

GUIDELINES FOR DOCUMENTATION AND CONSERVATION OF FOLK VARIETIES



Sustainable Management of Plant Biodiversity Under
National Agricultural Technology Project

GERMPLASM CONSERVATION DIVISION
NATIONAL BUREAU OF PLANT GENETIC RESOURCES
(Indian Council of Agricultural Research)
PUSA CAMPUS, NEW DELHI-110 012

GUIDELINES FOR DOCUMENTATION AND CONSERVATION OF FOLK VARIETIES

1. Whom to Address the Seed Material(s)

- I All folk varieties seeds/vegetative propagules for documentation and conservation should be submitted to the following address:

The Director
National Bureau of Plant Genetic Resources
Pusa Campus, New Delhi - 110 012
Phone: 011-578 3697, 578 6268
EPABX: 578 9208, 578 9211, 578 9214 Extn 209, 210, 227
FAX: 011-585 1495
e-mail: director@nbpgr.delhi.nic.in

2. How to Submit the Proposal

- (I) The material must be accompanied with properly filled in Form-A duly signed by the applicant and countersigned by a claim endorsement authority.
- (II) The endorsement should be either from a State Agricultural University (SAU), Institutions of ICAR or their regional stations or any similar Institution. Endorsement from established Non-Governmental Organisations (NGOs) may be considered depending on the importance of the material.
- (III) The endorsee shall be responsible for the maintenance of variety and supply of seeds to various indenters.
- (IV) The Form-A must be accompanied by complete description of the material as per the format.
- (V) The seed/propagule materials should accompany a declaration to the effect that working stock for supply to users would be maintained by the farmer/community associated with the development or identification of the material.

3. Guidelines for Submission of Genetic Material(s)

(I) *Orthodox seeds*

- (i) A minimum number of 4000 seeds in cross-pollinated crop species, 2000 in self-pollinated, and 500 - 1000 in difficult species, such as some vegetables, medicinal and aromatic plants, wild relatives etc. should be submitted. Supply of additional 500-1000 seeds shall help NBPGR to conserve the seed material as safety duplicate and develop DNA profile.
- (ii) The seeds should be supplied from freshly harvested crop and should not be more than 90 days old.

- (iii) The seeds supplied should be sound, physiologically mature and collected from healthy plants.
- (iv) For providing good quality seeds, and to avoid infection, it is suggested to dry the seed materials in shade, soon after the harvest.
- (v) The potential viability of seeds should be more than 85 per cent in most crop species, except a few, such as cotton, some vegetable crops etc.
- (vi) Seeds should be free from any chemical treatment.
- (vii) Seeds should be packed in good quality paper, muslin cloth or plastic bag(s) with proper identity. If required, the bags should be packed in cardboard boxes to minimise damage and moisture absorption, during transit.

(II) *Recalcitrant/Intermediate Seeds*

These are generally characterised by having large size and high moisture contents (20-80%) at the time of shedding.

- (i) Preferably more than 1000 seeds should be supplied. However, recognising the importance and rarity of materials, even small quantity is acceptable. Supply of additional seeds shall help develop DNA profile.
- (ii) If it should be sent as complete fruit, avoid any injury to the fruit surface. Send the material in aerated polythene bags/cardboard boxes.
- (iii) If the fruits are bulky and difficult to transport, the seeds may be extracted without any injury and transported within 48 hrs packed in saw dust/charcoal/peatmoss etc.
- (iv) Avoid transporting under high temperature (above 30°C). Store and transport preferably in moist conditions between 15-20°C.
- (v) Extracted seeds may be treated with suitable fungicide (0.1% Captan/Thiram powder).
- (vi) Avoid air-drying and water washing of seeds.

3. *Vegetative Propagules*

In case of vegetatively propagated crop species, the germplasm materials/propagules (**tubers, bulbs, rhizomes, cuttings** etc.) have to be supplied to the concerned crop-based designated National Active Germplasm Sites (NAGS-Annexure) for initial establishment and conservation*. A certificate to this effect has to be obtained from concerned NAGS to accompany the proposal.

*The NAGS at a later stage may supply these materials to NBPGR for *in vitro* maintenance or cryopreservation as base collections. Vegetatively propagated species should be supplied as *in vitro* cultures (wherever possible). The NAGS will ensure establishment and supply of *in vitro* generated materials at least of those crops for which protocols are available at NBPGR, but do not yet exist in the national *in vitro* repository or cryobank at NBPGR.

