

**Plant Propagation Protocol for *Agoseris apargioides***  
 ESRM 412 – Native Plant Production  
 Protocol URL: <https://courses.washington.edu/esrm412/protocols/AGAP2>

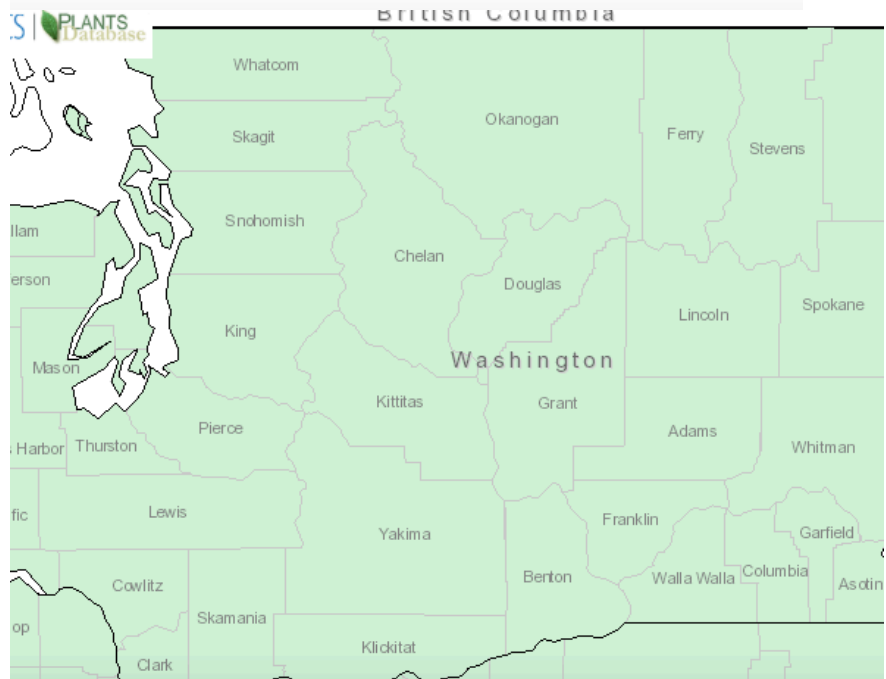
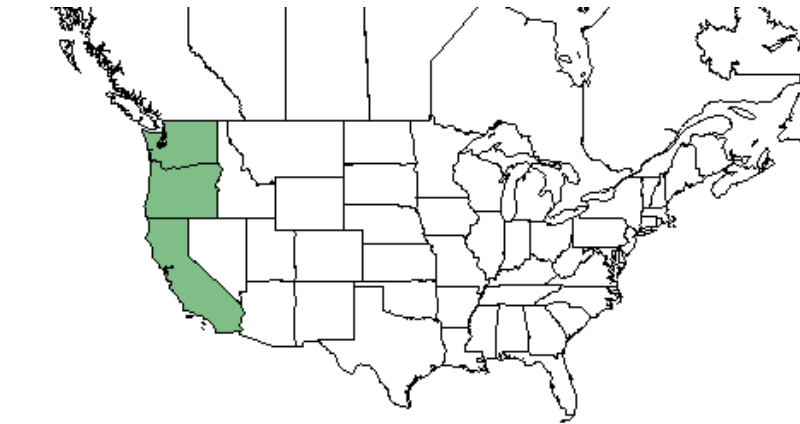


<b>TAXONOMY</b>	
<b>Plant Family</b>	
Scientific Name	Asteraceae
Common Name	Daisy
<b>Species Scientific Name</b>	
Scientific	Genus: <i>Agoseris</i> Species: <i>apargioides</i> Species Authority: (Less.) Greene
Varieties	<i>Agoseris apargioides</i> (Less.) Greene var. <i>apargioides</i> <i>Agoseris apargioides</i> var. <i>eastwoodiae</i> (Fedde) Munz <i>Agoseris apargioides</i> var. <i>maritima</i> (Sheldon.) Q. Jones
Sub-species	N/A
Cultivar	
Common Synonym(s)	<i>Agoseris hirsute</i> , <i>Agoseris humilis</i> , <i>Leontodon hirsutus</i> , <i>Taraxacum hirsutum</i> , <i>Troximon apargioides</i>
Common Name(s)	Seaside agoseris, seaside false dandelion
Species Code (as per USDA Plants database)	AGAP2

