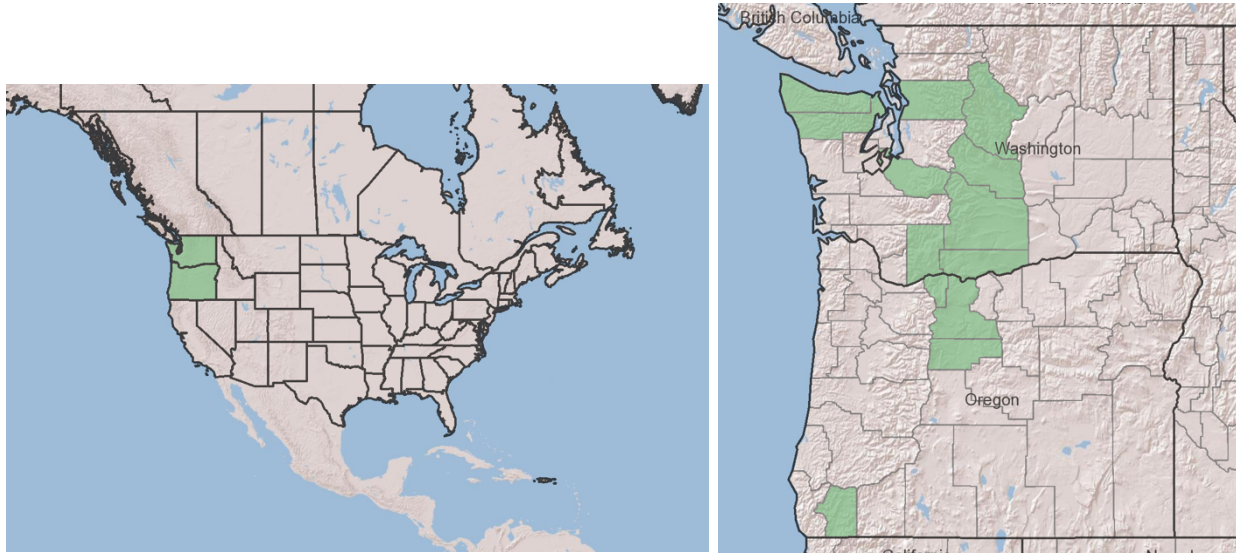


Plant Propagation Protocol for *[Insert Species]*

ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2021/ARFU.pdf>



Sourced from USDA PLANTS Database

| TAXONOMY | |
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| Plant Family | |
| Scientific Name | BRASSICACEAE |
| Common Name | Mustard Family |
| Species Scientific Name | |
| Scientific Name | <i>Arabis furcata</i> S. Watson |
| Varieties | |
| Sub-species | <i>Arabis furcata</i> S. Watson var. <i>furcata</i> <i>Arabis furcata</i> S. Watson var. <i>olympica</i> (Piper) Rollins |
| Cultivar | |
| Common Synonym(s) | <i>Arabis suksdorfii</i> Howell. |
| Common Name(s) | Columbia Gorge rockcress Cascade rockcress Fork-haired rockcress |
| Species Code (as per USDA Plants database) | ARFU |
| GENERAL INFORMATION | |
| Geographical range | Washington and Oregon. See maps above for distribution in North America as well as Washington State and Oregon State. |

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| Ecological distribution | Found on both sides of the Cascades crest in Washington and Oregon. Inhabits alpine and subalpine rocky areas, slopes, meadows, and ridgelines (Giblin). |
| Climate and elevation range | Alpine and subalpine zone of the Cascades Mountain range in Washington and Oregon (Giblin). 1,000 – 2,100 meters in elevation (SEINet). |
| Local habitat and abundance | Most abundant in rocky outcrops and alpine regions, followed by meadows. The species is less abundant in forests, but populations exist (Wildflower Search). The species is not of concern for conservation efforts (Giblin). |
| Plant strategy type / successional stage | Perennial that can tolerate and succeed in open, rocky areas (Wildflower Search). They are considered “hardy” (zones 4-7) by the USDA Plant Hardiness Zones (Patterson). Prefers full sun but is relatively shade tolerant (Patterson). Tolerant of fair to poor soils such as sandy, loam, or clay soil as long as the soil is loose and well-drained (The Gardener’s Network). Colonize their immediate area by establishing underground “mats” up to 18 inches wide (Patterson). |
| Plant characteristics | Endemic perennial forb up to 18 inches tall (LBJ Wildflower Center) with slightly pubescent or glabrous surface (Slichter). Few, simple, erect stems from base (Al-Shehbaz). Flowers have 4 white, spatulate petals that range from 6-9 mm long (Slichter). 2-5 oblong to oblanceolate stem leaves with entire margins or shallowly serrate teeth (Slichter). Seed capsules are erect siliques ranging from 2.5-4 cm long. |
| PROPAGATION DETAILS | |
| Ecotype | |
| Propagation Goal | Plants |
| Propagation Method | Seeds |
| Product Type | Seed Propagules (Direct Planting) |
| Stock Type | Perennial |
| Time to Grow | Sow seeds directly into the garden four to six weeks prior to last expected frost (Patterson). Can directly sow into outplanting site, or can transfer from nursery bed when desired. Seeds will germinate after two to three weeks and will fully bloom the following spring after planting (The Gardener’s Network). |
| Target Specifications | Plant up to 18 inches tall (LBJ Wildflower Center), spaced 15-18 inches apart to allow for adequate rooting (The Gardener’s Network). |

