

Plant Propagation Protocol for *Dichelostemma ida-maia*

ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2025/DIID.pdf>

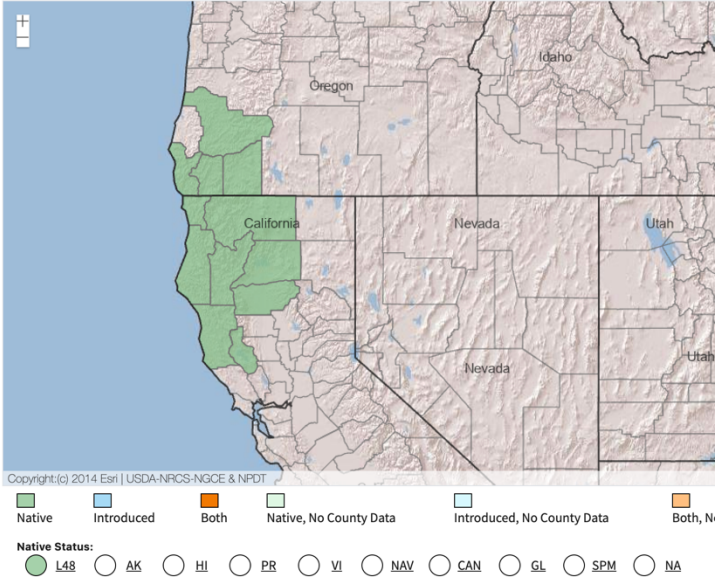


Image by Dinkum.¹



Image by peganum.²

TAXONOMY	
Plant Family	
Scientific Name	<i>Liliaceae</i>
Common Name	Lily family
Species Scientific Name	
Scientific Name	<i>Dichelostemma ida-maia</i> (Alph. Wood) Greene
Varieties	
Sub-species	
Cultivar	
Common Synonym(s)	<i>Brodiaea ida-maia</i> (Alph. Wood) Greene <i>Brodiaea coccinea</i> (A. Gray) <i>Brevoortia ida-maia</i> (Alph. Wood) Greene <i>Brevoortia coccinea</i> (A. Gray)
Common Name(s)	Firecracker flower, Ida May’s snakelily, crimson California hyacinth, crimson satin flower, floral firecracker, vegetable firecracker ³
Species Code (as per USDA Plants database)	DIID
GENERAL INFORMATION	
Geographical range	Is native to northwestern California and southwestern Oregon.

	 <p>Distribution map of <i>Dichelostemma ida-maia</i> along the western coast of the United States.⁵</p>
Ecological distribution	Coastal meadows, grassy areas, ⁶ and redwood and mixed evergreen forests. ⁷
Climate and elevation range	Zones 7a to 10b. ⁸ Up to 6,600ft in elevation. ⁹
Local habitat and abundance	<p>Sun or part-shade.¹⁰ Dry soils with good drainage.⁷ Requires a dry summer dormancy.¹¹</p> <p>Often found in grassy areas alongside <i>Festuca californica</i> (California fescue) and <i>Helictotrichen sempervirens</i> (blue oat grass).⁷</p> <p>Hybrids with <i>Dichelostemma multiflorum</i>⁷ and <i>Dichelostemma congestum</i> can occur, though this is rare.¹²</p>
Plant strategy type / successional stage	Can tolerate poor soil, shade, and drought. ⁸
Plant characteristics	<p>Perennial monocot.⁵ Grows from corms⁷ and up to 3ft high.¹³ Has 3-5 leaves with shiny blue wax.⁶ Leaves grow 1-2ft long.¹³</p> <p>Flower cluster is dense, with 6-20 long, cylinder-shaped, bright red flowers.⁶ Flowers are 20-25 mm long.¹⁴ Flowers have curled white or greenish tips⁹ and 3 stamen that extend slightly past the tip.⁶</p>

