Protocol Information

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United States Department of Agriculture
Natural Resources Conservation Service

Corvallis
Plant Materials Center
Corvallis, Oregon

Family Scientific Name:	**Rosaceae**
Family Common Name:	**Rose**
Scientific Name:	***Spiraea splendens* Baumann ex K. Koch *splendens***
Common Synonym:	***Spiraea densiflora* Nutt. Ex. Greenm.**
Common Name:	**Alpine spirea; rose meadowsweet; mountain spirea**
Species Code:	**SPSPS**
Ecotype:	**Crater Lake National Park; 6,500 ft elevation, along streams in gravelly areas and base of talus slopes.**
General Distribution:	**Washington to California; east to Montana and Nevada; up to 11,000 ft elevation along streams and lakes, or on wooded or open rocky slopes.**
Propagation Goal:	**Plants**
Propagation Method:	**Seed**
Product Type:	**Container (plug)**
Stock Type:	**1-gallon containers**
Time To Grow:	**2 years**
Target Specifications:	**Multi-stemmed tops with well-developed, fibrous root system filling soil profile in container.**
Propagule Collection:	**Seeds easily collected by hand when flower heads have dried down on plants. If desired, cuttings can also be collected unobtrusively from these shrubs.**
Propagule Processing:	**Small amounts of seed can be hand-rubbed; larger quantities are threshed with geared-down hammermill with a 1/8” screen, followed by air-screening with a #8 round screen and medium – low**

	air flow.
Pre-Planting Treatments:	**48 days of cold-moist stratification (cold moist chilling) recommended; however some seeds germinated without any pretreatment. Germination was not formally tested for this species; however seedling emergence was excellent when sown at a rate of 5 to 8 seeds / cone**
Growing Area Preparation/ Annual Practices for Perennial Crops:	**Seeds were direct-sown into 10 inch "cone-tainers" containing a greenhouse media mix of Fisons' Sunshine #1 potting medium amended with 1 part compost-based potting mix to 4 parts Sunshine 1, and low rates of Osmocote slow-release NPK pellets.**
Establishment Phase:	**Seedlings were started on greenhouse benches in moderate temperatures in early spring. Emergence was fairly fast and uniform; some hand-thinning was required when sown at the rate listed above. Seedlings were fertilized with Peters' 9–45–15 NPK when established.**
Length of Establishment Phase:	**8 to 12 weeks**
Active Growth Phase:	**Established plants were moved to an outdoor shadehouse (47% shadecloth) on raised benches in late May when greenhouse temperatures became too warm. Aphids were sometimes a problem, and were controlled with Safers' insecticidal soap as needed. Plants were fertilized every 2 weeks with Peters' Triple 20 NPK at ½ - strength.**
Length of Active Growth Phase:	**May to August**
Hardening Phase:	**Fertilizer was withdrawn after July and intervals between waterings gradually lengthened in August to encourage vegetative maturity and stem suberization; shade cloth was withdrawn in late August to expose plants to a full sun environment.**
Length of Hardening Phase:	**6 weeks.**
Harvesting, Storage and Shipping:	**Cones were held over winter in Corvallis, OR, in an outdoor lathhouse; plants were repotted the following April into 1-gallon containers and returned to the shade house with drip irrigation for the 2nd season to reach the desired size. Generally only some light top-pruning was needed the 2nd hear to control stem height. Two-year 1-gallon containers were shipped via refrigerated van to Crater Lake National Park in late August for a few**

weeks additional acclimation prior to outplanting in September.

Length of Storage: **Container stock overwintered well at the Corvallis PMC.**

Outplanting performance on typical sites: **Fibrous rootballs should be well-scored prior to outplanting. Survival in the landscape planting was very good.**

Other Comments: **Rooting one-year-old summer softwood cuttings in mist bench was also successful. Larger cuttings could be directly potted up in 1-gallon containers. Since seeds were plentiful in most years and germination remained fairly high for at least 2 years, we preferred the ease of seed propagation. Where larger "specimen-type" plants are not needed, it should be feasible to directly plant 1-year cone-tainers into restoration sites.**

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:

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