USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Plant Fact Sheet

CREEPING SPIKERUSH

Eleocharis palustris (L.) Roemer & J.A. Schultes

Plant symbol = ELPA3

Contributed by: USDA NRCS Idaho State Office

Photo by Derek J. Tilley

Alternate Names
Common spikerush

Uses
Creeping spikerush is suitable for erosion control, constructed wetland system applications, wildlife food and cover, wetland restoration and creation and improvement of plant diversity in wetland and riparian communities. Plants spread rapidly by rhizomes and will develop a thick root mass that is resistant to compaction and erosion. The rhizomes also form a matrix for many beneficial bacteria making this plant an excellent choice for wastewater management applications.

Status
Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description and Adaptation
Creeping spikerush is a perennial, strongly rhizomatous wetland plant naturally occurring in wet meadows, seeps, springs, lake margins and other wetland environments. Stems are upright and round and are typically 10 to 70 cm (4 to 27 in) tall. Stems are topped with a terminal spikelet bearing numerous flowers. The fruit is a yellow to brown lenticular achene from 1.5 to 2.5 mm long. Achenes are tipped with a tubercle and subtended by up to 8 bristles.

Creeping spikerush is a native obligate wetland species found throughout the Northern Hemisphere. It occurs in all U.S. states except Georgia, Florida and Hawaii.

Creeping spikerush grows on sites that are either permanently or seasonally flooded. The plants can grow and thrive in permanent water up to 1 m (3 ft) deep. They can also survive in areas where the water table drops to 30 cm (12 in) below the surface late in the growing season. Plants are commonly found growing in areas totally inundated for up to 4 months. Plants grow in saturated, fine textured soils in neutral to alkaline or saline conditions (pH 7 to 8 and EC <14).

Establishment
Germination rates can be enhanced by lightly scarifying the seed followed by wet prechilling in a mixture of water and sphagnum moss at 2ºC (35º F) for 30 to 45 days. Seed requires light, moisture and heat for germination. For greenhouse propagation, place seed on soil surface and press in lightly to assure good soil contact. Do not cover seed. Soil should be kept moist, and the greenhouse should be kept hot, 32 to 38ºC (90 to 100º F). Germination should begin within one to two weeks. Maintain soil moisture until transplanting. Plugs should be transplanted at 30 to 45 cm (12 to 18 in) spacing. This allows plants to fill in interspaces within one growing season. Soils should be kept saturated with

no more than 8 cm (3 in) of standing water at any time during the first growing season. Fluctuating water levels during the establishment year will facilitate spreading. Seed can be collected by hand stripping or clipping with hand shears.

Management
Standing water should fluctuate throughout the growing season and should be kept less than 1 meter deep. If deeper water is desired the depth can be increased slowly over the season. Water levels can be managed to control terrestrial weeds and to facilitate spreading of creeping spikerush.

Pests and Potential Problems
There are no known problems with insects or diseases. Aphids will feed on the stems, but little or no damage has been noted, and the vigor of the plants has not been affected.

Environmental Concerns
These selected class releases are from a species native to the Intermountain West and have no known negative impacts on wild or domestic animals.

Cultivars, Improved, and Selected Materials (and area of origin)
The Aberdeen PMC has released four performance tested ecotypes of creeping spikerush from the PMC service area. The CJ Strike Selection was collected from the CJ Strike Wildlife Management Area (WMA) near Bruneau, Idaho. It was selected for use in Land Resource Region (LRR) B West. The Malheur Selection was selected for use in LRR D North. It was collected from the Malheur National Wildlife Refuge (NWR) near Burns, OR. The Mud Lake Selection comes from the Mud Lake WMA, north of Terreton, Idaho and was selected for use in LRR B East. The Ruby Lake Selection was selected for use in LRR D South. The collection site was the Ruby Lake NWR in Elko County, NV.

Sixteen creeping spikerush 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. The PMC released one selection from each LRR in the PMC service area. The released selections are the accessions with the best overall rating against others from within its respective LRR. Accession numbers: CJ Strike (9057585), Malheur Selection (9057607), Mud Lake Selection (9067389), and Ruby Lake Selection (9067387).

Generation 0 (G0) seed is maintained at Aberdeen PMC. Later generation seed (ie G1) is not produced, maintained or available through the USDA-NRCS Plant Materials Center. To make collections of these creeping spikerush releases, contact the appropriate managing agency for the original collection site.

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site<http://plants.usda.gov> or the Plant Materials Program Web site <http://Plant-Materials.nrcs.usda.gov>

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