

Plant Propagation Protocol for *Brodiaea coronaria*

ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2024/brco3.pdf>

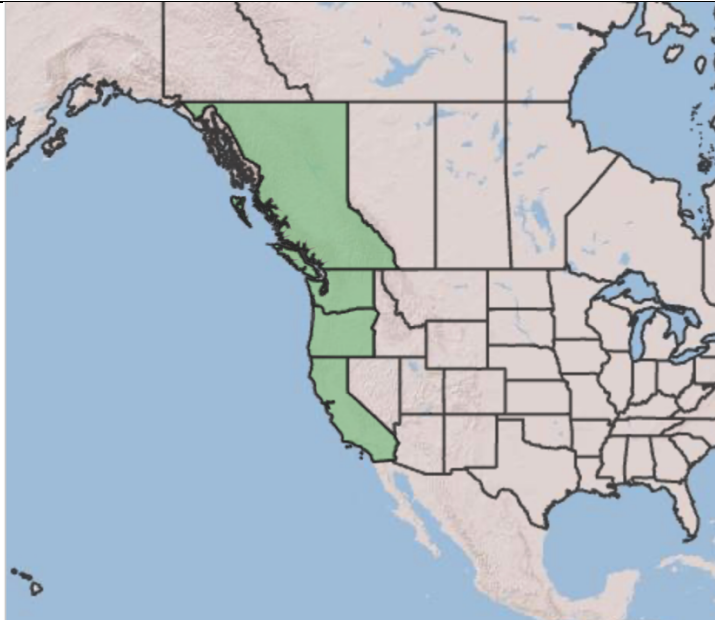


Brodiaea coronaria

Crown Brodiaea

(Credit: Mark Turner)

TAXONOMY	
Plant Family	
Scientific Name	Liliaceae
Common Name	Lily Family
Species Scientific Name	
Scientific Name	<i>Brodiaea coronaria</i> (Salisb.) Engl.
Varieties	N/A
Sub-species	<i>Brodiaea coronaria</i> sbsp. <i>Coronaria</i> – Crown brodiaea <i>Brodiaea coronaria</i> subsp. <i>rosea</i> – Indian Valley brodiaea (4)
Cultivar	
Common Synonym(s)	None
Common Name(s)	Crown Brodiaea Harvest Brodiaea

	Cluster Lily
Species Code (as per USDA Plants database)	brco3
GENERAL INFORMATION	
Geographical range	 (10)
Ecological distribution	Open, often gravelly sites (grassy meadows and slopes); at low elevations (8)
Climate and elevation range	Warm-summer Mediterranean climate Elevation: ~1,000 ft (6) Hardiness Zone: Zn6a -5° to -10 °F; 7-10 (3, 5)
Local habitat and abundance	Grasslands, balds, prairies, and open hillsides at low to middle elevations (7)
Plant strategy type / successional stage	N/A
Plant characteristics	Duration: Perennial Habit: Herb Leaf Complexity: Simple Fruit Type: Capsule Size: Up to 1 ft tall Bloom Color: Blue, purple, violet Bloom Time: Apr, May, Jun Distribution: CA, OR, WA, BC (Canada) Growth Conditions: Light – sun; soil moisture – moist; soil description – loam. Benefit: Food – bulbs/corms consumed by indigenous peoples; conspicuous flowers – yes. (9)
PROPAGATION DETAILS: FROM SEED	

