

Plant Propagation Protocol for *Calochortus eurycarpus*

ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2022/CAEU.pdf>

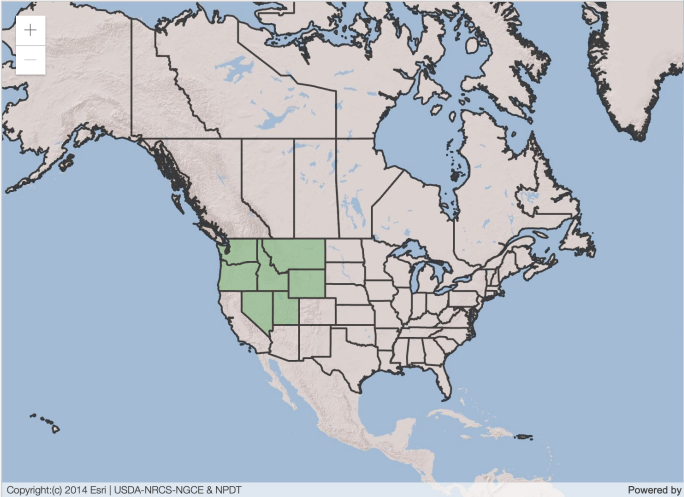


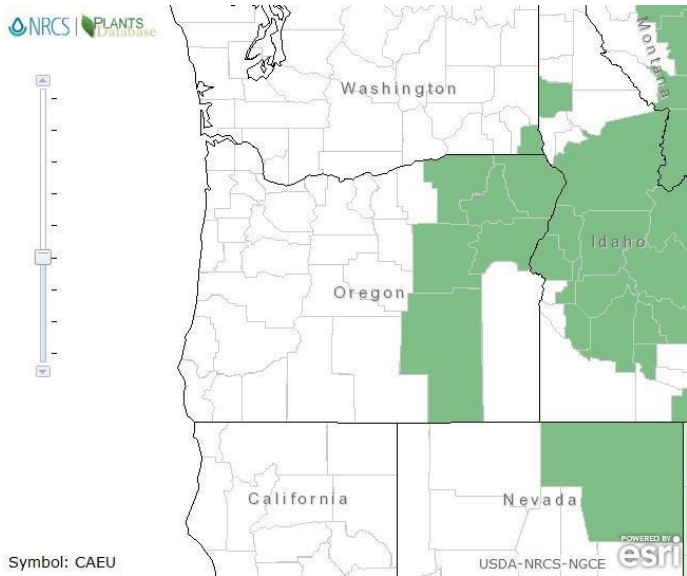
[5]

TAXONOMY	
Plant Family	
Scientific Name	Liliaceae
Common Name	Lily family
Species Scientific Name	
Genus	Calochortus

Species	eurycarpus
Scientific Name	<i>Calochortus eurycarpus</i> S. Watson
Varieties	NA
Sub-species	NA
Cultivar	NA
Common Synonym(s)	Mariposa lily Big-pod Mariposa
Common Name(s)	White mariposa lily
Species Code (as per USDA Plants database)	CAEU

GENERAL INFORMATION

Geographical range	 <p>Copyright:(c) 2014 Esri USDA-NRCS-NGCE & NPOT</p> <p>Powered by</p>
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	 <p>[2]</p>
Ecological distribution	Mountain meadows, grasslands, open forests
Climate and elevation range	Arid regions [3] Mountain meadows at 4800' (in NE Oregon) [4]
Local habitat and abundance	Grows in masses of plants [5] Grows with grasses and herbs in mountain meadows [5] Commonly grows in shade of shrub [4]
Plant strategy type / successional stage	Forb/herb 'Generalist' pollinator attracts bees, wasps, bee flies, and beetles [5] Partially shade tolerant [4] Hardy to -30°F (-34°C) [4]
Plant characteristics	The white mariposa lily is a non-bulb forming perennial. (lasmmcnps) It can grow up to 20 inches tall with a single grass looking stem with 1-5 flowers. The flowers of this plant have three white petals with prominent purple spots in their centers. [2]

	<p>The base of the plant has a yellow gland that is crescent shaped that helps to attract beetles for pollination [5]</p> <p>Erect stem, sepals are ovate-lanceolate</p> <p>Seed capsule elliptical with long broad wings [4]</p>
PROPAGATION DETAILS	
Ecotype	Oregon [4]
Propagation Goal	plant
Propagation Method	seed
Product Type	Propagules (Seeds, cuttings, poles, etc.)
Stock Type	No Literature
Time to Grow	No Literature
Target Specifications	No Literature
Propagule Collection Instructions	<p><i>Calochortus eurycarpus</i> is a species of lily that does not form bulbs. [4]</p> <p>The seed pods of the plant are upright but there is no specific literature on seed collection [4]</p>
Propagule Processing/Propagule Characteristics	No Literature
Pre-Planting Propagule Treatments	Cold stratification of plant in moist vermiculite soil for 6-10 weeks before transplanting [4]

