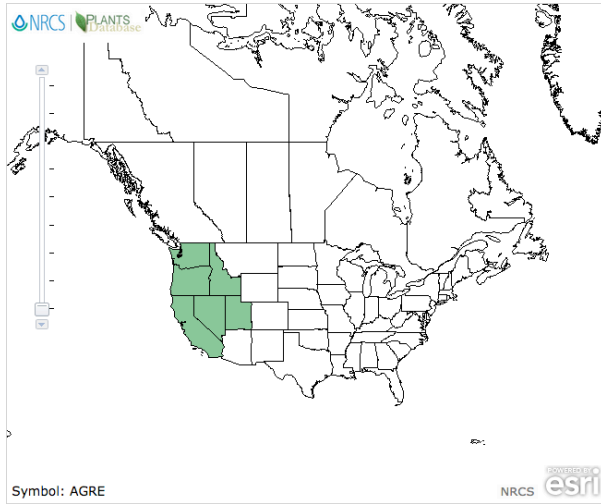


Plant Propagation Protocol for [*Agoseris retrorsa*]

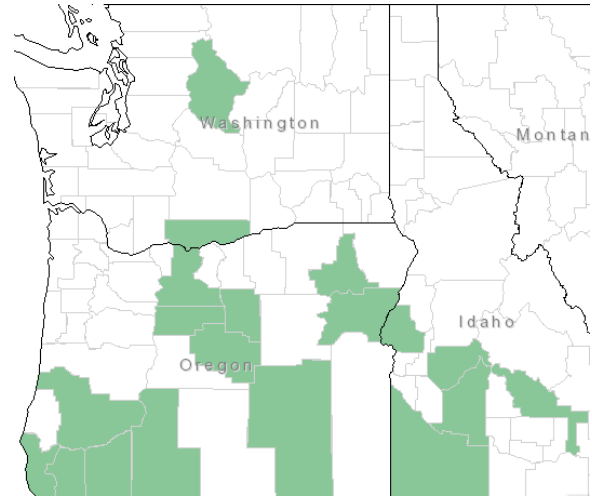
ESRM 412 – Native Plant Production

Protocol URL: [https://courses.washington.edu/esrm412/protocols/\[USDA Species Code.pdf\]](https://courses.washington.edu/esrm412/protocols/[USDA Species Code.pdf])

North American Distribution



Northwest Distribution



Source of Map Images: USDA PLANTS Database (1)

| TAXONOMY | |
|--|--|
| Plant Family | |
| Scientific Name | Asteraceae / Compositae |
| Common Name | Aster family |
| Species Scientific Name | |
| Scientific Name | <i>Agoseris retrorsa</i> |
| Varieties | N/A |
| Sub-species | N/A |
| Cultivar | N/A |
| Common Synonym(s) | <i>Macrorhynchus retrorsus</i> <i>Microrhynchus angustifolius</i> <i>Troximon retrorsum</i> (4) |
| Common Name(s) | Spearleaved agoseris Spearleaf agoseris (2) Spear-leaved mountain dandelion (6), (7) |
| Species Code (as per USDA Plants database) | AGRE |
| GENERAL INFORMATION | |
| Geographical range | <i>Agoseris retrorsa</i> is a perennial herb that is dominant and native to the western portion of the |

| | |
|--|---|
| | United States. Specifically, it is native to California, Nevada, Idaho, Oregon, Utah, and Washington (3). See map above. |
| Ecological distribution | Establishes in ecosystems such as scrub, chaparral and coniferous forest (3). |
| Climate and elevation range | Ability to grow in dry habitat at low to high elevations (2). Specific elevation ideal for growth located at 400 to 2300m (4). |
| Local habitat and abundance (| <i>Agoseris retrorsa</i> can be found in a range of habitats that contain slopes and ridges, and dry open woods. In Washington they are found along the eastern edges of the Cascade Mts. near Chelan County (2). |
| Plant strategy type / successional stage | Weedy/ Colonizer |
| Plant characteristics | Spearleaf agoseris is a forb. It is perennial wildflower herb, which has a base of leaves about several of erect, thick, wool-coated inflorescences up to 2½ feet in height (2). |
| PROPAGATION DETAILS | |
| Ecotype | Information not available for specific plant |
| Propagation Goal | Plants Seed in spring, light soil cover no more than 1/8 inch (4) |
| Propagation Method | Seed (4) |
| Product Type | Container (plug) (4) |
| Stock Type | 5.5 cu. in. root trainers. |
| Time to Grow | Usually takes little more than 1-month before out planting can occur (4). 6 to 8 weeks in a green house. |
| Target Specifications | 15cm to 65cm tall with roots stable enough to handle transplanting (4). Transplant should occur when first true leaves appear, transplant into larger containers. Harden off and transplant out after last frost. |
| Propagule Collection Instructions | Divisions in spring. Cuttings in late summer. (4) Collect early summer. |
| Propagule Processing/Propagule Characteristics | Optimum plant spacing about 1 square foot apart. (4) |
| Pre-Planting Propagule Treatments | Rub floral material on a rubber mat with a padded wood block to remove cottony pappus bristles. Then shake material through #6 and #30 sieves to rid of |

| | |
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| | large and dusty cotton like chaff. After that use blower at 1.25. Finally rub achenes between hand or mat and repeat blower. (5) |
| Growing Area Preparation / Annual Practices for Perennial Crops | Soft deep, soil with accentuated drainage to satisfy adaptations to drought tolerated conditions. (9). Full sun exposure for best results. |
| Establishment Phase Details | After collection cold store through summer. Baggy 35F (89%G, 15 days to 22 days). |
| Length of Establishment Phase | Very fast growth rate, specified length is currently unavailable. |
| Active Growth Phase | Information not available for specific plant |
| Length of Active Growth Phase | 1 month or less |
| Hardening Phase | Information not available for specific plant |
| Length of Hardening Phase | Approximately 2 months |
| Harvesting, Storage and Shipping | Information not available for specific plant |
| Length of Storage | Information not available for specific plant |
| Guidelines for Outplanting / Performance on Typical Sites | Plant in non-shaded areas, full sun exposure, during spring. Diameter growth is 1 foot. Flowers naturally during spring. |
| Other Comments | Limited access to propagation information considering <i>Agoseris retrorsa</i> is not a widely used nursery or restoration species. |
| INFORMATION SOURCES | |
| References | See Below |
| Other Sources Consulted | See Below |
| Protocol Author | Don Rollolazo |
| Date Protocol Created or Updated | Created 4/23/15 |

References:

(1) *Plants Database*. USDA Natural Resources Conversation Service, 21 April. 2015. Web. 23 April 2015.

(2) Paul Slichter. *Flora and Fauna Northwest*. Np, 21 June. 2012. Web. 23 April 2015.

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(5) Wall, M. and J. Macdonald. 2009. Processing Seeds of California Native Plants for Conservation, Storage, and Restoration. Rancho Santa Ana Botanic Garden Occasional Publication, Number 10, Claremont, CA. 216 pages.

(6) http://tchester.org/sd/plants/guides/palomar/weir_loop.html

(7) *Rob's plants*. 25 June. 2010. Web. 23 April 2015.

(8) *Sierra Nevada Wildflowers*. Falcon Publishing. 2000. Web. 23 April 2015.

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