

## Plant Propagation Protocol for *Agoseris lackschewitzii*

ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2023/AGLA9.pdf>

Photo on the left <sup>[10]</sup>

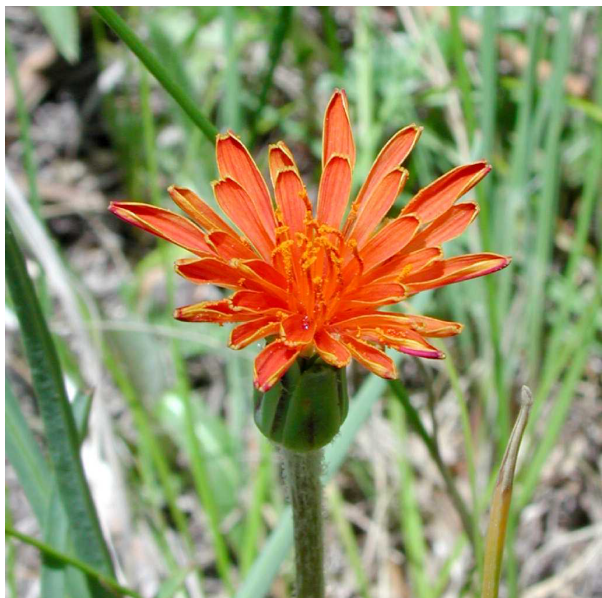
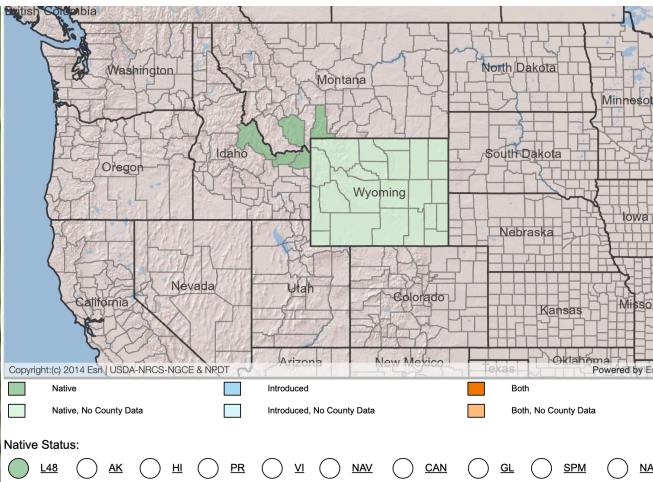


Photo on the right <sup>[7]</sup>



TAXONOMY	
Plant Family	Asteraceae (Aster Family) <sup>[1]</sup>
Scientific Name	<i>Agoseris lackschewitzii</i> <sup>[1]</sup>
Common Name	Mill Creek <i>agoseris</i>
Species Scientific Name	
Scientific Name	<i>Agoseris lackschewitzii</i> D. Henderson & R. Moseley <sup>[2]</sup>
Varieties	N/A
Sub-species	N/A
Cultivar	N/A
Common Synonym(s)	<i>Agoseris aurantiaca</i> var. <i>aurantiaca</i> (Hook) Greene <i>Agoseris aurantiaca</i> var. <i>carnea</i> <sup>[2]</sup> <i>Agoseris gracilens</i> Greene <i>Agoseris greenei</i> Rydb <sup>[6]</sup>
Common Name(s)	Pink Agoseris <sup>[3]</sup>

Species Code (as per USDA Plants database)	AGLA9
<b>GENERAL INFORMATION</b>	
Geographical range	USA: ID , MT , WY <sup>[1]</sup>
Ecological distribution	<i>A. lackschewitzii</i> , is found in specific types of wet areas in mountainous regions. It prefers meadows and areas along streams that are consistently wet, and it can be found alongside various flowering plants and grasses. However, it does not grow well in dense and tall vegetation, but it enjoys establishing in transitional areas between open wet meadows and forests. The habitat where it thrives has different types of soils, but the soil remains saturated with water throughout the growing season. In this particular region, most of the plant populations are observed on flat to gently sloping sites situated between 6,500 and 9,500 feet in elevation. <sup>[2]</sup>
Climate and elevation range	Mid-montane to subalpine (6,500 to 9,500 feet in elevation). <sup>[4]</sup>
Local habitat and abundance	<i>A. Lackschewitzii</i> has high germination in herbaceous wetlands. <sup>[4]</sup> <i>Agoseris lackschewitzii</i> can be found in open, damp meadows that have a mix of flowering plants, grasses, sedges, and rushes. It also grows in the transitional areas between wet meadows and forests. In these habitats, you may come across dominant tall trees such as subalpine fir , Engelmann spruce, whitebark pine, and Douglas fir. Plants population size range form 15 to 100 plants in an area <sup>[5]</sup>
Plant strategy type / successional stage	Its colonizes stubbed habitats. And is considered an early successional plant. <sup>[8]</sup>

