

**UNITED STATES DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE  
ATHENS, GEORGIA**

**NOTICE OF RELEASE OF MUCKALEE GERMPASM WOOL-GRASS SOURCE  
IDENTIFIED CLASS OF NATURAL GERMPASM**

The Natural Resources Conservation Service, U.S. Department of Agriculture announce the naming and release of Muckalee Germplasm Wool-Grass (*Scirpus cyperinus* (L.) Kunth.). Muckalee Germplasm Wool-Grass has been assigned the NRCS Accession number 9093785.

The source identified release procedure is being utilized because there is a high demand for materials of this level. Wetland plant material adapted to our target area the Georgia coastal plain and lower piedmont is recommended for use in residential septic systems (Surrency et al., 1996) and small constructed wetlands (Surrency et al., 2003). Additional selection or testing is not warranted, at this time.

**Collection Site Information:** Material was collected at 84°15'35" West longitude and 32°05'36" North latitude in Sumter County, Georgia. Site is 4.1 miles Northwest of downtown Americus, Georgia. It is 2.1 miles North of downtown Americus, Georgia on Highway North U.S. 19 and 2 miles west on Patton Drive. Soil is Goldsboro loamy sand. Goldsboro is an Aquic Paleudult with an acidic pH. Material was collected on 0-2 % slope at 355' elevation above sea level. Collection site would be considered a small wetland. Climate is considered temperate with mean annual rainfall of 48 inches. Rainfall during the year can range from 0.0 to 25 inches a month. Mean temperature is 62° with extremes in temperature ranging from 16° to 103°. Associated plants at the wetland collection site are *Typha latifolia* L., *Zizaniopsis miliacea* (Michx.) Doell&Aschers., *Juncus effusus* L., and *Salix nigra* Marsh.

**Description:** This plant is a perennial sedge that grows in dense tussocks from short branching rhizomes. The tussocks range in width from 40-80 cm. Fertile culms are upright and obtusely triangular. They range in height from 175-200 cm. There are usually 5-10 leaves per culm. Leaf blades are 3-8 mm wide. Leaf blade length is 40-70 cm. Leaves ascend up the tussock 40-60 cm. Spikelets form in dense cymes of 2-12 at apex of each fertile culm. Scales of the spikelets are reddish brown. Spikelets are characteristically brown and drooping from the top of the fertile culms. Flowers contain 6 persistent perianth bristles. Achenes are three angled, smooth and whitish. Mature inflorescence appears wooly. 2n = 66. Flowers and fruits appear late summer-fall. It is classified as an obligate hydrophytic plant (Reed 1988).

**Method of Breeding and Selection:** This is a native source identified release which has undergone no purposeful selection pressure.

**Ecological Considerations and Evaluation:** Muckalee Germplasm was rated OK to release under the **Environmental Evaluation of Plant Materials Releases**. It rated low for Impacts on

Habitats, Ecosystems, and Land Use. It rated easy to control under Ease of Management . It rated moderate for Conservation Need and Plant Use. It rated high for Biological Characteristics. It is native material and should not have a negative effect on the environment.

**Conservation Use:** Adapted material of this taxa such as Muckalee germplasm is recommended for use in small constructed wetlands such as small waste treatment systems (Surrency et al., 2003). It is adapted to wetland hydrology and has the ability to assist constructed wetlands clean water in waste treatment systems. Unlike other wetland material (cattail, giant cutgrass) Muckalee should not overload small constructed wetland systems with excess vegetation. It also has the potential to help restore wetland communities especially where obligate plants dominate. Another potential use is wildlife cover in restored or constructed wetlands.

**Area of Adaptation:** This source identified material of *Scirpus cyperinus* is well adapted to the coastal plain and lower piedmont of Georgia. It should do well in areas of hydric soils, precipitation around 48 inches per year, hardness zones of 7b, 8a, and 8b, and MLRAs of 153,136, and 133A. It tolerates growing season flooding and periods of drying the upper soil zone.

**Availability of Plant Materials:** Foundation vegetative material will be maintained at the Jimmy Carter Plant Materials Center Americus, Georgia. A nursery has been contacted to grow propagules for conservation use.

#### **References:**

Clewell, A.F. 1985. Guide to the Vascular Plants of the Florida Panhandle. University Presses of Florida, Florida State University Presses/Tallahassee.

Reed,P.B. 1988. National List of Plant Species That Occur in Wetlands: Southeast (Region 2). National Wetlands Inventory U.S. Fish and Wildlife Service. p. 43.

Surrency, D.S., C.M. Owsley, and M.J. Latimore.1996. Guidelines for establishing aquatic plants in constructed wetlands.United States Department of Agriculture- Natural Resources Conservation Service and Fort Valley State University. p.2.

Surrency, D.S., C.M. Owsley, and M.S. Kirkland. 2003. Wetland plants selected for constructed wetlands and stormwater systems. United States Department of Agriculture- Natural Resources Conservation Service. p. 3.

#### **Prepared by:**

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**Signatures for release of:  
Muckalee Germplasm Wool-Grass**

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