

## Be Part of the Solution!

Conservation needs are many. Plants supply numerous solutions. Once needs are identified, the Plant Materials Program searches for plants to address the problem. Testing is done at the Plant Materials Center (PMC) and away from the PMC in “real life” situations. Field offices and other agencies assist in evaluating the off-PMC plantings. Local testing opportunities include **field plantings, conservation field trials, and special plantings**. Attached is an explanation of each planting type, the steps needed to participate, and the species available for planting in 2013.

### Field Plantings



*Field Plantings -- Mongolian pine (left) and Meyer's spruce (right) are available in 2013*

### Conservation Field Trials



*Conservation Field Trial -- clipping grass plots for forage production data at Bison, South Dakota*

### Commercial Seed Production



*Commercial Seed Production -- field of 'Lodorm' green needlegrass near Beach, North Dakota*



*Conservation Field Trial -- grass plots near New Rockford, North Dakota*

### Special Plantings



*Planting native grasses at the zoo in Minot, North Dakota*



*Species display near Valley City, North Dakota*



*Butterfly garden at the Fond du Lac Reservation in Minnesota*

## Plant Materials Available for North Dakota, South Dakota, and Minnesota – 2013

### I. Field Plantings

#### Purpose:

- To assess the conservation potential of plant materials and plant technologies under a variety of soil, climatic, and land uses. Field plantings are conducted on a producer's land.
- To provide technical information for use in tech guides, publications, etc.

#### Field Office Responsibilities:

- Provide assistance with seed/plants establishment.
- Provide annual evaluation and data collection for 3-5 years (depending on species; evaluation forms will be provided annually).

#### Requests for plant materials for Field Plantings:

- Field offices submit a completed [NRCS-ECS-9 form](#) "Plan for Field Plantings" to their PM contact person or the PM Specialist.
- Requests will be presented to the State Plant Materials Committee for approval.
- Plants/seed will be distributed to cooperating field offices prior to spring planting.

Plant Material	Purpose	Sites Needed	Plants per site	Preferred MLRA
<b>TREES</b>				
Mongolian Pine 9094403	Windbreak, Multi-row (WBMR ) Wildlife (WLDF)	5 sites per state (MN, ND, SD)	25 plants	statewide (ND, SD, MN)
9094403 ( <i>Pinus sylvestris</i> var. <i>mongolica</i> ) is a composite of five accessions. Commonly available Scots pine comes primarily from European and Eurasian seed sources. It has become naturalized throughout much of the upper Midwest. Mongolian Scots pine, tested at Off Center Evaluation Planting sites, has performed well over the past 14 years. Seed for the original trees planted in America came from selected stock that had completed a portion of a tree improvement program in China. Five accessions were planted at multiple locations in Minnesota, South Dakota, and North Dakota. It exhibits higher vigor ratings and shows more disease and insect resistance than commonly available Scots pines. It would be interesting to determine its resistance to the pine wilt that has affected many parts of the Midwest. Mongolian pine grows 30-50% faster than ponderosa pine. In the juvenile stage it is subject to winter yellowing similar to the Eurasian sources of Scots pine.				
Meyer's Spruce 9094356	Wildlife (WLDF) Windbreak, Multi-row (WBMR)	5 sites per state (MN, ND, SD)	25 plants	statewide (ND, SD, MN)
9094356 ( <i>Picea meyeri</i> ) is introduced from northern China and Inner Mongolia (a grassland region of P.R. of China). Size and coloration is similar to Colorado Spruce, but is more drought tolerant than Colorado Spruce. This accession appears to have less insect/disease problems than Colorado Spruce. It has slower growth in early years, but once established, growth rate is similar to Colorado Spruce.				

## II. Foundation Seed for Certified Seed Production - 2013

VARIETY	COMMON NAME
Native - Grasses	
Badlands ecotype	little bluestem
Itasca germplasm	little bluestem
Bad River ecotype	blue grama
Bison	big bluestem
Bonilla	big bluestem
Dacotah	switchgrass
Forestburg	switchgrass
Mandan	Canada wildrye
Pierre	sideoats grama
Red River germplasm	prairie cordgrass
Rodan	western wheatgrass
Tomahawk	Indiangrass
Lodorm	green needlegrass
Native - Forbs/Legumes	
Bismarck germplasm	purple prairieclover
Bismarck germplasm	stiff sunflower
Medicine Creek germplasm	Maximilian sunflower
Bismarck germplasm	narrow-leaved purple coneflower
Introduced - Grasses	
Mankota	Russian wildrye
Manifest	intermediate wheatgrass
Manska	pubescent/intermediate wheatgrass
Reliant	pubescent/intermediate wheatgrass
Nordan	crested wheatgrass

- All foundation seed is sold through the NDSU Foundation Seedstocks Program and payment must be received before the seed is shipped. Price adjustments are made in January of each year.
- NRCS-ECS-9 forms are not required for foundation seed requests. Seed growers or field office personnel should contact the Plant Materials Specialist directly.