10. Description of the variety

(i) General

(ii) A minimum of three characteristic features for uniqueness or distinctness

(iii) Any other information (such as, reaction to common biotic and abiotic stresses)

1. Breeding method used, if information is available
2. When was it identified or developed
3. Approximate area of cultivation
4. Since how long it is grown
5. Is it part of social or agricultural practice
6. Any other specific recommendation or information

Signature of Farmer/Community

Signature and seal of Endorsee

Designation :

Address :

Place:

Place:

Date:

Date:

CROP BASED NATIONAL ACTIVE GERMPLASM SITES

Crop(s)	Institute/ AICRP/ NRC*	Address	Phone	Fax
Field crops				
Cotton	Central Institute of Cotton Research	Nagpur 440 010	0712-75536	0712-75529
Crops of North-East Region	ICAR, Research Complex, NEH Region	Shillong, Meghalaya	0364-570257	0364-570288
Fodder crops	Indian Grassland & Fodder Research Institute	Jhansi 284 003	0517-444771	0517-440833
Groundnut	NRC for Groundnut	Junagarh 362 001	0285-623041	0285-651550
Jute & Allied Fibers	Central Research Institute of Jute & Allied Fibers	Barrackpore 743 101	033-5356124	033-5350415
Maize	Directorate of Maize Research	IARI, New Delhi 110012	011-5772105	011-5768195
Oilseeds	Directorate of Oil Seeds Research	Rajendranagar, Hyderabad 500 030	040-4015222	040-4017969
Pearlmillet	AICRP on Pearlmillet	Mandore, Jodhpur 342 304	0291-571408	0291-571909
Pulses	Indian Institute of Pulses Research	Kalyanpur, Kanpur 208024	0512-572011	0512-572582
Rapeseed-Mustard	NRC on Rapeseed-Mustard	Sewar, Bharatpur 321 303	05644-24688	0564-22137
Rice	Central Rice Research Institute	Cuttack 753 006	0671-643015	0671-641744
Rice & Lathyrus	Indira Gandhi Agricultural University	Raipur 492 012	0771-425219	0771-424532
Small millets	AICRP on Small millets	UAS, Bangalore 560 065	080-3332387	080-3332387
Sorghum	NRC on Sorghum	Rajendranagar, Hyderabad 500 030	040-4015349	040-4016378
Soybean	NRC on Soybean	Indore 452 001	0731-364879	0731-470520
Sugarcane	Sugarcane Breeding Institute	Coimbatore 641 007	0422-476261	0422-472923
Tobacco	Central Tobacco Research Institute	Rajahmundry 533 105	0883-448995	0883-448341
Under Utilised crops	AICRP on UU & UEC	NBPGR, New Delhi 110 012	011-5784835	011-5784835
Wheat & Barley	Directorate of Wheat Research	Karnal 132 001	0184-271830	0184-251390
Horticultural/Agroforestry crops				
Agroforestry spp	NRC on Agroforestry	IGFRI Campus, Jhansi 284003	0517-442446	0517-440833
Arid fruits	Central Institute on Arid Horticulture	Bikaner 334 006	0151-250147	0151-250145
Banana	NRC for Banana	Tirchy 620 017	0431-770797	0431-770564
Cashew	NRC for Cashew	Puttur, Dakshin Kanada 574 202	08251-20992	08251-24350
Citrus species	NRC for Citrus	Nagpur 440 010	0712-500572	0712-500813
Grapes	NRC for Grapes	Pune 412 307	020-6914246	0212-814246
Leechi, Bael, Aonla & Jackfruit	Central Horticultural Experiment Station	IIHR, Ranchi 834 010	0651-260207	0651-260341
M & A P	NRC on M & AP	Boriavi, Anand 387 310	0268-78602	0268-78601
Mango	Central Institute for Sub Tropical Horticulture	Lucknow 226 002	0522-841022	0522-841025
Mulberry	Silkworm and Mulberry Germplasm Station	Hosur 635 109	04344-22013	04344-21149
Oil Palm	NRC on Oil Palm	Iluru 534 003	08812-75409	08812-75531
Onion & Garlic	NRC for Onion & Garlic	Rajgurunagar, Pune-410505	02135-22026	02135-24056
Orchids	NRC for Orchids	Tadang, Gangtok 737 102	03592-57954	03592-57954
Ornamentals & Non	National Botanical Research Institute	Lucknow 226 001	0522-205848	0522-282881
Traditional crops	Central Plantation Crops Research Institute	Kasaragod 671 124	0499-430894	0499-430322
Plantation crops	Central Potato Research Institute	Shimla 171 001	0177-224830	0177-224460
Potato	Central Potato Research Institute	Shimla 171 001	0177-224830	0177-224460
Spices	Indian Institute of Spices Research	Calicut 673 012	0495-371410	0495-370294
Temperate Horticultural Crops	Central Institute of Temperate Horticulture	Sanatnagar, Srinagar 190 005	0194-433104	0194-433104
Tropical fruits	NBPGR Regional Stn	Shimla 111 001	0177-252453	0177-213853
Tuber crops	Indian Institute of Horticultural Research	Hassarghatta 560089	080-8466471	080-8466291
Vegetables	Central Tuber Crops Research Institute	Bangalore 560 089	0471-598431	0471-590063
	Indian Institute of Vegetable Research	Shreekrishnam, Thiruvananthapuram 695 017	0542-635236	05443-29007
		Varanasi 221 005		

*AICRP: All India Co-ordinated Research Project;

NRC: National Research Centre;

M&AP: Medicinal and Aromatic Plants