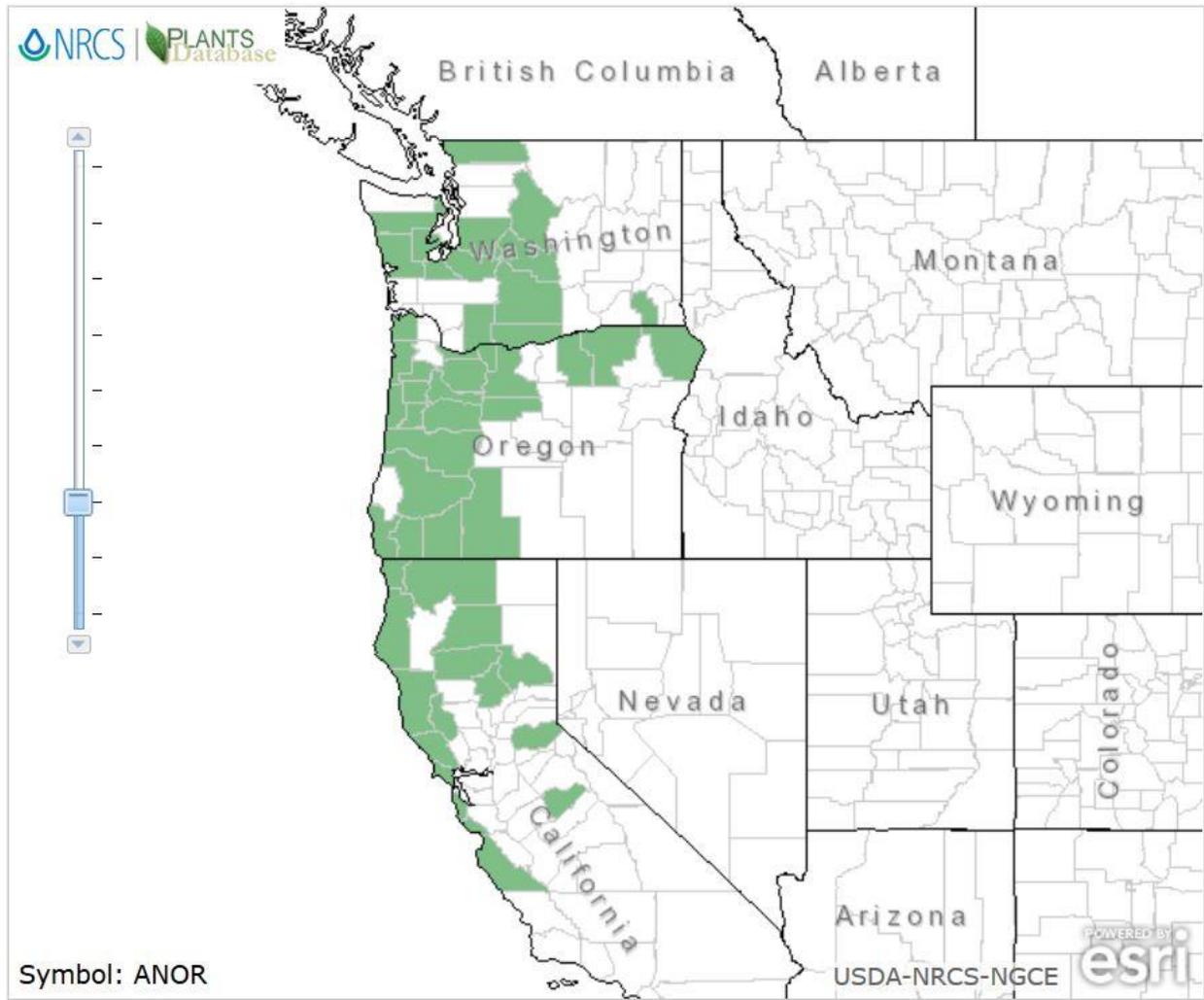


## Plant Propagation Protocol for *Anemone oregana*

ESRM 412 – Native Plant Production

Protocol URL: <https://courses.washington.edu/esrm412/protocols/ANOR.pdf>



USDA Plants Database<sup>13</sup>

<b>TAXONOMY</b>	
<b>Plant Family</b>	
Scientific Name	<i>Ranunculaceae</i>
Common Name	Buttercup family
<b>Species Scientific Name</b>	
Scientific Name	<i>Anemone oregana</i> A. Gray
Varieties	N/A
Sub-species	<i>Anemone oregana</i> var. <i>felix</i> (M. Peck) C.L. Hitchc. <i>Anemone oregana</i> var. <i>oregana</i> A. Gray
Cultivar	N/A
Common Synonym(s)	<i>Anemone oregana</i> var. <i>felix</i> (M. Peck) C.L. Hitchc.— bog anemone <i>Anemone oregana</i> var. <i>oregana</i> A. Gray— blue windflower
Common Name(s)	Blue windflower, blue anemone, Oregon windflower, Oregon anemone, western wood anemone
Species Code (as per USDA Plants database)	ANOR
<b>GENERAL INFORMATION</b>	
Geographical range	See Above
Ecological distribution	Coastal (Olympic Peninsula), West-side forests, East-side forests <sup>10</sup>
Climate and elevation range	Grows from sea level to 5000ft in elevation (Zones 5a-9b).
Local habitat and abundance	Relatively uncommon, but abundant enough to not be of concern. It grows in moist, shaded conifer forests among moss or other plants. Facultative upland species for the Arid West and Western Mountains, Valleys, and Coast. <sup>8,12</sup> Typically not available for purchase in nurseries. <sup>1</sup>
Plant strategy type / successional stage	Weedy/colonizer, like most species in the buttercup family.
Plant characteristics	Perennial herbaceous species, with compound stem leaves of three coarsely toothed and lobed leaflets. Flowers are typically blue but may range to reddish-purple or pale-pink, and are 20-40mm wide. Achenes are described as “finely hairy,” and are oval to ovate in shape. <sup>5, 12</sup> Grows 3-10 in with an erect single stem, with 5 petal-like sepals and more than 35 stamens. <sup>6</sup> Has horizontal rhizomes. Flowering time is mid-spring, but may vary from March through June. <sup>4</sup>

