

Protocol Information



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United States Department of Agriculture
Natural Resources Conservation Service

Corvallis

Plant Materials Center

Corvallis, Oregon

Family Scientific Name: **Ericaceae**

Family Common Name: **Heath**

Scientific Name: *Vaccinium scoparium* Leib. ex Coville

Common Name: **grouse whortleberry**

Species Code: **VASC**

Ecotype: **Crater Lake National Park at 6,600 feet elevation; in understory areas with well-developed duff layers; not found in exposed, windy areas.**

General Distribution: **Western North America and Rocky Mountains; east to South Dakota; usually at mid and higher montane elevations.**

Propagation Goal: **Plants**

Propagation Method: **Vegetative**

Product Type: **Container (plug)**

Stock Type: **2-year containers**

Time To Grow: **2 years**

Target Specifications: **Root growth and establishment is more important for this species than a showy top.**

Propagule Collection: **Slow and painstaking; our successful cuttings were actually carefully dug divisions with attached rhizomes from well-established plants in late summer.**

Propagule Processing: **Divisions collected into moist peat with some added native soil duff; kept moist and cool for transport with ice packs.**

Pre-Planting Treatments: **no specific treatments; the divisions were held in a**

walk-in cooler until Mid February at Corvallis, OR, and checked monthly to ensure that peat was staying moist.

Growing Area Preparation/

Annual Practices for Perennial Crops: **Divisions were careful lifted out of storage bags and stuck without rinsing or shaking off peat / duff mix. Divisions were stuck into 5" deep rooting boxes containing Sunshine #4 Aggregate-plus with equal parts vermiculite to provide a light-textured but still moisture-retentive mix, and placed in a mist bench with mild bottom-heat to promote rooting.**

Establishment Phase: **These plants were very slow to establish and fragile.**

Length of Establishment Phase: **3 months**

Active Growth Phase: **1st year rooted divisions were potted up into 4" square pots containing a rich, organic soil mix. Containers were held in lathhouse over summer; acid-special fertilizer was applied during growing season. In the 2nd season they were upgraded to 1-gallon containers, and aluminum sulfate was applied during the 2nd growing season to reduce soil pH. Liverworts and mosses were a problem on container plants overwintered outdoors in the lathhouse; the top layers of the potting media were carefully scraped and replaced during repotting in late spring of the 2nd year.**

Length of Active Growth Phase: **April to July**

Hardening Phase: **These plants remained under shade unlike most of our Crater Lake plants; watering in August was less frequent to encourage plants to mature.**

Length of Hardening Phase: **4 weeks**

Harvesting, Storage and Shipping: **Plants were shipped to a holding facility at Crater Lake in August of the 2nd year via refrigerated van.**

Length of Storage: **see above**

Outplanting performance on typical sites: **Micrositing would be important as these plants are not well adapted to full sun.**

Other Comments: **Limited seed propagation tried at PMC; berries sparse, slow and difficult to collect; literature recommends 90 days stratification in moist peat / sand but our small seed lot did not germinate in those conditions. Cuttings without at least a small amount of root / rhizome attached generally were not successful. Some soil / duff was deliberately collected along with the divisions; mycorrhizal**

associations are known to be important for many of the native *Vacciniums* and other than this we had no facility for providing inoculum to the cuttings.

The use of manufacturer and trade names in this document is for clarification only. No discrimination is intended and no endorsement is given by the USDA NRCS.

References: **Corvallis Plant Materials Center Technical Report: Plants for Woodland and Rangeland Reclamation and Erosion Control 1980 - 1997 (includes Annual Reports to Mount Rainier National Park from 1990 – 1996).**

Link, Ellen, ed. 1993. Native Plant Propagation Techniques for National Parks Interim Guide; Compiled by Rose Lake Plant Materials Center 7472 Stoll Road East Lansing, MI 48823

Rose, Robin, C.E.C. Chachulski and D. Haase. 1998. Propagation of Pacific Northwest Native Plants. Oregon. State Univ. Press, Corvallis, OR.

USDA, NRCS. 2001. The PLANTS Database, Version 3.1 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Citation:

Trindle, Joan DC; Flessner, Theresa R. 2003. Propagation protocol for vegetative production of container *Vaccinium scoparium* Leib. ex Coville plants (2-year containers); USDA NRCS - Corvallis Plant Materials Center, Corvallis, Oregon. In: Native Plant Network. URL: <http://www.nativeplantnetwork.org> (accessed 6 January 2010). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.