

# Protocol Information

USDA NRCS - Appalachian Plant Materials  
Center  
P. O. Box 390  
Alderson, West Virginia 24910  
304-445-3005  
304-445-7049  
John.Vandevender@wv.usda.gov



---

Family Scientific Name: **Poaceae**  
Family Common Name: **Grass**  
Scientific Name: ***Dichanthelium malacophyllum* (Nash) Gould**  
Common Name: **softleaf rosette grass**  
Species Code: **DIMA5**  
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 softleaf rosette grass was hand harvested from the primary (spring) flowering heads from existing populations within the confines of Stones River National Battlefield.**  
Pre-Planting Treatments: **De-tufted 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.**

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 an automatic overhead watering system set to cycle for 20 seconds every thirty minutes during daylight hours.**

Establishment Phase: **Germination typically occurs 7 - 10 days after placement in the greenhouse.**

Length of Establishment Phase: **7-10 days**

Active Growth Phase: **After germination, seedlings are maintained in a greenhouse environment 2-4 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: **2-4 months**

Hardening Phase: **Acclimation is typically accomplished through placement of seedlings outdoors in a protected location for a 1-2 week period prior to transplanting.**

Length of Hardening Phase: **1-2 weeks**

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.**

Other Comments: **Dicnantheliums are characterized by two distinct blooming periods. The conspicuous primary flowering heads are terminal to the culms and are produced in late spring and early summer. Secondary flowering heads are produced from the leaf axils beginning in mid-summer and continuing into early autumn. The primary flowering heads usually have a lower seedsset than the secondary ones, which have flowers that remain**

**closed and are self pollinated. However, seed produced by the primary flowers appears to germinate more readily than seed from the secondary flowers.**

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 *Dichantheium malacophyllum* (Nash) Gould 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.

---