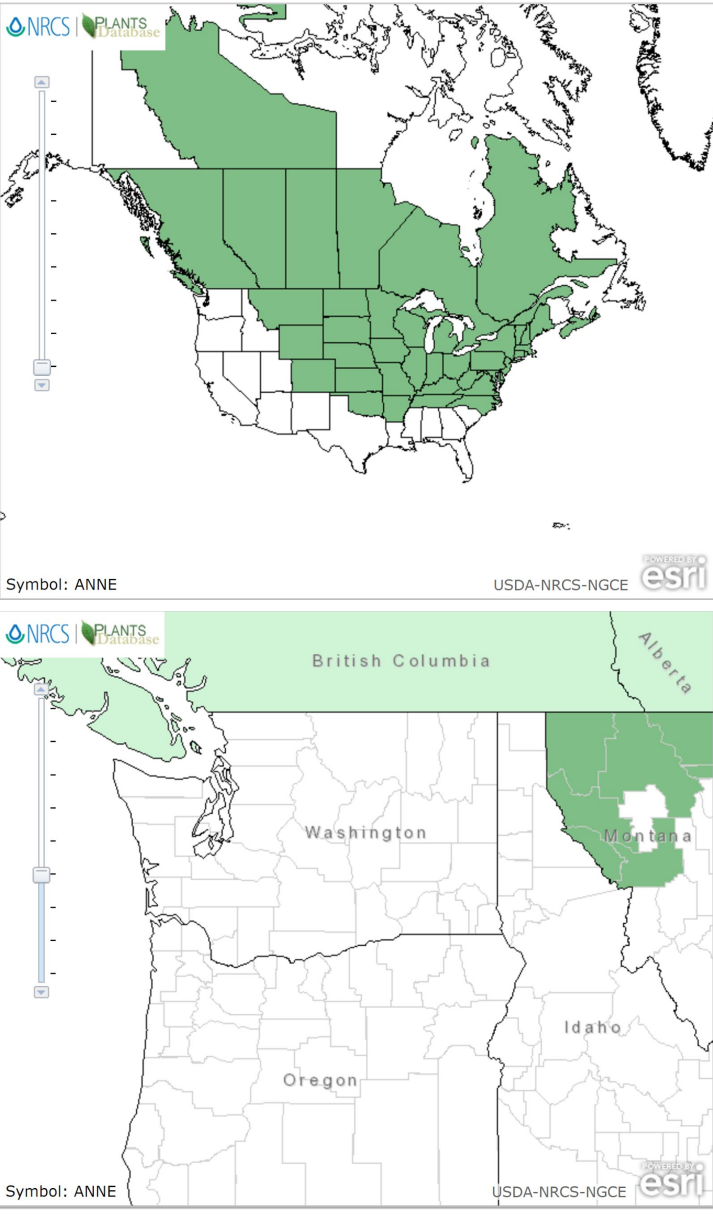


Plant Propagation Protocol for *Antennaria neglecta*

ESRM 412 – Native Plant Production

Protocol URL: [https://courses.washington.edu/esrm412/protocols/\[USDA Species Code.pdf\]](https://courses.washington.edu/esrm412/protocols/[USDA Species Code.pdf])

TAXONOMY	
Plant Family	
Scientific Name	<i>Asteraceae</i>
Common Name	Daisy family
Species Scientific Name	
Scientific Name	<i>Antennaria neglecta</i> Greene
Varieties	<i>Antennaria neglecta</i> Greene var. <i>athabascensis</i> (Greene) Roy L. Taylor & MacBryde, <i>Antennaria neglecta</i> Greene var. <i>campestris</i> (Rydb.) Steyerl., <i>Antennaria neglecta</i> var. <i>argillicola</i> (Stebbins) Cronquist, <i>Antennaria neglecta</i> var. <i>attenuata</i> (Fernald) Cronquist, <i>Antennaria neglecta</i> var. <i>canadensis</i> Cronquist, <i>Antennaria neglecta</i> var. <i>gaspensis</i> (Fernald) Cronquist, <i>Antennaria neglecta</i> var. <i>howellii</i> (Greene) Cronquist, <i>Antennaria neglecta</i> var. <i>neodioica</i> (Greene) Cronquist, <i>Antennaria neglecta</i> var. <i>petaloidea</i> (Fernald) Cronquist, <i>Antennaria neglecta</i> var. <i>randii</i> (Fernald) Cronquist, <i>Antennaria neglecta</i> fo. <i>simplex</i> (Peck) Fernald, and <i>Antennaria neglecta</i> var. <i>simplex</i> Peck are all varieties of the species (Search).
Sub-species	<i>Antennaria neglecta</i> var. <i>subcorymbosa</i> Fernald and <i>Antennaria neglecta</i> subsp. <i>howellii</i> (Greene) Hultén are two sub-species is Richardson’s needlegrass (Search).
Cultivar	
Common Synonym(s)	<i>Antennaria athabascensis</i> , <i>Antennaria campestris</i> var. <i>athabascensis</i> , <i>Antennaria campestris</i> Rydb., <i>Antennaria chelonia</i> Lunell, <i>Antennaria erosa</i> Greene, <i>Antennaria howellii</i> var. <i>athabascensis</i> (Greene) B. Boivan, <i>Antennaria longifolia</i> Greene, <i>Antennaria lunelli</i> Greene, <i>Antennaria parvula</i> Greene, and <i>Antennaria wilsonii</i> Greene are common synonyms of <i>Antennaria neglecta</i> (synonyms).
Common Name(s)	field pussytoes or pussy’s toes

