

Plant Propagation Protocol for *Arabis cusickii*/Boechera cusickii

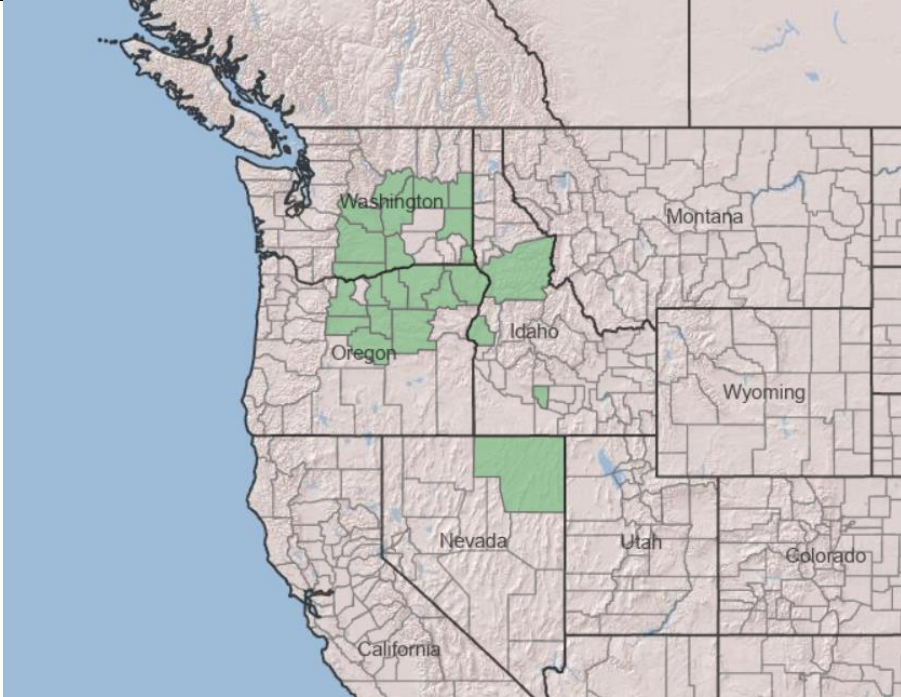
ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2024/ARCU.pdf>



Taken by Gerald D. Carr

TAXONOMY	
Plant Family	
Scientific Name	Brassicaceae Burnett
Common Name	Mustard Family
Species Scientific Name	
Scientific Name	<i>Boechera cusickii</i> (S.Watson) Al-Shehbaz (<i>originally Arabis cusickii</i> , changed 2003) [1].
Varieties	No known varieties.
Sub-species	No known subspecies.
Cultivar	No known cultivars.
Common Synonym(s)	<i>Arabis cusickii</i> S. Watson
Common Name(s)	Cusick's rockcress
Species Code (as per USDA Plants database)	ARCU
GENERAL INFORMATION	

Geographical range	 <p>[2].</p>
Ecological distribution	Found on basaltic bluffs, rocky slopes, rock crevices, gravelly hillsides, outcrops of volcanic rock [3] as well as sagebrush flats and open ponderosa pine forests, often on lithosol [5].
Climate and elevation range	Typically found in temperate biomes [4] 600-1800m in elevation [3].
Local habitat and abundance	Grows in mats, clumps, or tufts (cespitose) [6]. Commonly associates with ponderosa pine (<i>Pinus ponderosa</i>) and sagebrush (<i>Artemisia</i> spp.)
Plant strategy type / successional stage	Colonizer [3][5].
Plant characteristics	Perennial forb/herb/subshrub that is long-lived. A singular stem grows out of a woody caudex with fine hairs. The basal leaves are linear and oblong, growing 1-4 cm. long and 1.5-3 mm. broad and with conspicuous hairs. Flowers grow in groups of 3- to 25-flowered, simple or occasionally compound racemes. Fruits are also hairy and 4-7 cm. long and 2-3 mm. broad [6]. (See picture on page 1).
PROPAGATION DETAILS: FROM SEED	
Ecotype	Not listed.
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container or bareroot
Stock Type	Not listed.

