

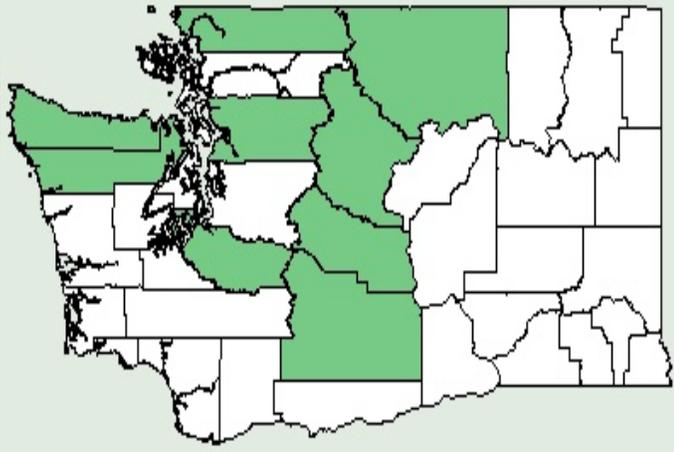
**Plant Propagation Protocol for [*Anemone drummondii*]**  
ESRM 412 – Native Plant Production



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<b>TAXONOMY</b>	
<b>Family Names</b>	
Family Scientific Name:	<i>Ranunculaceae</i>
Family Common Name:	buttercup
<b>Scientific Names</b>	
Genus:	<i>Anemone</i>
Species:	<i>drummondii</i>
Species Authority:	S. Watson [1]
Common Synonym(s)	<i>Anemone drummondii</i> S. Watson ssp. <i>drummondii</i>
Common Name(s):	Drummond's anemone, Alpine anemone
Species Code	ANDR, ANDRD

## GENERAL INFORMATION

<p>Geographical range</p> 	
<p>Ecological distribution</p>	<p>Mesic to dry meadows, rocky slopes, coniferous forest, alpine. Found in the Olympic and Cascade ranges, as well as Sierra Nevada and Klamath ranges. [3]</p>
<p>Climate and elevation range</p>	<p>Afternoon shade, 1200-3350m [2]</p>
<p>Local habitat and abundance</p>	<p>Individual plants can grow to 0.5m tall and 2m across, sprawling across understory and shaded edges. Commonly associated with <i>Achillea millefolium</i>, <i>Amelanchier</i> sp, <i>Pinus monticola</i>.</p>
<p>Plant strategy type / successional stage</p>	
<p>Plant characteristics</p>	<p>Creeping perennial, grows from tuberous rhizome. Does best if planted directly where desired, but overwintering corms may be divided and transplanted. Leaves are deeply lobed and serrate. Stems and foliage are covered densely with hairs. Flowers appear in early spring (often through snow), with showy blue-white sepals. Seed borne in cottony achenes. [6] “In late summer the foliage dies down and the plant disappears.” [7]</p>
<h3>PROPAGATION DETAILS</h3>	
<p>Propagation Goal:</p>	<p>Plants</p>
<p>Propagation Method :</p>	<p>Seed</p>
<p>Product Type :</p>	<p>Plants (bare root/field)</p>
<p>Time to Grow</p>	<p>1 year</p>
<p>Target Specifications</p>	<p>Transplantable rhizomes (“corms”)</p>
<p>Propagule Collection</p>	<p>Collect seeds as soon as ripe, before carried away by wind.</p>
<p>Propagule Processing/Propagule Characteristics</p>	<p>Seeds are attached to a fluffy dispersal mechanism, which can easily be removed by rubbing with sand. [5]</p>

Pre-Planting Propagule Treatments	No dormancy. "Seed, sown as soon as ripe, gives a very good percentage of germination and is, almost certainly, the best means of increasing stock." [7] Germination occurs 2-4 weeks after sowing, which may be increased by stratification in cold moist sand for 10 days [5]. Seed may be stored at 60°F in a dry place.
Growing Area Preparation / Annual Practices for Perennial Crops	Does well in soils with high organic content. Prefers well-draining sandy loam which maintains moisture. Prepare by raking in compost 12 inches deep, maintaining pH neutral. If growing in containers, a mixture of the following is acceptable: 2 parts loam 1 part peat 1 part sand 1.5 oz superphosphate per bushel 0.75oz ground limestone per bushel
Establishment Phase (from seeding to germination):	Sow seed in March for bloom in September. Seeds planted later will bloom the following year. Sow thinly and cover with 1mm soil. Keep moist through germination, as dry plants die back and go dormant. Warm temperatures speed germination. [5]
Length of Establishment Phase:	4 weeks
Active Growth Phase	Growth is rapid when warm and moist, and plants do best if shaded from afternoon heat. Leaf arrangement may cause a local greenhouse near ground level for growth in cold temperatures. [8]
Length of Active Growth Phase:	16 weeks
Hardening Phase	Toward the end of summer, plants will enter dormancy and foliage will die back as temperatures drop and moisture is reduced. For commercial propagation of blooming corms, foliage is burnt off to force dormancy. [5]
Length of Hardening Phase:	4 weeks
Harvesting, Storage and Shipping (of seedlings):	Leave dormant plants in the ground to overwinter. Harvest in April when new growth starts.
Length of Storage	Plant immediately.
Guidelines for Outplanting / Performance on Typical	Transplant entire plants to their final site. Larger and more vigorous rhizomes may be divided, as new growth will occur from many eyes on the tuber. Breaking up into smaller pieces gives more vigorous blooms the first year, but makes for weak and disposable plants. Once established, plants dislike disturbance of the fibrous root system. Site soil should be neutral and well-mulched with organic matter for moisture retention.

## INFORMATION SOURCES

References (full citations):	
Other Sources Consulted (but that contained no pertinent information) (full citations):	
Protocol Author (First and last name):	
Date Protocol Created or Updated (MM/DD/YY):	

References (websites accessed 2009-05-29):

[1] USDA Plants Database

<http://plants.usda.gov/java/profile?symbol=ANDR>

[2] Treatment from the Jepson Manual

[http://ucjeps.berkeley.edu/cgi-bin/get\\_JM\\_treatment.pl?Anemone+drummondii](http://ucjeps.berkeley.edu/cgi-bin/get_JM_treatment.pl?Anemone+drummondii)

[3] Douglas, G.W., G.B. Straley, D.V. Meidinger, and J. Pojar (editors). 1998. Illustrated Flora of British Columbia

[4] E-Flora BC Photo Gallery. Photo by Jim Riley 2004

<http://linnet.geog.ubc.ca/ShowDBImage/ShowStandard.aspx?index=52>

[5] Genders, Roy. London 1956. Anemones

[6] Washington Native Plant Society, Olympic Peninsula Chapter. Text by Don Paulson.

<http://pws.cablespeed.com/dixie/anemone.htm>

[7] Preece, W.H.A. 2007. North American Rock Plants pg. 6

[8] Davidsonia: A Journal of Botanical Garden Science. Vol 16:3. June 2005. pp. 99-101