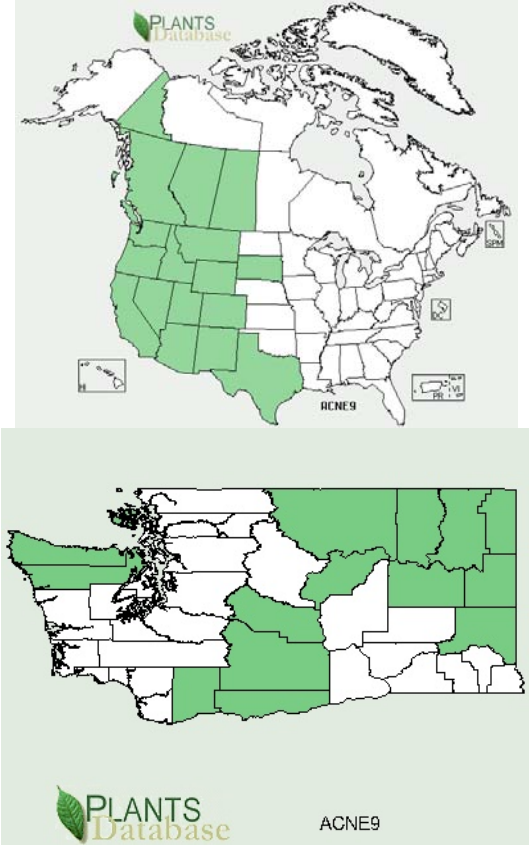


Propagation Protocol
Achnatherum nelsonii



(3)

Taxonomy	
Family Scientific Name	Poaceae
Family Common Name	Grass
Genus	<i>Achnatherum</i>
Species	<i>nelsonii</i>
Species Authority	Bark worth & Maze (6)
Common Synonyms	<i>Stipa Columbiana</i> (6)
Common Name	Columbia needlegrass
Species Code	ACNE9

<p>General Information</p>	
<p>Geographical Range</p>	 <p>(6)</p>
<p>Ecological Distribution</p>	<p>Mountain grass. 5000 - 12,500 ft. Needs more than 15 inches of precipitation a year.(3) Occurs in ecosystems of Mt. Grasslands, meadows, and plains. (8)</p>
<p>Plant Characteristics</p>	<p>A perennial monocot graminoid. (6) Erect, fined-stemmed bunchgrass. - seedhead: narrow, rather dense, often purplish. Up to 8 in. long. Sprinklets contain one floret. Lemmas hairy with twisted awn. - leaves: blades glabrous, flat when green and growing rolled when mature. (3)</p>
<p>Associated Species</p>	<p>Aspen (3), Wheatgrass, Bluegrass. (8)</p>
<p>Propagation Details</p>	
<p>Propagation Goal</p>	<p>Plants (2)</p>
<p>Propagation Method</p>	<p>Seed (2)</p>

Product Type	Container (plug) (2)
Time to Grow	Starts new growth in mid-Spring, matures by September. 5 months. (3)
Target Specifications	1 - 2 ½ ft tall (3)
Propagule Collection	Hand collected. Store in paper bag. (1)
Propagule Processing	Rub stems to remove seeds. Lot is then air-screened using a office Clipper, with a top screen, 4 x 18 wire and a bottom screen, blank, medium speed, medium air. Number of Seeds per Pound: 263,720, Purity: 99%, X-Ray 100 Seeds: 95% Filled (1)
Pre-Planting Propagule Treatments	Application of gibberellic acid will increase the percent germination. (9)
Growing Area Preparation	Requires well-drained, fine- textured soils with clay. (8)
Establishment Phase	No information for this species. - For <i>Acnatherum occidentale</i> : Sown seeds spent 20 weeks a cooler and were then moved to a shady site. Seedlings emerged quickly from there. (7)
Length of Establishment Phase	No information for this species. - For <i>Acnatherum occidentale</i> : 4 weeks. (7)
Active Growth Phase	Watch for growth problems such as rust and leaf spots. (7)
Length of Active Growth Phase	5 months (3)
Hardening Phase	Reduce water in August and move from shade to allow full sun acclimation. (7)
Length of Hardening Phase	4 weeks (7)
Harvesting/Storage/Shipping	Cold storage. 33 – 38 degrees F. (1)
Outplanting	Plant so that crowns are not heaved up at the soil line. (4)
Comments	Drought tolerant (8)
Informational Sources	
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ssp. *dorei* (Barkworth & Maze) seeds; USDA FS - R6 Bend Seed Extractory, Bend, Oregon. In: Native Plant Network. URL: <http://www.nativeplantnetwork.org> (accessed 27 May 2008). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.

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Other Sources Consulted	<p>10. Hartmann, Hudson T., Dale E. Kester, Fred T. Davies, and Robert L. Geneve. PLANT PROPAGATION: PRINCIPLES AND PRACTICES. 7th ed. Englewood Cliffs, NJ: Prentice Hall, 2001.</p>
Protocol Author	Jill Whitney Thornton
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