

**Plant Propagation Protocol for *Philadelphus californicus***  
 ESRM 412 – Native Plant Production  
 Spring 2025

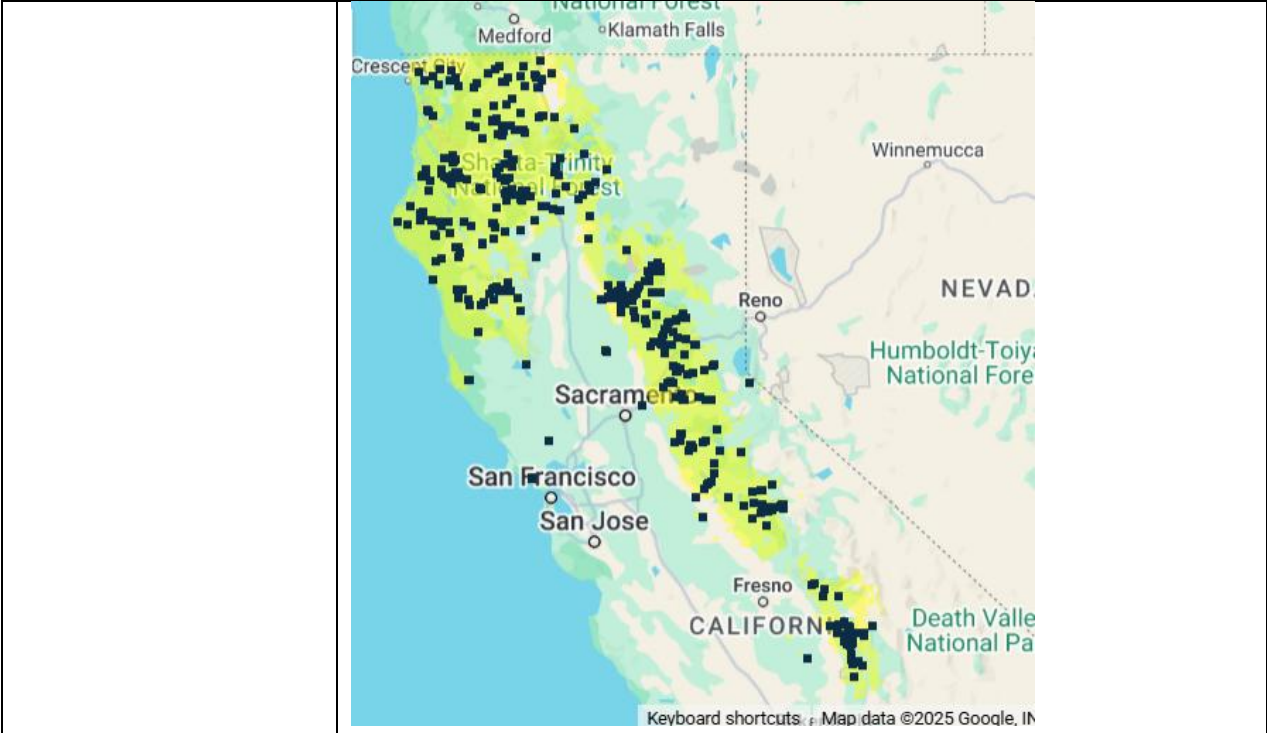
<b>TAXONOMY</b>	
<b>Plant Family</b>	
Scientific Name	<i>Hydrangeaceae</i> Dumort
Common Name	Hydrangea
<b>Species Scientific Name</b>	
Scientific Name	<i>Philadelphus californicus</i> Benth.
Varieties	Philadelphus lewisii var. angustifolius (Rydb.) Hu Philadelphus lewisii var. ellipticus Hu Philadelphus lewisii var. gordonianus (Lindl.) Jepson Philadelphus lewisii var. helleri (Rydb.) Hu Philadelphus lewisii var. intermedius (A. Nels.) Hu Philadelphus lewisii var. lewisii Pursh Philadelphus lewisii var. oblongifolius Hu Philadelphus lewisii var. parvifolius Hu Philadelphus lewisii var. platyphyllus (Rydb.) Hu (Peterson)
Sub-species	
Cultivar	
Common Synonym(s)	Philadelphus gordonianus var. columbianus, Philadelphus lewisii ssp. Californicus (Lady Bird).
Common Name(s)	California mock orange, Wild Mock Orange, Syringa (Lady Bird).
Species Code (as per USDA Plants database)	PHCA18
<b>GENERAL INFORMATION</b>	