Species Code	ANNE
GENERAL INFORMATION	
Geographical range	 <p>The figure consists of two maps. The top map, titled 'GENERAL INFORMATION', shows the geographical range of ANNE across the western United States and southern Canada. The range is indicated by green shading, covering areas from the Pacific Northwest coast down to the Gulf of Mexico and from the Rocky Mountains to the Appalachian region. The bottom map is a zoomed-in view of the Pacific Northwest region, showing British Columbia, Washington, Oregon, Idaho, and Montana. The range is indicated by green shading in British Columbia and Montana.</p>
Ecological distribution	Open forests of the Coast-Cascade mountains and the Olympics (Pojar).
Climate and elevation range	Dry and sunny climate within low to high elevations (Pojar).
Local habitat and abundance	Meadows and pastures that are dry and open with <i>A. racemosa</i> (Greene).
Plant strategy type / successional stage	This perennial forb plant that has a pioneer role in succession. It along with grass are first to colonize disturbed farmlands (old). <i>Antennaria neglecta</i> is

	drought-tolerant (Grant). This plant is then out-competed by more shade-tolerant plants (Reide).
Plant characteristics	This plant grows as a dense mat. It is stoloniferous, dioecious, and an angiosperm. It has a short lifespan as a forb/shrub (Conservation). This plant is drought-tolerant (Pettinger).
PROPAGATION DETAILS	
Comment	Propagation information is taken from a similar species in the same genus, <i>Antenneria rosea</i> , which also lives in dry, sunny habitat.
Ecotype	Rain shadow side where it is more dry.
Propagation Goal	Seedling
Propagation Method	Seed
Product Type	Use flats with seeds.
Stock Type	
Time to Grow	two months (Pettinger)
Target Specifications	5-30 cm tall (Pojar)
Propagule Collection Instructions	Seeds should be collected when seeds are mature in late summer (robson). The whole stem can be collected with shears (Pettinger).
Propagule Processing/Propagule Characteristics	6600000 seeds per pound (conservation)
Pre-Planting Propagule Treatments	Seeds should be cleaned from the fluffy chaff and then put into cold frame stratification for five month in the fall (robson)(pettinger).
Growing Area Preparation / Annual Practices for Perennial Crops	Seeds should be sown into seed starting mix or garden soil in indoor flats or open frames. (Grant) Once germinated, seedling can be transplanted directly into the garden or into individual pots. (pettinger) No fertilization needed (Grant).
Establishment Phase Details	5 months (Pettinger)
Length of Establishment Phase	
Active Growth Phase	2 months (Pettinger)
Length of Active Growth Phase	
Hardening Phase	1 month after active growth phase during the winter if sown in the fall and 7 months if sown in the spring (Grant)
Length of Hardening Phase	
Harvesting, Storage and Shipping	Stolons can be divided in late spring to summer but each division should have leaves and roots (Pettinger).
Length of Storage	
Guidelines for Outplanting / Performance on Typical Sites	
Other Comments	Do not overwater. The main problem field pussytoe has

	in cultivation is fungal diseases and excess moisture (grant).
INFORMATION SOURCES	
References	<p>"Conservation Plant Characteristics Antennaria Neglecta Greene Field Pussytoes ANNE." <i>Conservation Plant Characteristics for ScientificName (CommonName)</i> <i>USDA PLANTS</i>. USDA, 19 May 2017. Web. 19 May 2017.</p> <p>Grant, Bonnie L. "Pussytoes Ground Cover – How To Grow Pussytoes Plant." <i>Gardening Know How</i>. Gardening Know How, 01 Jan. 2017. Web. 23 May 2017.</p> <p>Greene, Edward Lee. <i>Pittonia: A Series of Papers Relating to Botany and Botanists</i>. Berkeley, CA: Doxey &, 1887. Print.</p> <p>"Name Search." <i>Tropicos</i>. Missouri Botanical Garden, n.d. Web. 24 May 2017.</p> <p>"Old Field Successional." <i>Historical Ecology of Onondaga Lake</i>. Weebly, n.d. Web. 22 May 2017.</p> <p>Pettinger, April, and Brenda Costanzo. <i>Native Plants in the Coastal Garden: A Guide for Gardeners in the Pacific Northwest</i>. Portland, Or.: Timber, 2003. Print.</p> <p>Pojar, Jim. "Aster." <i>Plants of the Pacific Northwest Coast</i>. Place of Publication Not Identified: Partners Pub Group, 2004. 302-03. Print.</p> <p>Reid, Elbert H., Charles G. Johnson, and Wade B. Hall. <i>Green Fescue Grassland: 50 Years of Secondary Succession under Sheep Grazing</i>. Baker City, Or.: U.S. Dept. of Agriculture, Forest Service, Pacific Northwest Region, Wallowa-Whitman National Forest, 1991. Print.</p> <p>Robson, Kathleen A., Alice Richter, and Marianne Filbert. <i>Encyclopedia of Northwest Native Plants for Gardens and Landscapes</i>. Portland, Or.: Timber, 2008. Print.</p> <p>"Synonyms: Antennaria Neglecta Greene." <i>Tropicos</i>. Missouri Botanical Garden, n.d. Web. 24 May 2017.</p>
Other Sources Consulted	

Protocol Author	Sabrina Gilmour
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