

**Plant Propagation Protocol for *Allium anceps***

ESRM 412 – Native Plant Production

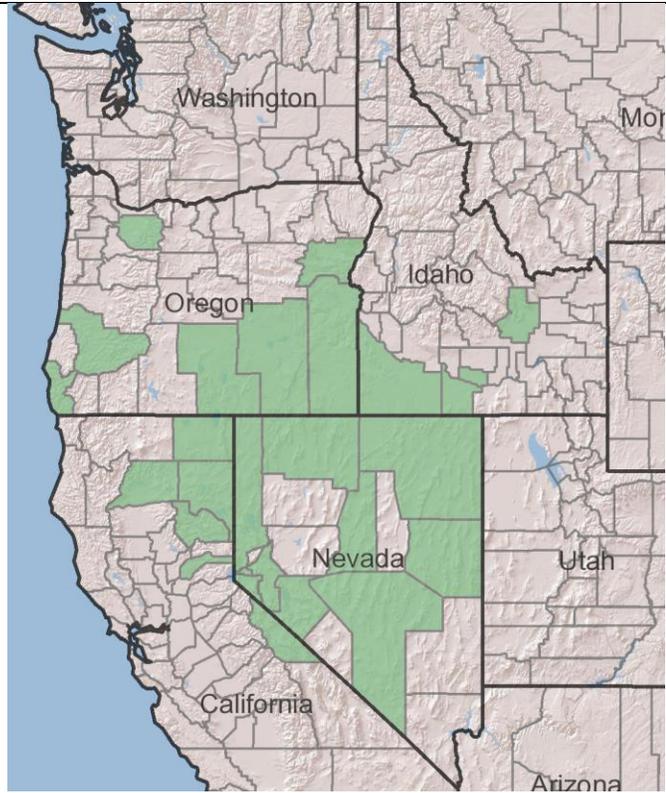
URL: <https://courses.washington.edu/esrm412/protocols/2021/ALAN.pdf>



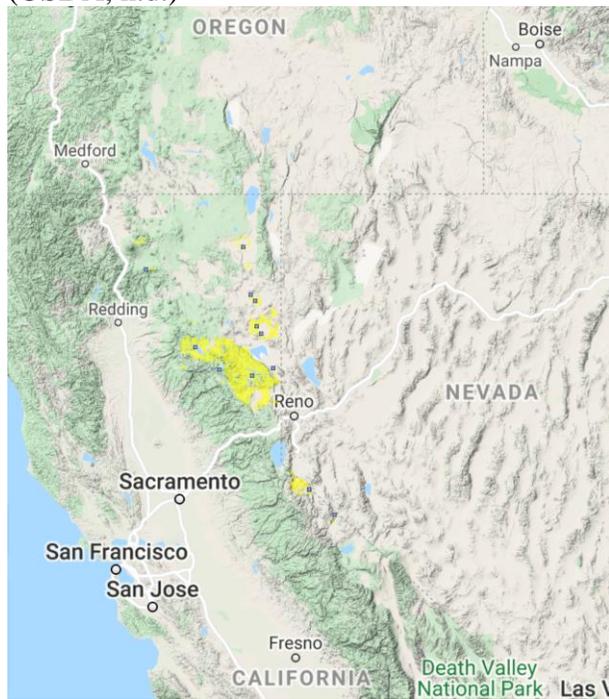
(California Native Plant Society, 2021)

<b>TAXONOMY</b>	
<b>Plant Family</b>	
Scientific Name	Liliaceae (USDA, n.d.)
Common Name	Lily
<b>Species Scientific Name</b>	
Scientific Name	<i>Allium anceps</i> Kellogg (USDA, n.d.)
Varieties	No varieties recognized.
Sub-species	No sub-species recognized.
Cultivar	No information available.
Common Synonym(s)	Kellogg's onion, twin leaved onion (California Native Plant Society, 2021)
Common Name(s)	Twinleaf onion (USDA, n.d.)
Species Code (as per USDA Plants database)	ALAN (USDA, n.d.)
<b>GENERAL INFORMATION</b>	

Geographical range



(USDA, n.d.)