Time to Grow	Not listed.
Target Specifications	Not listed.
Propagule Collection Instructions	Seeds of <i>Arabis aculeolata</i> are collected in the summer and planted right after harvest [8].
Propagule Processing/Propagule Characteristics	Not listed.
Pre-Planting Propagule Treatments	Seeds can be highly dormant. Seeds of <i>Arabis alipina</i> require both light and KNO ₃ enrichment for germination [9].
Growing Area Preparation / Annual Practices for Perennial Crops	Seeds of <i>Arabis aculeolata</i> can be sown into flats of potting soil or into the ground in late summer [8].
Establishment Phase Details	Seeds should be germinated at 18-21°C (65-70°F) and have been noted to respond to light [7].
Length of Establishment Phase	Seeds germinate in two weeks [7].
Active Growth Phase	Not listed.
Length of Active Growth Phase	Not listed.
Hardening Phase	Not listed.
Length of Hardening Phase	Not listed.
Harvesting, Storage and Shipping	Not listed.
Length of Storage	Not listed.
Guidelines for Outplanting / Performance on Typical Sites	Not listed.
Other Comments	None.
PROPAGATION DETAILS: VEGETATIVE	
Ecotype	Not listed.
Propagation Goal	Plants
Propagation Method	Vegetative
Product Type	Propagules (cuttings)
Stock Type	Not listed.
Time to Grow	Not listed.
Target Specifications	Not listed.
Propagule Collection Instructions	<i>Arabis aculeolata</i> with branching crowns can be propagated through cuttings from the basal leaves in the summer [8].

Propagule Processing/Propagule Characteristics	Not listed.
Pre-Planting Propagule Treatments	Not listed.
Growing Area Preparation / Annual Practices for Perennial Crops	Not listed.
Establishment Phase Details	Not listed.
Length of Establishment Phase	Not listed.
Active Growth Phase	Not listed.
Length of Active Growth Phase	Not listed.
Hardening Phase	Not listed.
Length of Hardening Phase	Not listed.
Harvesting, Storage and Shipping	Not listed.
Length of Storage	Not listed.
Guidelines for Outplanting / Performance on Typical Sites	Not listed.
Other Comments	Cuttings should only be done from plants that were propagated from seed [8].
INFORMATION SOURCES	
References	<p>[1] Al-Shehbaz, I. A. (2003). Transfer of most North American species of arabis to Boechea (Brassicaceae). <i>Novon</i>, 13(4), 381. https://doi.org/10.2307/3393366</p> <p>[2] United States Department of Agriculture (USDA). (2024). <i>Arabis cusickii</i> S. Watson. Plants database. https://plants.usda.gov/home/plantProfile?symbol=ARCU</p> <p>[3] Flora of North America. (n.d.). <i>Boechea cusickii</i> (S. Watson) Al-Shehbaz. eFlora . http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=250094780</p>

	<p>[4] Kew Royal Botanic Gardens. (2023). <i>Boechera cusickii</i> (S.Watson) Al-Shehbaz. Plants of the World Online. https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:50426361-2</p> <p>[5] Knoke, D., & Giblin, D. (2024). <i>Boechera cusickii</i>. Burke Herbarium Image Collection. https://www.burkeherbarium.org/imagecollection/taxon.php?Taxon=Boechera+cusickii</p> <p>[6] World Flora Online. (2024). <i>Boechera cusickii</i> (S.Watson) Al-Shehbaz. The WFO Plant List. https://www.worldfloraonline.org/taxon/wfo-0000567267</p> <p>[7] Hartmann, H. T., Kester, D. E., Davies, F. T., & Geneve, R. L. (2002). <i>Plant Propagation: Principles and Practices</i> (7th ed.). Prentice Hall.</p> <p>[8] Robson, K. A., Richter, A., & Filbert, M. (2008). <i>Encyclopedia of northwest native plants for gardens and landscapes</i>. Timber Press.</p> <p>[9] Young, J. A., & Young, C. G. (1999). <i>Collecting, processing, and germinating seeds of wildland plants</i>. Timber Press.</p>
Other Sources Consulted	<p>Bartow, A. (2015). <i>Native Seed Production Manual for the Pacific Northwest</i>. USDA-NRCS Corvallis Plant Materials Center.</p> <p>Loewer, H. P. (2005). <i>Seeds: The definitive guide to growing, history, and lore</i>. Timber Press.</p> <p>Oregon State University. (2024). <i>Boechera cusickii</i> (S. Watson) Al-Shehbaz. OregonFlora. https://oregonflora.org/taxa/index.php?taxon=3288</p> <p>Puget Sound Institute. (2024). <i>Arabis cusickii</i>. Encyclopedia of Puget Sound. https://www.eopugetsound.org/species/arabis-cusickii</p> <p>Rose, R., C., Chachulski, C. E., & Haase, D. L. (1998). <i>Propagation of Pacific Northwest Native plants</i>. Oregon State University Press.</p>
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