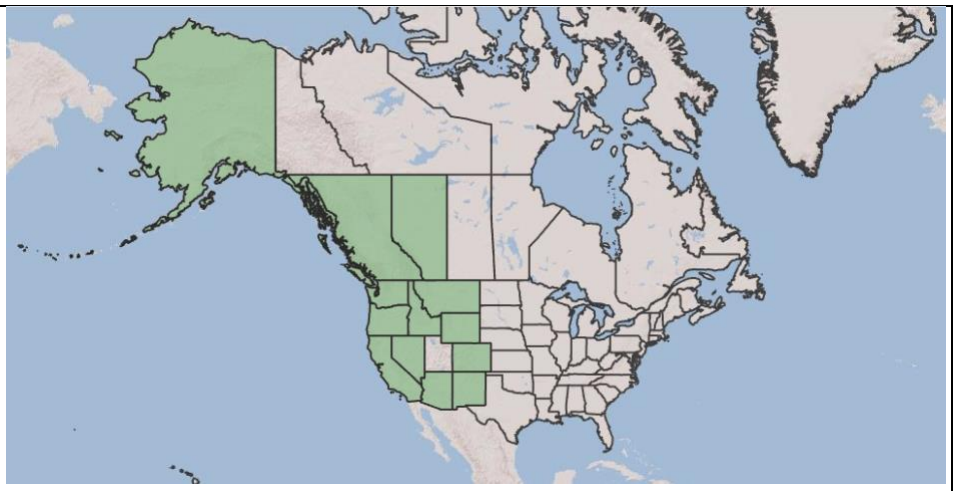
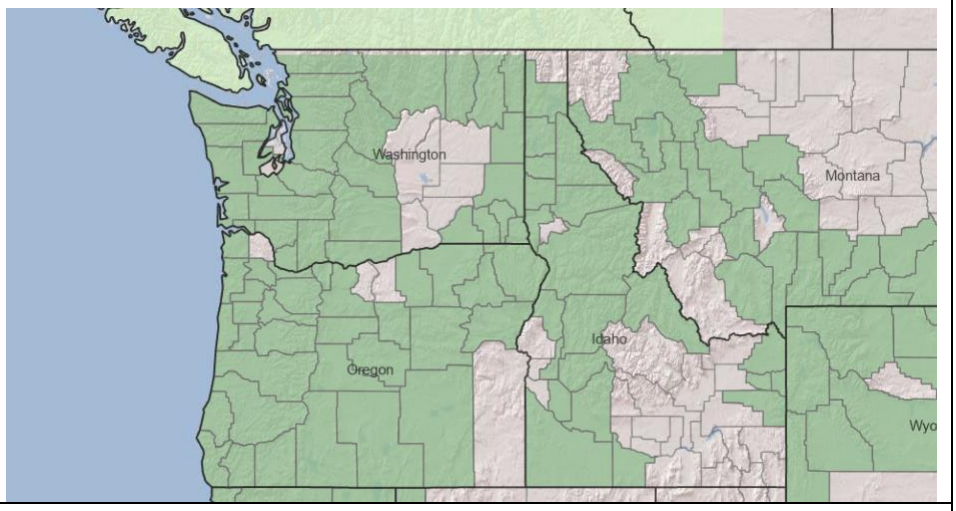
Plant Propagation Protocol for *Ranunculus uncinatus*

ESRM 412 – Native Plant Production

URL: https://courses.washington.edu/esrm412/protocols/*2026/*RAUN.*pdf*

TAXONOMY	
Plant Family	
Scientific Name	Ranunculaceae
Common Name	Buttercup family
Species Scientific Name	
Scientific Name	*Ranunculus uncinatus*
Varieties	N/A
Sub-species	1. *Ranunculus uncinatus* var. *earlei* 2. *Ranunculus uncinatus* var. *parviflorus* 3. *Ranunculus uncinatus* var. *typicus* 4. *Ranunculus uncinatus* var. *uncinatus* (USDA)
Cultivar	N/A
Common Synonym(s)	*Ranunculus bongardii*, *Ranunculus occidentalis* var. *parviflorus*, *Ranunculus uncinatus* var. *parviflorus*, *Ranunculus uncinatus* var. *uncinatus* (Burke Herbarium)
Common Name(s)	(respective to order listed in "Sub-species" section) 1. Earle's buttercup 2. Idaho buttercup 3. No common name 4. Woodland buttercup (USDA)
Species Code (as per USDA Plants database)	(respective to order listed in "Sub-species" section) 1. RAUNE 2. RAUNP 3. RAUNT 4. RAUNU (USDA)
GENERAL INFORMATION	
Geographical range	Native to much of the western US, parts of western Canada, and Alaska In WA and OR: present in most counties (USDA)

