

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
ABERDEEN, IDAHO
and
OREGON AGRICULTURAL EXPERIMENT STATION
OREGON STATE UNIVERSITY
CORVALLIS, OR

NOTICE OF RELEASE OF CREEPING SPIKERUSH
FOR LAND RESOURCE REGION D NORTH
SELECTED CLASS OF NATURAL GERMPLASM

The Natural Resources Conservation Service, U.S. Department of Agriculture and the Oregon Agricultural Experiment Station announce the release of a selected ecotype of Creeping Spikerush (*Eleocharis palustris*) for Land Resource Region (LRR) D North.

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

This alternative release procedure is justified because existing commercial sources of Creeping Spikerush 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 Creeping Spikerush have been released at this time.

Species:	<i>Eleocharis palustris</i> (L.) Roemer & J.A. Schultes
Synonymy:	<i>Eleocharis palustris</i> , <i>E. macrostachya</i> , <i>E. mamillata</i> , <i>E. calva</i>
Common Name:	Creeping Spikerush
Plant Symbol:	ELPA3
Accession Number:	9057607

Source: Malheur National Wildlife Refuge, south of the town of Burns, Harney County, Oregon.

Collection area Information: Stands are located within Malheur NWR. Very little variability among ELPA3 stands was observed within the boundaries of the Refuge. This variability was judged to be inconsequential. Therefore, any collection of ELPA3 located within the Refuge boundary would be considered a constituent of this Selected Release.

A majority of ELPA3 stands were found with heavy concentrations of *Juncus balticus* (JUBA), however, the seeds of JUBA are significantly smaller than ELPA3 so confusion should not occur. Elevation is approximately 4100 feet. Soils are mostly poorly drained calcareous loams.

Method of Selection: From a Creeping Spikerush collection found in Land Resource (LRR) Region D North, which includes Major Land Resource Regions (MLRAs) 21, 23, 24, 25, 26, and 27.

A total of 16 ELPA3 collections from the Aberdeen PMC Service Area were evaluated from 1991 to 1995. All collections were evaluated for survival, above ground biomass

production, overall growth and spread, vigor, and seed production. these 16 collections, three were from D North. The Malheur collection outperformed all other collections from D North. This collection also ranked second overall for all evaluated traits. The Malheur selection of Creeping Spikerush was selected for its vigor, potential seed production, spreading from shoot density per unit area, above ground biomass production, rhizomes, and height. This accession needs special seed treatment and stratification procedures to achieve acceptable germination rates.

Description: *Eleocharis palustris* is a perennial, rhizomatous, wetland obligate plant. Culms are scattered or in small clusters on the rhizome. Stems are upright, slender to very stout, and may be from 1 to 3.5 feet tall. Achene lenticular, yellow to dark brown, finely cellular-roughened, mostly 1.5-2.5 mm long including the well differentiated tubercle that is commonly 0.4-0.7 mm long and constricted at the base. Inflorescence is a solitary terminal spikelet.

Anticipated Conservation Use: The potential uses of the Malheur selection of *Eleocharis palustris* 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 Malheur selection an excellent plant for soil stabilization in sites with saturated soils or up to 3 feet of standing water. The rhizomes also form a matrix for many beneficial bacteria making this plant an excellent choice for wastewater treatment.

Potential Area of Adaptation: *Eleocharis palustris* is an obligate wetland plant and is found throughout the intermountain west. It commonly inhabits poorly drained soils which are saturated or have up to 3 feet of standing water. It will tolerate periods of inundation and drought. The Malheur selection would be an excellent choice for use throughout the ecoregion defined as LRR D North.

Seed Maintenance: Breeders seed will NOT be maintained by the USDA-NRCS Plant Materials Center. To make collections of the Malheur selection of Creeping Spikerush, contact the Refuge Manager, Malheur National Wildlife Refuge, U.S. Fish and Wildlife Service, HC 70 Box 245, Princeton, OR 97721, (514) 493-2612. All collections will be limited to Growers ONLY. For official seed certification Selected tags to verify genetic identity of these plant materials, make application to the Oregon Seed Certification Service, (514) 737-4513, sixty days prior to collection. Seed certification is voluntary; a fee for this service is involved.

Signature sheet for release of a selected class of:

Malheur Selection of Creeping Spikerush (*Eleocharis palustris*) for Land Resource Region (LRR) D North from Malheur National Wildlife Refuge, south of the town of Burns, Harney County, Oregon.

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

Date

Robert J. Graham _____ Date _____
Oregon State Conservationist
USDA, Natural Resources Conservation Service

Thayne R. Dutson _____ Date _____
Director
Oregon Ag Experiment Station
Oregon State University

Gary R. Nordstrom _____ Date _____
Director
Biological Conservation Sciences Division
Natural Resources Conservation Service

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