

Plant Propagation Protocol for *Lomatium utriculatum*
 ESRM 412 – Native Plant Production



TAXONOMY	
Plant Family	Carrot family
Scientific Name	Apiaceae
Common Name	Carrot Family
Species Scientific Name	
Scientific Name	<i>Lomatium utriculatum</i>
Varieties	(Nutt. ex Torr. & A. Gray) J.M. Coult. & Rose
Sub-species	
Cultivar	
Common Synonym(s)	<i>Lomatium vaseyi</i> (Coult. & Rose)
Common Name(s)	Common Lomatium, Spring Gold, Hog Fennel, Bladder Desert Parsely
Species Code (as per USDA Plants database)	LOUT
GENERAL INFORMATION	
Geographical range	British Columbia south to California west of Cascade Range and Sierra Nevada
Ecological distribution	Dry, open grassy slopes, meadows, and woodlands, in prairies, vernal meadows, and rocky slopes west of the Cascades. It can also be found west of the Sierras in Central Oak Woodland, and Coastal Sage Scrub plant communities.
Climate and elevation range	Common lomatium grows in diverse climates, ranging from the cool, humid conditions near the coast to hot, dry environments in inland valleys and foothill woodlands. It can tolerate rainfall 40 to 70 [cm] at the desert edge and can be found growing in elevations up to 4500'
Local habitat and abundance	locally common
Plant strategy type /	Early successional

successional stage	
Plant characteristics	forb, perennial herb, reaches 10-60 cm ht.,
PROPAGATION DETAILS	
Propagation Goal	Plants
Propagation Method	Seeds
Product Type	Container (plug) with seedlings
Stock Type	potted nursery stock
Time to Grow	6 months
Target Specifications	First year seedling with somewhat corky taproot 1-2mm in diameter and 10-20cm long.
Propagule Collection Instructions	Collect seed/fruits immediately prior to or when fruit is completely ripe and dry on plant from mid-spring to mid-summer
Propagule Processing/Propagule Characteristics	seeds likely have a short life
Pre-Planting Propagule Treatments	None, however collected seed needs to be in dry storage.
Growing Area Preparation / Annual Practices for Perennial Crops	Sow in deep pots to accomodate for taproot, best to plant in native soil, ok in cold frame from fall to spring. Can induce dormancy by drying out pots & placing in dry storage. Growth from seed to dormant seedling follows the first fall rains through the spring-summer dry-down.
Establishment Phase Details	Initial germination within 3 weeks
Length of Establishment Phase	Approximately 3 weeks.
Active Growth Phase	Active growth was observed following the onset of autumn rains (seed swelling) until drying down (die-back and dormancy) occurred in early summer. The length of the active gorwth phase can be somewhat controlled with irrigation, but this species probably requires summer dormancy.
Length of Active Growth Phase	6-8 months (late fall - early summer)
Hardening Phase	Hardening is not necessary as active growth is generally initiated between mid-late fall and continues until summer dormancy. Growth resumes following initial fall rains.
Harvesting, Storage and Shipping	Individuals go dormant following spring-summer dry down and die back to the root. Best stored/shipped in dormant stage. Collect seed in late summer.
Length of Storage	3-4 months, seed storage not recommended for very long
Guidelines for Outplanting / Performance on Typical Sites	plant in well drained loam soil in late fall & leave protected over the winter. They will germinate in the spring and can be transplanted when large enough to handle.
Other Comments	

INFORMATION SOURCES	
References	<p>Hunt, John W.; Boul, Rachelle D.; Brown, Matthew R.; Koenig, David A.; Leigh, Mark.; Pushnik, James C. 2006. Propagation protocol for production of container <i>Lomatium utriculatum</i> Nutt. ex Torr. & A.Gray plants (Potted nursery stock (3); University of California - Chico, Chico, California. In: Native Plant Network. URL: http://www.nativeplantnetwork.org (accessed 17 April 2014). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.</p> <p>California Native Plant Link Exchange (cited 24 April 2014) Available from: http://www.cnplx.info/nplx/species?taxon=Lomatium+utriculatum</p> <p>Garry Oak Ecosystems Recovery Team (cited 23 April 2014) Available from: http://www.goert.ca</p> <p>Klinkenberg, Brian. (Editor) 2013. <i>E-Flora BC: Electronic Atlas of the Plants of British Columbia</i> [eflora.bc.ca]. Lab for Advanced Spatial Analysis, Department of Geography, University of British Columbia, Vancouver. [Accessed: 4/24/2014 10:13:27 PM]</p>
Other Sources Consulted	
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Date Protocol Created or Updated	04/23/14