## **Active Plant Releases**

The Bismarck PMC has cooperated with other agencies and organizations in the release of adapted plant materials. In addition to cultivars (or varieties), there are prevarietal releases which are designated as either ecotypes (e) or germplasm (g).

Mandan Canada wildrye Lodorm green needlegrass Nordan crested wheatgrass Garrison creeping foxtail Pierre sideoats grama Killdeer sideoats grama Rodan western wheatgrass Bonilla big bluestem Forestburg switchgrass Tomahawk Indiangrass Bison big bluestem Dacotah switchgrass *Reliant* intermediate wheatgrass Mankota Russian wildrye Manska pubescent wheatgrass Badlands little bluestem (e) Bad River blue grama (e) Bismarck buffalograss (e) Red River prairie cordgrass (g) NU-ARS AC2 crested wheatgrass Havmaker intermediate wheatgrass Antelope slender white prairieclover (g) Bismarck purple prairieclover (g) Bismarck stiff sunflower (g) Medicine Creek Maximilian sunflower (g) Bismarck narrow-leaved purple coneflower (g) Midwest Manchurian crabapple Cardan green ash Oahe hackberry Sakakawea silver buffaloberry Centennial cotoneaster McDermand Ussurian pear Homestead Arnold hawthorn CanAm hybrid poplar Regal Russian almond Legacy late lilac

## **Training and Outreach**

Tours and training for the general public or special interest groups are available upon request. Traditionally, the PMC staff hosts annual training for NRCS field office personnel. Other outreach activities include distribution of plants which are part of the heritage of the Plains and Woodland Indians, and educational demonstration plantings.

## **For More Information**

To obtain information on conservation uses for plant releases, contact your local NRCS office. Seed or plants can be obtained from a commercial seed vendor or nursery in your area, or call your NRCS office for local vendors.

## Websites

For additional plant information, visit the following websites: http://plants.usda.gov/ http://www.plant-materials.nrcs.usda.gov/

# **Tours Available**

Visitors are always welcome. The center is open Monday through Friday from 8:00 AM to 4:30 PM. Please call the PMC to ensure that a staff member will be available. The PMC is co-located with Lincoln-Oakes Nurseries south of Bismarck across from the city airport. Our address is:

USDA NRCS Plant Materials Center 3308 University Drive Bismarck, ND 58504 Phone: 701.250.4330 Fax: 701.250.4334

#### May 2004

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United States Department of Agriculture Natural Resources Conservation Service Plant Materials Center Bismarck, North Dakota



# Bismarck Plant Materials Center



## Who We Are

Plants are an important tool for conservation. The Bismarck Plant Materials Center (PMC) is part of the USDA Natural Resources Conservation Service. It is one of a network of 27 centers nationwide dedicated to providing vegetative solutions to conservation problems. The Plant Materials program has been providing conservation plant materials and technology for 70 years.

### The PMC in Bismarck serves a wide variety of land users from the high plains and prairies of North and South Dakota to the corn belt and forests of Minnesota. This is a complex and productive area. People depend on its cropland and grazing lands for food and fiber, its coal for energy, its lakes and woods for recreation and serenity, and its wetlands and open spaces for wildlife and beauty.

# The Plant Materials Process

The Plant Materials program is devoted to promoting and providing plant materials for conservation, including national conservation programs. Following is the process used to meet these goals. Other Federal and State agencies, universities, and nonprofit organizations are important partners in the process.

- Assemble plants or seed collections from representative areas.
- > Evaluate initial performance.
- Determine method of increase and potential for release.
- > Document production procedures.
- Evaluate cultural and management techniques.
- > Test under actual use conditions.
- > Release new plants with cooperators.
- Produce high quality, pedigreed seed/plants and make available to commercial growers and nurseries. Foundation seed is produced at the Bismarck PMC, cooperatively with ND Foundation Seedstocks, and made available to commercial growers.

# Climate

Plants in the Northern Great Plains must be adaptable to the extremes of heat, cold, wind, and drought, as well as extreme variation in day length from summer to winter. The temperature extremes vary from -40 degrees F to summer highs of close to 110 degrees F. At the PMC, where most testing is done, the average precipitation is between 15 and 16 inches, with 76 percent falling during the growing season. The Plant Hardiness Zone is 3b. The soils are a Mandan silt loam. The elevation is 1,653 feet above sea level. Along with the PMC at Bismarck, a diversity of off-center sites across North Dakota, South Dakota, and Minnesota are used as testing locations.

The demands people make on the natural resources often cause erosion and other environmental problems. The plant material needs for the Northern Plains region fall into four broad categories.

 Adapted grasses, forbs, legumes, trees, and shrubs are needed for prairie ecosystem restoration, wetland and riparian sites, urban conservation, filter strips and nutrient management, saline and alkaline sites, wildlife food plots, and alternative income crops.



• Conservation plant information, education, and outreach activities.



 Tree and shrub technology development as related to windbreak improvement, streambank and lakeshore stabilization, and agroforestry.



 New technology as required for managing and monitoring the long-term conservation benefits.