	Can satisfy seeds over winter in a pot covered in snow outdoors, but pots should be kept as dry as possible during dormancy [4]
Growing Area Preparation / Annual Practices for Perennial Crops	<p>Can grow in a heavy clay loam in dry climates Heavy soils should be modified with sand and leaf mold added in equal parts Recommended media is ½ sand, ½ sphagnum peat moss [4] 1 gallon bucket or bare soil, but mariposa lilies are larger plants so are better suited to larger pots (3 to 5 gallon) [4] Plant seeds ¼” to ½” deep [6]</p>
Establishment Phase Details	<p>Cold moist stratification is required for plant germination (around 32°C) which can happen outdoors in the winter or in fridge with melting ice on top of the plant [4] Plant in November [6]</p>
Length of Establishment Phase	<p>6 months of cold moist stratification [4] Germination takes one to six months [7]</p>
Active Growth Phase	Seedlings must be kept in an evenly moist but not sopping wet environment. Let seedlings dry out between watering events, so check moisture every 4-5 days [4]
Length of Active Growth Phase	No Literature
Hardening Phase	Water once a week but less later in the season, since the species is xerophytic it prefers to be on the drier side [4]
Length of Hardening Phase	It can take up to six years for seed grown plants to flower. Keep in the same pot for the first 2 years, and then move them to a larger pot. Grow in the larger pot for at least 2 more years before transplanting outdoors [7]

Harvesting, Storage and Shipping	No Literature
Length of Storage	No Literature
Guidelines for Outplanting / Performance on Typical Sites	Seedlings should not be uprooted in their first year [4]
Other Comments	Difficult to cultivate by seed or bulb [5] Prefers cold winters and mild summers [4]

INFORMATION SOURCES

References	<p>[1] Kartesz, John T. "Calochortus Eurycarpus S. Watson." <i>USDA Plants Database</i>, USDA , https://plants.usda.gov/home/plantProfile?symbol=C AEU.</p> <p>[2] Krampien, Jeannette, and Greg Low. "Calochortus Eurycarpus (White Mariposa Lily)." <i>OSU Extension Service</i>, Oregon State University , Sept. 2020, https://extension.oregonstate.edu/gardening/pollinators/calochortus-eurycarpus-white-mariposa-lily.</p> <p>[3] Britannica, The Editors of Encyclopedia. "mariposa lily". <i>Encyclopedia Britannica</i>, 16 Mar. 2021, https://www.britannica.com/plant/mariposa-lily. Accessed 22 May 2022.</p> <p>[4] McDonald, H. P. "How to Grow Calochortus." <i>Mariposa 2</i> (Oct. 1990): 1- 5. The Geoff Burleigh Information Archive. Web. 22 May 2022.</p> <p>[5] Yates, Gene. "White Mariposa Lily." <i>US Forest Services</i> , USDA, https://www.fs.fed.us/wildflowers/plant-of-the-week/calochortus_eurycarpus.shtml.</p> <p>[6] "How to Grow Calochortus." <i>How To Grow Calochortus</i> , Pacific Bulb Society, 17 May 2019, https://www.pacificbulbsociety.org/pbswiki/index.php/HowToGrowCalochortus.</p>
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	<p>[7]Ravenscroft, Dean. "Calochortus Plants - Mariposa Lily Growing Guide." <i>Gardeners HQ</i>, https://www.gardenershq.com/Calochortus-Mariposa-Lily.php.</p>
Other Sources Consulted	<p>Brenzel, Kathleen Norris, editor. <i>Sunset Western Garden Book</i>. 6th ed., Sunset Publishing Corporation, 1995.</p> <p>"Calochortus." <i>Reforestation, Nurseries, and Genetic Resources</i>, USDA Forest Service, https://npn.rngr.net/.</p> <p>"Calochortus Eurycarpus." <i>Lady Bird Johnson Wildflower Center</i>, The University of Texas at Austin, 15 Apr. 2019, https://www.wildflower.org/plants/result.php?id_plant=CAEU.</p> <p>Hitchcock, Charles Leo, and Arthur Cronquist. <i>Flora of the Pacific Northwest: An Illustrated Manual</i>. 2nd ed., University of Washington Press, 2018.</p>
Protocol Author	Samantha Bellman
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