		107	92	176
5027	27082	3173			3173		95	86	182
5028	27083	3220			3220		89	89	195
5029	27084	3080			3080		86	92	203
5030	27085	3142			3142		96	93	201
5031	Jaya (Yield Check)	980			980		101	89	194
5032	27086	3249			3249		96	97	159
5033	27087	1420			1420		98	106	196
5034	27088	3736	22		3736		86	84	203
5035	27089	2145			2145		86	83	144
5036	BPT 5204 (Sensitive Check)	2458			2458		109	84	192
5037	27090	2850			2850		93	111	155
5038	27091	3048			3048		89	95	151
5039	CSR 36 (Alkaline Check)	3070			3070		107	99	170
5040	27092	2993			2993		92	89	172
5041	27093	3080			3080		88	87	167
5042	Local Check	3183			3183		101	91	212
5043	CSR 10 (Early check)	3064			3064		92	73	178
5044	27094	3969	30		3969		95	102	179
	Exp Mean	2837			2837		95	91	179
	C.D. 5%	877			877				
	C.V.%	22			22				
	Sowing Date								
	Planting Date								
	Local ©								

Table No. 11.8 contd : Grain Yield (kg/ha) of entries in IVT -AL & ISTVT Moderate Inland Salinity Kharif 2017

Entry No.	IET No.	II NO		Overall ()		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		HAR						
		@KRL-SALINE		Mean				
5001	27062	1804		1804		93	80	53
5002	27063	344		344		70	81	98
5003	27064	3150	5	3150	5	89	90	88
5004	25978	2289		2289		86	74	70
5005	27065	2689	8	2689	8	105	60	55
5006	27066	2433		2433		90	80	65
5007	27067	844		844		89	79	78
5008	27068	2567		2567		90	31	98
5009	27069	2589		2589		87	79	83
5010	27070	3233	4	3233	4	99	78	93
5011	27071	1891		1891		98	62	63
5012	25986	2278		2278		86	61	103
5013	27072	2263		2263		86	71	95
5014	FL 478 (Saline check)	978		978		88	70	78
5015	27073	2262		2262		87	81	58
5016	27074	2333		2333		87	45	83
5017	27075	2259		2259		89	78	65
5018	27076	2041		2041		92	78	93
5019	25976	3144	6	3144	6	90	75	115
5020	CSR 23 (Inland Saline Check)	2411		2411		90	95	88
5021	27077	2044		2044		103	85	70
5022	27078	278		278		90	75	60
5023	25983	3322	1	3322	1	92	92	63
5024	27079	3244	3	3244	3	100	98	95
5025	27080	2267		2267		87	80	65
5026	27081	2556		2556		117	75	80
5027	27082	2381		2381		89	82	68
5028	27083	2261		2261		88	89	50
5029	27084	2367		2367		84	72	65
5030	27085	2559		2559		95	91	80
5031	Jaya (Yield Check)	456		456		98	83	65
5032	27086	2458		2458		90	87	63
5033	27087	1145		1145		94	93	78
5034	27088	3256	2	3256	2	88	76	88
5035	27089	2266		2266		85	72	53
5036	BPT 5204 (Sensitive Check)	1289		1289		110	49	45
5037	27090	1101		1101		93	87	73
5038	27091	2661		2661		92	92	60
5039	CSR 36 (Alkaline Check)	2481		2481		92	93	85
5040	27092	2667	9	2667	9	84	80	78
5041	27093	2582		2582		86	88	83
5042	Local Check	2644		2644		91	82	68
5043	CSR 10 (Early check)	2611		2611		92	69	115
5044	27094	3144	7	3144	7	103	88	73
	Exp Mean	2224		2224		91	78	76
	C.D. 5%	525		525				20
	C.V.%	16.87		16.87				19.11
	Sowing Date							
	Planting Date							
	Local ©							
	* Superior to Best Check % Superior over Best Check							
	BC-% over best check; EBC-% over early best check; LBC- % over late best check							

Table No. 11.8 contd : Grain Yield (Kg/ha) of entries in IVT -AL & ISTVT Normal Kharif 2017

Entry No.	IET No.	II		III		VII		Zone VII(1) Mean		Overall (3)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²			
		PUN		U.P.		TN	KA										
		KPT		MSD		@AML@	GNV	Mean	BC								
5001	27062	6350	6	2750		4898	3384		3384		4161		104	91	342		
5002	27063	2639		2400		5070	4757		4757		3265		90	87	313		
5003	27064	6310	7	2500		5180	6	4396		4396		4402		103	105	357	
5004	25978	5595		2325		5503	1 *	4560		4560		4160		96	103	340	
5005	27065	5064		1825		4257		6600	7 *	6600	7 *	4496		111	97	323	
5006	27066	6949	2 *	2375		4565		4369		4369		4565		104	92	333	
5007	27067	5077		2575		4037		4461		4461		4038		98	92	311	
5008	27068					4173		6846	3 *	6846	3 *	6846		26	117	112	374
5009	27069	5863		2350		5250	4	4520		4520		4244		99	102	405	
5010	27070	5461		3375	1	4788		4034		4034		4290		92	86	348	
5011	27071	5577		2775		4027		4951		4951		4434		102	105	327	
5012	25986	6011		650		4203		4116		4116		3593		100	97	303	
5013	27072	4243		2400		3927		4074		4074		3572		98	89	333	
5014	FL 478 (Saline check)	4178		2825	9	3848		2530		2530		3178		101	85	310	
5015	27073	5328		3250	3	3742		3226		3226		3935		96	92	282	
5016	27074	7173	1 *	2350		4455		4691		4691		4738		107	95	295	
5017	27075	5922		625		4535		4120		4120		3555		96	100	307	
5018	27076	6296	9	2650		4068		5000		5000		4649		96	93	287	
5019	25976	4507		2425		3830		6689	5 *	6689	5 *	4540		101	96	307	
5020	CSR 23 (Inland Saline Check)	6386	4	3125	5	4677		6827	4 *	6827	4 *	5446		99	118	371	
5021	27077	4729		2100		4880		6873	2 *	6873	2 *	4567		107	91	325	
5022	27078	5260		2200		5130	8	3279		3279		3579		93	96	322	
5023	25983	5359		3300	2	5473	2 *	2352		2352		3671		93	130	377	
5024	27079	5041		3250	4	4180		1876		1876		3389		99	100	303	
5025	27080	5325		2400		4478		2543		2543		3423		95	89	331	
5026	27081	5944		2200		3908		4113		4113		4086		110	92	295	
5027	27082	5268		2725		5033		4796		4796		4263		96	92	311	
5028	27083	5441		2350		5220	5	5053		5053		4281		96	93	313	
5029	27084	6361	5	2425		5422	3 *	5214		5214		4667		94	96	327	
5030	27085	6569	3	2575		5100	9	6886	1 *	6886	1 *	5343		99	114	359	
5031	Jaya (Yield Check)	5887		2850	7	4035		4957		4957		4565		109	87	308	
5032	27086	5750		3025	6	3917		2497		2497		3757		104	90	307	
5033	27087	6309	8	2250		4298		5854	8 *	5854	8 *	4804		101	115	275	
5034	27088	4201		2025		4580		3962		3962		3396		93	89	320	
5035	27089	5521		2175		4247		3896		3896		3864		98	88	291	
5036	BPT 5204 (Sensitive Check)	4925		2475		3890		4573		4573		3991		113	79	320	
5037	27090	5928		2575		4337		6675	6 *	6675	6 *	5060		101	111	282	
5038	27091	5601		113		5068		3712		3712		3142		99	95	328	
5039	CSR 36 (Alkaline Check)	6157		2575		3733		4044		4044		4259		103	103	287	
5040	27092	6105		775		3905		5427	9 *	5427	9 *	4102		97	99	298	
5041	27093	6173		2850	8	3735		3671		3671		4232		98	94	312	
5042	Local Check	5735		2325		4832		4993		4993		4351		104	93	324	
5043	CSR 10 (Early check)	5526		1275		5133	7	2786		2786		3196		93	82	342	
5044	27094	6188		2425		4377		4553		4553		4389		109	114	306	
	Exp Mean	5587		2344		4499		4517		4517		4149		100	97	320	
	C.D. 5%	560		376		148		337		337		424		2	0	39	
	C.V.%	7.16		11.48		2.36		5.33		5.33		8		1.11	0.00	9.74	
	Sowing Date			27-06-2017		06-06-2017											
	Planting Date			01-08-2017		29-06-2017											
	Local ©			Narendra Usar Dhan 2009		Try-2											
	* Superior to Best Check			% Superior over Best Check		@ not included in means											

Table No. 11.8 contd: Grain yield (kg/ha) of entries in IVT -AL & ISTVT Slight Alkalinity Kharif 2017

Entry No.	IET No.	II			VII			Overall (2)			Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		U.P.			PUD								
		KNP-NWB	EBC-CSR36	LBC-LC	KRK	EBC-LC	LBC-CSR36	Mean	EBC-CSR10	LBC-CSR36			
5001	27062	3919			3222			3571			88	91	381
5002	27063	1847			2767			2307			86	97	336
5003	27064	3508			3722	4 *	23	3615			93	117	317
5004	25978	2118			3000			2559			92	112	297
5005	27065	3622			2278			2950			101	97	375
5006	27066	1754			2578			2166			90	90	325
5007	27067	3795			2622			3208			84	100	328
5008	27068				1922			1922			90	101	393
5009	27069	3065			2644			2855			92	94	321
5010	27070	3045			4667	3 *	54	3856			82	84	310
5011	27071	2071			3556	6 *	18	2813			97	90	328
5012	25986	3933			2533			3233			98	97	296
5013	27072	2329			4722	2 *	56	3525			92	102	351
5014	FL 478 (Saline check)	2162			3033			2597			86	86	348
5015	27073	3703			1833			2768			87	99	334
5016	27074	4527	2		2989			3758			96	95	313
5017	27075	3382			2811			3097			89	92	296
5018	27076	3004			4833	1 *	60	3919		6	86	94	358
5019	25976	3849			2356			3102			88	100	370
5020	CSR 23 (Inland Saline Check)	4372	6		2756			3564			96	115	324
5021	27077	4108			3722	5 *	23	3915		6	103	101	315
5022	27078	4295	8		2267			3281			83	90	346
5023	25983	3807			3356	9 *		3581			83	104	352
5024	27079	4218			3478	8 *	15	3848			86	108	340
5025	27080	3279			3044			3162			88	83	329
5026	27081	4501	3		2600			3551			94	100	390
5027	27082	4295	9		1711			3003			90	86	312
5028	27083	3289			2822			3055			90	99	318
5029	27084	3737			3278			3507			82	98	348
5030	27085	4424	5		2867			3645			94	102	306
5031	Jaya (Yield Check)	3082			3100			3091			87	94	333
5032	27086	2202			1579			1890			87	100	337
5033	27087	4324	7		2878			3601			89	111	363
5034	27088	2323			2822			2572			90	82	332
5035	27089	1572			1611			1591			90	88	317
5036	BPT 5204 (Sensitive Check)	1522			2244			1883			104	88	329
5037	27090	4717	1		1933			3325			91	119	377
5038	27091	4079			2489			3284			81	101	357
5039	CSR 36 (Alkaline Check)	4501	4		2911			3706			94	108	382
5040	27092	3716			2422			3069			84	94	326
5041	27093	1325			2656			1990			89	85	330
5042	Local Check	3959			3022			3491			96	96	386
5043	CSR 10 (Early check)	1682			1889			1785			82	77	321
5044	27094	3218			3500	7 *	16	3359			99	116	344
	Exp Mean	3306			2842			3074			90	97	337
	C.D. 5%	426			325			376			1	0	21
	C.V.%	9.22			8.18			9			1.19	0.00	4.72
	Sowing Date												
	Planting Date												
	Local ©												
* Superior to Best Check % Superior over Best Check													
BC-% over best check; EBC-% over early best check; LBC- % over late best check													

Table No. 11.8 contd : Grain Yield (Kg/ha) of entries in IVT -AL & ISTVT Slight Salinity Kharif 2017

Entry No.	IET No.	VII SH		Overall (1) Mean	EBC- LC	LBC- FL478	Days to 50% Flowerin	Plant Height (cm)	Panicles/ M²
		KA							
		BRM							
5001	27062	4087	4 *	4087	33		84	72	193
5002	27063	3968	5 *	3968			93	64	236
5003	27064	4211	1 *	4211	37		92	84	201
5004	25978	3194		3194			94	62	194
5005	27065	3167		3167			93	72	266
5006	27066	2915		2915			94	70	267
5007	27067	2046		2046			93	59	257
5008	27068	1466		1466			88	85	221
5009	27069	4174	3 *	4174	36		92	73	198
5010	27070	4177	2 *	4177	36		90	61	213
5011	27071	3645	*	3645	19		85	75	266
5012	25986	2599		2599			90	61	267
5013	27072	3267		3267			83	55	136
5014	FL 478 (Saline check)	3846	8 *	3846			94	61	187
5015	27073	2894		2894			90	70	167
5016	27074	646		646			90	75	160
5017	27075	3073		3073			91	78	206
5018	27076	3852	7 *	3852	26		91	70	228
5019	25976	844		844			88	67	207
5020	CSR 23 (Inland Saline Check)	930		930			88	73	276
5021	27077	1947		1947			90	79	328
5022	27078	686		686			95	75	268
5023	25983	2347		2347			94	103	247
5024	27079	2767		2767			96	77	273
5025	27080	1131		1131			95	72	312
5026	27081	1064		1064			93	66	303
5027	27082	3071		3071			94	78	259
5028	27083	859		859			91	79	276
5029	27084	2242		2242			90	53	287
5030	27085	2013		2013			94	73	305
5031	Jaya (Yield Check)	887		887			96	71	276
5032	27086	3062		3062			90	67	276
5033	27087	2040		2040			90	84	277
5034	27088	3792	9 *	3792			95	56	303
5035	27089	3050		3050			92	64	278
5036	BPT 5204 (Sensitive Check)	2758		2758			96	65	276
5037	27090	1605		1605			85	75	201
5038	27091	3594	*	3594	17		89	78	258
5039	CSR 36 (Alkaline Check)	2599		2599			91	70	285
5040	27092	946		946			91	66	297
5041	27093	3867	6 *	3867	26		91	69	282
5042	Local Check	3065		3065			86	69	267
5043	CSR 10 (Early check)	1313		1313			85	75	217
5044	27094	2055		2055			90	49	302
	Exp Mean	2540		2540			91	70	250
	C.D. 5%	517		517			6		
	C.V. %	14.54		14.54			4.77		
	Sowing Date	04-07-2017							
	Planting Date	08-08-2017							
	Local ©	MO 4							
	* Superior to Best Check % Superior over Best Check								
	BC-% over best check; EBC-% over early best check; LBC- % over late best check								

Table No. 11.9 : Days to 50% Flowering of entries in IVT -AL & ISTVT Moderate Alkalinity Kharif 2017

Entry No.	IET No.	II		Zone II (2) Mean	III		U.P. (3) Mean	Zone III (2) Mean	Overall (4) Mean
		HAR	U.P.		U.P.	U.P.			
		KRL-SODIC	KNP-BJA		GBN	LCK			
5001	27062	103	97	100	93	96	95	94	97
5002	27063	80	81	80	88		84	88	83
5003	27064	94	102	98	89	95	95	92	95
5004	25978	88	88	88	86		87	86	87
5005	27065	101	108	105	100		104	100	103
5006	27066	96	99	98	96	96	97	96	97
5007	27067	88	87	88	89		88	89	88
5008	27068	88		88	91		91	91	89
5009	27069	92	92	92	88	91	90	89	91
5010	27070	90	87	89	88	91	89	89	89
5011	27071	119	122	121	86		104	86	109
5012	25986	99	105	102	99	102	102	100	101
5013	27072	89	95	92	88	91	91	89	90
5014	FL 478 (Saline check)	88	94	91	88		91	88	90
5015	27073	89	93	91	84	89	89	86	89
5016	27074	114	130	122	108	91	109	99	111
5017	27075	99	92	95	94	96	94	95	95
5018	27076	91	93	92	92	91	92	91	91
5019	25976	90	94	92	92	104	97	98	95
5020	CSR 23 (Inland Saline Check)	91	96	94	91	100	96	96	95
5021	27077	111	119	115	114		116	114	115
5022	27078	89	89	89	87	91	89	89	89
5023	25983	94	95	94	93		94	93	94
5024	27079	97	91	94	93	97	93	95	94
5025	27080	92	87	89	88	88	88	88	89
5026	27081	106	118	112	107	98	108	102	107
5027	27082	99	94	97	93	94	93	93	95
5028	27083	86	91	88	88	94	91	91	89
5029	27084	83	88	85	84	88	87	86	86
5030	27085	97	96	96	94	98	96	96	96
5031	Jaya (Yield Check)	102	96	99	102	105	101	103	101
5032	27086	88	99	94	93	103	99	98	96
5033	27087	97	102	100	92	100	98	96	98
5034	27088	91	81	86	84	90	85	87	86
5035	27089	88	85	87	84		85	84	86
5036	BPT 5204 (Sensitive Check)	91	124	108	111		117	111	109
5037	27090	91	90	91	93	98	93	95	93
5038	27091	91	90	91	85	90	88	87	89
5039	CSR 36 (Alkaline Check)	100	123	112	101	104	109	102	107
5040	27092	89	103	96	85	90	93	87	92
5041	27093	86	89	87	84	93	89	88	88
5042	Local Check	102	94	98	106	103	101	104	101
5043	CSR 10 (Early check)	92	91	91	90	96	92	93	92
5044	27094	95	93	94	93	99	95	96	95
	Exp Mean	94	97	96	92	95	95	94	95
	C.D. 5%	1	2	2	2	5	3	3	3
	C.V.%	1.03	1.48	1	1.64	3.52	2	3	2

Table No. 11.9 contd contd: Days to 50% Flowering of entries in IVT -AL & ISTVT Moderate Inland Salinity Kharif 2017

Entry No.	IET No.	II	Overall (1)
		HAR	
		KRL-SALINE	Mean
5001	27062	93	93
5002	27063	70	70
5003	27064	89	89
5004	25978	86	86
5005	27065	105	105
5006	27066	90	90
5007	27067	89	89
5008	27068	90	90
5009	27069	87	87
5010	27070	99	99
5011	27071	98	98
5012	25986	86	86
5013	27072	86	86
5014	FL 478 (Saline check)	88	88
5015	27073	87	87
5016	27074	87	87
5017	27075	89	89
5018	27076	92	92
5019	25976	90	90
5020	CSR 23 (Inland Saline Check)	90	90
5021	27077	103	103
5022	27078	90	90
5023	25983	92	92
5024	27079	100	100
5025	27080	87	87
5026	27081	117	117
5027	27082	89	89
5028	27083	88	88
5029	27084	84	84
5030	27085	95	95
5031	Jaya (Yield Check)	98	98
5032	27086	90	90
5033	27087	94	94
5034	27088	88	88
5035	27089	85	85
5036	BPT 5204 (Sensitive Check)	110	110
5037	27090	93	93
5038	27091	92	92
5039	CSR 36 (Alkaline Check)	92	92
5040	27092	84	84
5041	27093	86	86
5042	Local Check	91	91
5043	CSR 10 (Early check)	92	92

Table No. 11.10 : Plant Height (cm) of entries in IVT -AL & ISTVT Moderate Inland Salinity Kharif 2017

Entry No.	IET No.	II	Overall (1)
		HAR	
		KRL-SALINE	Mean
5001	27062	80	80
5002	27063	81	81
5003	27064	90	90
5004	25978	74	74
5005	27065	60	60
5006	27066	80	80
5007	27067	79	79
5008	27068	31	31
5009	27069	79	79
5010	27070	78	78
5011	27071	62	62
5012	25986	61	61
5013	27072	71	71
5014	FL 478 (Saline check)	70	70
5015	27073	81	81
5016	27074	45	45
5017	27075	78	78
5018	27076	78	78
5019	25976	75	75
5020	CSR 23 (Inland Saline Check)	95	95
5021	27077	85	85
5022	27078	75	75
5023	25983	92	92
5024	27079	98	98
5025	27080	80	80
5026	27081	75	75
5027	27082	82	82
5028	27083	89	89
5029	27084	72	72
5030	27085	91	91
5031	Jaya (Yield Check)	83	83
5032	27086	87	87
5033	27087	93	93
5034	27088	76	76
5035	27089	72	72
5036	BPT 5204 (Sensitive Check)	49	49
5037	27090	87	87
5038	27091	92	92
5039	CSR 36 (Alkaline Check)	93	93
5040	27092	80	80
5041	27093	88	88
5042	Local Check	82	82
5043	CSR 10 (Early check)	69	69
5044	27094	88	88
	Exp Mean	78	78
	C.D. 5%		
	C.V.%		

Table No. 11.9 contd: Days to 50% Flowering of entries in IVT -AL & ISTVT Normal Kharif 2017

Entry No.	IET No.	II	III	VII		Overall (4)
		PUN	U.P.	TN	KA	
		KPT	MSD	AML@	GNV	Mean
5001	27062	97	100	106	114	104
5002	27063	83	85	88	103	90
5003	27064	96	93	109	116	103
5004	25978	96	89	94	103	96
5005	27065	108	111	107	120	111
5006	27066	98	105	97	116	104
5007	27067	99	89	92	113	98
5008	27068			108	126	117
5009	27069	94	94	93	116	99
5010	27070	92	90	83	103	92
5011	27071	99	105	98	108	102
5012	25986	104	93	98	105	100
5013	27072	93	91	92	115	98
5014	FL 478 (Saline check)	109	91	100	103	101
5015	27073	90	91	102	103	96
5016	27074	97	100	105	126	107
5017	27075	95	88	97	104	96
5018	27076	95	91	94	103	96
5019	25976	99	95	106	103	101
5020	CSR 23 (Inland Saline Check)	96	95	89	116	99
5021	27077	108	107	91	123	107
5022	27078	96	85	88	103	93
5023	25983	99	87	83	103	93
5024	27079	97	90	103	104	99
5025	27080	94	95	86	106	95
5026	27081	105	100	109	124	110
5027	27082	96	91	95	103	96
5028	27083	96	95	89	103	96
5029	27084	96	89	87	104	94
5030	27085	99	89	103	106	99
5031	Jaya (Yield Check)	100	107	112	117	109
5032	27086	100	93	110	113	104
5033	27087	107	95	95	105	101
5034	27088	98	85	87	103	93
5035	27089	93	97	98	104	98
5036	BPT 5204 (Sensitive Check)	109	110	106	128	113
5037	27090	98	95	94	115	101
5038	27091	95	91	91	118	99
5039	CSR 36 (Alkaline Check)	104	90	103	115	103
5040	27092	96	90	96	105	97
5041	27093	97	91	95	107	98
5042	Local Check	106	90	114	106	104
5043	CSR 10 (Early check)	99	85	83	103	93
5044	27094	101	111	110	114	109
	Exp Mean	98	94	97	110	100
	C.D. 5%	1	0	4	2	2
	C.V.%	0.39	0	3.05	0.99	1

Table No. 11.9 contd: Days to 50% Flowering of entries in IVT -AL & ISTVT Slight Alkalinity Kharif 2017

Entry No.	IET No.	II	VII	Overall (2)
		U.P.	PUD	
		KNP-NWB	KRK	Mean
5001	27062	88	88	88
5002	27063	81	91	86
5003	27064	95	90	93
5004	25978	97	87	92
5005	27065	107	94	101
5006	27066	91	89	90
5007	27067	80	88	84
5008	27068		90	90
5009	27069	98	87	92
5010	27070	86	78	82
5011	27071	116	78	97
5012	25986	108	88	98
5013	27072	100	84	92
5014	FL 478 (Saline check)	93	80	86
5015	27073	91	82	87
5016	27074	96	95	96
5017	27075	91	88	89
5018	27076	90	82	86
5019	25976	93	82	88
5020	CSR 23 (Inland Saline Check)	100	92	96
5021	27077	114	91	103
5022	27078	95	70	83
5023	25983	96	69	83
5024	27079	86	86	86
5025	27080	92	84	88
5026	27081	93	95	94
5027	27082	92	88	90
5028	27083	90	90	90
5029	27084	80	84	82
5030	27085	103	86	94
5031	Jaya (Yield Check)	89	84	87
5032	27086	91	84	87
5033	27087	98	80	89
5034	27088	99	80	90
5035	27089	93	86	90
5036	BPT 5204 (Sensitive Check)	111	97	104
5037	27090	97	85	91
5038	27091	79	83	81
5039	CSR 36 (Alkaline Check)	94	95	94
5040	27092	88	79	84
5041	27093	95	84	89
5042	Local Check	102	89	96
5043	CSR 10 (Early check)	101	63	82
5044	27094	106	93	99
	Exp Mean	95	85	90
	C.D. 5%	1	2	1
	C.V.%	0.87	1.50	1

Table No. 11.10 contd: Plant Height (cm) of entries in IVT -AL & ISTVT Slight Alkalinity Kharif 2017

Entry No.	IET No.	II	VII	Overall (2)
		U.P.	PUD	
		KNP-NWB	KRK	Mean
5001	27062	87	94	91
5002	27063	90	103	97
5003	27064	111	123	117
5004	25978	100	123	112
5005	27065	91	104	97
5006	27066	80	100	90
5007	27067	94	105	100
5008	27068		101	101
5009	27069	88	101	94
5010	27070	74	93	84
5011	27071	86	94	90
5012	25986	90	104	97
5013	27072	95	108	102
5014	FL 478 (Saline check)	73	100	86
5015	27073	91	107	99
5016	27074	86	105	95
5017	27075	84	101	92
5018	27076	84	104	94
5019	25976	91	109	100
5020	CSR 23 (Inland Saline Check)	107	123	115
5021	27077	101	100	101
5022	27078	85	95	90
5023	25983	98	110	104
5024	27079	98	117	108
5025	27080	64	102	83
5026	27081	97	103	100
5027	27082	72	100	86
5028	27083	93	105	99
5029	27084	92	104	98
5030	27085	100	103	102
5031	Jaya (Yield Check)	83	104	94
5032	27086	95	106	100
5033	27087	105	116	111
5034	27088	71	93	82
5035	27089	83	94	88
5036	BPT 5204 (Sensitive Check)	80	97	88
5037	27090	120	119	119
5038	27091	96	106	101
5039	CSR 36 (Alkaline Check)	93	122	108
5040	27092	80	108	94
5041	27093	71	99	85
5042	Local Check	89	104	96
5043	CSR 10 (Early check)	68	87	77
5044	27094	119	113	116
	Exp Mean	90	105	97
	C.D. 5%	0	0	0
	C.V.%	0.00	0.00	0

Table No. 11.9 contd: Days to 50% Flowering of entries in IVT -AL & ISTVT Slight Salinity Kharif 2017

Entry No.	IET No.	VII SH
		KA
		BRM
5001	27062	84
5002	27063	93
5003	27064	92
5004	25978	94
5005	27065	93
5006	27066	94
5007	27067	93
5008	27068	88
5009	27069	92
5010	27070	90
5011	27071	85
5012	25986	90
5013	27072	83
5014	FL 478 (Saline check)	94
5015	27073	90
5016	27074	90
5017	27075	91
5018	27076	91
5019	25976	88
5020	CSR 23 (Inland Saline Check)	88
5021	27077	90
5022	27078	95
5023	25983	94
5024	27079	96
5025	27080	95
5026	27081	93
5027	27082	94
5028	27083	91
5029	27084	90
5030	27085	94
5031	Jaya (Yield Check)	96
5032	27086	90
5033	27087	90
5034	27088	95
5035	27089	92
5036	BPT 5204 (Sensitive Check)	96
5037	27090	85
5038	27091	89
5039	CSR 36 (Alkaline Check)	91
5040	27092	91
5041	27093	91
5042	Local Check	86
5043	CSR 10 (Early check)	85
5044	27094	90
	Exp Mean	91
	C.D. 5%	6
	C.V.%	4.77

Table No. 11.10 contd: Plant Height (cm) of entries in IVT -AL & ISTVT Slight salinity Kharif 2017

Entry No.	IET No.	VII SH
		KA
		BRM
5001	27062	72
5002	27063	64
5003	27064	84
5004	25978	62
5005	27065	72
5006	27066	70
5007	27067	59
5008	27068	85
5009	27069	73
5010	27070	61
5011	27071	75
5012	25986	61
5013	27072	55
5014	FL 478 (Saline check)	61
5015	27073	70
5016	27074	75
5017	27075	78
5018	27076	70
5019	25976	67
5020	CSR 23 (Inland Saline Check)	73
5021	27077	79
5022	27078	75
5023	25983	103
5024	27079	77
5025	27080	72
5026	27081	66
5027	27082	78
5028	27083	79
5029	27084	53
5030	27085	73
5031	Jaya (Yield Check)	71
5032	27086	67
5033	27087	84
5034	27088	56
5035	27089	64
5036	BPT 5204 (Sensitive Check)	65
5037	27090	75
5038	27091	78
5039	CSR 36 (Alkaline Check)	70
5040	27092	66
5041	27093	69
5042	Local Check	69
5043	CSR 10 (Early check)	75
5044	27094	49
	Exp Mean	70

Table No. 11.10 contd: Plant Height (cm) of entries in IVT -AL & ISTVT Moderate Alkalinity Kharif 2017

Entry No.	IET No.	II		Zone II (2)	III			Zone III (2)	Overall (4)
		HAR	U.P.		U.P.	U.P.	U.P. (3)		
		KRL-SODIC	KNP-BJA	Mean	GBN	LCK	Mean	Mean	Mean
5001	27062	91	84	88	93	60	79	77	82
5002	27063	96	88	92	82		85	82	88
5003	27064	113	109	111	98	70	92	84	97
5004	25978	106	98	102	97		98	97	100
5005	27065	88	94	91	90	77	87	83	87
5006	27066	96	86	91	86	79	84	82	87
5007	27067	98	93	95	91	70	85	81	88
5008	27068	90	87	89	90		89	90	89
5009	27069	103	86	94	94	72	84	83	89
5010	27070	99	76	87	84	80	80	82	85
5011	27071	96	84	90	82	69	78	76	83
5012	25986	89	88	88	81	86	85	84	86
5013	27072	99	91	95	87	71	83	79	87
5014	FL 478 (Saline check)	89	71	80	87		79	87	82
5015	27073	95	93	94	95	88	92	92	93
5016	27074	101	85	93	91	80	85	85	89
5017	27075	105	81	93	91	74	82	82	87
5018	27076	99	81	90	92	91	88	91	91
5019	25976	113	86	99	102	92	93	97	98
5020	CSR 23 (Inland Saline Check)	111	102	107	99	58	87	79	93
5021	27077	101	98	100	87		92	87	95
5022	27078	100	83	92	87	80	84	84	88
5023	25983	132	95	114	115	85	98	100	107
5024	27079	134	94	114	117	70	94	94	104
5025	27080	106	68	87	92	92	84	92	89
5026	27081	103	98	101	85	80	88	83	92
5027	27082	96	76	86	89	84	83	86	86
5028	27083	92	91	91	95	80	89	88	89
5029	27084	107	90	98	82	89	87	86	92
5030	27085	104	88	96	97	85	90	91	93
5031	Jaya (Yield Check)	99	81	90	93	82	85	88	89
5032	27086	104	100	102	97	89	95	93	97
5033	27087	119	105	112	104	95	101	100	106
5034	27088	98	74	86	87	79	80	83	84
5035	27089	88	81	84	81		81	81	83
5036	BPT 5204 (Sensitive Check)	92	84	88	77		80	77	84
5037	27090	118	115	116	100	113	109	106	111
5038	27091	103	94	98	95	90	93	92	95
5039	CSR 36 (Alkaline Check)	112	90	101	101	93	95	97	99
5040	27092	103	76	90	93	84	84	88	89
5041	27093	95	74	84	94	85	84	89	87
5042	Local Check	100	89	95	92	84	88	88	91
5043	CSR 10 (Early check)	81	66	73	69	74	70	72	73
5044	27094	98	110	104	112	88	103	100	102
	Exp Mean	101	88	95	92	82	88	87	91
	C.D. 5%	0			0	0			
	C.V.%	0.00			0.00	0.00			

Table No. 11.10 contd: Plant Height (cm) of entries in IVT -AL & ISTVT Normal Kharif 2017

Entry No.	IET No.	II	III	VII		Overall (4)
		PUN	U.P.	TN	KA	
		KPT	MSD	AML@	GNV	Mean
5001	27062	93	86	117	68	91
5002	27063	90	87	105	65	87
5003	27064	110	109	94	109	105
5004	25978	100	99	131	82	103
5005	27065	96	106	101	85	97
5006	27066	96	82	123	66	92
5007	27067	97	81	101	89	92
5008	27068			145	79	112
5009	27069	102	99	132	76	102
5010	27070	93	80	103	69	86
5011	27071	104	122	109	84	105
5012	25986	94	88	131	74	97
5013	27072	94	87	95	79	89
5014	FL 478 (Saline check)	88	81	109	64	85
5015	27073	100	67	121	80	92
5016	27074	102	86	113	79	95
5017	27075	102	89	129	79	100
5018	27076	98	99	96	80	93
5019	25976	97	104	108	75	96
5020	CSR 23 (Inland Saline Check)	115	109	142	103	118
5021	27077	102	85	98	78	91
5022	27078	92	86	138	69	96
5023	25983	139	136	134	110	130
5024	27079	112	102	94	92	100
5025	27080	92	80	122	64	89
5026	27081	103	89	97	78	92
5027	27082	90	95	116	69	92
5028	27083	102	85	96	89	93
5029	27084	91	83	138	74	96
5030	27085	115	131	103	109	114
5031	Jaya (Yield Check)	94	90	96	69	87
5032	27086	98	96	100	65	90
5033	27087	120	112	126	103	115
5034	27088	90	64	136	67	89
5035	27089	85	81	118	67	88
5036	BPT 5204 (Sensitive Check)	77	75	98	64	79
5037	27090	108	111	123	103	111
5038	27091	99	82	118	80	95
5039	CSR 36 (Alkaline Check)	108	106	102	97	103
5040	27092	105	95	118	77	99
5041	27093	100	101	107	67	94
5042	Local Check	76	90	104	103	93
5043	CSR 10 (Early check)	79	61	133	53	82
5044	27094	119	131	95	110	114
	Exp Mean	99	94	114	80	97
	C.D. 5%		0		0	0
	C.V.%		0.00		0.00	0

Table No. 11.11 : Panicles/ M² of entries in IVT -AL & ISTVT Moderate Alkalinity Kharif 2017

Entry No.	IET No.	II		Zone II (2)	III			Zone III (2)	Overall (4)
		HAR	U.P.		U.P.	U.P.	U.P. (3)		
		KRL-SODIC	KNP-BJA	Mean	GBN	LCK	Mean	Mean	Mean
5001	27062	138	349	243	90	98	179	94	169
5002	27063	238	291	264	145		218	145	225
5003	27064	170	240	205	138	101	160	119	162
5004	25978	170	254	212	138		196	138	187
5005	27065	148	294	221	173		233	173	205
5006	27066	123	186	154	108	146	146	127	140
5007	27067	138	259	198	155		207	155	184
5008	27068	148	263	205	88		175	88	166
5009	27069	123	266	194	110	139	172	125	160
5010	27070	205	254	230	145	110	170	128	179
5011	27071	191	348	270	155		252	155	231
5012	25986	138	274	206	160	94	176	127	166
5013	27072	209	371	290	155	146	224	151	220
5014	FL 478 (Saline check)	165	260	213	165		213	165	197
5015	27073	148	321	234	115	113	183	114	174
5016	27074	191	220	206	80	147	149	114	160
5017	27075	130	178	154	105	83	122	94	124
5018	27076	206	237	222	120	160	172	140	181
5019	25976	240	237	238	160	153	183	157	198
5020	CSR 23 (Inland Saline Check)	153	316	234	135	117	190	126	180
5021	27077	228	282	255	160		221	160	223
5022	27078	123	212	167	120	102	145	111	139
5023	25983	209	206	208	168		187	168	194
5024	27079	226	183	204	205	129	172	167	186
5025	27080	121	209	165	125	157	164	141	153
5026	27081	203	180	191	183	138	167	160	176
5027	27082	148	296	222	123	162	194	142	182
5028	27083	188	268	228	190	135	198	162	195
5029	27084	213	296	254	155	148	200	151	203
5030	27085	256	254	255	160	133	182	146	201
5031	Jaya (Yield Check)	199	292	246	130	156	193	143	194
5032	27086	119	253	186	108	157	173	132	159
5033	27087	180	328	254	118	159	201	138	196
5034	27088	175	335	255	165	138	213	152	203
5035	27089	125	179	152	128		153	128	144
5036	BPT 5204 (Sensitive Check)	150	272	211	155		213	155	192
5037	27090	145	156	151	153	165	158	159	155
5038	27091	106	256	181	100	143	166	121	151
5039	CSR 36 (Alkaline Check)	203	176	189	163	139	159	151	170
5040	27092	128	285	206	138	138	187	138	172
5041	27093	144	268	206	113	145	175	129	167
5042	Local Check	383	170	276	128	166	155	147	212
5043	CSR 10 (Early check)	228	165	196	175	143	161	159	178
5044	27094	149	268	208	143	155	189	149	179
	Exp Mean	175	255	215	139	137	181	138	179
	C.D. 5%	14	20		26	12			
	C.V.%	5.77	5.70		13.29	6.10			

Table No. 11.11 contd: Panicles/ M² of entries in IVT -AL & ISTVT Moderate Inland Salinity Kharif 2017

Entry No.	IET No.	II	Overall (1)
		HAR	
		KRL-SALINE	Mean
5001	27062	53	53
5002	27063	98	98
5003	27064	88	88
5004	25978	70	70
5005	27065	55	55
5006	27066	65	65
5007	27067	78	78
5008	27068	98	98
5009	27069	83	83
5010	27070	93	93
5011	27071	63	63
5012	25986	103	103
5013	27072	95	95
5014	FL 478 (Saline check)	78	78
5015	27073	58	58
5016	27074	83	83
5017	27075	65	65
5018	27076	93	93
5019	25976	115	115
5020	CSR 23 (Inland Saline Check)	88	88
5021	27077	70	70
5022	27078	60	60
5023	25983	63	63
5024	27079	95	95
5025	27080	65	65
5026	27081	80	80
5027	27082	68	68
5028	27083	50	50
5029	27084	65	65
5030	27085	80	80
5031	Jaya (Yield Check)	65	65
5032	27086	63	63
5033	27087	78	78
5034	27088	88	88
5035	27089	53	53
5036	BPT 5204 (Sensitive Check)	45	45
5037	27090	73	73
5038	27091	60	60
5039	CSR 36 (Alkaline Check)	85	85
5040	27092	78	78
5041	27093	83	83
5042	Local Check	68	68
5043	CSR 10 (Early check)	115	115
5044	27094	73	73
	Exp Mean	76	76
	C.D. 5%	20	20
	C.V.%	19.11	19.11

Table No. 11.11 contd : Panicles/ M² of entries in IVT -AL & ISTVT Slight Alkalinity Kharif 2017

Entry No.	IET No.	II	VII	Overall (2)
		U.P.	PUD	
		KNP-NWB	KRK	Mean
5001	27062	350	412	381
5002	27063	297	375	336
5003	27064	262	371	317
5004	25978	197	397	297
5005	27065	338	411	375
5006	27066	220	431	325
5007	27067	250	406	328
5008	27068		393	393
5009	27069	230	412	321
5010	27070	225	395	310
5011	27071	264	392	328
5012	25986	202	390	296
5013	27072	284	417	351
5014	FL 478 (Saline check)	307	388	348
5015	27073	293	376	334
5016	27074	205	422	313
5017	27075	208	383	296
5018	27076	272	443	358
5019	25976	252	487	370
5020	CSR 23 (Inland Saline Check)	241	406	324
5021	27077	215	415	315
5022	27078	180	513	346
5023	25983	175	528	352
5024	27079	257	423	340
5025	27080	227	431	329
5026	27081	396	383	390
5027	27082	227	397	312
5028	27083	284	351	318
5029	27084	301	394	348
5030	27085	235	376	306
5031	Jaya (Yield Check)	274	392	333
5032	27086	251	423	337
5033	27087	314	412	363
5034	27088	274	391	332
5035	27089	250	385	317
5036	BPT 5204 (Sensitive Check)	261	396	329
5037	27090	342	411	377
5038	27091	222	493	357
5039	CSR 36 (Alkaline Check)	346	418	382
5040	27092	240	411	326
5041	27093	244	416	330
5042	Local Check	359	413	386
5043	CSR 10 (Early check)	234	408	321
5044	27094	268	421	344
	Exp Mean	262	412	337
	C.D. 5%	22	20	21
	C.V.%	6.04	3.41	5

Table No. 11.11 contd : Panicles/ M² of entries in IVT - AL & ISTVT Normal Kharif 2017

Entry No.	IET No.	II	III	VII		Overall (4)
		PUN	U.P.	TN	KA	
		KPT	MSD	AML@	GNV	Mean
5001	27062	218	370	440	340	342
5002	27063	262	242	490	260	313
5003	27064	264	396	497	272	357
5004	25978	273	240	525	321	340
5005	27065	301	336	389	268	323
5006	27066	299	310	418	307	333
5007	27067	209	275	473	286	311
5008	27068			425	324	374
5009	27069	447	407	505	260	405
5010	27070	233	370	505	285	348
5011	27071	242	359	463	246	327
5012	25986	235	247	433	298	303
5013	27072	253	364	379	338	333
5014	FL 478 (Saline check)	176	372	379	312	310
5015	27073	202	295	332	300	282
5016	27074	244	242	406	287	295
5017	27075	277	247	420	284	307
5018	27076	216	259	384	289	287
5019	25976	244	378	310	296	307
5020	CSR 23 (Inland Saline Check)	326	438	415	304	371
5021	27077	295	275	434	295	325
5022	27078	227	289	484	289	322
5023	25983	227	474	505	302	377
5024	27079	253	284	367	308	303
5025	27080	231	344	455	294	331
5026	27081	211	274	400	296	295
5027	27082	176	334	432	304	311
5028	27083	216	305	467	266	313
5029	27084	271	310	525	204	327
5030	27085	378	345	450	264	359
5031	Jaya (Yield Check)	264	344	318	308	308
5032	27086	255	347	343	283	307
5033	27087	233	248	402	216	275
5034	27088	279	267	464	272	320
5035	27089	238	262	406	260	291
5036	BPT 5204 (Sensitive Check)	317	380	313	270	320
5037	27090	222	274	345	287	282
5038	27091	224	354	471	265	328
5039	CSR 36 (Alkaline Check)	273	310	326	241	287
5040	27092	249	292	348	302	298
5041	27093	279	401	329	239	312
5042	Local Check	255	334	442	266	324
5043	CSR 10 (Early check)	288	272	495	312	342
5044	27094	295	275	364	290	306
	Exp Mean	258	319	420	284	320
	C.D. 5%	84	44	13	14	39
	C.V.%	23.33	9.82	2.25	3.56	10

Table No. 11.11 contd: Panicles/ M² of entries in IVT -AL & ISTVT Slight Salinity Kharif 2017

Entry No.	IET No.	VII SH
		KA
		BRM
5001	27062	193
5002	27063	236
5003	27064	201
5004	25978	194
5005	27065	266
5006	27066	267
5007	27067	257
5008	27068	221
5009	27069	198
5010	27070	213
5011	27071	266
5012	25986	267
5013	27072	136
5014	FL 478 (Saline check)	187
5015	27073	167
5016	27074	160
5017	27075	206
5018	27076	228
5019	25976	207
5020	CSR 23 (Inland Saline Check)	276
5021	27077	328
5022	27078	268
5023	25983	247
5024	27079	273
5025	27080	312
5026	27081	303
5027	27082	259
5028	27083	276
5029	27084	287
5030	27085	305
5031	Jaya (Yield Check)	276
5032	27086	276
5033	27087	277
5034	27088	303
5035	27089	278
5036	BPT 5204 (Sensitive Check)	276
5037	27090	201
5038	27091	258
5039	CSR 36 (Alkaline Check)	285
5040	27092	297
5041	27093	282
5042	Local Check	267
5043	CSR 10 (Early check)	217
5044	27094	302
	Exp Mean	250
	C.D. 5%	6
	C.V.%	1.68

ADVANCE VARIETY TRIAL – COASTAL SALINE TOLERANT VARIETY TRIAL (AVT 1-CSTVT)

Locations: 11**Test entries: 9**

Checks: CST 7-1 (Coastal saline tolerant check), CSR 10 (Early saline tolerant check), FL 478 (Coastal saline check with *Saltol* 1), Jaya (Yield check), BPT 5204 (Sensitive check) and Local check

Table: 11.12

AVT 1- CSTVT was constituted with nine test entries and six checks namely CST 7-1 (Coastal saline tolerant check), CSR 10 (Early saline tolerant check), FL 478 (Coastal saline check with *Saltol* 1), Jaya (Yield check), BPT 5204 (Sensitive check) and Local check. Out of nine test entries, eight were in second year of testing whereas one test entry IET 25055 (KS-12) was in third year of testing. The trial was sent to 11 locations and data was received from all 11 locations. The details on salinity parameters (EC and pH) of different locations are given in the below table.

EC and pH of different locations in AVT1-CSTVT trial during Kharif 2017

S No.	Locations	pH	EC (dsm ⁻¹)	Mean (Kg/ha)	Range (Kg/ha)	CV (%)	Remarks
Slight Coastal Saline Stress Condition (EC4.0-7.5 dsm⁻¹; pH <8.5)							
1.	Cuttack	5.7	1.3 - 5.5	2605	2106-3164	6.88	Data is considered for analysis.
2.	Brahmavar	5.5	6-8	1658	385-4044	18.03	Data is considered for analysis.
3.	Vytila	4.66-5.38	3.9-5.2	1212	122-2188	8.07	Due to low mean grain yield (1212 kg/ha), the data is not considered for analysis.
Moderate Coastal Saline Stress Condition (EC7.5-10.0 dsm⁻¹; pH <8.5)							
4.	Panvel	7-8	3.4-10.2	1841	1288-2490	9.94	Data is considered for analysis.
Severe Coastal Saline Stress Condition (EC>10.0 dsm⁻¹; pH <8.5)							
5.	Kumta	5-6	1.3-18.7	1149	343-2387	1941	Due to low mean yield (1149 kg/ha), the data is not considered for analysis.
Normal Coastal Saline Condition							
6.	Canning	6.36-6.81	4.55-4.8	3945	1045-6100	14.13	The sensitive check (BPT 5204) recorded high grain yield (4043/kg/ha). Hence it is considered under normal condition.
7.	Navsari	8.2	5.4	3438	1533-4545	10.37	The sensitive check (BPT 5204) recorded high grain yield (4491/kg/ha). Hence it is considered under normal condition.
8.	Port Blair	7.5	6.54	4776	3836-6481	11.48	The sensitive check (BPT 5204) recorded high yield (4180 kg/ha). Hence it is considered under normal condition.

S No.	Locations	pH	EC (dsm ⁻¹)	Mean (Kg/ha)	Range (Kg/ha)	CV (%)	Remarks
9.	Machlipatnam	-	10.9	3794	1819-5308	8.73	The sensitive check (BPT 5204) ranked first with highest grain yield (5308 kg/ha). Hence data is considered under normal condition.
10.	Chinsurah	6.5	-	4771	4103-6090	5.48	The sensitive check (BPT 5204) recorded high grain yield (4904 kg/ha). Hence, data is considered under normal condition.
11.	Goa	6.66 - 6.96	0.7 - 3.64	1298	382-2058	17.34	EC is normal (<4.0). The data is not considered for analysis due to low mean yield (1298 kg/ha). The trial was affected by submergence during seedling stage.

The findings of AVT1-CSTVT are discussed below,

SLIGHT COSTAL SALINE STRESS CONDITION

Overall

In overall mean, the grain yield ranged from 1383 kg/ha (IET 25100) to 3225 (FL 478), days to 50% flowering from 93 days (CSR 10) to 114 days (CST 7-1), plant height from 70 cm (CSR 10) to 111 cm (IET 25078) and panicles/m² from 126 (FL 478) to 263 (CSR 10 and Jaya).

Among early salinity checks, FL 478 recorded maximum yield (3225 kg/ha, 98 days) followed by CSR 10 (3183 kg/ha, 93 days). None of the early test entries (<103 days) showed superior performance over the early best check (FL 478). While among the late salinity checks, local check recorded maximum grain yield (2767 kg/ha, 104 days), but none of late test entries showed yield superiority over late best check (Local check).

Zone III

Trail was conducted at Cuttack under slight salinity stress condition in Zone III. The grain yield ranged from 2106 kg/ha (IET 25051) to 3164 kg/ha (IET 25055), days to 50% flowering from 94 days (CSR 10 and IET 25096) to 127 days (local check), plant height from 76 cm (CSR 10) to 124 cm (IET 25078 and IET 25101) and panicles/m² from 94 (FL478) to 244 (CSR 10).

Among the early salinity checks, CSR 10 recorded maximum grain yield (2531 kg/ha, 94 days), however none of early test entries (<99 days) surpassed the early best check (CSR 10). While among late salinity checks, local check recorded maximum grain yield (2957 kg/ha, 127 days) however, none of the late test entries recorded more than 10% yield advantage over late best check (Local).

Zone VII

Trial was conducted at Brahmavar under slight coastal salinity stress condition in Zone VII. The grain yield ranged from 385 kg/ha (IET 25100) to 4044 kg/ha (FL 478), days

to 50% flowering ranged from 91 days (IET 25055) to 109 days (IET 25101), plant height from 64 cm (FL 478) to 105 cm (IET 25078) and panicles/m² from 142 (FL478) to 308 (Jaya).

Among the early salinity checks, FL 478 recorded highest grain yield (4044 kg/ha, 95 days), while among the late salinity checks, CST 7-1 recorded very low yield (805 kg/ha, 108 days) which is less than sensitive check BPT 5204 (1953kg/ha). Hence, FL478, the highest yielding check was compared with all test entries irrespective of flowering duration to identify the promising entries. However, none of the test entries surpassed the best check (FL478).

Under slight salinity stress condition, none of the test entries recorded required yield advantage over the best check in Zone III, VII and overall.

MODERATE COASTAL SALINE STRESS CONDITION

Zone VI

Trail was conducted at Panvel under moderate salinity stress condition in Zone VI. The grain yield ranged from 1288 kg/ha (IET 25101) to 2490 kg/ha (IET 25051), days to 50% flowering from 92 days (IET 25078 and FL 478) to 106 days (IET 25059 and BPT 5204), plant height from 82 cm (CSR 10) to 157 cm (IET 25078) and panicles/m² from 173 (Jaya) to 321 (IET 25059).

Since all salinity checks flowered less than 101 days, the highest yielding check CST 7-1 (2045 kg/ha, 96 days) was considered as the best check to compare with all the test entries irrespective of the flowering duration. ***Among the test entries, two entries namely IET 25051 (22%) and IET 25059 (21%) recorded significant higher yield over the best check (CST 7-1) in Zone VI under moderate coastal salinity stress condition.***

Performance of promising test entries in overall under Moderate Coastal Salinity Stress Condition during Kharif 2017

Entry No.	IET No.	GT	Zone VI (1)			Remarks
			Yield (Kg/ha)	DFF	%BC	
5106	IET 25051 Goa R 2015-IR87848-301-2-1-3-B A 69-1/IR55179-3B-11-3	LS	2490	104	22	Dropped due to low HRR (53.8%)
5108	IET 25059 RP5898-140-8-2-1-1 RPBio226*1/CSR 27	MS	2480	106	21	Dropped due to low HRR (52.9%)
5112	CST 7-1 (Coastal Saline Check)		2045	96	BC	
5103	CSR 10 (Early Check)		2015	101		
5114	FL 478 with Saltol 1 (Check)		1439	92		
5115	Local Check		1803	97		
5107	Jaya (Yield Check)		1717	102		
5111	BPT 5204 (Sensitive Check)		1884	106		

IET 25051 (Goa R 2015-IR 87848-301-2-1-3-B) is derived from cross A 69-1/IR 55179-3B-11-3 recorded grain yield of 2490 kg/ha with 104 days to 50% flowering under salinity stress condition in Zone VI during second year of testing. The entry recorded 22% higher yield over the best check (CST 7-1). The entry possesses long bold grain type and recorded low HRR (53.8%), 4.0 ASV, 23.43% AC and 22 mm GC as grain quality parameters. ***Hence the entry IET 25051 (Goa R 2015-IR87848-301-2-1-3-B) is discontinued from further testing due to low HRR.***

IET 25059 (RP 5898-140-8-2-1-1) is derived from RP Bio 226*1/CSR 27 recorded 2480 kg/ha with 106 days to 50% flowering under salinity stress condition in Zone VI in the second year of testing. It recorded 21% yield superiority over the best check (CST 7-1). The entry possesses long bold grain type and showed low HRR (52.9%), 7.0 ASV, 24.34% AC and 22mm GC as grain quality parameters. Hence, ***IET 25059 (RP 5898-140-8-2-1-1) is discontinued from further testing due to low HRR (52.9).***

Severe saline stress condition

Severe salinity stress condition was observed in Kumta in Zone VII. The location recorded very low mean yield (1149 kg/ha) and four entries namely IET 25078, 25101, 25097, 25049 and two checks BPT 5204 and CST 7-1 did not set seed. The grain yield ranged from 343 kg/ha (CSR 10) to 2387 kg/ha (IET 25055) and days to 50% flowering ranged from 94 days (IET 25078) to 106 days (IET 25096). Due to low experimental mean yield (1149 kg/ha) and poor performance of salinity checks, the data was not considered for analysis to identify the promising entries.

Normal Coastal Saline Condition

The trail was conducted at Canning, Chinsura, Goa, Navsari, Machilipatnam and Portblair under coastal salinity condition. The grain yield ranged from 3095 kg/ha (IET 25096) to 5475 kg/ha (IET 25101) and flowering duration from 88 days (FL 478 and IET 25096) to 118 days (IET 25101). Among the checks, local check (5283 kg/ha) recorded maximum grain yield followed by CST 7-1 (4767 kg/ha). Among the test entries, none of the entries out yielded the best check.

Three Year Performance of IET 25055 in CSTVT

In AVT1-CSTVT, **IET 25055** (KS-12) was in third year of testing and its performance is given in the following table.

IET No./ Designation/ Cross Combination	Grain Type	Year	Zone wise Performance	State wise Performance
			% over BC	% over BC
IET 25055 KS-12 Selection from local landrace Korgut	LB	2015	VI-19**	Goa-19**
		2016	Z VII-13*	Kerala-13%*
		2017	-	-

*Moderate coastal saline stress condition ** Costal salinity stress

IET 25055 (KS-12) showed superior performance in Zone VI in first year and in Zone VII in the second year of testing but failed in third year of testing, Hence, the test entry IET 25055 (KS-12) is discontinued from further testing.

In conclusion, out of nine entries tested in AVT1-CSTVT across 11 locations, none of the entries found superior to best check under coastal saline stress condition.

INITIAL VARIETY TRIAL - COASTAL SALINE TOLERANT VARIETY TRIAL (IVT - CSTVT)

Locations: 11**Test entries: 32**

Checks: Boothnath (Coastal saline check), CSR 10 (Early saline tolerant check), FL478 (Coastal saline check with *Saltol* 1), Jaya (Yield check), BPT 5204 (Sensitive check), and Local check

Table: 11.18

IVT- CSTVT trial was constituted with 32 test entries and six checks namely Boothnath (Coastal Saline check), CSR 10 (Early saline tolerant check), FL478 (Coastal Saline Check with *Saltol* 1), Jaya (Yield check), BPT 5204 (Sensitive check), and local check. The trial was sent to 11 locations and data was received from all locations. The date from Goa showed EC less than 4.0 (0.7 to 3.64) therefore analyzed under normal condition, however, crop suffered from submergence due to heavy rain after planting about 14 days due to heavy rain, few entries were affected due to submergence and could not recover. The Goa location has recorded low mean yield of 1042kg/ha. At Kumta, flowering and grain filling stage coincided with severe salinity stress leading to chaffy grains in some of the entries. The test entries (IET 27035, 27046, 27052 and 27058) at Machilipatnam; IET 27035, 27052, 27046 and 27058 at Panvel failed to germinate. During early vegetative stage, heavy rains and high tides caused crop submergence at Panvel, however salinity level gradually built up during flowering and grain filling stage. The entries IETs 27035, 27052, 27046, 27058, 27061 at Gosaba; and IETs 27031, 27035, 27052 and 27058 at Cuttack failed to germinate. Details about EC and pH of different locations are given in the following table.

EC and pH of different locations in IVT – CSTVT during *Kharif* 2017

S No.	Locations	pH	EC (dsm ⁻¹)	Mean (kg/ha)	Range (kg/ha)	CV%	Remarks
Slight Saline Coastal Stress Condition (EC4.0 dsm⁻¹-7.5; pH.8.5)							
1.	Cuttack	5.8	1.3 – 5.5	2486	1863-3529	7.68	The data is considered for analysis.
2.	Brahmavar	5.5	5-8	1769	1202-3155	16.84	The data is considered for analysis.
3.	Vyttila	4.66-5.38	3.9-5.2	1376	482-3206	9.68	Due to low mean yield of 1376 kg/ha, the data is not considered for analysis.
Severe Saline Coastal Stress Condition (EC>10.0 dsm⁻¹; pH <8.5)							
4.	Panvel	7-8	4.22 – 11.3	2258	785-4333	13.52	The data is considered for analysis.
5.	Kumta	5-6	1.3- 18.75	925	58-1935	15.70	The location has recorded lowest mean yield of 925 kg/ha. Hence, the data is not considered for analysis.
Normal Coastal Saline condition							
6.	Canning	6.47-6.74	3.78-4.87	4185	2176-6150	11.65	Many entries (14) gave >5t/ha yield. The sensitive check BPT5204 recorded higher yield of 4093 kg/ha, hence, the data was considered under normal condition.

