Appendix 8

Proforma for Submission of Proposal for Release of Crop Varieties/Hybrids to the Central Sub-Committee on Crop Standards, Notification and Release of Varieties

Content

Summary of the Proposal (in bullets only)

Proforma for Submission of Proposal for Release of Crop Varieties/ Hybrids to the Central Sub-Committee on Crop Standards Notification and Release of Varieties

1	Name	
2	Name of the Crop and the species	
	a)Name of the variety under which tested in the AICRIP trials	
	B) Proposed name of the variety	
3	Sponsoring institute	
4	a)Institution or agency responsible for developing variety (with full Address)	
	b)Name of the person, who helped development of the variety	
	Developers	
	Collaborators	
5	A)Parentage (with details of pedigree, including the source from which variety/inbred/A,B and R lines of the hybrid has been developed)	
	b)Source of the material in case of introduction	
	c)DNA profile of variety/hybrid/inbred/A,B,R lines of the hybrid vis-a vis check variety/line	
	d)Breeding method used	
	E)Breeding objective	
6	State varieties which most closely resemble the proposed variety in general characters	
7	Recommended production ecology (rainfed/irrigated; high/low fertility; season)	
8	Specific area of its adaptation (zones and states for which variety has been proposed) and the recommended production ecology	
9	Description of hybrid/variety	
	a)Plant height	
	b)Distinguishing morphological characters	
	c)Maturity (range in number of days) (from seedling/transplanting to flowering, seed-to-seed)	
	d)Maturity group (early, medium & late, wherever such classification exists)	
	e)Reaction to major diseases under field and controlled condition s(reaction to physiological strains/races/pathotypes/bio-types is to be	

	indicated, wherever possible)			
	f)Reaction to major pests (under field and controlled conditions, including storage pests)			
	g)agronomic features (e.g.,resistance to lodging, shattering, fertilizer responsiveness, suitability to early/ late sown conditions, seed rate, etc.			
	h)Quality of produce a)Grain quality b)Fodder quality			
10	Description of the parents of the hybrid	A line/ inbred 1	B line/ inbred 2	R line
	a)Plant height (cm)			
	b) Distinguishing morphological characters			
	c)Days to flowering			
	d) Days to maturity (range in number of days-from seed-to-seed)			
	e) Is there any problem of synchronization? If yes, its method to overcome			
	f)Reaction to major diseases (under field and controlled conditions, reaction to physiological strains/races/bio-types/pathotypes needs to be indicated wherever possible)			
	g) Reaction to major pests (uder field and controlled conditions, including storage pests)			
	h)Agronomic features (e.g., resistance to lodging, shattering fertilizer responsiveness, suitability to early or late-sown conditions, seed rate, etc.)			
	i)Reaction to stresses			
11	a)Yield data in the coordinated trials (breeding, agronomy, pathology entomology, quality etc) and regional/inter regional district trials year-wise (level of fertilizer application, density of plant population and superiority over local control/standard variety) are to be indicated (to be attached)			
	b)Yield data from national demonstration/large-scale demonstrations(to be attached)			
12	a)Agency responsible for maintaining the breeder seed			
	b)Quantity of breeder seed in stock (kg) Variety/A line/B line/R line/Hybrid			
13	Specific recommendations, if any, for seed production (e.g., staggered sowing, planting ratio of parental lines of hybrids in foundation and certified seeds production, probable areas of seed production)			
14	Vivid presentation (field view, close-up of a single plant and seeds/economic parts)			
15	a)Whether recommended by any workshop, seminar, conference, state seed committee etc.			
	b)If so, the recommendations with specific justifications for release of the proposed variety			
16	Specific area of its adaptation			
17	Acknowledgement of the submission of seed samples of variety/hybrid/inbred/ A, B and R lines of the hybrid from the NBPGR and IC numbers			
18	Package of practices along with attainable yield levels			
19	Information on the acceptability of the variety by farmers/consumers/industry			
20	Any other pertinent information			

Signature of all Contributors

Signature of the Head of the Institution

Checklist for Proforma for Submission of Proposal for Release of Crop Varieties/Hybrids to the Central Sub-Committee on Crop Standards Notification and Release of Varieties

