

# Foundation Seed Update



from the Plant Materials Center, Bismarck, North Dakota

by Dwight Tober, Plant Materials Specialist

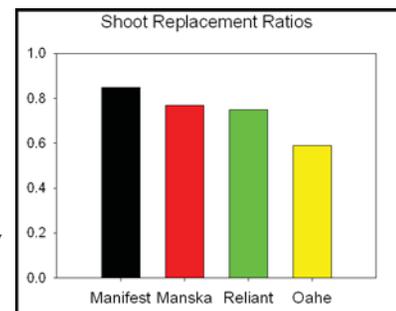
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## New Intermediate Wheatgrass Released

'Manifest' intermediate wheatgrass was cooperatively released in 2007 by the USDA-ARS Northern Great Plains Research Laboratory and the USDA-NRCS Bismarck Plant Materials Center (PMC). Manifest has demonstrated excellent hay yields over a wide geographic area and improved persistence under grazing when compared with other varieties. When grazed, Manifest has higher shoot replacement ratios than other varieties which results in increased stand longevity. We recommend Manifest to be grown in mixtures with alfalfa for hay and pasture. It is also being tested as a possible biofuel crop.

A 1.2-acre foundation field was seeded at the PMC in the spring of 2006. Approximately 1,100 pounds of seed were harvested in July 2007. The 2007 seed crop has been sold,

but we are adding names to the waiting list for 2009 delivery.



### Who We Are

The Bismarck Plant Materials Center (PMC) is one of 27 PMCs operated by the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). The Bismarck PMC serves the States of North Dakota, South Dakota, and Minnesota. It is the mission of the plant materials program to develop plant materials and plant science technology for the conservation of our natural resources. The Bismarck PMC was established in 1954 as part of the Soil Conservation Service, now Natural Resources Conservation Service.

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## The Variety vs. Local Ecotype Debate

NRCS recognizes four types of releases. These include cultivar (also referred to as variety), tested, selected, and source identified. New procedures that allow for increased genetic diversity are being used to develop tested and selected types of release. Source identified (local ecotypes) are often promoted for local restoration efforts as well as other purposes. The pros and cons of each are becoming more of an issue with different agencies and organizations. Invasive species, climate change, and new DNA research are adding fuel to the fire. The attached document, *Five Reasons to Choose Native Grass Releases*, details some of the benefits of using developed seed sources such as performance testing, known area of adaptation, seed quality, and cost. Additional copies in the trifold brochure format can be ordered from the Bismarck PMC, or downloaded from the PMC website at <http://Plant-Materials.nrcs.usda.gov/ndpmc>.

## Seed Inventories

Foundation seed harvest in 2007 was above average, and we are beginning to replenish the shelves of some releases. Seed production is limited to approximately 60 acres at the PMC and field size is generally less than 2 acres. Some releases may be out of production for a few years as we rotate fields. We do maintain a waiting list and those on the list will be notified when seed is available.

**Foundation seed releases that are available and in good supply right now at the PMC include: 'Tomahawk' Indiangrass, 'Badlands' little bluestem, 'Dacotah' switchgrass, 'Forestburg' switchgrass, 'Mankota' Russian wildrye, 'Manska' pubescent wheatgrass, 'Reliant' intermediate wheatgrass, 'Red River' prairie cordgrass, 'Medicine Creek' Maximilian sunflower, and 'Bismarck' purple prairieclover.**

Seed that is currently sold out includes 'Nordan' crested wheatgrass, 'Rodan' western wheatgrass, 'Mandan' Canada wildrye, and 'Manifest' intermediate wheatgrass. All other releases vary in quantity from moderate to small amounts on the shelf. Please call for further information.

## Foundation Seed Order Information 2008

Following are prices of Foundation and Select Class grass and forb seed produced by the Bismarck PMC. This seed is for sale through NDSU Foundation Seedstocks to commercial seed growers for the sole purpose of certified seed production.

To order seed, contact Dwight Tober by email at [Dwight.Tober@nd.usda.gov](mailto:Dwight.Tober@nd.usda.gov) or call (701) 530-2075. Once ordered, a confirmation letter will be sent from the PMC and billing will be sent from NDSU Foundation Seedstocks. Payment in full to NDSU Foundation Seedstocks must be received before seed shipment. If payment is not received within 30 days, the order will be cancelled. Prices are based on a Pure Live Seed (PLS) pound. Shipping charges (in the U.S.) will be \$1.00/PLS pound.

RELEASES	CLASS*	COMMON NAME	COST/PLS LB
<b>Native Warm-Season Grasses</b>			<b>U.S. Dollars</b>
Badlands ecotype	Select (G2)	little bluestem	18.00
Itasca germplasm	Select (G1)	little bluestem	18.00
Bad River ecotype	Select (G2)	blue grama	15.00
Bison	Foundation	big bluestem	18.00
Bonilla	Foundation	big bluestem	18.00
Dacotah	Foundation	switchgrass	8.00
Forestburg	Foundation	switchgrass	8.00
Pierre	Foundation	sideoats grama	15.00
Red River germplasm	Select (G1)	prairie cordgrass	95.00
Tomahawk	Foundation	Indiangrass	18.00
<b>Native Cool-Season Grasses</b>			
Lodorm	Foundation	green needlegrass	8.00
Mandan	Foundation	Canada wildrye	not available in 2008
Rodan	Foundation	western wheatgrass	not available in 2008
<b>Introduced Grasses</b>			
Mankota	Foundation	Russian wildrye	6.00
Nordan	Foundation	crested wheatgrass	not available in 2008
Manifest	Foundation	intermediate wheatgrass	sold out for 2008
Manska	Foundation	pubescent wheatgrass	6.00
Reliant	Foundation	intermediate wheatgrass	6.00
<b>Native Forbs/Legumes</b>			
Bismarck germplasm	Select (G1)	narrow-leaved purple coneflower	75.00
Bismarck germplasm	Select (G1)	purple prairieclover	40.00
Bismarck germplasm	Select (G1)	stiff sunflower	175.00
Medicine Creek germplasm	Select (G1)	Maximilian sunflower	70.00

\*Generation number for select class materials is shown in parentheses (G1 = generation 1).