S No.	Locations	pH	EC (dsm ⁻¹)	Mean (kg/ha)	Range (kg/ha)	CV%	Remarks
7.	Navsari	8.2	5.1	4120	599-5474	10.49	The sensitive check BPT 5204 recorded higher yield of 4677 kg/ha, hence, the data was considered under normal condition.
8.	Port Blair	7.5	6.54	2718	940-6197	15.15	The sensitive check BPT 5204 recorded higher yield of 4701 kg/ha, hence, the data was considered under normal condition.
9.	Machlipatnam	-	10.9	2563	711-4222	16.34	The sensitive check (BPT 5204) recorded higher yield of 4015 kg/ha hence, the data was considered under normal condition.
10.	Chinsurah	6.5	3.5 – 4.5	4881	4071-6122	4.80	Many entries (13) yielded > 5 t/ha. The sensitive check BPT 5204 recorded higher yield of 4968 kg/ha than 4 tolerant checks. Hence is considered under normal condition. However, due to low CV (4.8), the data is not considered for analysis.
11.	Goa	6.66 - 6.96	0.7 - 3.64	1042	465-2238	23.59	Due to low mean yield of 1042kg/ha, the data is not considered for analysis.

The results of moderate and severe salinity stress conditions are discussed below.

SLIGHT SALINITY COASTAL STRESS CONDITION

Overall performance of entries

In overall mean under slight salinity stress condition, grain yield ranged from 1202 kg/ha (IET 27052) to 2854 kg/ha (IET 27037), flowering duration from 92 days (IET 27057) to 114 days (IET 27046), plant height from 82 cm (IET 27044) to 117 cm (IET 27037), panicles/m² from 102 (IET 27046) to 304 (IET 27038).

Among early saline checks, Boothnath recorded maximum yield (2800 kg/ha, 96 days), however, none of the entries (<101 days) showed yield superiority over best early check (Boothnath). While among late saline checks, local check recorded maximum yield (2220 kg/ha, 104 days) and ***among the late test entries, five entries namely IETs 27040 (14%), 27049(6%), 27051(24%), 27059(16%), and 27060(5%) surpassed the best late check (local check).***

Zone wise performance of entries

Zone III

Trial was conducted at Cuttack under slight salinity stress condition in Zone III. Grain yield ranged from 1863 kg/hg (IET 27032) to 3529 kg/ha (IET 27037) and days to 50% flowering ranged from 97 days (IET 27044) to 127 days (IET 27039, IET 27054 and BPT

5204), plant height from 81 (IET 27061) to 146 cm (IET 27060) and panicles/m² from 102 (IET 27046) to 347 (IET 27031). Four test entries namely IETs 27031, IETs 27035, 27052 and 27058 did not record any yield.

Among the early saline checks, CSR 10 recorded maximum yield (2242 kg/ha, 101 days), however, none of the early test entries (FD<106 days) recorded yield superiority over best early check (CSR10). In case of late salinity checks, Boothnath recorded maximum yield (3052 kg/ha, 106 days), **while among the late test entries, IET 27037 and IET 27051 recorded 16% and 15% yield superiority over best late check (Boothnath) respectively.**

Zone VII

Trial conducted at Brahmavar under slight salinity stress condition in Zone VII was used for analysis. Grain yield ranged from 1202 kg/ha (IET 27052) to 3155 kg/ha (IET 27040), days to 50% flowering from 64 days (IET 27057) to 108 days (IET 27031 and IET 27048), plant height from 48 cm (IET 27061) to 113 cm (IET 27047) and panicles/m² from 216 (IET 27034) to 357 (IET 27030). Three tests entries namely, IETs 27035, 27046 and 27058 did not record any yields.

Among the salinity checks, Boothnath recorded maximum yield (2548kg/ha, 85 days). Since, all the salinity checks flowered in less than 97 days, all the test entries were compared with best check (Boothnath) irrespective of their flowering duration. **Among the test entries, IET27040 recorded 24% yield advantage over the best check (Boothnath).**

Severe Salinity Coastal Stress Condition

Zone VI

The trail was conducted at Panvel in Zone VI under severe coastal salinity stress condition. The grain yield ranged from 785 kg/ha (IET 27053) to 4333 kg/ha (IET 27055), flower duration from 86 days (IET 27037) to 116 days (IETs 27040 and 27061), plant height ranged from 83 cm (IET 27049) to 139 cm (IET 27031), panicles/m² from 154 (IET 27053) to 611 (IET 27055). Five test entries IETs 27035, 27045, 27046, 27052, 27058 and Boothnath did not record yield.

Among the coastal salinity checks, Boothnath did not show any yield, while FL 478 recorded maximum yield (2736 kg/ha, 97 days) compared to other checks viz., CSR 10 (2708 kg/ha, 96 days) and local check (2438 kg/ha, 95 days). Therefore, all the test entries were compared with FL 478 irrespective of their flowering duration. **Among the test entries, three entries namely IETs 27038 (28%), 27043(29%), and 27055 (58%) recorded significant yield superiority over the best check (FL 478).**

Normal Coastal saline condition

Trial conducted at Chinsura, Canning, Goa, Navsari, Machalipatnam and Portblair were considered normal condition due to low stress. The overall mean yield ranged from 2019 kg/ha (IET27061) to 4566kg/ha (local check) and flowering duration ranged from 91 days (IET27050) to 123days (IET27031). Among the checks, local check recorded highest yield and none of the test entries surpassed the best check.

Performance of promising entries in IVT-CSTVT

Performance of promising test entries in IVT-CSTVT are provided in the table and discussed below,

IET 27040 (CR 3909-192-1-8-2) derived from cross CN 1233-33-9/IR 85260-148// IR 72176-307-4-2-2-3 recorded 2535kg/ha with 108 days in overall while it recorded 3155kg/ha with 100 days 50% flowering in zone VII under moderate saline stress condition. The entry possesses short bold grain type and recorded 14% higher yield in overall and 24% higher yield in zone VII over the best check. **Hence, IET 27040 (CR 3909-192-1-8-2) is promoted to second year of testing.**

Performance of promising entries in IVT-CSTVT during Kharif 2017

IET No /Designation/ Cross combination	GT	Slight Coastal Salinity								Severe Coastal Salinity		Remarks
		Overall (2)			Zone III(1)			Zone VII(1)		Zone VI(1)		
		Yield/DF	%LBC	%EBC	Yield/DF	%LBC	%EBC	Yield/DF	%BC	Yield/DF	%LBC	
IET 27037 OR(CZ)-9-1 CST 7-1 Mutant	MS				3529/109	16						Promoted in Z III
IET 27038 CSR 2748-49 CSR 27/MI 48	SB									3500/100	28	Promoted in Z VII
IET 27040 CR 3909-192-1-8-2 CN 1233-33-9/ IR 85260-148//IR 72176-307-4-2-2-3	SB	2535/108	14					3155/100	24			Promoted in Z VII and overall
IET 27043 NVSRI-6150 Dandi/IET 15429	SB									3528/104	29	Promoted in Z VII
IET 27049 RP Bio 4919-B-B- 478-1 KMR 3/ O. rufipogon	SB	2359/102	6									Promoted in overall
IET 27051 CR 2851-S-1-B-4-1- 4-1-1 Gayatri/SR 26B	LS	2751/107	24		3503/125	15						Promoted in overall and Z III
IET 27055 CSR TPB-127 Trichy/Pusa Basmati 1	MS									4333/97	58	Promoted in Z VII
IET 27059 RP 5694-36-9-5-1-1 Sona Mahsuri/ CST 7-1	LS	2565/103	16									Promoted in overall
IET 27060 CR 2860-S-B-189-1- 1-1 Varshadhan/ SR 26B	LS	2341/111	5									Promoted in overall
Boothnath (Coastal Saline Check)		2800/96		EBC	3052/116	LBC		2548/85	BC	-		
CSR 10 (Early check)		2228/97			2242/101		EBC	2215/94		2708/96		
Local Check		2220/104	LBC		2935/126			1505/93		2438/95		
FL 478 with Saltol 1 (Check)		1684/98			2020/105			1349/94		2736/97	BC	
Jaya (Yield Check)		1777/102			2007/112			1548/97		3764/102		
BPT 5204 (Sensitive Check)		2251/112			3039/127			1463/105		2243/105		

*EBC-Early best check; LBC-Late best check

IET 27043 (NVSR-6150) derived from cross Dandi/IET 15429 recovered 2359 kg/ha with 102 days to 50% flowering in overall under moderate salinity stress condition, while it recorded 3528 kg/ha with 104 days in zone VII under severe salinity stress condition. It possesses short bold grain type. The entry recorded 6% higher yield over the best check under moderate salinity stress and 29% higher yield under severe salinity stress condition over the best check. **Hence, IET 27043 (NVSR-6150) is promoted to second year of testing.**

IET 27051 (CR 2851-S-1-B-4-1-4-1-1) derived from cross Gayatri/SR 26B recorded 2751 kg/ha with 107 days to 50% flowering duration in overall and 3503 kg/ha with 125 days to 50% flowering in Zone III under moderate saline stress condition. The entry recorded 24% higher yield over the best check in overall and 15% in zone III. . **Hence the entry IET 27051 (CR 2851-S-1-B-4-1-4-1-1) is promoted to second year of testing.**

The following entries qualify for 2nd year of testing (AVT-1- CSTVT)

Slight Coastal Salinity Stress

Overall mean: IETs 27040, 27049, 27051, 27059, and 27060

Zone III: IET 27037 and IET 27051

Zone VII: IET27040

Severe Coastal Salinity Stress

Zone VI: IETs 27038 , 27043 and 27055.

Table No. 11.12: Composition of entries in Advance Variety Trial 1 –Coastal Saline Tolerant Variety Trial (AVT 1-CSTVT), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
2 nd year of testing:				
5101	25078	CR 2839-1-S-10-B2-B-43-3B-2	Swarna / FL 496	LB
3 rd Year of testing:				
5102	25055	KS -12	Selection from local landrace korgut	SB
5103	CSR 10 (Early duration Saline Check)			SB
2 nd year of testing:				
5104	25101	CR 2459-23-2-1-1-S-B1-2B-1	Gayatri / Rahspunjar	SB
5105	25097 (R)	TR 13-069	ADT 43 / FL478 /// ADT 43	MS
5106	25051 (R)	GOA R 2015 -IR 87848-301-2-1-3-B	A 69-1 / IR 55179-3B-11-3	LB
5107	Jaya (Yield Check)			SB
5108	25059 (R)	RP 5898-140-8-2-1-1	RP Bio 226*1 / CSR 27	LB
5109	25100 (R)	TR 09-27	Mutant of TRY2	LB
5110	25049	CR 3903-161-1-2-2	Santepheap / IR 82810-407 // IR 71700-247-1-1-2	SB
5111	BPT 5204 (Sensitive Check)			MS
5112	CST 7-1 (Coastal Saline Check)			LB
5113	25096	CR 2838-SR-27	IR 64 / FL 478	LS
5114	FL 478 with Saltol 1 (Coastal Saline Check)			LB
5115	Local Check			

Table No. 11.13 : Grain Yield (Kg/ha) of entries in AVT 1- CSTVT Moderate Coastal Salinity Kharif 2017

Entry No.	IET No.	VI WES (1)				Days to 50% Flowering	Plant Height (cm)	Panicle s/ M²	
		MH		BC-CST 7-1					
		PNV							Mean
5101	25078	1929	5	1929	5		92	157	282
5102	25055	1717	9	1717	9		102	90	233
5103	CSR 10 (Early Check)	2015	4	2015	4		101	82	269
5104	25101	1288		1288			101	131	217
5105	25097								
5106	25051	2490	1 *	2490	1 *	22	104	113	302
5107	Jaya (Yield Check)	1717		1717			102	85	173
5108	25059	2480	2 *	2480	2 *	21	106	108	321
5109	25100	1909	6	1909	6		102	90	258
5110	25049	1631		1631			95	127	239
5111	BPT 5204 (Sensitive Check)	1884	7	1884	7		106	95	201
5112	CST 7-1 (Coastal Saline Check)	2045	3	2045	3		96	119	259
5113	25096	1419		1419			98	92	212
5114	FL 478 with Saltol 1 (Check)	1439		1439			92	89	251
5115	Local Check	1803	8	1803	8		97	107	254
	Exp Mean	1841		1841			99	106	248
	C.D. 5%	307		307			2	0	17
	C.V.%	9.94		9.94			1.41	0	4.00
	Sowing Date	6-15-17							
	Planting Date	7-11-17							
	Local ©	Panvel 1							

* Superior to Best Check BC-Best check % Superior over Best Check @ not included in means

BC-% over best check; EBC-% over early best check; LBC- % over late best check

Table No. 11.13 contd: Grain Yield (Kg/ha) of entries in AVT 1- CSTVT Normal Kharif 2017

Entry No.	IET No.	III				Zone III(2)		VI				Zone VI (1) Mean
		W.B				WB(2)		GOA		GU		
		CHN		CNG		Mean		@ GOA		NVS		
5101	25078	5032	4	6050	2	5541	3			1533		1533
5102	25055	4135		4630	6	4383		2010	2	4545	1	4545
5103	CSR 10 (Early Check)	4263		2308		3285		603		4030	5	4030
5104	25101	5801	2	5430	4	5616	2	1152	9			
5105	25097	4359		3468		3914		382		3809	6	3809
5106	25051	4872	7	3742	9	4307		2058	1	4462	3	4462
5107	Jaya (Yield Check)	4199		3678		3938		777		2577		2577
5108	25059	4519	8	4537	7	4528		1222	8	3745	7	3745
5109	25100	4455		1906		3180		1090		3416	8	3416
5110	25049	6090	1 *	4691	5	5391	5	1283	7			
5111	BPT 5204 (Sensitive Check)	4904	6	4043	8	4474		790		4491	2	4491
5112	CST 7-1 (Coastal Saline Check)	5417	3	6100	1	5758	1	1898	3	2942		2942
5113	25096	4103		1045		2574		1677	5	3022	9	3022
5114	FL 478 with Saltol 1 (Check)	4487	9	1655		3071		1447	6	1883		1883
5115	Local Check	4936	5	5890	3	5413	4	1777	4	4244	4	4244
	Exp Mean	4771		3945		4358		1298		3438		3438
	C.D. 5%	437		795		616		378		511		511
	C.V.%	5.48		14.13		10		17.34		10.37		10.37
	Sowing Date	11-07-2017		30-06-2017								
	Planting Date	16-08-2017		01-08-2017								
	Local ©	Gosaba 5 (IET 23403)		UTPALA								

* Superior to Best Check % Superior over Best Check @ not included in means

Table No. 11.13 contd: Grain Yield (Kg/ha) of entries in AVT 1- CSTVT Normal Kharif 2017

Entry No.	IET No.	VII		Zone VII (2) Mean		Overall (5) Mean		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		A.P.	A&N							
		MTM	POB							
5101	25078	3577 ⁸	4577 ⁷	4077		4154		117	134	251
5102	25055	4917 ³	3836	4377		4413		98	116	279
5103	CSR 10 (Early Check)	2294	4788 ⁵	3541		3537		90	82	291
5104	25101	4639 ⁵	6032 ²	5335	2	5475	1	118	136	286
5105	25097	1819	4352	3085		3561		93	102	281
5106	25051	3292 ⁹	4643 ⁶	3967		4202		92	109	291
5107	Jaya (Yield Check)	3210	4537 ⁸	3874		3640		97	97	254
5108	25059	4393 ⁷	4511 ⁹	4452		4341		97	106	283
5109	25100	2717	4286	3501		3356		91	85	286
5110	25049	4632 ⁶	5688 ³	5160	3	5275	3	105	129	285
5111	BPT 5204 (Sensitive Check)	5308 ¹	4180	4744	4	4585	5	114	96	302
5112	CST 7-1 (Coastal Saline Check)	5036 ²	4339	4687	5	4767	4	112	113	287
5113	25096	3020	4286	3653		3095		88	96	255
5114	FL 478 with Saltol 1 (Check)	3193	5106 ⁴	4149		3265		88	97	254
5115	Local Check	4863 ⁴	6481 ¹	5672	1	5283	2	102	121	281
	Exp Mean	3794	4776	4285		4145		100	108	278
	C.D. 5%	473	783	628		600		2	0	53
	C.V.%	8.73	11.48	10		10		1.28	0.00	11.93
	Sowing Date	29-06-2017								
	Planting Date	22-07-2017								
	Local ©	MTU 1061								

Table No. 11.13 contd : Grain Yield (Kg/ha) of entries in AVT 1- CSTVT Severe Coastal Salinity Kharif 2017

Entry No.	IET No.	VII SH		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		KA				
		@KMT				
5101	25078			94	108	185
5102	25055	2387	1 *	95	108	304
5103	CSR 10 (Early Check)	343	9	95	116	276
5104	25101			96	119	319
5105	25097			97	122	370
5106	25051	1512	3	97	122	280
5107	Jaya (Yield Check)	388	8	97	105	270
5108	25059	411	7	100	114	181
5109	25100	1112	6	102	123	155
5110	25049			98	123	276
5111	BPT 5204 (Sensitive Check)			99	110	226
5112	CST 7-1 (Coastal Saline Check)			104	120	279
5113	25096	1167	5	106	115	311
5114	FL 478 with Saltol 1 (Check)	1734	2 *	105	114	336
5115	Local Check	1283	4	98	128	357
	Exp Mean	1149		99	116	275
	C.D. 5%	325		1	0	32
	C.V.%	19.41		0.78	0.00	8.14
	Sowing Date					
	Planting Date					
	Local ©					
* Superior to Best Check % Superior over Best Check @ not included in means						
BC-% over best check; EBC-% over early best check; LBC- % over late best check						

Table No. 11.13 contd: Grain Yield (Kg/ha) of entries in AVT 1- CSTVT Slight Coastal Salinity Kharif 2017

Entry No.	IET No.	III EAS (1)			VII SH			Zone VII SH (1)		BC-FL 478	
		OD			KE	KA					
		CTK	EBC-CSR10	LBC-LC	@ VTL	BRM					
5101	25078	2623	6			1073	8	547		547	
5102	25055	3164	1			2188	1	968		968	
5103	CSR 10 (Early Check)	2531	8			704		3835	2	3835	2
5104	25101	2188				1380	7	1517	6	1517	6
5105	25097	2367				1001		1010	9	1010	9
5106	25051	2106				1064	9	1348	8	1348	8
5107	Jaya (Yield Check)	3135	2			1668	4	1457	7	1457	7
5108	25059	2725	5			1526	5	2145	4	2145	4
5109	25100	2382				1800	3	385		385	
5110	25049	2507	9			755		616		616	
5111	BPT 5204 (Sensitive Check)	3024	3			704		1953	5	1953	5
5112	CST 7-1 (Coastal Saline Check)	2614	7			599		805		805	
5113	25096	2353				1505	6				
5114	FL 478 with Saltol 1 (Check)	2406				122		4044	1	4044	1
5115	Local Check	2957	4			2095	2	2577	3	2577	3
	Exp Mean	2605				1212		1658		1658	
	C.D. 5%	256				140		427		427	
	C.V.%	6.88				8.07		18.03		18.03	
	Sowing Date										
	Planting Date										
	Local ©										
	* Superior to Best Check % Superior over Best Check @ not included in means										
	BC-% over best check; EBC-% over early best check; LBC- % over late best check										

Table No. 11.13 contd.: Grain Yield (Kg/ha) of entries in AVT 1- CSTVT Slight Coastal Salinity Kharif 2017

Entry No.	IET No.	Overall (2) Mean			Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
			EBC-FL478	LBC-LC			
5101	25078	1585			113	111	178
5102	25055	2066			97	95	226
5103	CSR 10 (Early Check)	3183			93	70	263
5104	25101	1853			109	109	156
5105	25097	1688			97	80	178
5106	25051	1727			99	87	190
5107	Jaya (Yield Check)	2296			100	88	263
5108	25059	2435			99	86	197
5109	25100	1383			98	72	156
5110	25049	1562			99	108	151
5111	BPT 5204 (Sensitive Check)	2489			111	87	184
5112	CST 7-1 (Coastal Saline Check)	1709			114	100	218
5113	25096	2353			96	90	172
5114	FL 478 with Saltol 1 (Check)	3225			98	71	126
5115	Local Check	2767			104	87	192
	Exp Mean	2132			102	89	188
	C.D. 5%	342			4	0	25
	C.V.%	12			3	0	7.92
	Sowing Date						
	Planting Date						
	Local ©						

Table No. 11.14 : Days to 50% Flowering of entries in AVT 1- CSTVT Moderate Coastal Salinity Kharif 2017

Entry No.	IET No.	VI WES
		MH
		PNV
5101	25078	92
5102	25055	102
5103	CSR 10 (Early Check)	101
5104	25101	101
5105	25097	
5106	25051	104
5107	Jaya (Yield Check)	102
5108	25059	106
5109	25100	102
5110	25049	95
5111	BPT 5204 (Sensitive Check)	106
5112	CST 7-1 (Coastal Saline Check)	96
5113	25096	98
5114	FL 478 with Saltol 1 (Check)	92
5115	Local Check	97
	Exp Mean	99
	C.D. 5%	2
	C.V.%	1.41

Table No. 11.15 : Plant Height (cm) of entries in AVT 1- CSTVT Moderate Coastal Salinity Kharif 2017

Entry No.	IET No.	VI WES
		MH
		PNV
5101	25078	157
5102	25055	90
5103	CSR 10 (Early Check)	82
5104	25101	131
5105	25097	
5106	25051	113
5107	Jaya (Yield Check)	85
5108	25059	108
5109	25100	90
5110	25049	127
5111	BPT 5204 (Sensitive Check)	95
5112	CST 7-1 (Coastal Saline Check)	119
5113	25096	92
5114	FL 478 with Saltol 1 (Check)	89
5115	Local Check	107
	Exp Mean	106
	C.D. 5%	0
	C.V.%	0

Table No. 11.16 : Panicles/ M² of entries in AVT 1- CSTVT Moderate Coastal Salinity Kharif 2017

Entry No.	IET No.	VI WES
		MH
		PNV
5101	25078	282
5102	25055	233
5103	CSR 10 (Early Check)	269
5104	25101	217
5105	25097	
5106	25051	302
5107	Jaya (Yield Check)	173
5108	25059	321
5109	25100	258
5110	25049	239
5111	BPT 5204 (Sensitive Check)	201
5112	CST 7-1 (Coastal Saline Check)	259
5113	25096	212
5114	FL 478 with Saltol 1 (Check)	251
5115	Local Check	254
	Exp Mean	248
	C.D. 5%	17
	C.V.%	4.00

Table No. 11.14 contd : Days to 50% Flowering of entries in AVT 1- CSTVT Normal Kharif 2017

Entry No.	IET No.	III		III WB (2) Mean	VI		Zone VI(2) Mean	VII		Zone VII (2) Mean	Overall (6) Mean
		W.B			GOA	GU		A&N	A.P.		
		CHN	CNG								
5101	25078	108	120	114		132	132	115	110	112	117
5102	25055	94	102	98	105	103	104	98	87	92	98
5103	CSR 10 (Early Check)	84	92	88	100	98	99	83	81	82	90
5104	25101	118	134	126	118		118	109	113	111	118
5105	25097	89	95	92	105	95	100	93	80	87	93
5106	25051	88	95	92	107	95	101	87	81	84	92
5107	Jaya (Yield Check)	87	102	95	108	98	103	93	91	92	97
5108	25059	88	97	92	111	101	106	97	89	93	97
5109	25100	84	92	88	105	89	97	91	83	87	91
5110	25049	104	125	115	122		122	95	82	88	105
5111	BPT 5204 (Sensitive Check)	106	120	113	116	123	119	109	110	110	114
5112	CST 7-1 (Coastal Saline Check)	104	113	108	121	123	122	108	104	106	112
5113	25096	81	87	84	107	87	97	85	84	84	88
5114	FL 478 with Saltol 1 (Check)	82	87	85	99	89	94	87	82	84	88
5115	Local Check	89	118	103	103	96	99	111	94	102	102
	Exp Mean	94	105	99	109	102	106	97	91	94	100
	C.D. 5%	1	2	1	2	1	1	4	2	3	2
	C.V.%	0.72	1.22	1	0.90	0.82	1	2.73	1.29	2	1

Table No. 11.14 contd : Days to 50% Flowering of entries in AVT 1- CSTVT Severe Coastal Salinity Kharif 2017

Entry No.	IET No.	VII SH
		KA KMT
5101	25078	94
5102	25055	95
5103	CSR 10 (Early Check)	95
5104	25101	96
5105	25097	97
5106	25051	97
5107	Jaya (Yield Check)	97
5108	25059	100
5109	25100	102
5110	25049	98
5111	BPT 5204 (Sensitive Check)	99
5112	CST 7-1 (Coastal Saline Check)	104
5113	25096	106
5114	FL 478 with Saltol 1 (Check)	105
5115	Local Check	98
	Exp Mean	99
	C.D. 5%	1
	C.V.%	0.78

Table No. 11.15: Plant Height (cm) of entries in AVT 1- CSTVT Severe Coastal Salinity Kharif 2017

Entry No.	IET No.	VII SH
		KA KMT
5101	25078	108
5102	25055	108
5103	CSR 10 (Early Check)	116
5104	25101	119
5105	25097	122
5106	25051	122
5107	Jaya (Yield Check)	105
5108	25059	114
5109	25100	123
5110	25049	123
5111	BPT 5204 (Sensitive Check)	110
5112	CST 7-1 (Coastal Saline Check)	120
5113	25096	115
5114	FL 478 with Saltol 1 (Check)	114
5115	Local Check	128
	Exp Mean	116
	C.D. 5%	0
	C.V.%	0.00

Table No. 11.16 contd: Panicles/ M² of entries in AVT 1- CSTVT Severe Coastal Salinity Kharif 2017

Entry No.	IET No.	VII SH
		KA KMT
5101	25078	185
5102	25055	304
5103	CSR 10 (Early Check)	276
5104	25101	319
5105	25097	370
5106	25051	280
5107	Jaya (Yield Check)	270
5108	25059	181
5109	25100	155
5110	25049	276
5111	BPT 5204 (Sensitive Check)	226
5112	CST 7-1 (Coastal Saline Check)	279
5113	25096	311
5114	FL 478 with Saltol 1 (Check)	336
5115	Local Check	357
	Exp Mean	275
	C.D. 5%	32
	C.V.%	8.14

Table No. 11.14 contd : Days to 50% Flowering of entries in AVT 1- CSTVT Slight Coastal Salinity Kharif 2017

Entry No.	IET No.	III		VII		Zone VII (2)	Overall (3)
		OD	KE	KA			
		CTK	VTL	BRM	Mean		
5101	25078	123	124	91	107		113
5102	25055	107	98	85	91		97
5103	CSR 10 (Early Check)	94	98	87	92		93
5104	25101	109	127	91	109		109
5105	25097	106	98	87	93		97
5106	25051	107	98	91	95		99
5107	Jaya (Yield Check)	107	98	94	96		100
5108	25059	107	98	93	95		99
5109	25100	109	98	86	92		98
5110	25049	111	98	89	94		99
5111	BPT 5204 (Sensitive Check)	120	124	89	107		111
5112	CST 7-1 (Coastal Saline Check)	124	124	93	108		114
5113	25096	94	98		98		96
5114	FL 478 with Saltol 1 (Check)	104	98	91	95		98
5115	Local Check	127	98	88	93		104
	Exp Mean	110	105	90	97		102
	C.D. 5%	2	0	9	5		4
	C.V.%	1.32	0.00	7.22	4		3

Table No. 11.15 : Plant Height (cm) of entries in AVT 1- CSTVT Slight Coastal Salinity Kharif 2017

Entry No.	IET No.	III		VII		Zone VII (2)	Overall (3)
		OD	KE	KA			
		CTK	VTL	BRM	Mean		
5101	25078	124	139	71	105		111
5102	25055	105	106	73	89		95
5103	CSR 10 (Early Check)	76	80	56	68		70
5104	25101	124	137	65	101		109
5105	25097	96	96	48	72		80
5106	25051	101	107	52	79		87
5107	Jaya (Yield Check)	104	98	63	80		88
5108	25059	97	98	65	81		86
5109	25100	82	94	42	68		72
5110	25049	120	139	64	102		108
5111	BPT 5204 (Sensitive Check)	95	108	58	83		87
5112	CST 7-1 (Coastal Saline Check)	117	115	68	91		100
5113	25096	89	91		91		90
5114	FL 478 with Saltol 1 (Check)	86	81	47	64		71
5115	Local Check	118	88	57	72		87
	Exp Mean	102	105	59	82		89
	C.D. 5%		0	0	0		0
	C.V.%		0.00	0.00	0		0

Table No. 11.15 contd: Plant Height (cm) of entries in AVT 1- CSTVT Normal Kharif 2017

Entry No.	IET No.	III		Zone III(2)	VI		Zone VI (2) Mean	VII		Zone VII (2) Mean	Overall (6) Mean
		W.B		WB(2)	GOA	GU		A&N	A.P.		
		CHN	CNG	Mean	GOA	NVS		POB	MTM		
5101	25078	140	135	138		154	154	85	157	121	134
5102	25055	118	117	117	100	113	106	124	122	123	116
5103	CSR 10 (Early Check)	74	78	76	84	80	82	104	72	88	82
5104	25101	145	125	135	133	164	148	127	125	126	136
5105	25097	98	94	96	133	104	119	96	89	93	102
5106	25051	115	101	108	105	126	116	97	110	103	109
5107	Jaya (Yield Check)	102	94	98	78	102	90	101	106	103	97
5108	25059	106	100	103	104	111	107	101	112	106	106
5109	25100	87	77	82	79	93	86	96	80	88	85
5110	25049	135	107	121	112	132	122	155	133	144	129
5111	BPT 5204 (Sensitive Check)	105	87	96	88	99	94	89	106	97	96
5112	CST 7-1 (Coastal Saline Check)	118	107	112	112	127	119	80	134	107	113
5113	25096	93	79	86	89	98	93	105	111	108	96
5114	FL 478 with Saltol 1 (Check)	100	83	91	98	92	95	101	111	106	97
5115	Local Check	114	114	114	136	110	123	115	134	125	121
	Exp Mean	110	100	105	104	114	109	105	113	109	108
	C.D. 5%	0	0	0		0	0		0	0	0
	C.V.%	0	0.00	0		0.00	0		0.00	0	0

Table No. 11.16 contd: Panicles/ M² of entries in AVT 1- CSTVT Normal Kharif 2017

Entry No.	IET No.	III		Zone III (2)	VI		Zone VI (2) Mean	VII		Zone VII (2) Mean	Overall (6) Mean
		W.B		WB(2)	GOA	GU		A&N	A.P.		
		CHN	CNG	Mean	GOA	NVS		POB	MTM		
5101	25078	253	289	271		243	243	275	193	234	251
5102	25055	275	381	328	264	270	267	300	187	243	279
5103	CSR 10 (Early Check)	330	422	376	149	378	263	262	206	234	291
5104	25101	242	352	297	300	306	303	306	212	259	286
5105	25097	319	407	363	191	275	233	291	203	247	281
5106	25051	297	426	361	297	221	259	280	227	253	291
5107	Jaya (Yield Check)	253	359	306	155	266	210	291	198	244	254
5108	25059	264	422	343	297	252	275	264	201	233	283
5109	25100	275	393	334	281	288	284	269	210	239	286
5110	25049	330	344	337	234	288	261	297	216	257	285
5111	BPT 5204 (Sensitive Check)	286	404	345	310	315	313	293	204	249	302
5112	CST 7-1 (Coastal Saline Check)	297	422	360	294	221	257	280	208	244	287
5113	25096	231	318	275	267	239	253	269	206	237	255
5114	FL 478 with Saltol 1 (Check)	264	296	280	231	225	228	306	200	253	254
5115	Local Check	220	333	277	290	324	307	302	214	258	281
	Exp Mean	276	371	324	254	274	264	286	206	246	278
	C.D. 5%	87	98	93	32	40	36	35	23	29	53
	C.V.%	18.97	18.44	19	7.47	10.19	9	8.70	7.79	8	12

Table No. 11.16 contd: Panicles/ M² of entries in AVT 1- CSTVT Slight Coastal Salinity Kharif 2017

Entry No.	IET No.	III	VII		Zone VII (2) Mean	Overall (3) Mean
		OD	KE	KA		
		CTK	VTL	BRM		
5101	25078	159	263	114	188	178
5102	25055	177	330	172	251	226
5103	CSR 10 (Early Check)	244	460	86	273	263
5104	25101	141	265	61	163	156
5105	25097	144	378	11	194	178
5106	25051	167	248	156	202	190
5107	Jaya (Yield Check)	173	470	147	308	263
5108	25059	132	323	136	229	197
5109	25100	153	283	32	157	156
5110	25049	118	270	65	168	151
5111	BPT 5204 (Sensitive Check)	173	323	57	190	184
5112	CST 7-1 (Coastal Saline Check)	241	345	67	206	218
5113	25096	102	243		243	172
5114	FL 478 with Saltol 1 (Check)	94	138	147	142	126
5115	Local Check	217	240	118	179	192
	Exp Mean	162	305	98	201	188
	C.D. 5%	29	43	2	22	25
	C.V.%	12.56	9.81	1.39	6	8

Table No. 11.17: Grain quality characteristics of entries in AVT-1-AL&ISTVT, Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
5101	25078	75.4	67.3	65.2	6.26	2.19	2.85	LB	VOC	5.0	22.26	76
5102	25055	76.5	62.3	53.2	5.41	2.6	2.08	SB	VOC	7.0	22.67	22
5103	CSR-10	76.6	65.8	59.2	5.00	2.48	2.01	SB	VOC	4.0	24.49	36
5104	25101	80.8	65.1	54.2	4.89	2.75	1.77	SB	OC	5.0	26.6	55
5105	25097 (R)	76	60.8	45.6	5.07	1.95	2.68	MS	A	4.0	24.46	22
5106	25051 (R)	79.2	65.8	53.8	6.38	2.36	2.7	LB	OC	4.0	23.43	22
5107	JAYA	75.3	65.7	64.1	5.43	2.38	2.28	SB	VOC	7.0	25.34	22
5108	25059 (R)	74.1	62.9	52.9	6.37	2.3	2.76	LB	VOC	7.0	24.34	22
5109	25100 (R)	73.6	70.1	59.2	6.18	2.25	2.74	LB	VOC	7.0	22.26	43
5110	25049	77.7	71.5	67.6	5.32	2.42	2.19	SB	VOC	7.0	24.4	22
5111	BPT 5204	78	66.7	62.4	4.96	1.87	2.65	MS	A	5.0	23.52	22
5112	CST 7-1	78.3	64.2	57.2	6.11	2.41	2.53	LB	OC	5.0	24.37	22
5113	25096	77.1	63.1	49.4	6.99	2.1	3.32	LS	OC	4.0	24.02	51
5114	FL 478	76.3	58.2	50.6	6.24	2.28	2.73	LB	VOC	4.0	24.61	36
5115 (L.C)												

Table No. 11.18: Composition of entries in Initial Variety Trial–Coastal Saline Tolerant Variety Trial (IVT-CSTVT), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
1st year of testing:				
5201	27030	NVSR-6130	GR 103 / NAUR-1	LS
5202	27031	CR 3878-245-2-4-2	Gayatri / FL496	SB
5203	27032	RP Bio 4919-B-B-50-7-1	KMR 3 / O.rufipogon	MS
5204	27033	CN 2004-2	FL 478 / Jaya	LS
5205	27034	MCM 121	BPT 5204 / CST 7-1	MS
5206	27035	KAU-CUL 5	Jyothi / FL 478	LB
5207	27036	RP 6183-HHZ6-SAL3-Y1-SUB2	Huang-Hua-Zhan*2 / IRAT 352	LS
5208	27037	OR(CZ)-9-1	CST 7-1 Mutant	MS
5209	27038	CSR 2748-49	CSR 27 / MI 48	SB
5210	27039	CR 3913-230-5-5-1	PCR 89350-B-R-4-2-2-3-B-2-1-1 / PSB RC 68 // IR 71700-247-1-1-2	LS
5211	FL 478 with Saltol 1 (Coastal saline check)			
5212	27040	CR 3909-192-1-8-2	CN 1233-33-9 / IR 85260-148 // IR 72176-307-4-2-2-3	SB
5213	27041	RP Bio 4919-B-B-13-7	KMR 3 / O.rufipogon	SB
5214	27042	CS RTPB-156	Trichy / Pusa Basmati 1	LS
5215	27043	NVSR-6150	Dandi / IET 15429	SB
5216	27044	RP 6274-GSR IR1-8-S14-S1-SU1	Huang-Hua-Zhan*2 / Phalguna	LS
5217	27045	IR 84649-81-4-B-B-CR 3397-S-4B-1-5	IR 05F102 / IR 66946-3R-156-1-2	MS
5218	27046	KAU-CUL 16	Jyothi / FL 478	LB
5219	Jaya (Yield Check)			
5220	27047	CR 3884-244-8-5-6-1-1	Khandagiri / FL378	
5221	27048	MCM 120	MTU 1001 / CR 683-169-1	MS
5222	27049	RP Bio 4919-B-B-478-1	KMR 3 / O.rufipogon	SB
5223	27050	MTU 1272	MTU 1010 / FL478 // *3 MTU 1010	LS
5224	27051	CR 2851-S-1-B-4-1-4-1-1	Gayatri / SR 26B	LS
5225	27052	KAU-CUL 12	Jyothi / FL 478	LB

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5226	27053	NVSR-6134	GR 103 / Gurjari	LS
5227	27054	CR 2850-S-2B-12-1-2-1	Gayatri / FL496	SB
5228	27055	CSR TPB -127	Trichy / Pusa Basmati 1	MS
5229	27056	CR 3881-M-3-1-4-5-5-1	Naveen / FL496 // Naveen	LS
5230	27057	CR 3900-193-9-11-1	Savitri / R. Mahsuri-1 // IR 71700-247-1-1-2	LB
5231	27058	KAU – CUL 4	Jyothi / FL 478	LB
5232	27059	RP 5694-36-9-5-1-1	Sona Mahsuri / CST 7-1	LS
5233	Boothnath (Coastal Saline Check)			
5234	27060	CR 2860-S-B-189-1-1-1	Varshadhan / SR 26B	LS
5235	BPT 5204 (Sensitive Check)			
5236	27061	CR 2838-SR-12-1	IR 64 / FL 478	LS
5237	CSR 10 (Early saline tolerant check)			
5238	Local Check			

Table No. 11.19 : Grain Yield (Kg/ha) of entries in IVT - CSTVT Slight salinity Kharif 2017

Entry No.	IET No.	III		Zone III (1)		%LBC	%EBC	VII		
		OD						KE	KA	
		CTK		Mean				@ VTL	BRM	
5201	27030	2549		2549			14	3206	1 *	1566
5202	27031									1776
5203	27032	1863		1863				1177		1580
5204	27033	3216	3	3216	3		43	2355	2 *	1367
5205	27034	2111		2111				1016		1343
5206	27035									
5207	27036	2026		2026				1527		1445
5208	27037	3529	1 *	3529	1 *	16	57	2097	3	2178
5209	27038	3026	7	3026	7		35	1282		1581
5210	27039	2039		2039						1896
5211	FL 478 with Saltol 1 (Check)	2020		2020				599		1349
5212	27040	1915		1915				703		3155
5213	27041	2301		2301			3	1767	7	1567
5214	27042	2889		2889			29	1654	9	1375
5215	27043	2222		2222				1145		1553
5216	27044	2026		2026						1599
5217	27045	2000		2000				636		1368
5218	27046	2111		2111						
5219	Jaya (Yield Check)	2007		2007				1599		1548
5220	27047	2608		2608			16	2033	4	1596
5221	27048	1980		1980				1906	6	2163
5222	27049	2536		2536			13	801		2181
5223	27050	2412		2412			8	1350		2321
5224	27051	3503	2 *	3503	2 *	15	56	1625		1999
5225	27052									1202
5226	27053	2340		2340				678		2383
5227	27054	2464		2464			10	482		1379
5228	27055	2359		2359				1172		1904
5229	27056	2980	9	2980	9		33	1416		1349
5230	27057	2046		2046						2124
5231	27058									
5232	27059	2993	8	2993	8		34	795		2136
5233	Boothnath (Coastal Saline Check)	3052	5	3052	5			1066		2548
5234	27060	3170	4	3170	4		41	964		1511
5235	BPT 5204 (Sensitive Check)	3039	6	3039	6			1666	8	1463
5236	27061	2013		2013						1701
5237	CSR 10 (Early check)	2242		2242				1188		2215
5238	Local Check	2935		2935				2011	5	1505
	Exp Mean	2486		2486				1376		1769
	C.D. 5%	268		268				187		418
	C.V.%	7.68		7.68				9.68		16.84
	Sowing Date									04-07-2017
	Planting Date									09-08-2017
	Local ©									MO 4

% EBC-Early best check % LBC-Late best check BC-Best check % Superior over Best Check @ not included in means

Table No. 11.19 contd: Grain Yield (Kg/ha) of entries in IVT - CSTVT Slight salinity Kharif 2017

Entry No.	IET No.	Zone		Overall (2)		Days to 50% Flowering	Plant Height (cm)	Panicles / M ²
		Mean	%BC	Mean	%LBC			
5201	27030	1566		2057		100	105	295
5202	27031	1776		1776		108	99	268
5203	27032	1580		1721		101	110	218
5204	27033	1367		2291	3	97	111	232
5205	27034	1343		1727		109	104	229
5206	27035	0						
5207	27036	1445		1736		98	88	210
5208	27037	2178		2854	1 *	99	117	211
5209	27038	1581		2303	7	106	89	304
5210	27039	1896		1968		106	98	246
5211	FL 478 with Saltol 1 (Check)	1349		1684		98	88	217
5212	27040	3155	24	2535	14	108	115	274
5213	27041	1567		1934		95	109	213
5214	27042	1375		2132		99	97	255
5215	27043	1553		1888		97	89	230
5216	27044	1599		1813		93	82	179
5217	27045	1368		1684		108	91	230
5218	27046			2111		114	101	102
5219	Jaya (Yield Check)	1548		1777		102	97	260
5220	27047	1596		2102		103	114	242
5221	27048	2163		2072		108	95	251
5222	27049	2181		2359	6	102	96	234
5223	27050	2321		2366		93	95	276
5224	27051	1999		2751	2 *	107	104	252
5225	27052	1202		1202				
5226	27053	2383		2361		95	93	256
5227	27054	1379		1921		106	103	259
5228	27055	1904		2132		98	112	223
5229	27056	1349		2165	9	98	99	273
5230	27057	2124		2085		92	92	232
5231	27058							
5232	27059	2136		2565	8	103	94	251
5233	Boothnath (Coastal Saline Check)	2548		2800	5	96	99	240
5234	27060	1511		2341	4	111	116	231
5235	BPT 5204 (Sensitive Check)	1463		2251	6	112	87	297
5236	27061	1701		1857		97	63	223
5237	CSR 10 (Early check)	2215		2228		97	86	236
5238	Local Check	1505		2220		104	95	257
	Exp Mean	1769		2128				
	C.D. 5%			343				
	C.V.%			12.26				
	Sowing Date							
	Planting Date							
	Local ©							

Table No. 11.19 contd: Grain Yield (Kg/ha) of entries in IVT - CSTVT Normal Kharif 2017

Entry No.	IET No.	III						Zone III (1)		VI						
		W.B		W.B						GOA		GU				
		@CHN		CNG		Mean				BC	@ GOA		NVS			BC
5201	27030	4583		3864		3864				1045		5472	2	9		
5202	27031	4840		2253		2253										
5203	27032	4808		3959		3959				703		4603				
5204	27033	4615		4410		4410				1235	9	2872				
5205	27034	5000		5293	4	5293	4									
5206	27035															
5207	27036	4103		4681		4681				2238	1	3451				
5208	27037	5224	6	5235	6	5235	6			546		4485				
5209	27038	4327		4163		4163				1489	5					
5210	27039	5192	7	4460		4460				529		1059				
5211	FL 478 with Saltol 1 (Check)	5673	3	2385		2385				1140		4316				
5212	27040	4712		4074		4074				1013						
5213	27041	5128	8	4634		4634				1053		4068				
5214	27042	4359		3978		3978				1083		5088	6			
5215	27043	4391		5002	7	5002	7			1140		5094	5			
5216	27044	5128	9	2923		2923				690		2877				
5217	27045	4327		5260	5	5260	5			513		5201	4			
5218	27046															
5219	Jaya (Yield Check)	4679		3905		3905				1270	8	4999	8			
5220	27047	4071		4022		4022				750		4000				
5221	27048	5064		4566		4566										
5222	27049	4455		4958	8	4958	8			465		3674				
5223	27050	5000		2416		2416				1071		5474	1	10		
5224	27051	4712		5790	2	5790	2	7		600						
5225	27052															
5226	27053	4327		3328		3328				1998	2	5229	3	5		
5227	27054	5609	4	4327		4327				739						
5228	27055	4679		3373		3373				1975	3	5070	7			
5229	27056	4712		4049		4049				721		4751				
5230	27057	6122	1	4836	9	4836	9					599				
5231	27058															
5232	27059	5032		4650		4650				764		4606				
5233	Boothnath (Coastal Saline Check)	4936		3745		3745				1445	6	3078				
5234	27060	5321	5	6150	1 *	6150	1 *	14		649						
5235	BPT 5204 (Sensitive Check)	4968		4093		4093				509		4677				
5236	27061			2176		2176				724		2798				
5237	CSR 10 (Early check)	5865	2	3928		3928				1293	7	4687				
5238	Local Check	5096		5397	3	5397	3			1889	4	4892	9			
	Exp Mean	4881		4185		4185				1042		4120				
	C.D. 5%	329		684		684				503		609				
	C.V.%	4.80		11.65		11.65				23.59		10.49				
	Sowing Date			30-06-2017						19-06-2017						
	Planting Date			28-07-2017						15-07-2017						
	Local ©			SUMATI						KS-17 (Goa Dhan 2)						
	* Superior to Best Check % Superior over Best Check @ not included in means															

Table No. 11.19 contd : Grain Yield (Kg/ha) of entries in IVT - CSTVT Normal Kharif 2017

Entry No.	IET No.	VII				Zone VII (2)	Overall (4)		Days to 50% Flowerin	Plant Height (cm)	Panicles/ M²
		A.P.		A&N							
		MTM		POB		Mean	Mean				
5201	27030	1800		4701	6	3250	3959		101	117	311
5202	27031	3011		4060	9	3535	3108		123	119	314
5203	27032	2889		2778		2833	3557		104	123	289
5204	27033	1753		5556	3	3654	3648		110	123	307
5205	27034	2584		5128	5	3856	4335		118	116	285
5206	27035										
5207	27036	2033		2778		2406	3236		95	92	268
5208	27037	2696		5641	2	4169	4514		109	125	300
5209	27038	2047		1175		1611	2462		97	103	315
5210	27039	2428				2428	2649		121	125	331
5211	FL 478 with Saltol 1 (Check)	2063		940		1502	2426		92	102	250
5212	27040	939		1838		1388	2284		118	139	297
5213	27041	2648		2308		2478	3414		109	129	285
5214	27042	3347	8	1389		2368	3450		103	104	288
5215	27043	1845		1154		1499	3274		99	101	280
5216	27044	2235		1282		1759	2329		93	98	287
5217	27045	3272		1795		2533	3882		106	101	289
5218	27046										
5219	Jaya (Yield Check)	3823	6	1325		2574	3513		101	100	285
5220	27047	1959		1197		1578	2795		102	122	278
5221	27048	4071	2	1282		2676	3306		111	114	263
5222	27049	2002		2350		2176	3246		105	118	320
5223	27050	2080		1581		1831	2888		91	98	287
5224	27051	1865		1496		1681	3050		119	118	279
5225	27052										
5226	27053	832				832	3130		97	108	318
5227	27054	3231		1496		2363	3018		119	119	296
5228	27055	3933	4	1197		2565	3393		101	113	287
5229	27056	3450	7	1282		2366	3383		102	111	298
5230	27057	2965		2863		2914	2816		115	117	304
5231	27058										
5232	27059	4222	1	3846		4034	4331		111	123	323
5233	Boothnath (Coastal Saline Check)	3884	5	6197	1	5040	4226		108	119	290
5234	27060	711		5342	4	3026	4068		116	135	318
5235	BPT 5204 (Sensitive Check)	4015	3	4701	7	4358	4371		113	93	309
5236	27061	1649		1453		1551	2019		98	88	302
5237	CSR 10 (Early check)	1579		2137		1858	3083		96	108	287
5238	Local Check	3274	9	4701	8	3987	4566		101	116	291
	Exp Mean	2563		2718		2640	3396		105	113	295
	C.D. 5%	588		578		583	615		2	0	56
	C.V.%	16.34		15.15		16	13		1	0	13
	Sowing Date	29-06-2017									
	Planting Date	21-07-2017									
	Local ©	MTU 1061									

Table No. 11.19 contd: Grain Yield (Kg/ha) of entries in IVT - CSTVT Severe salinity Kharif 2017

Entry No.	IET No.	VI		VII		Overall (1)		Days to 50% Flowerin	Plant Height (cm)	Panicles / M ²
		MH		KA						
		PNV		@KMT		Mean	%BC-FL478			
5201	27030	2250		1935	1 *	2250		100	120	297
5202	27031	2479				2479		103	122	316
5203	27032	2625		1220	7	2625		102	115	271
5204	27033	3007	6	550		3007	6	102	107	286
5205	27034	1792				1792		103	114	210
5206	27035									
5207	27036	1167		1728	2 *	1167		106	128	372
5208	27037	1722		360		1722		97	109	225
5209	27038	3500	4 *	975	9	3500	4 *	100	107	429
5210	27039	1646				1646		100	124	217
5211	FL 478 with Saltol 1 (Check)	2736	8	1400	4	2736	8	97	113	305
5212	27040	1208				1208		108	111	248
5213	27041	2840	7	388		2840	7	107	121	340
5214	27042	1910		708		1910		97	110	172
5215	27043	3528	3 *	817		3528	3 *	104	124	355
5216	27044	2646		1292	5	2646		101	125	413
5217	27045			500				101	119	260
5218	27046									
5219	Jaya (Yield Check)	3764	2 *	950		3764	2 *	102	119	413
5220	27047	1493		267		1493		97	107	271
5221	27048	2618				2618		96	111	312
5222	27049	2313		58		2313		98	93	312
5223	27050	3063	5			3063	5	96	108	342
5224	27051	1583				1583		101	103	249
5225	27052							103	121	231
5226	27053	785				785		89	84	154
5227	27054	861				861		108	113	230
5228	27055	4333	1 *	925		4333	1 *	97	111	446
5229	27056	1715		567		1715		102	112	319
5230	27057	2222				2222		98	123	322
5231	27058							99	118	197
5232	27059	1563				1563		88	106	243
5233	Boothnath (Coastal Saline Check)							100	122	264
5234	27060	1938				1938		101	112	213
5235	BPT 5204 (Sensitive Check)	2243				2243		105	114	256
5236	27061	1576		1525	3 *	1576		103	112	330
5237	CSR 10 (Early check)	2708	9	1042	8	2708	9	96	105	316
5238	Local Check	2438		1283	6	2438		95	120	321
	Exp Mean	2258		925		2258		100	114	297
	C.D. 5%	429		206		429		1	0	35
	C.V.%	13.52		15.70		13.52		1	0	8
	Sowing Date									
	Planting Date									
	Local ©									
* Superior to Best Check BC-Best check % Superior over Best Check @ not included in means										
BC-% over best check; EBC-% over early best check; LBC- % over late best check										

Table No. 11.20: Days to 50% Flowering of entries in IVT - CSTVT Slight salinity Kharif 2017

Entry No.	IET No.	III	VII		Zone VII (2)	Overall (3)
		OD	KE	KA		
		CTK	VTL	BRM	Mean	Mean
5201	27030	110	98	93	96	100
5202	27031		124	92	108	108
5203	27032	110	98	96	97	101
5204	27033	108	98	85	91	97
5205	27034	123	116	89	102	109
5206	27035					
5207	27036	105	98	91	95	98
5208	27037	109	98	91	94	99
5209	27038	108	124	86	105	106
5210	27039	127		85	85	106
5211	FL 478 with Saltol 1 (Check)	105	124	64	94	98
5212	27040	125	124	75	100	108
5213	27041	115	98	73	85	95
5214	27042	112	98	86	92	99
5215	27043	105	98	88	93	97
5216	27044	97		90	90	93
5217	27045	112	116	95	105	108
5218	27046	114				114
5219	Jaya (Yield Check)	112	98	96	97	102
5220	27047	115	98	95	97	103
5221	27048	108	124	93	108	108
5222	27049	113	98	94	96	102
5223	27050	107	98	75	87	93
5224	27051	125	116	80	98	107
5225	27052					
5226	27053	122	98	65	82	95
5227	27054	127	124	67	95	106
5228	27055	120	98	75	87	98
5229	27056	110	116	69	92	98
5230	27057	120		64	64	92
5231	27058					
5232	27059	117	116	77	96	103
5233	Boothnath (Coastal Saline Check)	116	98	73	85	96
5234	27060	126	116	91	103	111
5235	BPT 5204 (Sensitive Check)	127	124	86	105	112
5236	27061	110		85	85	97
5237	CSR 10 (Early check)	101	98	90	94	97
5238	Local Check	126	98	89	93	104
	Exp Mean	114	108	83	96	102
	C.D. 5%	3	0	5		
	C.V.%	1.70	0.00	3.86		

Table No. 11.20 contd : Days to 50% Flowering of entries in IVT - CSTVT Normal Kharif 2017

Entry No.	IET No.	III		Zone III (2)	VI		Zone VI (2)	VII		Zone VII (2)	Overall (6)
		W.B	W.B		GU	GOA		A&N	A.P.		
		CHN	CNG	Mean	NVS	GOA	Mean	POB	MTM	Mean	Mean
5201	27030	86	95	91	100	114	107	107	112	109	101
5202	27031	127		127				119	93	106	123
5203	27032	97	105	101	102	116	109	101	113	107	104
5204	27033	98	108	103	118	118	118	106	103	105	110
5205	27034	117	129	123				108	109	109	118
5206	27035										
5207	27036	85	95	90	94	105	100	96	86	91	95
5208	27037	98	108	103	110	121	116	108	100	104	109
5209	27038	90	95	92		116	116	86	84	85	97
5210	27039	105	120	113	134	123	128		109	109	121
5211	FL 478 with Saltol 1 (Check)	87	89	88	89	101	95	96	97	96	92
5212	27040	122	141	131		120	120	90	114	102	118
5213	27041	99	105	102	111	118	114	110	81	96	109
5214	27042	92	97	95	107	116	111	106	95	101	103
5215	27043	85	97	91	96	107	101	111	94	102	99
5216	27044	85	87	86	90	119	104	86	93	89	93
5217	27045	93	102	98	107	124	115	106	103	104	106
5218	27046										
5219	Jaya (Yield Check)	95	98	96	98	118	108	96	94	95	101
5220	27047	88	99	94	106	118	112	96	85	90	102
5221	27048	118	129	124				85	108	96	111
5222	27049	93	99	96	107	118	112	108	82	95	105
5223	27050	85	85	85	90	108	99	86	92	89	91
5224	27051	115	129	122		120	120	111	113	112	119
5225	27052										
5226	27053	85	95	90	101	109	105		85	85	97
5227	27054	115	129	122		123	123	111	114	112	119
5228	27055	88	97	92	104	111	107	106	87	97	101
5229	27056	89	95	92	101	120	110	106	84	95	102
5230	27057	98	125	111	121		121	114	110	112	115
5231	27058										
5232	27059	101	105	103	113	117	115	120	104	112	111
5233	Boothnath (Coastal Saline Check)	98	105	101	108	119	113	111	100	106	108
5234	27060	109	129	119		117	117	110	114	112	116
5235	BPT 5204 (Sensitive Check)	105	113	109	118	121	120	110	111	110	113
5236	27061		87	87	89	107	98	111	91	101	98
5237	CSR 10 (Early check)	87	89	88	99	118	108	86	92	89	96
5238	Local Check	89	122	106	99	104	101	89	114	102	101
	Exp Mean	98	106	102	104	115	110	103	99	101	105
	C.D. 5%	1	2	1	3	4	3	0	1	1	2
	C.V.%	0.85	1.05	1	2.09	1.51	2	0.00	1.02	1	1

Table No. 11.20 contd: Days to 50% Flowering of entries in IVT - CSTVT Severe salinity Kharif 2017

