Protocol Information

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United States Department of Agriculture
Natural Resources Conservation Service

Corvallis
Plant Materials Center
Corvallis, Oregon

Family Scientific Name:	**Cornaceae**
Family Common Name:	**Dogwood**
Scientific Name:	***Cornus canadensis* L.**
Common Name:	**bunchberry dogwood**
Species Code:	**COCA13**
Ecotype:	**Our collection from Mount Rainier National Park at lower elevations - about 1,900 ft elevation along highway 123; growing in understory with *Acer circinatum*; ferns.**
General Distribution:	**Across Northern US in moist woods - Alaska, rocky mountain states south to New Mexico, also occurs in Greenland, East Asia.**
Propagation Goal:	**Plants**
Propagation Method:	**Seed**
Product Type:	**Container (plug)**
Stock Type:	**1-year plugs**
Time To Grow:	**1 Year**
Target Specifications:	**Healthy foliage and crown with roots free of rot, insect damage.**
Propagule Collection:	**Ripe berries collected from native stands in August. Often occurring in large patches; the low-growing plants with their fruit are easily identified and collected. Berries were not present in dry, hot years.**
Propagule Processing:	**Berries "pulsed" in blender with water using dulled blender blades; pulp strained out and seeds dried at room temperature on paper toweling. Remaining**

	pulp gently rubbed and blown off dried seed. Seed weights in our collection ranged from 69,000 to 77,000 / lb.
Pre-Planting Treatments:	**Seeds require a period of warm-moist stratification for 45 days; followed by cold-moist stratification for 140 days.**
Growing Area Preparation/ Annual Practices for Perennial Crops:	**Stratified seed sown into Ray Leach 10 inch "cone-tainers" filled with Fisons' Sunshine # 1 soilless potting mix amended with low rates of 3-month slow-release Osmocote fertilizer and Micromax micronutrients; then covered with a 1/2" layer of native "duff" - compost / leaf litter gathered from around the plants in their native stands.**
Establishment Phase:	**Seedlings started in a moderately cool poly greenhouse in spring under shade cloth; soil profile kept moist during germination / establishment.**
Length of Establishment Phase:	**2 months**
Active Growth Phase:	**Established cones moved to a shadehouse outdoors in May and maintained over summer with frequent watering and low rates of Peters' triple-20 applied monthly. Established plants can be protected from fungal root-rot with metalaxyl or other fungicides at label rates. Roots should be carefully inspected for root-damaging insects. At Corvallis, black-vine root weevils were a frequent pest and were controlled using soil drenches of Bio-Safe or Exhibit parasitic nematodes applied at label rates.**
Length of Active Growth Phase:	**May through July**
Hardening Phase:	**Fertilizer discontinued in July and irrigation intervals gradually lengthened. Plants remained in Lathhouse to avoid leaf-burn from full-sun exposure.**
Length of Hardening Phase:	**August - September**
Harvesting, Storage and Shipping:	**Plants can be fall-shipped in their containers for outplanting; well-watered before shipping and kept cool during transport.**
Length of Storage:	**Not recommended to overwinter: see comments**
Outplanting performance on typical sites:	**Fall - outplanting performed by Park; no feedback given. In general, the plants retained at Corvallis did tolerate transplanting from cones to 1-gallon containers, developing multiple crowns fairly soon after transplanting. Maintenance of these plants was difficult however; they need both ample moisture and aeration; root rot as well as black-**

vine root weevil infestation were continuing problems in containers. Neither of these problems was noted in established stands in their native habitat.

Other Comments: **Once established, these should be tenacious little ground-cover plants: in the collection area new shoots were found forcing their way up through asphalt pavement.**

Rose et al. reported that seeds can be stored in sealed containers at 3 to 5°C for up to 4 years; and that even with the proper stratification seed can take up to 3 years to fully germinate.

Due to changing labels, laws, and regulations, the authors and USDA NRCS assume no liability for pesticide information. Any use of a pesticide contrary to current product label instructions is neither legal nor recommended.

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:

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Citation:

Flessner, Theresa R.; Trindle, Joan D.C. 2003. Propagation protocol for production of container *Cornus canadensis* L. plants (1-year plugs); USDA NRCS - Corvallis Plant Materials Center, Corvallis, Oregon. In: Native Plant Network. URL: http://www.nativeplantnetwork.org (accessed 30 December 2009). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.