Plant characteristics	<p>Agoseris lackschewitzii is a herbaceous perennial plant with a taproot and a milky juice. These plants can have one or more stems that grow up to 6-49 cm tall. The stems are hairy along their entire length. The leaves of this plant grow at the base and can be 6-20 cm long and 0.7-2.5 cm wide. They are smooth and do not have any hairs. The leaves may have a smooth edge or a few small teeth, and some leaves may have dark purple spots scattered irregularly. The flowering heads of this plant consist of many pink flowers, around 50-70 in number, with petals that are 5-10 mm long and 1.5 mm wide. The seeds of this plant, known as achenes, are roundish in shape and measure 6-8 mm in length. The achene has a beak that is shorter than the body, which gradually tapers and measures 4.2-6.6 mm in length. On top of the beak, there are very white, thin bristles. [5]</p>
<b>PROPAGATION DETAILS</b>	
Ecotype	This propagation guideline is based off a seed lot that was collected from Juab County, Utah. [9]
Propagation Goal	Plants [9]
Propagation Method	Seed [9]
Product Type	Plugs
Stock Type	N/A
Time to Grow	About 12-17 weeks.
Target Specifications	Single stem plant with flower on the top
Propagule Collection Instructions	<p>Seed can be collected by hand in the wild, over the course of many months to ensure maximum seed yields and biodiversity captured. Collection can be done from May to July. To minimize seed loss, you can remove the seeds by firmly gripping the bottom of the seed head between two fingers and pulling upwards while keeping your hand closed. [8]</p>

Propagule Processing/Propagule Characteristics	188,955 seeds per lb. <sup>[9]</sup>  Orthodox seed type.
Pre-Planting Propagule Treatments	<p>If you have a small amount of seeds, you can manually separate larger debris by hand and gently rub the seeds to detach them from the pappus. To complete the seed collection, you can utilize air columns or air screen equipment to further refine the collection. For larger seed harvests, a hammermill can be used to thresh the seeds, followed by air screening to finalize the process.</p> <p>Cleaned seed can be stored at 40 °F and 35 to 40% relative humidity. Dry seed remained 100% viable after 2 months of storage at 70 °F and 15% relative humidity.<sup>[8]</sup></p>
Growing Area Preparation / Annual Practices for Perennial Crops	Growing material is made up of: two parts sieved peat, two parts vermiculite, 1 part montmorillonite clay, 1 part #20 quartz silica sand, 1 part native soil, and fertilizer with micronutrients. And the seeds were planted in 5.5 in <sup>3</sup> (90 cm <sup>3</sup> ) root trainers. The trays should be moistened, wrapped in plastic and placed in a cool environment. <sup>[9]</sup>
Establishment Phase Details	The trays are then cold stratified for three weeks. After stratification, trays can be moved to a greenhouse and watered as needed through establishment. The greenhouse can be kept around 70 °F (21 °C) during the day and 50 °F (10 °C) at night. <sup>[9]</sup>
Length of Establishment Phase	All germination should happen within 5 weeks, but most germination will occur in week 2. <sup>[9]</sup>
Active Growth Phase	Seedlings should be watered every 2 to 3 days. <sup>[9]</sup>
Length of Active Growth Phase	8 weeks <sup>[9]</sup>
Hardening Phase	In late March or early April, the plants were relocated from the greenhouse to a cold frame. They were watered every other day when the weather was cool, and every day when it was hot and dry. <sup>[8]</sup>

Length of Hardening Phase	After being exposed to hardening phase conditions for 2 to 4 weeks, the plants were considered acclimated. <sup>[8]</sup>
Harvesting, Storage and Shipping	No information found
Length of Storage	No information found
Guidelines for Outplanting / Performance on Typical Sites	No information found
Other Comments	The plant flowers from June to September. <sup>[1]</sup>

### **INFORMATION SOURCES**

## References

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