

**Plant Propagation Protocol for *Antennaria lanata* (Hook.) Greene**  
 ESRM 412 – Native Plant Production  
 Spring 2008



[www.lclark.edu/~bierzvch/Antennaria.html](http://www.lclark.edu/~bierzvch/Antennaria.html)

<b>TAXONOMY</b>	
<b>Family Names</b>	
Family Scientific Name:	Asteraceae
Family Common Name:	Aster Family
<b>Scientific Names</b>	
Genus:	<i>Antennaria</i>
Species:	<i>lanata</i>
Species Authority:	(Hook.) Greene <sup>1</sup>
Variety:	
Sub-species:	
Cultivar:	
Authority for Variety/Sub-species:	
Common Synonym(s) (include full scientific names (e.g., <i>Elymus glaucus</i> Buckley), including variety or subspecies information)	ANCAL <i>Antennaria carpatica</i> (Wahlenb.) Hook. var. <i>lanata</i> Hook. <sup>1</sup> <i>Antennaria microphylla</i> . <sup>1</sup> (Sometimes confused with Pearly Everlasting. <sup>4</sup> )
Common Name(s):	Wooly Pussytoes
Species Code (as per USDA Plants database):	ANLA3
<b>GENERAL INFORMATION</b>	
Geographical range (distribution maps for North America and Washington state)	WA, OR, CA, ID, MT, WY; BC and Alberta, Canada; <sup>1</sup>
Ecological distribution (ecosystems it occurs in, etc):	Extends from plains to spruce belt. Common in Parks, meadows, and hillsides. Dry to moderately moist soils. <sup>4</sup>
Climate and elevation range	Not available.

Local habitat and abundance; may include commonly associated species	Herbacious perennial. <sup>3</sup> Common in alpine and subalpine meadows. Cascade mountains east to Idaho and Wyoming. <sup>2</sup>
Plant strategy type / successional stage (stress-tolerator, competitor, weedy/colonizer, seral, late successional)	Not abundant but can increase in over-foraged areas. Able to withstand trampling. <sup>4</sup>
Plant characteristics (life form (shrub, grass, forb), longevity, key characteristics, etc)	Perennial from a short woody base, not rhizomatous, white-woolly throughout. Basal leaves erect, tufted and persistant, 3-10 cm. long and 3-10 mm. wide, usually with 3 main veins; Several heads in a compact inflorescence; pistillate involucre 5-8 mm. high, white-woolly toward the usually greenish base <sup>3</sup> .
<b>PROPAGATION DETAILS</b>	
Ecotype (this is meant primarily for experimentally derived protocols, and is a description of where the seed that was tested came from):	Representative for grower not able to reveal this information. <sup>5</sup>
Propagation Goal (Options: Plants, Cuttings, Seeds, Bulbs, Somatic Embryos, and/or Other Propagules):	Plants. <sup>5</sup>
Propagation Method (Options: Seed or Vegetative):	Seeds. <sup>5</sup>
Product Type (options: Container (plug), Bareroot (field grown), Plug + (container-field grown hybrids, and/or Propagules (seeds, cuttings, poles, etc.))	Plugs, bare-root (field-grown) <sup>5</sup> ,
Stock Type:	Use conetainer or direct seed. <sup>7</sup>
Time to Grow (from seeding until plants are ready to be outplanted):	Mid Spring-August. <sup>5</sup>
Target Specifications (size or characteristics of target plants to be produced):	Rosette plant. <sup>5</sup>
Propagule Collection (how, when, etc):	Late Summer, Fall. <sup>5</sup>
Propagule Processing/Propagule Characteristics (including seed density (# per pound), seed longevity, etc):	Seeds are small achenes crowned by numerous white bristles which are united at base and fall together. <sup>4</sup>
Pre-Planting Propagule Treatments (cleaning, dormancy treatments, etc):	No pre-treatment necessary. <sup>7</sup>

