

NEBRASKA SEDGE

Carex nebrascensis Dewey

Plant symbol = CANE2

Contributed by: USDA NRCS Aberdeen PMC



Robert Mohlenbrock
USDA NRCS. 1992. Western wetland flora.

Uses

Nebraska sedge 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 produce a dense root system (over 200 cm of roots /cm³ of soil) which makes this an excellent species for soil stabilization and bioengineering applications in wetland sites.

Plants also have approximately half the protein level of alfalfa and are thus a valuable forage species for big game and livestock later in the growing season. Shoots are grazed by muskrat and geese, while seeds are eaten by small mammals and birds.

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

Nebraska sedge is a perennial, strongly rhizomatous wetland plant that is found in low valleys to mid-elevations. It will form dense stands, and is often the dominant member of the wetland community. Stems are erect and triangular from 20 to 110 cm (8 to 43 in) tall. Leaves are alternate, up to 12 mm (0.5 in) wide and can be longer or shorter than the stem. Foliage is green or often a glaucous blue. Spikes can be pistillate, staminate or androgynous (staminate flowers above). The fruit is a light brown achene (2 mm long) surrounded by a perigynium. Perigynia are elliptic to ovate, 3 to 4 mm long and yellowish brown to light brown in color.

Nebraska sedge is a commonly occurring wetland species found from Canada to Mexico and California to Illinois.

Nebraska sedge is found in wet meadows, marshes, streams, ditches, seeps, ponds and lakes throughout the western U.S. Plants can handle standing water for long periods of time as long as there are periods when the soils are dry.

Plants are best adapted to slightly acidic to somewhat alkaline conditions tolerating pH levels from 5.7 to 7.4. They are also tolerant of medium levels of salinity (EC<14).

Establishment

Germination can be enhanced by removing the perigynia and by wet pre-chilling the seeds in a mixture of water and sphagnum moss at 2° C (35° F) for 30 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 38°C (90 to 100° F). Germination should begin within one week. 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 within one growing season. Soils should be kept saturated with no more than 2.5 to 5 cm (1 to 2 in) of standing water at any time until the plants are well established and

over 30 cm tall. Fluctuating water levels during the establishment year will facilitate spreading. Seed can be collected by hand stripping, clipping with hand shears or by using a gas powered seed stripper.

Management

Nebraska sedge grows in areas that are saturated. It can handle standing water for long periods of time as long as there are periods when the soils are dry. It is rarely found where the water table will drop more than 1 m below the root zone late in the growing season and can tolerate total inundation for about 3 months. Water levels can be managed to facilitate rhizome spread and control weeds.

Pests and Potential Problems

There are no known problems with insects or diseases. Aphids will feed on the stems, but rarely cause significant damage.

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 Nebraska sedge from the PMC service area. Centennial Selection was collected from the Centennial Marsh Wildlife Management Area (WMA) in Camas County, ID. It was selected for use in Land Resource Region (LRR) B West. The Modoc Selection was selected for use in LRR D North. It was collected from the Modoc National Wildlife Refuge (NWR) near Alturas, CA. The Sterling Selection comes from the Sterling WMA, north of Aberdeen, ID 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 at the Ruby Lake NWR in Elko County, NV.

Twenty-one Nebraska sedge collections were evaluated at the Aberdeen Plant Materials Center from 1991 to 1995. All collections were evaluated for survival, vigor, overall growth and spread, potential seed production, above ground biomass production, stability of land ownership, and public accessibility. 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.

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 Nebraska sedge releases, contact the appropriate managing agency for the original collection site.

Prepared By:

USDA NRCS Aberdeen PMC, Aberdeen, ID.

Species Coordinator:

J. Chris Hoag, USDA NRCS Aberdeen PMC, Aberdeen, ID.

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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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