## GENERAL INFORMATION

Geographical range

Washington to California coast



Ecological distribution

Found on sandy ground along the coast (Enari,1956, p.299)

Climate and elevation range

1-2686m (Calscape)  
found in hardiness zones 9b to 10b (25 to 40 ° F) (Calflora)

Local habitat and abundance

Open dry areas. Positive associations with the genus *Mesembryanthemum* (Boyd 1992). Mixed Evergreen Forest, Northern Coastal Scrub, Coastal Sage Scrub, Coastal Strand, Mixed Evergreen Forest, Closed-cone Pine Forest (Redwood National Park).

Plant strategy type / successional stage	Shade tolerant and low water tolerant.
Plant	Low growing perennial herb with long rhizome like stem that is buried by drifting sand. Bloom time is May through August but could flower year-round depending on the conditions (Wild Flower Center). The growing season is six to ten months. The fruit is an achene 5-12 mm long. The lower part of the achene has one seed and the upper part of the achene forms a narrow beak that possesses a white pappus (Calflora).
<b>PROPAGATION DETAILS</b>	
Ecotype	No information found
Propagation Goal	Plant
Propagation Method	Seed
Product	Soil Requirements: Tolerates soils with pH range 5.4-7.1. Prefers fine, medium, and course textured soils (Calflora). Container (plug) (Native Plant Network)
Stock Type	<b>(Due to limited information found, details found for <i>Agoseris grandiflora</i>)</b> Deepot 16 (Native Plant Network)
Time to Grow	<b>(Due to limited information found, details found for <i>Agoseris heterophylla</i>)</b> 4 months (Native Plant Network)
Target Specifications	<b>(Due to limited information found, details found for <i>Agoseris grandiflora</i>)</b> Firm root plug in container (Native Plant Network)
Propagule Collection Instructions	Missing information
Propagule Processing/Propagule Characteristics	Missing information
Pre-Planting Propagule Treatments	Missing information
Growing Area Preparation / Annual Practices for Perennial Crops	<b>(Due to limited information found, details found for <i>Agoseris grandiflora</i>)</b> Fully Controlled Greenhouse. Sowing Method: Transplanting Germinant. 2 grams of seeds are sown per flat containing Sunshine Mix #4 Aggregate Plus (peat moss, perlite, major and minor nutrients, gypsum, and dolomitic lime). Seeds are mixed with media to sow and are surface sown. Flats are watered in with an automatic irrigation system. Seeds are sown on June 1st. % Germination: 10% (Native Plant Network)
Establishment Phase Details	Missing information
Length of Establishment Phase	Missing information