(California Native Plant Society, 2021).

Ecological distribution

Prefers clay or rocky slopes (California Native Plant Society, 2021).

Climate and elevation range

7.8"-88.9" of precipitation annually, full sun, 1200-1500m (McNeal, 2012).

Local habitat and abundance	Prefers full sun and slow draining soil. Commonly associates with <i>Artemisia tridentata</i> , <i>Juniperus occidentalis</i> , <i>Scutellaria nana</i> , and <i>Lupinus uncialis</i> (McNeal, n.d.). Grows densely and pushes out other vegetation (California Native Plant Society, 2021).
Plant strategy type / successional stage	Stress tolerant, early-blooming (visible right after March) (McNeal, n.d.).
Plant characteristics	Perennial herb, grows up to 10cm long, 2 flat and narrow leaves that appear in late winter. Flower is pink/purple and grows on a separate stalk during the middle of spring. Bulb is white with yellow/brown husk and 1cm in diameter. In early summer, the portion of the plant above ground dies and plant is not easily visible for the rest of the year (California Native Plant Society, 2021).
<b>PROPAGATION DETAILS</b>	
Ecotype	No information available.
Propagation Goal	Bulbs (General information for <i>Allium</i> ) (Skinner, 2006)
Propagation Method	Seed (General information for <i>Allium</i> ) (Skinner, 2006)
Product Type	Propagules (some <i>Allium</i> species produce bulbils, but no information confirms if <i>Allium anceps</i> do) (Pacific Bulb Society, 2020).
Stock Type	Potted nursery stock (Leigh <i>et al</i> , 2006)
Time to Grow	Several years (General information for <i>Allium</i> ) (Crocus, 2021)
Target Specifications	First year bulb (Skinner, 2006). 2-5mm bulb size (Leigh <i>et al</i> , 2006) Root system should be well-established (Watson, n.d.). (General information for <i>Allium</i> ).
Propagule Collection Instructions	Collect from dry flower heads (Crocus, 2021)
Propagule Processing/Propagule Characteristics	Seeds last 1 year (Mahaney, 2014).
Pre-Planting Propagule Treatments	Separate seeds from detritus by hand or by screening. Allow seeds to air dry for a few days before storage (Seed Savers Exchange, 2017). Store in paper bags at room temperature until cleaned. (General information for <i>Allium</i> ) (Leigh <i>et al</i> , 2006).
Growing Area Preparation / Annual Practices for Perennial Crops	Sow seeds into trays of gritty compost and cover seeds with 5mm of grit. Place containers outside in shade (General information for <i>Allium</i> ) (Royal Horticultural Society, 2021).
Establishment Phase Details	No information available.
Length of Establishment Phase	12 weeks to a year (General information for <i>Allium</i> ) (Crocus, 2021)
Active Growth Phase	Observed after fall rains until spring/early summer (Leigh <i>et al</i> , 2006). During peak growth, dry matter accumulates at a rate of 100-200lbs/acre/day if planted in the field. (General information for <i>Allium</i> ) (Grundberg <i>et al</i> , 2018).
Length of Active Growth Phase	6-8 months (Leigh <i>et al</i> , 2006).

Hardening Phase	No information available.
Length of Hardening Phase	No information available.
Harvesting, Storage and Shipping	After plants bloom and seed heads are drying out, put heads in paper bag. Shake the paper bag to free the seeds. (General information for <i>Allium</i> ) (Seed Savers, 2017).
Length of Storage	Seeds can be stored in a cool, dry place for up to two years. (General information for <i>Allium</i> ) (Seed Savers, 2017).
Guidelines for Outplanting / Performance on Typical Sites	If planted in containers, must make sure that plants do not dry out during spring since flower buds will fail to open if they are dry (General information for <i>Allium</i> ) (Crocus, 2021).
Other Comments	Information on <i>Allium anceps</i> is limited, so most information is for <i>Allium</i> species in general.

