

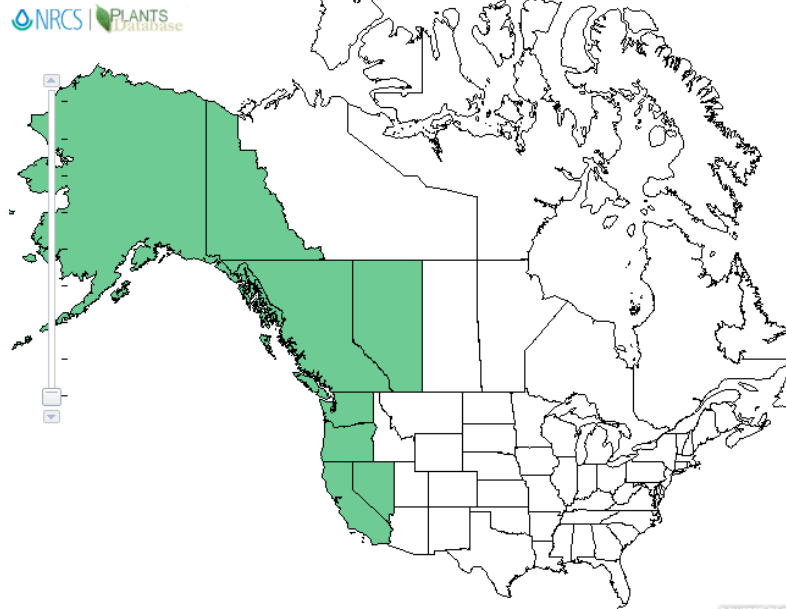
**Plant Propagation Protocol for *Ranunculus occidentalis* Nutt.**

ESRM 412 – Native Plant Production

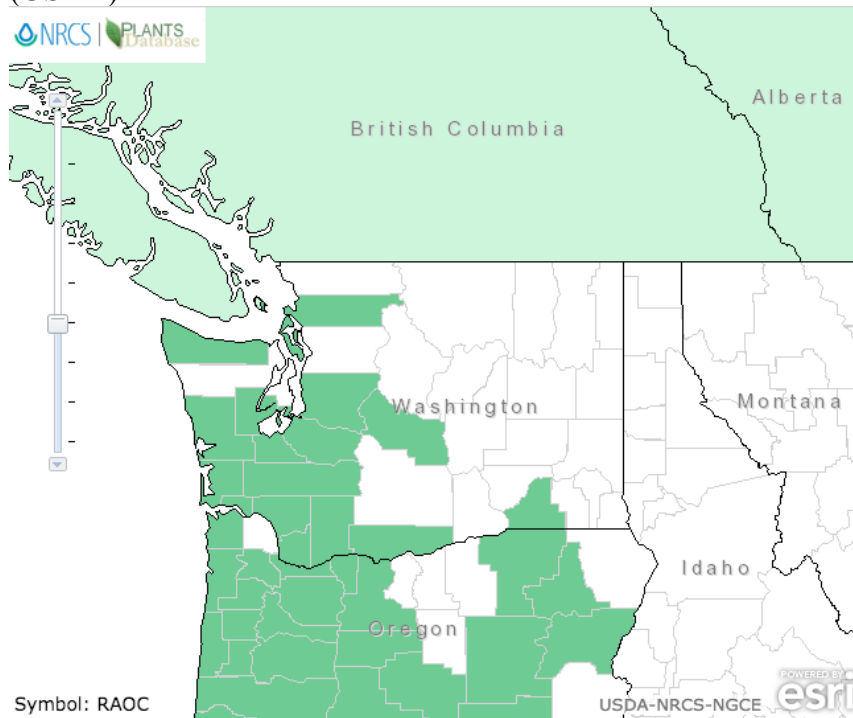
Protocol URL: <https://courses.washington.edu/esrm412/protocols/RAOC.pdf>

<b>TAXONOMY</b>	
Plant Family	Ranunculaceae (commonly known as crowfoot or buttercup family) (USDA)
Scientific Name	<i>Ranunculus occidentalis</i> (USDA)
Common Name	Western buttercup, western field buttercup (USDA)
Species Scientific Name	
Scientific Name	<i>Ranunculus occidentalis</i> Nutt. (PFAF)
Varieties	<i>Ranunculus occidentalis</i> var. <i>brevistylis</i> Greene <i>Ranunculus occidentalis</i> var. <i>dissectus</i> Henderson <i>Ranunculus occidentalis</i> var. <i>hexasepalus</i> Benson <i>Ranunculus occidentalis</i> var. <i>howellii</i> Greene <i>Ranunculus occidentalis</i> var. <i>nelsonii</i> Benson <i>Ranunculus occidentalis</i> var. <i>ultramontanus</i> Greene (Torrey and Gray and Calflora)
Sub-species	None found (USDA and Torrey and Gray)
Cultivar	None found
Common Synonym(s)	
Common Name(s)	Western buttercup (WNPS)
Species Code (as per USDA Plants database)	RAOC (USDA)
<b>GENERAL INFORMATION</b>	

Geographical range



Symbol: RAOC  
(USDA)



Symbol: RAOC  
(USDA)

