

Protocol Information

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Plant Materials Program

Family Scientific Name: **Asteraceae**

Family Common Name: **Sunflower**

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

Common Synonym: *Senecio multilobatus* Torr. & A. Gray ex A. Gray

Common Name: **Multilobed groundsel**

Species Code: **PAMU11**

Ecotype: **Intermountain West and Rocky Mountains**

General Distribution: **Western North America**

Propagation Goal: **Seeds**

Propagation Method: **Seed**

Product Type: **Propagules (seeds, cuttings, poles, etc.)**

Propagule Collection: **Wildland collections can be made by hand stripping or shaking ripe seed into collection bags. Seed can be collected slightly early by harvesting the entire inflorescence and allowing the seed to after ripen.**

Propagule Processing: **Unprocessed seed is first sent through a Westrup 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 Westrup LA-LS multi-deck air screen cleaner with a 1.55 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%). There are approximately 900,000 seeds/lb.**

Pre-Planting Treatments: **Seed is stored in cool-dry conditions with temperatures of approximately 10° C (50° F) and relative humidity of 20 to 30%.**

Growing Area Preparation/

Annual Practices for Perennial Crops: **Seed is 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.**

Establishment Phase: **First emergence occurs in early spring in late April and early May.**

Active Growth Phase: **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.**

Harvesting, Storage and Shipping: **Seed can be collected by hand, combine, flailvac, or vacuum-type harvester. We use 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.**

Other Comments: **Multilobed groundsel has been found to contain pyrrolizidine alkaloids which will cause hepatic disease in horses and cattle (Tilley and St. John, 2011).**

References: **Bair C, Tilley DJ. 2010. The jet harvester: a shop built tool for harvesting forb and shrub seed. Aberdeen (ID): USDA Natural Resources Conservation Service, Aberdeen Plant Materials Center. Technical Note 55. 6 p. Tilley D, St. John L. 2011. Initial toxicity screening of groundsel (*Senecio* spp.); 2011 Progress Report. Aberdeen (ID): USDA Natural Resources Conservation Service, Aberdeen Plant Materials Center. 3 p.**

Citation:

Tilley, Derek 2011. Propagation protocol for production of *Packera multilobata* (Torr. & A. Gray ex A. Gray) W.A. Weber & A. Löve seeds; USDA NRCS - Aberdeen Plant Materials Center, Aberdeen, Idaho. In: Native Plant Network. URL: <http://www.nativeplantnetwork.org> (accessed 1 August 2011). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.