

## BIGFLOWER AGOSERIS

*Agoseris grandiflora* (Nutt.)

Greene

Plant Symbol = AGGR

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Bigflower agoseris. Susan McDougall @ USDA-NRCS PLANTS Database.

### Alternate Names

*Common Alternate Names:*

Mountain dandelion, goat chicory

*Scientific Alternate Names:*

*A. grandiflora* (Nutt.) Greene var. *leptophylla* G.I. Baird;  
*A. laciniata* (Nutt.) Greene; *A. plebeja* (Greene) Greene;  
*Stylopappus grandiflorus* Nutt.; *S. laciniatus* var.  
*longiflorus* Nutt.; *Troximon grandiflorum* Nutt.

### Uses

Sage-grouse (*Centrocercus urophasianus*) hens and chicks eat the leaves of *Agoseris* species (Barnett and Crawford 1994; Klebenow and Gray 1968).

Bigflower agoseris has been investigated for potential use in rangeland restoration and rehabilitation seedings. Large scale seed production including seed harvesting however is problematic.

### Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

### Description

*General:* Sunflower family (Asteraceae). Bigflower agoseris is a short lived perennial forb from a simple or branched taproot. The stems and leaves contain a white milky juice. The leaves are all basal with the flower heads solitary on a naked scape. Leaves are 8 to 25 cm (3 to 10 in) long and 1 to 3 cm (0.4 to 1.2 in) wide, oblanceolate pinnatifid to nearly entire. The flowering stems are 15 to 45 cm (6 to 18 in) tall (Welsh et al. 2003). The floral heads are made of numerous yellow ray flowers (similar to a dandelion). Flowering occurs in spring. The fruit is an achene with a 4 to 7 mm (0.16 to 0.28 in) long body gradually tapering into a long beak which averages more than twice as long as the body. There are approximately 274,000 seeds/lb (USDA NRCS 2012).

### Distribution:

Bigflower agoseris occurs in western North America from British Columbia south to California and east to Montana and Utah. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

### Habitat:

Bigflower agoseris is found in small numbers in grassland, sagebrush and mountain brush communities below 2,000 m (6,500 ft) (Hickman 1993; Welsh et al. 2003).

### Adaptation

This species is adapted to a broad range of soil types. It typically occurs in soils with a pH of 5.8-7.3 in areas receiving 300 to 500 mm (12 to 20 in) mean annual precipitation (USDA NRCS 2012). Big flower agoseris prefers open sun.

### Establishment

Bigflower agoseris can be seeded in spring or fall (Skinner, 2004). It should be planted into a firm, weed-free seed bed at a depth of 1/8 to 1/4 inches. The recommended full stand seeding rate is 4 lbs pure live seed (PLS) per acre (Ogle et al. 2011). Seeding rates should be adjusted accordingly when used as part of a mixture.

### Management

Bigflower agoseris should be used as a minor component of seed mixtures. Management strategies should be based on the key species in the established plant community.

Grazing should be deferred on seeded lands for at least two growing seasons to allow for full stand establishment (Ogle et al. 2011).

#### **Pests and Potential Problems**

Rodents such as gophers and voles will attack the roots of bigflower agoseris in seed production fields (Skinner 2004).

#### **Environmental Concerns**

Bigflower agoseris is native to western North America and poses no known environmental concerns.

#### **Seeds and Plant Production**

Seed is collected in midsummer from early June through late July. The seed is dark brown to black when mature and the pappus is white and expanded. The pappus can be removed with a hammer mill or brush machine, but pappus removal is not necessary for greenhouse propagation (Skinner 2004; Young 2001).

Bigflower agoseris has no pre-chill requirement. Seed germinates approximately 14 days after sowing (Young 2001). Container grown plants are ready for out-planting after approximately 60 days (Skinner 2004).

#### **Cultivars, Improved, and Selected Materials (and area of origin)**

Seed of western aster is available in limited quantities on the commercial market. Larger quantities of seed may be grown on a contract basis.

#### **References**

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