

Varieties released/ identified **NAWAGAM**

Main Rice Research Station, Anand Agricultural University Gujarat

The centre for research on paddy was established at Nawagam in 1945 by the Dept of Agriculture of Imperial Government of British ruler. With the formation of the Gujarat State in 1960, the station was developed as the Main Rice Research Station keeping the headquarter of the Rice Specialist and creating various disciplines such as Rice Breeding, Agronomy, Entomology, Plant Pathology and Biochemistry. In 1971, All India Coordinated Rice Improvement Project (AICRIP) was commenced. In 1972, the main Rice Research Station along with its sub-centers was transferred from state administration to the Gujarat Agricultural University (GAU). In 2004, GAU was split into 4 agricultural universities. Since, 2004, this station is under Anand Agricultural university. The mandate of the center includes evolving high yielding and quality varieties of rice, resistant to major pests and diseases under varied conditions of cultivation.



Major contributions to AICRIP

Crop Improvement

- 16 traditional varieties and 34 high yielding varieties (HYVs) were developed at this location

Most popular varieties are:

Early	: GR-3,GR-4, GR-6, Gurjari,GR-7, GR-12, GAR-2, GAR-3
Mid-late	: Jaya, GR-11, GAR-13, GAR-1(Scented)
Late	: Mahsuri, GR-103
Aromatic	: GR-101, GR-102, Narmada, GR-104
Rainfed transplanted	: IR-28, GR-3, GR-7
Upland Drilled	: Sathi-34-36, GR-5, GR-8, GR-9, AAUDR-1, Ashoka 200 F
Salt tolerant	: Dandi

Varieties released/ identified

Sr. No.	Name of the Variety	Parentage	Year of release	DFP	Plant height (cm.)	Average Yield t/ha.
1	GR-5	Selection (NVS-18)	1990	60-65	100-105	1.8-2.5
2.	GR-8	Selection (Vyara-55)	2001	45-50	70-90	1.5-2.0
3.	GR-9	Sathi-34-36 / CR-544-1-2	2001	70-75	110-120	2.3-2.5
4.	AAUDR-1	Sathi-34-36/ DadriKolam	2007	60-70	110-120	2.4 - 2.5
5.	Ashoka-200 F	Kalinga III / IR-64	2006	55-60	90-95	1.5-2.0
6.	SahbhagiDhan (CVRC)	IR-55419-4 /Way Rarem	200	75-80	85-90	3.8-4.5
7.	GAUR-1	Zinnia-31/IR-9-60	1973	85-90	105-110	4.0-4.5
8.	GAUR-2	IR-8 /Kada-176-12	1976	75-80	75-80	5.0-6.0
9.	GR-3	Nawagam-19/IR-9-60	1977	75-80	90-90	5.0-5.5
10.	GR-4	Zinnia-31/IR-8-246	1981	80-85	100-105	4.5-5.0
11.	GR-6	GR-3/Pusa-33	1991	90-95	95-105	4.5-5.0
12.	GR-7	GR-3/Bas.370	2001	85-90	105-115	5.0-6.0
13.	GURJARI	Asha /Kranti	1998	90-95	110-115	6.0-8.0
14.	IR-66	IR-13240-108-2-2-3 /IR-9129-209-2-2-1	1992	80-85	100-105	4.2-5.2
15.	IR-28	IR-833-6-1-1-1/IR-1561-149-1//IR-1737	1975	75-80	90-95	4.0-4.5
16.	GR-12	GR- 7/IR-64	2005	90-95	115-120	5.0-6.5
17.	GAR-2	Gurjari/IET-14714	2011	90-95	110-125	4.5-5.0
18.	GAR-3	Gurjari/IET-14714	2013	95-100	125-135	5.0-5.5
19.	GAUR-10	Zinnia-31/IR-9-60	1973	90-95	99-95	5.0-5.3
20.	GR-11	Zinnia-31/IR-8-246	1977	100-105	110-115	5.5-6.0
21.	SLR-51214	Vijaya/PTB-21	1983	100-105	90-95	4.5-5.0
22.	CR-138-928	Jaya/TKM-6	1983	95-100	100-105	4.0-4.5
23.	DANDI	PNL-2/IET-8320	2001	100-105	115-125	4.5-5.0
24.	JAYA	T(N)-1/T-141	1970	100-105	105-110	5.0-5.5

Sr. No.	Name of the Variety	Parentage	Year of release	DFP	Plant height (cm.)	Average Yield t/ha.
25.	IR-22	IR-8 /Tadukan	1975	105-110	85-90	5.0-5.5
26.	GAR-13	GR-11/IET-14726	2009	100-105	125-130	5.5-6.5
27.	GAR-1 (Aromatic)	Narmada/IET-14708	2010	95-100	120-125	5.0-6.0
28	GAUR-100	Zinnia-31/IR-8-246	1973	95-100	95-100	5.0-5.5
29.	GR-101	IR-8/Pankhali-203	1984	105-110	100-105	4.0-5.0
30.	GR-102	IR-8/Pankhali-203	1987	110-115	110-115	4.0-5.0
31.	GR-103	GR-11/Mahsuri	1991	95-100	75-95	5.5-6.5
32.	GR-104	GR-101/Bas. 370	2002	105-110	120-130	4.0-5.0
33.	Narmada	T(N)-1/Bas.370	1991	105-115	110-125	4.0-5.0
34.	Mahsuri	T-65 /ME-80-2	1968	110-115	110-125	4.5-5.0

Newly released variety

GAR-13

Parentage: GR 11/IET 14726 (TNAU 92094)

Duration: 130 - 135 days

Grain type: medium slender

Yield: 60 - 65 q/ ha

Special characters: Resistant to BLB, leaf blast, neck blast, white backed planthopper. Moderately resistant to stem borer, leaf folder.



Crop Production

Agronomy

- A number of Agronomic practices like nursery raising, green manuring, planting geometry, planting time, sprouted seed technology, manure and fertilizer management including INM, water management, weed management, cropping pattern, bio-fertilizers, tillage, *etc.* have been developed for the farming community growing irrigated rice in different agro-ecologies of the state.

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- Recommendations on System of Rice Intensification (SRI) and Sawant's Integrated Rice Agro-technology (SIRA) have also been made very recently. Similarly, for the drilled paddy, technology for spacing, fertilizer, weed management and proper harvesting time have been developed.

Crop protection:

Plant Pathology & Entomology

- Control measures of bacterial leaf blight, grain discolorations, blast and false smut of paddy have been developed.
- Need based control measures for pest complex of paddy viz., rice stem borer, leaf defoliators, rice leaf and plant hoppers, BPH, WBPH and rice gundy bugs have also been recommended for the farming community of the State.
- Recently an eco-friendly recommendation has been made for biological control of sucking and leaf eating insects by enhancing the population of natural enemies of the pest like spiders.
- To economize the expenditure on insecticides a recommendation has been made for spot application of the granules for the control of pest complex.