Entry No.	IET No.	VI	VII	Overall
		MH	KA	(2)
		PNV	KMT	Mean
5201	27030	100	100	100
5202	27031	101	105	103
5203	27032	104	101	102
5204	27033	102	102	102
5205	27034	104	102	103
5206	27035			
5207	27036	103	109	106
5208	27037	86	109	97
5209	27038	96	105	100
5210	27039	95	106	100
5211	FL 478 with Saltol 1 (Check)	95	100	97
5212	27040	116	101	108
5213	27041	109	106	107
5214	27042	89	106	97
5215	27043	105	104	104
5216	27044	102	100	101
5217	27045		101	101
5218	27046			
5219	Jaya (Yield Check)	98	105	102
5220	27047	91	103	97
5221	27048	92	99	96
5222	27049	95	101	98
5223	27050	94	97	96
5224	27051	102	100	101
5225	27052		103	103
5226	27053	89		89
5227	27054	112	105	108
5228	27055	91	103	97
5229	27056	104	100	102
5230	27057	95	101	98
5231	27058		99	99
5232	27059	88		88
5233	Boothnath (Coastal Saline Check)		100	100
5234	27060	98	104	101
5235	BPT 5204 (Sensitive Check)	106	105	105
5236	27061	116	90	103
5237	CSR 10 (Early check)	99	93	96
5238	Local Check	96	94	95
	Exp Mean	99	101	100
	C.D. 5%	2	1	1
	C.V.%	1.11	0.90	1

Table No. 11.21: Plant Height (cm) of entries in IVT - CSTVT Severe salinity Kharif 2017

Entry No.	IET No.	VI	VII	Overall
		MH	KA	(2)
		PNV	KMT	Mean
5201	27030	124	115	120
5202	27031	139	105	122
5203	27032	124	106	115
5204	27033	109	105	107
5205	27034	120	108	114
5206	27035			
5207	27036	138	119	128
5208	27037	112	106	109
5209	27038	109	105	107
5210	27039	133	115	124
5211	FL 478 with Saltol 1 (Check)	107	119	113
5212	27040	106	116	111
5213	27041	123	120	121
5214	27042	100	120	110
5215	27043	124	123	124
5216	27044	134	117	125
5217	27045		119	119
5218	27046			
5219	Jaya (Yield Check)	124	115	119
5220	27047	108	107	107
5221	27048	115	107	111
5222	27049	83	104	93
5223	27050	104	113	108
5224	27051	92	114	103
5225	27052		121	121
5226	27053	84		84
5227	27054	120	107	113
5228	27055	109	114	111
5229	27056	110	114	112
5230	27057	129	117	123
5231	27058		118	118
5232	27059	106		106
5233	Boothnath (Coastal Saline Check)		122	122
5234	27060	100	125	112
5235	BPT 5204 (Sensitive Check)	109	119	114
5236	27061	111	113	112
5237	CSR 10 (Early check)	102	108	105
5238	Local Check	112	128	120
	Exp Mean	113	114	114
	C.D. 5%		0	0
	C.V.%		0.00	0

Table No. 11.21: Plant Height (cm) of entries in IVT - CSTVT Slight salinity Kharif 2017

Entry No.	IET No.	III	VII		Zone VII (2)	Overall (3)
		OD	KE	KA		
		CTK	VTL	BRM	Mean	Mean
5201	27030	105	136	75	105	105
5202	27031		122	76	99	99
5203	27032	101	132	97	114	110
5204	27033	120	128	85	106	111
5205	27034	107	123	81	102	104
5206	27035					
5207	27036	99	101	65	83	88
5208	27037	120	142	89	115	117
5209	27038	97	105	67	86	89
5210	27039	112		85	85	98
5211	FL 478 with Saltol 1 (Check)	81	107	76	91	88
5212	27040	132	141	71	106	115
5213	27041	112	130	86	108	109
5214	27042	97	118	76	97	97
5215	27043	106	99	63	81	89
5216	27044	89		76	76	82
5217	27045	103	107	65	86	91
5218	27046	101				101
5219	Jaya (Yield Check)	106	114	72	93	97
5220	27047	114	138	89	113	114
5221	27048	101	122	63	92	95
5222	27049	106	116	66	91	96
5223	27050	103	106	76	91	95
5224	27051	103	118	91	105	104
5225	27052					
5226	27053	99	108	73	90	93
5227	27054	109	125	76	100	103
5228	27055	116	137	82	109	112
5229	27056	112	121	65	93	99
5230	27057	104		81	81	92
5231	27058					
5232	27059	113	114	56	85	94
5233	Boothnath (Coastal Saline Check)	113	120	64	92	99
5234	27060	129	149	71	110	116
5235	BPT 5204 (Sensitive Check)	111	96	54	75	87
5236	27061	79		48	48	63
5237	CSR 10 (Early check)	93	104	62	83	86
5238	Local Check	112	107	65	86	95
	Exp Mean	106	119	73	96	99
	C.D. 5%		0	0		
	C.V.%		0.00	0.00		

Table No. 11.21 contd: Plant Height (cm) of entries in IVT - CSTVT Normal Kharif 2017

Entry No.	IET No.	III		Zone III (2)	VI	VI	Zone VI (2)	VII		Zone VII (2)	Overall (6)
		W.B	W.B		GOA	GU		A&N	A.P.		
		CHN	CNG	Mean	GOA	NVS	Mean	POB	MTM	Mean	Mean
5201	27030	126	103	115	102	125	114	121	124	123	117
5202	27031	115	89	102		124	124	114	155	135	119
5203	27032	140	117	128	90	144	117	112	135	124	123
5204	27033	123	116	120	116	131	123	115	137	126	123
5205	27034	120	100	110		128	128	101	132	117	116
5206	27035										
5207	27036	109	91	100	91	101	96	66	97	82	92
5208	27037	109	120	115	112	154	133	114	143	128	125
5209	27038	142	88	115	109		109	67	107	87	103
5210	27039	135	104	120	115	136	126		137	137	125
5211	FL 478 with Saltol 1 (Check)	112	98	105	90	103	97	90	116	103	102
5212	27040	164	134	149	122		122	111	163	137	139
5213	27041	144	121	133	104	144	124	128	134	131	129
5214	27042	108	109	108	91	118	104	82	119	101	104
5215	27043	111	101	106	106	98	102	78	110	94	101
5216	27044	105	98	102	99	98	98	74	114	94	98
5217	27045	115	93	104	116	104	110	72	107	89	101
5218	27046										
5219	Jaya (Yield Check)	113	96	104	93	100	96	84	112	98	100
5220	27047	135	120	128	119	131	125	89	134	112	122
5221	27048	113	105	109		123	123	102	129	115	114
5222	27049	128	121	124	107	130	118	88	133	110	118
5223	27050	105	98	102	109	118	113	59	103	81	98
5224	27051	120	101	110	124	123	124	113	128	120	118
5225	27052										
5226	27053	106	100	103	118	106	112		108	108	108
5227	27054	122	104	113	121	130	125	100	137	118	119
5228	27055	125	114	120	109	121	115	83	124	104	113
5229	27056	106	109	107	106	124	115	97	122	109	111
5230	27057	122	107	114		124	124	103	130	116	117
5231	27058										
5232	27059	123	114	119	116	138	127	113	135	124	123
5233	Boothnath (Coastal Saline Check)	126	126	126	107	136	122	106	114	110	119
5234	27060	165	144	155	126	166	146	78	133	106	135
5235	BPT 5204 (Sensitive Check)	102	88	95	98	107	102	58	103	81	93
5236	27061		83	83	98	92	95	77	90	84	88
5237	CSR 10 (Early check)	105	101	103	120	102	111	103	119	111	108
5238	Local Check	110	103	107	143	103	123	115	123	119	116
	Exp Mean	121	106	114	109	121	115	94	124	109	113
	C.D. 5%	0			0			0	0	0	0
	C.V.%	0.00			0.00			0.00	0.00	0	0

Table No. 11.22: Panicles/ m² of entries in IVT - CSTVT Slight salinity Kharif 2017

Entry No.	IET No.	III	VII		Zone VII (2)	Overall (3)
		OD	KE	KA		
		CTK	VTL	BRM	Mean	Mean
5201	27030	170	438	277	357	295
5202	27031		270	266	268	268
5203	27032	193	195	266	231	218
5204	27033	207	213	277	245	232
5205	27034	255	180	252	216	229
5206	27035					
5207	27036	98	268	266	267	210
5208	27037	174	245	216	230	211
5209	27038	213	443	258	350	304
5210	27039	240		252	252	246
5211	FL 478 with Saltol 1 (Check)	140	293	218	255	217
5212	27040	195	320	306	313	274
5213	27041	156	238	245	241	213
5214	27042	189	330	246	288	255
5215	27043	151	290	248	269	230
5216	27044	120		238	238	179
5217	27045	108	335	247	291	230
5218	27046	102				102
5219	Jaya (Yield Check)	171	358	253	305	260
5220	27047	177	295	254	275	242
5221	27048	182	338	233	285	251
5222	27049	137	280	285	282	234
5223	27050	184	340	305	322	276
5224	27051	198	305	253	279	252
5225	27052					
5226	27053	169	295	305	300	256
5227	27054	196	318	263	290	259
5228	27055	146	248	275	261	223
5229	27056	198	375	247	311	273
5230	27057	195		268	268	232
5231	27058					
5232	27059	192	285	277	281	251
5233	Boothnath (Coastal Saline Check)	174	278	268	273	240
5234	27060	203	205	285	245	231
5235	BPT 5204 (Sensitive Check)	218	300	372	336	297
5236	27061	178		268	268	223
5237	CSR 10 (Early check)	193	240	275	258	236
5238	Local Check	202	258	312	285	257
	Exp Mean	177	292	267	280	245
	C.D. 5%	31	19	2	11	18
	C.V.%	12.59	4.70	0.56	3	6

Table No. 11.22 contd: Panicles/ m² of entries in IVT - CSTVT Normal Kharif 2017

Entry No.	IET No.	III		Zone III (2)	VI		Zone VI (2)	VII		Zone VII (2)	Overall (6)
		W.B	W.B		GU	GOA		A&N	A.P.		
		CHN	CNG	Mean	NVS	GOA	Mean	POB	MTM	Mean	Mean
5201	27030	308	467	387	276	290	283	280	246	263	311
5202	27031	319	374	347				343	218	281	314
5203	27032	341	422	382	264	266	265	243	201	222	289
5204	27033	341	430	385	327	264	296	283	200	242	307
5205	27034	308	363	335				296	173	234	285
5206	27035										
5207	27036	308	337	323	369	208	288	186	201	193	268
5208	27037	242	404	323	375	317	346	226	236	231	300
5209	27038	341	448	395		290	290	276	218	247	315
5210	27039	330	344	337	456	294	375		233	233	331
5211	FL 478 with Saltol 1 (Check)	264	244	254	288	284	286	210	209	209	250
5212	27040	407	300	353		271	271	260	249	254	297
5213	27041	374	415	394	315	224	270	183	201	192	285
5214	27042	308	393	350	267	264	266	320	180	250	288
5215	27043	286	296	291	282	307	294	270	236	253	280
5216	27044	297	374	336	354	213	283	283	203	243	287
5217	27045	363	393	378	270	310	290	206	190	198	289
5218	27046										
5219	Jaya (Yield Check)	297	359	328	309	257	283	253	232	242	285
5220	27047	286	337	312	282	290	286	276	199	238	278
5221	27048	297	307	302				253	195	224	263
5222	27049	363	344	354	309	314	311	333	256	294	320
5223	27050	253	378	315	321	294	307	253	223	238	287
5224	27051	297	311	304		281	281	253	252	252	279
5225	27052										
5226	27053	319	393	356	360	274	317		244	244	318
5227	27054	275	318	297		325	325	240	321	280	296
5228	27055	308	348	328	261	285	273	303	215	259	287
5229	27056	297	378	337	294	290	292	323	207	265	298
5230	27057	374	307	341	270		270	303	267	285	304
5231	27058										
5232	27059	374	433	404	342	264	303	280	242	261	323
5233	Boothnath (Coastal Saline Check)	275	359	317	303	309	306	280	217	248	290
5234	27060	363	378	370		297	297	310	241	275	318
5235	BPT 5204 (Sensitive Check)	264	430	347	375	289	332	270	224	247	309
5236	27061		293	293	402	297	350	280	237	258	302
5237	CSR 10 (Early check)	297	359	328	321	281	301	240	226	233	287
5238	Local Check	275	356	315	339	241	290	306	229	267	291
	Exp Mean	314	364	339	320	280	300	269	224	247	295
	C.D. 5%	58	84	71	64	40	52	35	57	46	56
	C.V.%	13.08	16.34	15	14.08	7.02	11	9.25	18.24	14	13

Table No. 11.22 contd: Panicles/ M² of entries in IVT - CSTVT Severe salinity Kharif 2017

Entry No.	IET No.	VI	VII	Overall
		MH	KA	(2)
		PNV	KMT	Mean
5201	27030	278	317	297
5202	27031	303	330	316
5203	27032	262	281	271
5204	27033	325	248	286
5205	27034	205	215	210
5206	27035			
5207	27036	545	198	372
5208	27037	203	248	225
5209	27038	578	281	429
5210	27039	252	182	217
5211	FL 478 with Saltol 1 (Check)	362	248	305
5212	27040	215	281	248
5213	27041	349	330	340
5214	27042	188	155	172
5215	27043	509	202	355
5216	27044	527	299	413
5217	27045		260	260
5218	27046			
5219	Jaya (Yield Check)	557	269	413
5220	27047	212	330	271
5221	27048	412	212	312
5222	27049	377	248	312
5223	27050	437	248	342
5224	27051	218	281	249
5225	27052		231	231
5226	27053	154		154
5227	27054	162	297	230
5228	27055	611	281	446
5229	27056	391	248	319
5230	27057	346	297	322
5231	27058		197	197
5232	27059	243		243
5233	Boothnath (Coastal Saline Check)		264	264
5234	27060	228	199	213
5235	BPT 5204 (Sensitive Check)	264	248	256
5236	27061	363	297	330
5237	CSR 10 (Early check)	285	347	316
5238	Local Check	279	363	321
	Exp Mean	333	262	297
	C.D. 5%	37	32	35
	C.V.%	7.99	8.66	8

ADVANCE VARIETY TRIAL 1-NIL (SUBMERGENCE) (AVT 1– NIL-Sub)

Locations: 5**Test Entries: 11**

Entries: Near Isogenic Lines (NILs): 11, recurrent parent (RP): 6; Table: 12.1
donor: 2; Submergence checks: 2

Checks: RP-Pushyami, Pooja, Pratikhya, Gayatri, Sarala; Donor/
Tolerant checks: Swarna Sub1, IR 49830-7; Submergence
Sensitive Checks: Swarna, Samba Mahsuri

The AVT 1-NIL trial (Submergence) was conducted in five testing locations representing the target environments located in five states in the country. For comparative performance of the test genotypes, the trial was conducted under both submergence (control) and normal conditions. The experiment materials comprised of 11 test entries and their recurrent (Pushyami, Pooja, Pratikshya, Gayatri, Sarala and Varshadhan) and donor parents (Swarna-Sub1 and IR 49830-7) including two sensitive check varieties (Swarna and Samba Mahsuri). All the five centers *viz.*, Cuttack, Pusa, Ghagrahat, Gerua and Maruteru have submitted the performance report under normal condition. But, only three centers have reported the results under submergence conditions. The mean experimental grain yield under normal condition ranged from 2701 kg/ha (Ghagrahat) to 3731kg/ha (Gerua). The Zone III mean was 2004 kg/ha while the overall mean was 1578 under stress (submergence) condition. Highest mean experimental yield was recorded from Cuttack center (2114 kg/ha) and lowest from Maruteru (870 kg/ha) under submergence stress condition. The normal condition trials at different centers showed a CV% ranging from 7.52 (Cuttack) to 27.27 (Pusa). However, the CV% under submergence varied from 10.77 to 15.41%.

Under submergence conditions, as very low experimental mean was observed at Maruteru (870 kg/ha) and low at Pusa (1914 kg/ha), these locations cannot be considered in the analysis. Moreover, sensitive check for submergence stress ‘Swarna’ topped at two (Cuttack and Pusa) locations indicating submergence stress was not uniform for all the entries. Thus, none of the locations can be considered for data analysis. Hence, the trial may be repeated.

Table No.12.1: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines- Submergence (AVT 1-NIL-SUB), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
2 nd Year of testing:				
801	26421	MTU 1231 (MTU 2336-62-25-38-16)	MTU 1075 / Swarna Sub-1/*3 MTU 1075	MS
802	MTU 1075 (Pushyami) (RP)			MS
1 st Year of testing:				
803	26743	CR 3932-9	Pooja*3 / Swarna-Sub1	SB
804	Pooja (RP)			SB
805	26744	CR 3932-7	Pooja*3 / Swarna-Sub1	SB
806	Swarna-Sub1(DP)			SB
807	26745	CR 3933-22	Pratikshya*3 / Swarna-Sub1	SB
808	Pratikshya (RP)			MS
809	26746	CR 3933-17	Pratikshya*3 / Swarna-Sub1	SB
810	Swarna (Sensitive Check)			
811	26747	CR 2531-72	Gayatri*4 / IR 49830-7	SB
812	Gayatri (RP)			SB
813	26748	CR 2531-19	Gayatri*4 / IR 49830-7	SB
814	IR 49830-7 (DP)			LB
815	26749	CR 2532-129	Sarala*4 / IR 49830-7	MS
816	Sarala (RP)			MS
817	26750	CR 2532-40	Sarala*4 / IR 49830-7	SS
818	26751	CR 2538-42	Varshadhan*4 / IR 49830-7	LB
819	Varshadhan (RP)			LB
820	26752	CR 2538-20	Varshadhan*4 / IR 49830-7	LB
821	Samba Mahsuri (Sensitive Check)			

Table No. 12.2: Grain Yield (Kg/ha) of entries in AVT 1 NIL (Submergence) Control Kharif 2017

Entry No.	IET No.	III						Zone III		IV	
		OD		BI		U.P.		(3)		AS	
		CTK		PSA		GGT		Mean		GER	
801	26421	3065	9	2302				2683		3122	
802	MTU 1075 (Pushyami) (RP)	3259	1	3095	7			3177	6	3175	
803	26743	2562		3730	1	2978	4	3090	8	3646	
804	Pooja (RP)	3035		2381		3978	1	3131	7	4725	3
805	26744	3149	7	3175	6	3811	2	3378	1	3259	
806	Swarna-Sub1(DP)	2756		3333	3	2889	7	2993		3566	
807	26745	2890		3333	4	2967	5	3063	9	4159	7
808	Pratikshya (RP)	2616		3016	8	2422	9	2685		5249	1
809	26746	3183	6	2857		2944	6	2995		4169	6
810	Swarna (Sensitive Check)	3002		3492	2	3089	3	3194	5	3894	
811	26747	2620		2937	9	2044		2534		4429	5
812	Gayatri (RP)	3067	8			2167		2617		1222	
813	26748	2879				2100		2489		4799	2
814	IR 49830-7 (DP)	3195	5	3333	5			3264	2	3937	9
815	26749	2897		2540		2367		2601		2889	
816	Sarala (RP)	3009				2078		2543		4619	4
817	26750	2535						2535		3201	
818	26751	3245	2	2778		2056		2693		4090	8
819	Varshadhan (RP)	3233	3					3233	3	3921	
820	26752	3208	4					3208	4	3603	
821	Samba Mahsuri (Sensitive Check)	2647		2778		2622	8	2682		2688	
	Exp Mean	2955		3005		2701		2895		3731	
	C.D. 5%	367		1371		454		445		946	
	C.V.%	7.52		27.27		10.05		16.45		15.36	
	Sowing Date	10-07-2017		08-07-2017		19-07-2017				11-07-2017	
	Planting Date	12-08-2017		31-07-2017		Direct seeded				01-09-2017	
	Local ©										
	* Superior to Best Check			% Superior over Best Check							

Table No. 12.2 contd.: Grain Yield (Kg/ha) of entries in AVT 1 NIL (Submergence) Control Kharif 2017

Entry No.	IET No.	VII		Overall		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		A.P.	MTU	(5)	Mean			
801	26421	5008	4	3374	9	119	104	242
802	MTU 1075 (Pushyami) (RP)	4126	7	3414	7	116	108	232
803	26743	2902		3163		98	116	204
804	Pooja (RP)	2033		3230		109	105	230
805	26744	3846	9	3448	5	105	109	209
806	Swarna-Sub1(DP)	2714		3052		113	96	201
807	26745	5033	3	3676	2	111	113	206
808	Pratikshya (RP)	3075		3276		109	107	225
809	26746	4204	6	3471	3	111	111	215
810	Swarna (Sensitive Check)	3865	8	3468	4	110	98	223
811	26747	2965		2999		112	106	205
812	Gayatri (RP)	5067	2	2881		126	101	212
813	26748	3283		3265		117	106	215
814	IR 49830-7 (DP)	3097		3390	8	116	106	242
815	26749	4635	5	3065		116	116	206
816	Sarala (RP)	5387	1	3773	1	120	109	218
817	26750	3833		3190		125	115	237
818	26751	2355		2905		117	145	205
819	Varshadhan (RP)	2232		3129		126	142	224
820	26752	3489		3433	6	126	144	234
821	Samba Mahsuri (Sensitive Check)	2817		2710		109	91	222
	Exp Mean	3617		3247		114	111	218
	C.D. 5%	620		347		1		15
	C.V.%	10.39		14.85		1.34		9.79
	Sowing Date	04-07-2017						
	Planting Date	03-08-2017						
	Local ©							

Table No. 12.2 : Grain Yield (Kg/ha) of entries in AVT 1- NIL (Submergence) Kharif 2017

Entry No.	IET No.	III				Zone III		VII		Overall		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		OD		BI		(1)		A.P.		(1)				
		CTK		@PSA		Mean		@MTU		Mean				
801	26421	3302	2	1111		3302	2	2544	3	3302	2	124	87	113
802	MTU 1075 (Pushyami) (RP)	1254		2130	7	1254		104		1254		122	91	76
803	26743	2379		2315	2	2379		235		2379		113	101	74
804	Pooja (RP)	678		1528		678		262		678		115	89	79
805	26744	2551	9	2083	8	2551	9	2805	1	2551	9	115	101	119
806	Swarna-Sub1(DP)	2585	7	2083	9	2585	7	435		2585	7	126	86	87
807	26745	2947	6	2315	3	2947	6	216		2947	6	124	99	63
808	Pratikshya (RP)	1085		2269	6	1085		39		1085		123	93	86
809	26746	3251	4	2315	4	3251	4	508		3251	4	124	105	75
810	Swarna (Sensitive Check)	3361	1	3056	1	3361	1	531	9	3361	1	125	86	90
811	26747	2392		1204		2392		486		2392		118	93	105
812	Gayatri (RP)	251				251		185		251		142	80	18
813	26748	2485				2485		118		2485		131	94	17
814	IR 49830-7 (DP)	1378		2315	5	1378		1734	6	1378		125	97	117
815	26749	2556	8	1204		2556	8	2570	2	2556	8	127	107	110
816	Sarala (RP)	1731				1731		542	8	1731		134	97	88
817	26750	2468				2468		1808	5	2468		137	108	71
818	26751	3200	5	926		3200	5	621	7	3200	5	127	136	91
819	Varshadhan (RP)	823				823		408		823		139	122	49
820	26752	3291	3			3291	3	1949	4	3291	3	134	132	82
821	Samba Mahsuri (Sensitive Check)	433		1852		433		182		433		126	81	88
	Exp Mean	2114		1914		2114		870		2114		125	98	84
	C.D. 5%	376		357		376		221		376		1		21
	C.V.%	10.77		11.14		10.77		15.41		10.77		1.16		27.29
	Sowing Date	10-07-2017		08-07-2017				04-07-2017						
	Planting Date	05-08-2017		29-07-2017				04-08-2017						
	Local ©													

* Superior to Best Check % Superior over Best Check @ not included in means

Table No. 12.3: Days to 50% Flowering of entries in AVT 1 NIL (Submergence) Control Kharif 2017

Entry No.	IET No.	III			Zone III (3)	IV	VII	Overall (5)
		OD	BI	U.P.		AS	A.P.	
		CTK	PSA	GGT	Mean	GER	MTU	Mean
801	26421	123	113		118	128	114	119
802	MTU 1075 (Pushyami) (RP)	122	106		114	125	110	116
803	26743	107	90	83	94	115	96	98
804	Pooja (RP)	108	110	102	107	116	110	109
805	26744	105	104	104	104	117	95	105
806	Swarna-Sub1(DP)	119	108	104	110	126	109	113
807	26745	114	101	103	106	125	110	111
808	Pratikshya (RP)	113	97	102	104	125	108	109
809	26746	114	103	100	106	125	112	111
810	Swarna (Sensitive Check)	113	104	98	105	126	110	110
811	26747	108	112	105	108	121	115	112
812	Gayatri (RP)	125		114	119	139	126	126
813	26748	117		114	115	124	115	117
814	IR 49830-7 (DP)	121	113		117	125	106	116
815	26749	126	114	106	115	123	113	116
816	Sarala (RP)	124		107	116	123	124	120
817	26750	125			125	124	124	125
818	26751	122	114	107	114	124	115	117
819	Varshadhan (RP)	124			124	126	127	126
820	26752	125			125	126	127	126
821	Samba Mahsuri (Sensitive Check)	114	109	98	107	121	105	109
	Exp Mean	118	107	103	110	124	113	114
	C.D. 5%	1	2	3	1	4	2	1
	C.V.%	0.32	1.34	1.77	1.15	1.75	0.96	1.34

Table No. 12.3 contd: Days to 50% Flowering of entries in AVT 1- NIL (Submergence) Kharif 2017

Entry No.	IET No.	III		Zone III (2)	VII	Overall (3)
		OD	BI		A.P.	
		CTK	PSA	Mean	MTU	Mean
801	26421	135	113	124	125	124
802	MTU 1075 (Pushyami) (RP)	134	109	122	122	122
803	26743	114	91	103	135	113
804	Pooja (RP)	115	111	113	118	115
805	26744	117	104	111	123	115
806	Swarna-Sub1(DP)	133	109	121	135	126
807	26745	134	102	118	138	124
808	Pratikshya (RP)	133	98	115	139	123
809	26746	134	104	119	134	124
810	Swarna (Sensitive Check)	135	104	120	135	125
811	26747	115	114	114	126	118
812	Gayatri (RP)	148		148	136	142
813	26748	128		128	133	131
814	IR 49830-7 (DP)	140	112	126	124	125
815	26749	136	113	124	133	127
816	Sarala (RP)	133		133	135	134
817	26750	140		140	134	137
818	26751	133	114	124	135	127
819	Varshadhan (RP)	141		141	136	139
820	26752	134		134	134	134
821	Samba Mahsuri (Sensitive Check)	136	108	122	134	126
	Exp Mean	132	107	121	132	125
	C.D. 5%	1	1	1	4	1
	C.V.%	0.28	0.72	0.49	1.72	1.16

Table No. 12.4: Plant Height (cm) of entries in AVT 1 NIL (Submergence) Control Kharif 2017

Entry No.	IET No.	III			Zone III (3)	IV	VII	Overall (5)
		OD	BI	U.P.		AS	A.P.	
		CTK	PSA	GGT	Mean	GER	MTU	Mean
801	26421	96	98	105	100	93	130	104
802	MTU 1075 (Pushyami) (RP)	100	106	112	106	92	131	108
803	26743	105	120	108	111	106	142	116
804	Pooja (RP)	103	90	105	99	85	142	105
805	26744	106	105	105	105	90	141	109
806	Swarna-Sub1(DP)	91	95	97	94	76	123	96
807	26745	104	119	98	107	96	147	113
808	Pratikshya (RP)	99	112	101	104	91	133	107
809	26746	105	117	92	104	98	146	111
810	Swarna (Sensitive Check)	88	96	103	96	76	126	98
811	26747	100	95	100	98	92	145	106
812	Gayatri (RP)	89		96	92	84	135	101
813	26748	90		99	95	87	149	106
814	IR 49830-7 (DP)	92	99	124	105	82	134	106
815	26749	104	117	101	107	102	157	116
816	Sarala (RP)	99		99	99	94	142	109
817	26750	102		103	102	103	153	115
818	26751	140	141	131	137	127	187	145
819	Varshadhan (RP)	148		101	125	129	188	142
820	26752	142		104	123	135	195	144
821	Samba Mahsuri (Sensitive Check)	90	87	97	91	73	109	91
	Exp Mean	104	106	104	105	96	145	111
	C.D. 5%	0	0			0	0	
	C.V.%	0.00	0.00			0.00	0.00	

Table No. 12.4 contd: Plant Height (cm) of entries in AVT 1- NIL (Submergence) Kharif 2017

Entry No.	IET No.	III		Zone III (2)	VII	Overall (3)
		OD	BI		A.P.	
		CTK	PSA	Mean	MTU	Mean
801	26421	82	98	90	80	87
802	MTU 1075 (Pushyami) (RP)	84	106	95	82	91
803	26743	94	120	107	89	101
804	Pooja (RP)	82	90	86	95	89
805	26744	89	105	97	109	101
806	Swarna-Sub1(DP)	78	95	87	83	86
807	26745	91	119	105	86	99
808	Pratikshya (RP)	83	112	98	83	93
809	26746	91	117	104	106	105
810	Swarna (Sensitive Check)	85	96	91	77	86
811	26747	78	95	86	106	93
812	Gayatri (RP)	84		84	76	80
813	26748	82		82	107	94
814	IR 49830-7 (DP)	87	99	93	104	97
815	26749	83	117	100	122	107
816	Sarala (RP)	84		84	109	97
817	26750	86		86	130	108
818	26751	117	141	129	152	136
819	Varshadhan (RP)	113		113	130	122
820	26752	108		108	155	132
821	Samba Mahsuri (Sensitive Check)	77	87	82	78	81
	Exp Mean	88	106	96	103	98
	C.D. 5%	0	0			
	C.V.%	0.00	0.00			

Table No. 12.5: Panicles/ M² of entries in AVT 1 NIL (Submergence) Control Kharif 2017

Entry No.	IET No.	III			Zone III (3)	IV AS	VII A.P.	Overall (5)
		OD	BI	U.P.				
		CTK	PSA	GGT		GER	MTU	
801	26421	249	215		232	172	330	242
802	MTU 1075 (Pushyami) (RP)	246	221		234	181	282	232
803	26743	171	236	154	187	213	249	204
804	Pooja (RP)	239	228	156	208	230	297	230
805	26744	204	232	129	188	199	282	209
806	Swarna-Sub1(DP)	159	199	142	167	213	293	201
807	26745	243	203	135	193	166	282	206
808	Pratikshya (RP)	254	221	129	201	195	326	225
809	26746	250	218	128	199	186	295	215
810	Swarna (Sensitive Check)	238	239	122	200	204	312	223
811	26747	240	201	96	179	204	284	205
812	Gayatri (RP)	250		114	182	174	310	212
813	26748	234		106	170	223	297	215
814	IR 49830-7 (DP)	232	233		233	207	295	242
815	26749	194	225	113	177	192	308	206
816	Sarala (RP)	226		109	168	227	308	218
817	26750	226			226	200	286	237
818	26751	241	214	137	197	159	273	205
819	Varshadhan (RP)	234			234	141	297	224
820	26752	247			247	144	312	234
821	Samba Mahsuri (Sensitive Check)	239	209	152	200	204	306	222
	Exp Mean	229	220	128	197	192	296	218
	C.D. 5%	29	54	13	21	19	47	15
	C.V.%	7.71	14.72	6.05	11.28	6.00	9.54	9.79

Table No. 12.5 contd: Panicles/ M² of entries in AVT 1- NIL (Submergence) Kharif 2017

Entry No.	IET No.	III		Zone III (2)	VII A.P.	Overall (3)
		OD	BI			
		CTK	PSA		MTU	
801	26421	6	160	83	174	113
802	MTU 1075 (Pushyami) (RP)	5	215	110	9	76
803	26743	6	194	100	23	74
804	Pooja (RP)	5	188	97	43	79
805	26744	6	222	114	127	119
806	Swarna-Sub1(DP)	6	204	105	49	87
807	26745	5	148	77	34	63
808	Pratikshya (RP)	5	204	104	50	86
809	26746	6	148	77	71	75
810	Swarna (Sensitive Check)	6	214	110	51	90
811	26747	6	218	112	92	105
812	Gayatri (RP)	5		5	32	18
813	26748	5		5	30	17
814	IR 49830-7 (DP)	6	242	124	103	117
815	26749	6	188	97	136	110
816	Sarala (RP)	6		6	170	88
817	26750	5		5	137	71
818	26751	6	189	97	80	91
819	Varshadhan (RP)	6		6	91	49
820	26752	5		5	158	82
821	Samba Mahsuri (Sensitive Check)	4	230	117	31	88
	Exp Mean	6	198	86	81	84
	C.D. 5%	1	63	30	23	21
	C.V.%	11.05	19.14	30.45	17.14	27.29

Table No. 12.6 Grain Quality characteristics of entries in AVT 1- NIL (Submergence) Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
801	26421	77.5	67.7	64.6	5.63	2.02	2.78	MS	VOC	4.0	25.96	41
802	PUSHYAMI (MTU-1075)	79.1	68.2	61.5	5.67	2.09	2.82	MS	VOC	5.0	22.99	22
803	26743	77.3	67.1	54.5	5.35	2.19	2.44	SB	VOC	4.0	19.41	42
804	POOJA (RP)	76.4	67.1	65.5	5.27	2.11	2.49	SB	VOC	5.0	23.55	54
805	26744	75.0	65.0	56.2	5.21	2.13	2.44	SB	VOC	5.0	20.47	51
806	SWARNA SUB-1 (DP)	76.7	66.6	61.8	5.23	2.14	2.44	SB	VOC	4.0	24.31	62
807	26745	77.5	68.1	56.8	5.35	2.37	2.25	SB	VOC	5.0	24.4	55
808	PRATIKSHAYA (RP)	79.4	68.0	50.1	5.57	2.13	2.61	MS	A	4.0	24.31	67
809	26746	78.6	69.0	56.5	5.30	2.35	2.25	SB	VOC	5.0	23.32	65
810	SWARNA (SENSITIVE CHECK)	76.3	65.6	54.2	4.93	2.10	2.34	SB	VOC	5.0	20.38	48
811	26747	77.3	65.5	53.8	5.18	2.47	2.09	SB	VOC	5.0	22.32	55
812	GAYATRI (RP)	75.0	63.2	47.5	4.74	2.42	1.95	SB	VOC	5.0	22.38	65
813	26748	80.1	68.6	50.6	4.73	2.58	1.83	SB	OC	5.0	24.37	83
814	IR 49830-7 (DP)	78.3	69.7	62.8	6.38	2.16	2.95	LB	VOC	7.0	23.17	24
815	26749	76.5	67.1	53.8	5.67	1.95	2.90	MS	VOC	5.0	23.46	46
816	SARALA (RP)	76.3	67.2	63.2	5.59	1.89	2.95	MS	VOC	7.0	24.17	47
817	26750	76.9	68.4	64.8	5.56	1.84	3.02	SS	A	5.0	22.26	43
818	26751	77.5	67.2	61.2	6.27	2.26	2.77	LB	A	5.0	23.08	22
819	VARSHA DHAN (RP)	76.9	66.2	57.1	6.26	2.26	2.76	LB	VOC	5.0	23.38	28
820	26752	77.8	68.3	60.7	6.32	2.24	2.82	LB	A	5.0	24.9	39
821	SAMBHA MAHSURI (SC)	76.1	66.0	61.9	5.05	1.76	2.86	MS	VOC	4.0	24.28	22

HULL: Hulling (%) Milling (%): HRR rice recovery (%);KL: Kernal length(mm); KB:Kernal breadth(mm);SS: short slender, L/B Length and breadth ratio; Grain Chalk:Grain Chalkiness;VOC:Very occasionally present; A: Absent;MS:Medium slender, ASV:Alkali spreading value; AC: Amylose content(%); GC:Gel consistency; LB Long bold; SB::short bold; LS: Long slender

ADVANCE VARIETY TRIAL 1-NIL (DROUGHT) (AVT 1– NIL-Drt)

Location:	Table: 12.7
Entries:	Near Isogenic Lines (NILs): 2, recurrent parent (RP): 1; donor: 1; Drought checks: 3
Checks:	RP-Varalu; Donor: Vandana; Drought Checks: Anjali (Sensitive check), DRR Dhan 42, DRR Dhan 44 (Tolerant Checks).

Advance Variety Trial 1-NIL (Drought) trial was conducted under drought stress as well as under normal conditions at different locations. ‘Drought’ trial comprised of 2 NIL entries in the first year of testing, recurrent parent, donor parent and three drought checks (one sensitive and two tolerant checks). The same entries were also evaluated in control condition without moisture stress. Material for evaluation under ‘Drought’ and ‘Control’ conditions was sent to 13 locations. Data for ‘Drought’ conditions were received from 7 centers and for ‘Control’ condition from 10 centers. Data for both conditions was not received from Trichy, Coimbatore and IIRR, Hyderabad centers. At Rewa, Raipur and Mugad the trial was conducted only under control condition. Data from Masodha and Gangavati under ‘Drought’ condition were not included in mean because of very low CV (beyond acceptable limit). Thus, data from five centres viz., Patna-ICAR, Hazirabag, Varnasi, Jagdalpur and Warangal were used for analysis under ‘Drought’ condition. Similarly, under ‘Control’ condition three centres’ data were not included in overall mean because of low CV (Masodha & Gangavati) and very poor yield (Mugad). Data from remaining seven centers viz., Patna-ICAR, Hazirabag, Varnasi, Rewa, Raipuri, Jagdalpur and Warangal were used for analysis under ‘Control’ conditions.

Drought situations at the locations

Location	Drought situation
Hazaribag	Moderate stress during grain filling stage (90 DAS to maturity)
Patna-ICAR	One drought spell of 26 days during reproductive stage
Masodha	No information on drought
Varanasi	Drought stress both at vegetative(5-17 Sept.) and flowering to maturity (no rain in Oct & Nov.) stages
Jagdalpur	Sufficient rainfall in the cropping season, no moisture stress
Warrangal	Irrigation withheld 50 days after transplanting
Gangavati	No information on drought, 52 days old seedlings were transplanted
Mugad	Drought stress prevailed throughout the cropping season
Rewa	Continuous drought stress from 65DAS to harvesting covering both reproductive and grain filling stage.
Raipur	Four dry spells in the months of July (5days), August (5days) and September(8 days and 6 days)

Performance of entries under drought:

Two NIL entries in the background of Varalu were tested along with RP, donor parent Vandana and drought checks Anjali (sensitive), DRR Dhan 42 & DRR Dhan 44 (tolerant). The performance of the entries under different conditions *i.e.*, ‘Drought’ and ‘Control’ is presented below

IET26753 (RP 6270-MSM 36-Bio-62-4-15) derived from the cross of Varalu*3/Vandana with *qYld12.1* for yield under drought stress was inferior to recurrent parent in terms of yield under drought condition on overall mean basis, in eastern and central zones. It outperformed RP by 18.8% in southern zone (single location). Similar performance was observed under normal irrigated conditions also. It was inferior to RP on overall basis, eastern and central zones and recorded yield advantage of 13.8% over RP. On comparison of IET 26753 with best drought tolerant check (DRR Dhan 44), it was inferior to best drought tolerant check by -23.3%. Based on its inferior yield performance over drought tolerant check DRR Dhan 44, **IET 26753 is dropped**

IET26754 (RP 6115-MSM-60-Bio-62-4-15) derived from the cross of Varalu*3/Vandana with *qYld12.1* for yield under drought stress yielded less than the recurrent parent both on overall and zonal mean basis under drought condition, hence **IET 26754 is dropped**.

Considering the performance under drought and normal conditions over the recurrent parent and drought tolerant checks, none of the NILs are considered for further testing in AVT-NIL (Drt).

Performance of NIL entries under drought conditions in Zone VII

IET No	Zone VII mean yield (kg/ha)	Days to 50% flowering	% Yield superiority gain over		
			Recurrent parent	Anjali (Sensitive Check)	DRR Dhan 44 (Tolerant Check)
26753	5098	93	18.8	79.1	-23.3
Varalu (RP)	4293	91			
26754	4329	87	0.8	52.1	-34.9
Vandana (DP)	3404	90			
DRR Dhan 44 (Tolerant Check)	6646	106			
Anjali (Sensitive Check)	2846	84			
DRR Dhan 42 (Tolerant Check)	6254	107			

Performance of NIL entries under controlled conditions in Zone VII

IET No	Zone VII mean yield (kg/ha)	Days to 50% flowering	% Yield superiority gain over		
			Recurrent parent	Anjali (Sensitive Check)	DRR Dhan 44 (Tolerant Check)
26753	5404	96	13.8	74.3	-24.8
Varalu (RP)	4747	95			
26754	4105	90	-13.5	32.4	-42.9
Vandana (DP)	3666	95			
DRR Dhan 44 (Tolerant Check)	7188	102			
Anjali (Sensitive Check)	3100	99			
DRR Dhan 42 (Tolerant Check)	6456	103			

Table No. 12.7: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines- Drought (AVT 1-NIL-DRT), Kharif 2017

Entry No.	IET No.	Designation	Cross combination	Grain type
1st Year of testing:				
901	26753	RP 6270-MSM 36-Bio-62-4-15	Varalu*3 / Vandana	LS
902	Varalu (RP)			LS
903	26754	RP 6115-MSM-60-Bio-62-4-15	Varalu*3 / Samba Mahsuri / Vandana	MS
904	Vandana (DP)			MS
905	DRR Dhan 44 (Drought Check)			LS
906	Anjali (Sensitive Check)			SB
907	DRR Dhan 42 (Drought Check)			LS

Table No. 12.8: Grain Yield (Kg/ha) of entries in AVT 1 NIL (DRT) Control Kharif 2017

Table No. 123: Grain Yield (kg/ha) of entries in IV F FAL (BTP) Control Means for														
Entry No.	IET No.	III										Zone III (3)		
		BI		JH		U.P.		U.P.		U.P. (1)				
		PTN- ICAR		HZB		@MSD		VRN		Mean		Mean		
901	26753	5119	2	3438	6	4739	2	3750	5	3750	5	4102	5	
902	Varalu (RP)	4942	5	4094	3	4276	4	4317	3	4317	3	4451	4	
903	26754	5070	3	4094	4	4992	1	4210	4	4210	4	4458	3	
904	Vandana (DP)	3100	7	3297	7	4085	6	3450	7	3450	7	3282	7	
905	DRR Dhan 44 (Drought Check)	5501	1	4844	2	4289	3	5510	1	5510	1	5285	1	
906	Anjali (Sensitive Check)	3766	6	3641	5	4092	5	3460	6	3460	6	3622	6	
907	DRR Dhan 42 (Drought Check)	4962	4	4984	1	3983	7	4490	2	4490	2	4812	2	
	Exp Mean	4637		4056		4351		4170		4170		4287		
	C.D. 5%	422		563		146		602		602				
	C.V.%	6.13		9.35		2.27		9.71		9.71				
	Sowing Date	07-07-2017		17-07-2017										
	Planting Date	29-07-2017		07-08-2017										
	Local ©													
	* Superior to Best Check	% Superior over Best Check		@ not included in means										

Table No. 12.8 contd: Grain Yield (Kg/ha) of entries in AVT 1 NIL (DRT) Control Kharif 2017

Entry No.	IET No.	V				V				Zone V (3)		VII			
		M.P.		CG		CG		CG (2)				TEL		KA	
		REW		RPR		JDP		Mean		Mean		WGL		@MGD	
901	26753	2171	4	4474	4	4357	3	4416	4	3667	5	5404	3	816	4
902	Varalu (RP)	3301	2	3765	6	4299	4	4032	5	3788	4	4747	4	1040	2
903	26754	1968	6	4873	3	5126	1	5000	1	3989	2	4105	5	881	3
904	Vandana (DP)	2098	5	2545	7	4862	2	3703	7	3168	7	3666	6	396	5
905	DRR Dhan 44 (Drought Check)	1824	7	5657	2	4124	5	4891	2	3868	3	7188	1	1244	1
906	Anjali (Sensitive Check)	3132	3	3901	5	3548	6	3724	6	3527	6	3100	7		
907	DRR Dhan 42 (Drought Check)	3985	1	5683	1	3492	7	4587	3	4387	1	6456	2	249	6
	Exp Mean	2640		4414		4258		4336		3771		4952		771	
	C.D. 5%	599		718		699						748		123	
	C.V.%	15.27		10.95		11.05						10.16		10.59	
	Sowing Date	06-07-2017				10-07-2017						11-07-2017			
	Planting Date	28-07-2017				05-08-2017						21-08-2017			
	Local ©														

Table No. 12.8 contd: Grain Yield (Kg/ha) of entries in AVT 1 NIL (DRT) Control Kharif 2017

Entry No.	IET No.	VII		Zone VII (1)		Overall (7)		Days to 50% Flowering	Plant Height (cm)	Panicles M ²
		KA								
		@GNV		Mean		Mean				
901	26753	5869	4	5404	3	4102	5	91	94	265
902	Varalu (RP)	4951	5	4747	4	4209	3	91	93	263
903	26754	4667	6	4105	5	4207	4	90	87	272
904	Vandana (DP)	3219	7	3666	6	3288	7	83	105	246
905	DRR Dhan 44 (Drought Check)	7357	3	7188	1	4950	1	92	102	265
906	Anjali (Sensitive Check)	8532	2	3100	7	3507	6	83	107	254
907	DRR Dhan 42 (Drought Check)	8606	1	6456	2	4865	2	98	102	261
	Exp Mean	6171		4952		4161		90	99	261
	C.D. 5%	423								
	C.V.%	4.61								
	Sowing Date									
	Planting Date									
	Local ©									

Table No.12.8 : Grain Yield (Kg/ha) of entries in AVT 1 -NIL (Drought) Kharif 2017

Entry No.	IET No.	III										Zone III (3)	
		BI		JH		U.P.		U.P.		U.P. (1)			
		PTN- ICAR		HZB		@MSD		VRN		Mean		Mean	
901	26753	2023	7	1656	6	4139	4	2543	6	2543	6	2074	7
902	Varalu (RP)	2926	2	1813	4	4617	2	3850	2	3850	2	2863	3
903	26754	3030	1	1813	5	4821	1	3720	3	3720	3	2854	4
904	Vandana (DP)	2269	6	3141	2	4058	6	2530	7	2530	7	2647	5
905	DRR Dhan 44 (Drought Check)	2644	4	2172	3	4242	3	5340	1	5340	1	3385	1
906	Anjali (Sensitive Check)	2647	3	3344	1	3942	7	3090	5	3090	5	3027	2
907	DRR Dhan 42 (Drought Check)	2301	5	1266	7	4119	5	3380	4	3380	4	2316	6
	Exp Mean	2549		2172		4277		3493		3493		2738	
	C.D. 5%	590		441		150		275		275			
	C.V.%	15.59		13.65		2.36		5.29		5.29			
	Sowing Date	20-07-2017		27-07-2017									
	Planting Date	11-08-2017		17-08-2017									
	Local ©	not mention		not mention									
* Superior to Best Check % Superior over Best Check @ not included in means													

Table No. 12.8 contd.: Grain Yield (Kg/ha) of entries in AVT 1 -NIL (Drought) Kharif 2017

Entry No.	IET No.	V		VII			Zone VII (1)		Overall (5)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²	
		CG		TEL		KA		Mean	Mean					
		JDP		WGL		@GNV								
901	26753	3012	5	5098	3	4279	6	5098	3	2866	6	90	85	293
902	Varalu (RP)	3738	1	4293	5	4795	4	4293	5	3324	2	89	87	288
903	26754	3707	2	4329	4	4535	5	4329	4	3320	3	88	79	310
904	Vandana (DP)	2937	6	3404	6	3825	7	3404	6	2856	7	81	104	270
905	DRR Dhan 44 (Drought Check)	3270	3	6646	1	8111	1	6646	1	4014	1	96	102	296
906	Anjali (Sensitive Check)	3175	4	2846	7	7104	2	2846	7	3020	5	79	103	281
907	DRR Dhan 42 (Drought Check)	2909	7	6254	2	6626	3	6254	2	3222	4	99	96	276
	Exp Mean	3250		4696		5611		4696		3232		89	94	288
	C.D. 5%	1121		452		374		452						
	C.V.%	23.21		6.47		4.49		6.47						
	Sowing Date	10-07-2017		11-07-2017										
	Planting Date	05-08-2017		21-08-2017										
	Local ©													

Table No.12.9 : Days to 50% Flowering of entries in AVT 1 NIL (DRT) Control Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V				Zone V (3)	VII				Zone VII (3)	Overall (10)
		BI	JH	U.P.	U.P.	U.P. (2)		M.P.	CG	CG	CG (2)		TEL	KA	KA	KA (2)		
		PTN- ICAR	HZB	MSD	VRN	Mean		REW	RPR	JDP	Mean		WGL	MGD	GNV	Mean		
901	26753	87	85	83	86	84	85	90	91	100	96	94	92	100	98	99	96	91
902	Varalu (RP)	84	86	84	85	85	85	92	91	100	96	94	85	102	98	100	95	91
903	26754	86	86	84	84	84	85	92	92	105	99	96	87	100	82	91	90	90
904	Vandana (DP)	71	69	84	67	76	73	80	76	97	87	84	85	101	100	100	95	83
905	DRR Dhan 44 (Drought Check)	81	86	99	65	82	83	91	89	105	97	95	104	105	96	100	102	92
906	Anjali (Sensitive Check)	67	71	81	65	73	71	79	79	94	86	84	76	107	114	111	99	83
907	DRR Dhan 42 (Drought Check)	90	94	99	85	92	92	97	91	114	103	101	105	107	99	103	103	98
	Exp Mean	81	82	88	77	82	82	89	87	102	95	93	90	103	98	101	97	90
	C.D. 5%	1	1	2	1			2	1	0			2	5	3			
	C.V.%	0.64	0.94	1.27	1.08			1.36	0.82	0.18			1.23	3.45	2.31			

Table No. 12.9 contd: Days to 50% Flowering of entries in AVT 1 -NIL (Drought) Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V (3)	VII		Zone VII (2)	Overall (7)
		BI	JH	U.P.	U.P.	U.P. (2)			TEL	KA		
		PTN- ICAR	HZB	MSD	VRN	Mean			JDP	WGL	GNV	Mean
901	26753	88	82	82	84	83	84	106	91	95	93	90
902	Varalu (RP)	87	83	83	85	84	84	100	85	97	91	89
903	26754	87	83	84	84	84	84	104	86	87	87	88
904	Vandana (DP)	74	72	81	65	73	73	95	86	94	90	81
905	DRR Dhan 44 (Drought Check)	86	85	101	84	93	89	106	103	109	106	96
906	Anjali (Sensitive Check)	74	74	80	66	73	73	92	72	96	84	79
907	DRR Dhan 42 (Drought Check)	91	88	101	84	93	91	111	105	109	107	99
	Exp Mean	84	81	87	79	83	83	102	90	98	94	89
	C.D. 5%	1	1	1	1			0	2	4		
	C.V.%	0.63	0.89	1.03	1.06			0.00	1.13	2.66		

Table No. 12.10 : Plant Height (cm) of entries in AVT 1 NIL (DRT) Control Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V				Zone V (3)	VII				Zone VII (3)	Overall (10)
		BI	JH	U.P.	U.P.	U.P. (2)		M.P.	CG	CG	CG (2)		TEL	KA	KA	KA (2)		
		PTN- ICAR	HZB	MSD	VRN	Mean		REW	RPR	JDP	Mean		WGL	MGD	GNV	Mean		
901	26753	114	106	96	106	101	106	88	114	81	98	95	89	66	78	72	78	94
902	Varalu (RP)	124	109	94	107	101	108	82	109	77	93	89	88	62	78	70	76	93
903	26754	109	94	92	96	94	98	84	106	78	92	89	82	60	75	67	72	87
904	Vandana (DP)	120	116	107	116	112	115	96	126	97	111	106	116	71	88	79	92	105
905	DRR Dhan 44 (Drought Check)	111	105	106	106	106	107	96	114	97	106	103	111	78	97	87	95	102
906	Anjali (Sensitive Check)	114	122	102	95	99	108	99	124	106	115	110	107		93	93	100	107
907	DRR Dhan 42 (Drought Check)	117	103	97	110	104	107	95	121	91	106	102	107	75	102	88	95	102
	Exp Mean	116	108	99	105	102	107	91	116	90	103	99	100	69	87	79	86	99
	C.D. 5%	0	0	0	0			0	0				0	0	0			
	C.V.%	0.00	0.00	0.00	0.00			0.00	0.00				0.00	0.00	0.00			

Table No. 12.10 contd : Plant Height (cm) of entries in AVT 1 -NIL (Drought) Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V (3)	VII		Zone VII (2)	Overall (7)
		BI	JH	U.P.	U.P.	U.P. (2)			TEL	KA		
		PTN- ICAR	HZB	MSD	VRN	Mean			JDP	WGL	GNV	Mean
901	26753	86	83	90	90	90	88	82	95	68	82	85
902	Varalu (RP)	89	82	89	101	95	90	75	91	79	85	87
903	26754	85	75	89	89	89	84	70	84	65	74	79
904	Vandana (DP)	112	103	104	108	106	107	99	111	93	102	104
905	DRR Dhan 44 (Drought Check)	108	98	101	106	104	103	97	111	93	102	102
906	Anjali (Sensitive Check)	110	106	95	102	98	103	102	116	92	104	103
907	DRR Dhan 42 (Drought Check)	101	83	90	101	96	94	92	108	94	101	96
	Exp Mean	99	90	94	100	97	96	88	102	83	93	94
	C.D. 5%			0	0					0		
	C.V.%			0.00	0.00					0.00		

Table No. 12.11: Panicles/ M² of entries in AVT 1 NIL (DRT) Control Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V				Zone V (3)	VII				Zone VII (3)	Overall (10)
		BI	JH	U.P.	U.P.	U.P. (2)		M.P.	CG	CG	CG (2)		TEL	KA	KA	KA (2)		
		PTN- ICAR	HZB	MSD	VRN	Mean	Mean	REW	RPR	JDP	Mean	Mean	WGL	MGD	GNV	Mean	Mean	Mean
901	26753	225	239	300	273	287	259	129	243	216	229	196	384	165	481	323	343	265
902	Varalu (RP)	220	240	300	246	273	251	129	270	258	264	219	381	140	448	294	323	263
903	26754	237	235	307	278	292	264	163	263	253	258	226	398	154	430	292	327	272
904	Vandana (DP)	240	216	283	274	279	253	132	251	179	215	187	351	144	389	267	295	246
905	DRR Dhan 44 (Drought Check)	217	260	288	260	274	256	155	281	221	251	219	369	133	466	300	323	265
906	Anjali (Sensitive Check)	226	253	276	221	249	244	139	208	157	183	168	365		441	441	403	254
907	DRR Dhan 42 (Drought Check)	221	248	274	214	244	239	163	355	193	274	237	345	135	460	297	313	261
	Exp Mean	226	241	290	252	271	253	144	267	211	239	207	370	145	445	307	329	261
	C.D. 5%	17	57	9	24			39	55	71			20	15	28			
	C.V.%	4.99	15.95	2.11	6.40			18.40	13.75	22.65			3.57	7.06	4.18			

Table No. 12.11 contd : Panicles/ M² of entries in AVT 1 -NIL (Drought) Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V CG	VII		Zone VII (2)	Overall (7) Mean
		BI	JH	U.P.	U.P.	U.P. (2)			TEL	KA		
		PTN- ICAR	HZB	MSD	VRN	Mean	Mean	JDP	WGL	GNV	Mean	Mean
901	26753	205	306	298	223	261	258	234	358	425	391	293
902	Varalu (RP)	190	320	292	235	264	259	203	382	396	389	288
903	26754	213	338	291	228	259	267	247	389	466	428	310
904	Vandana (DP)	210	257	282	203	242	238	189	356	395	376	270
905	DRR Dhan 44 (Drought Check)	211	275	277	227	252	248	252	388	443	415	296
906	Anjali (Sensitive Check)	211	261	268	233	251	243	188	387	419	403	281
907	DRR Dhan 42 (Drought Check)	207	289	269	221	245	246	220	351	376	363	276
	Exp Mean	207	292	283	224	253	251	219	373	417	395	288
	C.D. 5%	14	49	10	9			58	22	30		
	C.V.%	4.53	11.27	2.30	2.73			17.87	4.00	4.83		

Table No. 12.12 : Grain quality characteristics of entries in AVT 1 -NIL (Drought) Kharif 2017

ENTRY NO.	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
901	26753	78.7	68.2	58.6	6.17	2.04	3.02	LS	VOC	7	26.22	25
902	Varalu	77.9	67.7	60	6.13	2.04	3.04	LS	VOC	7	24.11	22
903	26754	77.9	65.3	59.7	5.85	2.02	2.89	MS	VOC	7	24.69	31
904	Vandana	77.6	67.6	47.4	5.48	2.12	2.58	MS	VOC	4	25.69	48
905	DRR Dhan-44 (22081)	78.9	68.1	64.9	6.57	2.04	3.22	LS	VOC	4	23.2	55
906	Anjali	78.9	63.2	47.5	5.38	2.56	2.1	SB	OC	4	24.2	43
907	DRR Dhan-42 (22836)	79.7	69.6	63.9	6.85	2.13	3.21	LS	VOC	4	24.02	43

HULL: Hulling (%); Milling (%); HRR: rice recovery (%); KL: Kernel length(mm); KB: Kernel breadth(mm); SS: short slender, L/B Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent; MS: Medium slender, ASV: Alkali spreading value; AC: Amylose content(%); GC: Gel consistency; LB: Long bold; SB: short bold; LS: Long slender

**ADVANCE VARIETY TRIAL 1- NEAR ISOGENIC LINES
(BLAST/BACTERIAL BLIGHT)
AVT1- NIL (BL/BB)**

Locations:	14	Entries: 36
Recurrent Parents	MTU 1010, Tellahamsa, Akshayadhan, Karma Mahsuri, Swarna, Samba Mahsuri (BPT 5204), Varalu, Improved Samba Mahsuri (RP Bio 226)	Table: 12.13
Donor Parents:	NLR 145, C 101A51, Tetep & Improved Samba Mahsuri	
Checks:	HR12 (Susceptible check for BL); T(N)-1 (Susceptible check for BB); Tetep (resistant/tolerant check for BL); Improved samba mahsuri (resistant/tolerant check for BB)	

The trial, AVT1-NIL (Blast/BB) was constituted to assess 24 different near-isogenic lines (NILs) developed in the genetic background of eight recurrent parents, viz., MTU 1010, Tellahamsa, Akshayadhan, Karma Mahsuri, Swarna, Samba Mahsuri (BPT 5204), Varalu and Improved Samba Mahsuri (RP Bio 226) for their trait value (i.e. blast resistance/bacterial blight resistance) along with equivalence of their yield and grain quality with respect to their respective recurrent parents. The trials were carried and analyzed as per the recommendations of the Committee constituted to deliberate on revision of criteria for nomination and evaluation of entries under Advanced Variety Trial -Near-Isogenic Lines (AVT-NIL) of AICRIP (Ref: Draft Proceedings of 52nd Annual Rice Group Meetings, AAU, Jorhat, Assam).