	<p>Flowers May through July,¹² then has a summer dormancy.⁷</p> <p>Is pollinated by hummingbirds and bees.⁸ Seed capsules contain black, sharply-angled seeds.¹⁵</p>
PROPAGATION DETAILS: FROM SEED	
Ecotype	
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container
Stock Type	Seedlings in 6" containers.
Time to Grow	4 to 5 years.
Target Specifications	Plants that have had at least one bloom.
Propagule Collection Instructions	Remove seed heads after flowering is complete. ⁷ If possible, collect seed from sources near where the seedlings will be outplanted. ¹⁶
Propagule Processing/Propagule Characteristics	No information found.
Pre-Planting Propagule Treatments	Seeds germinate readily in winter but require several months of cold stratification if they are not fresh. ⁷
Growing Area Preparation / Annual Practices for Perennial Crops	<p>A medium to moderately heavy soil mix that has good drainage.⁷ Growing media should have a neutral or slightly acidic pH.⁸</p> <p>Start seeds in flats during the fall. When sowing, cover the seeds with very little growing media.¹³</p> <p>Once the seedlings are more established, transplant them to individual containers.¹³ 6" containers are suggested to provide plenty of room for roots to develop.¹¹</p>
Establishment Phase Details	<p>Requires cool conditions with good air circulation.⁷ Optimum germination requires a constant temperature of 40°F and no light.¹⁷</p> <p>Over winter they should be gently watered, kept in a shaded location, and sheltered from the wind.¹³</p>
Length of Establishment Phase	2-3 months. Seedlings usually germinate by the end of November. ¹³
Active Growth Phase	Apply a mild liquid fertilizer to increase seedling growth. Water the seedlings until the foliage begins to turn yellow, then stop watering and store containers in a cool, dry place until fall. ⁷

	Seedlings should be kept in their original containers (i.e. flats) for the first year. After shoots begin to appear in the second season, seedlings may be transplanted into individual pots. ¹³
Length of Active Growth Phase	2-3 growing seasons. ⁷ This information is based on the <i>Brodiaea</i> genus.
Hardening Phase	After seedlings have had one bloom, they should not be watered unless it is a particularly dry winter. If it is a particularly dry winter, they should be watered every three weeks. ¹⁶ This information is based on protocols for <i>Dichelostemma capitatum</i> .
Length of Hardening Phase	4-6 months – the summer (when the plant is dormant) and first month or two of fall after flowering is complete.
Harvesting, Storage and Shipping	No information found.
Length of Storage	No information found.
Guidelines for Outplanting / Performance on Typical Sites	Seedlings should be outplanted in October or November. ¹⁶ This information is based on protocols for <i>Dichelostemma capitatum</i> . Plant seedlings 6” apart. If pocket gophers are a known problem, line the inside of the hole with chicken wire mesh prior to planting the corms. ¹⁶ This information is based on protocols for <i>Dichelostemma capitatum</i> .
Other Comments	
PROPAGATION DETAILS: VEGETATIVE	
Ecotype	
Propagation Goal	Corms (and attached plant growth)
Propagation Method	Vegetative
Product Type	Propagules: corms with new shoots and roots developing
Stock Type	Corms, still attached to small plants
Time to Grow	2-3 years
Target Specifications	Corms, attached to small plants that have had at least one bloom.
Propagule Collection Instructions	At the end of the growing season, remove mature plants/corms, then divide the corms or remove cormlets. ⁷
Propagule Processing/Propagule Characteristics	No information found.

