

Protocol Information

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Aberdeen, Idaho

Family Scientific Name: **Cyperaceae**
Family Common Name: **Sedge**
Scientific Name: ***Carex nebrascensis* Dewey**
Common Name: **Nebraska sedge**
Species Code: **CANE2**
Ecotype: **Intermountain West**
General Distribution: **Western U.S. and Canada**
Propagation Goal: **Plants**
Propagation Method: **Seed**
Product Type: **Container (plug)**
Stock Type: **10 cubic inch conetainer**
Time To Grow: **3 Months**
Target Specifications: **Healthy root development filling the 10 ci conetainer.**
Propagule Collection: **Seed is most commonly collected by hand. Fruiting heads can be cut from stems using shears or a hand scythe. Seed is hard and brown when ripe.**
Propagule Processing: **Seed is air dried spread out on a tarp or in paper sacks for several weeks prior to processing. Seed is removed from stem using a hammer mill with a 0.6 cm (0.25 in) screen. Seed is then pre cleaned using a Westrup LA-LS air screen cleaner with a 2.75 mm screen to remove stems and other inert matter. Air flow is set at 1.0 to 1.5 to remove dust and unfilled achenes The perigynium is then removed from the seed using a corrugated rubbing board or hammer mill and then re-cleaned with a 1.40 or 1.55 mm screen and light air. Larger tailings are rubbed**

again and recleaned and repeated as necessary. Purities of over 95% are typical. There are approximately 450,000 seeds/lb with the perigynium still intact and 800,000 seeds/lb with perigynium removed.

Pre-Planting Treatments: Seed is stored in cool-dry conditions with temperatures of approximately 10° C (50° F) and relative humidity of 20 to 30%. Seed can be stratified in cold-moist conditions (4° C in water and sphagnum moss); however stratification is not necessary if temperatures are maintained at or above 32° C (90° F).

Establishment Phase: Soil is a 1:1:1 mix of coconut fiber, compost and perlite. No fertilizer is added to the soil mix. Five to 25 seeds are placed on the soil surface and pressed for good seed-to-soil contact. Seed is not covered with any soil or sand, but kept moist with an overhead mist irrigation schedule of 2 minutes/hr from 9:00 am to 5:00 pm for the first 30 days. Day time greenhouse temperatures range from 32 to 43° C (90 to 110° F). Night time temperatures average around 30° C (85° F). Grow lights are kept on during nighttime hours.

Length of Establishment Phase: First emergence occurs around 5 to 7 days after planting under temperatures and moisture conditions specified. Full stands (90-100%) are reached in 12 days.

Active Growth Phase: After full establishment, plants are fertilized once per week with Miracle Grow All Purpose Plant Food (15-30-15). After 30 days the irrigation amount is increased to 3 minutes/hr from 9:00 am to 5:00 pm and grow lights are turned off. Greenhouse day time temperatures are reduced to 30 to 32°C (85 to 90° F).

Length of Active Growth Phase: 3 months

Hardening Phase: Heat is turned off and temperatures reduced to ambient conditions. Watering is discontinued approximately 3 days prior to delivery.

Outplanting performance on typical sites: Seedlings can be hand-planted or dibbled into moist soil or standing water. 100% establishment is typical.

Citation:

Tilley, Derek James 2010. Propagation protocol for production of container *Carex*

nebrascensis Dewey plants (10 cubic inch container); USDA NRCS - Aberdeen Plant Materials Center, Aberdeen, Idaho. In: Native Plant Network. URL: <http://www.nativeplantnetwork.org> (accessed 7 October 2010). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.