### UNITED STATES DEPARMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE ELSBERRY, MISSOURI

And

THE IOWA ECOTYPE PROJECT AT THE UNIVERSITY OF NORTHERN IOWA CEDAR FALLS, IOWA

NATIVE ROADSIDE VEGETATION CENTER CEDAR FALLS, IOWA

IOWA DEPARTMENT OF TRANSPORTATION AMES, IOWA

IOWA CROP IMPROVEMENT ASSOCIATION AMES, IOWA

# NOTICE OF RELEASE OF CENTRAL IOWA GERMPLASM SWITCHGRASS SOURCE IDENTIFIED CLASS OF NATURAL GERMPLASM

The Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture and the Iowa Ecotype Project at the University of Northern Iowa (UNI), the Native Roadside Vegetation Center (NRVC), the Iowa Department of Transportation (IDOT), and the Iowa Crop Improvement Association (ICIA) announce the release of a source identified ecotype of switchgrass (*Panicum virgatum L.*) for Central Iowa counties.

As a source identified release, this plant will be referred to as Central Iowa Germplasm Switchgrass to document its original collections. Central Iowa Germplasm Switchgrass is released as a source identified type of certified seed (natural track). It has been assigned the NRCS accession number 9068706.

This alternative release procedure is justified because there are no existing commercial sources of switchgrass 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 central Iowa.

**Ecotype Description:** Switchgrass is a native, warm season, perennial grass that grows to a height of 3 to 5 feet. Stems are relatively stout and stiff, round in cross-section, glabrouse or hairy at the node. Leaves are scattered along the stems. Leaf sheath smooth, ligule 5/16 with line or band of hairs. Leaf blades are 6 to 22 inches long, by 1/8 to ½ inch wide, narrow at the base, widening, and then tapering toward the tip to a sharp point. Inflorescence is open,

branching flower stalks, 6 to 12 inches long. Flowering from July to early September. Fruiting begins in mid August.

Collections of switchgrass from east to west across Iowa prevent positive assessment of all pollination or chromosome characteristics. Plants are cross-pollinated. For isolation requirements, switchgrass will be considered cross-pollinated.

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

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

**Potential Area of Adaptation:** Switchgrass occurs throughout the tallgrass prairie biome. Switchgrass is adapted to bottomland and upland prairies, savannas, calcareous glades, ledges, and tops of bluffs, gravel bars, and banks of streams and rivers, bottomland forests, and openings of mesic to dry upland forests; also pastures, old fields, roadsides, railroads, levees, and open disturbed areas. It is found from eastern United States west to Montana and Arizona, Canada, and Mexico.

**Availability of Plant Materials:** G1 material is being produced in limited supply by the Elsberry Plant Materials Center and the University of Northern Iowa, Native Roadside Vegetation Center. For information contact USDA, NRCS, Plant Materials Center, 2803 N. Hwy 79, Elsberry, Missouri 63343 (573 898-2012) or The University of Northern Iowa, Native Roadside Vegetation Center, 113 CEEE, Cedar Falls, IA 50614-0293 (319 273-3005).

#### **References:**

An Illustrated Guide to Iowa Prairie Plants; p216, Christiansen, P. and Muller, M.; University of Iowa Press, Iowa City, IA 1999.

*Flora of Missouri*; pp. 805, 806, Steyermark, J. A; Missouri Botanical Garden Press, St. Louis, MO 1999.

*The Prairie Garden*, pp.184, 185, Smith, J. R. and Smith, B. S. University of Wisconsin Press, Madison, WI 1980.

#### Prepared by:

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## Signatures for release of: Central Iowa Germplasm Switchgrass (*Panicum virgatum L.*)

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