Growing Area Preparation / Annual Practices for Perennial Crops (growing media, type and size of containers, etc):	No current recommendations.
Establishment Phase (from seeding to germination):	Information not available at this time.
Length of Establishment Phase:	Not available.
Active Growth Phase (from germination until plants are no longer actively growing):	Not available.
Length of Active Growth Phase:	Not available.
Hardening Phase (from end of active growth phase to end of growing season; primarily related to the development of cold-hardiness and preparation for winter):	Not available.
Length of Hardening Phase:	Not available.
Harvesting, Storage and Shipping (of seedlings):	Not available.
Length of Storage (of seedlings, between nursery and outplanting):	Not available.
Guidelines for Outplanting / Performance on Typical Sites (eg, percent survival, height or diameter growth, elapsed time before flowering):	Not available.
Other Comments (including collection restrictions or guidelines, if available):	Information for this genus and species was very difficult to find as it is difficult to propagate. <sup>6</sup> The author of this protocol has been equally unsuccessful with it.
<b>INFORMATION SOURCES</b>	
References (full citations):	<ol style="list-style-type: none"> <li>1. USDA, NRCS. 2008. The PLANTS Database; <a href="http://plants.usda.gov/java/profile?symbol=ANLA3">http://plants.usda.gov/java/profile?symbol=ANLA3</a></li> <li>2. <a href="http://www.wnps.org/plants/antennaria_lanata.html">http://www.wnps.org/plants/antennaria_lanata.html</a></li> <li>3. <a href="http://biology.burke.washington.edu/herbarium/imagecollection/taxon.php?ID=615">http://biology.burke.washington.edu/herbarium/imagecollection/taxon.php?ID=615</a></li> <li>4. US DOA FS: <u>Range Plant Handbook</u>. 1937 (1988.)</li> <li>5. Grower: 4<sup>th</sup> Corner Nurseries, Bellingham, WA (360) 592-2250.</li> <li>6. Grower: Kathy Hutton; Plants of the Wild, Ticoa, WA (509) 284-2848.</li> <li>7. <a href="http://www.wilderness.net/toolboxes/documents/restoration/">www.wilderness.net/toolboxes/documents/restoration/</a>.</li> </ol>
Other Sources Consulted (but that contained no pertinent information) (full citations):	<p><b>Jacobson, Arthur Lee;</b> <u>Wild Plants of Greater Seattle</u>, 2<sup>nd</sup> Ed.; 2008. Arthur Jacobson Publishing.</p> <p><b>Toogood, Alan;</b> Editor-in-Chief American Horticultural Society; <u>Plant Propagation</u>. 1999. DK Publishing USA.</p> <p><b>Hitchcock, C. Leo; Cronquist, Arthur;</b> <u>Flora of the Pacific Northwest</u>. 1973. University of Washington Press.</p>

	<p><b>Kruckeberg, Arthur R;</b> <u>Gardening with Native Plants of the Pacific Northwest, 2<sup>nd</sup> Ed.</u> 2000. University of Washington Press.</p> <p><b>Hartmann, Hudson T; Kester, Dale E; Davies, Jr., Fred T; Geneve, Robert L;</b> <u>Plant Propagation Principles and Practices, 7<sup>th</sup> Ed.;</u> 2002. Prentice Hall. Pearson Education Inc.</p> <p><b>Crowder, Wayne;</b> USDA NRCS, Plant Materials Center, Pullman, Washington <a href="http://Plant-Materials.nrcs.usda.gov">http://Plant-Materials.nrcs.usda.gov</a>.</p> <p><b>Leigh, Michael;</b> <u>Grow Your Own Native Landscape.</u> Rev 1995. Reprinted 2005. WSU Extension – Thurston County.</p> <p><b>Pojar, Jim; MacKinnon, Andy;</b> Plants of the Pacific Northwest Coast. 2004. B.C. Ministry of Forests and Lone Pine Publishing.</p> <p><b>Rose, Robin; Chachulski, Caryn EC; Haase, Diane L;</b> <u>Propagation of Pacific Northwest Native Plants.</u> 1998. Oregon State University Press.</p> <p><b>Native Plant Notebook,</b> 2<sup>nd</sup> Ed.; Mt Baker-Snoqualmie National Forest, North Cascades Inst. 2105 SR 20, Sedro-Wooley, WA 98284-9394</p> <p><b>Oregon Association of Nurseries:</b> <a href="http://www.oan.org/">www.oan.org/</a>.</p> <p><b>Nature’s Enhancement Inc.:</b> Stevensville, MT (406) 777-3560.</p> <p><b>NATS, Nursery Ltd.;</b> Langley, BC (604) 530-9300.</p>
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Date Protocol Created or Updated (MM/DD/YY):	05/20/08

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