

Protocol Information

USDA NRCS - Appalachian Plant Materials
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Plant Materials Program

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- Family Scientific Name: **Fabaceae**
Family Common Name: **Pea family**
Scientific Name: *Cercis canadensis* L.
Common Name: **eastern redbud**
Species Code: **CECA4**
Ecotype: **Stones River source**
General Distribution: **Eastern redbud is common throughout the eastern two-thirds of the continental United States with the exception of the New England states of Vermont, New Hampshire, and Maine and the North Central states of Wisconsin, North Dakota, and South Dakota.**
Known Invasiveness: **None**
Propagation Goal: **Plants**
Propagation Method: **Seed**
Product Type: **Bareroot (field grown)**
Stock Type: **1-0**
Time To Grow: **2 Years**
Target Specifications: **A well-developed plant suitable for transplanting by hand with at least 8 inches of top growth and a healthy, dense root system.**
Propagule Collection: **Mature seed pods were harvested by hand from existing healthy stands of eastern redbud within the confines of Stones River National Battlefield near Murfreesboro, Tennessee. Seed pods can be collected in autumn after the pods have turned tan or brown.**
Propagule Processing: **Collected seed pods are spread out and allowed sufficient time to completely air dry. Once air dried,**

seed is extracted from the pods by hand threshing. Seeds are separated from the chaff by screening and fanning. Nearly 100% seed purity can be obtained in cleaning the smooth redbud seeds.

Pre-Planting Treatments: Seeds are direct sown into prepared beds in the fall to achieve natural cold stratification. Seed may be mechanically scarified prior to planting in order to weaken the hard, water impermeable seed coat.

Growing Area Preparation/
Annual Practices for Perennial Crops: Slightly raised beds are prepared by deep plowing in a manner that throws the soil toward a central point, resulting in a n area roughly five feet in width and varying in length. The deep plowed area is then rototilled to break up large clumps and smooth the bed surface. The surface of the bed may require a final raking by hand to create a smooth, uniform surface for planting.

Establishment Phase: Seeds are sown by hand onto the surface of the prepared bed and pressed into the soil by deliberate foot traffic to ensure good seed to soil contact. Planted beds are covered with a light layer of straw to help prevent frost heaving overwinter. Mulched beds are then covered with heavy hardware cloth to anchor the straw mulch and to deter rodents from feeding on the seeds.

Length of Establishment Phase: **6 months**

Active Growth Phase: Germination of redbud seed is epigeous; that is, the cotyledons are lifted above the soil surface by rapid growth of the stem below the cotyledons or seed leaves. Seedlings may achieve a height of 6 to 12 inches during the first growing season.

Length of Active Growth Phase: **6 -8 months**

Hardening Phase: N/A

Length of Hardening Phase: N/A

Harvesting, Storage and Shipping: Seedlings are lifted with a mechanical bed lifter/shaker in late winter or early spring before the plants break dormancy. Plants are stored at 35 degrees Fahrenheit in plastic garbage barrels until shipped to planting sites. Roots are covered with aged, moistened sawdust to prevent desiccation while in storage. Seedlings are typically bundled together in groups of 25 plants for shipment and the roots are covered with damp sphagnum moss to prevent desiccation during shipment.

Length of Storage: **4-6 weeks**

References: **Bonner, F.T. and R. P. Karrfalt, 2008. The Woody Plants seed Manual. USDA Forest Service. Agriculture Handbook 727.**

Dirr, Michael A., 1998. Manual of Woody Landscape Plants, 5th ed. Stipes Publishing, LLC. Champaign, IL.

USDA, NRCS. 2013. The PLANTS Database (<http://plants.usda.gov>, 30 August 2013). National Plant Data Team, Greensboro, NC 27401-4901 USA

Citation:

Vandevender, John 2013. Propagation protocol for production of field-grown *Cercis canadensis* L. plants (1-0); USDA NRCS - Appalachian Plant Materials Center, Alderson, West Virginia. In: Native Plant Network. URL: <http://www.nativeplantnetwork.org> (accessed 13 September 2013). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.