### PROPAGATION DETAILS

General *Anemone* seed propagation taken from the book *From Seed to Bloom*—author Eileen Powell.<sup>7</sup>

Ecotype	Not Available
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Not Available
Stock Type	Not Available
Time to Grow	Not Available
Target Specifications	Not Available
Propagule Collection Instructions	Not Available
Propagule Processing/Propagule Characteristics	Not Available
Pre-Planting Propagule Treatments	Autumn sowing: sink seeds in the ground against a north-facing wall and cover in glass. Water occasionally if needed and bring indoors in spring from 60-70°F. Spring sowing: Sow seeds in moist medium, keep in plastic bag, and refrigerate for 2-3 weeks. Sink containers in the ground in a shady location and cover with glass. Transplant seedlings as they emerge.
Growing Area Preparation / Annual Practices for Perennial Crops	Space seedlings out 5-8 in apart.
Establishment Phase Details	Germination time 15-180 days
Length of Establishment Phase	Not Available
Active Growth Phase	Use “average” soil with humus or well-rotted manure added. Water regularly and mulch in the summer to keep soil cool.
Length of Active Growth Phase	Not Available
Hardening Phase	Mulch when winters are severe.
Length of Hardening Phase	Not Available
Harvesting, Storage and Shipping	Not Available
Length of Storage	Not Available
Guidelines for Outplanting / Performance on Typical Sites	N/A
Other Comments	N/A

### PROPAGATION DETAILS

General *Anemone* seed propagation from *Botanical.com*—author Mrs. M. Grieve<sup>2</sup>

Ecotype	Not Available
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Not Available
Stock Type	Not Available
Time to Grow	Seed sown into garden or field within a month after ripening on the plant.