Details/documents	**Attached**	
Parentage with details of pedigree, including the source from which variety/inbred/A,B and R lines of the hybrid has been developed	YES	NO
Source of the material in case of introduction (IC/EC numbers provided by the NBPGR)	YES	NO
Flow chart of details of development of variety/parental lines of hybrids	YES	NO
Molecular/DNA profile of variety/hybrid/A,B,R lines of the hybrid vis-à-vis check variety/line (details of unique amplicons that distinguish markers) with photographs	YES	NO
Detailed description of the hybrid/variety		
Detailed description of the parental lines of the hybrid	YES	NO
Yield data and other data on diseases, insect-pests, quality,etc. from the coordinated trials	YES	NO
Yield data from the national demonstration/large-scale demonstrations	YES	NO
Specific recommendations, if any, for seed production (eg., staggered sowing, planting ratio of parental lines of hybrids in foundation and certified seeds production, probable areas of seed production etc.)	YES	NO
Vivid presentations (field view, close-up of a single plant and seeds) with the help of photographs)	YES	NO
Recommendations of the workshop, conference	YES	NO
Acknowledgement of the submission of seed sample of variety/hybrid/A,B and R lines of the hybrid submitted to the NBPGR	YES	NO
Package of practices	YES	NO
Proforma signed by all co-authors and head of organization	YES	NO
Any other pertinent information	YES	NO

Signature of the Head of the Institution

Table 1. Summarized yield data of the coordinated varietal trials

Name of the proposed variety/hybrid: Adaptability zone :
Production conditions :

Item	Year of testing	No. of trials/ locations	Proposed variety	National check 1	Zonal check 2	Local check 3	Latest released check 4	Qual. Var.1	Qual. Var.2	Qual. Var.3
Mean yield (q/ha) a)Zonal b)Across zones (if applicable)	1st year									
	2nd year									
	3rd year									
Percentage increase or decrease over the checks and qualifying varieties	Weighted mean 2nd year 3rd year weighted mean									
Frequency in the top three groups (pooled for three years)										

Note: Qualifying variety is one which has completed three years of testing in the coordinated trials; Centre-wise data must be appended, otherwise proposal will not be considered

Table 2. Adaptability to agronomic variables

Name of the proposed variety/hybrid: Adaptability zone :
Production conditions :

Nature of experiments	Item	Proposed variety	National check 1	Zonal check 2	Local check 3	Latest released check 4	Qual. Var.1	Qual. Var.2	Qual. Var.3
Sowing date experiments	Yield (q/ha) under recommended sowing date Percentage gain or loss when sown	(i)Early (ii)Normal (iii)Late							
Fertilizer experiments	Yield (q/ha) under recommended dose percentage gain or loss under other doses								
Irrigation experiments (wherever applicable)	Yield(q/ha) with adequate irrigation Percentage gain or loss with irrigation level	(i)Level1 (ii)Level2 (iii)Level3							

Note: specify each date of sowing, fertilizer level and number of irrigations at I, ii, iii

Table 3. Reaction to major diseases

Name of the proposed variety/hybrid: Adaptability zone :
Production conditions :

Disease Name		Item	Proposed variety	National check 1	Zonal check 2	Local check 3	Latest released check 4	Qual. Var.1	Qual. Var.2	Qual. Var.3
Disease 1	Natural	1st year								
		2nd year								
		3rd year								
	Artificial	1st year								
		2nd year								
		3rd year								
Disease 2	Natural	1st year								
		2nd year								
		3rd year								
	Artificial	1st year								
		2nd year								
		3rd year								
Disease 3	Natural	1st year								
		2nd year								
		3rd year								
	Artificial	1st year								
		2nd year								
		3rd year								
	Natural	1st year								
		2nd year								
		3rd year								
Disease 4	Artificial	1st year								
		2nd year								
		3rd year								

Table 4. Reaction to insect-pests

Name of the proposed variety/hybrid Adaptability zone :
Production conditions :

Pest		Item	Proposed variety	National check 1	Zonal check 2	Local check 3	Latest released check 4	Qual. Var.1	Qual. Var.2	Qual. Var.3
Pest 1	Natural	1st year								
		2nd year								
		3rd year								
	Artificial	1st year								
		2nd year								
		3rd year								
Pest 2	Natural	1st year								
		2nd year								
		3rd year								
	Artificial	1st year								
		2nd year								
		3rd year								
Pest 3	Natural	1st year								
		2nd year								
		3rd year								
	Artificial	1st year								
		2nd year								
		3rd year								

