

# Protocol Information

Natural Resources Conservation Service -  
Appalachian Plant Materials Center  
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United States Department of Agriculture

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Family Scientific Name: **Fabaceae**

Family Common Name: **Pea**

Scientific Name: *Lespedeza hirta* (L.) Hornem.

Common Name: **hairy lespedeza**

Species Code: **LEHI2**

Ecotype: **Southern Appalachian Mountain**

General Distribution: **Common throughout the Eastern United States from Maine South to Florida and westward to Texas, Oklahoma and Kansas. Usually found on rocky, droughty soils.**

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 Southern Appalachian source hairy lespedeza was hand harvested from existing populations within the confines of a USDI property in North Carolina.**

Propagule Processing: **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 21 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 an automatic overhead watering system set to cycle for 20 seconds every thirty minutes during daylight hours.**

Establishment Phase: **Germination typically occurs 7 - 14 days after placement in the greenhouse.**

Length of Establishment Phase: **7-14 days**

Active Growth Phase: **After germination, seedlings are maintained in a greenhouse environment 3-6 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: **3-6 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.**

Length of Hardening Phase: **2-4 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.**

References: **USDA, NRCS. 2015. The PLANTS Database (<http://plants.usda.gov>, 18 August 2015). National Plant Data Team, Greensboro, NC 27401-4901 USA.**

**Citation:**

Vandevender, John 2015. Propagation protocol for production of container *Lespedeza hirta* (L.) Hornem. plants (1+0 container plug); Natural Resources Conservation Service - Appalachian Plant Materials Center, Alderson, West Virginia. In: Native Plant Network. URL: <http://www.nativeplantnetwork.org> (accessed 19 August 2015). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.