Target Specifications	Not Available
Propagule Collection Instructions	Not Available
Propagule Processing/Propagule Characteristics	Seeds only last for about a month after harvesting from the mature parent.
Pre-Planting Propagule Treatments	Do not store, sow within a few weeks of collection. Kruckeberg suggests sowing in the fall after harvest. <sup>3</sup>
Growing Area Preparation / Annual Practices for Perennial Crops	Sow thinly in lines on the surface of the soil. Rake in very lightly. Expect germination to be slow.
Establishment Phase Details	Expect germination to be slow.
Length of Establishment Phase	Not Available
Active Growth Phase	Thin the plants to 6 in apart. Thinned plants can be transplanted if handled carefully and watered in after transplanting. Anemones prefer loamy soils, well drained, with compost mixed in.
Length of Active Growth Phase	Not Available
Hardening Phase	Not Available
Length of Hardening Phase	Not Available
Harvesting, Storage and Shipping	Not Available
Length of Storage	Not Available
Guidelines for Outplanting / Performance on Typical Sites	The first flowers are usually produced the first spring after sowing, depending on outplanting environment.
Other Comments	N/A

### **PROPAGATION DETAILS**

General *Anemone* seed propagation from SFGate— author Alicia Rudnicki.<sup>9</sup>

Ecotype	Not Available
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Not Available
Stock Type	Not Available
Time to Grow	Not Available
Target Specifications	Not Available
Propagule Collection Instructions	Not Available
Propagule Processing/Propagule Characteristics	Seeds should be refrigerated for three weeks before planting in areas with mild winter temperatures.
Pre-Planting Propagule Treatments	Lightly cover seeds with soil and keep seeds stored in a room 60-65°F. Germination will occur in 4-5 weeks.
Growing Area Preparation / Annual Practices for Perennial Crops	Can plant in peat pots or trays of potting mix.
Establishment Phase Details	Keep them moist but not soggy. Keep them in locations with full sun to partial shade.
Length of Establishment Phase	Not Available
Active Growth Phase	Divide and replant every fourth season or so. Anemones prefer loamy soils, well drained, with compost mixed in.

Length of Active Growth Phase	Not Available
Hardening Phase	Not Available
Length of Hardening Phase	N/A (no hardening phase)
Harvesting, Storage and Shipping	N/A
Length of Storage	Not Available
Guidelines for Outplanting / Performance on Typical Sites	Outplant seedlings outdoors when danger of frost is past for the year. Time outplanting to work with the time of year the anemone blossoms. Anemones may blossom in the spring or early summer depending on if they were planted in the fall or early spring.
Other Comments	N/A
<b>PROPAGATION DETAILS</b>	
General <i>Anemone</i> vegetative propagation from SFGate— author Alicia Rudnicki <sup>9</sup> , contributing sources from Botanical.com—author Mrs. M. Grieve <sup>2</sup> and The Gardener’s Network. <sup>11</sup>	
Ecotype	Not Available
Propagation Goal	Plants
Propagation Method	Seeds and Vegetative
Product Type	Not Available
Stock Type	Not Available
Time to Grow	Not Available
Target Specifications	Not Available
Propagule Collection Instructions	October through the end of March is an ideal time to plant rhizomes or tubers.
Propagule Processing/Propagule Characteristics	Not Available
Pre-Planting Propagule Treatments	Soak rhizomatous material before planting.
Growing Area Preparation / Annual Practices for Perennial Crops	Plant 3-6 in apart, at a depth no greater than 3 in (The Gardener’s Network suggests 1-2 in).
Establishment Phase Details	Keep them moist but not soggy. Keep them in locations with full sun to partial shade.
Length of Establishment Phase	Not Available
Active Growth Phase	Divide and replant every fourth season or so. Anemones prefer loamy soils, well drained, with compost mixed in.
Length of Active Growth Phase	Not Available
Hardening Phase	N/A (no hardening phase required)
Length of Hardening Phase	N/A
Harvesting, Storage and Shipping	Not Available
Length of Storage	Not Available
Guidelines for Outplanting / Performance on Typical Sites	Time outplanting to work with the time of year the anemone blossoms. Anemones may blossom in the spring or early summer depending on if they were planted in the fall or early spring.
Other Comments	N/A

