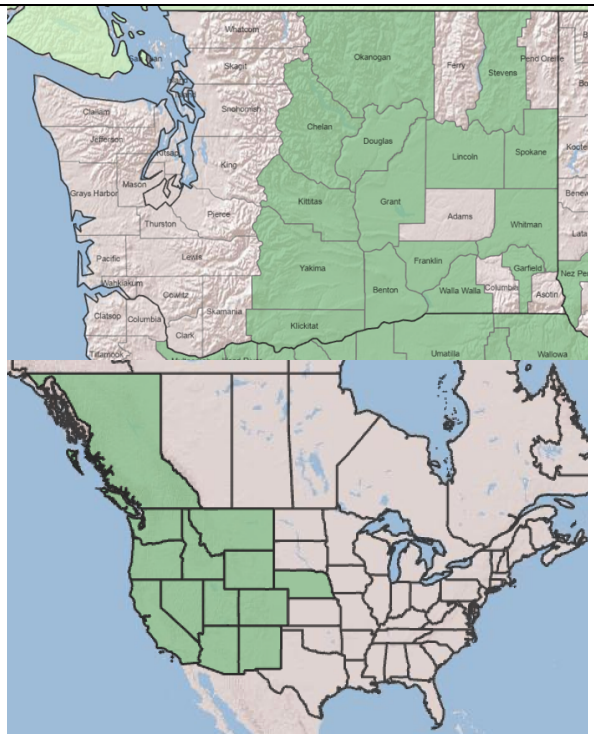
Plant Propagation Protocol for *Purshia tridentata*
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/*2026/PUTR2*

TAXONOMY	
Plant Family	
Scientific Name	*Rocaceae* Juss
Common Name	Rose family
Species Scientific Name	
Scientific Name	*Purshia tridentata* (Pursh) DC.
Varieties	NA
Sub-species	NA
Cultivar	'Lassen' seed is collected from Janesville area Can be bought from specialized commercial seed companies (USDA NRCS, 2014).
Common Synonym(s)	*Purshia tridentata* (Pursh) DC. var. *tridentata* – antelope bush (PUTRT)
Common Name(s)	antelope bitterbush lassen
Species Code (as per USDA Plants database)	PUTR2
GENERAL INFORMATION	
Geographical range	 (USDA NRCS, n.d.)

Ecological distribution	Rangelands with deep, well-drained, neutral to slightly acidic soils (USDA NRCS, 2014).
Climate and elevation range	900-3,000 meters elevation (Zlatnik, 199 C.E.).
Local habitat and abundance	Commonly with other steppe grasses, forbes, and brushes. Some common species to find it with include *Pseudoroegneria spicata, Festuca idahoensis, Pinus ponderosa,* and *Juniperus spp. (Zlatnik, 199 C.E.).*
Plant strategy type / successional stage	Drought tolerant and early colonizer, especially in disturbed sites (Zlatnik, 199 C.E.).
Plant characteristics	Shrub. It is often used to restore disturbed areas as it can help stabilize/strengthen soil and improve forage quantity (USDA NRCS, 2014).
PROPAGATION DETAILS: FROM SEED	
Ecotype	Janesville area or wild plants
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Bareroot (field grown)
Stock Type	1+0
Time to Grow	0
Target Specifications	Height: 4in. Caliper: 3mm
Propagule Collection Instructions	Seed can be obtained through USDA from the Janesville area. Otherwise, seed can be collected in the wild during the Fall (Steinfeld, 2001; USDA NRCS, 2014).
Propagule Processing/Propagule Characteristics	Density: 15,000 – 33,000 per pound Should be dried to 5-8% moisture and stored in seed freezers. If stored properly, the seeds can remain viable for over 15 years (Dyer, n.d.; Steinfeld, 2001).
Pre-Planting Propagule Treatments	Seed should be filtered using a two screen fanning mill and a barley debearder. They should be soaked in cold water for 48 hours, dried, and then cold stratified for 30-45 days at around 1C (Dyer, n.d.; Steinfeld, 2001).
Growing Area Preparation / Annual Practices for Perennial Crops	Sandy loam soils on raised beds. Thin layer of sawdust applied around 9 months before sowing (Steinfeld, 2001).
Establishment Phase Details	Modified Oyjard seed drill used to sow seeds. This inserts seeds into beds, along with fertilizers (potassium sulfate & ammonium sulfate). Beds are then sprayed with oxyfluorfen to control weeds (Steinfeld, 2001).
Length of Establishment Phase	4 weeks

Active Growth Phase	Beds are set up with irrigation pipelines which applies water in 5 minute bursts. Fertilizer applied around 4 separate times throughout duration of active growth phase (Steinfeld, 2001).
Length of Active Growth Phase	4 months (Steinfeld, 2001).
Hardening Phase	Around mid-August, reduce watering to only when temperatures exceed 38C or other external stressors persist. Apply fertilizer twice (2 weeks apart) (Steinfeld, 2001).
Length of Hardening Phase	1 month (Steinfeld, 2001).
Harvesting, Storage and Shipping	During Winter, seedlings can be lifted from unsaturated soil. Store at 1C for around 5 days. Can be stored for up to 2 months at 1C. Must be at -1C for longer than 2 months (Steinfeld, 2001).
Length of Storage	Up to 5 months (Steinfeld, 2001).
Guidelines for Outplanting / Performance on Typical Sites	Seedlings develop slowly and are sensitive to late frosts. They should be protected from competition in first couple of years. They are often transplanted to disturbed sites (USDA NRCS, 2014).
Other Comments	NA
INFORMATION SOURCES	
References	Below
Other Sources Consulted	Below
Protocol Author	Isobel Read
Date Protocol Created or Updated	05/16/26

References:

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