### III. Special Plantings - 2013

Limited amounts of seeds and/or plants will be made available for special purposes such as demonstration, promotion, and research. Specific information is shown for sweetgrass and white sage below. No data collection is required. A completed [NRCS-ECS-9 form](#) is preferred. Requests for special plantings should be made through the plant materials contact person, the Plant Materials Specialist, or Plant Materials Center staff. Call for species/variety availability. Requests will be considered during the State Plant Materials Committee meeting.

Plant Material	Purpose	Plants or PLS# Available	Maximum per site	Preferred MLRA
<b>GRASSES</b>				
Sweetgrass 9063128	Culturally Significant (CUSI)	per Committee recommendation	10 plants	statewide
<p>Sweetgrass (<i>Hierochloe odorata</i>) is an early cool-season grass that is characteristic of wet, sandy soil near riverbanks and lakeshores. Uses of sweetgrass are numerous. The source of sweetgrass's aroma, which smells like vanilla, is called coumarin. This plant compound has been used for hundreds of years as a plant extract for both fragrance and medicinal use. Native American cultures burn braided sweetgrass twists in traditional ceremonies, using the sweet scented smoke as a purifying incense. This accession of sweetgrass was originally collected along the Missouri River near Bismarck, ND. Plants should be spaced 1 to 3 feet apart on a prepared garden-like site, and hand watered until established. Sweetgrass spreads rapidly by underground rhizomes. After establishment, plants increase rapidly if weeds are controlled. It is not unusual for 10 plants to increase to hundreds of plants the second year, and thousands of plants the third year. Successful plantings may be used as propagation beds after establishment. Cooperators are limited to 10 plants each. Plants will be shipped in small pots approximately 2 ½ inches square and 3 inches deep.</p>				
<b>FORBS</b>				
White Sage 9082748	Culturally Significant (CUSI)	per Committee recommendation	10 plants	statewide

White sage (*Artemisia ludoviciana*) is an herbaceous, silver-white fuzzy rhizomatous forb with 10 to 30-inch leafy stems branching upward. Numerous tiny, gray, flower heads are produced in August to September. Growth form is quite variable depending on site and climatic conditions. It is drought tolerant and likes sandy soil, but persists on a variety of sites. “Man Sage” as it is called by the Cheyenne, is an important ceremonial plant and was used medicinally for various ailments by Native Americans. It has a strong sage aroma. This source is a vegetative composite of plants collected on or near five reservations in the three-State area. Plants should be spaced 1 to 3 feet apart on a prepared garden-like site, and hand watered until established. White sage spreads aggressively from rhizomes beginning the second year if weeds are controlled. Successful plantings may be used as propagation beds after establishment. Cooperators are limited to 10 plants each. Plants will be shipped in small pots approximately 2 ½ inches square and 3 inches deep.

#### IV. Conservation Field Trials – 2013

**Purpose:**

- Field studies designed to promote and further evaluate the adaptability of selected plant materials.
- To provide technical information for use in tech guides, publications, etc.

**Field Office Responsibilities:**

- Provide assistance with seed/plants establishment.

**Requests for Conservation Field Trials:**

- Field offices submit a completed [NRCS-ECS-9 form](#) “Plan for Field Plantings” to their PM contact person or the PM Specialist.
- Requests will be presented to the State Plant Materials Committee for approval.
- Plants/seed will be distributed to cooperating field offices prior to spring planting.

Plant Material	Purpose	Plants or PLS# Available	Sites Needed	Preferred MLRA
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**GRASSES**

‘Manifest’ intermediate wheatgrass	Pasture/Hayland (PAHY)	50 lbs	2 in MN, 2 in ND, 1 in SD	Statewide
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Manifest intermediate wheatgrass (*Thinopyrum intermedium*) is an introduced cool-season perennial sod forming grass selected for forage and seed yield, spring vigor, and resistance to leaf spot disease. Manifest has exhibited consistent high forage yield and improved persistence under grazing over a wide geographic area. Manifest appears to be adapted to a wide range of coarse to fine textured soils. It is similar to other intermediate wheatgrass varieties listed as moderately tolerant to saline soils. Intermediate wheatgrass is palatable to all classes of livestock and wildlife and provides excellent spring, early summer, and fall pasture. It provides good quality hay when harvested at the proper time (boot stage). Eight inches of new growth should be attained in the spring before grazing is allowed on established stands. Six inches of regrowth before killing frost should be maintained following grazing or haying. Manifest is easily established when seeded into a well packed weed-free seedbed. The optimum seeding depth should place the seed not more than 1 inch from the soil surface. Establishment can be improved by using moisture conserving seedbed preparation practices and seeding methods to maximize the available soil moisture on the site. If weed competition becomes a problem, herbicides can be applied. The seeding rate of Manifest is similar to other intermediate wheatgrass varieties. A seeding rate of 8.5 pounds PLS/acre (17 seeds/ft<sup>2</sup>) is recommended for the western Dakotas, and 10 pounds PLS/acre (20 seeds/ft<sup>2</sup>) for the eastern Dakotas and Minnesota.