## INFORMATION SOURCES

### References

<sup>1</sup>California Native Plant Society. *Oregon Anemone*. Retrieved from [http://calscape.org/search/Anemone-oregana-\(Oregon-Anemone\)?srchcr=sc59209a7b3f5e6](http://calscape.org/search/Anemone-oregana-(Oregon-Anemone)?srchcr=sc59209a7b3f5e6) Accessed 21 May 2017.

<sup>2</sup>Grieve, M. Anemones. Botanical.com. Retrieved from <http://www.botanical.com/botanical/mgmh/a/anemo034.html#cul> Accessed 20 May 2017.

<sup>3</sup>Kruckeberg, A. R (1982). *Gardening with Native Plants of the Pacific Northwest*. Vancouver: BC, University of Washington Press.

<sup>4</sup>Lady Bird Johnson Wildflower Center through The University of Texas in Austin. Plant Database – *Anemone oregana*. Retrieved from [http://www.wildflower.org/plants/result.php?id\\_plant=ANOR](http://www.wildflower.org/plants/result.php?id_plant=ANOR) Accessed 21 May 2017.

<sup>5</sup>Martin, A. C., and Barkley, W. D (1961). *Seed Identification Manual*. Berkley and Los Angeles: CA, University of California Press.

<sup>6</sup>Pojar, J. and MacKinnon, A (1994). *Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia & Alaska*. Vancouver: BC, Lone Pine Publishing.

<sup>7</sup>Powell, E (1995). *From Seed to Bloom*. Pownal: VT, Storey Communications, Inc.

<sup>8</sup>Robson, K. A., Richter, A., and Filbert, M (2005). *Encyclopedia of Northwest Native Plants for Gardens and Landscapes*. Portland, OR: Timber Press, Inc.

<sup>9</sup>Rudnicki, A. *Propagating Perennial Anemones*. SF Gate. Retrieved from <http://homeguides.sfgate.com/propagating-perennial-anemones-32825.html> Accessed 20 May 2017.

	<p><sup>10</sup>The Burke Museum of Natural History and Culture and The Washington Native Plant Society. <i>Anemone oregana</i>. Retrieved from <a href="http://biology.burke.washington.edu/herbarium/imagecollection.php?Genus=Anemone&amp;Species=oregana">http://biology.burke.washington.edu/herbarium/imagecollection.php?Genus=Anemone&amp;Species=oregana</a> Accessed 21 May 2017.</p> <p><sup>11</sup>The Gardener's Network. <i>How to Grow Anemone Flower Plants</i>. Premier Star Company. Retrieved from <a href="http://www.gardenersnet.com/flower/anemone.htm">http://www.gardenersnet.com/flower/anemone.htm</a> Accessed 20 May 2017.</p> <p><sup>12</sup>Turner, M. and Gustafson, P (2006). <i>Wildflowers of the Pacific Northwest</i>. Portland: OR, Timber Press, Inc.</p> <p><sup>13</sup>United States Department of Agriculture and Natural Resource Conservation Service. Plants Database: <i>Anemone oregana</i> A. Gray. Retrieved from <a href="https://plants.usda.gov/core/profile?symbol=ANOR">https://plants.usda.gov/core/profile?symbol=ANOR</a> Accessed 20 May 2017.</p>
Other Sources Consulted	<p>Corvallis PMC. <i>Native Seed Production Manual for the Pacific Northwest</i>. USDA. Retrieved from <a href="https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/orpmcpu12767.pdf">https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/orpmcpu12767.pdf</a> Accessed 20 May 2017.</p> <p>Leigh, M (1999). <i>Grow Your Own Native Landscape</i>. WSU Cooperative Extension-Thurston County.</p> <p>Native Seed Network. Retrieved from <a href="http://www.nativeseednetwork.org/seed_search">http://www.nativeseednetwork.org/seed_search</a> Accessed 21 May 2017.</p> <p>Pettinger, A. and Costanzo, B (1996). <i>Native Plants in the Coastal Garden</i>. Portland: OR, Timber Press, Inc.</p> <p>Smith, M. N (2006). <i>Native Treasures: Gardening with the Plants of California</i>. Berkley and Los Angeles: CA, University of California Press.</p> <p>United States Department of Agriculture (1988). <i>Range Plant Handbook</i>. New York: NY, Dover Publications, Inc.</p>