### INFORMATION SOURCES

References	<p>California Native Plant Society. (2021). Twin leaved onion: <i>Allium anceps</i>. California Native Plant Society. <a href="https://calscape.org/Allium-anceps-()">https://calscape.org/Allium-anceps-()</a></p> <p>Crocus. (2021). <i>Alliums</i>. Crocus. <a href="https://www.crocus.co.uk/features/_/articleid.955/">https://www.crocus.co.uk/features/_/articleid.955/</a></p> <p>Grundberg <i>et al.</i> (2018). <i>Growing Alliums for Storage and Long Term Sales Resource Booklet</i>. Cornell Cooperative Extension. <a href="https://rvpadmin.cce.cornell.edu/uploads/doc_646.pdf">https://rvpadmin.cce.cornell.edu/uploads/doc_646.pdf</a></p> <p>Leigh <i>et al.</i> (2006). Propagation Protocol for production of Container (plug) <i>Allium amplexens</i> bulbs. Native Plant Network Propagation Protocol Database. USDA. <a href="https://nnp.rngr.net/nnp/propagation/protocols/renderNPNProtocolDetails-PrintFormat">https://nnp.rngr.net/nnp/propagation/protocols/renderNPNProtocolDetails-PrintFormat</a></p> <p>Mahaney, E. (2014). <i>Seed Viability</i>. Under the Solano Sun. <a href="https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=12950">https://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=12950</a></p> <p>McNeal, D. (2012). <i>Allium anceps</i>. The Jepson Herbarium. University of California, Berkeley. <a href="https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=12510">https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=12510</a></p> <p>McNeal, D. (n.d.) <i>Report on Allium: Columbia Basin Scientific Assessment Report</i>. <a href="https://www.fs.fed.us/r6/icbemp/science/mcneal.pdf">https://www.fs.fed.us/r6/icbemp/science/mcneal.pdf</a></p> <p>Pacific Bulb Society. (2020). <i>Allium</i>. Pacific Bulb Society. <a href="https://www.pacificbulbsociety.org/pbswiki/index.php/Allium">https://www.pacificbulbsociety.org/pbswiki/index.php/Allium</a></p> <p>Royal Horticultural Society. (2021). <i>How to grow Alliums</i>. The Royal Horticultural Society. <a href="https://www.rhs.org.uk/plants/popular/allium/growing-guide">https://www.rhs.org.uk/plants/popular/allium/growing-guide</a></p> <p>Seed Savers Exchange. (2017). <i>How to grow onions</i>. Seed Savers Exchange. <a href="https://www.seedsavers.org/site/pdf/grow-save-onions.pdf">https://www.seedsavers.org/site/pdf/grow-save-onions.pdf</a></p> <p>Skinner, D. (2004). Propagation protocol for production of Container (plug) <i>Allium acuminatum</i> Hook bulbs. Native Plant Network Propagation Protocol Database. USDA.</p>
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	<p><a href="https://npn.rngr.net/npn/propagation/protocols/renderNPNProtocolDetails-PrintFormat">https://npn.rngr.net/npn/propagation/protocols/renderNPNProtocolDetails-PrintFormat</a></p> <p>United States Department of Agriculture (USDA). (n.d.). <i>Allium anceps</i> Kellogg: twinleaf onion. USDA.</p> <p><a href="https://plants.sc.egov.usda.gov/home/plantProfile?symbol=ALAN">https://plants.sc.egov.usda.gov/home/plantProfile?symbol=ALAN</a></p> <p>Watson, S. (n.d.). <i>Allium platycaule</i>. Plants For a Future.</p> <p><a href="https://pfaf.org/user/Plant.aspx?LatinName=Allium+platycaule">https://pfaf.org/user/Plant.aspx?LatinName=Allium+platycaule</a></p>
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