USDA-Natural Resources Conservation Service

Notice of Source Identified Plant Release

Indiangrass

The USDA-Natural Resources Conservation Service (NRCS), the University of Missouri at Columbia (UMC), Missouri Department of Conservation (MDC), and the Missouri Department of Transportation (MODOT) announce the release of a source identified Western Missouri Germplasm Indiangrass, *Sorghastrum nutans* (L.) Nash.

The Indiangrass has been assigned the NRCS accession number 9079037.

Origin: Osage Plains Counties of Western Missouri.

Ecotype Description:

Indiangrass is a tall (four to eight feet) native warm season perennial grass which spreads by short rhizomes. Golden-yellow lance-shaped, rather dense panicles are 4-12 inches long on erect stems 4-8 feet tall. Leaves are rather stiff and straight. Prominent vertical projections are located on both sides of the sheath throat. Leaves are lighter green than those of big bluestem, a common associate. It is found in the eastern Canadian provinces and in all but six western states. It is most commonly associated with bluestem grasses; particularly in the central lowland and eastern portions of the Great Plains. This grass, which is relished by livestock, produces excellent hay if cut before flower stalks develop. In recent years it has been seeded in mixtures with other native tall grasses in the true prairie region.

Management:

Indiangrass seeds averages 175,000 per pound . A seeding rate of 3.3 pounds pure live seed (PLS) per acre or 40 (PLS) per linear foot in 36 inch rows for seed production is sufficient. Rates for pasture seeding should be ten to twelve PLS pounds per acre. Seed should be planted 1/4 to 1/2 inch deep in a firm relatively weed free seedbed. Seedling vigor is good and stands are comparatively easy to establish where competition is controlled. Mowing above the height of the Indiangrass has been used to reduce competition when weeds begin to severely encroach into the planting.

Chemical sprays (2-4D) available for use in the establishment of Indiangrass are limited. Post-emergence broadleaf sprays have been used during Indiangrass establishment. Burning established fields in April reduces competition and encourages seed heads to fill.

Seed yields are good and can be harvested with a combine. Estimated yields of 250 - 300 per acre may be harvested on managed stands.

Plants are cross-pollinated and many hybrids are formed in the area of adaptation.

For isolation requirements, Indiangrass should be spaced a minimum of 900 feet from any other different Indiangrass selection.

Site Description:

Indiangrass is adapted to most upland and some bottomland soils. Ecotypes are adapted to areas with as little as 14 inches to over 50 inches of average annual precipitation. Eighteen (18) collections from ten (10) western Missouri counties guarantees the adaptation of releases to the entire zone.

Collections were made from the following locations (see attached) and included in the composite Indiangrass, western Missouri origin (9079037).

Collections of Indiangrass from east to west across Missouri permits guarentees adaptation of releases to the entire section of western Missouri.

Climate: The average annual temperature is 51 degrees Fahrenheit. July is the warmest month with an average high of 89 degrees and low of 68 degrees. January is the coldest month with an average high of 32 degrees and low of 13 degrees. The average annual precipitation for this region is 34 inches with much of this coming during the growing season. The average frost-free growing period runs from April 22 to October 12.

Availability of Plant Materials:

Breeders material is being produced in limited supply by the Plant Materials Center, located at Elsberry, Missouri.

Release Approved By:

/s/ Randy Freeland
for: Roger A. Hansen, NRCS
Missouri State Conservationist Date: 5/28/99

/s/ Robert McGraw, UMC
Professor of Agriculture Date: 6/21/99

/s/ Stacy Armstrong, MODOT
Roadside Management Supervisor Date: 7/12/99

/s/ Larry Mechlin, MDC
Research Biologist Date: 6/2/99

/s/ Richard S. White
for: Diane Gelburd Date: 8/10/99
Director, Ecological Sciences Division
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