

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

**NOTICE OF RELEASE OF SUMTER GERmplasm SOFT RUSH SOURCE
IDENTIFIED CLASS OF NATURAL GERmplasm**

The Natural Resources Conservation Service, U.S. Department of Agriculture announce the naming and release of Sumter Germplasm Soft rush (*Juncus effusus* L.). Sumter Germplasm Soft rush has been assigned the NRCS Accession number 9093784.

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., *Scirpus cyperinus* (L.) Kunth., and *Salix nigra* Marsh.

Description: This plant is a perennial herbaceous rush with short rhizomes. Plant height ranges from 80-110 cm. Clumps of vegetation range from 20-40 cm wide. Culms are erect, hollow, terete, and range from 2-3 mm wide. Leaf blades are absent. Inflorescence is lateral and many flowered. Primary bract is erect, terete and extends well beyond the inflorescence. Tepals of the flowers are brown in color. Flowers have 3 stamens. Dark brown capsules produce amber colored seeds. $2n = 40, 42$. Flowers appear mid-late summer and capsules appear in late summer-fall. It is classified as a facw+ 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: Sumter 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 Sumter germplasm is recommended for use in residential septic systems (Surrency et al.,1996). It is also recommended for use in small constructed wetlands such as small municipal 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) “Sumter” should not overload small constructed wetland systems with excess vegetation. It also has the potential to help restore wetland communities especially where facw+ and drier plants dominate. Another potential use is wildlife cover in restored or constructed wetlands.

Area of Adaptation: This source identified material of *Juncus effuses* 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.

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**Signatures for release of:
Sumter Germplasm Soft Rush**

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