Trait verification of NIL entries

Evaluation for Bacterial leaf blight: NIL entries along with their respective recurrent and donor parents were evaluated at twenty three hot spot locations for BB disease reaction. At fourteen locations viz., Chinsurah, Chata, Cuttack, Faizabad, Gerua, Karjat, Ludhiana, Moncompu, Nellore, Nawagam, Pattabmi, Pantnagar, Titabar and Varanasi, susceptible recurrent parents (MTU 1010, BPT 5204 and Akshayadhan) have shown a disease score of either 1 or 3 indicating a low disease pressure at these locations and hence were excluded in the calculation of severity index. Susceptible check-T(N)1 and resistant check-Improved Samba Mahsuri recorded a disease severity index value of 8.6 and 4.8 respectively. Entries with severity index value ≤ 4.8 are considered as promising for bacterial blight resistance/tolerance. Thus, a single entry IET 27275 was found promising for BB with a severity index value of 4.8.

Evaluation for Blast: NIL entries along with their respective recurrent and donor parents were evaluated at twenty four hot spot locations for BL disease reaction. Susceptible recurrent parents (Swarna, BPT 5204, Improved Samba Mahsuri and Tellahamsa) have shown a disease score of either 1 or 3 at eleven locations viz., Coimbatore, Gangavathi, Gudalur, Hazaribagh, IIRR, Lonavala, Nadhyal, Pattambi, Rewa, Upper Shillong and Wangbal indicating a low disease pressure at these locations and hence were excluded in the calculation of severity index value. Susceptible check-HR12 and resistant check-Tetep recorded a disease severity index of 7.7 and 5.2 respectively. Entries with severity index ≤ 5.2 are considered as promising for blast resistance. Five entries viz., IETs 27285, 27287, 27288, 27289 and 27291 were found promising for blast resistance/tolerance with severity index value ≤ 5.2 .

Yield Assessment of NIL entries

The 24 NIL entries were sent to 21 locations along with their recurrent and donor parents. However, data was received from only 14 locations, with no data sent from Khudwani, IARI, Pantnagar, Bhubaneswar, Chinsurah and Coimbatore and Mandya. However, at ten locations (Malan, Ludhiana, Cuttack, Masodha, Raipur, Nawagam, Maruteru, Aduturai, Ponnampet and Pattambi), experimental mean yield was less than 4000 kg/ha. When experimental mean was calculated at these locations with only NILs and recurrent parents eliminating the donor parents, still mean values were still lower than 4000 kg/ha, hence data from these locations was excluded from analysis. Finally data from only four locations (Kaul in northern zone, Ranchi and Varanasi in Eastern zone and Warangal in Southern zone) was considered in overall mean yield analysis.

The CV% at the experimental locations varied from 18.31 % (Malan) to 4.00 % (Masoda), while the experimental mean ranged from 1932 kg/ha (Malan) to 5810 kg/ha (Warangal). The days to 50% flowering varied from 84 (C 105 A 51, a donor parent) to 111 (Swarna, a recurrent parent), plant height from 78 cm (IET 27297) to 120 cm (IET 27280) and panicles/m² from 276 (C 101 LAC, a donor parent) to 353 (IET 27290). Nineteen entries (IETs 27274, 27276, 27277, 27278, 27280, 27282, 27283, 27284, 27285, 27287, 27288, 27289, 27290, 27291, 27292, 27293, 27294, 27295 and 27296) were found superior/equivalent to their respective recurrent parents either on overall or zonal basis. Performance of the entries is discussed as here under

Near Isogenic Lines (NILs) in the genetic background of MTU1010

A total of two NILs were evaluated. IET 27274 (IBTR1) derived from the cross of MTU 1010*2/NLR 145 with *Pi54* gene was similar in yield performance to RP, but recorded a blast disease severity index of 5.8 (susceptible reaction), **hence dropped.**

IET 27275 (IBTR2) derived from the cross MTU 1010*2/GPP2//MTU1010*2/NLR145 possessing *Pi2* and *Pi54* genes for blast resistance and *Xa21* gene for bacterial blight resistance was inferior to RP in yield, hence **dropped.**

Near Isogenic Lines (NILs) in the genetic background of Tellahamsa

A total of three NILs of Tellahamsa were evaluated. IET 27276 (IBTR5) derived from the cross of Tellahamsa*2/GPP2//Tallahamsa*2/NLR 145 with two blast resistance genes, viz., *Pi2* and *Pi54* and *Xa21* gene for bacterial blight resistance was similar in yield performance to RP, but recorded a blast and bacterial blight diseases severity indices of 6.8 and 6.3 respectively. Due to its susceptible reaction to both the targeted traits, **IET 27276 is dropped.**

IET 27277 (IBTR6) derived from the cross Tellahamsa*2/NLR145 with *Pi54* gene for blast resistance was higher yielding than RP by 1.6, 39.66, 56.83 and 30.07 in Northern, Eastern, Southern zones and on overall basis respectively. Even though the entry has similar grain quality attributes and plant height like the recurrent parent, it was observed to flower significantly later (i.e. 98 days) than the recurrent parent (i.e.82 days) and in terms of disease reaction, it was susceptible to blast with disease severity index of 5.7 and hence **IET 27277 is dropped.**

IET 27278 (IBTR4) derived from the cross Tellahamsa*2/GPP2 with *Pi2* gene for blast resistance and *Xa21* gene for bacterial blight resistance outperformed RP with a yield advantage of 22.89, 62.31 and 21.03% in Eastern, Southern zones and on overall basis respectively. It is similar to RP in morphological attributes, but was found susceptible with disease severity index of 7.1 and 6.6 for blast and BB respectively. Hence, **IET 27278 is dropped.**

Near Isogenic Lines (NILs) in the genetic background of Akshayadhan

A total of three NILs of Akshayadhan were evaluated. IET 27279 (RP-5985-82-15-128-15-198-18-65-91) derived from the cross of Akshayadhan*2/RPBioEnt-2 (*Xa21+Gm8*) with *Xa21* gene for bacterial blight resistance was inferior to RP in yield, hence **dropped.**

IET 27280 (RP-5989-47-15-11-1-126-2-13-11) derived from the cross Akshayadhan*2/FBR1-15 with *Xa33* gene for bacterial blight resistance was found to be similar to RP both in yield and morphological attributes. It recorded a disease severity index of 5.2 for BB, hence **dropped.**

IET 27281 (RP-5986-9-63-8-55-102-38-40) derived from the cross Akshayadhan*2/RPBio Patho-with *Pi2* gene for blast resistance and *Xa21* gene for bacterial blight resistance was inferior to RP in yield, hence **dropped.**

Near Isogenic Lines (NILs) in the background of Karma Mahsuri

A total of three NILs of Karma Mahsuri were evaluated in this trial. IET 27282 (R 2454-MAS-1-R1-2) was derived from the cross Karma Mahsuri*2/IRBB 59, possessing bacterial blight resistance genes, *Xa21*, *xa13* and *xa5* was inferior to RP in yield, hence **dropped.**

IET 27283 (R 2454-MAS-1-R1-1) was derived from the cross Karma Mahsuri*2/IRBB 59, possessing the bacterial blight resistance genes, *Xa21*, *xa13* and *xa5* was found with 13.83, 9.78, 1.77 and 7.91 % yield advantage over the RP in northern, eastern, southern zones and on overall basis respectively and was similar to RP. However, it recorded a susceptible reaction to BB with disease severity index of 6.8, hence **IET 27283 is dropped.**

IET 27284 (R 2454-MAS-1-R1-10) was derived from the cross Karma Mahsuri*2/IRBB 59 and possesses the bacterial blight resistance genes, *Xa21*, *xa13* and *xa5*. It out yielded RP by 24.47, 8.79, 4.12 and 10.72% in eastern, southern zones and on overall basis respectively and was found similar to RP. It was observed to show susceptible reaction against bacterial blight disease with a severity index value of 7.0. **Due to its susceptibility to bacterial blight, IET 27284 is dropped.**

Near Isogenic Lines (NILs) in the background of Swarna

Two NILs of Swarna were evaluated in this trial. IET 27285 (RP 6280 Patho-9-12-9) was derived from the cross Swarna*3/C 101 LAC/C 101A51 and possesses the blast resistance gene, *Pi2*. This entry recorded yield superiority of 18.93 and 3.42% over RP in the eastern zone and on overall basis respectively. It was found resistant/tolerant to blast with disease severity index value of 4.8. Owing to its similarity with RP in morphological attributes, superiority over RP in yield and possessing resistance to blast, **IET 27285 is considered for further testing.**

IET 27286 (RP 6279 Patho-6-1-13) derived from the cross Swarna*2 / C 101 LAC possesses the blast resistance gene, *Pi1*. It was found inferior to RP in yield, hence **dropped**.

Near Isogenic Lines (NILs) in the background of Samba Mahsuri

A total of five NILs of Samba Mahsuri were evaluated against blast/bacterial blight in this trial. IET 27287 (RP 6283 Patho-5-3-9) was derived from the cross Samba Mahsuri *3/C 101 LAC/C 101 A51 and possesses *Pi1* and *Pi2* blast resistance genes. It was observed to be showing yield advantage over RP by 34.64 % in eastern zone and 12.9% on overall basis. It recorded resistance reaction to blast (S.I-5.1). It is earlier to RP by 14 days. Quality wise, it has low head rice recovery of 46.2%, hence **IET 27287 is dropped**.

IET 27288 (RP 6284 Patho-5-23-28) derived from the cross Samba Mahsuri*3/C 101 LAC/C 101 A51/Tetep possesses the blast resistance genes, *Pi1* and *Pi54*. It was observed to be resistant/moderately resistant to blast with a severity index value of 4.9. It was superior in terms of yield to the recurrent parent in Zone III (25.28 %) and on overall basis (10.05%). The entry was observed to flower early as compared to Samba Mahsuri but has a low HRR (51.5%). **Due to low HRR, IET 27288 is dropped**.

IET 27289 (RP 6281 Patho-2-1-30) derived from the cross Samba Mahsuri*2 / C 101 A51) possesses the blast resistance gene, *Pi2*. The entry was resistant/moderately resistant to blast with a severity index value of 4.9. It was equivalent to the recurrent parent with respect to yield in Zone VII and on overall basis. The entry was observed to flower early as compared to Samba Mahsuri and recorded low HRR (51.4%). **Due to low HRR, IET 27289 is dropped**.

IET 27290 (RP-6118-24-1-19-106-3) derived from the cross Samba Mahsuri *2RP Bio Patho-2 possesses *Pi2* for blast resistance and *Xa21* for bacterial blight resistance. It was found superior in yield to RP by 5.47% in eastern zone. However, it was observed to show susceptible reaction for blast and BB with a severity index value of 6.5 and 5.4 respectively. Hence, **IET 27290 is dropped**.

IET 27291 (RP 6282 Patho-2-33-19) was derived from the cross Samba Mahsuri*2/C 101A 51 and possesses the blast resistance gene, *Pi2*. It was observed to be resistant/moderately resistant to blast with a severity index value of 5.2. The entry was superior to Samba Mahsuri with respect to yield in Zone III (+ 26.28 %), Zone VII (+ 6.13 %) and on overall basis (+ 17.14 %). The entry was observed to flower early as compared to Samba Mahsuri and was equivalent to the recurrent parent in terms of grain quality attributes and plant height. **Due to its yield equivalence/superiority to the recurrent parent, due to its moderate resistance against blast and equivalence to Samba Mahsuri in terms of grain quality attributes and plant height, IET 28291 is promoted**.

Near Isogenic Line (NIL) in the background of Varalu

A single NIL of Varalu, viz., IET 27292 (RP 6115-MSM-60-Bio-62-4-15) derived from the cross Varalu*3/Samba Mahsuri) was evaluated in this trial. It recorded yield advantage in Zone III (3.66 %) and Zone VII (16.22 %). The entry showed susceptible resistance against blast disease with a severity index value of 6.6. **Due to its susceptibility against blast disease, IET 27292 is dropped**.

Near Isogenic Lines (NILs) in the background of Improved Samba Mahsuri

A total of five NILs of Improved Samba Mahsuri were evaluated for their bacterial blight/blast resistance and yield in this trail. IET 27293 [RP-6113-Patho BB-16(GSY-BB-IPB-3-16)] was derived from the cross Improved Samba Mahsuri*3/PAU3554 and possesses the bacterial blight resistance genes, *Xa21*, *xa13*, *xa5* and *Xa33*. It was equivalent to Improved Samba Mahsuri in Zone III (+ 0.42 %) and in Zone VII (1.99%) in terms of yield. But, it was observed to show susceptible reaction against bacterial blight with a severity index value of 5.2. Hence, **IET 27293 is dropped.**

IET 27294 [RP-6113-Patho BB-9(GSY-BB-IPB-2-9)] was derived from the cross Improved Samba Mahsuri*3/PAU 3554. It possesses the bacterial blight resistance genes, *Xa21*, *xa13*, *xa5* and *Xa33*. It was superior to Improved Samba Mahsuri in Zone II (+ 1.54 %), Zone III (+ 15.40 %) and on overall basis (+ 6.20 %) in terms of yield. It was observed to show susceptible reaction against bacterial blight with a severity index value of 5.0. Hence, **IET 27294 is dropped.**

IET 27295 [RP-6113-Patho BB-17(GSY -BB-IPB-3-17)] derived from the cross Improved Samba Mahsuri*3/PAU 3554 possessed four bacterial blight resistance genes, viz., *Xa21*, *xa13*, *xa5* and *Xa33*. It was similar to Improved Samba Mahsuri in Zone III (+ 0.44 %) and in overall basis (+1.96%). It showed susceptible reaction against bacterial blight with a severity index value of 5.9, hence **IET 27295 is dropped.**

IET 27296 [RP-6113-Patho BB-12(GSY-BB-IPB-2-12)] was derived from the cross Improved Samba Mahsuri*3/PAU 3554. It possesses the bacterial blight resistance genes, *Xa21*, *xa13*, *xa5* and *Xa33*. In terms of yield, it was superior to Improved Samba Mahsuri in Zone III (+6.57%), equivalent in Zone VII (0.24%) and on overall basis (+ 2.87 %). in terms of yield. It recorded a susceptible reaction to BB with severity index score of 5.9, hence **IET 27296 is dropped.**

IET 27297 (RP 6285 Bio Patho-2-9-2) derived from the cross Improved Samba Mahsuri*2/Tetep possess the bacterial blight resistance genes, *Xa21*, *xa13* and *xa5* and the blast resistance gene, *Pi54*. It was found inferior to RP in yield, hence **dropped.**

Based on yield superiority/equivalence with recurrent parent, disease resistance/tolerance reaction and similarity in morphological attributes and grain quality parameters with recurrent parent, the following two entries are considered for further testing in AVT2-NIL (Blast) IET 27285 (RP 6280 Patho-9-12-9) and IET 27291(RP 6282 Patho-2-33-19).

Performance of the entries in AVT1-NIL (BB & BL) during Kharif 2017

S.No	IET no.	Zone II	Zone III	Zone VII	Overa II	BB	BL	Similarity with RP	Remarks
1	27274	--	5.31	--	-1.94	7.00	5.80	Similar to RP	Dropped
2	27275	--	--	--	--	4.8	6.30	Similar to RP	dropped
3	27276	--	1.17	14.52	2.26	6.30	6.80	Similar to RP	dropped
4	27277	1.60	39.66	56.83	30.07	7.40	5.70	DFF increase by 16 days, PH similar	dropped
5	27278	--	22.89	62.31	21.03	6.60	7.10	Similar to RP	dropped
6	27279	--	--	--	--	6.1	6.7	inferior to RP in yield, dropped	
7	27280	12.07	--	6.01	-1.40	5.20	6.60	Similar to RP	dropped
8	27281	--	--	--	--	5.2	6.5	inferior to RP in yield, dropped	
9	27282	--	0.12	--	--	6.30	6.80	Similar to RP	dropped
10	27283	13.83	9.78	1.77	7.91	6.80	6.40	Similar to RP	dropped
11	27284	24.47	8.79	4.12	10.72	7.00	5.80	Similar to RP	dropped
12	27285	--	18.93	--	3.42	6.80	4.80	Similar to RP	promoted
13	27286	--	--	--	--	6.3	5.2	inferior to RP in yield, dropped	
14	27287	--	34.64	--	12.90	7.40	5.10	DFF decreased by 14 days, PH similar; low HRR (46.2%)	dropped
15	27288	--	25.28	--	10.05	7.90	4.90	DFF decreased by 12 days, PH similar; low HRR (51.5%)	dropped
16	27289	--	--	0.59	0.90	8.10	4.90	DFF decreased by 9 days, PH similar; low HRR (51.4%)	dropped
17	27290	--	5.47	--	--	5.40	6.50	Similar to RP	dropped
18	27291	--	26.28	6.13	17.14	7.70	5.20	DFF decreased by 11 days, PH similar; similar grain quality traits	promoted
19	27292	--	3.66	16.22	-5.08	6.80	6.60	DFF increase by 13 days, PH similar	dropped
20	27293	--	0.42	1.99	-1.75	5.20	6.80	Similar to RP	dropped
21	27294	1.54	15.40	--	6.20	5.00	6.30	Similar to RP	dropped
22	27295	--	0.44	--	1.96	5.90	6.60	Similar to RP	dropped
23	27296	--	6.57	0.24	2.87	5.90	6.60	Similar to RP	dropped
24	27297	--	--	--	--	7.2	6.00	inferior to RP in yield, dropped	
	Improved samba Mahsuri					4.80			
	Tetep						5.20		

Disease reaction of the entries to Bacterial leaf blight disease during Kharif 2017

IET No.	Data included										Data not included														
	ADT	CHP	GNV	IIRR	MTU	NDL	NVS	PNT	RPR	SI	CHN	CHT	CTK	FZB	GER	KJT	LDN	MNC	NLR	NWG	PTB	PTN	TTB	VI N	
27274	9	9	7	7	9	9	5	3	5	7.0	5	7	7	7	7	5	7	7	3	1	9	3	5	5	
MTU 1010 (RP)	9	9	7	5	9	5	7	5	5	6.8	3	7	3	7	5	5	3	7	3	1	7	3	3	3	
27275	9	5	5	1	7	5	7	1	3	4.8	1	7	3	5	3	3	3	3	5	1	9	3	3	5	
NLR 145 (DP)	9	5	5	9	9	7	5	9	5	7.0	7	3	5	5	3	7	7	1	3	3	7	3	5	7	
27276	9	7	9	1	7	1	7	9	7	6.3	1	7	5	5	5	7	3	7	5	5	9	3	5	5	
27277	9	7	9	7	7	5	7	9	7	7.4	5	7	5	7	5	7	7	5	7	3	9	5	3	5	
Tellahamsa (RP)	9	7	7	9	9	5	9	7	7	7.7	5	7	5	7	3	7	7	7	5	3	9	5	5	5	
27278	9	7	5	3	9	7	5	7	7	6.6	3	7	3	5	5	7	7	7	9	3	5	5	7	7	
27279	9	5	5	3	5	9	5	7	7	6.1	1	3	3	3	3	7	5	3	7	1	7	3	5	7	
27280	9	5	5	3	7	5	7	3	3	5.2	1	3	5	3	1	3	7	1	1	3	7	5	3	5	
Akshyadhan (RP)	5	7	7	9	7	7	5	9	5	6.8	5	7	5	5	5	5	7	3	2	3	9	5	5	5	
27281	9	5	5	3	9	7	3	1	5	5.2	3	3	7	3	3	5	7	3	5	3	9	5	3	5	
27282	9	7	5	3	7	7	5	9	5	6.3	1	7	3	5	3	7	3	5	7	3	7	5	5	5	
27283	9	7	7	3	7	5	7	9	7	6.8	3	7	5	7	3	3	3	5	7	3	7	3	5	5	
Karma Mahsuri (RP)	9	9	3	7	9	5	5	9	5	6.8	5	5	9	3	3	7	7	3	9	3	9	3	5	5	
27284	9	7	9	7	7	7	7	5	5	7.0	5	7	7	5	3	5	7	3	7	3	7	5	5	5	
27285	9	7	3	7	9	9	5	7	5	6.8	5	7	5	7	5	7	7	5	9	3	7	3	7	7	
Swarna (RP)	5	3	3	5	7	5	7	3	5	4.8	3	3	5	3	3	3	7	0	3	1	9	3	5	5	
27286	7	9	5	7	7	5	7	5	5	6.3	5	3	7	5	3	3	7	3	5	3	9	3	5	5	
C 101 LAC (DP)	9	9	7	9	9	5	1	9	7	7.2	7	9	9	7	-	5	7	7	7	3	9	3	5	7	
27287	9	7	7	7	9	7	5	9	7	7.4	7	7	9	9	3	7	7	7	9	3	9	7	7	5	
27288	9	9	9	7	9	5	7	9	7	7.9	7	7	9	5	5	5	7	5	9	3	7	5	5	5	
Samba Mahsuri (RP)	9	7	9	7	7	5	7	3	7	6.8	5	3	7	3	3	3	7	7	5	1	9	5	5	7	
27289	9	9	9	7	9	5	9	9	7	8.1	7	5	7	7	-	7	7	9	9	3	7	3	7	3	
27290	9	9	7	1	5	5	5	3	5	5.4	1	5	7	3	7	9	5	5	3	3	9	5	3	5	
27291	9	9	7	7	9	5	9	7	7	7.7	7	5	7	7	5	7	7	9	9	3	7	3	5	7	
C 101 A 51 (DP)	9	9	7	7	9	5	7	9	7	7.7	3	9	7	5	7	7	7	7	3	3	7	3	5	5	
27292	9	7	5	5	9	7	5	9	5	6.8	5	3	7	7	3	7	7	5	7	1	7	5	3	7	
Varalu (RP)	9	9	9	5	9	5	7	9	7	7.7	7	7	5	5	3	3	7	5	7	3	7	5	3	7	
27293	9	3	5	1	5	7	5	5	7	5.2	1	3	3	5	5	3	1	0	5	3	5	7	3	5	
27294	9	5	3	1	3	5	5	7	7	5.0	1	3	3	5	5	5	1	3	5	3	7	5	5	7	
Improved Samba Mahsuri (RP)	9	5	5	1	3	5	5	5	5	4.8	3	5	3	5	3	3	3	3	5	3	5	5	3	5	
27295	9	7	9	1	3	5	9	3	7	5.9	1	5	1	5	5	3	1	3	3	3	7	5	3	5	
27296	9	9	7	3	5	5	3	5	7	5.9	1	5	3	5	3	3	1	3	5	3	7	5	3	5	
27297	9	7	9	3	7	7	7	9	7	7.2	5	5	5	7	3	7	3	9	5	3	9	5	5	5	
Tetep (DP)	9	7	7	9	7	5	7	9	7	7.4	3	7	5	7	3	7	7	5	3	1	9	3	3	3	
T(N1)	9	9	9	9	9	7	9	9	7	8.6	9	7	9	9	7	7	9	5	9	9	3	7	7	7	

Disease reaction of the entries to blast disease during Kharif 2017

IET No.	Data Included															Data not included													
	ALM	CTK	GGT	JDP	KJT	KHD	MLN	MND	MTU	NLR	NVS	PNP	UMM	SI	CBT	GNV	GDL	HZB	IIRR	LNV	NDL	PTB	LNV	REW	USG	WBL			
27274	6	7	7	6	8	7	6	4	3	3	7	5	6	5.8	1	3	1	1	3	3	9	2	3	2	2	3			
MTU 1010 (RP)	6	5	5	6	8	5	6	4	5	4	6	7	6	5.6	3	3	1	3	3	3	7	2	3	3	2	4			
27275	6	5	5	7	9	5	9	9	5	5	3	6	8	6.3	9	7	9	7	6	9	7	8	9	1	8	4			
NLR 145 (DP)	5	7	5	7	7	7	1	7	6	4	2	5	1	4.9	1	3	1	0	5	3	5	4	3	5	3	3			
27276	6	7	5	7	8	7	9	9	4	6	5	6	9	6.8	7	9	9	9	5	9	3	8	9	4	7	4			
27277	6	7	5	7	7	5	8	7	4	5	1	5	7	5.7	3	4	3	8	3	2	3	5	2	6	2	4			
Tellahamsa (RP)	5	7	5	7	8	5	8	4	6	6	4	5	7	5.9	7	5	7	9	3	9	3	5	9	2	3	5			
27278	6	5	5	8	9	7	9	8	7	6	7	6	9	7.1	7	3	9	9	5	9	7	9	9	1	2	3			
27279	5	5	5	8	9	9	9	5	6	3	9	8	6	6.7	3	9	3	3	3	9	7	6	9	4	3	4			
27280	5	7	7	7	9	7	9	7	7	3	6	6	6	6.6	7	9	7	8	3	9	3	6	9	2	4	5			
Akshyadhan (RP)	5	7	7	7	9	5	9	5	7	4	5	6	7	6.4	7	9	7	8	3	9	7	4	9	1	6	3			
27281	5	7	7	8	8	7	9	5	6	7	4	5	7	6.5	5	9	5	8	3	9	5	4	9	1	8	4			
27282	5	7	7	8	9	7	9	9	4	7	3	7	7	6.8	5	8	5	7	5	4	5	5	4	4	2	4			
27283	5	5	6	7	8	5	9	9	4	5	6	6	8	6.4	5	9	7	2	6	3	3	1	3	4	2	5			
Karma Mahsuri (RP)	5	5	6	7	9	5	8	6	4	7	7	7	6	6.3	3	8	3	3	5	3	5	5	3	5	2	4			
27284	5	3	6	7	7	9	8	9	3	6	2	5	6	5.8	3	7	3	3	7	3	5	4	3	6	2	4			
27285	5	7	7	8	7	7	1	4	3	3	5	5	1	4.8	5	8	5	0	3	9	7	1	9	2	2	4			
Swarna (RP)	6	7	7	7	9	5	9	7	9	4	6	6	6	6.8	3	4	3	9	7	9	7	6	9	3	2	3			
27286	5	7	7	7	8	7	1	4	3	6	7	5	1	5.2	3	5	3	0	3	8	5	1	8	2	2	4			
C 101 LAC (DP)	5	3	5	7	8	7	2	3	5	6	4	6	3	4.9	5	8	5	2	3	7	3	4	7	5	2	4			
27287	5	7	5	7	8	5	1	7	4	7	6	3	1	5.1	1	7	1	0	3	7	5	2	7	5	3	5			
27288	5	5	5	7	8	5	1	4	3	7	8	4	2	4.9	1	4	1	0	3	8	5	2	8	4	1	4			
Samba Mahsuri (RP)	5	5	7	7	9	5	7	5	6	7	7	6	5	6.2	5	9	5	3	7	6	5	6	6	2	3	5			
27289	5	5	7	7	7	7	1	3	4	7	6	4	1	4.9	3	6	3	0	3	6	5	2	6	4	3	4			
27290	5	5	7	7	8	7	9	9	6	4	5	5	8	6.5	5	8	7	7	4	9	5	4	9	3	7	4			
27291	5	5	7	7	8	5	1	7	4	7	7	3	2	5.2	1	9	1	0	3	6	5	2	6	4	3	4			
C 101 A 51 (DP)	5	5	7	6	8	7	8	7	6	7	8	3	3	6.2	5	9	5	5	3	9	5	4	9	5	3	3			
27292	5	5	7	7	-	7	9	9	6	6	5	6	7	6.6	5	9	3	5	4	9	5	5	9	1	3	3			
Varalu (RP)	6	5	7	7	8	5	8	9	4	6	4	4	7	6.2	5	9	5	5	5	4	7	4	4	4	3	3			
27293	5	5	5	7	9	7	9	9	7	5	6	6	9	6.8	5	9	7	6	3	9	7	6	9	2	5	4			
27294	5	7	5	7	9	7	9	7	7	3	2	6	8	6.3	5	9	5	4	4	7	5	5	7	6	3	4			
Improved Samba Mahsuri (RP)	5	7	5	7	9	5	9	9	7	6	6	6	8	6.8	5	9	5	4	7	9	5	4	9	5	2	5			
27295	5	5	5	8	9	7	9	7	7	6	5	5	8	6.6	5	9	5	3	3	8	5	5	8	3	2	4			
27296	5	5	7	8	9	7	9	7	7	6	2	6	8	6.6	3	9	3	2	4	6	5	6	6	4	2	4			
27297	6	5	7	8	8	5	7	4	4	6	5	5	8	6.0	1	4	1	2	3	4	7	2	4	3	4	4			
Tetep (DP)	5	5	7	7	7	7	3	4	4	6	6	4	3	5.2	1	6	1	3	1	3	5	3	3	3	2	4			
HR - 12	6	9	7	8	9	5	9	9	7	8	9	7	7	7.7	9	9	9	9	9	9	9	8	9	7	3	3			

Table No. 12.13: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines –Blast and BLB (AVT 1'-NIL-BL & BLB), Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st year of testing:				
6401	27274	IBTR1	MTU1010*2 / NLR 145	LS
6402	MTU 1010 (RP)		Krishnaveni / IR64	SS
6403	27275	IBTR2	MTU 1010*2 / GPP2 // MTU1010*2 / NLR 145	LS
6404	NLR 145 (DP)			LB
6405	27276	IBTR5	Tellahamsa*2 / GPP2 // Tellahamsa*2 / NLR 145	LS
6406	27277	IBTR6	Tellahamsa*2 / NLR 145	LB
6407	Tellahamsa (RP)		HR 12 / TNI	LS
6408	27278	IBTR4	Tellahamsa*2 / GPP2	SS
6409	27279	RP-5985-82-15-128-15-198-18-65-91	Akshyadhan / RPBio Ent -2(Xa21+Gm8)	LS
6410	27280	RP-5989-47-15-11-1-126-2-13-11	Akshyadhan /// FBRI-15	LB
6411	Akshyadhan (RP)			LB
6412	27281	RP-5986-9-63-8-55-102-38-40	Akshyadhan /// RPBio Patho-2(Xa21+Pi54)	MS
6413	27282	R 2454-MAS-1-R1-2	karma Mahsur i/ IRBB 59	MS
6414	27283	R 2654-MAS-1-R1-1	karma Mahsuri / IRBB 59	MS
6415	Karma Mahsuri (RP)			MS
6416	27284	R 2454-MAS-1-R1-10	karma Mahsuri / IRBB 59	LS
6417	27285	RP 6280 Patho-9-12-9	Swarna *3 / C 101 LAC/C 101A51	MS
6418	Swarna (RP)			SB
6419	27286	RP 6279 Patho-6-1-13	Swarna*2 / C 101 LAC	SB
6420	C 101 LAC (DP)			SB
6421	27287	RP 6283 Patho-5-3-9	Samba Mahsuri *3 / C 101 LAC / C 101 A51	SS
6422	27288	RP 6284 Patho-5-23-28	Samba Mahsuri*3 / C 101 LAC / C 101 A51 / Tetep	SS
6423	Samba Mahsuri (RP)			MS
6424	27289	RP 6281 Patho-2-1-30	Samba Mahsuri*2 / C 101 A51	SS
6425	27290	RP-6118-24-1-19-106-3	Samba Mahsuri / /RP Bio Patho-2(Xa21+Pi54)	SS
6426	27291	RP 6282 Patho-2-33-19	Samba Mahsuri*2 / C 101A 51	SS
6427	C 101 A 51 (DP)			SB
6428	27292	RP 6115-MSM-60-Bio-62-4-15	Varalu*3 / Samba Mahsuri	SS
6429	Varalu (RP)			SS
6430	27293	RP-6113-Patho BB-16(GSY-BB-IPB-3-16)	Improved Samba Mahsuri / PAU 3554	SS
6431	27294	RP-6113-Patho BB-9(GSY-BB-IPB-2-9)	Improved Samba Mahsuri / PAU 3554	SS
6432	Improved Samba Mahsuri (RP)			MS
6433	27295	RP-6113-Patho BB-17(GSY -BB-IPB-3-17)	Improved Samba Mahsuri / PAU 3554	MS
6434	27296	RP-6113-Patho BB-12(GSY-BB-IPB-2-12)	Improved Samba Mahsuri / PAU 3554	SS
6435	27297	RP 6285 Bio Patho-2-9-2	Improved Samba Mahsuri*2 / Tetep	MS
6436	Tetep (DP)			MS

Table No. 12.14: Grain Yield (Kg/ha) of entries in AVT 1- NIL BLAST & BLB Kharif 2017

Entry No.	IET No.	I	II		Zone II (1)		III		
		H.P.	PUN	HAR			OD	JH	U.P.
		@MLN	@LDN	KUL	Mean		@CTK	RCI	@MSD
6401	27274	3185	4634	HAR	6350	-10.56	3503	6204	2105
6402	MTU 1010 (RP)	3407	4659	7100	7100		3433	5856	3059
6403	27275	1259	3979	5800	5800	-18.31	2320	3634	3036
6404	NLR 145 (DP)		2368	3100	3100		6327	5764	3081
6405	27276	2148	3304	5950	5950	-4.80	1887	3843	1684
6406	27277	489	4054	6350	6350	1.60	3673	4583	3480
6407	Tellahamsa (RP)	2593	3529	6250	6250		2123	3403	3369
6408	27278	1704	3482	5700	5700	-8.80	2870	3542	3081
6409	27279		2735	4200	4200	-27.59	4917	4329	1906
6410	27280		5055	6500	6500	12.07	5037	4792	3125
6411	Akshyadhan (RP)	1481	3999	5800	5800		5113	5694	3258
6412	27281		4412	5400	5400	-6.90	3987	5671	3546
6413	27282	1259	3807	4250	4250	-9.57	3360	3958	2216
6414	27283	444	3664	5350	5350	13.83	3740	4329	3103
6415	Karma Mahsuri (RP)		3074	4700	4700		4777	4398	3125
6416	27284	1111	4275	5850	5850	24.47	4010	4051	3435
6417	27285	1407	3686	5250	5250		4367	5301	3280
6418	Swarna (RP)		3229				6570	4699	3236
6419	27286		2989	3450	3450		5063	3935	1507
6420	C 101 LAC (DP)	4148	1536	4400	4400		2720	2685	3768
6421	27287		3474	4500	4500		2850	4606	3679
6422	27288		3283	5050	5050		2953	4213	3524
6423	Samba Mahsuri (RP)		2222				4387	4583	3347
6424	27289		3656	4650	4650		2890	4306	3435
6425	27290		3148	3100	3100		4713	4236	3103
6426	27291		3719	5000	5000		2800	4745	2061
6427	C 101 A 51 (DP)	3778	2753	4950	4950		2573	4097	1973
6428	27292		3440	2950	2950	-40.40	4353	3935	1551
6429	Varalu (RP)	2296	4518	4950	4950		2073	3819	3502
6430	27293		2437	2800	2800	-13.85	4287	4676	1950
6431	27294		3378	3300	3300	1.54	4847	5046	3258
6432	Improved Samba Mahsuri (RP)		2702	3250	3250		4633	4699	3125
6433	27295		3097				5470	4907	1928
6434	27296		3390	3200	3200	-1.54	5343	4514	2172
6435	27297	207	2466	3050	3050	-6.15	3033	1921	3524
6436	Tetep (DP)		2023	4400	4400		2307	3634	3214
	Exp Mean	1932	3394	4755	4755		3870	4406	2882
	C.D. 5%	590	527	638	638		626	1146	188
	C.V. %	18.31	9.54	8.22	8.22		9.94	15.98	4.00
	Sowing Date	05-07-2017	03-07-2017				08-07-2017	04-07-2017	06-07-2017
	Planting Date	26-07-2017	01-08-2017				08-09-2017	07-08-2017	05-08-2017
	Local ©								
* Superior to Best Check % Superior over Best Check @ not included in means									

Table No. 12.14 contd: Grain Yield (Kg/ha) of entries in AVT 1- NIL BLAST & BLB Kharif 2017

Entry No.	IET No.			Zone III (2)		V	VI	VII	
		U.P.	U.P. (1)			CG	GU	A.P.	TEL
		VRN	Mean	Mean		@RPR	@NWG	@MTU	WGL
6401	27274	5047	5047	5625	5.31	4552	5388	4589	7506
6402	MTU 1010 (RP)	4827	4827	5342		3770	6391	3444	7819
6403	27275	3297	3297	3465	-35.12	2398	4887	3870	4969
6404	NLR 145 (DP)	3000	3000	4382		4893	3759	3833	5517
6405	27276	3047	3047	3445	1.17	2688	4887	3426	4819
6406	27277	4927	4927	4755	39.66	4121	2256	2398	6600
6407	Tellahamsa (RP)	3407	3407	3405		2234	4637	2922	4208
6408	27278	4827	4827	4184	22.89	2642	1504	3023	6831
6409	27279	2837	2837	3583	-34.69	3329	4135	4921	6847
6410	27280	4693	4693	4743	-13.55	4745	5388	4653	7894
6411	Akshyadhan (RP)	5277	5277	5486		5161	4762	4536	7447
6412	27281	3337	3337	4504	-17.89	3829	4762	2918	6511
6413	27282	4847	4847	4403	0.12	4035	3258	3030	5217
6414	27283	5327	5327	4828	9.78	3673	2757	3206	7333
6415	Karma Mahsuri (RP)	4397	4397	4397		4253	3759	5074	7206
6416	27284	5517	5517	4784	8.79	4049	3509	3144	7503
6417	27285	5707	5707	5504	18.93	3791	3383	3135	5917
6418	Swarna (RP)	4557	4557	4628		5245	4762	5303	6825
6419	27286	3877	3877	3906	-15.60	4563	4010	3630	5253
6420	C 101 LAC (DP)	3673	3673	3179		1637	2005	3213	4958
6421	27287	5137	5137	4872	34.64	3097	3509	2952	5181
6422	27288	4853	4853	4533	25.28	3305	3383	2336	4817
6423	Samba Mahsuri (RP)	2653	2653	3618		3486	4010	3396	5667
6424	27289	2703	2703	3504	-3.15	3879	4135	2867	5700
6425	27290	3397	3397	3816	5.47	3449	2130	3380	5022
6426	27291	4393	4393	4569	26.28	3757	5013	2665	6014
6427	C 101 A 51 (DP)	3523	3523	3810		3146	4010	2441	4403
6428	27292	3873	3873	3904	3.66	3991	4386	3414	5950
6429	Varalu (RP)	3713	3713	3766		2544	3634	2391	5119
6430	27293	3393	3393	4035	0.42	3065	3008	3719	5975
6431	27294	4227	4227	4636	15.40	3988	4135	3559	5633
6432	Improved Samba Mahs	3337	3337	4018		3420	4135	4504	5858
6433	27295	3163	3163	4035	0.44	3440	3759	4256	5039
6434	27296	4050	4050	4282	6.57	3458	3383	4145	5872
6435	27297	3113	3113	2517	-37.35	3014	1128	2340	4947
6436	Tetep (DP)	2240	2240	2937		1988	1629	2201	4842
	Exp Mean	4005	4005	4206		3573	3766	3468	5923
	C.D. 5%	536	536	642		581	991	472	941
	C.V.%	8.22	8.22	13.37		9.98	16.15	8.35	9.75
	Sowing Date	17-07-2017				03-07-2017		04-07-2017	11-07-2017
	Planting Date	03-08-2017				30-07-2017		03-08-2017	17-08-2017
	Local ©								

Table No. 12.14 contd : Grain Yield (Kg/ha) of entries in AVT 1- NIL BLAST & BLB Kharif 2017

Entry No.	IET No.	VII			Zone VII (1)		Overall (4)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M²
		TN	KA	KE							
		@ADT	@PNP	@PTB	Mean		Mean				
6401	27274	4686	3788	4288	7506	-4.01	6276	-1.94	90	98	331
6402	MTU 1010 (RP)	4556	3189	6148	7819		6401		90	97	318
6403	27275	3722	4105	4507	4969	-36.45	4425	-30.86	92	98	340
6404	NLR 145 (DP)	7639	4026	6528	5517		4345		103	93	316
6405	27276	5333	2215	4750	4819	14.52	4415	2.26	85	99	313
6406	27277	6694	4755	6587	6600	56.83	5615	30.07	98	97	323
6407	Tellahamsa (RP)	5667	2958	3039	4208		4317		82	98	320
6408	27278	6422	1991	2554	6831	62.31	5225	21.03	88	94	333
6409	27279	7225	1421	4742	6847	-8.06	4553	-24.80	106	105	348
6410	27280	7281	3939	2319	7894	6.01	5970	-1.40	102	120	318
6411	Akshyadhan (RP)	8278	2388	7221	7447		6055		100	116	310
6412	27281	7472	2468	3705	6511	-12.57	5230	-13.62	102	116	352
6413	27282	6478	2684	6247	5217	-27.60	4568	-11.73	97	84	336
6414	27283	7922	3319	2903	7333	1.77	5585	7.91	94	87	308
6415	Karma Mahsuri (RP)	5583	3701	5458	7206		5175		100	91	336
6416	27284	7953	3016	6506	7503	4.12	5730	10.72	96	85	320
6417	27285	4856	1530	3822	5917	-13.31	5544	3.42	103	89	323
6418	Swarna (RP)	6556	4062	4499	6825		5360		111	85	319
6419	27286	6083	2756	2606	5253	-23.04	4129	-22.98	107	91	320
6420	C 101 LAC (DP)	4281	2900		4958		3929		86	89	276
6421	27287	5556	2756	1573	5181	-8.58	4856	12.90	92	92	309
6422	27288	4833	2345	2234	4817	-15.00	4733	10.05	94	89	309
6423	Samba Mahsuri (RP)	6772	2929	2487	5667		4301		106	90	329
6424	27289	5056	3463	1955	5700	0.59	4340	0.90	97	90	327
6425	27290	5861	3550	5163	5022	-11.37	3939	-8.42	104	90	353
6426	27291	5489	3297	3912	6014	6.13	5038	17.14	95	90	321
6427	C 101 A 51 (DP)	4017	3175	2900	4403		4243		84	88	307
6428	27292	5561	2814	4498	5950	16.22	4177	-5.08	101	89	354
6429	Varalu (RP)	4617	1919	2315	5119		4401		88	96	304
6430	27293	6528	1919	3676	5975	1.99	4211	-1.75	102	86	325
6431	27294	5556	2590	2358	5633	-3.84	4552	6.20	104	87	326
6432	Improved Samba Mahsuri (RP)	4511	1530	3438	5858		4286		105	87	351
6433	27295	5450	2590	5076	5039	-13.99	4370	1.96	106	87	337
6434	27296	5022	1898	3558	5872	0.24	4409	2.87	104	84	349
6435	27297	4694	2597	2175	4947	-15.55	3258	-23.99	95	78	319
6436	Telep (DP)	4967	3579	1365	4842		3779		94	132	335
	Exp Mean	5810	2893	3918	5923		4772		97	94	325
	C.D. 5%	2053	457	807	941		425		1		15
	C.V.%	21.70	9.70	12.65	9.75		11.09		1.29		11.01
	Sowing Date	02-09-2017									
	Planting Date										
	Local ©										

Table No. 12.15: Days to 50% Flowering of entries in AVT 1- NIL BLAST & BLB Kharif 2017

Entry No.	IET No.	I	II	Zone II (2)	III					Zone III	V	VI	VII						Zone VII	Overall
		H.P.	PUN		HAR	OD	JH	U.P.	U.P.	U.P. (2)	(4)	CG	GU	A.P.	TEL	TN	KA	KE	(5)	(14)
		MLN	LDN	KUL	Mean	CTK	RCI	MSD	VRN	Mean	Mean	RPR	NWG	MTU	WGL	ADT	PNP	PTB	Mean	Mean
6401	27274	93	94	78	86	90	99	86	77	82	88	92	96	86	95	84	98	90	91	90
6402	MTU 1010 (RP)	94	91	76	83	86	89	120	74	97	92	91	97	81	92	83	97	89	88	90
6403	27275	95	91	80	86	86	95	120	75	98	94	90	96	84	93	84	101	91	91	92
6404	NLR 145 (DP)		112	91	101	104	114	101	97	99	104	108	110	95	112	89	116	97	102	103
6405	27276	83	86	70	78	81	85	99	72	85	84	84	99	79	85	80	98	90	86	85
6406	27277	107	102	89	96	100	101	114	85	100	100	99	104	95	102	87	100	92	95	98
6407	Tellahamsa (RP)	83	78	67	72	82	84	83	66	75	79	83	93	80	84	79	97	89	86	82
6408	27278	90	84	74	79	86	87	118	74	96	91	87	92	82	90	84	98	90	89	88
6409	27279		107	90	99	104	108	119	101	110	108	107	112	111	112	101	109	96	106	106
6410	27280		103	89	96	101	100	105	93	99	100	104	114	102	111	101	111	97	104	102
6411	Akshyadhan (RP)	108	97	89	93	95	104	105	88	96	98	98	106	96	106	96	109	97	101	100
6412	27281		102	90	96	99	108	120	94	107	105	102	111	95	107	98	109	96	101	102
6413	27282	106	93	87	90	94	100	112	86	99	98	97	106	88	100	91	107	89	95	97
6414	27283	109	94	87	91	90	100	101	83	92	94	94	103	85	95	85	105	90	92	94
6415	Karma Mahsuri (RP)		97	91	94	103	105	121	89	105	105	101	104	95	104	96	109	90	99	100
6416	27284	106	94	90	92	97	101	87	84	85	92	100	104	88	101	93	109	91	96	96
6417	27285	109	100	91	95	97	108	132	88	110	106	99	111	96	107	99	111	94	101	103
6418	Swarna (RP)		113		113	112	118	117	103	110	112	108	111	112	118	103	119	95	109	111
6419	27286		113	91	102	108	120	96	98	97	106	107	115	110	119	105	118	93	109	107
6420	C 101 LAC (DP)	82	74	71	73	74	77	131	69	100	88	83	104	72	82	81	120		89	86
6421	27287		86	88	87	90	91	106	86	96	93	99	99	84	88	86	109	88	91	92
6422	27288		88	88	88	89	98	115	84	100	97	99	103	85	85	90	108	87	91	94
6423	Samba Mahsuri (RP)		110		110	112	108	116	101	108	109	110	111	107	82	101	115	95	100	106
6424	27289		94	90	92	98	104	110	95	102	102	102	105	85	90	89	110	88	92	97
6425	27290		107	91	99	109	108	122	95	109	109	106	112	106	108	89	111	93	101	104
6426	27291		95	88	91	98	98	96	91	94	96	102	102	89	91	90	111	90	94	95
6427	C 101 A 51 (DP)	83	78	71	74	80	80	97	69	83	81	83	115	76	83	85	97	84	85	84
6428	27292		104	90	97	103	102	96	96	96	99	107	111	103	105	94	112	93	101	101
6429	Varalu (RP)	93	84	78	81	87	84	120	81	100	93	90	94	80	84	79	97	87	86	88
6430	27293		108	91	99	111	79	90	100	95	95	107	117	111	110	93	109	96	104	102
6431	27294		106	90	98	110	105	113	95	104	106	107	113	106	108	93	109	94	102	104
6432	Improved Samba Mahsuri (RP)		107	90	99	112	107	111	95	103	106	107	115	109	109	95	110	92	103	105
6433	27295		108		108	111	107	112	100	106	108	107	114	111	110	92	109	96	104	106
6434	27296		107	91	99	112	105	101	98	100	104	107	115	106	108	93	110	100	104	104
6435	27297	108	94	84	89	87	103	112	84	98	97	93	101	80	92	87	107	98	93	95
6436	Telep (DP)		90	84	87	96	110	104	83	94	98	92	97	85	97	89	109	92	94	94
	Exp Mean	97	97	85	91	97	100	109	87	98	98	99	106	93	99	91	108	92	97	97
	C.D. 5%	2	2	0	1	1	1	2	2	1	1	1	2	2	2	4	2	1	1	1
	C.V.%	1.20	1.41	0.17	1.16	0.77	0.84	1.32	1.13	1.24	1.04	0.65	1.45	1.31	1.11	2.81	1.00	0.50	1.49	1.29

Table No. 12.16 : Plant Height (cm) of entries in AVT 1- NIL BLAST & BLB Kharif 2017

Entry No.	IET No.	I	II		Zone II	III					Zone III	V	VI	VII						Zone VII	Overall (14)
		H.P.	PUN	HAR	(2)	OD	JH	U.P.	U.P.	U.P. (2)	(4)	CG	GU	A.P.	TEL	TN	KA	KE	(5)		
		MLN	LDN	KUL	Mean	CTK	RCI	MSD	VRN	Mean	Mean	RPR	NWG	MTU	WGL	ADT	PNP	PTB	Mean	Mean	
6401	27274	77	89	101	95	108	109	88	101	95	102	112	102	111	112	93	70	104	98	98	
6402	MTU 1010 (RP)	75	85	113	99	111	107	83	103	93	101	107	104	102	107	87	75	104	95	97	
6403	27275	68	87	109	98	110	103	124	99	111	109	97	109	107	105	84	68	99	93	98	
6404	NLR 145 (DP)		75	84	80	110	95	106	83	95	99	99	81	111	100	85	67	113	95	93	
6405	27276	77	87	105	96	109	104	98	100	99	103	111	95	97	101	101	86	113	100	99	
6406	27277	61	87	102	94	112	107	85	100	92	101	104	96	123	98	98	78	113	102	97	
6407	Tellahamsa (RP)	76	93	104	99	104	107	83	102	93	99	107	109	106	105	92	79	110	99	98	
6408	27278	70	85	103	94	102	103	119	93	106	104	98	92	95	101	79	70	103	89	94	
6409	27279		94	100	97	127	110	82	98	90	104	114	96	136	111	106	82	112	109	105	
6410	27280		114	108	111	139	121	104	121	112	121	137	119	144	130	101	91	133	120	120	
6411	Akshyadhan (RP)	86	111	114	113	133	115	87	114	100	112	136	114	144	132	105	89	139	122	116	
6412	27281		103	111	107	142	108	83	114	99	112	139	115	144	124	108	91	131	120	116	
6413	27282	54	77	72	74	102	82	82	86	84	88	103	69	101	94	88	58	110	90	84	
6414	27283	54	72	78	75	106	86	134	89	112	104	96	74	97	90	82	59	101	86	87	
6415	Karma Mahsuri (RP)		76	83	80	111	81	81	90	86	91	105	91	121	104	82	59	102	94	91	
6416	27284	57	77	82	80	102	84	86	92	89	91	91	76	98	91	88	58	109	89	85	
6417	27285	60	83	85	84	103	93	134	94	114	106	96	74	108	91	70	59	98	85	89	
6418	Swarna (RP)		74		74	104	77	87	83	85	88	86	74	123	82	66	58	103	86	85	
6419	27286		77	74	76	119	86	94	101	98	100	98	82	120	86	76	61	106	90	91	
6420	C 101 LAC (DP)	83	85	98	91	103	89	86	103	94	95	97	101	87	82	66	77		78	89	
6421	27287		84	83	84	106	95	119	94	106	103	100	91	93	85	78	68	99	85	92	
6422	27288		78	87	82	106	91	114	94	104	101	96	84	91	82	73	62	96	81	89	
6423	Samba Mahsuri (RP)		71	74	72	115	90	116	81	99	101	91	81	117	84	89	58	103	90	90	
6424	27289		79	85	82	107	94	97	92	94	97	92	84	99	83	90	73	99	89	90	
6425	27290		76	78	77	106	82	105	85	95	94	95	81	119	88	90	63	105	93	90	
6426	27291		81	82	82	108	92	103	94	99	99	104	86	97	87	81	58	100	85	90	
6427	C 101 A 51 (DP)	71	82	86	84	93	99	105	96	100	98	86	93	87	87	80	63	98	83	88	
6428	27292		74	75	75	110	92	82	90	86	93	99	86	113	103	83	55	98	90	89	
6429	Varalu (RP)	71	91	106	98	112	102	82	112	97	102	114	91	96	98	94	69	102	92	96	
6430	27293		73	76	74	102	83	91	81	86	89	100	71	117	91	86	50	102	89	86	
6431	27294		70	75	73	102	89	93	84	89	92	95	80	113	87	87	57	98	89	87	
6432	Improved Samba Mahsuri (RP)		75	78	76	104	92	78	83	80	89	98	85	118	83	84	54	99	88	87	
6433	27295		75		75	104	84	90	81	86	90	91	71	116	86	80	57	103	88	87	
6434	27296		77	67	72	103	81	94	79	87	89	99	70	117	86	76	50	86	83	84	
6435	27297	46	71	73	72	99	80	93	76	84	87	96	73	89	78	73	51	93	77	78	
6436	Telep (DP)		128	142	135	156	128	87	137	112	127	140	132	136	142	131	95	156	132	132	
	Exp Mean	68	84	91	87	111	96	97	95	96	100	104	90	111	97	87	67	107	94	94	
	C.D. 5%	0	0	0	0		0	0						0			0	0			
	C.V.%	0.00	0.00	0.00	0.00		0.00	0.00						0.00			0.00	0.00			

Table No. 12.17 : Panicles/ m² of entries in AVT 1- NIL BLAST & BLB Kharif 2017

Entry No.	IET No.	I		II		Zone II (2)	III					Zone III (4)	V CG	VI GU	VII						Zone VII (5)	Overall (14)
		H.P.	PUN	HAR	OD		JH	U.P.	U.P.	U.P. (2)	A.P.				TEL	TN	KA	KE				
		MLN	LDN	KUL	Mean	CTK	RCI	MSD	VRN	Mean	Mean	RPR	NWG	MTU	WGL	ADT	PNP	PTB	Mean	Mean		
6401	27274	325	330	372	351	357	337	305	350	328	337	236	273	268	378	385	334	377	349	331		
6402	MTU 1010 (RP)	273	332	373	353	358	315	312	310	311	324	253	276	249	374	330	305	385	328	318		
6403	27275	295	286	358	322	369	263	341	344	342	329	224	270	279	396	353	450	527	401	340		
6404	NLR 145 (DP)		288	299	294	424	280	349	282	316	334	224	266	260	385	282	334	430	338	316		
6405	27276	347	275	252	263	346	234	256	220	238	264	288	270	277	388	375	276	579	379	313		
6406	27277	295	317	303	310	342	316	299	247	273	301	309	188	273	380	422	319	508	380	323		
6407	Tellahamsa (RP)	315	308	261	285	367	321	305	283	294	319	247	269	282	393	287	363	486	362	320		
6408	27278	278	328	361	344	376	339	322	391	356	357	248	122	279	384	385	319	531	380	333		
6409	27279		315	373	344	362	413	302	253	278	333	248	267	328	374	332	377	579	398	348		
6410	27280		323	322	322	303	327	277	272	275	295	271	272	262	375	371	276	478	352	318		
6411	Akshyadhan (RP)	260	277	301	289	295	288	271	223	247	269	276	270	310	372	258	305	628	375	310		
6412	27281		301	354	328	332	369	313	262	288	319	223	270	279	387	457	319	710	431	352		
6413	27282	325	312	381	346	334	276	354	343	348	327	275	203	290	377	474	392	370	381	336		
6414	27283	322	321	264	292	318	324	269	293	281	301	260	197	255	384	512	305	288	349	308		
6415	Karma Mahsuri (RP)		308	360	334	387	363	308	299	304	339	250	266	255	382	524	406	262	366	336		
6416	27284	285	293	335	314	363	286	303	283	293	309	235	265	251	391	519	377	295	367	320		
6417	27285	397	343	351	347	353	270	317	346	332	322	215	263	284	369	330	348	333	333	323		
6418	Swarna (RP)		271		271	325	274	324	262	293	296	268	269	341	376	281	348	482	366	319		
6419	27286		341	351	346	350	307	229	294	261	295	272	266	284	369	280	406	411	350	320		
6420	C 101 LAC (DP)	297	288	306	297	255	223	289	266	278	258	196	185	257	369	251	406		321	276		
6421	27287		310	318	314	341	279	228	323	276	293	241	264	332	399	312	363	310	343	309		
6422	27288		341	381	361	344	290	253	266	259	288	247	263	253	369	384	363	265	327	309		
6423	Samba Mahsuri (RP)		330		330	404	281	286	348	317	330	276	267	304	375	387	334	359	352	329		
6424	27289		334	442	388	365	287	303	363	333	329	273	266	255	383	348	319	318	325	327		
6425	27290		354	398	376	427	317	272	342	307	339	275	130	385	377	484	359	475	416	353		
6426	27291		334	405	369	368	268	163	341	252	285	232	271	249	380	392	348	419	357	321		
6427	C 101 A 51 (DP)	357	293	316	304	363	227	187	364	276	285	199	266	253	376	378	363	355	345	307		
6428	27292		319	420	369	393	311	247	348	297	325	212	269	323	375	334	465	587	417	354		
6429	Varalu (RP)	358	286	295	290	363	292	279	231	255	291	260	264	238	373	269	348	400	326	304		
6430	27293		321	406	364	350	303	207	366	286	306	250	262	310	378	350	363	362	353	325		
6431	27294		326	378	352	380	287	278	353	316	325	229	267	284	392	379	348	340	349	326		
6432	Improved Samba Mahsuri (RP)		310	369	340	370	295	304	313	308	320	241	267	328	377	456	479	448	418	351		
6433	27295		284		284	365	280	295	341	318	320	295	265	332	384	451	406	340	383	337		
6434	27296		317	379	348	410	305	200	332	266	312	262	263	319	378	346	523	497	413	349		
6435	27297	390	304	314	309	376	303	254	297	276	308	209	105	264	378	278	406	583	382	319		
6436	Telep (DP)		317	355	336	359	383	249	357	303	337	232	113	277	381	425	494	407	397	335		
	Exp Mean	320	312	347	329	358	301	279	309	294	312	249	242	285	380	372	368	432	367	325		
	C.D. 5%	49	57	13	29	55	44	21	15	15	19	46	39	54	17	54	62	136	33	15		
	C.V.%	9.24	11.16	2.31	7.82	9.47	8.96	4.51	2.97	4.40	7.70	11.45	9.84	11.69	2.69	8.93	10.28	19.38	12.68	11.01		

Table No. 12.18 : Grain quality characteristics of entries in AVT 1- NIL BLAST & BLB Kharif 2017

Entry No	IET NO.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
6401	27274	75.4	63.3	53.8	6.28	2.03	3.09	LS	VOC	7.0	22.35	22
6402	MTU 1010	76.7	62.2	50.4	5.94	1.89	3.14	LS	VOC	3.0	17.36	71
6403	27275	71.2	55.3	38.8	6.19	1.71	3.61	LS	VOC	7.0	18.65	53
6404	NLR-145	76.8	68.1	65.2	6.17	2.09	2.95	LB	VOC	4.0	21.35	51
6405	27276	72.5	62.7	50.4	6.43	1.85	3.47	LS	VOC	7.0	23.14	22
6406	27277	77.6	64.3	57.7	6.10	2.19	2.78	LB	OC	4.0	26.25	45
6407	TELLA HAMSA	73.9	57.8	49.8	6.09	2.01	3.02	LS	VOC	4.0	18.97	22
6408	27278	76.7	61.8	45.5	5.62	1.71	3.28	SS	VOC	7.0	23.32	22
6409	27279	76.1	65.1	62.0	6.29	1.80	3.49	LS	A	4.0	23.40	58
6410	27280	77.2	66.5	62.2	6.50	2.18	2.98	LB	VOC	5.0	24.90	42
6411	AKSHAYDHAN	77.7	67.5	61.2	6.41	2.20	2.91	LB	VOC	4.0	23.73	22
6412	27281	76.5	63.4	56.7	5.06	1.70	2.97	MS	VOC	4.0	13.43	65
6413	27282	75.5	64.0	57.3	5.60	1.94	2.88	MS	VOC	4.0	21.06	34
6414	27283	75.8	63.3	53.4	5.47	2.02	2.70	MS	VOC	7.5	18.04	45
6415	KARMA MAHSURI	76.2	66.9	61.7	5.38	1.87	2.87	MS	VOC	5.0	21.44	23
6416	27284	75.0	64.6	51.2	6.36	1.95	3.26	LS	VOC	7.0	18.01	25
6417	27285	76.5	66.3	61.8	5.48	2.09	2.62	MS	VOC	4.0	22.99	22
6418	SWARNA	77.2	68.9	67.8	5.23	2.12	2.46	SB	A	4.0	24.46	46
6419	27286	77.0	67.6	65.8	5.29	2.19	2.41	SB	VOC	4.0	22.38	22
6420	C 101 LAC	79.1	62.3	36.5	5.25	2.43	2.16	SB	VOC	4.0	24.69	22
6421	27287	77.6	60.4	46.2	5.76	1.76	3.27	SS	VOC	4.0	23.64	22
6422	27288	77.2	62.5	51.3	5.75	1.72	3.32	SS	VOC	4.0	23.34	22
6423	SAMBA MAHSURI	76.2	68.4	56.9	5.18	1.79	2.89	MS	A	4.0	24.20	22
6424	27289	78.0	70.7	51.4	5.72	1.78	3.21	SS	VOC	4.0	24.64	22
6425	27290	76.2	66.2	49.4	5.13	1.59	3.22	SS	A	5.0	22.11	22
6426	27291	78.4	66.1	58.1	5.47	1.75	3.12	SS	VOC	4.0	24.52	41
6427	C 101 A 51	75.6	64.2	10.9	3.85	2.37	1.62	SB	VOC	4.0	20.76	22
6428	27292	76.5	65.5	62.7	5.76	1.75	3.29	SS	A	4.0	22.41	32
6429	VARALU	76.0	61.6	54.7	5.61	1.86	3.09	SS	F	7.0	24.34	22
6430	27293	75.8	64.2	61.9	5.66	1.72	3.29	SS	A	5.0	23.17	22
6431	27294	74.6	65.0	63.1	4.99	1.65	3.02	SS	A	4.0	20.29	25
6432	SAMBA MAHSURI	75.0	65.8	64.2	4.79	1.71	2.80	MS	A	4.0	22.88	24
6433	27295	74.9	65.3	63.2	5.11	1.74	2.93	MS	A	4.0	21.85	22
6434	27296	76.1	66.7	65.4	5.10	1.67	3.05	SS	A	7.0	20.00	24
6435	27297	77.8	66.3	60.7	4.86	1.77	2.74	MS	VOC	4.0	20.62	22
6436	TETEP	76.5	64.1	52.2	5.29	1.96	2.69	MS	VOC	4.0	24.14	33

HULL: Hulling (%) Milling (%): HRR rice recovery (%);KL: Kernal length(mm); KB:Kernal breadth(mm);SS: short slender, L/B Length and breadth ratio; Grain Chalk:Grain Chalkiness;VOC:Very occasionally present; A: Absent;MS:Medium slender, ASV:Alkali spreading value; AC: Amylose content(%); GC:Gel consistency; LB Long bold; SB::short bold; LS: Long slender

SPECIAL SAMBHA MAHSURI MUTANT TRIAL

Locations: 17

Checks: Sambha Mahsuri and Improved Sambha Mahsuri

Entries: 3

Table: 13.1

The special mutant trial was constituted from an Ethyl methane sulfonate (EMS) induced mutagenized line in the genetic background of the elite rice variety, Samba Mahsuri based on the recommendation of RAC. The purpose of the trial is to identify a mutant line with higher grain number, panicle weight, long panicles and ultimately better yield, earlier maturity with same grain quality of samba mahsuri. The trial was comprised with three entries which include one test entry (IET 26241) and two checks Sambha Mahsuri and Improved Sambha Mahsuri. The trial was sent to 26 locations and data was received from 17 locations. Data from Cuttack (3549 kg/ha), Jeypore (2860 kg/ha), Karjat (3.24 CV), Nawagam (3308 kg/ha), Pattambi (2483 kg/ha), Mandya (2989 kg/ha) and Coimbatore (drought spell) were not considered for analysis due to low experimental yield (<4000 kg/ha) and low CV (<5). Data from remaining 10 locations were considered for analysis.