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| Propagule Collection Instructions | Collect seeds when mature in the summer (Seed Needs) and sow in the next season four to six weeks prior to the last expected frost (Patterson). The freshest seeds will have highest germination rates (Seed Needs). |
| Propagule Processing/Propagule Characteristics | 1,360,776 seeds per pound (NIKITOVKA Seeds Store). Seeds germinate at the highest rate when freshest (Seed Needs). |
| Pre-Planting Propagule Treatments | Release seeds into a storage bag. Rub over small screen to separate fruit from seeds and sort through sieves. Store or plant immediately (Rancho Santa Ana Botanic Garden). |
| Growing Area Preparation / Annual Practices for Perennial Crops | Garden bed in full sun (light or partial shade acceptable). Grow in sandy, loam, or clay soil that is loose, well-draining, and slightly acidic. Plant prefers slightly dry soil, but keep moist during germination. When first planting, incorporate nitrogen fertilizer. Apply phosphorous fertilizer just prior to blooming. Space plants 15-18 inches apart to allow adequate rooting (The Gardener's Network). |
| Establishment Phase Details | Directly sow seeds 15-18 inches apart into garden bed four to six weeks prior to the last expected frost in loose, well-draining soil amended with nitrogen fertilizer (The Gardener's Network). |
| Length of Establishment Phase | Seeds will germinate in two to three weeks (The Gardener's Network). |
| Active Growth Phase | Minimal care. Water soil when dry (Patterson). Amend soil with phosphorous fertilizer just prior to blooming. Prune plant and remove dead flowers to promote new plant growth (The Gardener's Network). |
| Length of Active Growth Phase | 5-6 months, or until the plant is signaled into dormancy by winter conditions (The Gardener's Network). |
| Hardening Phase | Can survive light frosts early in fall and winter season until temperatures fall below -5 degrees Celsius. At that point, the plant will be signaled into dormancy (My Garden Guide). |
| Length of Hardening Phase | Varies; plant is tolerant of cold and frost until temperatures fall below -5 degrees Celsius (My Garden Guide). |
| Harvesting, Storage and Shipping | Release seeds into a storage bag. Rub over small screen to separate fruit from seeds and sort through sieves. Store or plant immediately (Rancho Santa Ana Botanic Garden). |
| Length of Storage | 0-1 year. Freshest seeds have highest germination rates (Seed Needs). |
| Guidelines for Outplanting / Performance on Typical Sites | Forb that grows up to 18 inches tall (LBJ Wildflower Center). Will bloom in the second growing season (in spring) and every subsequent year (The Gardener's Network). |
| Other Comments | |
| INFORMATION SOURCES | |
| References | Al-Shehbaz, Ihsan A. " <i>Arabis furcata</i> S. Watson." <i>Flora of North America</i> , http://beta.floranorthamerica.org/Arabis_furcata . Accessed 25 May 2021. |

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| | <p>“Alpine Rock-Cress White Open Pollinated Seeds NON GMO for Planting.” <i>NIKITOVKA Seeds Store</i>, etsy.com/listing/693664208. Accessed 26 May 2021.</p> <p>“<i>Arabis furcata</i>.” <i>Lady Bird Johnson Wildflower Center</i>, https://www.wildflower.org/plants/result.php?id_plant=ARFU. Accessed 26 May 2021.</p> <p>“<i>Arabis furcata</i> S. Watson.” <i>USDA PLANTS Database</i>, https://plants.usda.gov/home/plantProfile?symbol=ARFU. Accessed 25 May 2021.</p> <p>“<i>Arabis furcata</i> S. Watson.” <i>SEINet</i>, https://swbiodiversity.org/seinet/taxa/index.php?taxon=72483. Accessed 25 May 2021.</p> <p>“<i>Arabis furcata</i> S. Watson.” <i>Oregon Flora</i>, https://oregonflora.org/taxa/index.php?taxon=2849. Accessed 25 May 2021.</p> <p>“Cascade rock-cress.” <i>Wildflower Search</i>, wildflowersearch.org/search?oldstate=bloom%3Aignore&PlantName=Arabis%20furcata, Accessed 25 May 2021.</p> <p>“Don’t Wait for the End of the Wold: Growing Rock Cress From Seed.” <i>Seed Needs</i>, https://www.seedneeds.com/blogs/seed-needs/growing-rock-cress-from-seed. Accessed 26 May 2021.</p> <p>Giblin, David. “<i>Arabis furcata</i>.” <i>Burke Herbarium Image Collection</i>, biology.burke.washington.edu/herbarium/imagecollection/taxon.php?Taxon=Arabis%20furcata. Accessed 25 May 2021.</p> <p>“How to Grow and Care for Rock Cress Plant.” <i>The Gardener’s Network</i>, gardenersnet.com/flower/rockcress.htm. Accessed 26 May 2021.</p> <p>Patterson, Susan. “Growing Rock Cress – How To Grow Rock Cress and Rock Cress Care.” <i>Gardening Know How</i>, https://www.gardeningknowhow.com/ornamental/groundcover/rock-cress/growing-rock-cress.htm. Accessed 26 May 2021.</p> <p>“Processing Seeds of California Native Plants.” <i>Rancho Santa Ana Botanic Garden</i>, rouguenativeplants.org/wp-content/uploads/2018/12/Processing_Seed_California_Native_Plants_Rancho_Santa_Ana_BC_2009.pdf. Accessed 26 May 2021.</p> |
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| | <p>“Rock Cress.” <i>My Garden Guide</i>, https://mygardenguide.com/rock-cress/. Accessed 26 May 2021.</p> <p>Slichter, Paul. “Cascade Rockcress, Columbia Gorge Rockcress, Fork-haired Rockcress.” <i>Halley Hosting</i>, science.halleyhosting.com/nature/gorge/4petal/must/arabis/furcata.htm</p> |
| Other Sources Consulted | |
| Protocol Author | Kioko Soneda |
| Date Protocol Created or Updated | 05/26/21 |