Active Growth Phase	Missing information
Length of Active Growth Phase	<b>(Due to limited information found, details found for <i>Agoseris heterophylla</i>)</b> Flowering and seed ripening continued for 2 months. With continued watering this could have been extended.
Hardening Phase	<b>(Due to limited information found, details found for <i>Agoseris heterophylla</i>)</b> Seed was collected prior to watering so as not to wash away the ripened achenes (Native Plant Network)
Length of Hardening Phase	Missing information
Harvesting, Storage and Shipping	Missing information
Length of Storage	Missing information
Guidelines for Outplanting / Performance on Typical Sites	Missing information
Other Comments	N/A
<b>INFORMATION SOURCES</b>	
References)	<ol style="list-style-type: none"> <li>1. Boyd, Robert s. "INFLUENCE OF AMMOPHILA ARENARIA ON FOREDUNE PLANT MICRODISTRIBUTIONS AT POINT REYES NATIONAL SEASHORE, CALIFORNIA." <i>Madrono</i>, vol. 39, no. 1, 1992, pp. 67–76., doi:10.3897/bdj.4.e7720.figure2f.</li> <li>2. "Redwood National Park." <i>Humboldt State University</i>, Botanical Studies Open Educational Resources and Data, 17 Sept. 18AD, digitalcommons.humboldt.edu/cgi/viewcontent.cgi?article=1084&amp;context=botany_jps.</li> <li>3. Information on Wild California Plants." <i>Calflora</i>, <a href="https://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=121">https://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=121</a> (Accessed April 29, 2019).</li> <li>4. "Information on Wild California Plants." <i>Calflora</i>, <a href="http://www.calflora.org/">www.calflora.org/</a>. (Accessed April 29, 2019).</li> <li>5. "Seaside Agoseris (<i>Agoseris Apargioides</i>)." <i>INaturalist.org</i>, <a href="http://www.inaturalist.org/taxa/58801-Agoseris-apargioides">www.inaturalist.org/taxa/58801-Agoseris-apargioides</a>. (Accessed April 14, 2019)</li> <li>6. "Wildflower Center." <i>Lady Bird Johnson Wildflower Center - The University of Texas at Austin</i>, The University of Texas Austin,</li> </ol>

	<p><a href="http://www.wildflower.org/plants/result.php?id_plant=AGAP2">www.wildflower.org/plants/result.php?id_plant=AGAP2</a>. (Accessed April 16, 2019)</p> <p>7. Enari, Leonid. <i>Plants of the Pacific Northwest; 663 Selected Northwest Wild Flowers, Shrubs, Trees, and Weeds</i>. Binfords &amp; Mort, 1956.</p>
<p>Other Sources Consulted (but that contained no pertinent information) (full citations)</p>	<ol style="list-style-type: none"> <li>1. <a href="http://research-it.berkeley.edu/projects/museum-informatics-project">http://research-it.berkeley.edu/projects/museum-informatics-project</a></li> <li>2. “Coast Dandelion, Agoseris Apargioides Var. Apargioides.” <i>California Native Plant Society</i>, California Native Plant Society, <a href="http://calscape.org/plant.php?pl=65676%3Fsrchcr">calscape.org/plant.php?pl=65676%3Fsrchcr</a>. (Accessed April 29, 2019)</li> <li>3. Baird, Gary I. “TWO NEW VARIETIES OF AGOSERIS (ASTERACEAE: LACTUCEAE).” <i>Sida, Contributions to Botany</i>, vol. 21, no. 1, 2004, pp. 267–274.</li> <li>4. <i>Plants for a Future</i>, <a href="http://pfaf.org/user/DatabaseSearchResult.aspx">pfaf.org/user/DatabaseSearchResult.aspx</a>. (Accessed April 27, 2019)</li> <li>5. Wall, M and Jay Macdonald. 2009. <i>Processing Seeds of California Native Plants for Conservation, Storage, and Restoration</i>. Rancho Santa Ana Botanic Garden Occasional Publication.</li> <li>6. <a href="https://plants.jstor.org/">https://plants.jstor.org/</a> (Accessed April 20, 2019)</li> <li>7. Emery, Dara E. <i>Seed Propagation of Native California Plants</i>. Santa Barbara Botanic Garden, 1988.</li> <li>8. Schmidt, Marjorie G., et al. <i>Growing California Native Plants</i>. University of California Press, 2012.</li> <li>9. Pettinger, April, and Brenda Costanzo. <i>Native Plants in the Coastal Garden: a Guide for Gardeners in the Pacific Northwest</i>. Timber Press, 2003.</li> <li>10. Kruckeberg, Arthur R. <i>Gardening with Native Plants of the Pacific Northwest: an Illustrated Guide</i>. Douglas &amp; McIntyre, 1996.</li> </ol>

	11. Rose, Robin, et al. <i>Propagation of Pacific Northwest Native Plants</i> . Oregon State University Press, 1998.
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