	University of Washington Libraries Database  Young, J. A., and Young, C. G (1986). <i>Collecting, Processing, and Germinating Seeds of Wildland Plants</i> . Portland: OR, Timber Press, Inc.
Protocol Author	Kelsey Taylor
Date Protocol Created or Updated	05/21/17

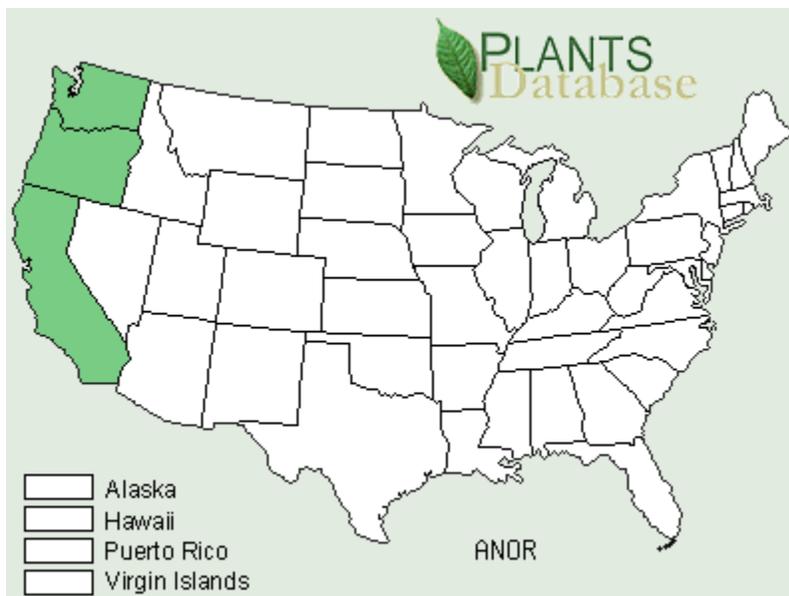
## Plant Data Sheet

Species:

Blue Anemone or Oregon Windflower *Anemone oregana*



Range:



Climate, elevation

Local occurrence: Washington and Oregon Cascades and also in the Oregon coast ranges and the Olympic Mountains.

Habitat preferences: Moist forests, marshes and forest openings,

Associated species: *A. deltoidea*, *A. parviflora*, *A. lyallii*.

May be collected as: Seeds or Cuttings

Collection restrictions or guidelines: Seeds collected in September.

Recommended seed storage conditions: Seed should be stored at 3 to 5°C with low relative humidity in sealed containers. Cuttings should be kept moist and under refrigeration

Propagation recommendations: Seed, cuttings.

Soil or medium requirements: Mesic to moist, no inoculum necessary.

Installation form: Seed or cuttings.

Recommended planting density: Space 24+ inches

Care requirements after installed: Water weekly depending on weather, use well drained soil. Not drought tolerant.

Normal rate of growth or spread; lifespan: Blooms in spring

Sources cited:

Pojar J., McKinnon A., 1994 *Plants of the Pacific Northwest*, B.C. Ministry of Forests and Lone Publishing, Canada

Data compiled by: Karen Suyama June 2005