	 
Ecological distribution	Various subalpine habitat, preferably moist rainforests and riparian areas (Jepson E-Flora); most commonly occurs within lower elevation ranges in wet coniferous forests of western WA and OR (Consortium of Pacific Northwest Herbaria n.d.) - prefers shade (Burke)
Climate and elevation range	mid-to-low elevations, generally under 2,800 meters (Jepson E-Flora)
Local habitat and abundance	Commonly associated with deciduous tree species like bigleaf maple and coniferous tree species such as Douglas-fir (Benson 15).[1]
Plant strategy type / successional stage	Likely an early successional species[2], good at exploiting resources
Plant characteristics	Medium-sized forb (15-60 cm tall) (Jepson E-Flora), typically perennial, occasionally annual (E-Flora BC and Jepson E-Flora)

[1] Could only find sources covering *Ranunculus* species in general
[2] An educated guess based on available information

	Fruits occur in the form of achenes (Keener 1976) Flowers April-July (Jepson E-Flora) Roots are fibrous (Mount 2023)
PROPAGATION DETAILS: SEED	
Ecotype	N/A
Propagation Goal	plants
Propagation Method	seed
Product Type	container
Stock Type	seedlings
Time to Grow	Four months
Target Specifications	Plants that are pre-flowering, ideally between 20-40 cm tall
Propagule Collection Instructions	Collect in late summer (August – September); fruits occur in bundles (E Flora-BC), so collect in bundles
Propagule Processing/Propagule Characteristics	Seeds occur as “standard” dry fruits, so a typical scarifying treatment using sandpaper or rubber tubes will be adequate. Rub the fruits with moderate force (not too much, not too little).
Pre-Planting Propagule Treatments	During the pre-planting phase, stratify at 35 F with little moisture One week prior to seeding, switch to warm stratification by stratifying at 68 F. Apply a gibberellin treatment directly prior to seeding using a 500 mg/L gibberellic acid solution (Park et al 2024).
Growing Area Preparation / Annual Practices for Perennial Crops	Propagate in a pit-moss-based media to balance between moisture retention and water drainage
Establishment Phase Details	Start seeds in seeding flats, leaving at least half an inch between individual seeds
Length of Establishment Phase	One week
Active Growth Phase	Transfer seedlings into four-inch pots (still using the same medium), making sure that only one seedling occupies each pot. Store seedlings under standard greenhouse conditions, making sure to water daily.
Length of Active Growth Phase	Four months
Hardening Phase	Move seedlings into a hoophouse to expose them to cold conditions

Length of Hardening Phase	One month
Harvesting, Storage and Shipping	Sell/transport in the containers that the plants last grew to minimize damage to the roots
Length of Storage	Approximately five months
Guidelines for Outplanting / Performance on Typical Sites	Plant before flowering to ensure that plants get the chance to reproduce before dying, and aim for an 80% survival rate
Other Comments	
INFORMATION SOURCES	
References	Benson, L. (1948). A treatise on the North American *Ranunculi*. *The American Midland Naturalist, 40*(1), 1–261. https://doi.org/10.2307/2421547 Burke Herbarium Image Collection. (n.d.). *Ranunculus uncinatus*. University of Washington. Retrieved April 28, 2026, from https://www.burkeherbarium.org/imagecollection/taxon.php?Taxon=Ranunculus%20uncinatus E-Flora BC. (n.d.). *Ranunculus uncinatus*. University of British Columbia. Retrieved April 28, 2026, from https://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Ranunculus+uncinatus Keener, C. S. (1976). Studies in the Ranunculaceae of the southeastern United States. V. *Ranunculus* L. *SIDA, Contributions to Botany, 6*(4), 266–283. http://www.jstor.org/stable/41966502 Mount, D. (2023). *Ranunculus uncinatus* D. Don [Herbarium specimen, Barcode SRP093479]. Snake River Plains Herbarium, Boise State University. Park, S., Park, K., Lee, J., et al. (2024). Gibberellins treatment or stratification can break dormancy of the seeds of three *Ranunculus* species native to Korea. *Scientific Reports, 14*, Article 28403. https://doi.org/10.1038/s41598-024-80159-x Pacific Northwest Herbaria Consortium. (n.d.). *Ranunculus uncinatus* occurrence records. Retrieved April 28, 2026, from https://www.pnwherbaria.org/data/results.php?DisplayAs=WebPage&ExcludeCultivated=Y&GroupBy=ungrouped&SortBy=Year&SortOrder=DESC&SearchAllHerbaria=Y&QueryCount=1&IncludeSynonyms1=Y&Gen

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	“Ranunculus uncinatus.” Flora of North America, https://floranorthamerica.org/Ranunculus_uncinatus. Accessed 28 Apr. 2026.
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