



Soda Springs Germplasm

Parsnipflower Buckwheat

Eriogonum heracleoides Nutt.
var. heracleoides

Soda Springs Germplasm parsnipflower buckwheat (*Eriogonum heracleoides* Nutt. *var. heracleoides*) was released in 2017 by the Aberdeen Plant Materials Center for use in wildlife habitat and pollinator plantings in the Intermountain West.



Description

Parsnipflower buckwheat is a perennial forb to sub-shrub with a branching woody stem. Leaves can be covered with dense white hairs making the herbage appear a light green to blue-grayish color. The flowers are a creamy-yellow color and have six petals which are borne in simple or compound umbels. Parsnipflower buckwheat can be distinguished from other closely related members of the genus by having a whorl of 5 to 10 leaves at midpoint of flowering stem; however in some subspecies this is not apparent. The seeds, or achenes, are light to dark brown from 0.1 to 0.2 in (3 to 5 mm) long. There are approximately 170,000 seeds/lb (374,000 seeds/kg).

The species range includes the Rocky Mountain and Intermountain western states from British Columbia and Alberta south to Utah and Nevada. Plants of parsnipflower buckwheat can be found growing in rocky soils, often on slopes and dry canyons. This species is frequently found growing in association with mountain big sagebrush [*Artemisia tridentata* ssp. *vaseyana* (Rydb.) Beetle] and antelope bitterbrush [*Purshia tridentata* (Pursh) DC.].

Source

Seventeen collections of parsnipflower buckwheat from sagebrush steppe and mountain shrub communities throughout southern Idaho were evaluated in a common garden study from 2007 through 2011 at the Aberdeen Plant Materials Center. The accessions were evaluated for plant establishment, persistence, vigor, growth, and flower and seed production. Accession 9076546 was chosen for release as a selected class germplasm for having good establishment and growth characteristics as well as superior seed yields.

Conservation Uses

Parsnipflower buckwheat should be considered for use in pollinator plantings and for adding biodiversity in rangelands in post-fire reclamation, wildlife habitat improvement plantings and native range restoration. The primary intended users are land management agencies or landowners enrolled in USDA conservation programs.

Area of Adaptation and Use

Soda Springs Germplasm parsnipflower buckwheat is suited for conservation plantings in MLRA B11, Snake River Plains and B13 Eastern Idaho Plateaus (USDA 2006). It is also likely adapted for use in ecologically similar locations throughout the Intermountain West, but has not been tested to that extent.

Establishment and Management for Conservation Plantings

Recently harvested seed is typically dormant and responds best to a 16 to 24 week chilling period at 36° F (2°C). Seed should be planted at or just below the soil surface, to no more than 0.25 inches (3mm) deep. The full seeding rate is 4.0 lb/acre (3.4 kg/ha) pure live seed (PLS), but this species should not be seeded in a pure stand. This species would normally be included in native seed mixtures at a rate of ¼ to ½ lb/acre (0.3 to 0.6 kg/ha) PLS.

When planted in a native reclamation seed mix, parsnipflower buckwheat will be a minor component of the establishing plant community; therefore, management should be based on other key species in the mixture. Any new planting should be deferred from livestock grazing until it is well established, which may require 1 to 3 years.

Ecological Considerations

Parsnipflower buckwheat is a species native to the Intermountain and Rocky Mountain West. The species is not considered weedy or invasive, but plants can spread to adjoining vegetative communities under ideal environmental conditions.

Seed and Plant Production

Seed is typically planted in late fall as a dormant planting to allow proper stratification of the seed over winter; however, parsnipflower buckwheat seed does not exhibit strong dormancy and can be planted at any time when moisture is available. For best results, the seedbed should be weed free, moist and firmly packed. The use of weed barrier fabric is very effective at controlling weeds. When planting in weed barrier fabric, plant at 9 to 18 in spacing. When drill seeding, use a seeding rate of 20 to 30 PLS per linear foot.

Seed can be harvested by hand or flail-vac for non-destructive harvesting, or by direct combining in mid to late July. Due to the wide window of seed ripening it may be beneficial to harvest multiple times to obtain the greatest amount of viable seed.

For seed cleaning, run harvested material through a hammermill followed by an air screen cleaner. Check cleaned seed for holes or other insect damage, which may indicate the absence or damage of the seed within the achene. It may be necessary to repeat the cleaning process using the air screen cleaner with a high blower setting to remove insect-damaged seed.

Availability

For conservation use: Certified seed is available from commercial seed vendors.

For seed or plant increase: Generation 1 and G2 seed of Soda Springs Germplasm parsnipflower buckwheat will be maintained by the USDA Natural Resources Conservation Service, Aberdeen Plant Materials Center, Aberdeen, Idaho in cooperation with the Idaho Agricultural Experiment Station, University of Idaho. Seed through the G5 generation will be eligible for certification. G1 and G2 seed will be made available to commercial growers for distribution by the University of Idaho Foundation Seed Program and Utah Crop Improvement Association. Small quantities of seed will be provided to researchers by request to the corresponding author.

For more information, contact:

Aberdeen Plant Materials Center

P.O. Box 296, Aberdeen, ID 83210

Ph. 208-397-4133

<http://plant-materials.nrcs.usda.gov/idpmc/>

Citation

Release Brochure for Soda Springs Germplasm parsnipflower buckwheat (*Eriogonum heracleoides*). USDA-Natural Resources Conservation Service, Aberdeen Plant Materials Center. Aberdeen, Idaho 83210. Published January 2017.

For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov>>

Helping People Help the Land

USDA IS AN EQUAL OPPORTUNITY PROVIDER AND EMPLOYER