On overall mean, the mutant line (IET 26241) ranked first with maximum grain yield of 5475 kg/ha followed by Sambha Mahsuri (5143 kg/ha) and Improved Sambha Mahsuri (4834 kg/ha). The mutant line exhibited 6% yield advantage over the best check (Sambha Mahsuri). The mutant line recorded 96 days to 50% flowering followed by Sambha Mahsuri (105 days) and Improved Samba Mahsuri (103 days). Zonal performance is discussed hereunder.

Zone V:

The trial was conducted at two locations namely Raipur and Jagdalpur in Chhattisgarh state. IET 26241 ranked first and achieved 11% higher yield over the best check (Sambha Mahsuri). The entry recorded 4811 kg/ha with 106 days to 50% flowering.

Zone VI:

The trial was conducted at 2 locations (Shirgaon and Navsari). IET 26241 ranked first with 97 days to 50% flowering and achieved 12% higher yield over best check (Improved Sambha Mahsuri, 4369 kg/ha, 103 days) and recorded maximum grain yield of 4889 kg/ha with 117 days to 50% flowering.

The trial was conducted at two locations (Bikramganj and Masodha) in Zone III and at four locations (Maruteru, Warangal, Aduthurai and Gangavathi) in Zone VII. However, the test entry did not show required yield advantage of 5% either in Zone III and Zone VII.

In state wise yield advantage over best check the test entry IET 26241 achieved 11 and 16% in Chhattisgarh and Maharashtra respectively.

In conclusion, the test entry (IET 26241) outperformed the best check on overall basis and also on Zonal basis in Zone V and Zone VI. The test entry IET 26241 found promising for Chhattisgarh and Maharashtra states only.

Table 1: Performance of IET 26241 in special samba mahsuri trial in Kharif 2017

IET No Designation	Overall mean FD/GT	Yield adv(%) over best check	Zone V		Zone VI		State		
			Yield (kg/ha)	% over BC	Yield (kg/ha)	% over BC	Rank	Yield (kg/ha)	% over BC
Samba mahsuri	5143 105 MS		4338		4226				
IET 26241 (Mutant line of samba mahsuri)	5475 96 MS	6	4811	11	4889	16	CH-1 MH-1	4811 4603	11 16
Improved samba mahsuri	4834 103 MS		4187		4368				

Table No. 13.1: Composition of entries in Special Samba Mahsuri Mutant Trial, Kharif 2017

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st year of testing:				
6501	Samba Mahsuri (Check)			
6502	26241	RP 6112-SM-M-93-3-2-3-4-3	BPT 5204 mutant	MS
6503	Improved Samba Mahsuri (Check)			

Table No. 13.2 : Grain Yield (Kg/ha) of entries in Special Sambha Mahsuri Trial, Kharif 2017

Entry No.	IET No.	III								Zone III		V						
		OD		OD		BI		U.P.		(2)		CG		CG		CG (2)		
		@CTK		@JYP		BKG		MSD		Mean		RPR		JDP		Mean		
6501	Samba Mahsuri (Check)	2589	3	2741	2	6886	1	3442	3	5164	3	3578	3	5099	2	4338	2	
6502	26241	4029	1	3175	1	6038	3	5708	1	5873	1	4431	1	5190	1	4811	1	
6503	Improved Samba Mahsuri (Check)	4029	2	2665	3	6562	2	4764	2	5663	2	4140	2	4235	3	4187	3	
	Exp Mean	3549		2860		6495		4638		5567		4050		4841		4446		
	C.D. 5%	442		444		629		359				463		808				
	C.V.%	10.69		13.32		8.31		6.64				9.82		14.33				
	Sowing Date	23-06-2017		15-07-2017		15-07-2017		13-07-2017				13-07-2017		15-07-2017				
	Planting Date	04-08-2017		25-08-2017		12-08-2017		13-08-2017				30-07-2017		10-08-2017				
	Local ©																	
	* Superior to Best Check		% Superior over Best Check		@ not included in means													

Table No. 13.2 contd : Grain Yield (Kg/ha) of entries in Special Sambha Mahsuri Trial, Kharif 2017

Entry No.	IET No.	Zone V (2)		VI								Zone VI (2)	
		Mean		MH		MH (1)		GU		GU		Mean	
				@KJT	SHR	Mean		NVS		@NWG			
6501	Samba Mahsuri (Check)	4338	2	5135	2	3622	3	4831	2	3086	3	4831	2 4226 3
6502	26241	4811	1	5455	1	4603	1	5174	1	3714	1	5174	1 4889 1
6503	Improved Samba Mahsuri (Check)	4187	3	5043	3	3959	2	4778	3	3124	2	4778	3 4368 2
	Exp Mean	4446		5211		4061		4928		3308		4928	4494
	C.D. 5%			197		623		782		479		782	
	C.V.%			3.24		13.17		13.62		12.43		13.62	
	Sowing Date			21-07-2017		15-07-2017		13-06-2017		14-07-2017			
	Planting Date			16-08-2017		31-07-2017		12-08-2017		05-09-2017			
	Local ©												

Table No. 13.2 contd : Grain Yield (Kg/ha) of entries in Special Sambha Mahsuri Trial, Kharif 2017

Entry No.	IET No.	VII											
		A.P.		TEL		TN		TN		KE		KA	
		MTU		WGL		ADT		CBT@		@PTB		@MND	
6501	Samba Mahsuri (Check)	5651	1	5036	3	6607	1	7018	1	2155	2	2218	3
6502	26241	5249	3	6520	1	4881	2	5105	3	3175	1	3448	1
6503	Improved Samba Mahsuri (Check)	5277	2	5186	2	4370	3	6398	2	2118	3	3302	2
	Exp Mean	5392		5580		5286		6174		2483		2989	
	C.D. 5%	468		425		1151		687		287		482	
	C.V.%	7.45		6.54		18.70		9.56		9.92		13.86	
	Sowing Date	17-07-2017		15-07-2017		03-09-2017		04-08-2017		25-08-2017		08-09-2017	
	Planting Date	12-08-2017		17-08-2017				01-09-2017		16-09-2017		18-09-2017	
	Local ©												

Table No. 13.2 contd : Grain Yield (Kg/ha) of entries in Special Sambha Mahsuri Trial, Kharif 2017

Entry No.	IET No.	VII				Zone VII (4)		Overall (10)		Days to 50% Flowering	Plant Height (cm)	Panicles/ M ²
		KA		KA (1)								
		GNV		Mean		Mean		Mean				
6501	Samba Mahsuri (Check)	6677	2	6677	1	5993	1	5143	2	105	88	344
6502	26241	6958	1	6958	1	5902	2	5475	1	96	105	343
6503	Improved Samba Mahsuri (Check)	5066	3	5066	3	4975	3	4834	3	103	88	336
	Exp Mean	6234		6234		5623		5151		101	94	341
	C.D. 5%	444		444								
	C.V.%	6.11		6.11								
	Sowing Date	23-07-2017										
	Planting Date	13-09-2017										
	Local ©											

Table No. 13.3: Days to 50% Flowering of entries in Special Sambha Mahsuri Trial, Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V			Zone V (2)	VI					
		OD	OD	OD (2)	BI	U.P.		CG	CG	CG (2)		MH	MH	MH (2)	GU	GU	GU (2)
		CTK	JYP	Mean	BKG	MSD		RPR	JDP	Mean		KJT	SHR	Mean	NVS	NWG	Mean
6501	Samba Mahsuri (Check)	104	113	109	107	115	110	104	113	109	109	106	94	100	104	118	111
6502	26241	93	94	94	103	102	98	95	117	106	106	95	84	90	89	119	104
6503	Improved Samba Mahsuri (Check)	109	112	110	104	111	109	101	115	108	108	109	89	99	98	117	108
	Exp Mean	102	106	104	105	110	106	100	115	108	108	103	89	96	97	118	107
	C.D. 5%	2	1		1	1		0	1			1	0		2	3	
	C.V.%	1.75	0.53		1.00	0.75		0.39	0.46			0.84	0.47		1.61	1.94	

Table No. 13.3 contd : Days to 50% Flowering of entries in Special Sambha Mahsuri Trial, Kharif 2017

Entry No.	IET No.	Zone VI (4)	VII									Zone VII (7)	Overall (17)
			A.P.	TEL	TN	TN	TN (2)	KE	KA	KA	KA (2)		
		Mean	MTU	WGL	ADT	CBT@	Mean	PTB	MND	GNV	Mean	Mean	Mean
6501	Samba Mahsuri (Check)	105	98	113	94	105	100	77	99	119	109	101	105
6502	26241	97	88	95	81	85	83	72	84	129	106	90	96
6503	Improved Samba Mahsuri (Check)	103	93	106	93	97	95	81	90	119	105	97	103
	Exp Mean	102	93	105	89	96	92	77	91	123	107	96	101
	C.D. 5%		1	1	2	1		1	1	3			
	C.V.%		1.15	1.00	1.79	0.99		1.16	1.24	2.28			

Table No. 13.4: Plant Height (cm) of entries in Special Samba Mahsuri Trial, Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V			Zone V (2)	VI					
		OD	OD	OD (2)	BI	U.P.		CG	CG	CG (2)		MH	MH	MH (2)	GU	GU	GU (2)
		CTK	JYP	Mean	BKG	MSD		RPR	JDP	Mean		KJT	SHR	Mean	NVS	NWG	Mean
6501	Samba Mahsuri (Check)	101	57	79	108	76	85	89	69	79	79	92	95	93	122	113	118
6502	26241	95	81	88	112	91	95	113	93	103	103	115	114	115	122	118	120
6503	Improved Samba Mahsuri (Check)	105	67	86	97	73	86	90	68	79	79	92	91	91	101	108	105
	Exp Mean	100	69	84	106	80	89	97	77	87	87	100	100	100	115	113	114
	C.D. 5%				0	0			0			0				0	
	C.V.%				0.00	0.00			0.00			0.00				0.00	

Table No. 13.4 contd : Plant Height (cm) of entries in Special Samba Mahsuri Trial, Kharif 2017

Entry No.	IET No.	Zone VI (4)	VII										Zone VII (7)	Overall (17)
			A.P.	TEL	TN	TN	TN (2)	KE	KA	KA	KA (2)			
		Mean	MTU	WGL	ADT	CBT@	Mean	PTB	MND	GNV	Mean	Mean	Mean	
6501	Samba Mahsuri (Check)	105	102	84	77	91	84	97	60	71	65	83	88	
6502	26241	117	120	122	94	111	103	103	90	90	90	104	105	
6503	Improved Samba Mahsuri (Check)	98	99	92	83	90	86	99	65	68	67	85	88	
	Exp Mean	107	107	99	85	97	91	100	72	76	74	91	94	
	C.D. 5%		0	0	0	0				0				
	C.V.%		0.00	0.00	0.00	0.00				0.00				

Table No. 13.5: Panicles/ M² of entries in Special Samba Mahsuri Trial, Kharif 2017

Entry No.	IET No.	III					Zone III (4)	V			Zone V (2)	VI					
		OD	OD	OD (2)	BI	U.P.		CG	CG	CG (2)		MH	MH	MH (2)	GU	GU	GU (2)
		CTK	JYP	Mean	BKG	MSD		RPR	JDP	Mean		KJT	SHR	Mean	NVS	NWG	Mean
6501	Samba Mahsuri (Check)	281	275	278	302	266	281	279	434	356	356	257	277	267	201	267	234
6502	26241	281	273	277	331	310	299	266	301	284	284	268	230	249	227	279	253
6503	Improved Samba Mahsuri (Check)	281	264	273	271	294	278	289	431	360	360	258	272	265	191	274	233
	Exp Mean	281	271	276	301	290	286	278	389	333	333	261	260	260	206	273	240
	C.D. 5%		29		5	24		28	43			6	6		6	4	
	C.V.%		9.06		1.52	7.05		8.66	9.59			2.13	1.97		2.55	1.10	

Table No. 13.5 contd : Panicles/ M² of entries in Special Samba Mahsuri Trial, Kharif 2017

Entry No.	IET No.	Zone VI (4)	VII										Zone VII (7)	Overall (17)
			A.P.	TEL	TN	TN	TN (2)	KE	KA	KA	KA (2)			
		Mean	MTU	WGL	ADT	CBT@	Mean	PTB	MND	GNV	Mean	Mean	Mean	
6501	Samba Mahsuri (Check)	250	296	434	387	534	460	601	325	440	383	431	344	
6502	26241	251	272	428	440	526	483	620	316	459	388	437	343	
6503	Improved Samba Mahsuri (Check)	249	288	420	416	525	471	570	277	391	334	412	336	
	Exp Mean	250	285	427	414	528	471	597	306	430	368	427	341	
	C.D. 5%		46	21	39	24		61	63	36				
	C.V.%		13.94	4.28	8.06	3.83		8.71	17.57	7.15				

PILOT PROJECT ON LOW PHOSPHORUS TOLERANCE TRIAL

Locations: 1
Checks: **Positive checks:** Rasi, Vandana, Swarna,
Negative checks: Samba Mahsuri, IR 64
Parents: Improved Samba Mahsuri, MTU 1010, N22,
 KMR3

Test Entries: 11
Table: 14.1

A pilot trial on Low Phosphorus tolerance trial was constituted with 11 test entries, 3 positive checks, 3 negative checks and four parents to know the effect of Phosphorus on grain yield and yield attributing traits. All the 11 test entries were nominated by ICAR-IIRR Hyderabad. The trial was sent to two locations, Viz., ICAR-NRRI and ICAR-IIRR, but data was received from only one location ICAR-IIRR. The trial was conducted under three Phosphorus levels, viz., P 20 Kg/ha, P 40 Kg/ha and P 60 Kg/ha during Kharif 2017 with the help of Crop Production division. This gradient of Phosphorus levels were maintained for last 15 years in fixed plots located at ICAR-IIRR Farm Rajendranagar, Hyderabad. The crop was established by transplanting method by following standard package of practices. Uniform spacing of 20cm x 15 cm was followed and plot size of 1.2 m² was maintained for all plots in three levels of Phosphorus. The experiment was replicated two times by following RBD design. The results of experiment are discussed below

Phosphorus applied @ 20 Kg/ha

The experiment was conducted at recommended dose of nitrogen (100 Kg/ha) and Potash (50% Kg/ha) and Phosphorus was applied @ 20 Kg/ha. Entire amount of Phosphorus and potash and 50% of nitrogen was applied at the time of transplanting and remaining 50% of nitrogen was applied in two split doses. Initial phosphorus content in the soil was <5kg/ha. Experimental mean for grain yield varied from 884 Kg/ha (Improved Samba Mahsuri) to 2846 Kg/ha (R P Bio 4919 – 204) with average grain yield of 1766 Kg/ha; Days to 50% of flowering ranged from 81 days (RP Bio 5477 – NH 787-1) to 120 days (Samba Mahsuri); Plant height ranged from 78.4 cm (Samba Mahsuri) to 101.7 (R P Bio 4919 – 204); and No. of panicles/plant ranged from 5.8 per plant (RP Bio 5477 – NH 787-1) to 10.8 (KMR 3). Among the checks, Rasi (1927 Kg/ha) followed by Vandana (1838 kg/ha) and Swarna 1611 Kg/ha. Among the test entries, RP Bio 4919-204 recorded highest grain yield of 2846 Kg/ha with yield superiority of 47.69% against the best check. It has taken 107 days to 50% flowering, 101.7 cm plant height and 8.8 panicles/plant. Second highest grain yield was recorded by KMR 3 with grain yield of 2664 Kg/ha followed by RP Bio 5477 – NH 686-1 (2579 Kg/ha) and RP 5972-3-20-3-8-29-6 (2376 Kg/ha).

Phosphorus applied @ 40 Kg/ha

The experiment was conducted at recommended dose of nitrogen (100 Kg/ha) and Potash (50% Kg/ha) and Phosphorus was applied @ 40 Kg/ha. Entire amount of Phosphorus and potash and 50% of the nitrogen was applied at the time of transplanting and remaining 50% of nitrogen was applied in two split doses. Initial phosphorus content in the soil was 5-10 kg/ha. Experimental mean for grain yield varied from 1878 Kg/ha (MTU 1010) to 4197 Kg/ha (RP 5972-3-20-3-8-29-6) with average grain yield of 2900 Kg/ha; Days to 50% of flowering ranged from 75 days (RP Bio 5477 – 59) to 115 days (Samba Mahsuri); Plant height ranged from 82 cm (Swarna) to 104.5 (R P Bio 4919 - 385); and No. of panicles/plant ranged from 6.5 per plant (Improved Samba

Mahsuri) to 10.8 (Samba Mahsuri). Among the checks, Rasi (3195 Kg/ha) followed by Swarna (2533 Kg/ha) and Vandana 2354 Kg/ha. Among the test entries, RP 5972-3-20-3-8-29-6 recorded highest grain yield of 4197 Kg/ha with yield superiority of 31.36% against the best check. It has taken 93 days to 50% flowering, 85.4 cm plant height and 9.3 panicles/plant. Second highest grain yield was recorded by R P Bio 4919 - 7 with grain yield of 4185 Kg/ha followed by R P Bio 4919 -377-24-1 (4121 Kg/ha) and RP Bio 5477 – NH 787-1 (3788 Kg/ha).

Phosphorus applied @ 60 Kg/ha

The experiment was conducted at recommended dose of nitrogen (100 Kg/ha) and Potash (50% Kg/ha) and Phosphorus was applied @ 60 Kg/ha. Entire amount of Phosphorus and potash and 50% of the nitrogen was applied at the time of transplanting and remaining 50% of nitrogen was applied in two split doses. Initial phosphorus content in the soil was 10-20 kg/ha. Experimental mean for grain yield varied from 3239 Kg/ha (R P Bio 4919 – 13-7) to 5644 Kg/ha (KMR 3) with average grain yield of 4128 Kg/ha; Days to 50% of flowering ranged from 72 days (Vandana) to 110 days (Samba Mahsuri and Improved Samba Mahsuri); Plant height ranged from 88.2 cm (IR 64) to 106.3 (R P Bio 4919 – 13-7); and No. of panicles/plant ranged from 6.5 per plant (Improved Samba Mahsuri) to 12 (IR64). Among the checks, Swarna (4408 Kg/ha) followed by Rasi (3808 Kg/ha) and Vandana 3329 Kg/ha. Among the test entries, KMR 3 recorded highest grain yield of 5644 Kg/ha with yield superiority of 26.6% against the best check. Second highest grain yield was recorded by R P Bio 4919 – 204 with grain yield of 5330 Kg/ha followed by RP 5972-3-20-3-8-29-6 (5251 Kg/ha) and R P Bio 4919 -377-24-1 (5106 Kg/ha).

Table No. 14.1: Composition of Pilot trial on performance of entries under Low Phosphorus conditions

Plot no.	Entry no.	IET Numbers	Genotype	Pedigree
119	6601	27298	R P Bio 4919 - 7	KMR 3 / O rufipogon
112	6602	27299	RP 5971-2-6-19-16-24-6	ISM x Pup 1 donor
111	6603	MTU 1010	MTU 1010	parent
108	6604	27300	R P Bio 4919 -377-24-1	KMR 3 / O rufipogon
115	6605	27301	RP 5972-3-20-3-8-29-6	MTU 1010 x Pup 1 donor
120	6606	27302	Improved Samba Mahsuri	parent
103	6607	Improved Samba Mahsuri	RP 5972-4-1-7-121-19-6	MTU 1010 x Pup 1 donor
104	6608	27303	R P Bio 4919 – 13-7	KMR 3 / O rufipogon
114	6609	27304	Rasi	check
105	6610	Rasi	R P Bio 4919 - 385	KMR 3 / O rufipogon
102	6611	27305	Samba Mahsuri	check
110	6612	Samba Mahsuri	RP Bio 5477 – NH 686-1	Mutant of N 22
107	6613	27306	Swarna	check
116	6614	Swarna	R P Bio 4919 - 204	KMR 3 / O rufipogon
117	6615	27307	RP Bio 5477 – NH 787-1	Mutant of N 22
118	6616	Vandana	Vandana	check
106	6617	27308	RP Bio 5477 – 59	Mutant of N 22
101	6618	KMR 3	KMR 3	parent
109	6619	IR 64	IR 64	parent
113	6620	N 22	N 22	parent

Table No. 14.2: Mean performance of entries when Phosphorus applied @ P20 kg/ha

Entry no.	Grain yield kg/ha	Days to 50% flowering	Plant height	No. of panicles/plant
6601	1643	116	99.4	7.7
6602	930	119	82.0	7.7
6603	689	116	87.0	7.2
6604	2280	119	101.0	8.5
6605	2376	104	84.8	7.3
6606	884	112	82.8	6.3
6607	1861	105	90.3	6.7
6608	1456	116	101.2	6.7
6609	1927	91	85.7	7.2
6610	1830	118	101.1	8.2
6611	1043	120	78.4	9.5
6612	2579	91	85.5	7.7
6613	1611	116	81.0	10.0
6614	2846	107	101.7	8.8
6615	2319	90	81.4	5.8
6616	1838	84	98.5	6.3
6617	2015	81	93.7	8.2
6618	2664	116	100.8	10.8
6619	1593	98	80.9	7.5
6620	938	91	91.2	7.2
Experimental mean	1766	105	90	8
CD	378			
CV	10.23			

Table No. 14.3: Mean performance of entries when Phosphorus applied @ P40 kg/ha

Entry no.	Grain yield kg/ha	Days to 50% flowering	Plant height	No. of panicles/plant
6601	4185	109.5	103.3	7.9
6602	2435	107	90.9	8.5
6603	1878	95	89.0	8.3
6604	4121	107	104.3	11.5
6605	4197	93	85.4	9.3
6606	2213	113.5	86.8	6.5
6607	2584	93	92.3	7.3
6608	1967	107	103.7	8.5
6609	3195	86	89.2	8.5
6610	2427	107	104.5	8.3
6611	2350	115	83.0	11.0
6612	2877	85.5	88.4	9.2
6613	2533	110.5	82.0	9.0
6614	3782	98	101.1	7.7
6615	3788	86	82.3	10.7
6616	2354	77.5	100.5	8.0
6617	2448	75	97.6	10.5
6618	3383	107	100.7	10.4
6619	2725	94	85.2	9.7
6620	2566	86	94.2	7.5
Experimental mean	2900	98	93	9
CD	724			
CV	11.93			

Table No. 14.4: Mean performance of entries when Phosphorus applied @ P60 kg/ha

Entry no.	Grain yield kg/ha	Days to 50% flowering	Plant height	No. of panicles/plant
6601	4221	107	104.0	9.0
6602	3458	107	93.8	9.5
6603	4425	94	94.6	9.2
6604	5106	107	103.8	8.2
6605	5251	90.5	97.0	8.0
6606	3938	110	92.3	6.5
6607	3529	94.5	97.8	9.3
6608	3239	107	106.3	10.5
6609	3808	86	96.1	8.2
6610	4000	105.5	105.7	8.0
6611	3980	110	88.3	9.8
6612	4238	85	98.3	9.0
6613	4408	107.5	84.1	8.5
6614	5330	99.5	104.0	8.8
6615	4458	86	96.2	9.7
6616	3329	72	105.4	9.5
6617	3246	68.5	99.5	9.2
6618	5644	107.5	99.4	11.8
6619	3472	90	88.2	12.0
6620	3473	84	102.8	8.8
Experimental mean	4128	96	98	9
CD	572			
CV	6.6			

MULTILOCATION LATE SOWN TRIAL – EARLY

Location: 1

Test entries: 17

Table: 15.1

The changing climatic conditions, such as drought at different crop growth stages, frequently delay in monsoon resulting in delayed planting of rice crop. Farmers in different parts of the country are unable to transplant the nursery, or many times they transplant over aged nurseries. Under such situations farmers are forced to grow rice in late sown conditions either in the last week of August or first week of September. Late sown rice mostly faces the cold temperature during grain filling stage resulting in lower yields. Hence, an attempt was made to evaluate the released early duration rice varieties with high yield potential under late sown conditions through direct seeding during last week of August or first week of September.

Multi-Location Late Sown – Early trial was constituted with 17 entries, mainly to evaluate the released varieties with less than 115 days duration for their suitability under late sown conditions i.e. last week of August or first week of September. The trial was sent to 23 locations but data received from only one centre i.e. Gangavati from Karnataka. The experimental mean yield at Gangavati was 4948 Kg/ha and CV of the location was 7.57%. Among the test entries, Tripura Khara Dhan-1 recorded highest grain yield of 6450 Kg/ha followed by IET 23354 (6356 Kg/ha), Indira Aerobic-1 (6179 Kg/ha) and PR 124 (5763 Kg/ha).

and lowest grain yield was recorded by DRR Dhan 45 (2536). Other entries which yielded more than 5000 Kg/ha yield are IET 23356, RNR 15048, DRR Dhan 46, CR Dhan 201 and IR 64. Highest yielding entry Tripura Khara Dhan-1 recorded days 50% flowering of 88 days; plant height 116 cm and no. of panicles/m². Minimum and Maximum Temperature during flowering and grain filling stage at the Gangavati was 15.4 °C and 28.7°C respectively. It may be noted that these varieties with 5 t/ha and above under late sown conditions performed well even when temperature dropped below the normal for rice cultivation.

Table No.15.1: Grain Yield (kg/ha) of entries in MLT-E, Kharif 2017

S.No.	Genotype name	Grain Yield (kg/ha)	Days to 50% flowering	Plant Height (cm)	No.of Panicles/m2
1	Tripura Khara Dhan-1	6450	88	116	480
2	IET 23354	6356	88	101	476
3	Indira Aerobic-1	6179	88	87	473
4	PR 124	5763	88	68	476
5	IET 23356	5706	90	92	486
6	RNR 15048	5363	92	80	490
7	DRR Dhan 46 (IET 23420)	5304	88	91	478
8	CR Dhan 201	5138	94	84	489
9	IR 64	5013	90	77	468
10	DRR Dhan 44 (IET 22081)	4988	88	94	472
11	Samaleshwari	4863	85	78	453
12	NLR 40024	4806	90	65	480
13	MTU 1010 (Cotton Dorasannalu)	4219	85	79	445
14	JGL 11118	4038	88	74	464
15	DRR Dhan 42 (IET 22836)	3825	94	75	355
16	NLR 34449	3566	94	53	343
17	DRR Dhan 45	2536	85	80	341
	Experimental mean	4948	89	82	451
	CV	7.57			
	CD	794.5			

INTERNATIONAL TRIALS

INGER Observational Nurseries

The International Network for Genetic Evaluation of Rice (INGER), formerly known as the International Rice Testing Program (IRTP), was created in 1975 as a partnership among the National Agricultural Research Systems (NARS) and the International Agricultural Research Centres (IARCs) for rice germplasm exchange and utilization. The INGER is a global model for the exchange, evaluation, release, and use of genetic resources under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), which uses the Standard Material Transfer Agreement to facilitate access and benefit sharing. The IRRI coordinated, INGER is one of the oldest multilateral systems of sharing genetic resources, which provides access to wide range of genetic materials of rice developed globally and also provides access to wide range of test environments for breeding lines developed in India. This programme ensures safe and free exchange of rice germplasm and related information which enables breeders to broaden the genetic diversity. It has been very useful to the Indian rice breeding programme as evident by release of many varieties by using INGER material. It also helps in monitoring of genetic variation of pathogens and insect pests over the years. Under this programme, during Kharif- 2017, 96 sets of 9 nurseries were indented by Indian co-operators for evaluation at different locations in the country. The results of 96 sets, with 390 entries including checks of 09 observational nurseries viz., International Irrigated Rice Observational Nursery (IIRON), International Temperate Rice Observational Nursery (IRTON), International Rainfed Lowland Rice Observational Nursery (IRLON), International Upland Rice Observational Nursery (IURON), International Rice Soil Stress Tolerance Nurseries (IRSSTN-SS1 and SS-2), International Rice Blast Nursery (IRBN), International Rice Bacterial Blight Nursery (IRBBN) and International Rice Brown Plant Hopper Nursery (IRBPHN) were reported to ICAR-IIRR from different locations. Details in respect of the INGER nursery Trials such as number of entries, locations etc are given below in Table 1.

Table 1: Details of the INGER trails and locations in India, Kharif 2017

Sl. No.	INGER Trial	No. of Entries	No. of locations	Locations
1	IIRON	45	24	Rajendranagar, Coimbatore, Allahabad, Faizabad, Malan, Rewa, Patna, Korapat, Ludhiana, Sabour, Navsari, Karimnagar, Aduthurai, Andaman and Nicobar Islands, Chinsurah(2), Khudwani, Karjat, Nellore, Kampasagar, Nawagam, Pantnagar, Bhubaneshwar and Cuttack
2	IRTON	18	7	Patna, Jagtial, Malan, Karimnagar, Khudwani, Warangal and Nizamabad
3	IRLON	40	8	Maruteru, Patna(2), Andaman and Nicobar Islands, Chinsurah, Jagdalpur, Bahraich and Cuttack
4	IURON	35	10	Rajendranagar, Ranchi, Allahabad, Malan, Rewa, Korapat Jagdalpur, Hazaribag, Nawagam and Nizamabad
5	IRSSTN-SS1	42	8	Rajendranagar, Faizabad, Goa, Navsari, Vytilla, Chinsurah, Kanpur and Warangal
6	IRSSTN-SS2	64	3	Karnal, Aduthurai and Jabalpur
7	IRBN	45	14	Rajendranagar(2), Shirgaon, Maruteru, Jagtial, Malan, Pattambi, Navsari, New Delhi(2), Hazaribag, Jabalpur, Khudwani and Nellore
8	IRBBN	45	10	Rajendranagar, Maruteru, Ludhiana, Navsari, Aduthurai, New Delhi(2), Jabalpur, Karjat and Bhubaneshwar
9	IRBPHN	56	12	Rajendranagar(3), Coimbatore, Maruteru, Jagtial, Bapatla, Ludhiana, Aduthurai, New Delhi, Jabalpur and Kampasagar
	Total	390	96	

INTERNATIONAL IRRIGATED RICE OBSERVATIONAL NURSERIES (IIRON)

The 43rd International Irrigated Rice Observational Nursery (IIRON) consists of 25 test entries and 14 check varieties from IRRI, Philippines and local checks. The 43rd IIRON nurseries were sent to around 24 locations across India namely, Rajendranagar, Coimbatore, Allahabad, Faizabad, Malan, Rewa, Patna, Korapat, Ludhiana, Sabour, Navsari, Karimnagar, Aduthurai, Andaman and Nicobar Islands, Chinsurah(2), Khudwani, Karjat, Nellore, Kampasagar, Nawagam, Pantnagar, Bhubaneswar and Cuttack during Kharif 2016. Data was received from the following locations and the information is furnished in the table 2. On the basis of grain yield, flowering duration and overall phenotypic acceptability, promising entries at each location were identified and the same are listed in Table 2. In most of the locations INGER entries out yielded the local checks. Some of the top performing entries in IIRON are TPs 30614, 30754, 30601, 24370 and 30600 were among the top 5 entries at 2 or more locations, therefore, need to be evaluated in coordinated trials to assess consistency in their performance.

Table 2: Promising entries of IIRON at different locations

Entry no.	Designation	Plot yield (gms)	FD (days)	PH (cms)	PACP	Entry no.	Designation	Plot yield (gms)	FD (days)	PH (cms)	PACP
Hyderabad						Chinsurah					
028	TP 24370	2687	95	105	1	005	TP 30600	2765	82	103.5	1
006	TP 30601	2280	96	123	1	014	TP 30614	2672.5	91.5	124	1
014	TP 30614	2600	98	120.5	1	006	TP 30601	2545	93.5	126.5	1
038	TP 30754	2654	78	115	1	038	TP 30754	2485	76	119.5	1
033	LC	2340	99	108	1	036	LC	2102.5	91.5	126.5	1
Karimnagar						Korapat					
005	TP 30600	5.782	108.5	106.45	-	028	TP 24370	2220	110.5	69.9	1
027	TP 21654	5.774	98.5	102.37	-	036	LC	2135	105.5	77.2	1
021	TP 30621	5.263	97	102.24	-	010	TP 30606	2055	105	94.5	1
040	TP 24172	4.7795	100.5	104.6	-	015	TP 30616	2035	105.5	70.6	1
036	LC	4.1335	89.5	106.18	-	006	TP 30601	2020	110	74.5	1
Sabour						Coimbatore					
014	TP 30614	2863	104	113	-	028	TP 24370	3154.5	88.5	108.3	3
044	TP 30757	2598	103.5	110.5	-	022	TP 30622	3130	93.5	97.4	3
031	TP 26777	2538	104	113	-	002	TP 30597	2881	76.5	97.8	3
018	TP 30618	2512	97	106.5	-	038	TP 30754	2849.5	79.5	101.55	3
032	LC	2161	98	104	-	033	LC	2792.5	103.5	112.4	3

INTERNATIONAL TEMPERATE RICE OBSERVATIONAL NURSERY (IRTON)

The 42nd International Temperate Rice Observational Nursery (IRTON), comprised of 16 test entries from IRRI and local checks. The trial was conducted at 7 locations namely, Patna, Jagtial, Malan, Karimnagar, Khudwani, Warangal and Nizamabad during Kharif 2017. Entries viz., TPs 25175, 24368, 30753, 16199 and 26783 showed superior performances over checks and need further testing in order to confirm the consistency over the years. Top 5 entries at different locations are listed in Table 3.

Table 3: Promising entries of IRTON at different locations

Entry no.	Designation	Plot yield (gms)	FD (days)	PH (cms)	PACP	Entry no.	Designation	Plot yield (gms)	FD (days)	PH (cms)	PACP
Karimnagar						Warangal					
015	TP 26783	5.289	110	100.54	-	012	TP 25175	2770.8	106.5	101.3	5
013	TP 26717	5.205	102	108.63	-	018	LC	2540.0	95.5	107.0	3
005	TP 30752	4.523	96.5	95.19	-	014	TP 24368	2503.4	104.5	122.2	5
007	TP 19152	4.376	93	130.00	-	006	TP 30753	2503.4	97.5	116.4	5
018	LC	4.244	83.5	97.16	-	008	TP 16199	2454.8	101.5	120.4	3
015	TP 26783	5.289	110	100.54	-	012	TP 25175	2770.8	106.5	101.3	5

INTERNATIONAL RAINFED LOWLAND RICE OBSERVATIONAL NURSERY (IRLON)

The 40th International Rainfed Lowland Rice Observational Nursery (IRLON) comprised of 34 test entries, 5 check varieties from IRRI and local checks. The trial was conducted at 8 locations namely, Maruteru, Patna(2), Andaman and Nicobar Islands, Chinsurah, Jagdalpur, Bahraich and Cuttack during Kharif 2017. Entries *viz.*, TPs 30531, 30543, 20081, 30560 and 30557 showed consistent performances at two or more locations and need further testing in order to confirm the consistency over the years. Top 5 entries at different locations are listed in Table 4.

Table 4: Promising entries of IRLON at different locations

Entry no.	Designation	Plot yield (gms)	FD (days)	PH (cms)	PACP	Entry no.	Designation	Plot yield (gms)	FD (days)	PH (cms)	PACP
Baraiah						Jagdalpur					
040	LC	1505	93.5	120.7	4	037	TP 20081	1900	90	66.3	2
010	TP 30531	1325	78	88.2	6	010	TP 30531	1820	87	81.25	1
009	TP 30530	1212.5	82.5	98.8	4	017	TP 30544	1505	84	64.8	1
008	TP 30529	1200	87.5	94.2	5	033	TP 30563	1500	83	58.8	2
001	TP 30500	1175	83.5	85.5	6	014	TP 30541	1495	77	70.8	1
Patna											
016	TP 30543	1907.5	80.5	96	3						
030	TP 30560	1835	79	100.3	2						
033	TP 30563	1724.5	77.5	103	3						
027	TP 30557	1724	81.5	92.9	2						
021	TP 30551	1713	83.5	100.4	2						

INTERNATIONAL UPLAND RICE OBSERVATIONAL NURSERY (IURON)

The 43rd IURON nursery contains 30 test entries and 10 check varieties from IRRI, India, Philippines and local checks. The 43rd International Upland Rice Observational Nursery (IURON) were evaluated at 10 locations *viz.*, Rajendranagar, Ranchi, Allahabad, Malan, Rewa, Korapat Jagdalpur, Hazaribag, Nawagam and Nizamabad during Kharif 2017. Assessment of the performance of the entries was made on the basis of different parameters recorded at different locations. Entries *viz.*, TPs 29788, 30596, 30531, 30575 and 30582 showed consistency in performance at two or more locations and need further testing in order to confirm the consistency over the years. Top performing entries at different locations are listed in Table 5.

Table 5: Promising entries of IURON at different locations

Entry no.	Designation	Plot yield (gms)	FD (days)	PH (cms)	PACP	Entry no.	Designation	Plot yield (gms)	FD (days)	PH (cms)	PACP
Hazaribag						Jagdalpur					
007	TP 30251	690	72.5	102	3	004	TP 29784	1860	75	99.9	1
031	LC	685	62.5	120	3	005	TP 29788	1585	79	89.8	1
020	TP 30596	675	80.5	92.5	3	012	TP 30579	1490	74	110.7	1
002	TP 30531	655	81.5	89.35	5	018	TP 30590	1470	78	89.7	1
006	TP 30257	650	74	99	3	024	TP 9897	1450	72	93.2	1
Korapat						Ranchi					
031	Local check (Early)	2280	85.5	95.8	1	009	TP 30575	2536.8	77.5	78.5	3
002	TP 30531	2200	88	96.95	1	015	TP 30582	2488.92	78.5	105.6	3
035	Local check (Drought Sensitive)	2195	86.5	90.2	1	032	Local check (Medium)	2471.53	79.5	103.25	3
034	Local check (Drought Tolerant)	2190	79	104.5	1	005	TP 29788	2428.44	83	93	3
029	TP 23154	2185	79.5	98.5	1	020	TP 30596	2270.1	80	80.6	4

INTERNATIONAL RICE SOIL STRESS TOLERANCE NURSERIES (IRSSTN-SS1 and SS2)

The 2017 IRSSTN-SS1 test set consists of 29 test entries developed by IRRI and 10 check varieties from IRRI, India, and Sri Lanka. IRSSTN-SS1 was evaluated at Rajendranagar, Faizabad, Goa, Navsari, Vytilla, Chinsurah, Kanpur and Warangal. The 2017 IRSSTN-SS2 test set consists of 53 test entries developed by IRRI and 9 check varieties from IRRI, India, and Sri Lanka. IRSSTN-SS2 was evaluated at three locations namely Karnal, Aduthurai and Jabalpur during Kharif 2017. Data was received from only Warangal (IRSSTN-SS1) location. Observations on flowering duration, phenotypic acceptability and grain yield were recorded. The INGER entries performed very well and out yielded the respective local checks. Best performing entries of IRSSTN-SS1 trial are listed in Table 6. Promising entries with high yield and better phenotypic acceptability are TPs 200, 30650, 21654, 30646 and 30648 performed well with good phenotypic acceptability and salt tolerance.

Table 6 : Promising entries of IRSSTN at Warangal location

Entry no.	Designation	Plot yield (gms)	FD (days)	PH (cms)	PACP
Warangal					
041	TP 200	3592.361	87.5	98.3	3
022	TP 30650	3512.153	94	117.6	3
035	TP 21654	2989.583	98.5	115.6	4
018	TP 30646	2916.667	96	112.6	3
020	TP 30648	2916.667	97.5	116.7	3

INTERNATIONAL RICE BLAST NURSERY (IRBN)

Thirty-Fifth International Rice Blast Nursery (IRBN) composed consists of consists of 16 test entries and 20 blast monogenic lines developed by IRRI with IRRI's susceptible and resistant check and a local susceptible check. The entries were screened at Rajendranagar(2), Shirgaon, Maruteru, Jagtial, Malan, Pattambi, Navsari, New Delhi(2), Hazaribag, Jabalpur, Khudwani and Nellore during Kharif 2017. Some of the entries viz., 2017IRBN-005, 2017IRBN-006 and 2017IRBN-007 were found resistant at test locations. Disease score of top entries across location is given in Table 7.

Table 7: Resistant entries of IRBN at different locations

Entry No.	Designation	LEAF BLAST	Entry No.	Designation	LEAF BLAST
Hyderabad			Shirgaon		
001	2017IRBN-001	2.5	006	2017IRBN-006	1.5
027	2017IRBN-027	2.5	007	2017IRBN-007	1.5
005	2017IRBN-005	3	003	2017IRBN-003	3
017	2017IRBN-017	3	005	2017IRBN-005	3
024	2017IRBN-024	3	009	2017IRBN-009	3
044	LC 2 (Resistant)	1	043	LC 1 (Resistant)	1
043	LC 1 (Resistant)	2	044	LC 2 (Resistant)	3
045	LC 3 (Susceptible)	8.5	045	LC 3 (Susceptible)	9

INTERNATIONAL RICE BACTERIAL BLIGHT NURSERY (IRBBN)

29th International Rice Bacterial Blight Nursery (IRBBN) consists of 15 test entries and 27 near- isogenic lines (NILs) developed by IRRI. TN 1 from Taiwan was included as the susceptible check. The nursery was screened at 10 locations namely, Rajendranagar, Maruteru, Ludhiana, Navsari, Aduthurai, New Delhi(2), Jabalpur, Karjat and Bhubaneswar during Kharif 2017 in order to evaluate the reaction of rice varieties and lines against bacterial blight. Data was received from only New Delhi location. Many entries were found resistant at New Delhi location. Promising BB resistant entries are 2017IRBBN-021, 2017IRBBN-028, 2017IRBBN-032 and 2017IRBBN-034; their disease score is furnished in Table 8.

Table 8: Resistant entries of IRBBN at New Delhi location

Entry No.	Designation	Bacterial blight
021	2017IRBBN-021	3
028	2017IRBBN-028	3
032	2017IRBBN-032	3
034	2017IRBBN-034	3
044	LC 1 (Resistant)	3
045	LC 2 (Susceptible)	7

INTERNATIONAL RICE BROWN PLANTHOPPER NURSERY (IRBPHN)

The 35th International Rice Brown Planthopper Nursery (IRBPHN) consisting 37 test entries developed by IRRI and local susceptible and resistant checks was screened at 12 locations namely, Rajendranagar(3), Coimbatore, Maruteru, Jagtial, Bapatla, Ludhiana, Aduthurai, New Delhi, Jabalpur and Kampasagar during Kharif 2017. Data received from Hyderabad and Coimbatore centre. The entries, 2017IRBPHN-001, 2017IRBPHN-022, 2017IRBPHN-026, 2017IRBPHN-035, 2017IRBPHN-049 and 2017IRBPHN-009 were found to be resistant with a damage score of 4 or less. Performance of the top entries is summarized in Table 9.

Table 9: Promising entries of IRBPHN at two locations

Hyderabad			Coimbatore		
Entry No.	Designation	SCORE	Entry No.	Designation	SCORE
049	2017IRBPHN-049	4.1	022	2017IRBPHN-022	4
009	2017IRBPHN-009	4.37	026	2017IRBPHN-026	4
001	2017IRBPHN-001	4.65	035	2017IRBPHN-035	4
031	2017IRBPHN-031	5.1	001	2017IRBPHN-001	5
048	2017IRBPHN-048	5.1	015	2017IRBPHN-015	5
055	LC 1 (Resistant)	1.15	055	LC 1 (Resistant)	3
056	LC 2 (Susceptible)	9	056	LC 2 (Susceptible)	9

Monitoring report of AICRIP trials 2017

Hills: LV Subba Rao, A.P. Padmakumari, Aravind K Jukanti and Jawahar Katara

Khudwani: The monitoring team visited the AICRIP centre at Khudwani, J&K and monitored the nine (9) trials allotted, but only 4 trials were planted (AVT1-IE [H], IVT-IE [H], AVT1-IM [H], and IVT-IM [H]) as the seed of the remaining five trials were received late. The planted trials were very well maintained, plot size was appropriate and the trials were very clean including the bunds and actual plots. The team also visited the breeder seed production plots of Jhelum, Shalimar (1-4) and FLDs. No pest damage was observed in NSN2 and NSN hills except for traces of grasshopper damage. A suggestion was made to collect and release leaf folder larvae /grasshoppers for effective screening of the hill entries. The leaf blast incidence was quite high. Natural infection was supplemented by spraying infective spores. Brown spot incidence was very high.

Wadura: Among the four (4) breeding trials allotted only two (2) trials (AVT1-IE[H], and IVT-E[H]) were planted as they had some field problems. The planted trials were well maintained and the plot size was as per the recommendation. Sedges (especially *Cyperus* sp) were predominant in some of the plots. AVT and IVT EH material was infected with severe brown spot and some of the entries which flowered had grain discoloration.



Chatha: The Chatha centre planted all the four breeding trials (AVT 2-IM, AVT 1-IM, IVT-IM and IVT-BT) allotted to them. But, majority of the trials planted were still at early flowering stage or not flowered. The plot size, conduct of the trials and cleanliness was maintained in the field plots. PSR, NSN hills, EPDP, BIET, LFST, MRST and light trap were the trials allotted under entomology programme to this centre. The damage observed was dead hearts in the early planting of EPDP trial which was nearing booting stage and dissection of the infested tillers revealed that the species was predominantly white stem borer followed by pink stem borer. The trial had more of brown spot incidence. In the pathology trials, though all the allotted trials were taken up and field incidence of brown spot was very high.

RARS, Rajouri: Among the four (4) trials allotted [AVT1 - E (H), IVT – E (H), AVT 1 – M (H), and IVT – M(H)] to Rajouri centre, 3 trials were conducted and the trial IVT – M [H]) was not planted. Though the trials were conducted, plot size was less due to shortage of land. The trials conducted were alright despite the land and irrigation related issues. Moderate incidence of hispa, gundhi bug and pink stem borer was observed.



Malan: All the twelve breeding trials allotted (AVT1-E [H], AVT1-M [H], IVT-M [H], IVT-E [H], IVT-BT, AVT I-Biofort, AVT II-Biofort, AVT I-NPT, IVT-Biofort, AVT I-[NIL] Blast and IVT U[H]) were planted. The conduct of the trials was very good with

recommended plot size, cleanliness in plots was maintained with good plant stand. Flowering was delayed in AVT I-Biofort, AVT II-Biofort and AVT I-NPT trials. The adult hispa damage was observed in all the entries. Whorl maggot damage was also observed at very late stage of crop growth. Neck blast, false smut and scalding were observed.

Palampur: The allotted two trials (AVT 1-E [H] and IVT-E [H]) were planted. The trials were conducted and maintained neatly but advised to increase the plot size specifically under IVT-E (H) and regulate the irrigation to the entries. Gundhi bug and stem borer damage was observed in traces. Brown spot was present in most of the entries.

North-western: Gururaj Katti, MBB Prasad Babu, Anantha, M.S. and Meera K Kar (03.10.2017 to 07.10.2017)

IARI, New Delhi: Two trials were conducted out of four trials allotted. The experiments were good and conducted as per the standard protocol and fields were kept weed free. In IVT (BT) trial, few entries consisted of high amount of mixtures beyond acceptable limit. In AVT 1 – NPT trial, only 6 entries out of 14 attained days to 50% flowering. The Entomology trials included, PCT, EPDP, BIET and PHSS. In the PCT, there were nine treatments with three replications laid out in RBD on var., Pusa basmati 1121. The crop condition was in good condition and pest incidence was low. In the EPDP trial, three planting dates were included as treatments for Pusa basmati 1121. Overall observations did not indicate any specific trends and pest incidence was low. BIET trial consisted of eight treatments replicated thrice. The pest as well as natural enemy incidence was low. In the Plant Pathology, the trials viz., NSN1, DSN, NHSN and DSN, NSN for BLB and Trials on monitoring of virulence of *P. oryzae* and Xoo, were in progress. In all the three trials, disease pressure was low despite artificial inoculation.



Ludhiana: All the crop improvement trials (22 varietal trials + 3 hybrid rice trials) allotted during Kharif 2017 were conducted as per the instruction sheet provided. There was severe incidence of false smut and sheath blight in many of the trials especially in hybrid rice trials. No plant protection measures were taken up against diseases in AICRIP trials to facilitate natural screening. The concerned scientists were instructed to take up need based plant protection measures. Scientists requested to dispatch of seed material early (before 15th May). Few entries in IVT (BT) trial consisted of high amount of mixtures. In NIL trial (Blast and BLB), many of the entries did not flower and few NILs were much earlier than respective recurrent parents. Scientists at the centre opined that Medium slender grain trials are not suitable for the region and may be discontinued. In AVT 1 Aerob and AVT 2 Aerob trials, lot of sterile spikelets with high level of brown spot were observed in many entries and yield levels were very poor. A total of five Agronomy trials were conducted at this Centre. In general, the crop condition was very good and most of the trials are in grain filling and maturity stage. In Nutrient management for higher productivity of the system trial, there seems possibility of omitting P application in all the systems. FYM seems to be a good integrated nutrient management option in all systems. DSR crop matured about 7 and 12 days earlier than manual and mechanical transplanting, respectively. In total, seven pathology trials viz., Evaluation of NSN-1 and NSN 2 (Sheath blight, bacterial blight and brown spot), Evaluation of donor screening nursery – 1 (Sheath blight and bacterial blight), Evaluation of

national hybrid screening nursery (Sheath blight, bacterial blight (pathotype 7) and brown spot), monitoring of field virulence in Xoo, Evaluation of new fungicides against sheath blight and false smut, were in progress. There was high natural incidence of false smut disease in the research farm. In Entomology, fifteen trials *viz.*, PHS, LFST, MRST, NHSN, NSN 1, NSN H, BIET, PCT, YLET and OIPM including glasshouse trials were in progress. The conduct and maintenance of experiments was very good.