Geographical range



orange

California mock



Lewis' mock orange

Ecological distribution	The mock orange can be found on rocky slopes and canyons, and gullies and watercourses. (Lady Bird)
Climate and elevation range	1,000-4,500 on canyon slopes (Willis Linn)
Local habitat and abundance	Dry, rocky soils (Lady Bird). Adaptable to clay soils (Willis Linn). Moist, well drained soils with pH levels of Alkaline, Acid, Neutral (Royal Horticulture Society).
Plant strategy type / successional stage	Mock orange can tolerate a range of soils types (moist to dry) and sun-tolerance (partial shade to full sun) (Portland Nursery).
Plant characteristics	The California mock orange is a deciduous shrub that stands about 2.5-4 meters tall and the same in width. From seed to full height takes about 5-10 years. This shrub grows white flowers that are roughly 2 inches in size that grow in clusters (Royal Horticulture Society). The fruit type is a capsule (Lady Bird).
<b>PROPAGATION DETAILS: FROM SEED</b>	
Ecotype	The fruit is a small brown capsule that contains very small seeds (USDA).
Propagation Goal	Plants
Propagation Method	Seed
Product Type	
Stock Type	
Time to Grow	18 months (Allen)

Target Specifications	Firm plug of root systems in containers cutting height of 15cm (Allen)
Propagule Collection Instructions	Seeds can be collected Collect seeds mid-June (Allen)
Propagule Processing/Propagule Characteristics	The seeds on a mock orange are very small and will contain roughly 5,300,000 seeds per pound (USDA).
Pre-Planting Propagule Treatments	Seeds can be extracted by gently crushing the capsules and separating the seeds in an aspirator (Lady Bird).  Cold stratification should be done in coarse moist sand at temperatures of 41 degrees Fahrenheit for 8 weeks. Fall sowing can also be done, but there is a risk of killing the plant due to frost (USDA).
Growing Area Preparation / Annual Practices for Perennial Crops	Coarse sand medium should be used after cold stratification at 72-79 degrees Fahrenheit (USDA).
Establishment Phase Details	For best germination, seed should be stratified in coarse sand for eight weeks at 41 degrees (Lady Bird).
Length of Establishment Phase	
Active Growth Phase	
Length of Active Growth Phase	
Hardening Phase	
Length of Hardening Phase	
Harvesting, Storage and Shipping	
Length of Storage	
Guidelines for Outplanting / Performance on Typical Sites	The California mock orange can be planted bareroot in the soil during winter when the ground is not frozen or waterlogged. Add mulch or compost. In spring, it will need to be mulched (Royal Horticulture Society).
Other Comments	Some of this information is based on the very close relative Lewis' mock orange.
<b>PROPAGATION DETAILS: VEGETATIVE</b>	
Ecotype	
Propagation Goal	Plants
Propagation Method	Vegetative
Product Type	Container (plug)
Stock Type	800 ml containers (RNCR)

