

Technical Note
Brooksville Plant Materials Center

No. 35

Brooksville, FL

1997

Collecting Plant Materials

Introduction

Plant Materials that have been identified, or have the potential for being useful in meeting conservation needs, are collected for evaluation and testing at the Plant Materials Center (PMC). Collections are made from a wide area within the occurrence of the species to insure diversity of ecotypes and variability within a species. Adequate ecotypes of each species are collected to insure, insofar as possible, that ecotypes occurring in the areas of planned use are represented in the assembly of the plant materials. When the collection is received at the PMC each species collected from each site is assigned an identifying accession number that remains with the material throughout the evaluation and testing process. The accession(s) from the assembly exhibiting the best characteristics for a particular conservation use is selected and subsequently released for commercial production.

Method of Collection

Vegetative materials can consist of a single plant, a clump, or several cuttings (if it can be propagated from cuttings) from an identified plant. Choose the superior plant in each location. If a location contains only a small population of the requested material, no more than 50% should be removed from the site. A shovel and clippers may be used for the vegetative material collection. Each collection should be kept independent and moist. Wrapping in a wet newspaper, towel, or separate white or clear plastic bag will avoid drying. Dark plastic bags build up heat rapidly and could damage the collected material. Each collection should be well documented as to the location of the collection site and other important information. The material should be maintained in a cool, shady area until it can be received at the PMC for proper handling.



Seed collection is best done when the seed heads are dry (free from rain or dew). If the **seed** is collected moist, dry as soon as possible. Mature **seed** provides the most viability for germination. Check each collection for filled **seed** and then attempt to get the equivalent of one-fourth pound of seed. Mature seed of some grasses is easily harvested by wrapping the hand around the **seed** head and pulling. The **seed** will strip off into your hand. Other grasses require cutting off the seed head as the **seed** do not freely separate from the seed head or are too numerous to harvest. Usually, the easier the seed comes off the **seed** head, the more mature the seed. Collect the **seed** from the most superior plant, or plants if they exhibit the same characteristics. If the plant, site or location is different make a separate collection. Paper containers (bags, envelopes, etc.) are best for collecting and transporting seed. Each collection should be well documented as to the location of the collection site and other important information.



Recording Collection Location

Information pertaining to the collection location and site is important not only for identification reasons but, in the event additional material is desired from a specific location, persons other than the collector would be able to reach the site. Information may be recorded on the "USDA Seed Sample Envelope" or "Plant Collection Information" (Seed or Vegetative) form. Provide the information printed on the envelope, or form, to the best of your ability. Under remarks, special plant or site characteristics and additional site location information should be shown.

Examples of additional site location information are:

- Landmarks - 2.3 miles due E. of fire tower, Skyview Forest.
Hwy.34, E. side of road, across from Blue Sky Cemetary.
.5 miles down dirt road, 1.2 miles W. of CR-32 at edge of pond
- Roads - 1-75, at mile marker 129, West side.
US Hwy 41, 0.2 miles S. of junction W/Hwy 50.
CR-121, at sharp curve, 1.1 mile W. of Starville, N side of road.
- Fields - 500 ft due west of Tyler Road in a pasture; about 250 ft due east of a large cypress dome (John James Farm).
[When possible use some other permanent landmark like a housing development, creek, river, etc. , since land ownership can change.]

Distance and direction to nearest city or community.

Plants growing in association with the collected material should give an indication of soil, drainage, etc., for example: sedges, wiregrass, cedar trees, planted sand pine that are doing poorly because of soil.

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U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SEED SAMPLE ENVELOPE

SCIENTIFIC NAME		COMMON NAME
SPECIES AUTHOR (PMC ONLY)		BOTANICAL VARIETY NAME
CULTIVAR		BOTANICAL VARIETY AUTHOR
STATE	COUNTY	ZONE
SECTION	TOWNSHIP	RANGE
N. LATITUDE	W. LONGITUDE	MLRA
SOIL SERIES & TEXTURE	ELEVATION (FEET)	ELEVATION (METERS)
PLANTS GROWN IN ASSOCIATION		
REMARKS		

ACCESSION
NUMBER

DATE

PLANT COLLECTION INFORMATION
(Seed or Vegetative)

Scientific name _____ Common name _____

Species author * _____ Botanical variety name _____

Botanical variety author * _____ Cultivar _____

Date collected _____ Collector's name _____ Collector's hq. address _____

- Circle one of each
- a. Number of plants collected from -- (single) **(2-6)** (6 plus)
 - b. Type of material collected -- **(seed)** (veg)
 - c. Plant type -- **(grass)** (legume) (vine) (forb) (shrub) (tree)

Location collected: State County _____ Zone _____ Section _____

Township _____ Range _____ N. Latitude _____ W. Longitude _____ MLRA _____

Soil _____ Elevation _____ feet (or) _____ meters
(series) (texture)

Percent slope _____ Exposure _____ Avg. precipitation _____ inches (or) _____ mm

Plants growing in association _____

Additional information _____

*Items to be completed by **PMC**

Complete information (as far as possible) on each item is **needed** for each collection. It will enable prompt and easy entry of plant accessioning data into the computer.

Seed Collection: Check each collection for filled **seed** and then attempt to get the equivalent of one-fourth pound of **seed**. Collect either **seed** material (heads, short stems, etc.) or clean **seed**, whichever is easiest. Limit **a** collection to a specific soil or site and make a separate collection if the site or location is different. Watch for superior plants that display unusual characteristics and record observations. **Seed** from an individual plant or from several plants can constitute **a** collection; clearly show on form the type of collection. Put dry **seed in** either paper bags or in cloth **sacks**.

Vegetative Material Collection: Collect **only** good healthy material; wrap roots or cuttings With moist paper or cloth; place material in plastic bag with a few small holes; box and mail immediately.

Include this information sheet inside the container, write the name of the plant on outside. Use the back of this **form** for additional information or a sketch of the collection location. **Unless** specific instructions are provided, collections are to be sent to the PMC serving the **state**.

Location: For **states** where General Land Office Surveys do not exist, identify map locations to the nearest one-half minute latitude and longitude.