Table 5.Data on the quality characteristics

Quality Characteristics	Item	Proposed variety	National check 1	Zonal check 2	Local check 3	Latest released check 4	Qual. Var.1	Qual. Var.2	Qual. Var.3
Parameter-1									
Parameter-2									
Parameter-3									
Parameter-4									

Note: Specify the parameters under first column at 1-14

Table 6. Data on the other important characters

Name of the proposed variety/hybrid Adaptability zone :
Production conditions :

		Item	Proposed variety	National check 1	Zonal check 2	Local check 3	Latest released check 4	Qual. Var.1	Qual. Var.2	Qual. Var.3
1.	Plant height	1st year								
		2nd year								
		3rd year								
2	Days of flowering	1st year								
		2nd year								
		3rd year								
3	Days to maturity	1st year								
		2nd year								
		3rd year								
4	1,000-grain weight	1st year								
		2nd year								
		3rd year								

		Item	Proposed variety	National check 1	Zonal check 2	Local check 3	Latest released check 4	Qual. Var.1	Qual. Var.2	Qual. Var.3
5	Lodging	1st year								
		2nd year								
		3rd year								
6	Others	1st year								
		2nd year								
		3rd year								

Guidelines for Filling-up Proforma for Submission of the Proposal for Release of Crop Varieties/Hybrids to the Central Sub-Committee on Crop Standards Notification and Release of Varieties

1. Name of the crop and the species: The name given to the variety may be indicative of crop name, institute name/code, and number, if any.
2. Name of the variety under which tested: This should include the name under which the variety was tested in the coordinated trials.
3. Proposed name of the variety: This should include the name of the variety that is proposed for its commercial use as per the existing guidelines.
4. Sponsoring institute : This should include the name of the institute/organization that sponsors the variety
5. Institution or agency responsible for developing variety (with full address) : Institute or organization where the variety has been developed along with the full address
6. Name of the person who helped in the development of the variety: Only those workers should be included who have contributed in the development of the variety/hybrid. The Co-workers can be grouped in 2 categories as the 'Developer' and as the 'Collaborator'.

The co-worker should be associated with the project (from which cultivar has been developed) for a period of minimum of 2 years. The proposal should be signed by each of the co-worker and validated by the Head of the Organization.

7. Parentage (with details of pedigree including the source from which variety/inbred/A,B and R lines of the hybrid has been developed).

This should essentially include the details of the base population/source of the material used for developing the variety/parental lines of the hybrid. Pedigree and parentage have to be furnished in details as to how the parents have been developed with flow charts, instead of just code numbers. Flow chart should clearly present the development of the proposed culture with year-wise details of attempting initial cross, followed by handling of segregating generation.

Details, indigenous (IC) or exotic (EC) collections and the number of accessions (Provided by the NBPGR) if used, in the development of the variety or parental lines of hybrids, are to be provided, Please note that this IC number should be different from the one provided by the NBPGR at the submission of the seed sample of the line/hybrid/variety, the once variety/hybrid is recommended by the Variety Identification Committee (VIC).

8. Source of material in case of introduction: Details of the EC (Exotic collection) number, provided by the NBPGR, for the imported material used in the variety development, are to be given.
9. DNA profile of variety/hybrid/inbred/ A,B,R lines of the hybrid vis-à-vis check variety/line Detailed information on the molecular discrimination should be provided. Such information can be developed at crop-based institutes/NBPGR/Other labs. The information should include details of amplicons (name, sequence number, primer sequence) with reference to polymorphic markers.

The relevant good quality high resolution photographs should also be attached.

10. Breeding method used : The method used in developing the variety/parental line
11. Breeding objective : The breeding objective for developing the variety

12. State varieties which most closely resemble the proposed variety in general characters.

The information should include name of the varieties resembling most closely to the proposed variety with reference to different phenotypic traits.