Time to Grow	18 months (RNGR). 1.5 years to harvest (RNGR).
Target Specifications	Established roots and 15 centimeters in height (RNGR).
Propagule Collection Instructions	Collect cutting from healthy plants in mid-June. Summer softwood cuttings (RNGR).
Propagule Processing/Propagule Characteristics	
Pre-Planting Propagule Treatments	Keep cutting moist and refrigerated until you use them (RNGR).
Growing Area Preparation / Annual Practices for Perennial Crops	Place the plugs in an outdoor mistbed, misting for 6 seconds every 6 minutes. Bottom heat at 21 degrees Celsius with heating cables 12 centimeters beneath the media. Cover with mist cloth (RNGR). Media is 50% perlite and 50% sand (RNGR).
Establishment Phase Details	Wait until cutting are rooted and then put into 800 milliliter containers. 50% 6:1:1 milled sphagnum peat, perlite, and vermiculite, and 50% sand with slow release fertilizer (RNGR).
Length of Establishment Phase	8 weeks (Allen)
Active Growth Phase	Transfer from the mistbed to 1.5 liter containers (RNGR).
Length of Active Growth Phase	8 weeks (Allen)
Hardening Phase	After applying the last watering begin the overwintering process. (Allen)
Length of Hardening Phase	4 weeks (Allen)
Harvesting, Storage and Shipping	Store overwinter and outdoor insulated foam cover and snow (RNGR).
Length of Storage	5 months (RNGR).
Guidelines for Outplanting / Performance on Typical Sites	
Other Comments (including collection restrictions or guidelines, if available)	Some of this information is based on the very close relative Lewis' mock orange.
<b>INFORMATION SOURCES</b>	
References	United States Department of Agriculture. (2025). Classification for Kingdom Plantae Down to Genus Philadelphus L. <a href="https://plants.usda.gov/classification/88421">https://plants.usda.gov/classification/88421</a>

	<p>Calscape California Native Plant Society. (2025). Mock Orange, <i>Philadelphus lewisii</i>. <a href="https://calscape.org/Philadelphus-lewisii-(Mock-Orange)">https://calscape.org/Philadelphus-lewisii-(Mock-Orange)</a></p> <p>Allen, K. (2008). Plant Propagation Protocol for <i>Philadelphus lewisii</i>. <a href="https://courses.washington.edu/esrm412/protocols/2008/PHLE4.pdf">https://courses.washington.edu/esrm412/protocols/2008/PHLE4.pdf</a></p> <p>Lady Bird Johnson Wildflower Center. (2023). <i>Philadelphus californicus</i>. <a href="https://www.wildflower.org/plants/result.php?id_plant=PHCA18">https://www.wildflower.org/plants/result.php?id_plant=PHCA18</a></p> <p>Royal Horticulture Society. (2025). <i>Philadelphus lewisii</i> subsp. <i>Californicus</i>. <a href="https://www.rhs.org.uk/plants/525581/philadelphus-lewisii-subsp-californicus/details">https://www.rhs.org.uk/plants/525581/philadelphus-lewisii-subsp-californicus/details</a></p> <p>Willis Linn Jepson chapter: California Native Plant Society. (2017). <i>Philadelphus lewisii</i> California mock orange. <a href="https://jepson.cnps.org/horticulture/plant-of-the-month/76-philadelphus-lewisii-july-2017">https://jepson.cnps.org/horticulture/plant-of-the-month/76-philadelphus-lewisii-july-2017</a></p> <p>Suojala, T., &amp; Lindén, L. (1997). Frost hardiness of <i>Philadelphus</i> and <i>Hydrangea</i> clones during ecodormancy. <i>Acta Agriculturae Scandinavica, Section B — Soil &amp; Plant Science</i>, 47(1), 58–63. <a href="https://doi.org/10.1080/09064719709362440">https://doi.org/10.1080/09064719709362440</a></p> <p>Portland Nursery. (2025). <i>Philadelphus lewisii</i>: Mock Orange. <a href="https://www.portlandnursery.com/natives/philadelphus">https://www.portlandnursery.com/natives/philadelphus</a></p> <p>United States Department of Agriculture. (2003). LEWIS' MOCKORANGE <i>Philadelphus lewisii</i> Pursh. <a href="https://plants.usda.gov/DocumentLibrary/plantguide/pdf/pg_phle4.pdf">https://plants.usda.gov/DocumentLibrary/plantguide/pdf/pg_phle4.pdf</a></p>
Other Sources Consulted	
Protocol Author	Molly Hannon
Date Protocol Created or Updated	05/24/25

Additional source:  
Luna, T. RNGR. (2001). *Philadelphus (lewisii)*. <https://npn.rngr.net/renderNPNProtocolDetails?selectedProtocolIds=hydrangeaceae-philadelphus-317>

