

Plant Propagation Protocol for *Astragalus leibergii*

ESRM 412 – Native Plant Production

Protocol URL: <https://courses.washington.edu/esrm412/protocols/ASLE5>

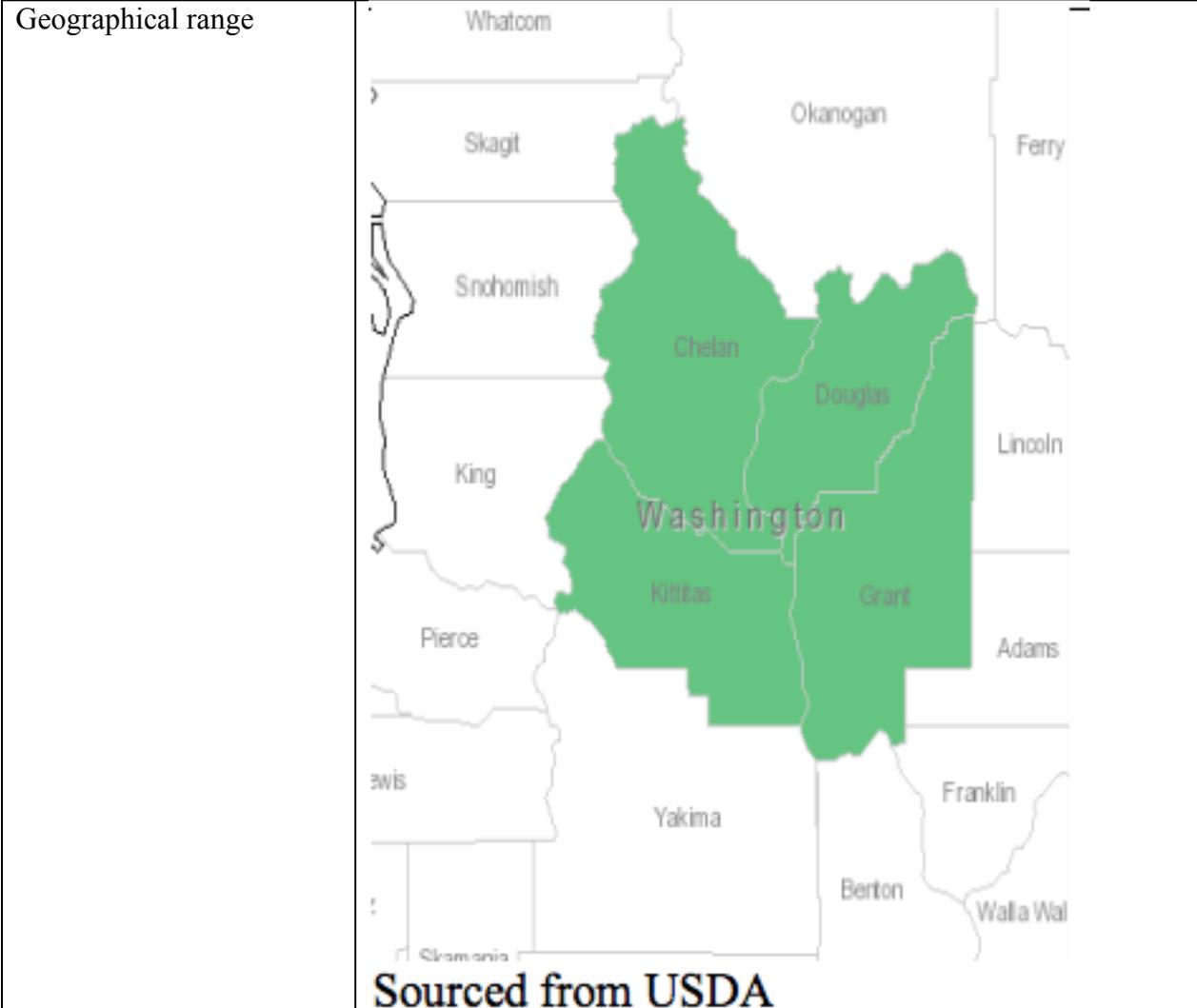


Image sourced from University of Washington

TAXONOMY	
Plant Family	
Scientific Name	Fabaceae
Common Name	Legumes

Species Scientific Name	
Scientific Name	<i>Astragalus leibergii</i> M.E. Jones
Varieties	<i>Astragalus arrectus</i> A. Gray var. <i>leibergii</i> (M.E. Jones) M.E. Jones
Sub-species	No information found
Cultivar	No information found
Common Synonym(s)	No information found
Common Name(s)	Leiberg's milkvetch
Species Code (as per USDA Plants database)	ASLE5