Kapurthala: Two trials, AVT 1- AL&ISTVT and IVT- AL&ISTVT which were allotted to Ludhiana centre were being conducted at Kapurthala. Only one trial IVT (BT) was allotted to Kapurthala which was conducted at the centre in addition to above two trials. All the three trials were in good condition. In salinity trials, the experiment was conducted in field condition and level of salinity was very less. In IVT (BT) trial, few entries were identified with mixtures like in other centres.

Rauni: Only one trial, IVT (BT) was allotted to the centre and it was conducted as per the instructions provided. The trial was in good condition, few entries were affected with false smut. Like in other centres, few entries were found to be mixtures.

Kaul: All 18 trials were conducted (included three hybrid rice trials) as per the instructions. Three hybrid rice trials were conducted at Uchani, Karnal. All the hybrid rice trials were in good condition with moderate incidence of false smut. Aerobic trials were taken up in transplanted condition and hence need not be considered for analysis. Scientists at the centre opined that Medium slender grain may be discontinued and requested for early dispatch of seed material. Comparison of recurrent parent with respective NILs was done and many of the NILs flowered earlier than recurrent parents. A total of six Agronomy trials were conducted at this Centre. In general the crop condition was very good and most of the trials are in grain filling and maturity stage. In four agronomy trials, the experiments were laid out using 4-5 genotypes and different levels of RDF (50%, 100% and 150% of RDF). In all 4 experiments, days to 50% flowering did not differ due to fertilizer levels. In another trial, two methods of rice establishment *viz.* aerobic and transplanted and 4 fertility treatments were conducted with the variety HKR 127. In weed management trial, 3 weed management treatments *viz.* weed free up to 30 DAS (W1), 45 DAS (W2) and 60 DAS (W3) and control (W4) and 5 rice cultivars were carried out. Keeping the crop weed free up to 45 or 60 DAS seemed to be better than W1. The crop stand of cultivars *viz.* DRR Dhan 42, 44 and 46 were excellent under aerobic conditions and these cultivars seem to be promising.

CSSRI, Karnal: The centre was allotted three trials IVT (BT), AVT 1 (AL&ISTVT) and IVT (AL&ISTVT). All the trials were conducted as per the protocol and plots were maintained well and weed free. In IVT (BT), few entries exhibited mixtures like in other centres. The centre is having very good facility (microplot) for screening rice genotypes for salinity and sodicity. The two trials AVT 1 (AL&ISTVT) and IVT (AL&ISTVT) were conducted under three conditions. One set under micro plot (salinity) condition, second set for sodicity under field condition and third set under field condition (control). Nine Entomology trials were allotted to this centre. Of these, PHS, LFST, NSN1, MRST, BIET, PCT and EPDP trial, were in progress. There was very good build up of leaf folder damage in the research farm. Overall, the conduct and maintenance of experiments was very good. In the Plant Pathology programme, six trials were conducted. In NSN-1, NHSN and DSN for sheath blight. Evaluation of fungicides against neck blast on Variety-Basmati CSR 30 and Integrated Disease Management trial, Pusa basmati 1121 were conducted. Incidence of bakane has been recorded in field.

Upland trials: N P Mandal, Dipankar Maiti and Mohammad Shahid (20-23rd 2017)

Ranchi: This centre was allotted 21 breeding trials which include 17 varietal trials and 4 hybrid trials. All the allotted trials except MLT-E (received on 15th Sept) were conducted following recommended layout, plot size and nicely maintained. Only four trials viz., AVT 1-E DS, IVT-E DS, AVT 2-Aerob and AVT 1-Aerob were in grain filling stage. All other trials were in vegetative stage. Upland trials (AVT 1-E-DS & IVT-E-DS) didn't experience any moisture stress. In AVT 1-NIL-BL & BLB only 2 entries (6420 & 6427) flowered and observations could not be taken for similarity of NILs with recurrent parents as most of the entries were in vegetative stage. In IVT-E-DS and AVT 2-Aerob few entries had mixtures beyond acceptable limit. Breeder seed production of the university released varieties taken up to fulfil DAC and state indent. Team also visited farmer's field wherein FLDs of 2 newly developed varieties (BVD-203 & BVS-1) were taken up. Nine Entomology trials were conducted as per recommended protocols. In EPDP and BIET trials, incidence of yellow stem borer (YSB) and rice hispa were observed in the vegetative stage. All the botanicals performed better than check in reducing pest incidence but not better than chemical treatment. In PCT trial, no phytotoxicity of mixtures of pesticides was observed. The crop conditions of both bio-intensive and normal treatments were at par in BIPM trial. Over all, the crop condition was good and did not notice major insect pests and diseases. Three CMTs on rice establishment methods, nutrient management and irrigation management for higher productivity and profitability were conducted. An experiment on chemical weed control method in transplanting/DSR/aerobic rice was conducted.

Hathwara: Eight out of ten allotted trials to the centre were conducted. AVT 2 Aerob was planted late and has been abandoned. The centre does not have irrigation facilities and may not be appropriate location for conducting aerobic trials. Only AVT 1 E-DS and IVT E- DS were in flowering stage and other trials were in vegetative stage. There was no moisture stress in the upland trials. Some of the trials were conducted with smaller plot size. Looking at their limited capacity, the centre may be allotted less number of trials. The team also visited FLDs conducted by the centre at a nearby village.

Bankura: Three breeding trials namely, IVT-RSL, IVT-ASG and AVT 1-ASG were conducted by this centre. In any trial none of the entries flowered at the time of monitoring. The crop was in tillering stage and in good condition. As the centre is not conducting any upland trials monitoring can be done at later date coinciding with the flowering in the trials. Breeder seed production of variety Puspa was taken up along with other varieties. The team also visited farmers' field to see the FLDs of new varieties viz., Puspa, Dhiren and Dhruba conducted at Bhadul and Molbona village. Five Pathology trials viz., NSN (Leaf Blast), NSN (Neck Blast), NSN (Sh. Blight), Observational nursery and Fungicide evaluation for Sheath Bligh were conducted. All the trials were in very poor condition. Sheath blight was heavily infested with case worm for which blanket spray of Monocil was recommended to avoid further spread in the farm.

Hazaribag: All the allotted breeding trials except MLT-E were conducted. Because of continuous rain in August & September late sown trial could not be established. Upland trials, AVT 1 E-DS and IVT E-DS were in flowering stage. The crop did not experience any moisture stress. AVT 1 E-DS and IVT E-DS trials were also conducted in rain out shelter. Other trials were in vegetative stage. Breeder seed production was taken up as per the DAC indent. Three trials (NSN- Leaf Blast, NSN- Br. Spot and monitoring blast disease in Blast differentials) were conducted. Both the disease nurseries (Blast & Br. Spot) were inoculated

in time and diseases pressure was sufficient to identify res. sources. Four Agronomy trials, three on cultural management and one on weed management were conducted.

Eastern zone (i): P Raghuveer, Ch. Padmavathi and C Gireesh

Lucknow: Two trials namely AVT1-AL&ISTVT, IVT- AL&ISTVT were conducted under alkalinity condition with pH 9.6 and 1.1ds/m. Several entries showed sterility indicating the presence of alkalinity stress in the field. Pests and diseases like brown spot, false smut, stem borer and leaf folder were observed.

Varanasi: Breeding trials namely NILs (drought tolerance, blast and bacterial blight blight), early transplanted (IVT), irrigated mid early (IVT, AVT1 and AVT2), Irrigated medium (AVT1, AVT2, IVT), late (AVT2, AVT1), aromatic short grain (AVT1, IVT), aerobic (IVT), biofortification trials (IVT, AVT1 and AVT2), MS (AVT1 and AVT2), hybrid trials were conducted very well as per the guidelines. Experiments were meticulously planned and trials were in good condition. All the recommended agronomic practices were followed to ensure the good crop. Some of the trials namely Late (IVT), aerobic (AVT2, AVT1), MS (IVT), were not conducted due to non-availability of lands.



Kanpur: A total of eight trials were conducted at CSAUA&T, Kanpur. Six trials at Kanpur namely - AVT1 -ASG, IVT -ASG, AVT1-AL&ISTVT, IVT-AL&ISTVT, AVT1-NPT while two trials at Bhoja farm namely AVT1 (AL&ISTVT), IVT (AL&ISTVT) were conducted. The salinity stress at Bhoja farm was very high with 9.8 pH and EC 1.1 and many entries showed sterility. While salinity stress was normal at Kanpur location wherein two salinity trials AVT1-AL&ISTVT, IVT-AL&ISTVT were conducted. The experiments were conducted in very systematically and all the agronomical practices were followed to ensure good crop.

Ghagraghat: Five trails were conducted at Ghagraghat station. In case of low land trails namely NSDWSN, AVT1-SDW, partial submergence up to 71cm was recorded while in case of AVT1-SDW, IVT-DW, full submergence with 92cm was recorded. The experiments were conducted very well with necessary agronomic practices.

Masodha: A total of 32 trials were conducted at Masodha centre which includes RSL, E-DS, SDW, NSDWSN, NILs, E-TP, IME, IM, ASG, MS, salinity trials, aerobic trials and bio fortification trials. Due to animal grazing AVT2-IM, AVT1-IM, AVT2-Aerob, IVT-Aerob were severely affected. In case of low land trails namely, IVT-RSL, AVT1-SDW, NSDWSN, the submergence was not recorded due to poor rainfall. In case of salinity trials, IVT-AL&ISTVT and AVT2- AL&ISTVT conducted at Kumarganj, the stress was normal. In the remaining trails, the experiment was conducted very well with all necessary agronomic practices.

Eastern zone (ii): S S C Patnaik, Manas Bag, Anjani Kumar (12-17th October 2017)

ICAR-Patna: A total of fourteen trials were allotted to the centre and the centre had conducted nine trials viz., AVT 1NIL-DRT in both stress and control conditions, IVT-ETP,

AVT 2-IME, IVT-IME, IVT-IM , IVT-L, AVT 2- Aerob, AVT 1- Aerob and IVT – Aerob. In general, the trials were conducted as per the guide lines and crop growth was good. In AVT 1NIL-DRT trial, there was no drought stress and there was no symptom in susceptible check. Crop conditions of breeding trials are really good in terms of disease and pest infestation except very negligible incidence of stem borer infestation and sheath rot infection were observed.

Sabour: Totally sixteen trials were allotted to the centre out of which only nine trials were conducted as there is no suitable land for conducting Aerobic and Biofortification trials whereas AVT-2 Late trial was received very late. In general the crop condition was good and trials were sown in June and transplanted in the month of July. Crop production experiment was conducted as per the guidelines. Treatments were well executed. Weeds/disease was well controlled. The centre has conducted 3 plant pathological and no entomological experiments. All the crops are in maximum tillering stage. Natural disease pressure of bacterial blight was high particularly Rajendra Sweta was severely affected.

CAU, Pusa: CAU, Pusa is a voluntary centre of AICRIP and conducted all the eighteen trials allotted. None of the entries in AVT-1 DW could survive the extreme submergence with flood water 40 days with 1m water depth and except the local check Sudha. In Crop production, experiment was conducted as per the guidelines. Treatments were well executed and general condition of the crops was good. Weeds/disease was well controlled. This centre has conducted both Entomological and Plant pathological experiments. Under entomological experiments they have conducted trials. Pest infestation of leaf folder, gundhi bug and stem borer was low to moderate during the visit. Susceptible local variety ‘Pankaj’ for brown spot was planted in infector row. BS was nearly 50% in infector row during the visit and in moderate intensity in most of the entries of screening nursery. BS and bacterial blight was in moderate intensity in early planted and low intensity in normal transplanted crops of disease observation nursery.

Dhangain: BRU, Bikramganj has conducted all the nine trials allotted viz. IVT Aerob, AVT 1 Aerob, AVT 2-Aerob, IVT-RSL, IVT-IM, AVT 1-IM, AVT 2-IM, IVT-ETP, Samba Mahsuri mutant Trial. The trials were conducted as per the guide lines and crop growth was good without any severe disease and pest attack. Only one replication could be conducted in IVT- Aerob due to continuous rain. The Samba Mahsuri trial was received late and was in good condition where all the entries were in vegetative stage. Crop production experiment was conducted as per the guidelines. Treatments were well executed and general condition of the crops was good. Weeds/disease was well controlled. The centre has conducted Plant pathological experiments but no entomological experiments. Under Plant pathological experiments they have done screening nurseries for bacterial blight and sheath blight of rice. Sheath blight infection was low to moderate during the visit. False smut infection was in moderate intensity in the many of the entries of screening nurseries.

Eastern zone (iii): J.N. Reddy, P.C. Rath and P. Bhattacharyya from 29th Oct. to 4th Nov. 2017

Chinsurah: In all, 35 breeding trials were allotted to the station. Except two, all other trials were conducted. Two trials, IVT-CVST and AVT1-CVST were not conducted at Salt Resistant Paddy Research Station, Gosaba. One NIL trial, AVT1-NIL-Blast & BLB also has not conducted at the station. Under Hybrid Rice programme, five trials were conducted very nicely. Few trials viz., IVT-NPT, NSDWSN, IVT-SDW, AVT-SDW and AVT1-NIL-Submergence were not conducted as per the instructions under proper ecology. The seed

production plots where the popular varieties like Shatabdi, Kshitish, Govind Bhog, Rajdeep, Sabita and Sujata are being grown. Under Agronomy nine trials were allotted to the station and all trials were conducted. All the trials were conducted precisely with care. Weed competitiveness, cultivar DRR Dhan 46 and RP Bio226 performed well. In Soil Science four trials were allotted and all four were conducted precisely with care. In plant physiology, two trials were conducted. But the trials on high temperature screening need to be designed properly as it needs specific infrastructure or else it may be conducted in high temperature region. It was advised to send the plant sample for Silicon estimation to IIRR, Hyderabad for this year for getting relevant data. In Entomology, 14 trials including IPM and POS in farmer's field were allotted to the center and all the trials were conducted nicely. In the farm, YSB, LF, Gall midge, BPH and WBPH are the major insect pests. The major diseases are Sheath blight, Bacterial leaf blight, Brown spot, Sheath rot and false smut. Both entomology and pathology trials are conducted nicely and well displayed in the field.

Canning: The team visited three AICRIP trials viz., IVT-CSTVT, AVT1-CSTVT and one Soil Science/Agronomy trial. Variety Amalmona is the salinity tolerant and very popular variety in that area. Insects like LF, YSB and Caseworm are predominant in that locality. Disease like sheath blight, BLB, False Smut and Brown Spot were seen in the farm. Other popular varieties are Pankaj, Sabita and local Gitanjali. Under Agronomy and Soil Science, the trial on effect of BF and nutrient management on HYV of rice was conducted well and maintained properly but plot size was very small. Agronomic trials needs at least (5 m x 5 m) plot to get precise field results. 50% NPK + BF gave promising result; however, it must be tested again in proper plot size with field bunds.

Pundibhari: The monitoring team met Vice Chancellor of the UBKV, Pundibari and discussed about the purpose of visit and later visited the experimental fields in research farm. The center was allotted 12 trials; most of them were not indented by the station. It is a voluntary centre and only three of the twelve breeding trials viz., AVT-L, AVT1-ASG and AVT2-MS were conducted. The locality was a hot spot of different diseases and insects like false smut, brown spot, sheath rot, leaf folder and YSB. Popular varieties of the location are Mahasuri, Gotra and Swarna. There was no trial related to Agronomy and Soil Science in UVKVV, Pundibary. However they have good fields and advance laboratory facilities for Agronomy and Soil Science work.

Eastern Zone (iv): A S Hari Prasad, S K Dash and Basana Gowda (10.10.2017 to 18.10.2017)

Bhubaneswar : Of the 27 breeding trials sent, only 13 trials were conducted. The team visited these trials viz., IVT-RSL, AVT-1 SDW, IVT-SDW, NSDSWSN, AVT-1 IME, IVT-IME, AVT-2 IM, AVT-1 IM, IVT-IM, AVT-2 L, IVT-L, AVT-1 MS, IVT-MS, All these trials were conducted in small plot sizes (3.5 – 6m²) deviating from the given technical programme. Only two trials viz., IVT RSL, IVT L were in flowering stage, at the time of AICRIP monitoring team visit.

Chiplima: Of the 16 (14 breeding & 2 hybrid) trials sent, only 8 trials were conducted. The team visited these trials viz., AVT-2 IME, AVT -1 IME, IVT IME, AVT-2 IM, AVT-1 IM, IVT IM, IHRT ME & MLT (Hybrids) and these trials were conducted properly as per the technical programme. This Center has no activities pertaining to the nucleus/breeder seed production. Of the 7 pathology and 12 Entomology trials sent, all were conducted. The team visited these trials and found that these trails were conducted as per the technical programme.

Natural infestation of yellow stem borer, leaf folder and brown plant hopper were high but gall midge infestation was moderate.

Jeypore: Of the 15 breeding trials sent viz., AVT-2 IM, AVT-1 IM, IVT IM, AVT-2 IME, AVT-1 IME, IVT IME, AVT-2 MS, AVT-1 MS, IVT MS, IVT E, AVT-1 ASG, IVT ASG, AVT-1 E DS, IVT E DS & Mutant trial, all the trials were conducted, albeit with reduced plot sizes. IVT E TP trial may be rejected because of >50 day old seedlings were transplanted and the plot suffered from water logging. These two factors together resulted in very poor expression of genotypes.

Cuttack: Of the 40 (37 breeding & 3 hybrid) trials sent, majority of the trials were conducted, properly as per the technical programme (albeit with reduced plot sizes) and the team visited majority of the trials, which were in flowering phase during the visit. AICRIP saline trials were conducted in the nearby farmers' fields. The breeder seed production was taken up as per the DAC indent. In crop protection and production disciplines, all the allotted trials were conducted as per the given technical programme.

North Eastern zone (i): Sanjoy Saha, N P Mandal, S Lenka and Y. Yele (ICAR-NIBSM, Raipur) (30-10-17 to 3-11-17)

CAU Umiam: All the three trials allotted during 2017 *kharif* season were conducted. The experimental fields were well maintained and the trials were conducted as per the standard protocol. Several entries in the trial showed Fe-toxicity symptoms with poor tillering.

ICAR- Umiam (Upper Shillong) At upper Shillong, all the breeding trials were mostly disease infected but insect-pest infestation was very less, it may be due to the very low temperature at the locality. Grain sterility was observed in all the trials except local checks. This might be due to late transplanting and low temperature at the time of panicle emergence. Some sign of stem borer infestation was observed.



ICAR Umiam: All the three trials allotted to ICAR Umiam, Barapani were conducted at Upper Shillong site. This season, seeds arrived late at the centre. Because of the delayed planting, all the trials were severely affected by cold. Most of the entries were severely stunted with poor emergence of panicles and sterility of the spikelets. The data from these trials may be discarded as there may not be any yield/very less yield due to cold injury. Local checks, Megha Rice 1 & 2 were doing well in this situation. Two trials were conducted under IAMT. Since, Meghalaya Government is promoting organic agriculture and most of the farmers are either using organic manure or no/little chemical fertilizers as a source of nutrient. Three pathology trials viz., Screening for Leaf Blast resistance, Screening for Neck Blast Resistance and Field Monitoring of Virulence were conducted. Minor infestation of stem borers, leaf folder, gundhi bug and army worm was observed in the trials. The stem borer infestation was about 5% across the experimental fields and varieties. Pink stem borer and stalk borer were the major species of stem borer present in the field. Last year, there was severe infestation of armyworm in Assam and Meghalaya but it was least in this year.

Gerua: A total of 12 breeding trials (AVT 1-L, AVT 1-ASG, AVT 1-MS, AVT 2-IME, AVT 1-IME, IVT-RSL, AVT 1-SDW, NSDWSN, IVT-SDW, IVT-DW, IVT-ASG & AVT 1-NIL SUB) were conducted. All the trials were conducted as per recommendations with well laid out plots and free from weeds. The AVT 1-NIL SUB was conducted under normal condition only and none of the entries were in flowering. No trials were allotted under Agronomy. However, all the AICRIP trials plots were well managed in the Farm. Special trial on chemical control of false smut was conducted. Even after artificial inoculation in Trial 6, the incidence of bacterial blight didn't occur during the time of monitoring. This might be due to unfavourable condition for the pathogen development and spread. However, all the other trials were well maintained. Minor infestation was observed due to stem borer, leaf folder, case worm and gundhi bug. All the three types of stem borer viz., pink, yellow and white stem borers were found.

Assam Agricultural University, Jorhat: All the varieties were at maturity stage. The seed plots were found in good condition, uniform in crop growth and well maintained. No major incidence of any insects/diseases or weed infestation was observed.

Titabar: In breeding, six varietal trials (AVT 2-IM, AVT 1-IM, IVT- RSL, AVT 1-NPT, IVT-NPT & IVT-IM) and four hybrid trials (IHRT-E, IHRT-ME, IHRT-M and IHRT-MS) were conducted. The general condition of the trials was very good and most of the entries in both varietal and hybrid trials are in flowering to milk stage. Bacterial blight (BB) incidence was severe both in varietal and hybrid rice trials. Breeder seed production plots of the centre were uniform and well maintained. All together, 7 trials were conducted under Agronomy. Due to heavy and continuous rain till the last week of October, 30% lodging was recorded in two trials which were at the ripening stage. Performances of the rest of the trials are very good. No severe insect-pests and diseases attacks were observed in any trial. It was suggested that the trial on abiotic stress (drought) should be shifted to suitable field. The existing one is not suitable for drought screening.

North-eastern zone (ii): K. Chattopadhyaya, R. Bhagawati, Sushmita Munda, LV Subba Rao and P.N. Sivalingam (22-27th October 2017)

Arundhutinagar, Tripura: Three hybrid trials were conducted at Nalchar farm under State ARS, Arundhutinagar. State Agricultural Research Station, Arundhutinagar farm has conducted another five breeding trials. They were IVT- MS, AVT-1 MS, AVT-2 Aerobic, IVT-ETP, and IVT-ASG. The overall layout and maintenance were found satisfactory. Two Crop Management trials (CMT-7 and CMT-3), one collaborative trial (CT-2) and one weed management trial (WMT-2-b) were conducted at this station. The crops were in good condition. The protocol was followed as per guidelines with minor deviation viz., layout in WMT-2b. Five Plant Pathological trials were conducted by this station. These trials were NHSN for sheath blight resistance, trial number 6 on screening for BLB, trial number 9 for Monitoring field virulence of *Xo pv oryza*, trial number 10 on disease monitoring in rice growing for major rice diseases (in farmer's field), trial number 11 for evaluation of fungicides against location specific diseases. Experiments were properly conducted and well maintained. No disease in trial number 11 and less intensity of BLB in trial number 6 were observed. Entomological trial was conducted. Infestation of leaf folder, rice stem borer, trips was more in 1st date of transplanting. Frequent high intensity rainfall might have adversely affected population build up of major pest and diseases.

Wangbal: Wangbal station has conducted four breeding trials, IVT M (Hill), IVT-UH, IVT-E-TP and AVT-1 M (H), one agronomic trial, Integrated Management trial (IAMT-1) were

conducted. Among the varieties, VL-Dhan 65 had flowered at the time of visit to the station. It was reported that the centre experienced flooding on three occasions due to heavy downpour during the said crop season. Four trials in Plant Pathology on NSN-I, NSN-II, DSN, NHSN screening and BLB screening was done. However disease was not observed. One experiment on pesticide compatibility trial under entomology was conducted. However other than leaf folder and very less stem borer infestation, the crop was free from major insect pest and diseases.

Lamphelpat: Two breeding trials, AVT-1 M (H) and IVT-MW Irrigated, were conducted. Most of the entries were harvested or mature. None of them were found promising over the check RCM 11. In pathological trial, field virulence of *Pyricularia oryzae* (Leaf blast) experiment with 25 numbers of entries and screening Leaf and Neck Blast resistance of DSN with 90 entries carried out with proper UBN pattern and first observation of all the test entries was done.

Lembucherra: All trials were damaged due to rain.

Western zone (i): P Senguttuvel, B Sreedevi, C Kannan and R L Verma (03.10.2017 to 13.10.2017)

NAVSARI: Altogether, 26 breeding trials were conducted as per the instructions provided by IIRR. In addition, plant production and plant protection trials were also conducted. Overall the trial conduct and performance were good. Severe incidence of leaf folder was noticed most of the trials. And in the AICRIP Agronomy program, seven trials were conducted as per the technical program. DRR Dhan 46 is found superior under for weed competitiveness under aerobic condition

Vaghai: Sub centre of Navsari Agricultural University, perfect location for screening of genotypes for blast disease. Conducted blast screening trials and 3 breeding trials, overall the disease pressure was minimal and incidence of disease is sporadic.

Danti: IVT-CSTVT trail was conducted as per guideline provided and crop growth was good. The Research centre has demonstrated the Model farming system for the costal saline soils including prawn, rice, vegetables cultivation system through Krishi Vigyan Kendra and department of Agriculture. *Salicornia brachiata* a halophyte (green leafy vegetable) is cultivated in the fields with saline water and needs fresh water only for germination of seeds.

Vyara: Total 11 breeding trials were conducted and overall the crop growth was good with no major incidence of pest and diseases occurrence. In parts of South Gujarat, the drill sown rice is predominant system of rice cultivation. Short duration varieties like Suruchi are preferred due to rainfall distribution pattern. Root knot nematode and white tip nematode affected rice plants were noticed in rainfed rice trials.

DABHOI: The centre conducted 7 breeding trials namely IVT-ETP, AVT2-IME, AVT1-IME, IVT-IME, AVT2-IM, AVT1-IM and IVT-IM. In the Paddy Research Station, Breeder seed production is the major activity. Brown Plant Hopper incidence was noticed in some trials and damage by wild pigs in some IVT Breeding trials. The seed production plots were very healthy and in flowering to maturity stage. The soils are heavy black soils and receipt of seed material from AICRIP after onset of monsoon makes sowing nursery and planting very difficult and requested early dispatch of AICRIP seed material.

Nawagam: This centre conducted 23 breeding trials. In general, the trials were conducted as per the guide lines and crop growth was good. The performance of Mahisagar in FLD trials was good. Varieties Mahisagar, Gujari and GRT were included as popular variety and latest released varieties. The delay in planting by 15 days under Nawagam region is not having distinct influence on the crop growth condition.

Derol: Two upland and three aerobic breeding trials were conducted. The centre is exclusively working on drilled paddy. Till now two drilled paddy varieties were evolved GR-9 and ADR-1. Station experiments on integrated nutrient management, irrigation scheduling, and fertilizer use efficiency through drip irrigation, mulching etc. The IVT entries sent in AICRIP program have not yet flowered and not suitable for this region and very early to early varieties are preferred in this zone. Iron deficiency is common phenomenon and recommendation of 20-25 kg/ha of Fe_2SO_4 is necessary and farmers are adopting the recommendation.

Banswarah: Total five breeding trials viz. AVT1-EDS, IVT-EDS, AVT2-Aerobic, AVT1-Aerobic and IVT-Aerobic were conducted. However aerobic trials experienced severe drought and data may not to be considered for analysis. The trials were totally under rainfed system and the promotion of entries can be done only for rainfed system. Mahisugandha is very popular variety released from this centre. 14 AICRIPs are being carried out at this Station on different crops and horticultural crops.

Kota: A total of seven breeding trials were allotted to the centre and the centre had conducted all trials viz., AVT1-IME, AVT2-IME, IVT-IME, AVT2-IM, AVT1-IM, IVT-IM and IVT-BT. Crop conditions of the trials were good in terms of disease and pest infestation. DRR Dhan 46 and Swarnashreya are appearing better in terms of crop growth and yield attributes, which ultimately contribute to higher yields under weed competitive in aerobic conditions.



Western zone (ii): D. Subrahmanyam, R.M. Sundaram, V. Prakasam, N.N. Jambhulkar (8-13th October 2017)

Goa: A total of two breeding trials (AVT1-CSTVT and IVT-CSTVT) were carried out by this centre during Kharif 2017. The trials were carried out in a leased land of farmer affected by salinity in a nearby area. Salinity stress was not observed in the field due to excess rainfall and most of entries in both AVT1-CSTVT and IVT-CSTVT did not have sufficient number of plants in the field due to submergence of seedlings for about 20 days after planting. The field plots were well maintained and weed free and the trials were carried out as recommended. Very mild incidence of gall midge, Gundhi bug and leaf folder was noticed during the team's visit. Goa Dhan 2 was used as the local check variety and it had flowered. Most of the entries had establishment problem and poor plant population and seven of them had not flowered during our visit. Due to poor plant population in both the replications the data need not be considered for this trial. Many of the entries had not flowered during the visit and poor plant population was noticed. Due to severe submergence noticed every year at Goa, it is suggested that IIRR may supply adequate quantity of seeds to this Station. At CCAIR, Goa no Plant Production trials were conducted. We could observe low to moderate

level of sheath rot, grain discoloration, bacterial leaf blight, Leaf scald, sheath blight and stem borer infestation at this area.

Phondaghat: Five breeding trials (AVT2-L, AVT1-L, IVT-L, AVT1-ASG, IVT-ASG) were carried out by this centre. As planting is carried out usually very early (as most of the trials are late), it is necessary to dispatch seeds to Phondaghat by first week of June. All the trials were conducted as per recommendations with well laid out plots with sufficient area. Severe to moderate incidence of blast and moderate incidence of sheath rot, grain discoloration and sheath blight were observed in few of the trials/entries.

Radhanagari: Even though two breeding trials (AVT1-ASG, IVT-ASG) and MLT hybrid trials were allotted to this centre, it could not carry out IVT-ASG to very late receipt of seeds. The remaining trials were conducted as per recommendations. Some incidence of leaf scald and sheath blight was noticed at this centre. No crop production and crop protection trials were conducted. Besides, the monitoring team observed low to moderate level infestation of blast, sheath rot, grain discoloration, BLB, sheath blight, udubatta, stem borer and leaf folder on the station trails.

Shirgaon: A total of 9 breeding trials (IVT1-MS, AVT1-MS, AVT2-MS, IVT-Biofort, AVT1-Biofort, AVT2-Biofort, IVT-NPT, AVT1-NPT, AVT-E-Transplanted), one hybrid rice trial (IHRT-M) and a special Samba Mahsuri mutant trial has been carried out by this station. All the trials were carried out as per the recommended specifications and the field plots were well maintained and weed free. The maintenance of field plots by this station deserves commendation. The team observed the epidemic form of sheath blight infection in most of the entries. In some entries low level of sheath rot and grain discoloration were noticed. This has been principally due to prolonging of rainy spell in the entire Konkan belt.

Karjat: A total of 19 breeding trials, four hybrid rice trials and a special Samba Mahsuri trial are being carried out this station. Moderate incidence of stem borer, leaf folder and brown spot was seen in some of the trials during our visit.

Lonavla: Screening trails were conducted for blast (Leaf and Neck), sheath rot and leaf scald from nurseries of NSN-1, NSN-2, NSN-H, NHSN and DSN. Besides trails on field virulence in *pyricularia grisea*, new fungicides against location specific diseases and integrated disease management were conducted at this centre. All 23 trials were in good condition and crop growth is excellent without any weeds. The blast disease pressure was very high in UBN blast nursery. The monitoring team has observed very clear cut disease reaction between susceptible and resistant entries in UBN. In main field also neck blast, sheath rot and leaf scald pressure was moderate to high in the different screening nurseries. There is no artificial inoculation for the screening nursery and management trails at this station. For the first time BLB appeared at Lonavala and it may be due to delayed withdrawal of monsoon.

Panvel: Two breeding trials (AVT1-CSTVT and IVT-CSTVT) were carried out by this centre during Kharif 2017. Generally the EC during tillering stage will be around 4, while during reproductive stage it will be above 10. A recent reading taken at the Station revealed that the EC was 14.5-15.50. The monitoring team notice moderate to severe salinity stress in the field. However, due to excessive rainfall after planting and during tillering stage, in some of the entries in AVT1-CSTVT and IVT-CSTVT, sufficient number of plants were not there principally due to submergence of seedlings/plantlets for about 20 days after planting. The field plots were well maintained and weed free and the trials were carried out as recommended. Moderate to severe incidence of bacterial blight was noticed during the team's visit. No crop production and crop protection trials were conducted.

Southern zone (i): B Jhansi Rani, R M Kumar, D Krishnaveni, Jyothi Badri and Rameshwar Saha

Gangavathi: At Gangavathi, a total of sixteen plant breeding trials are being conducted that included IVT and AVTs of early, biofortification, medium slender grain type, near isogenic line-drought stress, nitrogen use efficiency, special samba mahsuri mutant, multi location late sown and salinity stress trials. All the trials are well laid out with timely field management practices. However, plantings were delayed by almost one month due to late release of canal water in the month of September. All the crop production trials were conducted as per the technical programme and the treatment effect were promising. It was suggested to quantify the water in Water management trials with the use of water meters. In crop protection trials, there were 13 trials allotted in total to the centre and all were being conducted. Planting was done one month late i.e., first and second week of September. The crop stand was very good and trails were laid out as per the recommended protocol. In most of the trials BPH, WBPH and GLH incidence was noticed and the populations were at low to moderate levels. At farmers' field, because of cold attack, there is severe incidence of BLB in BPT 5204 while RP Bio 226 is resistant to BLB.

Southern zone (ii): P Senguttuvel, Y Sridhar, Mangal Deep Tuti, (03.10.2017 to 13.10.2017)

Coimbatore: In total, 24 breeding trials were conducted including 4 hybrid rice trials. Overall the conduct of all the trials is satisfactory and as per the technical programme. Though few trials experienced drought spells, the conduct of aerobic and early direct sown was delayed and may not be considered for analysis.

Southern 4: Drs. R. Abdul Fiyaz, M. Srinivas Prasad and V. Prakasam (ICAR-IIRR) (11.10.2017 and 16.11.2017)

Rajendranagar: Twelve trials were allotted. Monitored trials AVT 1- IME, AVT-2 IME, IVT-IME, AVT 1-IM, AVT-2 IM, IVT-IM, AVT 1-MS, AVT 2-MS, IVT-MS, AVT 1-NPT and IVT-NPT. The trials are conducted as per the guidelines and crop growth is good. Most of the fields were weed free. Many entries had lodged in some of the trials during the visit. Crop growth is uniform and luxurious. Overall conduct of trials is good.



Warangal: Fifteen trials were allotted. Monitored trials viz., IVT-IM, IVT-E TP, IVT-IME, IVT-MS, IVT-NPT, AVT 1-MS, AVT-NPT, AVT 1-NIL Blast and Drought. The trials are conducted as per the guidelines and crop growth is good. Few IHRT trials were harvested. Overall conduct of trials is good.

Southern Zone (iii): Revathi P, DVK Nageshwara Rao, Divya Balakrishnan, and B S Satpathy

Ragolu: A total of 3 AICRIP trials (AVT1-IM, IVT-IM and AVT2- IM) were conducted by this centre. All the trials were conducted as per the instructions with proper plot size. All the fields were weed free. Severe incidence of leaf folder and moderate incidence of gall midge

were seen in some of the plots, while blast was the main disease that was observed in few entries. The breeder's seed production is under mechanized SRI.

Maruteru: A total of 26 breeding trials and five hybrid rice trial were carried out by this centre. All the trials were conducted as per recommendations. Most of the fields were weed free. Many entries had lodged in some of the trials during the visit, MLT DS Late trial was failed due to poor germination. This centre is hot spot for BPH screening, Sheath blight, BLB. The centre has the potentiality to conduct more number of agronomic trials in future. No significant disease infestation was seen. Rice stem borer attack was found scattered. FLDs on MTU1140 (Bheema) (Non lodging submergence tolerant) was taken up by several farmers. The crop condition was observed to be weed free and good in most of the plots.

Machilipatanam: Two breeding trials (AVT1-CSTVT and IVT-CSTVT) were carried out by this centre. Both the trials were conducted with minimal plot size than recommended with 4 replications for each trial. All the fields were weed free. No uniform salinity was observed in the field along with patches of no crop in the trial plots. 95% gap filling is required due to initial severe salinity stress ($ESP > 40$) and there is need of more seed quantity per entries in this station. After gap filling, most of the entries escaped salinity stress and even susceptible checks performed better. Some incidence of leaf folder, BPH and blast were noticed in some of the entries in the AVT1-CSTVT and IVT-CSTVT and rodent damage was also reported. A moderate salinity stress was imposed on the entries.

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Dr. R. Abdul Fiyaz	:	Scientist	Dr. L.K.Bose	:	Principal Scientist
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Mr.H.K. Ranganath	:	Scientist	Dr. A.Anandan	:	Principal Scientist
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172.	Vyara	Dr. Vipul P. Patel, Associate Research Scientist (PB), Regional Rice Research Station, Navsari Agricultural University, Vyara, Dist. Tapi, Gujarat PIN-394650, 02626-220212 (O) , 02637–651344 (R),08469417374 (M), 02626220212 (F), vppatel13@gmail.com , rrsvyara@yahoo.in
173.	Vyttila	Dr. K. S. Shylaraj, Professor(Pl.Br), Dept .of Plant Breeding & Genetics , Rice Research Station (KAU), Vyttila, Cochin-682 019, Kerala, 0484 2809963 (O), 9846789150 (M), 0484-2809963 (F) shylarajks@gmail.com , rrsvyttila@kau.in
174.	Vyttila	Dr. Veena Vighneswaran, Asst. Professor (PBG), 09447961586 (M), Dept .of Plant Breeding & Genetics , Rice Research Station (KAU), Vyttila, Cochin-682 019, Kerala, 09447961586 (M), veenarars@gmail.com
175.	Warangal	Dr. B.Satish Chandra, Scientist (Plant Breeding), Regional Agricultural Research Station (PJ TSAU), Mulugu Road, Warangal – 506 007, Telangana State, 09948990788 (M), 0870-2975223, (F) chandragene@gmail.com
176.	Warangal	Dr.V.Venkanna, Scientist (Plant Breeding), Regional Agricultural Research Station (PJ TSAU), Warangal – 506 007, Telangana State.
177.	Waraseoni	Dr. Uttam Bisen, Scientist (PB), Regional Agricultural Research Station, JNKVV, Waraseoni-481331, Balaghat, Madhya Pradesh.09424999321, 7999321276 (M) uk_bisen@rediffmail.com
178.	Wangbal	Dr. Th. Joykumar Singh, Rice Breeder, Rice Research Station, Govt.of Manipur, Wangbal-795138 Thoubal, Manipur. 03848-222159, rrswangbal@rediffmail.com

Private Companies- Hybrid Rice

Company	Name & Address
Advanta Limited	Dr. V. Satya Dev , Crop Research Lead - Hybrid Rice, Advanta Limited. Krishnama House, # 8-2-418, 3rd Floor, Road No -7, Banjara Hills, Hyderabad- 500 034. Ph # 040-66284000, Fax # 27890137, E-mail: satyadev@advantaseeds.com Dr. Prabhu Gouda Patil , Email: prabhugouda.patil@advantaseeds.com Dr. Krishna Reddy , Email: krishna.reddy@advantaseeds.com
Ankur Seeds Pvt. Ltd	Shri R.M. Kashikar , Chairman & Research Director, Ankur Seeds Pvt. Ltd., 27, New Cotton Market Lay-out, Opp. Bus Station, Nagpur - 440 018, Maharashtra. Ph # 0712-2725117, 2726148, Fax # 0712-2723455, E-mail: rmkashikar@ankurseeds.com Dr V.P. Khedkar , Mobile: 09850329757, E-mail: vpkhedkar@ankurseeds.com
Bayer Bio-Science Pvt Ltd	Dr. O.S. Kanwar , A.G.M. Crop Development – Rice, Bayer Bio-Science Pvt Ltd Plot No:13, Survey No: P64/2 , Software Units Layout, Madhapur, Hyderabad - 500 081, Telangana, Board:91-40-44110123 / Direct:44110249, Fax : 91-40-6684 1437 Mobile : +91 98499 89752, E-Mail omvirsingh.kanwar@bayer.com Dr. Yogaraj Sharma , Mobile : +91 98499 89753, E-Mail : yog.raj@bayer.com
Bioseed Research India	Dr. Paresh Varma , Director Research, Bioseed Research India, 234, B-Block, Kavuri Hills, Phase II, Hyderabad - 500 033. Ph # 040-67066666 Fax # 040-67066606, E-mail: paresh.verma@bioseed.com Dr. R. Vijaya Kumar , Principal Breeder (Rice), E-mail : vijay.kumar@bioseed.com Dr Bahskara Reddy , Email: bhaskara.reddy@bioseed.com
Bisco Bio-Sciences Pvt Ltd	Dr. Vinod Kumar Yadav , Breeding Coordinator – India, (Bisco Bio-Sciences Pvt Ltd), Ashoka My Home Chambers, H.No. 1-8-201 to 203, Flat no. 208 & 209, S.P. Road, Secunderabad - 500 003, Telangana. Mobile: 07702888289, Tel: 040 30004050/60, Fax: 040 27841299, E-mail: vinodyadav@limagrains.in Dr. Manender Singh , Sr. Breeder-Paddy, Email: Manender.Singh@limagrains.in Mob. +91-9100119466
Crystal Crop Science	Mr O. Krishna , Mobile: 096181 33544 WEmail: oggu.krishna@crystallcrop.com ; oggu23@gmail.com
Dantiwada Seed Private Ltd	Dr. S.N. Shukla , Vice President (R&D), Dantiwada Seed Private Ltd, # 211, Sakar V, B/H Natraj Cinema, Ashram Road, Ahmedabad - 380 009, Gujarat. Tel: 079-26583378, Fax: 079-26583379, Mobile: 09811893075, E-mail: shukla.shankarnath@gmail.com
Delta Agrigenetics Pvt. Ltd	Dr. R.N. Rao , Research Head, Delta Agri genetics Pvt. Ltd, Plot Nos: 99&100, Greenpark Avenue, NH-7 Road, Jeedimetla Village, Behind Surabhi Hotel, Hyderabad- 500055, Telangana Mob: 0766002927 (O) ; 09492547300 (P), Email: rn@deltaseeds.in , rnrao14@yahoo.com Sri A.S.N. Reddy , Chief Executive Officer, Email: asn@deltaseeds.in Mobile :09908900003
Dupont Pioneer Pvt. Ltd.	Dr. Mahantesh Gangashetti , EZ Lead, Dupont Pioneer, 3 rd & 4 th Floor, Babukhans Millennium Centre, 6-3-1099/1100, Raj Bhavan Road, Somajiguda, Hyderabad- 500 082, Mobile: 9880535533, Email: mahantesh.G@pioneer.com Dr. Chandrashekar.S. , EZ Lead, Dupont Pioneer, Lucknow, Mobile No. 9000711659 Email: chandrashekar.somanagoudra@pioneer.com Dr. Rudresh, N.S. , Principal Scientist, Dupont Pioneer, Raipur, Mobile No. 9000844130, Email: rudresh.sugandharajappan@pioneer.com Dr. T.G.Prabhu , Principal Scientist, Dupont Pioneer, Hyderabad, Mobile No. 9000711037, Email: tg.prabhu@pioneer.com
Ganga Kaveri Seeds Pvt. Ltd	Dr. N. Jagan Mohan Rao , Director Research, Division of Crop Research & Development Ganga Kaveri Seeds Pvt. Ltd, # 1406, Babukhan Estate, Basheerbagh, Hyderabad - 500 001, Telangana. Mobile:09848772800 Dr. B. Vidya Chandra , Mobile:9652051568, Email: b.vidyachandra@gangakaveri.in Dr. Sai Murali , Mobile: 7732062224, Email: sai.murali@gangakaveri.in
Indo-American Hybrid Seeds (I) Pvt. Ltd	Dr. S.N. Ratho , Indo-American Hybrid Seeds (I) Pvt. Ltd. Flat # 203, KJ Residency Hydershkote (Near ZPHS) Golconda post office Hyderabad - 500 008, Telangana. Ph # 08413-200086 (O); 040-20020975(R) E-mail : snratho@indamseeds.com

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Kaveri Seed Company Ltd	Dr. P. Santosh , Manager Rice Breeding, Kaveri Seed Company Ltd, 513-B, V Floor, Minerva Complex, S.D. Road, Secunderabad – 500 003, Telangana. Mob: 9866076378 Email: santosh.p@kaveriseeds.in , paikarao_santosh@yahoo.co.in Dr B.P. Ravi Kumar , General Manager (Rice), Email: ravikumar.bp@kaveriseeds.in Dr. G.S. Satish , Chief Operating Officer, Email: satish.g@kaveriseeds.in
Krishidhan Seeds Pvt Ltd	Dr. Ramesh Raut , Director (PR&D – SS&TS Dept.), Krishidhan Seeds Pvt Ltd, 7th Floor, Tower-15, Cybercity, Magarpatta City, Hadapsar, Pune - 411 013, MS, E-mail: ameshraut@krishidhanseeds.com Fax: 020 26712800, Tel: 020 26742600/01, Direct: 020 26742606, Mobile: 09422216514
Mahindra & Mahindra Ltd	Dr. Ponnusamy Umashankar , Head: R & D, Mahindra & Mahindra Ltd, Agribusiness, H. No.: 02-076/3/302, 3rd Floor, Sai Baba Complex, Pet Basheerabad, Qudbullapur Mandal, Secunderabad - 500055, Telangana. Email: Ponnusamy.umashankar@mahindra.com Mobile: +91-9701611152
Mahyco	Dr. K. Govinda Raj , Principal Advisor, Mahyco, Maharashtra Hybrid Seeds Co. Ltd. National Highway No. 7, Hyderabad–Nagpur Road, Village : Kallakal, Mandal : Toopran Dist., Medak - 502 336, Telangana. E-mail: govindaraj.k@mahyco.com , Mobile: 9642000533 Dr. Raman , Email: cjv.raman@mahyco.com , rams4janaki@gmail.com Dr. M S Ramesha , Mobile: +91 9441496778, Email: mugalodimsr@yahoo.com
Makhteshim-Agan India Pvt. Ltd	Dr. Vivek Shukla , Senior Manager- Breeding and Coordination, Makhteshim-Agan India Pvt. Ltd. 5th Floor, A Block, Q-City, Nanakramaguda, Gachibowli, Hyderabad - 500 032, Telangana. Fax: +91 40 4036 1301, Cell: 91 965 277 5577, E-mail: vivek.s@ma-india.com
Metahelix Life Sciences Pvt. Limited	Dr. Suresha.P , Senior Scientist, Metahelix Life Sciences Pvt. Limited, Plot No. 3, KIADB 4th Phase, Bommasandra, Bangalore - 560 099, Karnataka. Tel # 080-7870236, 7836086; Fax # 080-7836084, Mobile: 9704944755, E-mail : suresha.p@meta-helix.com www.meta-helix.com Dr. Sunil Naik , Metahelix Life Sciences Pvt. Ltd, sunil.naik@meta-helix.com
Namdhari Seeds Pvt. Ltd	Dr. N. Anand , Director-Research, Namdhari Seeds Pvt. Ltd., Sri Sai Arcade, No. 8, 12th Cross 1st Phase, Ideal Homes Township, Rajarajeshwari Nagar, Bangalore - 560 098, Karnataka. Ph # 080-28602167/69, Fax # 080-28602168, Mobile: 9845310057, Website: www.namdhariseeds.com Dr. V.K.Jayaramaiah , Senior Breeder, E-mail : jayaramaiah@namdhariseeds.com Tel: 09845471271/72, Mobile: 9845641651
Nath Bio-Genes (I) Ltd	Dr. Ish Kumar , E mail: Dr. S.U. Baig , Director – Technical, Nath Bio-Genes (I) Ltd., Nath House, Nath Road, P.B. No. 318 Aurangabad - 431 005, Maharashtra. Ph # 2376314 – 17; 2376686, 2376687 Fax # 0240-2376188 E-mail : baig@nathseeds.com
Nirmal Seeds Pvt. Ltd	Dr. I.S. Halakude , Research Manager, Nirmal Seeds Pvt. Ltd., Bhadgaon Road, Pachora - 424 201, Dist. Jalgaon, Maharashtra. Tel # 02596-244366/244396; Fax # 02596-244045 E-mail: ishalakude@nirmalseedsindia.com Mr. A. B. Birajdar , Plant Breeder (Paddy), Mobile :09545556852 E-mail: abbirajdar@nirmalseedsindia.com birajdar.aneel@rediffmail.com
Nu Genes Pvt Ltd	Dr. K. Raghupathi Reddy , Director – Research, Nu Genes Pvt Ltd. Plot No. 18, 1st Floor, NCL Enclave, Jeedimetla, NH-7, Medchal Road, Secunderabad - 500 055, Telangana. Ph # 040-27165569, Mobile # 9989623122, E-mail : nityaseeds@yahoo.com raghukotla15@gmail.com
Nuziveedu Seeds Limited	Dr. U. Prasada Rao , Nuziveedu Seeds Limited, 7C, Surya Towers, S.P. Road Secunderabad - 500 003, Telangana., Phone # 040-27898008, 55334300, Fax # 040-55321500 Email: upraoudayagiri@yahoo.co.in Dr. S. Rama Krishna , Sr. Rice Breeder. Email: suraramakrishna@gmail.com ramakrishna.dr@nuziveeduseeds.com , Mob: 9581412503 Dr. G.S. Varaprasad , Consultant (R & D), Survey No.69, Kandlakoya, GundlaPochampally Village, Medchal Mandal, Ranga Reddy -501 401, Telangana, Mobile: +91 8886061385 Email: varaprasad.g@nuziveeduseeds.com
Pallishree Ltd.	Dr.Pritam Das , Pallishree Ltd., West Bengal, pritam.das@pallishree.com

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PrabhatAgri Biotech Ltd	Dr. P. Sankar Rao , PrabhatAgri Biotech Ltd, #8-2-227/45, 1st Floor, UBI Colony, Road No. 3, Banjara Hills, Hyderabad - 500 034. Mobile: 9581412481 Ph: 040-23606616
Pravardhan Seeds Pvt. Ltd	Dr. V.N. Deshpande , Pravardhan Seeds Pvt Ltd, #8-2-227/45, Ground Floor, UBI Colony, Road No. 3, Banjara Hills, Hyderabad - 500034. Mobile: 9581412481 Ph: 040-23541503
Rasi Seeds (P) Ltd	Dr. Jaya Prakash , Rasi Seeds (P) Ltd, Hyderabad Office , Sri Sai Silica – Plot No. 1-98/K#19, Krithica Layout, Near Nisum Technologies, Arunodaya Colony, Madhapur, Hyderabad - 500 081, Telangana. Ph # 04282-241007, 242007, 40024725 Mobile # +91 90002 77764; Fax # 04282-242558 Web : www.rasiseeds.com Email: jayaprakash.t@rasiseeds.com Mob: 8008101038
RJ Biotech Limited	Dr. Raghavendra Joshi , Director, RJ Biotech Ltd, Siddharth Arcade, Railway Station Road Aurangabad - 431 005, Maharashtra. Tel: 0240 -2354912 to 17 Fax: 0240-2332111 E-mail: info@rjbiotech.com Website: rjbiotech.com Dr. Narendra Kulakarni , Principal Scientist & Chief (R&D) RJ Biotech Ltd H.No. 1-7-309/46A, B.K. Guda, SR Nagar, Hyderabad - 500038. Mobile: 09490756015, Email: dr.narendrakulkarni@rjbiotech.com
Rohini Seeds Pvt Ltd	Research Coordinator, Rohini Seeds Pvt Ltd, Plot No. 6, Shakthi Nagar, Radio Colony, Near Chinthalkunta Check Post, L.B. Nagar, Hyderabad. Tel: 040 24128075;
Sampoorna Seeds	Mr. Y. Ramesh , Sampoorna Seeds, 15/465, Gosha Hospital Road, Adoni - 518 301, Andhra Pradesh. Ph # 08512-252493; Fax # 08512-251793/254675, Cell # 9848121240/9440251345
Savannah Seeds Pvt Ltd	Dr. Ilyas Ahmed , Senior Manager (R&D), Savannah Seeds Pvt Ltd, H.No. 12-2-823/A/128/1, Santosh Nagar Colony, Mehdiapatnam, Hyderabad - 500 028. Mobile: 09985596416 Email: iahmed@savannahseeds.com ilyas9000@yahoo.com Tel: 0124-4859200 Fax: 0124 4589201 Mr. Virendra Singh Chauhan , Savannah Seeds Pvt Ltd, #904, Tower B, Signature Towers NH-8, South City-1, Gurgaon - 122 0001. Mobile: 97946 69933, Email: vchauhan@savannahseeds.com vsensl@gmail.com
Seed Works India Private Limited	Dr. Balaji Nukal , Managing Director, Seed Works India Private Limited, 437, Avenue 4, Banjara Hills, Hyderabad - 500 034. Ph # 040-23356354; Fax # 040-23356359 Mobile # 98494534535 E-mail : bnukal@prodigy.net , Web : www.seedworksindia.com Dr. Jagadeesha Gouda , Sr. Plant Breeder – Rice, E-mail: jgowda@seedworks.com Dr. Virupaxagouda Patil , Crop Breeder: Rice, Email: Patil.virupaxagouda@seedworks.com Mobile: +91-9553384891
Shakthi Seeds Pvt. Ltd	Dr. S. Rajeeva Reddy , Director, Shakthi Seeds Pvt. Ltd., 3-6-439/A, Himayathnagar Hyderabad - 500 029. Ph # 040-27632373/27634390; 27562020(O), E-mail: shakthiseeds@gmail.com vidyanath@hotmail.com Dr. Fiaj Mohammad , Breeder – Rice, Ph # 040-55504646; Fax # 040-27634390 Cell # 09848920554 E-mail: faiz_km@rediffmail.com
Signet Crop Sciences India Pvt Ltd	Dr. Kuldeep Tyagi , Plot No. 1/P & 2, Rainforest, Bhel Vista (Near Dandamundi Enclave Main Gate), Petbasheerabad, Quthbullapur, Ranga Reddy Dist., Hyderabad, Telangana. Mobile: +91 9133300749 Email: kuldeptyagik@gmail.com
Siri Seeds (India) Pvt Ltd	Mr. K. Rakesh Reddy , Director Marketing, Siri Seeds (India) Pvt Ltd, # 505, 5th Floor, 6-3-1099/1100, Babukhan's Millenium Centre, Raj Bhavan Road, Somajiguda, Hyderabad - 500 082. Te: 040 66630762; Fax: 040 23412670, Mobile: 7702966681, E-mail: koripally.rakesh@gmail.com Dr. Surendra Kumar , Director Research, Email: suren.kumar@siriseeds.com eskay365@rediffmail.com Mob: 9989451004
Super Agri Seeds Pvt Ltd	Mr. Ravi Srinivas , Chairman & Managing Director, Super Agri Seeds Pvt Ltd 5th Floor, Akash Ganga, #8-3-1503, Plot no. 144, Srinagar Colony, Hyderabad - 500 073. Mobile: 9959226811, Email: info@superseeds.in
Syngenta Foundation	Dr. Partha R Das Gupta, Ph D , Principal Advisor – Agronomy, Syngenta Foundation for Sustainable Agriculture, C/o Syngenta India Limited, Orbit House, 2F1 Garstin Place, Kolkata - 700 001, India.
Syngenta India Limited	Dr. S. Sundar , Head of Rice Breeding, Syngenta India Limited, Survey No. 660 & 661, Nuthankal Village, Medchal Mandal, RR Dist 501401, Telangana. E-mail: sundar.s@syngenta.com Mob: +91-8008072390, Tel: +91-8418304500, Fax: +91-8418304595

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TriMurti Plant Sciences Pvt Ltd	Dr. S.K. Ghosh, Vice President & Head (R&D), TriMurti Plant Sciences Pvt Ltd, # 101, MGR Estates, Dwarakapuri Colony, Panjagutta, Hyderabad – 500 082. Tel: 040 30611989; Fax: 040 2335567, Mobile: 83746333388, E-mail: ghosh@trimurti.in Dr. Amit Shukla, Sr. Rice Breeder, Email: ashukla@trimurti.in Mob: 8374933388
Vikky's Agrisciences Pvt. Ltd	Dr. Y. Yogeswara Rao, Executive Director, Vikky's Agrisciences Pvt. Ltd, Plot No. 5, Sagar Society, Road No. 2, Banjara Hills, Hyderabad - 500 034. Ph # 040-23550251/52; Fax # 040-23550253, Mobile # 9642311120, E-mail: yogeswararao.vikkys@gmail.com
VNR Seeds Pvt. Ltd	Dr. K.C. Upadhaya, Head R&D, VNR Seeds Pvt. Ltd., First floor, Ratnagiri, Opp: RajKumar college, G.E. Road, Raipur - 492 001, (C.G) Mobile: 08008261509, E-mail: kc_upadhyay@yahoo.com.au, kc@vnrseeds.com
Dhanvi Agri Genetics Pvt Ltd	Dr. A. Zakir Hussain, Research Head R&D, Dhanvi Agri Genetics Pvt Ltd, Plot no 225/226, NCL north avenue, Kompally, Quthbullapur Mandal, Hyderabad - 500 100. Mob: 8008801330 Land: 040-27165228, Email: jakir_genomics@yahoo.com Dhanviseeds.info@gmail.com