Ecotype	Seeds collected form Lane Co., Oregon near Eugene (2)
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container (plug)
Stock Type	Bulbs
Time to Grow	2 years
Target Specifications	2-year-old bulbs
Propagule Collection Instructions	If possible, obtain the seed and corms from local sources near where they will be planted Plant the corms in the fall in full sun, allow to summer bake (1)
Propagule Processing/Propagule Characteristics	No stratification necessary Plant corms 2-4 inches apart and 4 inches deep (1)
Pre-Planting Propagule Treatments	Seeds sown in conetainers filled with Sunshine #1 (soiless, peat-based media) amended with micro-nutrients (Micromax) and a slow release fertilizer (Osmocote 14-14-14), The flats of conetainers were covered with polyethylene bags and placed in a walk0in cooler (35-40 °F) for 90 days. (2)
Growing Area Preparation / Annual Practices for Perennial Crops	Flats were removed from the cooler after 90 days and placed in a greenhouse set at moderate temperatures (70 °F days, 50 °F nights). (2)
Establishment Phase Details	Seedlings emerged within two weeks (2)
Length of Establishment Phase	2 weeks (2)
Active Growth Phase	Keep soil slightly damp; if planted in rainy conditions, do not water (1)
Length of Active Growth Phase	2 years (2)
Hardening Phase	Plants went dormant in mid-summer and re-emerged in late fall (2)
Length of Hardening Phase	4 months (2)
Harvesting, Storage and Shipping	Not recommended (8)
Length of Storage	Not recommended (8)
Guidelines for Outplanting / Performance on Typical Sites	Plants should be well established after one year (1)
Other Comments	Higher germination observed in seeds that we placed in a growth chamber with altering temperatures (40 °F days, 35 °F nights) and 8 hours of light and 16 hours of darkness (2)
INFORMATION SOURCES	

References	<p>1 Anderson, Kat. Roderick, Wayne. "Harvest Brodiaea." National Resources Conservation Service. https://plants.usda.gov/DocumentLibrary/plantguide/pdf/pg_brco3.pdf. Accessed 20 May 2024.</p> <p>2 Bartow, Amy L. "Propagation Information for: Brodiaea Coronaria (Salisb.) Engl." U.S. Department of Agriculture. 2006. https://rngr.net/renderNPNProtocolDetails?selectedProtocolIds=liliaceae-brodiaea-2724. Accessed 17 May 2024.</p> <p>3 "Brodiaea coronaria." Xera Plants Inc. https://xeraplants.com/plants/15087/. Accessed 20 May 2024.</p> <p>4 "Early Harvest Brodiaea." Calscape. https://calscape.org/Brodiaea-coronaria-(Early-Harvest-Brodiaea). Accessed 20 May 2024.</p> <p>5 Fern, Ken. "Brodiaea coronaria – (Salisb.) Engl." Plants For A Future. https://pfaf.org/User/Plant.aspx?LatinName=Brodiaea+coronaria. Accessed 20 May 2024.</p> <p>6 Klinkenberg, Brian. "Brodiaea coronaria (Salisb.) Engl." E-Flora BC: Electronic Atlas of the Plants of British Columbia. 2020. https://linnet.geog.ubc.ca/Atlas. Accessed 20 May 2024.</p> <p>7 Knoke, Don. Giblin, David. "Brodiaea coronaria." Burke Herbarium Image Collection. https://burkeherbarium.org/imagecollection. Accessed 20 May 2024.</p> <p>8 "Propagation Guidelines: Harvest Brodiaea." Gary Oak Ecosystem Recovery Team. https://goert.ca/species/brodiaea-coronaria/. Accessed 17 May 2024.</p> <p>9 TWC Staff. "Brodiaea coronaria." Lady Bird Johnson Wildflower Center – The University of Texas at Austin. 2023 Jan 5. https://www.wildflower.org/plants/result.php?id_plant=brco3. Accessed 17 May 2024.</p> <p>10 USDA NRCS National Plant Data Team. "Brodiaea coronaria (Salisb.) Engl." U.S. Department of Agriculture. https://plants.usda.gov/home/plantProfile?symbol=brco3. Accessed 17 May 2024.</p>
Other Sources Consulted	<p>"Brodiaea coronaria." Salish Sea Prairie Flora Project. https://wikis.evergreen.edu/pugetprairieplants/index.php/Brodiaea_coronaria. Accessed 20 May 2024.</p>

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