Western N. America – British Columbia to California and Nevada  
(PFAF)

Ecological distribution

Moist wetland areas, vernal pools, open meadows, forests, uplands  
(USDA and GBIF)

Climate and elevation range

Moist, sun and shade (WNPS), elevation from sea level to 2200 m (GBIF)

Local habitat and

Wetlands, vernal pools (USDA), coastal bluffs, open forests, forest edges

abundance	or clearings, pastures of fields, meadows or grassy areas, nutrient rich, moist soil (WNPS)
Plant strategy type successional stage	Perennial, mid successional until canopies close (Smith), early blooming (USDA), early seral, herbaceous and grassy communities (Klinka)
Plant characteristics	Forb, perennial, flowers from May to July, hermaphroditic, insect-pollinated flowers (PFAF)
<b>PROPAGATION DETAILS</b>	
Ecotype	Seeds harvested from mature plants, dried thoroughly (USDA)
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container
Stock Type	Plug
Time to Grow	One growing season, germination should occur 5 to 6 weeks after sowing and plants will produce seeds after one winter of growth (USDA)
Target Specifications	
Propagule Collection Instructions	Late summer, early fall, can be done by hand or using a flail vacuum type seed stripper (USDA)
Propagule Processing/Propagule Characteristics	Average seed yields at the Corvallis Plant Materials Center are from 60 to 80 pounds per acre using weed fabric (USDA), approximately 240,000 seeds per pound (OFS)
Pre-Planting Propagule Treatments	Seeds can be cleaned easily using an air screen machine (USDA)
Growing Area Preparation / Annual Practices for Perennial Crops	Moist soil is preferred, it will tolerate all soil types and a range of pH values (USDA)
Establishment Phase Details	Seeds germinate at 50 to 60 degrees Fahrenheit, can be directly sown in the fall and will grow throughout winter (USDA)
Length of Establishment Phase	1 growing season
Active Growth Phase	
Length of Active Growth Phase	
Hardening Phase	Will go dormant in the summer after setting seed and re-emerge in fall after first rains (USDA)
Length of Hardening Phase	From seed setting in summer until fall after first rains (USDA)
Harvesting, Storage and Shipping	Store seeds in cool, dry place (Smith)

Length of Storage	
Guidelines for Outplanting / Performance on Typical Sites	
Other Comments	
<b>INFORMATION SOURCES</b>	
References	<p>Calflora. <a href="http://www.calflora.org/cgi-bin/species_query.cgi?where-taxon=Ranunculus+occidentalis">http://www.calflora.org/cgi-bin/species_query.cgi?where-taxon=Ranunculus+occidentalis</a> Web. 26 April 2016.</p> <p>Global Biodiversity Information Facility (GBIF). 2016. <a href="http://www.gbif.org/species/3033353">http://www.gbif.org/species/3033353</a> Web. 24 April 2016.</p> <p>Klinka, K. Indicator Plants of British Columbia. 1989. Print. 25 April 2016.</p> <p>Oregon Flower Seed. <a href="http://www.oregonflowerseed.com/seed/Oregon-Native-Seed/Buttercup-Western.html">http://www.oregonflowerseed.com/seed/Oregon-Native-Seed/Buttercup-Western.html</a> Web. 26 April 2016.</p> <p>Plants For A Future (PFAF). <a href="http://www.pfaf.org/user/Plant.aspx?LatinName=Ranunculus+occidentalis">http://www.pfaf.org/user/Plant.aspx?LatinName=Ranunculus+occidentalis</a> Web. 24 April 2016.</p> <p>Smith, Sierra. 2006. <a href="http://depts.washington.edu/propplnt/Plants/Ranunculus%20occidentalis.htm">http://depts.washington.edu/propplnt/Plants/Ranunculus%20occidentalis.htm</a> Web. 24 April 2016.</p> <p>Torrey, J., and A. Gray. 2012. <i>Ranunculus occidentalis</i>. Flora of North America. <a href="http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=233501179">http://www.efloras.org/florataxon.aspx?flora_id=1&amp;taxon_id=233501179</a> Web. 26 April 2016.</p> <p>USDA. PLANTS database. <a href="http://plants.usda.gov/core/profile?symbol=RAOC">http://plants.usda.gov/core/profile?symbol=RAOC</a> Web. 23 April 2016.</p> <p>Washington Native Plants Society (WNPS). 2007. <a href="http://www.wnps.org/landscaping/herbarium/pages/ranunculus-occidentalis.html">http://www.wnps.org/landscaping/herbarium/pages/ranunculus-occidentalis.html</a> Web. 24 April 2016.</p>
Other Sources Consulted	<p>Washington State Department of Natural Resources. <a href="http://www.dnr.wa.gov/search/site/western%20buttercup">http://www.dnr.wa.gov/search/site/western%20buttercup</a> Web. 26 April 2016.</p>
Protocol Author	Rylie Robles
Date Protocol Created or Updated	04/25/16

This propagation protocol template was modified by J.D. Bakker from that available at: <http://www.nativeplantnetwork.org/network/SampleBlankForm.asp>

This is a revision of a pre-existing protocol that is available at: <http://depts.washington.edu/propplnt/Plants/Ranunculus%20occidentalis.htm>