Centre wise Breeder Seed Production Kharif-2017

S. No.	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus (+) Deficit (-)
Andhra Pradesh					
1	ANGRAU, Guntur	Akashaya	0.10	8.55	8.45
		Amara (MTU-1064)	8.00	45.00	37.00
		Bhavapuri Sannalu	0.10	52.00	51.90
		BPT-3291 (SONAMASURI)	8.00	32.90	24.90
		Cottondora Sannalu (MTU-1010)	400.00	577.95	177.95
		Deepti (MTU-4870)	0.50	0.10	-0.40
		Indra (MTU – 1061)	10.60	15.90	5.30
		Maruteru Sannalu (MTU-1006)			
		(IET-14348)	3.00	6.00	3.00
		MTU 1075 (IET 18482)	20.00	26.29	6.29
		MTU 1001 (Vijetha)	121.00	121.00	0.00
		MTU 1031 (Tholakuri)	0.50	0.65	0.15
		MTU-1032 (Godavari)	1.00	0.60	-0.40
		MTU-1187	1.00	0.00	-1.00
		MTU-7029	221.00	276.80	55.80
		Nellore Mahsuri (NLR-34449)	27.00	32.40	5.40
		NLR-145	6.50	7.80	1.30
		Pardhiva (NLR – 33892)	2.50	3.00	0.50
		RGL-22116	2.10	0.00	-2.10
		Samba Mahsuri (BPT-5204)	108.00	516.00	408.00
		Somasila (NLR-33358)	1.00	1.20	0.20
		Srikakulam Sannalu (RGL-2537)	6.00	14.80	8.80
		Swarna (MTU 7020)	5.50	0.00	-5.50
		Bharani (NLR 30491)	0.10	0.12	0.02
			Total	953.50	1739.06
Assam					
2	AAU, Titabar	Ranjeet (IET - 12554)	17.00	19.00	2.00
		Total	17.00	19.00	2.00
Bihar					
3	RAU, PUSA	Sita	3.00	0.00	-3.00
		Prabhat	32.50	35.00	2.50
		Rajendra Bhagvati	55.10	90.00	34.90
		Rajendra Kasturi	2.20	3.00	0.80
		Rajendra Mahsuri-1	58.00	80.00	22.00
		Rajendra Suwasini	1.55	2.00	0.45
		Rajendra Sweta	35.00	40.00	5.00
		Rajshree (TCA-80-4) (IET-7970)	0.20	0.70	0.50
		Total	187.55	250.70	63.15
Chhattisgarh					
4	IGAU, Raipur	Badshah bhog Selection-1	3.00	6.60	3.60
		Bamaleshwari (IET 14444) (R 738-1-64-2-2)	20.00	21.00	1.00
		CG Zinc Rice -1 (CGZR-1)	10.00	10.00	0.00
		Chandrasahini (IET - 16800)	68.00	52.00	-16.00
		Danteshwari (IET NO. 15450,	35.00	38.00	3.00

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S. No.	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus (+) Deficit (-)
		R 302-111)			
		Dubraj Selection-1	3.00	9.90	6.90
		IGKVR-1 (IET 19569)	85.00	86.00	1.00
		IGKVR-2 (IET 19795)	52.50	48.60	-3.90
		IGRKVR-1244 (R1244-1246-1-605-1) (IET 19796)	58.00	61.00	3.00
		Indira Aerobic-1(R1570-2649-1-1546-1) (IET 21686)	16.00	17.00	1.00
		Indira Barani Dhan-1 (RF-17-38-70)(IET-21205)	35.00	32.70	-2.30
		IR-36	25.00	23.00	-2.00
		IR-64	52.00	67.40	15.40
		IR-64 DRT-1 (DRR Dhan-42)	50.00	77.40	27.40
		Jaldbi (IET - 17153)	1.00	1.00	0.00
		Mahamaya (IET-10749)	32.50	81.90	49.40
		Poornima (IET-12284,R-281-PP-31-1)	6.00	4.30	-1.70
		Samleshwri (IET-17455)	90.10	68.00	-22.10
		Shyamala (IET-12561, R 259-WR-37-2)	0.10	2.85	2.75
		Vishnu Bhog Selection-1	3.00	5.10	2.10
		Total	645.20	713.75	68.55
Haryana					
5	CSSRI, Karnal	Basmati CSR 30 (IET-14720, YAMINI)	7.00	13.50	6.50
		CSR-1017	5.00	0.00	-5.00
		CSR-1018	3.00	0.00	-3.00
		CSR-36	5.00	12.25	7.25
		CSR- 43	2.00	12.25	10.25
		Total	22.00	38.00	16.00
6	RRS, Kaul	Basmati-370	2.00	8.40	6.40
		HKR-127 (HKR-95-222)	7.00	15.60	8.60
		HKR-128	1.50	0.00	-1.50
		HKR-47	5.00	12.00	7.00
		Total	15.50	36.00	20.50
Himachal Pradesh					
7	CSKHPKV, Malan	HPR 2143	8.00	8.20	0.20
		HPR-1068	8.00	8.30	0.30
		HPR-1156 (IET-16007)	5.00	5.00	0.00
		HPR-2612 (Palam Basmati-1)	2.00	2.80	0.80
		Total	23.00	24.30	1.30
Jharkhand					
8	CRURRS, Hazaribagh	Abhishek (IET - 17868)(RR-272-829)	40.00	40.00	0.00
		Anjali (IET-16430,RR-347-166)	2.00	5.70	3.70
		Hazari Dhan	3.50	5.40	1.90
		Sadabahar	1.00	1.60	0.60
		Sunbhagi Dhan (IET 19576) (IR74371-70-1-1-CRR-1)	206.00	280.00	74.00
		Vandana (RR-167-982)	8.00	8.00	0.00
		Total	260.50	340.70	80.20

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S. No.	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus (+) Deficit (-)
9	BAU, Ranchi	Birsa Vikas Dhan-109	15.00	14.00	-1.00
		Birsa Vikas Dhan -110	3.50	3.90	0.40
		Birsmati	1.50	2.70	1.20
		Total	20.00	20.60	0.60
Jammu & Kashmir					
10	SKUAT, Khudwani	CHENAB (SKAU-23)	1.00	1.00	0.00
		Total	1.00	1.00	0.00
11	SKUAST, Chatha	SJR 5	0.50	0.50	0.00
		Total	0.50	0.50	0.00
Karnataka					
12	UAS, Bangalore	Thanu	3.00	3.00	0.00
		KHP-10	0.50	0.00	-0.50
		BR-2655	3.00	3.00	0.00
		Tunga (IET-13901)	6.00	0.00	-6.00
		Total	12.50	6.00	-6.50
13	ARS, Mugad	KMD-2 (Abhilash)	1.50	0.00#	-1.50
		Intan	2.00	0.00#	-2.00
		Total	3.50	0.00	-3.50
Kerala					
14	RRS, Monocompu	Uma	9.00	11.56	2.56
		Bhadra (MO-4)	3.50	4.05	0.55
		MO 21 (PRATIKSHA)	0.10	5.03	4.93
		Total	12.60	20.64	8.04
15	KAU, Pattambi	Athira (PBT-51)	0.50	2.50	2.00
		Jyothi	8.00	35.00	27.00
		Matta Triveni	1.10	5.00	3.90
		Total	9.60	42.50	32.90
Madhya Pradesh					
16	JNKVV, Jabalpur	IR-36	25.00	16.79	-8.21
		IR-64	40.00	599.36	559.36
		JR 503 (RICHA) (IET-16783)	1.00	1.35	0.35
		Kranti (R-2022)	14.50	1420.20	1405.70
		Rashmi (JR-201)	45.00	2.70	-42.30
		Total	125.50	2040.40	1914.90
Maharastra					
17	RARS, Karjat	Karjat-184	2.00	2.95	0.95
		Karjat-2	2.00	10.15	8.15
		Karjat-3	4.00	9.25	5.25
		Karjat-5	2.50	5.17	2.67
		Karjat-6	1.50	4.37	2.87
		Karjat-7	7.00	10.37	3.37
		Karjat -8	0.50	6.43	5.93
		Total	19.50	48.69	29.19
18	ARS, Radhanagari	Bhogavati	1.50	10.25	8.75
		Total	1.50	10.25	8.75
19	ARS, Ratanagiri	RATNAGIRI-1	1.00	75.00	74.00
		RATNAGIRI-24 (IET-19812)	4.00	22.00	18.00
		Total	5.00	97.00	92.00
20	Vadagaon	Indrayani (IET - 12897)	15.50	23.00	7.50
		Phule Samrudhi	6.50	26.00	19.50
		Total	22.00	49.00	27.00
New Delhi					

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S. No.	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus (+) Deficit (-)
21	BEDF, New Delhi	Pusa Basmati-1509	30.00	35.00	5.00
		Pusa Basmati 1	7.00	10.00	3.00
		Total	37.00	45.00	8.00
22	DSST & IARI, New Delhi	PNR-546 (IET-11347)	0.50	0.00	-0.50
		Pusa Sugandh -2 (IET-16310,PUSA-204-1-126)	0.50	0.00	-0.50
		Pusa Sugandh-5(IET-17021)	57.00	60.00	3.00
		Pusa-1301	1.00	0.00	-1.00
		Pusa-1592	2.50	3.00	0.50
		Pusa-1790	1.00	0.00	-1.00
		Pusa-6 (pusa-1612)	6.00	6.00	0.00
		Total	68.50	69.00	0.50
		23	ICAR-IARI, Regional Station, Karnal	Improved Pusa Basmati-1 (IET - 18990) (PUSA 1460-01-32-6-7- 67)	1.00
PB-1609	0.60			1.00	0.40
Pusa Basmati-1509	32.00			34.00	2.00
Pusa Basmati-1 (IET 10364)	15.00			11.00	-4.00
Pusa Basmati-1637	3.00			3.00	0.00
Pusa Basmati-6 (IET 18005)	1.00			1.00	0.00
Pusa 44	43.10			44.00	0.90
Pusa Basmati 1121	80.00			90.00	10.00
Total	175.70			185.75	10.05
Odisha					
24	NRRI, Cuttack*	VARSHADHAN(CRLC-899) (IET-16481)	5.00	4.50	-0.50
		Annada	11.00	12.00	1.00
		Chandrama (CR-386-2-10) (IET9354,10419)	30.00	0.00	-30.00
		CR Boro Dhan-2(IET-17612)	1.00	1.00	0.00
		CR Dhan 300(CR2301-5)(IET 19816)	3.00	2.30	-0.70
		CR Dhan 303(CR2649-7)(IET 21589)	13.00	0.00	-13.00
		CR Dhan 304 (IET 22117)	4.00	4.00	0.00
		CR Dhan 305 (IET 21287)	1.00	1.00	0.00
		CR Dhan 40 (IET 19253)	2.00	0.00	-2.00
		CR Dhan 401 (Reeta) (IET19969)	1.50	2.20	0.70
		CR Dhan 500 (IET 20220)	55.00	27.80	-27.20
		CR Dhan 501 (IET 19189)	3.10	0.00	-3.10
		CR Dhan 601 (IET 18558)	6.50	2.50	-4.00
		CR Dhan- 10 (IET 18312)	1.00	0.60	-0.40
		CR Dhan-201 (AEROBIC)	44.00	0.00	-44.00
		CR Dhan-203	0.50	1.50	1.00
		CR Dhan-301	2.00	0.00	-2.00
		CR Dhan-307	3.00	4.80	1.80
		CR Dhan-311	1.50	1.00	-0.50
		CR Sugandh Dhan 907 (IET 21044) (CR 2616-3-3-3-1)	2.50	1.00	-1.50
		CR-1009 Sub-1	6.10	1.20	-4.90
		CR-1014	0.50	1.40	0.90

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S. No.	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus (+) Deficit (-)		
		Geetanjali (CRM-2007-1) (IET-17276)	4.00	0.75	-3.25		
		Khitish (IET-4094)	10.00	8.00	-2.00		
		Lunasampad (IET 19470)	1.50	0.40	-1.10		
		Lunasuwarna (IET 18697)	1.50	1.00	-0.50		
		Lunisree	1.50	0.50	-1.00		
		Naveen (CR-749-20-2) (IET-14461)	36.50	20.00	-16.50		
		NUA Chinikamini (IET 18394) CR 2580)	1.00	1.00	0.00		
		Pankaj	0.05	0.00	-0.05		
		Phalguni (IET 18720) CRAC 2224-1041)	2.00	0.75	-1.25		
		Pooja (IET-12241)	38.00	70.20	32.20		
		Ratna	0.10	0.50	0.40		
		Reeta (IET-19969)	1.10	0.00	-1.10		
		Sarala CR-260-77 (IET-10279)	1.00	22.00	21.00		
		Savitri (IET - 5897)(CR 1009)	3.00	2.00	-1.00		
		Satabdi (IET-4786)	44.00	15.00	-29.00		
		Sonamani (CR-644) (IET-11365)	0.50	0.00	-0.50		
		Swarna Sub-1 (CR 2539-1) IET-20266	252.00	190.00	-62.00		
		Luna Sankhi	1.50	1.50	0.00		
		IET 23189	0.50	0.00	-0.50		
			Total	596.95	402.40	-194.55	
25	OUAT, Bhubaneswar	Bhuvan (IET 7804)	1.00	7.50	6.50		
		Gajapati (IET-13251)	0.50	0.00	-0.50		
		Improved Lalat	2.50	0.00	-2.50		
		Khandagiri	21.50	24.00	2.50		
		Lalat (IET-9947)	48.00	40.30	-7.70		
		Mandakini (OR 2077-4)(IET 17847)	2.50	11.40	8.90		
		Moudamani	3.00	0.00	-3.00		
		Mrunalini (OR 1898-18) IET 18649	15.50	21.00	5.50		
		Parijat (IET-2684)	5.50	7.20	1.70		
		Pratikshya (ORS 201-5)(IET-15191)	39.00	70.00	31.00		
		Rani Dhan (IET-19148)	3.10	11.60	8.50		
		Satyabhama	6.00	0.00	-6.00		
		Surendra (IET-12815)	1.00	1.00	0.00		
		Tejaswani (OR 1912-22)	0.10	0.12	0.02		
		Manaswini(IET 19905)	2.50	4.60	2.10		
		Hiranmayee	1.50	0.00	-1.50		
		Kalachampa	8.10	0.00	-8.10		
			Total	161.30	198.72	37.42	
		Panjab					
		26	PAU, Ludhina	PAU-201	5.00	7.00	2.00
PR-121	38.00			56.00	18.00		
PR-111	8.00			15.00	7.00		
PR-113	10.00			11.00	1.00		
PR-114	24.00			40.00	16.00		

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S. No.	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus (+) Deficit (-)	
		PR-116	3.50	5.00	1.50	
		PR-118	18.00	26.00	8.00	
		PR-122	21.00	30.00	9.00	
		PR-123	3.00	5.00	2.00	
		PR-124	18.00	25.00	7.00	
		PR-125	11.50	0.00	-11.50	
		PR-126	40.00	60.00	20.00	
		PR-127	15.50	0.00	-15.50	
		PR-128	2.00	0.00	-2.00	
			Total	217.50	280.00	62.50
Rajasthan						
27	MPUAT ,Kota	Pratap-1 (RSK-1091-10-1-1)	0.01	0.10	0.09	
		Total	0.01	0.10	0.09	
Tamil Nadu						
28	TNAU, Coimbatore	ADT49	0.10	0.10	0.00	
		ADT 50	0.10	0.00	-0.10	
		ADT-37	11.00	0.00	-11.00	
		ADT-39	5.00	0.00	-5.00	
		ADT-43 (IET-14878)	3.00	0.00	-3.00	
		Anna (R) 4	0.10	0.00	-0.10	
		CO 51	10.00	0.20	-9.80	
		IR-50	0.10	0.00	-0.10	
		TRY-3	0.10	0.00	-0.10	
			Total	29.50	0.30	-29.20
Telangana						
29	ICAR-IIRR, Hyderabad. @	Ciherang Sub-1 (BINADHAN-11)	15.00	10.00	-5.00	
		Dhanrasi (IET 15358)	0.50	0.50	0.00	
		DRR Dhan-39 (Jagjeevan)	12.50	4.00	-8.50	
		DRR Dhan -43	4.00	4.00	0.00	
		DRR Dhan-44	71.00	30.00	-41.00	
		DRR Dhan-45	1.00	1.80	0.80	
		DRR Dhan-46	0.50	0.50	0.00	
		Improved Samba Mahsuri	15.50	35.50	20.00	
		IR-64 DRT-1 (DRR Dhan-42)	45.00	40.00	-5.00	
		Jarava (IET -15420)	1.00	1.00	0.00	
		Jaya	16.00	14.00	-2.00	
		Krishna Hamsa	0.50	1.20	0.70	
		Masuri	2.50	1.80	-0.70	
		Moti Gold (NP 1024)	0.05	0.00	-0.05	
		Rasi (IET- 1444)	1.00	1.00	0.00	
		Sampada (IET 19424)	55.10	16.00	-39.10	
		Swarna Dhan (IET-5656)	1.50	1.50	0.00	
		Binadhan-10	0.60	0.00	-0.60	
		Binadhan-12	0.90	0.00	-0.90	
		Binadhan-8	0.30	0.00	-0.30	
		Sukhadhan-5	0.80	0.00	-0.80	
		Sukhadhan-6	0.60	0.00	-0.60	
			Total	245.85	162.8	-83.05
		30	PJ TSAU, Rajendra Nagar	Erra Mallelu (WGL-20471)	8.00	8.00
JGL 11470 (Jagityal Mahsuri)	0.10			0.10	0.00	
JGL 3855(Karimnagar Samba)	0.10			0.10	0.00	

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S. No.	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus (+) Deficit (-)
		JGL-1798	5.00	5.00	0.00
		JGL-18047	4.00	8.00	4.00
		RNR-15048	51.00	60.00	9.00
		Sugandha Samba (RNR-2465)	1.00	1.00	0.00
		Tellahamsa	3.00	3.00	0.00
		WARANGAL SAMBA (WGL-14)	0.50	0.50	0.00
		WARANGAL SANNALU (WGL-32100) (IET 18044)	45.50	45.50	0.00
		Chandan	11.50	18.00	6.50
		Total	129.70	149.20	19.50
Uttarakhand					
31	GBPUAT, Pantnagar	Govind	1.00	15.00	14.00
		Pant Dhan 18 (IET 17920) (UPRI 99-1)	2.00	15.00	13.00
		Pant Dhan-10 (IET - 8616)	1.00	8.00	7.00
		Pant Dhan-12 (IET-10955)	1.50	5.00	3.50
		Pant Dhan-19(IET 17544)	0.50	20.00	19.50
		Total	6.00	63.00	57.00
32	VIHA, Almora	VL DHAN 157 (VL31611) (IET 22292)	1.50	0.45	-1.05
		VL.DHAN 208 (VL-9632)	0.50	0.50	0.00
		VL.DHAN 68 (VL-31611) (IET-22283)	5.00	1.55	-3.45
		Total	7.00	2.50	-4.50
Uttar Pradesh					
33	NDUAT, Faizabad	Narendra Dhan 3112-1 PRAKHAR (IET 19335)	3.00	42.38	39.38
		Narendra Dhan-359 (NDR-359)	7.50	50.86	43.36
		Narendra Dhan-97	1.50	5.85	4.35
		Narendra Lalmati (IET 21051)	1.50	5.24	3.74
		Narendra Usar Dhan 2008 (IET-18699)	12.00	0.00	-12.00
		NDR 2064 (IET 17475)	5.00	6.60	1.60
		NDR 2065 (IET 17476)	20.50	73.35	52.85
		NDR-357	4.00	0.00	-4.00
		NDR-8002	5.00	63.89	58.89
		Samba Sub-1 (IET21248)	4.10	92.75	88.65
		Sarjoo-52	10.00	33.88	23.88
		Shusk Samrat (NDR 1045-2) (IET-17458)	0.50	0.00	-0.50
		Total	74.60	374.80	300.20
34	BHU, Varanasi	Malaviya Sugandh 4-3 (HUR-4-3)	5.00	8.50	3.50
		Malaviya Sugandh-105 (HUR-105)	3.00	14.00	11.00
		Total	8.00	22.50	14.50
35	PRDF, Gorakhpur	KN3	0.10	30.00	29.90
		Total	0.10	30.00	29.90
36	SVBAUA& T Meerut	Vallabh Basmati-24 (IET 20827) (MAUB-171)	9.00	0.00	-9.00
		Vallabh Basmati -22 (IET 19492) (MAUB-162)	3.00	0.00	-3.00

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S. No.	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus (+) Deficit (-)
		Total	12.00	0.00	-12.00
West Bengal					
37	RRS, Chnisurah	Chinsurah Rice (IET 19140) (CNI 383-5-11)	1.00	1.25	0.25
		Sabita (IET-8970)	6.00	6.50	0.50
		Satabdi (IET-4786)	30.00	0.00	-30.00
		Sujala (CNR-2) (IET 20235)	1.00	0.00	-1.00
		Khitish (IET-4094)	8.00	8.75	0.75
		CNR-2	2.00	3.5	1.50
		Pushpa (IET-17509)	1.60	1.00	-0.60
		Total	49.60	21.00	-28.60
38	BCKVV, Nadia	Gontra Bindhan-1 (IET-17430)	66.50	42.00	-24.50
		Gontra Bindhan-3 (IET-22752)	17.50	24.00	6.50
		Total	84.00	66.00	-18.00
		Sub Total	4260.76	7571.16	3310.40

* Due to untimely rain (two depression rain during maturity stage of the crop) in Odisha, the Breeder Seed Production was largely affected, resulting in less production. # :crop damaged due to severe drought. @: Seed Production plots badly damaged due to wild boar attack at our research farm and untimely rains at the time of maturity further affected the crop

Hybrids

Sl. No.	Name of the Producing centre	Name of hybrid	Actual allocation as per BSP-I	Production	Surplus (+) Deficit (-)
1.	IIRR, Hyderabad	DRH-775 (A-Line)	0.02	0.05	0.03
		DRH-775 (B-Line)	0.02	0.05	0.03
		DRH-775 (R-Line)	1.00	1.00	0.00
		Total	1.04	1.10	0.06
2.	UAS, Bangalore	KRH-4			
		A-Line	0.35	0.80	0.45
		B-Line	0.12	0.30	0.18
		R-Line	0.12	10.00	9.88
		Total	0.59	11.10	10.51
3.	RARS, Karjat	SAHYADRI-1			
		A Line	0.10	0.30	0.20
		B Line	0.05	0.20	0.15
		R Line	0.06	0.20	0.14
		SAHYADRI-2			
		A Line	0.15	0.30	0.15
		B Line	0.05	0.30	0.25
		R Line	0.06	0.30	0.24
		SAHYADRI-3			
		A Line	0.15	0.45	0.30
		B Line	0.05	0.40	0.35
		R Line	0.06	0.30	0.24
		SAHYADRI-4			
		A Line	0.15	0.35	0.20
		B Line	0.05	0.25	0.20
		R Line	0.80	0.27	-0.53
		SAHYADRI-5			
		A Line	0.15	2.00	1.85
		B Line	0.05	1.70	1.65
		R Line	0.05	1.00	0.95
		Total	1.98	8.32	6.34
		Total (Hybrids)	3.61	20.52	16.91
		Grand Total	4264.37	7591.68	3327.31

WEATHER DATA – KHARIF 2017

ANNAMALAINAGAR							
Latitude :	11° 23' N		Longitude:	79° 42' E		Elevation :	5.27m MSL
Soil type:	Alluvial and Red		Soil pH/EC :	8.5/ 4.54		Soil texture :	Clay
	June	July	Aug	Sep	Oct	Nov	Total / Range
No. of rainy days	7	6	10	6	8	17	54
Total rainfall (mm)	80.8	120.2	240.4	48.8	372.7	762.6	1625.5
Avg. Max Temperature (°C)	36.8	36.1	33.4	33.1	34.4	29.4	29.4-36.8
Avg. Min. Temperature (°C)	26.2	25.6	25.9	25.0	24.7	23.9	23.9-26.2
* Avg. Sunshine hours	6.1	8.6	5.6	4.6	4.7	5.4	5.8
* Avg. wind velocity (Km/h)	6.2	5.0	5.8	3.7	2.6	2.5	4.3
* Avg. Relative Humidity	64%	66%	73%	72%	75%	87%	73%

ALMORA							
Latitude :	29° 36' N		Longitude:	79° 40' E		Elevation(m) :	1250
Soil type:	Clay loam		Soil pH :	6.5		Soil texture :	Clay
	May	June	July	Aug.	Sep.	Oct.	Total / Range
No. of Rainy days	10	12	20	12	5	0	59
Total Rainfall (mm)	101.75	100.7	287.4	149	152.2	0	791
Avg. Max. Temp. (°C)	31.3	30.5	28.8	29.3	29.9	28.9	28.8-31.3
Avg. Mini. Temp. (°C)	14.3	17.7	20.3	21.5	18.9	10.5	10.5-21.5
Avg. Sunshine hours	7.36	6.46	3.46	4.58	6.23	8.49	6.1

BANKURA							
Latitude:	23° 25' N		Longitude:	87° 10' E		Elevation (m):	84 m
Soil type:	Red Lateritic		Soil pH:	4.5-6.0		Soil texture:	Sandy loam
	July	Aug.	Sep.	Oct.	Nov	Dec	Total / Range
No. of Rainy days	25	21	14	9	3	1	73
Total Rainfall (mm)	687.40	401.00	141.20	266.50	7.70	2.60	1506
Avg. Max. Temp. (°C)	31.07	31.31	33.95	32.61	28.36	26.33	26.33-33.95
Avg. Mini. Temp. (°C)	25.19	25.30	25.81	24.78	18.37	14.39	14.39-25.81

BAPATLA							
Latitude :	15° 55'		Longitude	80° 28'		Elevation (m):	5.49 MSL
Soil type:	Light to Medium Black		Soil pH	7-7.5		Soil texture :	Sandy Loam
	Aug.	Sep.	Oct	Nov.	Dec.	Jan	Total / Range
No. of Rainy days	14	10	9	1.4			34
Total Rainfall (mm)	291.5	239.2	121	32.5			684
Avg. Max. Temp. (°C)	33.7	33.5	33.0	31.4	30.5	30.1	
Avg. Mini. Temp. (°C)	24.6	25.6	24.5	21.6	17.6	17.4	21.9
* Avg. wind velocity	03	02	02	2.2	02	02	2.2

BHUBANESWAR							
Latitude :	20° 15' N		Longitude:	85° 20' E		Elevation :	25.9 msl
Soil type:	Sandy		Soil pH :	5.9		Soil texture :	Sandy loam
	(June)	(July)	(Aug)	(Sept)	(Oct)	(Nov)	Total/Range
No. of Rainy days	15	24	25	14	9	4	91
Total Rainfall (mm)	122.0	446.2	391.7	244.4	204.5	55.2	1464
Avg. Max. Temp. (°C)	35.3	31.9	33.0	33.6	32.2	28.6	28.6-35.3
Avg. Mini. Temp. (°C)	26.5	25.9	36.0	25.8	24.3	17.7	17.7-36.0
Avg. wind velocity (Km/hr)	4.9	2.1	4.8	-	6.0	7.1	5.0
Avg. Sunshine hours	3.6	3.5	3.9	2.4	2.5	3.0	3.1

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BRAHMAVAR							
Latitude :	13° 25' N		Longitude:	75° 45' E:		Elevation	10 msl
Soil type:	Laterite		Soil pH :	5.5		Soil texture	Light Textured
	July	August	Sep	Oct	Nov	Dec	Total / Range
No. of rainy days	31	25	15	10	2	1	84
Total rainfall (mm)	880.8	950.0	403.8	235.4	11.2	6.6	2487
Avg. Max Temp. (°C)	29.89	29.73	30.56	31.85	33.48	33.13	29.73-33.48
Avg. Min. Temp. (°C)	19.87	19.33	19.67	19.10	19.48	18.90	18.90-19.87
* Avg. Sunshine hours	2.44	2.65	3.78	5.24	7.15	8.03	4.88
* Avg. wind velocity	4.55	3.73	3.97	3.64	2.84	3.64	3.72

BIKRAMGANJ							
Latitude :	25° 13' N		Longitude:	84° 14' E:		Elevation	-
Soil type:	Heavy Clay		Soil pH :	6.11		Soil texture	-
	June	July	August	Sep	Oct	Nov	Total / Range
Rainy day	02	16	10	04	02	00	34
Total Rainfall (mm)	40.8	614.4	155.4	54.4	09.0	00	874

CANNING							
Latitude	22° 15' N		Longitude	88° 40' E		Elevation (m)	3.0
Soil type	Coastal saline		Soil pH	6.5		Soil texture	Heavy
	July	Aug	Sept	Oct	Nov	Dec	Total / Range
No. of Rainy days	17	20	7	12	5	2	63
Total Rainfall (mm)	567.4	420.3	173.6	420.8	34.6	28.8	1645
Avg. Max. Temp. (°C)	31.7	32.8	33.7	31.4	29.3	25.7	25.7-33.7
Avg. Mini. Temp. (°C)	26.7	27.0	27.2	24.9	19.1	15.6	15.6-27.2
* Avg. Sunshine hours	2.7	3.8	4.6	5.5	6.9	5.9	4.9
* Avg. wind velocity (KMPH)	5.8	5.1	3.7	4.1	2.0	2.0	3.8

CHATHA							
Latitude :	32° 40' N		Longitude:	74° 48'E		Elevation :	293
Soil type:			Soil pH :	7.0		Soil texture :	Clay loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	9	13	9	2	0	0	33
Total Rainfall (mm)	236.4	279.0	181.8	49.5	0.0	0.0	746
Avg. Max. Temp. (°C)	36.5	34.5	33.6	33.9	32.8	25.1	25.1-36.5
Avg. Mini. Temp. (°C)	23.6	25.1	25	22.7	16.3	8.9	8.9-25.1
Avg. Sunshine hours	7.1	6.1	6.3	6.8	7.2	3.7	6.2
Avg. wind velocity	1.6	0.9	0.7	0.2	1.5	1.4	1.05

CHAKDAHA							
Latitude :	23° 5' N		Longitude:	83° 5' E		Elevation(m) :	9.75 msl
Soil type:	Sandy Clay Loam		Soil pH :	7.0		Soil texture :	
	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range
No. of Rainy days	2.5	4	3	2.25	0.33	-	12.08
Total Rainfall (mm)	107.4	121.2	72.67	30.15	5.63	-	337
Avg. Max. Temp. (°C)	31.55	31.5	34.05	34.05	25.12	-	25.12-34.05
Avg. Mini. Temp. (°C)	26.52	26.12	26.55	26.55	19.23	-	19.23-26.55
Avg. Sunshine hours	5.35	2.6	4.05	5.15	6.43	-	4.7
Avg. wind velocity	1.1	0.45	0.35	0.4	0.3	-	0.52

CHINSURAH							
Latitude :	22° 52' N		Longitude:	88° 24' E		Elevation :	8.62 msl
Soil type:	Clay Loam		Soil pH :	7.2		Soil texture :	Alluvium
	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total / Range
No. of Rainy days	25	27	19	14	4	3	92
Total Rainfall (mm)	515.6	216.9	156.3	401.8	41.2	33.8	1365
Avg. Max. Temp. (°C)	32.68	32.63	33.72	31.48	28.68	25.23	25.23-33.72
Avg. Mini. Temp. (°C)	26.2	26.37	26.6	24.35	16.35	12.99	12.99-26.37
Avg. Sunshine hours	96.48	123.9	96.13	96.35	96.76	95.32	100.8
Avg. wind velocity	84.32	78.77	73.2	69.58	55.1	65.35	71.05

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CHIPLIMA							
Latitude :	20°21'N		Longitude	80° 55'E		Elevation :	178.8 m MSL
Soil type:	Mixed Red, Black & Lateritic		Soil pH :			Soil texture :	
	(June)	(July)	(August)	(September)	October	(November)	Total/Range
No. of Rainy days	13	23	28	13	6	4	87
Total Rainfall (mm)	184	419	307	310	147	48	1415
Avg. Max. Temp. (°C)	35	32	33	33	32	30	30-35
Avg. Mini. Temp. (°C)	26	25	25	25	24	19	19-26

COIMBATORE							
Latitude	11° N		Longitude:	77° E		Elevation (m):	426.72 m
Soil type	Clay		Soil pH	7.8		Soil Texture:	Heavy
	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range
No. of Rainy days	8	14	17	11	8	3	61
Total Rainfall (mm)	27.8	38.5	218.1	132.6	55.5	27.8	500
Avg. Max. Temp. (°C)	32.3	31.4	30.6	31.3	30.4	29.5	29.5-32.3
Avg. Mini. Temp. (°C)	23.5	23.4	23.1	22.5	22.3	20.7	20.7-23.5
Avg. Sunshine hours	6.1	4.3	5.8	5.6	5.4	5.6	5.46
Avg. wind velocity	11.5	7.7	5.8	3.7	4.3	5.0	6.33

NRRI - CUTTACK							
Latitude :	20.5° N		Longitude:	86.0° N		Elevation(m) :	23.8 MSL
Soil type:			Soil pH :	7.2		Soil Texture:	Clay Loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	9	14	7	6	6	2	44
Total Rainfall (mm)	4.23	363.00	163.00	224.00	225.00	47.00	1026
Avg. Max. Temp. (°C)	32.21	31.07	31.81	32.66	31.54	27.47	27.47-32.66
Avg. Mini. Temp. (°C)	26.88	26.11	26.35	26.63	25.69	19.05	19.05-26.88
Solar radiation (CAL/CM²)	332.92	329.83	342.21	341.25	299.65	308.73	325
Avg. Sunshine hours	1.85	1.08	3.92	3.57	4.25	4.89	3.2
Avg. wind velocity	4.90	2.90	2.31	1.00	1.39	1.88	2.4

DABHOI							
Latitude:	22° 08'		Longitude:	73° 26'		Elevation (m):	43.128
Soil type:	Medium Black		Soil pH:	7.9		Soil texture:	Medium
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	08	19	08	03	-	-	38
Total Rainfall (mm)	126.30	294.70	174.10	35.90	-	-	631
Avg. Max. Temp. (°C)	36.60	29.10	30.00	32.40	34.76	33.82	29.1-36.6
Avg. Mini. Temp. (°C)	24.60	24.14	24.21	24.78	24.02	18.13	18.13-24.78
Avg. Sunshine hours	04.30	01.30	01.70	05.20	07.21	08.56	4.7
Avg. Wind Velocity	10.00	09.30	07.10	02.60	01.44	01.68	5.3

DEROL							
Latitude:	22° 36'		Longitude:	73° 27'		Elevation (m):	83.14
Soil type:	Sandy Loam		Soil pH:	7.3		Soil texture:	
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	6.0	21	11	0	0	-	38
Total Rainfall (mm)	58.6	430.6	129.7	0	0	-	619
Avg. Max. Temp. (°C)	35.8	28.9	30.3	33.5	30.9	-	28.9-35.8
Avg. Mini. Temp. (°C)	27.2	24.1	24.7	20.6	13.3	-	13.3-27.2
Avg. Sunshine hours	6.5	2.3	3.9	7.2	8.2	-	5.6
Avg. Wind Velocity	11.20	9.11	7.7	2.2	2.1	-	6.4

GANGAWATI							
Latitude :	15° 15' N		Longitude:	76° 31' E		Elevation :	419m msl
Soil type:	Medium Black		Soil pH/EC	8.1/6.5		Soil texture :	Fine
	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range
No. of Rainy days	5	11	12	4	0	0	32
Total Rainfall (mm)	33.3	190.9	180.9	74.4	0	0	479.5
Avg. Max. Temp. (°C)	33	31.7	31.4	31.2	29.7	28.7	28.7-33.0
Avg. Mini. Temp. (°C)	23.64	23.38	22.9	22.1	18.8	15.4	15.4-23.64

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GERUA								
Latitude:	26° 14' N	Longitude:	91° 33' E	Elevation (m):			49.0 MSL	
Soil type:	Alluvial	Soil pH :	5.7-5.9	Soil texture :			Clay Loam	
	June	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range
No. of Rainy days	15	14	9	14	5	0	0	57
Total Rainfall (mm)	311.7	281.9	208.5	326.4	127.1	2.1	0	1257
Avg. Max. Temp. (°C)	33.2	33.8	33.4	32.9	31.5	28.7	25.3	25.3-33.8
Avg. Mini. Temp. (°C)	24.8	26.3	26.4	25.5	22.8	16.6	13.0	13.0-26.4

GHAGHRAGHAT									
Latitude :	27° 50' N			Longitude:		81° 20' E		Elevation :	
Soil type:	Sandy loam							Soil texture :	
	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range
No. of Rainy days	04	05	16	09	06	-	-	-	40
Total Rainfall (mm)	20.1	56.2	284	152.8	89.4	-	-	-	602.5
Avg. Max. Temp. (°C)	38.48	37.8	30.61	31.48	32.97	31.77	27.67	21.52	21.52-38.48
Avg. Mini. Temp. (°C)	23.94	25.17	22.68	25.03	24.63	21.97	14.8	9.87	9.87-25.03

HAZARIBAGH								
Latitude :	23° 95' N			Longitude:		85° 37' E		Elevation :
Soil type:	Sandy loam			Soil pH :		5.7		Soil texture :
	June	July	Aug.	Sep	Oct	Nov	Total / Range	
No. of rainy days	8	26	19	12	12	0	77	
Total rainfall (mm)	141	738.2	144.8	145.8	124	0	1294	
Avg. Max. Temp. (°C)	35.1	28.8	29.8	31	29.2	25.5	25.5-35.1	
Avg. Mini. Temp. (°C)	23.9	22.3	22.3	22	18.4	11	11-23.9	

GOA							
Latitude :	15° 33' 20"			Longitude:		73° 53' 53"	
Soil type:	Silty Clay			Soil pH :		5.6	
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	26	31	27	26	11	0	121
Total Rainfall (mm)	1012.7	864.9	514.7	376.2	126.1	0	2894
Avg. Max. Temp. (°C)	30.6	29.7	29.7	30.8	32.1	34.6	29.7-34.6
Avg. Mini. Temp. (°C)	23.5	23.8	24	26.2	24	21.7	21.7-26.2
Avg. Sunshine hours	2.6	2.9	3.1	3.5	5.1	8.2	4.2
Avg. wind velocity	5.4	5.5	4.4	3.8	3.7	3.9	4.4

HATHWARA							
Latitude :	23° 20' N			Longitude:		86° 25' E	
Soil type:	Light			Soil pH :		5.8	
	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range
No. of Rainy days	17	13	11	10	1	0	52
Total Rainfall (mm)	709	231	187	242	9.4	0.2	1378
Avg. Max. Temp. (°C)	30.5	31.8	32.8	30.8	27.7	25.7	25.7-32.8
Avg. Mini. Temp. (°C)	23.3	23.6	23.4	21.4	15.4	11.8	11.8-23.6
Avg. Sunshine hours	2.4	5.1	5.6	5.5	7.0	-	5.1
Avg. wind velocity (Km/h)	3.0	2.3	1.8	2.4	1.0	-	2.1

JAGDALPUR							
Latitude :	19.05°N			Longitude:		82.02°	
Soil type:	Alfisol			Soil pH :		6.5	
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of rainy days	16	11	19	14	11	0	71
Total Rainfall (mm)	380.6	416.8	329.4	239.0	235.9	0.0	1601
Avg. Max. Temp. (°C)	32.0	29.1	29.6	31.3	30.8	28.9	28.9-32.0
Avg. Mini. Temp. (°C)	23.2	22.8	22.7	22.7	20.7	14.1	14.1-23.2
Avg. Sunshine hours	2.6	1.7	2.2	4.7	5.3	6.5	3.8
Avg. wind velocity (km/h)	6.0	6.6	4.2	3.1	2.3	2.8	4.2

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JEYPORE							
Latitude :	18.60° N		Longitude:	82.44° E		Elevation :	553
Soil type:	Acidic		Soil pH :	6.6		Soil texture :	Sandy Loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of rainy days	16	24	22	18	18	1	99
Total Rainfall (mm)	246.10	499.20	448.40	176.00	106.00	1.00	1370
Avg. Max. Temp. (°C)	38	34	35	35	35	32	32-38
Avg. Mini. Temp. (°C)	21	21	21	21	19	11	11-21

KANPUR							
Latitude :	27°24'N		Longitude:	82.44° E		Elevation(m) :	178msl
Soil type:	Soil EC: 1.72		Soil pH :	9.89		Soil texture :	Clay loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. Of rainy days	3	15	5	3	Nil	Nil	26
Total rainfall (mm)	50.6	323.1	205.9	38.3	00	00	618
Avg. Maximum Temperature (°C)	38.9	31.6	33.2	34.7	34.9	28.6	28.6-38.9
Avg. Minimum Temperature (°C)	27.2	25.5	25.7	25.0	19.7	12.2	12.2-27.2
* Avg. Sunshine Hours	7.9	3.2	2.3	6.6	6.5	3.0	4.9
* Avg. Wind velocity	7.3	6.4	6.7	4.5	2.3	2.5	4.9
* Avg. Relative Humidity	58.5	85	83	78	64	64	72

KARAIKAL							
Latitude :	11° 01' N		Longitude:	79° 52' E		Elevation :	4 msl
Soil type:	Clay Loam		Soil pH :	8.6		Soil texture :	Clay loam
	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total / Range
No. of Rainy days	-	9	11	13	20	8	61
Total Rainfall (mm)	-	86.00	105.10	312.00	789.60	241.50	1535
Avg. Max. Temp (°C)	-	36.0	34.80	33.84	29.99	29.62	29.62-36.0
Avg. Mini Temp (°C)	-	25.70	25.30	25.78	24.22	22.84	22.84-25.78
Avg. Sunshine hours	-	6.44	6.49	5.63	4.15	6.25	5.8

KARJAT							
Latitude :	18° 55' N		Longitude:	73° 18' E		Elevation :	51 msl
Soil type:	Medium black		Soil pH :	6.2		Soil texture :	Clay loam
	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total / Range
No. of Rainy days	16	31	25	14	8	-	94
Total Rainfall (mm)	1019.7	1576.2	916	520.2	215.1	-	4247
Avg. Max. Temp (°C)	32.9	29.5	29.2	31.7	33.8	-	29.2-33.8
Avg. Mini Temp (°C)	25.5	24.4	24.2	23.5	22.7	-	22.7-25.5
Avg. Sunshine hours	3.7	1.2	2.2	4.4	6.3	-	3.56

KHUDWANI								
Latitude :	34 ° N		Longitude:	73 ° E		Elevation(m) :	1560 msl	
Soil type:	Clay loam		Soil pH :	Neutral		Soil texture :	Silty Clay loam	
	April	May	June	July	Aug	Sep	Oct	Total / Range
No. of rainy days	14	9	10	9	9	6	0	57
Total Rainfall (mm)	321.5	69.0	121.9	67.2	64.1	38.0	0	681
Avg. Max. Temp. (°C)	19.9	25.4	26.8	30.2	30.2	28.6	25.5	19.9-30.2
Avg. Mini. Temp. (°C)	6.5	10.2	13.2	17.5	15.9	11.0	3.5	6.5-17.5
Avg. Sunshine hours	9.4	6.7	7.0	6.9	7.2	7.8	7.3	7.5
Avg. wind velocity (Km/h)	1.91	1.5	2.4	2.4	2.0	1.9	0.7	1.8

KAUL							
Latitude :	29° 51' N		Longitude:	76° 39' E		Elevation :	230.7 msl
Soil type:	Clay loam		Soil pH :	7.8		Soil texture :	Clay
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	9	9	7	5	0	0	30
Total Rainfall (mm)	237.1	112.0	239.9	247.6	0.00	0.00	836
Avg. Max. Temp. (°C)	36.8	33.6	32.7	32.7	32.9	25.1	25.1-36.8
Avg. Mini. Temp. (°C)	24.7	26.4	25.5	22.6	16.7	10.3	10.3-26.4
Avg. Sunshine hours	7.4	6.1	5.8	8.1	-	3.9	6.2
Avg. wind velocity (Km/h)	6.8	5.9	4.4	2.6	1.5	2.1	3.9

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KURUMBAPET								
Latitude :	11° 45' N			Longitude:	79° 35' E		Elevation :	26 msl
Soil type:	Clay loam			Soil pH :	6.2		Soil texture :	Clay loam
	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total / Range
Total rainfall (mm)	59.8	135.5	193.4	84.8	262.3	377.5	162.2	1275.5
Avg. Max. Temp. (°C)	37.0	36.9	34.2	34.1	32.5	29.9	29.8	29.8-37.0
Avg. Mini Temp. (°C)	26.7	26.0	24.4	24.4	24.3	23.1	20.9	20.9-26.7
Relative Humidity (%)	61.5	67.5	76.5	75.5	83.0	87.2	82.5	75.24

LUCKNOW							
Latitude :	26° 47' N		Longitude:	80° 46' E		Elevation :	120 msl
Soil type: - Typic Natrustalfs	Soil EC: 1.2		Soil pH :	9.8		Soil texture :	Sandy loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	04	19	15	05	0	0	43
Total Rainfall (mm)	48.3	213.5	356.1	60.6	0	0	678
Avg. Max. Temp. (°C)	39.2	31.9	33.0	34.5	34.1	27.8	27.8-39.2
Avg. Mini .Temp. (°C)	23.1	21.6	21.9	21.3	16.2	8.5	8.5-23.1

LUDHIANA								
Latitude :	30°54' N			Longitude:	75° 48' E		Elevation :	247 msl
Soil type:	Loamy Sand			Soil pH :	7.7		Soil texture :	
	May	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy Days	-	9	10	5	3	0	1	28
Total rainfall (mm)	-	76.6	112	77.6	25.4	-	7	298
Avg. Max. Temp. (°C)	-	36.7	34.6	33.9	33.7	33.3	24.7	24.7-36.7
Avg. Mini Temp. (°C)	-	26.2	27.5	26.7	23.9	18.5	11.5	11.5-27.5
Avg. Sunshine hours	-	8.7	6.9	6.25	8.26	6.81	5.72	7.1
Avg. wind velocity	-	5.2	6.1	4.39	2.51	1.75	1.81	3.6

MACHILIPATNAM							
Latitude :	16 ⁰ 10' N		Longitude:	81 ⁰ 09' E		Elevation :	-
Soil type: Sandy Loams	Soil EC: 10.9 Ds/m		Soil pH :	-		Soil texture :	Silty clay loam
	July	August	Sept.	Oct.	Nov	Dec	Total / Range
No. of Rainy days							
Total Rainfall (mm)	155.3	93.9	62.4	82.7	17.5	--	411.8
Avg. Max. Temp. (°C)							
Avg. Mini .Temp. (°C)							

MALAN							
Latitude :	32 ⁰ 1' N		Longitude:	76 ⁰ 20' E		Elevation :	950 m
Soil type:	Alfisol		Soil pH :	5.6- 5.8		Soil texture :	Silty clay loam
	June	July	August	Sept.	Oct.	Nov	Total / Range
No. of Rainy days	12	20	24	7	-	-	63
Total Rainfall (mm)	230.7	886.3	791.0	189.5	-	-	2097
Avg. Max. Temp. (°C)	32.5	31.5	30.5	29.3	30.3	29.1	29.1-32.5
Avg. Mini .Temp. (°C)	12.3	11.8	15.5	19.8	13.1	10.1	10.1-19.8

MALAGI								
Latitude:	14° 45' N	Longitude:	74° 41' E			Elevation (m):		3.0 MSL
Soil type:	Laterite	Soil pH :	5.0-6.0			Soil texture :		Sandy Loam
	June	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range
No. of Rainy days	26	29	25	14	7	0	0	101
Total Rainfall (mm)	1194.1	726.3	635.7	336.4	102	0	0	2994
Avg. Max. Temp. (°C)	29.7	28.7	28.6	29.2	30.9	32.4	32.5	28.6-32.5
Avg. Mini Temp. (°C)	24.2	23.7	23.7	23.4	23.4	22	20.8	20.8-24.2
salinity(dS/m)	0	0	1	1.3	13.8	10.9	18.75	0.0-18.75

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MANDYA								
Latitude	12.45°- 13.57° N		Longitude	76.48°- 78.24° E		Elevation (m):	695	
Soil type	Sandy Loam		Soil pH	6.5- 7.1		Soil texture:	Sandy loam	
	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan	Total / Range
No. of Rainy days	3	10	14	6	4	1	0	38
Total Rainfall (mm)	21.2	206.3	216.0	63.5	36.7	18.0	0	561.7
Avg. Max. Temp. (°C)	31.5	31.1	31.2	30.5	30.2	29.0	29.9	29.0-31.5
Avg. Mini. Temp. (°C)	20.0	19.7	19.4	20.4	19.1	16.7	14.1	14.1-20.4
Solar Radiation (Cal/cm ²)	-	-	-	-	-	-	-	-
Avg. Sunshine hours	4	3.5	4.9	4.2	5.6	7.4	7.8	5.34
Avg. wind velocity (Km/h)	7.7	5.6	3.7	2.3	2.2	2.2	1.76	3.63

MARUTERU								
Latitude	16.38° N		Longitude:	81.44° E		Elevation (m)	13 m MSL	
Soil type	Black alluvial clay		Soil pH:	6.5- 7.5		Soil Texture:	Delta alluvial	
	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range	
No. of Rainy days	13	13	10	9	1	0	46	
Total Rainfall (mm)	358.2	135.87	109.2	124.0	5.8	0	733	
Avg. Max. Temp. (°C)	30.90	30.29	30.7	30.83	30.20	28.38		
Avg. Mini. Temp. (°C)	26.67	26.74	26.86	25.96	23.20	19.61		
Avg. Sunshine hours	3.64	3.77	4.86	4.99	5.64	5.35	4.70	
Avg. wind velocity (Km/h)	7.76	4.38	1.95	0.86	2.56	2.58	3.34	

MODIPURAM								
Latitude	29.45		Longitude:	77.42		Elevation(m)	232 MSL	
Soil type	Black		Soil pH:	8.0		Soil Texture:	Clay Loam	
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range	
No. of Rainy days	2	6	11	5	-	-	23	
Total Rainfall (mm)	35.0	112.0	243.0	246.0	-	-	636	
Avg. Max. Temp. (°C)	36.4	32.7	32.1	32.85	31.94	26.45	26.45-36.40	
Avg. Mini. Temp. (°C)	24.0	24.8	24.9	21.62	16.34	10.8	10.8-24.9	
Avg. Sunshine hours	7.6	5.6	4.9	7.28	7.07	5.11	6.2	
Avg. wind velocity (Km/h)	10.5	6.8	6.4	2.92	0.61	1.02	4.7	

MONCOMPU								
Latitude :	9° 25' N		Longitude:	76° 27' E		Elevation (m):	2 below msl	
Soil type:	Alluvial clay		Soil pH :	4.5- 6.5		Soil texture :	Silty Clay Loam	
	July	Aug.	Sep.	Oct.	Nov	Dec	Total / Range	
No. of Rainy days	18	14	22	16	6	-	76	
Total Rainfall (mm)	236.22	253.6	356.2	186.3	147.8	-	1180	
Avg. Max. Temp. (°C)	31.46	31.40	32.58	36.67	32.5	-		
Avg. Mini. Temp. (°C)	26.78	25.80	25.88	26.79	19.45	-		
Avg. Sunshine hours	4.22	4.33	4.34	5.56	5.2	-	4.73	
Avg. wind velocity	73.67	77.4	80.03	51.5	51.6	-	66.84	

MUGAD								
Latitude :	15° 15' N		Longitude:	75° 40' E		Elevation :	697 MSL	
Soil type:	Red Laterite		Soil pH :	6.4		Soil texture :	Silty Clay Loam	
	June	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range
No. of Rainy days	10	18	7	13	9	1	0	66
Total Rainfall (mm)	73.1	223	48.8	150.2	125.2	6.4	0	680

NAVASARI								
Latitude :	20 ° 10'		Longitude:	73 ° 20'		Elevation :	69 msl	
Soil type:	Medium black		Soil pH :	7.5		Soil texture :	Clay	
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range	
No. of Rainy days	11	29	21	10	5	-	76	
Total Rainfall (mm)	120	626	196	110	61	-	1113	
Avg. Max. Temp. (°C)	33.7	30.6	32.2	34.6	36.4	33.8	30.6-36.4	
Avg. Mini. Temp. (°C)	23.3	24.5	25.8	24.5	23	22.8	22.8-25.8	
Avg. Sunshine hours	6.5	2.4	3.5	5.3	6.6	8.1	5.4	

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NAWAGAM							
Latitude :	22 ° 48'		Longitude:	71 ° 3'		Elevation :	32.4 msl
Soil type:	Medium black		Soil pH :	7.8		Soil texture :	Sandy Clay Loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	05	21	09	02	-	-	37
Total Rainfall (mm)	46.4	513.1	208.8	69.7	-	-	838
Avg. Max. Temp. (°C)	38.2	31.5	31.5	32.2	35.7	32.6	
Avg. Mini .Temp . (°C)	26.7	25.1	25.4	25.3	20.2	15.1	
Avg. Sunshine hours	8.0	2.9	4.2	6.7	8.5	8.1	6.4
Avg. wind velocity (Km/h)	8.2	7.0	5.6	2.6	1.8	2.4	4.6
NELLORE							
Latitude :	14 ° 21'		Longitude:	79 ° 59'		Elevation(m) :	20 msl
Soil type:	Sandy Clay Loam		Soil pH :	7-8		Soil texture :	-
	Aug.	Sep.	Oct.	Nov.	Dec	Jan	Total / Range
Total Rainfall (mm)	179.3	370.1	85.6	203.8	0.0	0.0	838
Avg. Max. Temp. (°C)	33.4	33	32.8	29.3	28.8	28.04	28.04-33.4
Avg. Mini .Temp . (°C)	25.3	25.3	25.4	24	22.3	19.5	19.5-25.4
Avg. Sunshine hours	4.3	4.9	4.3	3.6	6.4	7.5	5.16
NAGINA							
Latitude :	29° 28' N		Longitude:	78° 32' E		Elevation :	450 msl
Soil type:	Sandy loam		Soil pH :	7.5		Soil texture :	-
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	05	12	09	04	00	00	30
Total Rainfall (mm)	193.2	197.6	2797.3	162.6	00	00	3350
Avg. Max. Temp. (°C)	36.2	30.9	32.8	32.6	31.7	26.0	26.0-36.2
Avg. Mini .Temp . (°C)	24.7	26.0	25.7	24.1	17.1	9.2	9.2-26.0
Avg. Sunshine hours	7.7	4.9	4.7	6.8	7.5	6.6	6.36
Avg. wind velocity (Km/h)	4.6	4.7	3.8	2.6	1.7	1.9	3.21
PALAMPUR							
Latitude :	32.11° N		Longitude:	76.53° East		Elevation :	1268 msl
Soil type:	Podzolic		Soil pH :	5.5		Soil texture :	Silty Clay loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of rainy days	9	22	21	16	3	1	72
Total Rainfall (mm)	145.0	1085.2	612.1	125.0	4.6	1.0	1973
Avg. Max. Temp. (°C)	28.0	26.5	24.2	25.4	24.2	24.5	24.2-28.0
Avg. Mini .Temp . (°C)	18.0	18.4	18.5	16.6	13.4	13.0	13.0-18.5
Avg. Sunshine hours	6.6	3.2	3.5	6.4	8.3	7.1	5.85
Avg. wind velocity (Km/h)	14	20	21	18	5	8	14.34
PALGHAR							
Latitude :	19° 45' N		Longitude:	72° 41' E		Elevation(m) :	6 msl
Soil type:	Medium Black		Soil pH :	7.5		Soil texture :	-
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of rainy days	15	23	19	10	5	00	72
Total Rainfall (mm)	849.2	793.4	622.4	322.0	92.8	00	2679
Avg. Max. Temp. (°C)	32.00	30.00	30.20	31.60	33.5	33.4	30.00-33.5
Avg. Mini .Temp . (°C)	26.00	25.30	25.10	25.10	23.4	18.8	18.8-26.0
Avg. Sunshine hours	6.0	6.6	4.7	3.2	3.1	8.8	5.4
Avg. wind velocity (Km/h)	4.3	1.5	2.3	5.0	2.3	2.4	2.9
PANVEL							
Latitude :	18° 59' N		Longitude:	73° 10' E		Elevation(m) :	5 msl
Soil type:	Coastal Saline		Soil pH :	7-8		Soil texture :	Silty Clay
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of rainy days	14	30.0	26.0	13	7	0	90
Total Rainfall (mm)	840.4	1093.2	936.6	508.0	122.2	1.8	3502
Avg. Max. Temp. (°C)	32.3	29.9	29.9	32.1	34.4	35.0	29.9-35.0
Avg. Mini .Temp . (°C)	25.3	25.1	24.9	25.3	24.2	19.9	19.9-25.3
Avg. Sunshine hours	3.7	1.3	2.0	4.2	8.7	8.0	4.6
Avg. wind velocity (Km/h)	9.9	11.5	5.3	2.8	3.0	1.8	5.7

