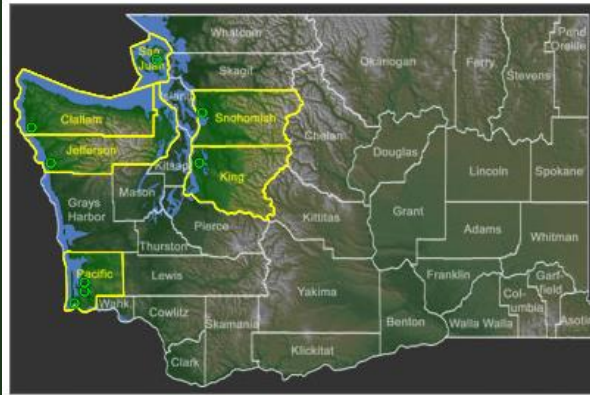


**Plant Propagation Protocol for *Angelica lucida***  
 ESRM 412 – Native Plant Production  
 Spring 2017



Source: Turner Photographics

WTU Herbarium

<b>TAXONOMY</b>	
Plant Family	
Scientific Name	Apiaceae
Common Name	Carrot Family
Species Scientific Name	
Scientific Name	<i>Angelica lucida</i> L.
Varieties	
Sub-species	
Cultivar	
Common Synonym(s)	<i>Coelopleurum actaeifolium</i> (Michx.) J.M. Coult. & Rose <i>Coelopleurum gmelinii</i> (DC.) Ledeb. <i>Coelopleurum lucidum</i> (L.) Fernald <i>Coelopleurum lucidum</i> (L.) Fernald ssp. <i>gmelinii</i> (DC.) A. Löve & Löve <sup>[5]</sup>
Common Name(s)	seacoast angelica
Species Code (as per USDA Plants database)	ANLU <sup>[5]</sup>
<b>GENERAL INFORMATION</b>	
Geographical range	This species occurs along both the west and east coast of North America. On the west coast, the range extends from Alaska, down into California. On the east coast, the range extends from Newfoundland down

	into New England. It can also be found along the Pacific coastlines in Asia <sup>[4]</sup> <sup>[9]</sup> .
Ecological distribution	Coastal areas, riparian wetlands, and meadows <sup>[9]</sup> .
Climate and elevation range	This species grows in areas with low elevation along shorelines, up to subalpine elevations.
Local habitat and abundance	<i>Angelica lucida</i> grows best along coastlines and near streams. It is associated with another species of Angelica, <i>Angelica atropurpurea</i> which grows in similar environments <sup>[1]</sup> .
Plant strategy type / successional stage	This species is extremely cold hardy <sup>[9]</sup> .
Plant characteristics	<i>Angelica lucida</i> is a perennial herb that can grow from rhizomes. Its leaves are pinnate and divided into 3 leaflets. Small white flowers without bracts grow in clusters on stalks <sup>[4]</sup> .
<b>PROPAGATION DETAILS</b> <sup>[6]</sup>	
Ecotype	Coastal ecotype
Propagation Goal	Plants
Propagation Method	Seed and vegetative
Product Type	Container
Stock Type	
Time to Grow	N/A
Target Specifications	N/A
Propagule Collection Instructions	Collect seeds after the flowers bloom in late Spring from June to August <sup>[2]</sup> .
Propagule Processing/Propagule Characteristics	Many seeds can be produced from the big seed heads. Seeds remain viable for only about 6 months.
Pre-Planting Propagule Treatments	Seeds should be pre soaked in water for 24 hours prior to stratification. Seeds are placed in warm stratification at 75 °F for 60 days followed by cold stratification at 35 °F for 90 days. This results in a 65% germination rate.
Growing Area Preparation / Annual Practices for Perennial Crops	This species needs moisture retentive media during its germination phase, since frequent watering and moisture is required. They can be grown in individual containers or in flats.
Establishment Phase Details	Seeds germinate 14 days after sowing and can be transplanted after this time.
Length of Establishment Phase	1 month
Active Growth Phase	The plant will develop offsets on roots that are at least two years old. These can be separated through vegetative propagation to produce new plants.
Length of Active Growth Phase	N/A
Hardening Phase	Plants can take up to 4 years from the start of germination to bloom and produce seeds.
Length of Hardening Phase	N/A

Harvesting, Storage and Shipping	Keep in freezer
Length of Storage	6 months
Guidelines for Outplanting / Performance on Typical Sites	Plants reach 2-4 feet tall and are extremely cold hardy.
Other Comments	
<b>INFORMATION SOURCES</b>	
References	See below
Other Sources Consulted	
Protocol Author	Patrick Kuo
Date Protocol Created or Updated	04/26/17

### References:

- [1] (2017). “*Angelica lucida*.” *Calflora*. Retrieved from [http://www.calflora.org/cgi-bin/species\\_query.cgi?where-taxon=Angelica+lucida](http://www.calflora.org/cgi-bin/species_query.cgi?where-taxon=Angelica+lucida).
- [2] (2007) “*Angelica lucida*.” *Lady Bird Johnson Wildflower Center*. Retrieved from [https://www.wildflower.org/plants/result.php?id\\_plant=ANLU](https://www.wildflower.org/plants/result.php?id_plant=ANLU).
- [3] “*Angelica lucida*.” *Burke Musuem*. Retieved from <http://biology.burke.washington.edu/herbarium/imagecollection.php?Genus=Angelica&Species=lucida>
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- [5] “*Angelica lucida* L. seacoast angelica” *United States Department of Agriculture Natural Resources Conservation Service*. Accessed 26 Mar. 2017. Retrieved from <https://plants.usda.gov/core/profile?symbol=ANLU>
- [6] Cameron, Jordan. (2014). “*Angelica lucida*.” *Native Plant Network Propagation Protocol Database*. Retrieved from <https://npr.rngr.net/renderNPNProtocolDetails?selectedProtocolIds=apiaceae-angelica-3985>
- [7] Polar, J. and MacKinnon, A. *Plants of Coastal British Columbia*. Vancouver, BC: Lone Pine Publishing, 1994. pp. 218.
- [8] Preus, Mary. *The Northwest Herb Lover’s Handbook: A Guide to Growing Herbs for Cooking, Crafts, and Home Remedies*. Sasquatch Books, 2000. pp. 83-84.
- [9] Smith, Fin et al. (2014) “Sea-watch, sea coast *Angelica* - *Angelica lucida*.” *Biodiversity of the Central Coast*. Retrieved from <http://www.centralcoastbiodiversity.org/sea-watch-bull-angelica-lucida.html>