

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

**NOTICE OF RELEASE OF
NORTHERN MISSOURI GERMPLASM SIDEOATS GRAMA
SOURCE IDENTIFIED CLASS OF NATURAL GERMPLASM**

The Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture announce the release of a source identified sideoats grama, [*Bouteloua curtipendula* (Michx.) Torr.], collected from counties north of the Missouri River in the state of Missouri.

As a source identified release, this plant will be referred to as Northern Missouri Germplasm sideoats grama to document its genetic origin. Northern Missouri Germplasm sideoats grama was released as a source identified type of certified seed (natural track). It has been assigned the NRCS accession number 9079072.

This alternative release procedure is justified because there are no commercial sources of sideoats grama collected from 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 northern glaciated plains in the counties north of the Missouri River within the state of Missouri. Thirteen collections from six different counties were combined, propagated in plugs and planted at the Elsberry Plant Materials Center. The six counties in Missouri that comprise this germplasm are Lincoln, Atchison, Boone, Holt, Montgomery, and Benton.

Ecotype Description: Sideoats grama is a native perennial warm-season bunch grass. Flowering culm reaches 1.5–2 feet tall and slightly hairy. Leaf sheaths are mostly smooth. Leaf blades are 6–8 inches long, tapered to a sharp point. Stiff hairs with glandular bases arise from the leaf margins, sticking out at a right-angle from the main axis of the blade. Ligules are very short fringe of hairs. Seedheads can extend 4–12 inches long, and consist of many short spikes (1/2–1 1/4 inches long), 3-7 spikelets, all turned to one side of the main stem. Lower leaves curl and turn a light, tawny color when dry (Houseal, 2008). Flower clusters are in two rows mostly along one side of the upper stem. Although the flower parts are inconspicuous, in full bloom the bright reddish orange stamens protrude and are delicately showy (Ladd, 1995). The root system is fairly deep and well branched; thus the plants can effectively utilize all available moisture (USDA, 1948).

Environmental Impact Assessment: Northern Missouri Germplasm sideoats grama is a collection of naturally occurring germplasm that has been unaltered. Northern Missouri Germplasm sideoats grama did not meet the assessment of a plant which could become invasive based on guidelines adopted by the NRCS Plant Materials Program (USDA-NRCS, 2000).

Anticipated Conservation Use: The potential uses of Northern Missouri Germplasm sideoats grama include roadside and wildlife plantings, prairie restorations, field borders, buffers, landscaping, and for increasing plant diversity in prairie communities.

Potential Area of Adaptation: Sideoats grama is found on mesic to dry soil conditions, fine textured, calcium-rich soils, full sun (Houseal, 2008). It is frequent on limestone glades, prairies, prairie openings in rocky woodland, grassy knolls, and along railroads (Steyermark, 1963). The intended use area of Northern Missouri Germplasm sideoats grama is the MLRA's of 107,108,109,113, and 115; however, no plantings have been made to determine its performance and adaptation in these MLRAs. The Common Resource Areas of Iowa and Missouri; Deep Loess Hills, Nodaway Loess Prairie Hills and Till, the Grand River Hills, Chariton River Hills, Fox-Wyaconda River Dissected Till Plain, Mississippi River Hills, and Claypan Till Plains. The hardiness zone for these common resource areas are 5A and 5B, with an average annual precipitation of 34 inches.

Availability of Plant Materials: G2 material is being produced in limited supply by the Elsberry Plant Materials Center. For information contact USDA, NRCS, Plant Materials Center, 2803 N. Hwy 79, Elsberry, Missouri 63343 (573 898-2012).

References:

United States Department of Agriculture. 1948. Grass: Yearbook of Agriculture - 1948. U.S. Government Printing Office, Washington, D.C. p.655.

Ladd, Doug. 1995. Tallgrass Prairie Wildflowers. Falcon Press Publishing Co., Helena and Billings, MT. p. 237.

Houseal, Greg A. 2008. Tallgrass Prairie Center's Native Seed Production Manual. University of Northern Iowa. Cedar Falls, IA. pp. 68-69.

Steyermark, Julian A. 1963. Flora of Missouri. The Iowa State University Press. Ames, IA. pp. 182-184.

USDA-Natural Resources Conservation Service. 2000. National Plant Materials Manual, Title 190 (Washington, D.C., U.S. Government Printing Office, June, 2000).

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Signatures for release of:

Northern Missouri Germplasm sideoats grama (*Bouteloua curtipendula* Michx. Torr.)

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