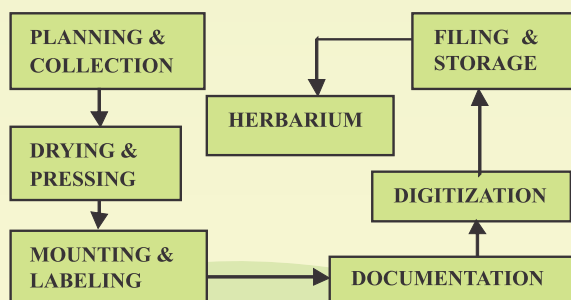


# National Herbarium of Cultivated Plants (NHCP)

**H**erbarium is a long-term preservation of dried plant specimens, mounted on appropriate sheet, labeled and stored for further reference.

Information available in the herbarium sheet serves the base for students, teachers and researchers for study purpose.

This information pamphlet facilitates preparation of an **ideal herbarium specimen** (providing steps and illustrations) for better understanding on technical aspects of a herbarium specimen.



**1. Planning and collection:** Plan from where and what to collect. Randomly collect 8-12 cm long twig (at least three in no.) with flowers or fruits with help of cutter/knife (if herbs, uproot with intact roots through digging); write date, locality details and collector's number on the label (tag) and tie; put labeled twig inside polythene bag (tied with rope/rubber band).

**Equipments required for collection:** polythene bags, cutter, knife, price-tag, field note book, camera, pencil, scale, ball point pen, pocket lens, blotting papers/ newspapers, rope/rubber etc.



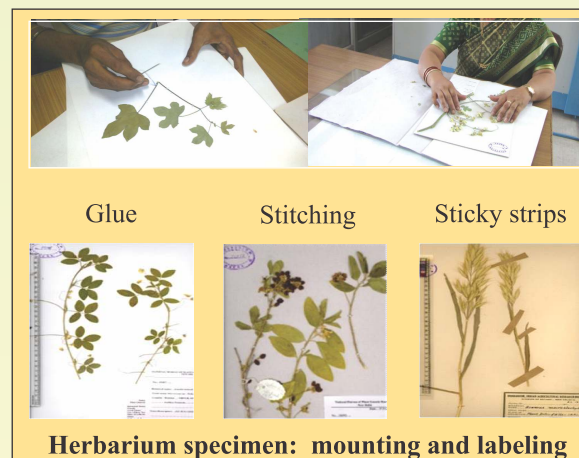
Characters of the plant (leaf and flower colour, which are lost on drying, height for trees or shrubs), flower colour, size of leaflets (which may be shed on drying) need to be mentioned in the 'notes' section of Herbarium Record. Note data on the prescribed field label (as below):

Herbarium Record ICAR-NBPGR, New Delhi	
Botanical name	.....
Family	.....
Local name	.....
Locality (place, town, dist., state)	.....
Date of collection	.....
Coll.'s name & no.	.....
Field collection/grown in experimental conditions	.....
Identified by	.....
Nature of specimen (adult plant/ seedling, vegetative/ flowering/ fruiting, etc.)	.....
No. of specimens	.....
Additional material supplied (seed, fruit, economic product)	.....
Uses, if any, in locality of collection	.....
Notes	.....
Herb. specimen no.	.....

**2. Drying and pressing:** Press the specimens between blotting papers along with the cardboards and arrange alternatively (newspaper sheets can be used) in the field press (or under uniform weight using suitcases, books, etc.). Thinning of the specimen can be done to avoid overlapping of plant parts (branches, leaves and flowers); spread neatly all parts at the time of changing the blotters. Repeat changing blotters till specimens are stiff (not limping). To prevent infection/infestation, poisoning of the specimen done with saturated solution of mercuric chloride diluted with alcohol (1:9). Additionally naphthalene balls are powdered finely and sprinkled over the herbarium specimen in routine (every three months).



**3. Mounting and labeling :** For mounting fix dried specimen on mounting sheet (with a tag) using thread and needle, glue or sticky strips (see Box). Avoid use of cello tape.



**Herbarium label:** is pasted on the right hand side corner of the herbarium sheet to provide the essential information of the specimen. The label should include the following details:

ICAR-National Bureau of Plant Genetic Resources New Delhi	
Herb. No. ....	Date. ....
.....	
Botanical Name .....	
Local Name ..... Family .....	
Locality/Habitat .....	
.....	
Notes/Descriptors .....	
.....	
Coll.'s Name & No. ....	

**4. Documentation and digitization:** A referable identity number (HS no.) is provided to those specimens qualifying for inclusion in herbarium. Herbarium data is documented digitally periodically for wider use of herbarium.

Different fields are used like Herbarium Number, Botanical Name, Author, Var. /Subsp., Family, Synonym, Common Name, Locality (State, District and Village), Collector's Name & Number and Date of Collection for data recording.

S. No.	Herb. No.	No. Spec.	Coll.'s No.	Loc.	Coll. Per.	Remarks

**Index card**

**Indexing:** Recording of data for individual specimen in index card for easy retrieval and reference.



**Putting specimen under flat-bed scanner**

**Images stored in Virtual Herbarium**

**Digitization:** Specimens are digitized before storing in cabinets (scanning using standard procedure)

**5. Filing and storage:** Herbarium specimens to be included are given low temperature treatment at  $-20^{\circ}\text{C}$  for 48 to 72 hrs. (packed and placed in the deep freezer) then placed in respective family, genus/ species folders (arranged systematically and stored in insect/light/dust proof cabinets).



**Specimens arranged in herbarium cabinets**



<http://www.nbpgr.ernet.in>

**For further details, contact:**

**Dr. Anjula Pandey**

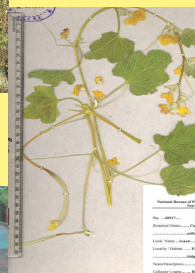
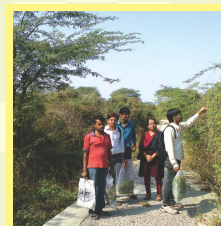
[anjula.pandey@icar.gov.in](mailto:anjula.pandey@icar.gov.in); Call at: 011-25848405

**National Herbarium of Cultivated Plants (NHCP)  
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## **Herbarium Procedures** **(Guidelines for the Beginners)**



## **NATIONAL HERBARIUM OF CULTIVATED PLANTS (NHCP)**

**Division of Plant Exploration and  
Germplasm Collection**

**ICAR-National Bureau of Plant Genetic Resources  
Pusa Campus, New Delhi 110 012, INDIA**