

## MULTILOBED GROUNDSEL

*Packera multilobata* (Torr. & A.  
Gray ex A. Gray) W.A. Weber &  
A. Löve

Plant Symbol = PAMU11

And

## Rocky Mountain Groundsel

*P. streptanthifolia* (Greene) W.A.  
Weber & Á. Löve

Plant Symbol = PAST10

Contributed by: USDA NRCS Aberdeen, Idaho Plant  
Materials Center



Multilobed groundsel. Photo by Derek Tilley, USDA-NRCS

### Alternate Names for Multilobed groundsel

Lobeleaf groundsel  
*Senecio multilobatus*

### Alternate Names for Rocky Mountain groundsel

Rocky Mountain butterweed, cutleaf groundsel  
*Packera cymbalarioides*, *P. oodes*, *Senecio acutidens*, *S. adamsii*, *S. cymbalarioides*, *S. fulgens*, *S. jonesii*, *S. laetiflorus*, *S. leonardii*, *S. longipetiolatus*, *S. oodes*, *S. pammelii*, *S. platylobus*, *S. rubricaulis*, *S. streptanthifolius*, *S. subcuneatus*, *S. suksdorfii*, *S. wardii*

### Uses

Multilobed groundsel has been used in restoration and wildlife enhancement plantings. The flowers attract a variety of native bees. It has been used medicinally by Native Americans as an aid for a variety of internal problems (Moerman 1998).

Multilobed groundsel and Rocky Mountain groundsel contain pyrrolizidine alkaloids (Tilley and St. John 2011), and presents a risk to livestock in sufficient quantities (Talcott 2003).

### Status

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:* Multilobed groundsel is a short-lived perennial forb in the sunflower family (Asteraceae) arising from a taproot. The plants grow to approximately 10 to 60 cm (4 to 24 in) tall from a cluster of basal leaves. The leaves are 2 to 12 cm (1 to 5 in) long, obovate in outline with pinnatifid (multilobed) margins. The stem leaves are much smaller than the basal leaves. The flower head has 7 to 13 yellow ray flowers, 4 to 10 mm (0.16 to 0.4 in) long and yellow-orange disk flowers. The achenes bear a white pappus of capillary bristles (Welsh and others 2003). There are approximately 900,000 seeds/lb.

Rocky Mountain groundsel is similar in appearance to multilobed groundsel but lacks the deeply cleft leaves. It also tends to have a more fibrous root system than the taprooted multilobed groundsel. The leaves are relatively thick and firm and somewhat succulent. The species is highly variable morphologically as evidenced by the numerous named taxa. Hybrids between Rocky Mountain groundsel and multilobed groundsel are common (Cronquist et al 1994).

**Distribution:** Multilobed groundsel occurs in arid environments from California east of the Sierras to Colorado, Wyoming and New Mexico. Rocky Mountain groundsel occurs from Alaska to California and east to Manitoba and south to New Mexico. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

**Habitat:** Multilobed and Rocky Mountain groundsel grow naturally in a variety of plant communities and elevations. They are often associated with sagebrush and pinyon-juniper plant communities, but can also be found in desert shrub, mountain brush, ponderosa pine, aspen, lodgepole pine and spruce-fir communities (Welsh and others 2003).

### **Adaptation**

Multilobed groundsel is adapted to growing on medium to coarse textured soils. It can be found in arid environments to temperate mountain communities in areas receiving 9 to more than 20 inches of annual precipitation. It is most commonly found in open areas but can also be an understory species in mountain plant communities. Adaptation information for Rocky Mountain groundsel is unavailable, but is presumably similar to that of multilobed groundsel.

### **Establishment**

The full stand seeding rate, based on 50 pure live seeds (PLS) per foot at 12 inch spacing, is 2 lbs/acre. When planted in a mixture, the seeding rate should be adjusted according to the proportion of the mix.

### **Management**

Multilobed and Rocky Mountain groundsel should be used as a minor components in a plant community. 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.

### **Pests and Potential Problems**

There are no known pests associated with these species. Groundsels contain compounds toxic to cattle and other livestock, but will be avoided when other preferable forage is available.

### **Environmental Concerns**

Multilobed and Rocky Mountain groundsel are native to western North America. There are no known environmental concerns associated with this species. The toxic compounds found in these species pose a threat to grazing animals if consumed in sufficient quantities.

### **Seeds and Plant Production**

Wildland collections can be made by hand stripping or shaking ripe seed into collection bags. Seed can be collected slightly early before complete ripeness by harvesting the entire inflorescence and allowing the seed to continue ripening while drying.

The most effective means of processing seed is to use a laboratory brush machine with a number 7 mantle at a speed of 2. The gate is left approximately 1 cm open to allow the brushed seed to fall through to the catch pan below. The brushes dislodge the seed from the heads and remove the pappus. The brushed material is then cleaned using a multi-deck air screen cleaner with a 1.55 mm top screen, blank middle, and solid bottom screen. The air is set at approximately 1.5 to pick up the removed pappus, unfilled achenes and light inert matter. These methods yield high purities (90-100%). Seed is stored in cool-dry conditions with temperatures of approximately 10° C (50° F) and relative humidity of 20 to 30%.

Seed may be sown into weed barrier fabric at 23 to 30 cm (9 to 12 in) spacing. Seed should be planted in late fall into slightly roughened soil and then lightly covered and packed. First emergence occurs in early spring; late April and early May at Aberdeen, Idaho.

Seed can be harvested the first full growing season. Two to three years of additional harvests may be possible depending on ecotype. Plants go dormant in late summer and can be mowed for the winter. Seed can be harvested from production fields by hand, combine, flailvac, or vacuum-type harvester. The Aberdeen Plant Materials Center uses a "jet harvester" (Bair and Tilley 2010) with the fan running at 3,000 to 5,000 rpm. This ensures that only ripe seed is harvested and allows for multiple harvests during the season. Seed readily disarticulates from flower heads when ripe.

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

There are currently no commercial releases of multilobed groundsel or Rocky Mountain groundsel.

The Aberdeen Plant Materials Center recently cooperated with the USDA-Agricultural Research Service, Poisonous Plants Laboratory to evaluate a number of *Senecio* and *Packera* species including multilobed and Rocky Mountain groundsel for toxic properties. Based on the findings, the plant materials center discontinued further evaluation of *Senecio* and *Packera* spp. for potential release.

### **References**

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