

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
ABERDEEN, IDAHO

and

IDAHO AGRICULTURAL EXPERIMENT STATION
ABERDEEN, IDAHO

NOTICE OF RELEASE OF HARDSTEM BULRUSH
FOR LAND RESOURCE REGION B WEST
SELECTED CLASS OF NATURAL GERMPLASM

The Natural Resources Conservation Service, U.S. Department of Agriculture and the Idaho Agricultural Experiment Station announce the release of a selected ecotype of Hardstem Bulrush (*Scirpus acutus*) for Land Resource Region (LRR) B West.

As a Selected release, this plant will not be given a name, but will be referred to as the Hagerman selection of Hardstem Bulrush to document its original collection location. The Hagerman selection is released as a Selected Class of certified seed (natural track).

This alternative release procedure is justified because existing commercial sources of Hardstem Bulrush are inadequate. Propagation material of specific ecotypes is needed for ecosystem restoration, enhancement, and construction of wetlands. The potential for immediate use is high, and commercial potential beyond specific wetland uses is probably limited. No commercial cultivars of Hardstem Bulrush have been released at this time.

Species: *Scirpus acutus* Muhl. ex Bigelow
New Name: *Schoenoplectus acutus var. acutus (Muhl. ex Bigelow) A. & D. Love*
Synonymy: *Scirpus lacustris L. p.p., Schoenoplectus ssp. acutus (Muhl. ex Bigelow) A. & D. Love*
Common Name: **Hardstem Bulrush**
Plant Symbol: SCAC, SCACA
Accession Number: 9057597

The scientific name for Hardstem Bulrush has been changed from *Scirpus acutus* to *Schoenoplectus acutus var. acutus*. Taxonomists have found that Hardstem Bulrush more appropriately fits into the genus *Schoenoplectus*. We have chosen to release it as *Scirpus acutus* because of public recognition and familiarity.

Source: Hagerman Wildlife Management Area, just west of the town of Hagerman, Gooding County, Idaho.

Collection area Information: Stands are located within the boundaries of Hagerman WMA. Very little variability among SCAC stands was observed within the boundaries of the WMA. This variability was judged to be inconsequential. Therefore, any collection of SCAC located within the WMA boundary would be considered a constituent of this Selected Release. Elevation is approximately 2900 feet.

Method of Selection: From a Hardstem Bulrush collection found in Land Resource Region (LRR) B West, which includes Major Land Resource Regions (MLRAs) western 2/3 of 11, and all of 10.

A total of 26 SCAC collections from the Aberdeen PMC Service Area were evaluated from 1991 to 1995. All collections were evaluated for survival, vigor, overall growth and spread, potential seed production, and above ground biomass production. A total of three collections were from B West. Overall, the Hagerman collection outperformed all 26 collections from the Aberdeen PMC Service Area. The Hagerman selection of Hardstem Bulrush was selected for its rapid spreading from vigor, shoot density per unit area, rhizomes, height, potential seed production, and above ground biomass production. This accession needs special seed treatment and stratification procedures to achieve acceptable germination rates.

Description: *Scirpus acutus* is a perennial, densely colonial, rhizomatous, wetland obligate. Stems are upright, round, over 1 cm at the base (sometimes over 5 cm), up to 9 feet tall, not easily crushed between fingers. The leaves few, 3 to 5 basal sheaths with poorly developed blades, borne mainly toward the base of the culm. The inflorescence is a panicle of up to 60 spikelets. Spikelets mostly 8-15 mm long, more or less numerous in an open or compact inflorescence, all or nearly all are sessile in small clusters at the ends of mostly stiff and ascending branches of the inflorescence. Scales mostly 3, 3.5-4 mm long, thin with reddish-brown streaks on a pale, grey-white background. Achenes mostly 2.2-2.5 mm long, dark brown.

Anticipated Conservation Use: The potential uses of the Hagerman selection of *Scirpus acutus* include erosion control, Constructed Wetland System applications, wildlife food/cover, wetland creations and restorations, and for increasing plant diversity in wetland and riparian communities. Its tendency to spread rhizomatously makes the Hagerman selection an excellent plant for soil stabilization in sites which have saturated soils or standing water up to 12 to 18 inches deep. The rhizomes also form a matrix for many beneficial bacteria making this plant an excellent choice for wastewater treatment.

Potential Area of Adaptation: *Scirpus acutus* is an obligate wetland plant and is found throughout the Intermountain West. It commonly inhabits wetlands as an emergent in water depths up to about 18 inches. It will tolerate periods of inundation and drought. The Hagerman selection would be an excellent choice for use throughout the ecoregion defined as LRR B West.

Seed Maintenance: Breeders seed will NOT be maintained by the USDA-NRCS Plant Materials Center. To make collections of the Hagerman selection of Hardstem Bulrush, contact the Hagerman Wildlife Management Area Manager, Idaho Fish and Game, Magic Valley Region, 868 East Main Street, P.O. Box 428, Jerome, ID 83338-0428, (208) 324-4359. For official Selected tags to verify genetic identity of these plant materials, contact Idaho Crop Improvement Association (208) 377-3420.

Signature sheet for release of a selected class of:

Hagerman Selection of Hardstem Bulrush (*Scirpus acutus*) for Land Resource Region (LRR) B West from Hagerman Wildlife Management Area, just west of the town of Hagerman, Gooding County, Idaho.

Luana E. Kiger
Idaho State Conservationist
USDA, Natural Resources Conservation Service

Date

Dr. Richard C. Heimsch
Director
ID Agricultural Experiment Station
University of Idaho

Date

Gary R. Norstrom
Director
Biological Conservation Sciences Division
Natural Resources Conservation Service

Date

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