

UNITED STATES DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE  
ELSBERRY, MISSOURI

And

UNIVERSITY OF NORTHERN IOWA  
CEDAR FALLS, IOWA

IOWA INTEGRATED ROADSIDE VEGETATION MANAGEMENT PROGRAM  
CEDAR FALLS, IOWA

IOWA DEPARTMENT OF TRANSPORTATION  
AMES, IOWA

IOWA CROP IMPROVEMENT ASSOCIATION  
AMES, IOWA

**NOTICE OF RELEASE OF NORTHERN IOWA GERMPLASM  
BIG BLUESTEM  
SOURCE IDENTIFIED CLASS OF NATURAL GERMPLASM**

The Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture and the University of Northern Iowa (UNI), Iowa Integrated Roadside Vegetation Management Program (IRVM), the Iowa Department of Transportation (IDOT), and the Iowa Crop Improvement Association (ICIA) announce the release of a source identified ecotype of big bluestem (*Andropogon gerardii*) for Northern Iowa counties.

As a source identified release, this plant will be referred to as Northern Iowa Germplasm big bluestem to document its original collections. Northern Iowa Germplasm big bluestem is released as a source identified type of certified seed (natural track). It has been assigned the NRCS accession number 9068614.

This alternative release procedure is justified because there are no existing commercial sources of big bluestem collected from numerous native sites throughout this specific region. Propagation material of specific ecotypes is needed for roadside plantings and prairie restoration and enhancement. The potential for immediate use is high.

**Collection Site Information:** Collections were taken from native prairie remnants within the three tiers of counties located in Northern Iowa.

**Ecotype Description:** Big bluestem is a tall, warm-season, perennial, native grass with stiff, erect culms; flattened and keeled sheaths; membranous ligules; and flat or folded leaf blades. Big bluestem has developed a very efficient spreading root system which may reach depths of 5-8 feet (150-200 cm) in northern latitudes, and 6-8 feet (180-240 cm) or more in the southern part of its natural range. Although short rhizomes may be present, it usually makes a bunch type

growth. Big bluestem is composed of many ecotypes with a wide range of adaptation to soil and climate. Big bluestem is one of the most widespread and important forage grasses of the North American tallgrass prairie region. It is usually associated with one or more of the other three dominant species; indiangrass, (*Sorghastrum nutans* L. Nash.), switchgrass, (*Panicum virgatum* L.), and little bluestem (*Schizachyrium scoparium* (Michx.) Nash.). Big bluestem occurs on subirrigated lowlands, nearly level to gently undulating glacial till plains, overflow sites, level swales and depressions, residual and glacial uplands, and stream terraces and bottomlands along rivers and tributaries. The abundant, leafy forage is palatable to all classes of livestock.

**Environmental Impact Assessment:** Northern Iowa Germplasm big bluestem is a collection of naturally occurring germplasm and has been unaltered. Northern Iowa Germplasm big bluestem did not meet the assessment of a plant, which could become invasive based on guidelines adopted by the NRCS Plant Materials Program.

**Anticipated Conservation Use:** The potential uses of Northern Iowa Germplasm big bluestem include roadside plantings, prairie creations and restorations, landscaping, and for increasing plant diversity in prairie communities.

**Potential Area of Adaptation:** Big bluestem occurs throughout the tallgrass prairie biome. Flowering begins in July and may continue until frost.

**Availability of Plant Materials:** G1 material is being produced in limited supply by the Elsberry Plant Materials Center and the University of Northern Iowa. For information contact USDA, NRCS, Plant Materials Center, 2803 N. Hwy 79, Elsberry, Missouri 63343 (573 898-2012) or The University of Northern Iowa, Roadside Office, 113 CEEE, Cedar Falls, IA 50614-0293.

#### **References:**

*Flora of Missouri*; p.932; Steyermark, J. A.; Iowa State University Press, Ames, IA 1968.

*Gray's Manual of Botany*, p. 232; Fernald, M. L.; Harvard University, Boston, Mass., 1950.

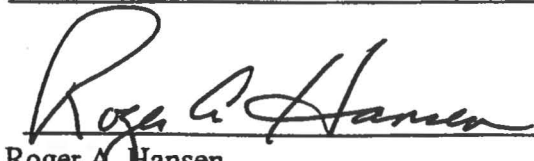
*Manual of the Grasses of the United States*; pp. 749, 751, and 812; United States Department of Agriculture, Washington, DC, 1951.

#### **Prepared by:**

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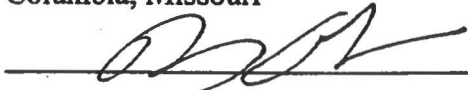
Signatures for release of:

Northern Iowa Germplasm Big Bluestem (*Andropogon gerardii*)




Roger A. Hansen  
State Conservationist  
United States Department of Agriculture  
Natural Resources Conservation Service  
Columbia, Missouri

9/5/00  
Date



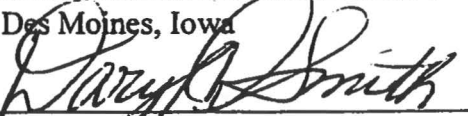
Robert Koob  
President  
University of Northern Iowa  
Cedar Falls, Iowa

9-14-00  
Date



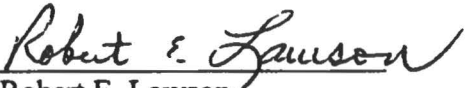
Leroy Brown  
State Conservationist  
United States Department of Agriculture  
Natural Resources Conservation Service  
Des Moines, Iowa

8/25/00  
Date



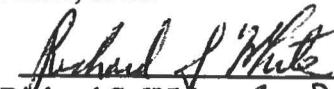
Daryl D. Smith  
University of Northern Iowa  
Cedar Falls, Iowa

9-7-00  
Date



Robert E. Lawson  
Secretary/Treasurer  
Iowa Crop Improvement Association  
Ames, Iowa

SEP 7 2000  
Date



Richard S. White *for Diane Gelburd*  
Director, Ecological Sciences Division  
United States Department of Agriculture  
Natural Resources Conservation Service  
Washington, D.C.

10/11/00  
Date