13. Recommended production ecology: The information on zones (name of the states), season and production conditions, whether Rainfed or irrigated, should be mentioned.
14. Description of the hybrid/variety: The average and expected normal range with respect to various characters may be mentioned.
15. Description of parents of the hybrid: The average and expected normal range with respect to characters may be mentioned with reference to inbred/A line/B line/R line.
16. Yield data in coordinated trials (breeding, agronomy, pathology, entomology, quality etc) and regional/inter-regional district trials year-wise (level of fertilizer application, density of plant population and superiority over local control/standard variety) are to be indicated (to be attached) The yield data and other data of coordinated trials and other details as per the format of tables should be appended. Please not that mean is 'weighted mean' and not the 'arithmetic mean'.
17. Yield data from the national demonstration/large-scale demonstrations (to be attached) : The yield and other details as per the format of the tables should be appended.
18. Agency responsible for maintaining breeder seed : Name of the institute/organization/agency responsible for maintenance of the breeder seed of variety/parental line of hybrid
19. Quantity of the breeder seed in stock (kg) : Quantity (kg) of available seeds with reference to variety, hybrid, inbred/AB/R lines of the hybrid are to be indicated clearly.
20. Information on acceptability of the variety by farmers/ consumers/ industry : Any information on such aspects can be given.
21. Specific recommendations, if any, for seed production (e.g. staggered sowing, planting ratio of parental lines of hybrids in foundation and certified seeds production, probable areas of seed production)

The seed production technology and specific requirements should be mentioned clearly along with the proposal. With respect to seed production of hybrid, the staggered sowing of parental lines, if required, should also be clearly indicated. The planting ration of male and female parents in the seed production plots should be indicated. In addition, if there are some other precautions needed, they are to be mentioned clearly. The probable areas of seed production need to be give.

22. Vivid presentation (field view, close-up of a single plant and a seed/economic parts) : The proposal should invariably have coloured pictures with a clear field view of the variety, a close-up of a single plant and seeds/economic parts. Photograph of other plant parts which may help in identification of varieties can also be given. The cover page of the proposal should also have a colored photograph of the variety and should be well-designed.
23. whether recommended by any workshop, seminar, conference, state seed committee etc., Details of workshop/ conference/ seminar/ or state variety release committee be given, which recommended the variety for release.
24. If so, its recommendations with specific justifications for release of the proposed variety: The specific recommendations of the workshop/conference/state variety release committee along with the documents should be attached.
25. Specific area of its adaptation. The zone and states for which variety is proposed.
26. Acknowledgement of the submission of the seed sample of variety/hybrid/inbred/ A,B and R lines of the hybrid from the NBPGR and IC numbers : The acknowledgement certificate issued by the NBPGR providing details of the IC number with respect to variety, hybrid and parental lines of hybrids should be part of the proposal
27. Package of practices along with the attainable yield levels: A note on the package of practices of crop with respect to the variety needs to be provided, highlighting particularly specific requirements of the variety to realize its attainable yield levels.
28. Others

One-page 'executive summary' of the proposal may be provided in the beginning, highlighting specific features of the variety/hybrid. Exaggerated presentation in executive summary needs to be avoided.

Each page of the proposal should be numbered.

Checklist needs to be part of the proposal.

The CVRC proposal should be scrutinized at the level of the Project Coordinator/Project Director before submission to the CVRC. PCs/PDs will give their opinion on the proposal to member-secretary (CVRC).

29. Any other pertinent information: Any other relevant information which is important in reference to the variety, hybrid or parental lines of the hybrids is also required.

Appendix 9

Monitoring of AICRIP Trials with list of observations to be recorded by the cooperators during *kharif,* 2024

Trial name	:	
Date of sowing	:	
Date of planting	:	
Plot size (Gross) m^2	:	
Plot size (Net)m^2	:	
Spacing cm	:	
No of entries	:	
Name of the checks (including local check)	:	
Cultures flowered earlier than the check	:	
Cultures flowered later than checks	:	
Highly promising entries	:	
Poor performing entries	:	
Shift based on duration	:	
Rejection based on (a) mixtures or off types (b) non-uniformity/or segregation and high degree of susceptibility to biotic/abiotic stress.	:	
Any other comments	:	

Note:	Please use additional copies for taking observations in each of the AICRIP trials allotted to the centre & return the same positively to the PI in December month.

Date:

Signature of the Breeder (with seal)