GENERAL INFORMATION



Sourced from USDA

	 <p>Sourced from USDA</p> <p><i>Astragalus leibergii</i> can be found in central Washington counties Douglas, Kittitas, and Chelan (Burke).</p>
Ecological distribution	Restricted to montane areas (natureserve).
Climate and elevation range	1000-2300ft elevation (natureserve).
Local habitat and abundance	Found in low hills and plains. Common in sagebrush scabland on basalt bedrock (natureserve).
Plant strategy type / successional stage	USDA zones 6-9. Prefers soils with pH 6.6-8.5 (University of Washington).
Plant characteristics	<i>Astragalus leibergii</i> is an herbaceous perennial from the legume family. It has a woody taproot and many-branched crown. The leaves are pinnate and 8-28 cm long (University of Washington). It has white flowers (University of Washington).
PROPAGATION DETAILS	
Ecotype	No information found
Propagation Goal	Plant
Propagation Method	seed
Product Type	plug
Stock Type	Direct seed
Time to Grow	No information found
Target Specifications	Stem is 1-10cm long, silky gray or greenish (University of Washington)

Propagule Collection Instructions	<i>Astragalus leibergii</i> can be grown from seeds in spring or summer when the temperature is warm (balconygardenweb)
Propagule Processing/Propagule Characteristics	Due to limited information found, details were found for <i>Astragalus Canadensis</i>. 17,000 seed/ounce (Prairie Moon Nursery). Seeds can be stored for up to two years. After two years, they may no longer germinate (mercola).
Pre-Planting Propagule Treatments	<i>Astragalus leibergii</i> requires at least 10 days of cold moist stratification. For seeds that are planted outside in rows or containers, mix with damp sand, vermiculite, or other horticulture medium. Place seed and medium mix in a sealed plastic bag and store in a refrigerator at 33-38 degrees Fahrenheit (Prairie Moon Nursery). The seeds need scarification. Scarify by rubbing seed between two sheets of medium grit sandpaper. Lightly scrape the seed coat without crushing seeds (Prairie Moon Nursery). Soak seeds in warm water over night, then remove seeds (balconygardenweb).
Growing Area Preparation / Annual Practices for Perennial Crops	<i>Astragalus</i> prefers dry, sandy soil with pH around 7 (mercola).
Establishment Phase Details	Press the seeds about a quarter inch to an inch deep into the soil and cover. Keep the soil moist but not soggy until they begin to sprout (mercola).
Length of Establishment Phase	Due to limited information found, details were found for <i>Astragalus nuttalli</i>. <i>Astragalus nuttalli</i> has an establishment phase of three to four months (native plant network).
Active Growth Phase	Make sure the root ball stays moist, especially during summer (mercola). Mulching around the plant will help retain water by slowing down evaporation.
Length of Active Growth Phase	No information found
Hardening Phase	Due to limited information found, details were found for <i>Astragalus bourgovii</i>. Seedlings are hardened for two weeks prior to outplanting (Native Plant Network).
Length of Hardening Phase	Due to limited information found, details were found for <i>Astragalus bourgovii</i>. <i>Astragalus bourgovii</i> has a hardening phase length of two weeks (Native Plant Network).

Harvesting, Storage and Shipping	Store in refrigerator for up to two years. Seedlings can be harvested after two years if using for medicinal purposes (Mercola).
Length of Storage	Up to two years (Mercola)
Guidelines for Outplanting / Performance on Typical Sites	<i>Astragalus leibergii</i> has poor germination rates (University of Washington).
Other Comments	

INFORMATION SOURCES

References	<ol style="list-style-type: none"> 1. "Native Plant Network." Reforestation, Nurseries and Genetics Resources, USDA Forest Service, nnp.rngr.net/npn. 2. "Field Guide to the Rare Plants of Washington." Field Guide to the Rare Plants of Washington, University of Washington, www.dnr.wa.gov/publications/amp_nh_asar7.pdf?cekbiy. 3. "Growing Astragalus How to Grow Astragalus." Balcony Garden Web, 4 Oct. 2018, balconygardenweb.com/growingastragalus-how-to-grow-astragalus/. 4. Mercola, Joseph. "The Incredible Immune Booster Many Have Never Heard Of." Mercola.com, articles.mercola.com/gardening/how-to-grow-astragalus.aspx. 5. "USDA." USDA, U.S Department of Agriculture , www.usda.gov/. 6. Natureserve Explorer, explorer.natureserve.org/servlet/NatureServe?searchName=Astragalus%2Bleibergii. 7. Burke Museum. "Astragalus leibergii". Burke Herbarium Image Collection, http://biology.burke.washington.edu/herbarium/imagecollection/taxon.php?Taxon=Astragalus%20leibergii. 8. "Astragalus Canadensis - Canada Milk Vetch." Prairie Moon Nursery, Prairie Moon Nursery, www.prairiemoon.com/astragalus-canadensis-canada-milkvetch-prairie-moon-nursery.html.
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Other Sources Consulted	<ol style="list-style-type: none"> 1. Kahtz, Anthony W. Perennials for Midwestern Gardens: Proven Plants for the Heartland. Timber Press, 2008. 2. Rose, Robin, et al. Propagation of Pacific Northwest Native Plants. Oregon State University Press, 1998. 3. Kruckeberg, Arthur R. Gardening with Native Plants of the Pacific Northwest: an Illustrated Guide. Douglas & McIntyre, 1996. 4. ITIS Standard Report Page: Astragalus Leibergii, Integrated Taxonomic Information System,
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	<p>www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=25556#null. 5. "Historic Propagation List." Fourth Corner Nurseries, fourthcornernurseries.com/historic-propagation-list/.</p>
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