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PANTNAGAR							
Latitude :	29° N		Longitude:	79°3' East		Elevation :	243.84 m
Soil type:	Clay loam		Soil pH :	8.06		Soil texture :	Clay loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of rainy days	5	20	21	5	0	0	51
Total Rainfall (mm)	107.4	371.2	625.2	252	0	0	1355
Avg. Max. Temp. (°C)	37.6	35.44	32.1	32.58	32.84	28.16	28.16-37.60
Avg. Mini. Temp. (°C)	22.64	25.5	25.8	25.06	21.94	12.36	12.36-25.80
Avg. Sunshine hours	9.28	6.12	4.08	5.94	6.82	6.28	6.4
Avg. wind velocity (Km/h)	7.58	6.92	6.46	4.54	3	2.05	5.1

PARBHANI							
Latitude :	19° 16' N		Longitude:	76° 47' E		Elevation(m) :	409 msl
Soil type:	Black Cotton Soil		Soil pH :	7.7		Soil texture :	Clay
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of rainy days	08	12	13	06	04	00	43
Total Rainfall (mm)	259.8	115.90	285.10	164.70	170.2	00	995
Avg. Max. Temp. (°C)	35.0	31.7	30.8	32.0	32.5	31.2	
Avg. Mini. Temp. (°C)	24.2	23.0	22.8	22.6	20.0	13.6	
Avg. Sunshine hours	6.7	4.3	4.6	6.8	7.1	8.8	6.3
Avg. wind velocity (Km/h)	6.0	6.0	4.4	3.0	2.5	2.9	4.1

PATNA -ICAR							
Latitude :	25.30° N		Longitude:	85.15° E		Elevation(m) :	52 msl
Soil type:	Alluvial		Soil pH :	7.5		Soil texture :	Clay loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	06	15	12	05	01	00	39
Total Rainfall (mm)	119.5	315.6	319.9	68.5	16.1	00	839
Avg. Max. Temp. (°C)	35.66	32.01	31.4	32.76	32.18	28.87	28.87-35.66
Avg. Mini. Temp. (°C)	27.38	26.7	26.95	26.49	23.42	15.49	15.49-27.38
Avg. Sunshine hours/day	4.27	2.81	3.85	4.75	5.31	3.40	4.06
Avg. wind velocity	7.95	8.91	6.57	4.50	3.60	2.03	5.6

PATTAMBI							
Latitude :	10° 48' N	Longitude:	76° 12' E		Elevation :		25.36 msl
Soil type:	Sandy loam	Soil pH :	5.3		Soil texture :		-
	June	July	August	Sep	Oct	Nov	Total / Range
No. of Rainy days	23	25	14	22	12	2	98
Total Rainfall (mm)	550.5	347	412.9	291.2	64.2	81	1746
Avg. Max. Temp. (°C)	29.65	30.19	29.71	30.91	31.24	31.94	29.65-31.94
Avg. Mini. Temp. (°C)	23.69	23.09	23.77	23.58	23.44	22.74	22.74-23.77
Avg. Sunshine hours/day	2.73	3.62	3.44	4.89	4.81	5.39	4.1
Avg. Wind velocity	3.03	4.27	5.28	4.45	2.7	3.46	3.9

PUNDIBARI							
Latitude :	26° 19' N	Longitude:	99° 23' E		Elevation :		43 msl
Soil type:	Sandy	Soil pH :	6.8		Soil texture :		Sandy Loam
	June	July	August	Sep	Oct	Nov	Total / Range
No. of Rainy days	18	24	26	12	08	-	90
Total Rainfall (mm)	438.4	747.3	961.5	369.1	189.7	-	2787
Avg. Max. Temp. (°C)	30.0	32.0	31.0	30.0	29.0	-	29-32
Avg. Mini. Temp. (°C)	24.0	25.0	24.0	25.0	24.0	-	24-25

RADHANAGARI							
Latitude :	18° 13' N		Longitude:	74° E		Elevation(m) :	485 msl
Soil type:	Laterite		Soil pH :	6.0-6.5		Soil texture :	
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	22	31	26	16	4	-	99
Total Rainfall (mm)	633	1630	473	454	68	-	3258

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RAGOLU							
Latitude :	18° 24' N		Longitude:	83° 84' E		Elevation(m) :	27 msl
Soil type:	Red Sandy Loam		Soil pH :	-		Soil texture :	Low OM
	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range
No. of rainy days	12	12	4	9	2	-	39
Total rainfall (mm)	172.1	197.1	42.6	181	27	-	619.8
Avg. Maximum Temperature (°C)	32.08	33.0	33.51	32.88	31.33	29.58	29.58-33.51
Avg. Minimum Temperature (°C)	28.73	29.17	29.81	27.74	23.4	18.38	18.38-29.81
* Avg. Sunshine hours	2.55	5.33	5.26	6.56	7.97	6.81	5.7
* Avg. wind velocity	5.06	3.99	3.29	1.37	3.40	2.51	3.3

RANCHI							
Latitude :	27° 17' N		Longitude:	88° 19' E		Elevation :	625
Soil type:	Sandy Loam		Soil pH :			Soil texture :	
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	9.0	19.0	13.0	4.0	8.0	0.0	53
Total Rainfall (mm)	208.8	847.6	331.6	60.0	82.6	2.0	1532
Avg. Max. Temp. (°C)	32.6	27.7	30.8	30.4	29.3	25.3	25.3-32.6
Avg. Mini. Temp. (°C)	42.3	31.4	33.3	33.3	31.3	28.4	28.4-42.3
Avg. Sunshine hours	215.5	9.5	0.0	0.0	136.4	238.6	100
Avg. wind velocity	4.2	3.3	3.3	2.1	1.8	2.1	2.8

RAIPUR							
Latitude :	21° 16' N		Longitude:	80° 36' E		Elevation :	
Soil type:	Alfisol		Soil pH :			Soil texture :	Clay Loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	16	23	20	15	6	1	81
Total Rainfall (mm)	177.4	174.6	159.2	196.6	50.4	1.0	759
Avg. Max. Temp. (°C)	37.8	30.4	31.8	32.2	32.5	29.9	29.9-37.8
Avg. Mini. Temp. (°C)	26.8	25.3	25.3	25.2	23.5	16.5	16.5-26.8
Avg. Sunshine hours	5.5	3.5	3.7	5.2	6.5	7.5	5.3
Avg. wind velocity	6.9	5.0	2.2	2.9	2.5	2.6	3.7

RAJOURI							
Latitude :	33° 42' N		Longitude:	74° 13' E		Elevation :	950
Soil type: -	Soil EC : 0.25 Ds/m		Soil pH :	6.8		Soil texture :	Sandy loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	08	10	10	03	00	04	35
Total Rainfall (mm)	127.60	110.0	223.40	48.80	0.00	15.20	525
Avg. Max. Temp. (°C)	32.22	30.85	30.82	31.47	30.80	23.53	23.53-32.22
Avg. Mini. Temp. (°C)	18.38	21.58	21.00	17.07	9.53	5.48	5.48-21.58
Avg. Sunshine hours	7.33	5.52	6.53	8.97	8.93	5.97	7.2
Avg. wind velocity	0.59	0.33	0.18	0.10	0.20	0.10	0.3

REWA							
Latitude :	24° 30' N		Longitude:	81° 2' E		Elevation(m) :	360 msl
Soil type:	Clay Loam		Soil pH :	7.3		Soil texture	Silty Clay Loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	12	17	6	6	0	0	41
Total Rainfall (mm)	154.4	511.6	90.4	94.4	0	0	850
Avg. Max. Temp. (°C)	39.5	31.7	33.0	34.3	34.2	29.3	29.3-39.5
Avg. Mini. Temp. (°C)	27.0	24.3	25.2	24.5	19.7	11.9	11.9-27.0

RUDRUR							
Latitude :	18° 30' N		Longitude:	77° 51' E		Elevation(m) :	404 msl
Soil type:	Medium Black Soil		Soil pH :	7.8		Soil texture	Medium
	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range
No. of Rainy days	06	07	07	03	-	-	23
Total Rainfall (mm)	63.60	196.40	92.20	38.80	-	-	391
Avg. Max. Temp. (°C)	34.01	32.72	32.13	32.40	31.45	29.74	29.74-34.01
Avg. Mini. Temp. (°C)	26.70	27.72	27.77	26.10	51.00	17.10	17.10-51.00

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SABOUR							
Latitude :	25° 15'40" N		Longitude:	87°2' 40" E		Elevation :	46M
Soil type:	Light		Soil pH :	7.28		Soil texture	Sandy Loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	6	22	19	9	10	-	66
Total Rainfall (mm)	43.8	32.5	194.4	145.1	239.0	-	654
Avg. Max. Temp. (°C)	32.9	31.9	30.1	29.5	32.0	29.0	29-32.9
Avg. Mini. Temp. (°C)	25.6	25.7	26.2	25.5	22.6	14.4	14.4-26.2
Avg. wind velocity (Km/Hr)	2.6	3.0	2.7	2.2	1.9	1.3	2.28

SAKOLI							
Latitude:	20° 04'01 N		Longitude:	79° 59'17 E		Elevation (m):	243 msl
Soil type:	Lateritic		Soil pH :	6.57 - 7.02		Soil texture:	Clay loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	7	19	13	7	3	-	49
Total Rainfall (mm)	139.2	271	253.2	75.8	25.6	-	764

SHIRGAON							
Latitude :	17° 50' N		Longitude:	73° E		Elevation(m):	10
Soil type:	Laterite		Soil pH :	6.7		Soil Texture:	Clay Loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	21	27	20	16	5	0	89
Total Rainfall (mm)	791.2	583.9	495.4	454.1	87.3	0	2412
Avg. Max. Temp. (°C)	31.8	31.3	31.1	31.6	32.9	34.9	31.1-34.9
Avg. Mini. Temp. (°C)	25.1	25.1	24.9	24.2	24.4	20.0	20.0-25.1
Avg. Sunshine hours	4.2	3.7	3.4	4.3	5.7	8.1	4.9
Avg. wind velocity	3.0	1.4	0.4	0.9	1.3	1.2	1.4

TIRUR							
Latitude :	78°56' N		Longitude:	13° 7' E		Elevation :	39.47 msl
Soil type:	Enceptisol		Soil pH :	7.0- 8.5		Soil texture :	Sandy clay loam
	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total / Range
No. of Rainy days	3	6	8	10	15	-	42
Total Rainfall (mm)	17.7	51	65	249	269	-	651
Avg. Max. Temp. (°C)	36.5	35.3	33.3	34.5	34.0	-	33.3-36.5
Avg. Mini. Temp. (°C)	25.3	25.1	25.3	24.1	23.9	-	23.9-24.1
Solar radiation (CAL/CM ²)	404.3	345.4	484.0	434.3	480.5	-	429.7
* Avg. wind velocity	5.12	4.9	2.5	2.1	3.0	-	3.5

TITABAR							
Latitude :	26°35' N		Longitude:	99° 10' E		Elevation :	99.4 msl
Soil type:	Old alluvial		Soil pH :	5.2		Soil texture :	Clay loam
	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total / Range
No. of Rainy days	18	18	16	11	4	-	67
Total Rainfall (mm)	468	283	216.3	161	74.5	-	1202
Avg. Max. Temp. (°C)	32.6	32.8	32.8	31.8	29.3	-	29.3-32.8
Avg. Mini. Temp. (°C)	24	24.3	24.1	22.6	18.1	-	18.1-24.3
Avg. Sunshine hours	3.1	3.2	3.1	2.8	4.1	-	3.5

VADGAON							
Latitude :	18° 74'N		Longitude:	73° 64'		Elevation :	677
Soil type:	Medium		Soil pH :	5.5-6.5		Soil texture :	Clay Loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	10	26	20	08	09	0	75
Total Rainfall (mm)	412.8	655.2	333.6	147.0	102.4	0	1675

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VARANASI							
Latitude	25° 20' N		Longitude	23° 03'E		Elevation (m)	75.7
Soil type	Medium		Soil pH	7.2		Soil texture	Sandy loam
	June	July	Aug.	Sep.	Oct.	Nov.	Total / Range
No. of Rainy days	05	20	11	03	00	00	39
Total Rainfall (mm)	67.4	15.3	136.4	1.1	00	00	220
Avg. Max. Temp. (°C)	38.9	32.3	34.0	35.0	34.5	29.2	29.2-38.9
Avg. Mini. Temp. (°C)	28.3	26.5	26.9	26.6	23.0	15.1	15.1-28.3
Avg. Sunshine hours	08.9	03.6	04.3	06.5	10.7	07.3	6.9
Avg. wind velocity	4.3	2.9	4.7	3.7	2.3	1.4	3.5

WANGBAL							
Latitude :	24.8° N		Longitude:	94° E		Elevation :	781 msl
Soil type:	Clay loam		Soil pH :	5.5		Soil texture :	Fine
	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total / Range
No. of rainy days	14	20	11	11	6	6	68
Total rainfall (mm)	74.5	151.6	90.8	152.5	91.0	100.0	660
Avg. Maximum Temperature (°C)	33.0	34.0	34.0	33.0	32.0	24	24.0-34.0
Avg. Minimum Temperature (°C)	14.0	14.0	22.0	21.0	13.0	6.0	6.0-22.0

WARASEONI							
Latitude :	21°45'N		Longitude:	80°50'E		Elevation :	301 msl
Soil type:	Sandy loam		Soil pH :	7.5		Soil texture :	
	July	Aug.	Sep.	Oct.	Nov.	Dec	Total / Range.
No. of rainy days	6	21	12	7	3	-	49
Total rainfall (mm)	60.00	255.5	247.0	183.8	46.9	-	793

Trials Sent and Data Receipt

Funded Locations - 2017

Region	State	Location	Trials Sent	Data receipt	Failed/late receipt
Zone 1-Hills	<i>Himachal Pradesh</i>	Malan	12	12	
	<i>Jammu Kashmir</i>	Khudwani	9	4	
	<i>Meghalaya</i>	Upper Shillong	5	5	
	<i>Manipur</i>	Wangbal	3	3	
Zone II-Northern	<i>Uttarakhand</i>	Pantnagar	10	8	
	<i>Punjab</i>	Ludhiana	22	22	
	<i>Haryana</i>	Kaul	15	15	
	<i>Uttar Pradesh</i>	Nagina	1	1	
		Kanpur	8	8	
	<i>Jammu Kashmir</i>	Chatha	4	4	
	<i>Rajasthan</i>	Kota	7	7	
Zone III-Eastern	<i>Odisha</i>	Jeypore	15	15	
		Chiplima	14	6	
	<i>Bihar</i>	Bikramganj (Patna)	10	8	
		Pusa	20	18	
	<i>Jharkhand</i>	Ranchi	17	16	
	<i>West Bengal</i>	Bankura	3	3	
		Chinsurah	32	25	
	<i>Uttar Pradesh</i>	Masodha	33	29	
		Ghaghraghat	6	5	
		Varanasi	26	21	
Zone IV-North Eastern	<i>Assam</i>	Titabar	17	5	
	<i>Tripura</i>	Arundhutinagar	10	7	
Zone V- Central	<i>Madhya Pradesh</i>	Rewa	12	9	
	<i>Chhattisgarh</i>	Raipur	29	24	
		Jagadapur	17	17	
	<i>Maharashtra</i>	Sakoli	14	13	
Zone VI- Western	<i>Maharashtra</i>	Karjat	19	18	
	<i>Gujarat</i>	Nawagam	18	18	
		Navsari	19	17	
Zone VII-Southern	<i>Andhra Pradesh</i>	Maruteru	27	26	
	<i>Telangana</i>	Rajendranagar	13	12	
		Warangal	17	16	
	<i>Tamil Nadu</i>	Aduthurai	20	17	
		Coimbatore	22	14	
	<i>Kerala</i>	Moncompu	10	7	
		Pattambi	16	16	
	<i>Karnataka</i>	Mandya	19	12	
		Mugad	13	10	2
		Brahmavar	12	7	
		Ponnampet	5	5	
		Gangavati	13	12	
	<i>Puducherry</i>	Kurumbapet	9	1	8 (Late)
		Total	623	518	10

Voluntary Locations-2017

Region	State	Location	Trials Sent	Data receipt	Failed/late receipt
Zone 1-Hills	Jammu & Kashmir	Rajouri	4	3	
		Pombay (Khudwani)	4	4	
		Wadura (Khudwani)	4	2	
		Bandipore (Khudwani)	4	4	
	Himachal Pradesh	Dhaulakaun	4	4	
		Palampur	2	2	
	Uttarakhand	Almora-ICAR	5	5	
		Bageswar (Almora)	1	1	
	Meghalaya	Umiam-ICAR	3	3	
		Umiam-CAU	3	3	
	Manipur	Lamphelpat-ICAR	3	2	
		ImphaL-CAU	5	0	3
	West Bengal	Kalimpong	1	0	
Zone II-North Western	Delhi	IARI- New Delhi	4	2	
	Punjab	Gurdaspur	1	1	
		Rauni	1	1	
		Kapurthala	1	1	
	Haryana	Karnal (CSSRI)	5	5	
		Rohtak (CSSRI)	2	0	
		Jind (CSSRI)	2	0	
		Kurukshetra (CSSRI)	2	0	
		Panipat (CSSRI)	2	0	
	Rajasthan	Banswara	5	0	4
	Uttar Pradesh	BEDF, Modipuram	1	1	
Zone III-Eastern	Odisha	Bhubaneswar	27	13	
		NRRI (Cuttack)	39	36	
	Bihar	Patna-ICAR	15	11	
		Sabour	17	8	
	Jharkhand	Hazaribagh	6	5	
		Garhkhatanga	2	0	
	West Bengal	Pundhibari	13	3	
		Canning-ICAR	2	2	
		Hathwara	10	4	
		Chakdaha	2	1	(1-Late)
		Kolkata	10	0	
	Uttar Pradesh	Lucknow-ICAR	2	2	
		Gautam Buda Nagar (CSSRI)	2	2	
Zone IV- North Eastern	Assam	Karimganj	1	0	
		Gerua-ICAR	20	12	
		North Lakhimpur	1	0	
	Tripura	Lembucherra	15	1	14
Zone V- Central	Madhya Pradesh	Waraseoni	10	8	
		Jabalpur	14	0	
	Chhattisgarh	Bilaspur	10	4	
		Ambikapur	6	0	
	Maharashtra	Sindewahi	13	12	
Zone VI- Western	Maharashtra	Panvel	2	2	
		Radhanagari	2	1	
		Shirgaon	10	10	
		Vadagaon	1	1	
		Pondaghat	5	5	

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Region	State	Location	Trials Sent	Data receipt	Failed/late receipt
		Parbhani	3	3	
		Parghar	2	2	
	Gujarat	Danti	2	2	
		Derol	5	4	
		Dabhoi	7	4	
		Vyara	11	10	
	Goa	Goa	2	2	
Zone VII-Southern	Andaman & Nicobar	Port Blair	9	6	
	Andhra Pradesh	Machilipatnam	2	2	
		Ragolu	4	3	
		Bapatla	4	3	
		Nellore	7	4	
	Telangana	IIRR	3	3	
		Kunaram	4	2	
		Jagital	8	2	
		Rudrur	4	2	
		Kampasagar	3	0	
	Tamil Nadu	Trichy	7	0	
		Annamalainagar	2	2	
		Tirur	2	2	
	Kerala	Vytilla	2	2	
	Karnataka	Sirsi	5	5	
		Malagi	3	3	
		Kumta	2	2	
		Kathalgere	4	0	
	Puducherry	Karaikal	11	6	
		Total	444	263	22

Hybrid Rice (IHRT) Kharif-2017 Trials Sent and Data Received

Zone	State	Location	No. of Trials allotted	No. of Trials conducted as per Data received	No & Reasons for the failure of the experiment
Funded Locations					
Zone I Hilly Areas	Himachal Pradesh	Malan	1	1	0
Zone II Northern	Jammu & Kashmir	Chatha	1	1	0
	Haryana	Kaul	3	3	0
	Punjab	Ludhiana	3	3	0
	Uttarakhand	Pantnagar	3	3	0
Zone III Eastern	West Bengal	Chinsurah	4	4	0
	Odisha	Chiplima	1	1	0
	Uttar Pradesh	Masodha	4	4	0
		Varanasi	1	1	0
	Jharkhand	Ranchi	4	4	0
Zone IV North Eastern	Tripura	Arundhatinagar	4	0	4 (data lost)
	Assam	Titabar	4	4	0
Zone V Central	Chhattisgarh	Raipur	4	4	0
	Maharashtra	Sakoli	2	2	0
Zone VI Western	Maharashtra	Karjat	4	4	0
	Gujarat	Navsari	4	4	0
		Nawagam	4	4	0
Zone VII Southern	Tamilnadu	Aduthurai	2	2	0
		Coimbatore	4	4	0
	Andhra Pradesh	Maruteru	4	4	0
	Karnataka	Brahmavar	4	3	1
		Mandya	4	0	4 (water shortage)
		Mugad	1	1	0
	Telangana	IIRR (DRR)	4	4	0
		Warangal	4	4	0
Total			78	69	9
Voluntary Locations					
Zone III Eastern	Uttar Pradesh	Allahabad	4	4	0
	Odisha	Cuttack (NRRI)	2	2	0
Zone V Central	Madya Pradesh	Jabalpur	3	3	0
	Maharashtra	Sindewahi	4	4	0
Zone VI Western	Gujarat	Dabhoi	4	4	0
	Maharashtra	Radhanagari	1	1	0
		Shirgaon	1	1	0
		Vadgaon	1	1	0
Zone-VII Southern	Andhra Pradesh	Bapatla	1	1	0
	Puducherry	Karaikal	2	2	0
	Karnataka	Malagi	1	1	0
Total			24	24	0

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Zone	State	Location	Name of the Seed Company	No. of Trials allotted	No. of Trials conducted as per Data received	No & Reasons for the failure of the experiment
Private Sector Location						
Zone III Eastern	Uttar Pradesh	Faizabad	Bioseed Pvt. Ltd	2	2	0
			Bisco Bio-sciences Pvt Ltd	3	3	0
		Barabanki	JK. Agri Genetics Limited	2	2	0
		Lucknow	Nuziveedu Seeds Pvt. Ltd	2	2	0
	Bihar	Bihar Sharif	Syngenta	4	4	0
	Jharkhand	Ranchi	Trimurthi Plant Sciences Pvt Ltd	1	1	0
Zone V Central	Chhattisgarh	Durg	VNR Seeds Pvt Ltd	4	4	0
Zone VI Western	Maharashtra	Dighori	Ankur Seeds Pvt. Ltd	4	4	0
Zone VII Southern	Andhra Pradesh	Rajahmundry	Bayer Bio-Science Pvt. Ltd	4	4	0
	Telangana	Hyderabad	UPL Ltd	4	4	0
Total				30	30	0

Resistant or tolerant entries for diseases and pests in national screening nurseries during Kharif 2017

IET No.	Diseases and pests reaction
AVT 1-AEROB	
26200	MR-NB
26155	MR-NB
25728	MR-LB
26198	MR-LB
26178	MR-LB
26162	MR-LB
26157	MR-LB
26171	MR-LB, NB
26194	MR-LB, NB
25109	MR-LB
26176	MR-LB
26201	MR-NB
26168	MR-LB
AVT 2-AEROB	
25610	MR-NB, BLB
25618	MR-LB, NB
25641	MR-NB
25614	MR-NB
25613	MR-LB, T-GM1
25625	MR-LB, SR
25662	MR-LB, NB
25647	MR-LB
25640	MR-LB
25653	MR-LB
IVT-AEROB	
27186	MR-NB
27188	MR-LB
27192	MR-LB
27193	MR-LB, NB, SR
27194	MR-LB, NB
27195	MR-LB, NB
27196	MR-LB
27197	MR-LB
27200	MR-LB, NB
27204	MR-LB
27205	MR-LB
27206	T-PH
25123	MR-LB, NB
27207	MR-LB, NB
27210	MR-LB
27211	MR-NB
27212	MR-LB, NB
27213	MR-LB
27214	MR-LB, NB

IET No.	Diseases and pests reaction
27215	MR-LB
27217	MR-NB
27218	MR-LB
27220	MR-LB
27221	MR-LB
27222	MR-BLB
27223	MR-NB
27224	MR-LB, NB
27226	MR-NB
27228	MR-NB
27230	MR-LB
27231	MR-LB
27232	MR-LB, BLB
27233	MR-LB
27237	MR-LB, NB
27238	MR-LB
27239	MR-NB
27240	MR-LB
27241	MR-NB
27242	MR-LB, NB
AVT 1-AL&ISTVT	
18710 (Repeat)	MR-LB, NB
25988	MR-LB, NB
22836	MR-LB
IVT-AL&ISTVT	
27064	MR-LB
27065	T-WM
27066	MR-LB, NB
27068	MR-NB
27069	MR-LB
27070	T-LF
27071	MR-NB, T-WM
25986	MR-LB, NB, BLB
27072	MR-LB
27073	MR-LB
27074	MR-BLB
27075	MR-LB
27076	MR-LB
25976	MR-SR
27077	MR-NB
27080	MR-LB
27081	MR-BLB
27082	MR-LB

IET No.	Diseases and pests reaction
27084	MR-LB
27086	MR-LB
27087	MR-LB
27089	MR-LB
27090	MR-LB
27091	MR-LB
27092	MR-LB
27093	MR-LB
27094	MR-BLB
AVT 1-ASG	
IVT-ASG	
27015	MR-LB
27023	MR-NB
27028	MR-NB
AVT 1-BIOFORT	
26380	MR-NB
26385	MR-NB
26373	MR-NB, MT-SB
26375	MR-LB
AVT 2-BIOFORT	
25467	MR-BLB
25458	MR-NB, BLB
24774	MR-LB, NB
25477	
IVT-BIOFORT	
27159	MR-LB
27160	MR-NB
27163	MR-NB
27165	MR-NB
27174	MR-BLB
27180	MR-LB
27182	MR-LB
27183	MR-LB
27184	MR-NB
IVT-BT	
26146	MR-NB
26138	MR-NB
26986	MR-NB
26987	R-NB
26989	MR-BLB
26990	MR-LB, NB
26993	MR-NB, BLB
26998	MR-NB
27000	MR-NB, BLB
27002	MR-NB
27003	MR-NB

IET No.	Diseases and pests reaction
27004	MR-NB
27011	MR-NB
27012	MR-NB
AVT 1-CSTVT	
25078	MR-SR, BLB
25055	MR-NB
25101	MR-NB, SR
25049	MR-LB, NB
IVT-CSTVT	
27033	MR-LB, NB
27034	MR-NB
27036	MR-LB
27037	MR-LB, NB
27039	MR-NB
27041	MR-NB
27043	MR-NB
27047	MR-LB
27048	MR-NB, SR
27054	MR-NB
27055	MR-NB
27057	MR-NB, BLB
27059	MR-NB, SR
27060	MR-NB
IVT-DW	
26733	MR-LB
26734	MR-LB, NB
26735	MR-NB, SR
26736	MR-NB
26737	MR-NB
25882	MR-NB
25881	MR-NB
25883	MR-LB
26739	MR-NB
26740	MR-NB
26741	MR-NB
IVT -E (H)	
26557	MR-BS, T-SB
26562	MR-BS
26563	MR-BS
26564	MR-NB
26565	MR-LB, NB, SR, T-BPH
26566	MR-BS
26567	MR-BS
26568	MR-BS
26569	MR-NB
26570	MR-BS

IET No.	Diseases and pests reaction
26571	MR-NB, SR
26572	MR-BS
26573	MR-BS
26574	MR-SR
26575	MR-NB, BS
26576	MR-NB
26577	MR-BS, SR
IVT-E TP	
26756	MR-NB
26757	MR-LB
26760	MR-NB
26761	MR-LB
23354	MR-NB
24911	MR-LB
24914	MR-LB, NB
24904	MR-LB
25713	MR-LB
26766	MR-LB
26767	MR-LB
26772	MR-NB
26777	MR-LB
26778	T-LF
26779	MR-LB
26780	MR-LB
26783	MR-LB
26784	MR-LB, NB
26785	MR-LB
26786	MR-NB
26789	MR-LB
26790	MR-LB
26792	MR-NB
26794	MR-LB
26795	MR-LB
26797	MR-LB
26798	MR-NB
26799	MR-LB
26800	MR-LB
26801	MR-LB
26802	MR-LB
26804	MR-LB
26805	MR-LB
26806	MR-LB
26809	MR-LB
AVT 1E-DS	
26351	MR-LB
26348	MR-NB

IET No.	Diseases and pests reaction
26365	MR-LB
26337	MR-LB
26345	MR-LB
26347	T-SB
IVT-E-DS	
26611	MR-LB
26612	MR-LB
26613	MR-LB
26614	MR-NB
26615	MR-LB, NB
26616	MR-LB
26622	MR-LB
26628	MR-NB
26631	MR-LB
26632	MR-NB
26633	MR-LB, NB
26634	MR-LB
26635	MR-LB
26636	MR-NB
26637	MR-LB
26638	MR-LB, NB
26639	MR-LB
26351 (Repeat)	MR-NB
26644	MR-LB
26645	MR-LB
AVT 1-IM	
25780	MR-NB, BLB
25791	MR-LB
26027	MR-LB, NB, SR
25772	MR-NB
25239	MR-LB, NB
26016	MR-BLB
25774	MR-LB, NB
25994	MR-NB, T-GM1
26019	MR-LB, NB
25785	MR-NB
25997	MR-LB
25776	MR-NB
25998	MR-NB
25284	MR-NB
AVT 2-IM	
25355	MR-LB
24963	MR-LB
24958	MR-LB, NB
24973	MR-LB
24933	MR-LB
25330	MR-LB, NB

IET No.	Diseases and pests reaction
25289	MR-LB, NB
IVT-IM	
26811	MR-NB
26118	MR-NB
26812	MR-LB
26813	MR-LB
26086	MR-LB
26816	MR-LB
26818	MR-NB
26823	MR-LB
26082	MR-BLB
26825	MR-LB, T-PH
26830	MR-LB
26832	MR-LB
26833	MR-BLB
26834	MR-LB
26835	MR-LB
26837	MR-LB,NB, T-PH
26838	MR-NB
26839	MR-NB
26102	MR-LB, NB
26842	MR-LB
26843	MR-NB
26847	MR-LB, SR
26132	MR-NB
26853	MR-LB
26855	MR-LB
26856	MR-NB
26858	MR-NB, BLB
26860	MR-LB, NB
26861	MR-LB,NB
26864	MR-NB
AVT2- IME	
25310	MR-LB, NB, BS
24855	MR-LB
24977	MR-LB
24952	MR-NB
24950	MR-LB, NB
24931	MR-LB
24951	MR-LB, NB
24985	MR-LB
25295	MR-NB, SR
24983	MR-LB
25358	MR-LB, NB
24968	MR-LB
24967	MR-LB

IET No.	Diseases and pests reaction
25323	MR-NB
25345	MR-LB
25331	MR-BS, SR
25337	MR-LB, SR
AVT1- IME	
26096	MR-NB
26089	MR-NB
26082	MR-NB, SB, BLB
25746	MR-LB
25764	MR-LB
24934 (Repeat)	MR-LB, BLB
26075	MR-LB
26126	MR-LB, BLB
25745	MR-LB
26127	MR-BLB
26124	MR-LB
26104	MR-NB, BS
25749	MR-LB, T-GM1
26125	MR-LB
25742	MR-LB
IVT-IME	
26865	MR-NB
26866	MR-LB, NB
26868	MR-LB
26869	MR-LB
26870	MR-LB
26871	MR-LB
26874	MR-LB, NB
26875	MR-LB, BLB
26876	MR-LB
26877	MR-LB
26878	MR-LB
26883	MR-LB
26885	MR-LB, NB
26886	MR-LB
26889	MR-LB, NB
26890	MR-NB
26891	MR-BLB
26893	MR-LB, NB
26895	MR-LB, NB
26896	MR-LB, NB
26897	MR-LB
26898	MR-LB
26901	MR-LB, NB
26902	MR-LB
26904	MR-LB

IET No.	Diseases and pests reaction
26905	MR-LB
26906	MR-LB, NB
26907	MR-LB
26908	MR-LB
26910	MR-LB
26913	MR-LB
26914	MR-LB
26917	MR-LB
26925	MR-LB
AVT 2-L	
23610	MR-SR
25236	MR-LB
25231	MR-LB, NB
25228	MR-SR
25287	MR-NB
25952	MR-NB, BLB
25953	MR-NB
25970	T-PH, T-GM1
25042	MR-BLB
25967	MR-NB, SR
25948	MR-LB
25959	MR-NB
25973	
25269 (Repeat)	MR-LB, NB
25971	MR-NB
26080	MR-NB
IVT-L	
26927	MR-NB
26928	MR-LB, NB
26929	MR-NB
26932	MR-NB
26933	MR-NB, BLB
26934	MR-LB, NB
26939	MR-LB, NB
26940	MR-LB, NB
26941	MR-LB, NB, SR
26943	MR-LB
26944	MR-NB
26945	MR-NB
26946	MR-LB, NB
26947	MR-LB, NB
26948	MR-NB
26949	MR-LB, NB
26951	R-NB
26954	MR-LB
26955	MR-LB, NB

IET No.	Diseases and pests reaction
26959	MR-LB, BLB
26960	MR-NB
26961	MR-NB
26962	MR-NB
26963	MR-LB
26964	MR-BLB
26965	MR-LB, NB
26966	T-PH
26967	MR-LB, NB, BLB
26968	MR-NB
26969	MR-LB, R-NB
26973	MR-NB
26974	MR-LB, BLB
26975	MR-NB
26976	MR-LB
26977	MR-NB
26979	MR-NB
26980	MR-NB
26981	MR-LB, NB
26982	MR-LB
26983	MR-NB
26985	MR-NB, BLB
IVT-M (H)	
26578	MR-NB, BS
26579	MR-NB, SR
26580	MR-NB
26581	MR-BS, R-SR
26582	
26583	MR-NB, R-SR, T-WBPH
26584	
26585	MR-LB, NB
26587	MR-BS, R-SR
26588	MR-NB
26589	MR-BS
26590	MR-BS, BLB, R-SR
26591	MR-NB, BS
26592	MR-NB
26593	MR-NB, BS, SR, R-GM1
26594	MR-BS, T-WBPH
26597	MR-SR
AVT 1-M (H)	
25836	MR-BS, R-SR
25839	MR-BS
25833	MR-SR
25842	MR-NB
25841	MR-NB
25843	MR-NB

IET No.	Diseases and pests reaction
25840	MR-NB, BS
25838	MR-NB, MR-BS
25834	MR-BS, R-SR
24207	MR-NB, BS, SR
AVT 1-E (H)	
25826	MR-NB, BS, BLB
25828	MR-NB, BS
25827	MR-NB, BS
25818	MR-BS
25154	MR-BS
24195	MR-NB, R-SR
24197	MR-NB, SR
AVT 1-MS	
25800	MR-LB
26263	MR-BLB, MT-SB
25796	MR-LB, SR, BLB
26231	MR-NB
26267	MR-LB, NB
25804	MR-LB, NB
25795	MR-LB
26218	MR-NB, SR
26275	MR-NB, BS, BLB
26274	MR-NB
26269	MR-SR
25802	MR-NB
26244	MR-NB
AVT 2-MS	
24993	MR-LB, BLB
25512	MR-NB
25520	MR-BLB
25495	MR-LB, NB, BS, BLB
25515	MR-LB, NB
25508	MR-NB, BS
24990	MR-NB
24995	MR-LB, NB
25521	MT-SB
IVT-MS	
27095	MR-NB, BLB
27096	MR-NB
27102	MR-LB, NB
27103	MR-LB, NB
27108	T-WM
27114	MR-NB
27116	MR-LB
27118	MR-LB, NB
27119	MR-NB
27120	MR-NB
27121	MR-NB

IET No.	Diseases and pests reaction
27125	MR-LB
27126	MR-LB
27127	MR-LB
27128	MR-NB
27130	MR-NB
27134	MR-LB, NB
27135	MR-NB
27137	MR-NB
27139	MR-NB
27143	MR-LB, NB
27147	MR-LB, NB
27150	MR-NB
27151	MR-NB
27153	MR-LB
27154	MR-LB
AVT 1'-NIL-BL & BLB	
27274	MR-LB
27275	MR-BLB
27280	MR-SR, BLB, MT-SB
27281	MR-BLB
27285	MR-LB
27286	MR-LB
27287	MR-LB
27288	MR-LB
27289	MR-LB
27290	MR-NB
27291	MR-LB
27293	MR-BLB
27294	MR-BLB
27295	MR-BLB
27296	MR-BLB
27297	MR-LB
AVT 1-NIL-DRT	
AVT 1-NIL-SUB	
26421	MR-LB
26744	MR-NB
26745	MR-BLB
26746	MR-BLB, MT-SB
26747	MR-NB
26748	MR-BLB
26749	MR-SR, BLB
26750	MR-SR
26751	MR-NB
26752	MR-NB, SR, T-PH
AVT 1-NPT	
26418	MR-LB
26406	MR-BS, SR

IET No.	Diseases and pests reaction
25530	MR-NB
26420	MR-NB
26408	MR-LB, NB
26419	MR-LB, SR, BLB
NDR 359 (NC)	MR-BS
IVT-NPT	
27243	MR-LB, NB, BLB, T-PH
27244	MR-NB, BLB
27246	MR-NB
27250	MR-LB
27251	MR-NB
27252	MR-LB, NB, BLB
27253	MR-LB
27254	MR-LB, NB
27256	MR-LB, NB
27260	MR-BLB
27263	MR-LB
27266	MR-LB, BLB
27270	MR-LB
27271	MR-LB
27272	MR-NB, T-PH
NSDWSN	
26648	MR-NB
26649	MR-LB
26650	MR-LB, SB, R-NB
26651	MR-SR
26652	MR-NB, SB
26654	MR-LB, SR, R-NB
26655	MR-LB, NB
26656	MR-NB
26657	MR-NB, SR
26658	MR-LB, NB
26661	MR-NB, T-PH
26664	MR-NB,SR
26665	MR-NB
26666	MR-LB, NB
26667	MR-LB
26668	MR-NB
26669	MR-LB, NB
26672	MR-NB
26674	MR-NB
26676	MR-NB
26677	R-NB
26678	MR-NB
26679	MR-NB

IET No.	Diseases and pests reaction
26680	MR-NB
26683	MR-NB
26685	MR-NB, SR
26686	MR-NB
26687	MR-NB
26688	MR-LB
IVT -RSL	
26689	MR-SR
26690	MR-LB, NB
26691	MR-NB
26692	MR-LB, NB
26693	MR-LB
26694	MR-LB, NB
25901	MR-NB
25872	MR-LB
25904	MR-NB
25920	MR-NB
26695	MR-NB
26696	MR-NB
26697	R-NB, SR
26698	MR-LB
26699	MR-NB
26700	MR-LB
26704	MR-SR
26706	MR-NB
26709	R-NB
26713	MR-NB
26715	MR-SR, BLB
26716	MR-NB
26720	MR-NB
26721	MR-NB
26724	MR-NB
26725	MR-LB, NB
26726	MR-NB
26731	MR-LB, NB
AVT 1-SDW	
24519	MR-LB, NB
24505	MR-NB
24486	MR-NB
24518	MR-LB, NB
24496	MR-NB, SR, BLB
24495	MR-NB
25209	MR-LB, NB
25179	MR-NB
IVT-SDW	
25905	MR-LB, NB

IET No.	Diseases and pests reaction
25888	MR-NB
25887	MR-NB
25912	MR-LB
25913	MR-NB
25909	MR-NB
25915	MR-LB
25902	MR-NB
IVT-U (H)	
26598	MR-NB, R-GM1
26602	MR-NB, BS, R-SR
26603	MR-NB, R-GM1
26604	MR-NB, SB, BS
26605	T-SB
26606	MR-LB, NB, BS
26607	MR-SR
26608	MR-SR
26609	R-GM1
26610	MR-BB
25170	MR-NB, SR
IHRT -EARLY	
26464	MR-LB,R-WBPH
26465	MR-NB,
26466	MR-LB,R-WBPH
26467	MR-LB
26468	MR-LB
26469	R-WBPH
26470	MR-LB,MT-LF
26473	MR-LB
26474	MR-LB,NB
26475	MR-LB,NB,
26480	MR-LB,
26484	MR-LB,-NB
IHRT –MID-EARLY	
26485	MT-LF
26486	MR-NB
26487	MR-SR
26488	R-GM5
26489	MR-NB
26490	MR-NB
26491	MR-LB
26492	MR-LB,NB
26493	MR-NB,LF
26495	MR-NB
26496	MR-LB,NB
26497	MR-NB
26499	MR-LB
26501	MR-LB

IET No.	Diseases and pests reaction
26502	MR-NB
26503	MR-LB,NB
26504	MR-LB,NB
26509	MR-NB
26510	MT-LF
26511	MR-LB,NB,MT-LF
IHRT -MEDIUM	
26519	MR-NB
26522	MR-LB,NB
26524	MR-NB
26526	MR-NB
26527	R-GM1&GM5
26528	MR-LB
26529	MR-NB
26532	MR-NB
26534	MR-NB
26535	MR-LB
26537	R-GM1&GM5
26538	MR-NB
26540	MR-LB,NB
IHRT –MEDIUM SLENDER	
26544	MR-NB,R-GM1&GM5, WBPH
26546	MR-LB
26547	MR-LB, NB
26549	MR-NB
26550	MR-LB,R-GM1&GM5
26551	T-BPH
26553	MR-NB
26554	MR-NB
26555	MR-NB
26556	MR-NB

R-Resistance; MR-Moderate tolerance; T-Tolerance; MT-Moderate tolerance; LB-Leaf blast; NB-Neck blast; SB-Sheath blight; BS-Brown spot; SR-Sheath rot; BLB-Bacterial leaf blight; PH-Plant hoppers; GM-Gall midge; SB-Stem borer, WM-Whorl maggot; LF-Leaf folder; BPH-Brown plant hoppers; WBPH- White backed plant hoppers.

IET Numbers of Genotypes tested in different trials during Kharif 2017

AVT 1E-DS		IVT-E-DS		IVT -RSL		NSDWSN		IVT-DW
26356		26643		26723		26654		26739
26351		26644		26724		26655		26740
26348		26645		26725		26656		26741
26341		26646		26726		26657		26742
25588				26727		26658		
26365		IVT -RSL		26728		26659		AVT 1-NIL-SUB
25103		26689		26729		26660		26421
25121		26690		26730		26661		26743
26370		26691		26731		26662		26744
26337		26692		25924		26663		26745
26345		26693		26732		26664		26746
26347		26694				26665		26747
		25901		AVT 1-SDW		26666		26748
IVT-E-DS		25219		24519		26667		26749
26611		25856		24505		26668		26750
26612		25872		24486		26669		26751
26613		25904		24518		26670		26752
26614		25920		24496		26671		
26615		26695		24495		26672		AVT 1-NIL-DRT
26616		26696		25212		26673		26753
26617		26697		25209		26674		26754
26618		26698		25191		26675		
26619		26699		25179		26676		AVT 1-E (H)
26620		26700				26677		25826
26621		26701		IVT-SDW		26678		25828
26622		26702		25890		26679		25819
26623		26703		25905		26680		25827
26624		26704		25888		26681		25818
26625		26705		25887		26682		25154
26626		26706		25912		26683		24195
26627		26707		25903		26684		24197
26628		26708		25913		26685		
26629		26709		25909		26686		IVT -E (H)
26630		26710		25907		26687		26557
26631		26711		25915		26688		26558
26632		26712		25914				26559
26633		26713		25902		IVT-DW		26560
26634		26714				26733		26561
26635		26715		NSDWSN		26734		26562
26636		26716		26647		26735		26563
26637		26717		26648		26736		26564
26638		26718		26649		26737		26565
26639		26719		26650		25882		26566
26640		26720		26651		25881		26567
26641		26721		26652		25883		26568
26351		26722		26653		26738		26569

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IVT -E (H)	IVT-U (H)	IVT-E TP	AVT2- IME	IVT-IME
26570	26598	26780	24956	26879
26571	26599	26781	25342	26880
26572	26600	26782	25323	26881
26573	26601	26783	25345	26882
26574	26602	26784	25331	26883
26575	26603	26785	25337	26884
26576	26604	26786		26885
26577	26605	26787	AVT1- IME	26886
	26606	26788	26096	26887
AVT 1-M (H)	26607	26789	26089	26888
25836	26608	26790	26074	26889
25830	26609	26791	26082	26890
25839	26610	26792	25746	26891
25832	25170	26793	25764	26892
25833		26794	26077	26893
25842	IVT-E TP	26795	24934	26894
25841	26755	26796	26075	26895
25843	26756	26797	26126	26896
25840	26757	26798	26110	26897
25838	26758	26799	25745	26898
25834	26759	26800	26127	26899
24207	26760	26801	26124	26900
	26761	26802	26094	26901
IVT-M (H)	26762	26803	26104	26902
26578	26763	26804	26107	26903
26579	23354	26805	26079	26904
26580	24911	26806	25749	26905
26581	24914	26807	26125	26906
26582	24904	26808	25742	26907
26583	25713	26809	26111	26908
26584	26764			26909
26585	26765	AVT2- IME	IVT-IME	26910
26586	26766	25341	26865	26911
26587	26767	25310	26866	26912
26588	26768	24855	26867	26913
26589	26769	24977	26868	26914
26590	26770	24952	26869	26915
26591	26771	24950	26870	26916
26592	26772	24931	26871	26917
26593	26773	24951	26872	26918
26594	26774	24985	26873	26919
26595	26775	25295	26874	26920
26596	26776	24983	26875	26921
26597	26777	25358	26876	26922
	26778	24968	26877	26923
	26779	24967	26878	26924

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IVT-IME	IVT-IM	IVT-IM	IVT-L	IVT-BT
26925	26817	26860	26942	26146
	26818	26861	26943	26138
AVT 2-IM	26819	26862	26944	26986
25355	26820	26863	26945	26987
24963	26821	26864	26946	26988
24958	26822		26947	26989
24973	26823	AVT 2-L	26948	26990
24933	26082	23610	26949	26991
25330	26824	25236	26950	26986
25289	26825	24395	26951	26987
	26826	25231	26952	26988
AVT 1-IM	26827	25228	26953	26989
25229	26828	25287	26954	26990
26024	26829		26955	26991
25780	26830	AVT 1-L	26956	26992
25791	26831	25952	26957	26993
25601	26832	25953	26958	26994
26027	26833	25945	26959	26995
25772	26834	25970	26960	26996
25318	26835	25955	26961	26997
25239	26836	25042	26962	26998
26016	26837	25967	26963	26999
25774	26838	25948	26964	27000
25994	26839	25959	26965	27001
26019	26102	25973	26966	27002
25785	26840	25269	26967	27003
25997	26841	25971	26968	27004
25602	26842	26080	26969	27005
26039	26843		26970	27006
25776	26844	IVT-L	26971	27007
26018	26845	26926	26972	27008
25787	26846	26927	26973	27009
25998	26847	26928	26974	27010
25284	26848	26929	26975	27011
	26849	26930	26976	27012
IVT-IM	26850	26931	26977	
26810	26851	26932	26978	AVT 1-ASG
26811	26852	26933	26979	26205
26118	26132	26934	26980	25419
26072	26853	26935	26981	24617
26812	26854	26936	26982	26216
26813	26855	26937	26983	
26086	26856	26938	26984	IVT-ASG
26814	26857	26939	26985	27013
26815	26858	26940		27014
26816	26859	26941		27015

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IVT-ASG	IVT-AL&ISTVT	IVT-CSTVT	AVT 1-AEROB	IVT-AEROB
27016	27078	27045	26162	27218
27017	25983	27046	26157	27219
27018	27079	27047	26171	27220
27019	27080	27048	26194	27221
27020	27081	27049	25109	27222
27021	27082	27050	26176	27223
27022	27083	27051	26170	27224
27023	27084	27052	26201	27225
27024	27085	27053	26168	27226
27025	27086	27054		27227
27026	27087	27055	IVT-AEROB	27228
27027	27088	27056	27185	27229
27028	27089	27057	27186	27230
27029	27090	27058	27187	27231
	27091	27059	27188	27232
AVT 1-AL&ISTVT	27092	27060	27189	27233
18710	27093	27061	27190	27234
25988	27094		27191	27235
25982		AVT 2-AEROB	27192	27236
22836	AVT 1-CSTVT	25633	27193	27237
25387	25078	25610	27194	27238
25378	25055	25618	27195	27239
20329	25101	25636	27196	27240
23206	25097	25641	27197	27241
	25051	25620	27198	27242
IVT-AL&ISTVT	25059	25614	27199	
27062	25100	25613	27200	AVT 2-BIOFORT
27063	25049	25625	27201	25461
27064	25096	25662	27202	25443
27064		25647	27203	25475
25978	IVT-CSTVT	25640	27204	25470
27065	27030	25653	27205	25451
27066	27031	25642	26247	25467
27067	27032	25616	27206	25458
27068	27033		25123	24775
27069	27034	AVT 1-AEROB	27207	25446
27070	27035	26173	27208	24774
27071	27036	26177	27209	25477
25986	27037	26200	27210	
27072	27038	26155	27211	AVT 1-BIOFORT
27073	27039	25136	27212	26380
27074	27040	25728	27213	25253
27075	27041	26198	27214	26376
27076	27042	25619	27215	26386
25976	27043	26178	27216	26385
27077	27044	26156	27217	26383

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AVT 1-BIOFORT	AVT 2-MS	IVT-MS	AVT 1-NPT	AVT 1-NIL-BL & BLB	Low Nitrogen trial
26377	25515	27109	26418	27274	27311
26396	25508	27110	26406	27275	27312
26373	24990	27111	25535	27276	27313
26378	24995	27112	25530	27277	27314
26375	25523	27113	26420	27278	
26398	25521	27114	26408	27279	
	25489	27115	26419	27280	
IVT-BIOFORT		27116	26409	27281	
27155	AVT 1-MS	27117	26415	27282	
27156	25800	27118		27283	
27157	26273	27119	IVT-NPT	27284	
27158	26219	27120	27243	27285	
27159	26263	27121	27244	27286	
27160	25796	27122	27245	27287	
27161	26258	27123	27246	27288	
27162	26227	27124	27247	27289	
27163	26231	27125	27248	27290	
27164	26243	27126	27249	27291	
27165	26267	27127	27250	27292	
27166	25804	27128	27251	27293	
27167	25795	27129	27252	27294	
27168	26218	27130	27253	27295	
27169	25793	27131	25284	27296	
27170	26275	27132	27254	27297	
27171	25798	27133	27255		
27172	26274	27134	27256	Special Samba Mahsuri	
23964	26222	27135	27257	Mutant Trial	
27173	26269	27136	27258	26241	
27174	25802	27137	27259		
27175	26244	27138	27260	Low Phosphorus	
27176		27139	27261	tolerance trial	
27177	IVT-MS	27140	27262	27298	
27178	27095	27141	27263	27299	
27179	27096	27142	27264	27300	
27180	27097	27143	27265	27301	
27181	27098	27144	27266	27302	
27182	27099	27145	27267	27303	
27183	27100	27146	27268	27304	
27184	27101	27147	27269	27305	
	27102	27148	27270	27306	
AVT 2-MS	27103	27149	27271	27307	
25493	27104	27150	27272	27308	
24993	27105	27151	27273		
25512	27106	27152		Low Nitrogen trial	
25520	27107	27153		27309	
25495	27108	27154		27310	

ABBREVIATIONS

ABP	Ambikapur	JBP	Jabalpur	PBY	Pombay
ADT	Aduthurai	JDP	Jagadapur	PDG	Phondaghat
ALG	Aligarh	JGL	Jagtial	PLG	Palghar
ALH	Allahabad	JND	Jind	PLM	Palampur
ALM	Allmora-ICAR	JRP	Jharanapani	PNB	Pundibhari
AML	Annamalainagar	JYP	Jeypore	PNP	Ponnampet
AMS	Ambasamudram	KBP	Kurumbapet	PNT	Pantnagar
ARD	Arundhutinagar	KHD	Khudwani	PNV	Panvel
BBN	Bhubaneswar	KJT	Karjat	POB	Port Blair
BDP	Bandipore	KLP	Kalimpong	PPT	Panipat
BGL	Bengaluru	KLS	Kolasib	PRK	Paramakudi
BGS	Bageshwar	KMP	Kampasagar	PSA	Pusa
BKG	Bikramganj (Patna)	KNM	Kunaram	PTB	Pattambi
BLP	Bilaspur	KNP	Kanpur	PTN	Patna
BNK	Bankura	KOL	Kolkata	PTN	Patna-ICAR
BNS	Banswara	KPT	Kapurthala	RCI	Ranchi
BPT	Bapatla	KRK	Karaikal	RDN	Radhanagari
BRD	Bardoli	KRL	Karnal(CSSRI)	RDR	Rudrur
BRM	Brahmavar	KTA	Kota	REW	Rewa
CBT	Coimbatore	KTG	Kathalgere	RGL	Ragolu
CHN	Chinsurah	KTR	Katrain	RHK	Rohtak
CHP	Chiplima	KUK	Kurukshetra	RJR	Rajouri
CHT	Chatha	KUL	Kaul	RNG	Ranichouri
CKD	Chakdha (Mohanpur)	LCK	Lucknow	RNR	Rajendranagar
CNG	Canning-ICAR	LDN	Ludhiana	RPR	Raipur
CTK	NRRI-Cuttak (ICAR)	LGL	Langol	RUN	Rauni
CTP	Chintapalli	LMB	Lembucherra	SBR	Sabour
DBI	Dabhoi	LPP	Lamphalpat	SHL	Shalimar
DNT	Danti	MDG	Mudigere	SHR	Shirgaon
DRL	Derol	MDP	Modipuram	SKL	Sakoli
DUK	Dhaulakhan	MGD	Mugad	SND	Sindewahi
GBN	Gautam Buddha Nagar	MJH	Majhera	SRS	Sirsi
GDL	Gudalur	MLN	Malan	TLJ	Tuljapur
GDP	Gurdaspur	MNC	Moncompu	TRR	Tirur
GER	Gerua-ICAR	MND	Mandya	TRY	Trichy
GGT	Ghaghrahat	MPM	Machilipatnam	TTB	Titabar
GNV	Gangavati	MSD	Masodha	UMM	Barapani (Umiam)
GOA	Goa	MTO	Motto	USG	Upper Shillong
GRK	CRD-Gorakhpur	MTU	Maruteru	VDG	Vadagaon
GSB	Gosaba	NGN	Nagina	VRN	Varanasi
GTK	Gangtok	NLP	North Lakhimpur	VTL	Vytilla
HTW	Hathwara	NLR	Nellore	VYR	Vyara
HZB	Hazaribagh	NND	Nandyal	WBL	Wangbal
IAR	IARI-New Delhi	NVS	Navsari	WDR	Wadura
IGP	Igatpuri	NWG	Nawagam	WGL	Warangal
IMP	Imphal (CAU)	PBN	Parbhani	WRS	Waraseoni

Acknowledgements

The All India Coordinated Rice Improvement Project (AICRIP) has made substantial contribution since its inception to coordinated rice research and this is the 53rd year of successful conduct of AICRIP. We are grateful to the scientists at all funded and voluntary centres for successfully organizing the multilocation trials, participating in the monitoring tours and timely dispatch of data. The scientists of the Crop Improvement Section in general and Plant Breeding department in particular deserve the special compliments for their hard work without which it would not be possible to organize the programme and bring out the report in time.

All appreciation goes to the Technical Staff, Senior Research Fellows, Research Associates, Project staff and Skilled Assistants of Plant breeding and hybrid rice for their active support in completing different works associated with coordination. Thanks to the services extended by Mr. M. Vijaya kumar, Mr. Mohammed Tahseen, Mr. Sadath Ali, Mr. A. Venkataiah, Mr. B. Mandal and Mr. P. Koteswar Rao, Ms. Laxmi Bhavani, Mr. S. Vijay Kumar, Mr. M. Chiranjeevi, Mr. R. Surender, Mr. G. Goverdhan Raj, Mr. K. Sundeeep Raj and Mr. Prem Pal Kumar from NRRI for their commitment in work starting from packing of seed materials, conduct of trials, data recording, data entry and verification and many more activities related to coordinated programme. In addition appreciation to Mr. B. Venkaiah along with Mr. G. Krishna Reddy, Mr. Narsing Rao & Mrs. Vasavi for extensive quality analysis and Mr. P. Vittalaiah for packing of numerous trials and their timely dispatch.

Mr. E. Nagarjuna's contribution to the coordination work is specially acknowledged for his major role in the preparation of trial constitution, seed dispatch, data analysis, typing reports, tables and appendices and in many key inputs including typesetting and layout of this volume.

We are thankful to Mr. Ashfaq Ali, Stenographer for his efficient assistance in typesetting and also handling other related works of AICRIP. Thanks are also due to all the skilled and unskilled assistants of Plant Breeding and Hybrid Rice for their contribution and support.
