

# Protocol Information

USDA NRCS - Appalachian Plant Materials  
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Family Scientific Name: **Cyperaceae**  
Family Common Name: **sedges**  
Scientific Name: ***Carex complanata* Torr. & Hook.**  
Common Name: **hiruste sedge**  
Species Code: **CACO9**  
Ecotype: **Stones River**  
Known Invasiveness: **none**  
Propagation Goal: **Plants**  
Propagation Method: **Seed**  
Product Type: **Container (plug)**  
Stock Type: **1+0 container plug**  
Time To Grow: **6 Months**  
Target Specifications: **A well developed plant suitable for mechanical transplanting that has at least 6 inches of top growth and a dense, fibrous root system.**  
Propagule Collection: **Seed of Stones River source eastern woodland sedge was hand harvested from existing populations within the confines of Stones River National Battlefield.**  
Pre-Planting Treatments: **Seed is planted into round cell greenhouse flat liners with 38 cells per flat that have been filled with coarse processed bark and composted pine bark growing medium. Seed is surface sown at a rate of 3-5 seeds per cell and lightly covered with starter sized, 1/16" - 1/8" diameter, granite poultry**

**grit to combat damping off diseases. Prepared flats are lightly hand watered to slightly moisten the growing medium and cold stratified at 35 degrees Fahrenheit for a minimum of 30 days.**

Growing Area Preparation/

Annual Practices for Perennial Crops: **Stratified seed is placed in a greenhouse maintained under natural lighting and at a minimum temperature of 70 degrees Fahrenheit. Soil moisture is maintained during germination by bottom watering. Flats are placed in shallow trays that permit water levels around the flats to be maintained at approximately a one inch depth.**

Establishment Phase: **Germination typically occurs 10- 14 days after placement in the greenhouse.**

Length of Establishment Phase: **10-14 days**

Active Growth Phase: **After germination, flats are removed from the trays of water and placed on greenhouse benches. Seedlings are maintained in a greenhouse environment 4-6 months to promote development of a plug with at least 6 inches of top growth and a dense, fibrous root system suitable for mechanical transplanting. Watering is reduced to overhead hand watering once daily. Seedlings receive a water soluble complete fertilizer bi-weekly until hardening.**

Length of Active Growth Phase: **4-6 months**

Hardening Phase: **Acclimation is typically accomplished through placement of seedlings outdoors in a protected location for a 2-4 week period prior to transplanting.**

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Outplanting performance on typical sites: **To establish seed production fields, plugs are mechanically transplanted into a conventionally tilled seedbed. Rows are typically spaced 40 inches apart. Spacing between plugs within rows is 12 inches. Once transplanting is completed, at least 1 inch of irrigation water is applied to enhance root-soil contact and stimulate plant growth.**

References: **USDA, NRCS. 2010. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.**

**Citation:**

Vandevender, John 2010. Propagation protocol for production of container *Carex complanata* Torr. & Hook. plants (1+0 container plug); USDA NRCS - Appalachian Plant Materials Center, Alderson, West Virginia. In: Native Plant Network. URL: <http://www.nativeplantnetwork.org> (accessed 5 August 2010). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.

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