Pre-Planting Propagule Treatments	Corms/cormlets should be refrigerated in plastic bags during the summer, then planted in the fall. ⁷ If possible, include some soil in the bags to prevent dehydration of the corms/cormlets. ¹³
Growing Area Preparation / Annual Practices for Perennial Crops	Cormlets can be started in containers that contain rich, loose soil; however, it is better to plant them directly in the ground. The soil should have good drainage. ¹⁶ This information is based on protocols for <i>Dichelostemma capitatum</i> . Larger corms should be planted 3 to 4 inches deep and smaller corms should be planted 1-2 inches deep. ¹⁶ This information is based on protocols for <i>Dichelostemma capitatum</i> .
Establishment Phase Details	A mild liquid fertilizer should be applied to the cormlets frequently. ⁷
Length of Establishment Phase	2-3 months. Seedlings usually germinate by the end of November. ¹³
Active Growth Phase	A mild liquid fertilizer should be applied to the cormlets frequently. ⁷ Prior to reaching maturity, cormlets should be divided annually. ⁷
Length of Active Growth Phase	2-3 growing seasons. ⁷ This information is based on the <i>Brodiaea</i> genus.
Hardening Phase	After seedlings have had one bloom, they should not be watered unless it is a particularly dry winter. If it is a particularly dry winter, they should be watered every three weeks. ¹⁶ This information is based on protocols for <i>Dichelostemma capitatum</i> .
Length of Hardening Phase	4-6 months – the summer (when the plant is dormant) and first month or two of fall after flowering is complete.
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	<p>This information is based on protocols for <i>Dichelostemma capitatum</i>.</p> <p>If pocket gophers are a known problem, line the inside of the hole with chicken wire mesh prior to planting the corms.¹⁶ This information is based on protocols for <i>Dichelostemma capitatum</i>.</p>
Other Comments	Cormlets will not flower for the first 1-2 years. ⁷
INFORMATION SOURCES	
References	<ol style="list-style-type: none"> 1 Dinkum. (2015, May 18). <i>Dichelostemma ida-maia</i> – <i>Jardin des Plantes de Paris</i> [Photograph]. https://commons.wikimedia.org/wiki/File:Dichelostemma_ida-maia - Jardin des Plantes.jpg. 2 peganum. (2012, June 7). <i>Dichelostemma ida-maia</i> [Photograph]. https://commons.wikimedia.org/wiki/File:Dichelostemma_ida-maia - Flickr - peganum (1).jpg. 3 Royal Horticultural Society (RHS). (n.d.). <i>Dichelostemma ida-maia: Firecracker flower</i>. https://www.rhs.org.uk/plants/5785/dichelostemma-ida-maia/details. 4 Calflora. (2025). <i>Dichelostemma ida-maia</i>. The Calflora Database. https://www.calflora.org/app/taxon?crn=2722. 5 USDA NRCS National Plant Data Team. (n.d.). <i>Dichelostemma ida-maia (Alph. Wood) Greene</i>. USDA NRCS National Plant Data Center. https://plants.usda.gov/plant-profile/DIID. 6 Turner, M. & Gustafson, P. (2006). <i>Wildflowers of the Pacific Northwest</i>. Timber Press. 7 Harlow, N. & Jakob, K. (Eds.). (2003). <i>Wild lilies, irises, and grasses: Gardening with California monocots</i>. University of California Press. 8 N.C. Cooperative Extension. (n.d.). <i>Dichelostemma ida-maia</i>. North Carolina Extension Gardener Plant Toolbox. https://plants.ces.ncsu.edu/plants/dichelostemma-ida-maia/. 9 Blackwell, L. R. (2012). <i>Wildflowers of California: A month-by-month guide</i>. University of California Press.

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Other Sources Consulted	<p>1 Kruckeberg, A. R. & Chalker-Scott, L. (2019). <i>Gardening with native plants of the Pacific Northwest</i>. University of Washington Press.</p> <p>2 NatureServe Explorer. (2025, May 2). <i>Dichelostemma ida-maia</i>. https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.146811/Dichelostemma_ida-maia.</p> <p>3 Parsons, M. E. (1960). <i>The wild flowers of California: Their names, haunts and habits</i>.</p> <p>4 Pires, J. C., Keator, G., & Preston, R. E. (2025, May 12). <i>Dichelostemma ida-maia</i>. Jepson Herbarium. https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=22852.</p>
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