

Plant Propagation Protocol for *Phlox aculeata*


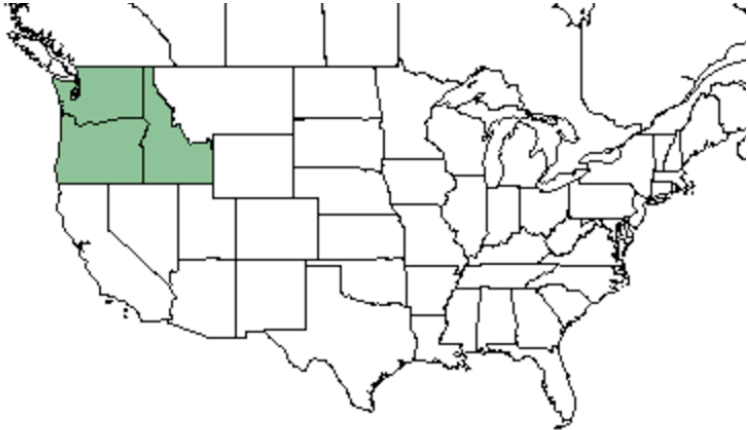
ESRM 412 – Native Plant Production

Protocol URL: <https://courses.washington.edu/esrm412/protocols/PHAC2.pdf>



(USDA.gov)

TAXONOMY	
Plant Family	
Scientific Name	Polemoniaceae
Common Name	Phlox family
Species Scientific Name	
Scientific Name	<i>Phlox aculeata</i>
Varieties	
Sub-species	
Cultivar	
Common Synonym(s)	
Common Name(s)	Sagebrush phlox
Species Code (as per USDA Plants database)	PHAC2
GENERAL INFORMATION	

Geographical range	  (USDA.gov)
Ecological distribution	Open rocky slopes, open forest ¹ , dry plains ²
Climate and elevation range	Middle to high elevations ¹ Dry with full sun in summer, moist spring conditions ²
Local habitat and abundance	Rock outcrops, scree, talus ¹
Plant strategy type / successional stage	Unknown
Plant characteristics	Woody-based perennial 5-10cm high ³ Forb/herb, subshrub ⁴
PROPAGATION DETAILS	
Ecotype	
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container (plug)
Stock Type	
Time to Grow	Unknown
Target Specifications	5-10cm tall ³
Propagule Collection Instructions	Unknown
Propagule Processing/Propagule	Unknown

Characteristics	
Pre-Planting Propagule Treatments	Place clean, dry seeds in moistened peat moss or sand in 40 degrees F for 3 months, then in 70 degrees F for 1 month. ⁵ Germination may be enhanced by addition of KNO ₃ . ⁶
Growing Area Preparation / Annual Practices for Perennial Crops	Sow seeds in flats at a shallow depth (just covered) ⁹ and cover with glass to maintain moisture. ⁹
Establishment Phase Details	Germination may be inhibited by light. ¹⁰ Maintain moist soil through germination. ¹⁰
Length of Establishment Phase	14 days ⁷
Active Growth Phase	Phlox can be vulnerable to prone to pests such as eelworms ⁸ , viruses, nematodes ⁷ , and mildew. ⁹ Provide air circulation, pesticide, and remove infected leaves as needed. ⁸ Grow in full sun or partial shade and avoid wetting leaves when watering. ⁹
Length of Active Growth Phase	From late spring until the first frost ⁸
Hardening Phase	Drier conditions will activate hardening phase ²
Length of Hardening Phase	Unknown
Harvesting, Storage and Shipping	Transplant seedlings in spring or autumn ⁹
Length of Storage	Unknown
Guidelines for Outplanting / Performance on Typical Sites	Flowers in 3-4 months ⁸
Other Comments	

PROPAGATION DETAILS

Ecotype	
Propagation Goal	Plants
Propagation Method	Vegetative
Product Type	Container (plug)
Stock Type	Root cuttings
Propagule Collection Instructions	Young stock plants in late winter or early spring. Cut roots to 2.5-5cm long. ¹⁰
Pre-Planting Propagule Treatments	Plant cuttings right away. No other treatments necessary
Growing Area Preparation / Annual Practices for Perennial Crops	Place cuttings in propagation flats or cellpacks in greenhouse, hotbed, or heated polyhouse. ¹⁰
Active Growth Phase	Scatter root cuttings horizontally over the surface of medium and cover until 1-2 inches deep. Water, and then place a polyethylene cover of flat to prevent drying until the plants are started. Place flats in shade until plants are well formed. ¹⁰

INFORMATION SOURCES

References	See below
Other Sources Consulted	See below
Protocol Author	Kari Jessett
Date Protocol Created or Updated	05/24/17

¹ MacKinnon, A., and Jim Pojar. *Plants of the Pacific Northwest Coast*. Vancouver, British

² Kruckeberg, Arthur R. *Gardening with Native Plants of the Pacific Northwest: An Illustrated Guide*. Seattle: U of Washington, 1995. Print.

³ Davis, Ray J., and Rexford F. Daubenmire. *Flora of Idaho*. Whitefish, MT: Literary Licensing, 2012. Print.

⁴ *Plants Profile for Phlox Aculeata (sagebrush Phlox)*. N.p., n.d. Web. 23 May 2017.
<https://plants.usda.gov/core/profile?symbol=PHAC2>

⁵ Pettinger, April, and Brenda Costanzo. *Native Plants in the Coastal Garden: A Guide for Gardeners in BC and the Pacific Northwest*. North Vancouver, B.C.: Whitecap, 2002. Print.

⁶ Young, James A., and Cheryl G. Young. *Collecting, Processing, and Germinating Seeds of Wildland Plants*. Portland, Or.: Timber, 1995. Print.

⁷ Toogood, Alan. *Plant Propagation*. 1st ed. New York: DK Pub, 1999. Print. American Ed.

⁸ Heuser, Charles W. *The Complete Book of Plant Propagation*. Newtown, CT: Taunton, 1997. Print.

⁹ Powell, Eileen. *The Gardener's A-Z Guide to Growing Flowers from Seed to Bloom*. North Adams, MA: Storey Pub., 2004. Print.

¹⁰ Hartmann, Hudson T., Dale E. Kester, Fred T. Davies, and Robert L. Geneve. *Plant Propagation: Principles and Practices*. 8th ed. Boston: Prentice Hall, 2011. Print.

Sources Not Used:

Cronquist, Arthur. *Intermountain Flora: Vascular Plants of the Intermountain West, U.S.A.* New York: New York Botanical Garden, 1996. Print.

Franklin, Jerry F., and C. T. Dyrness. *Natural Vegetation of Oregon and Washington*. Corvallis: Oregon State UP, n.d. Print.

Leigh, Michael. *Grow Your Own Native Landscape: A Guide to Identifying, Propagating & Landscaping with Western Washington Native Plants*. Olympia, WA: Native Plant Salvage Project, Washington State U Cooperative Extension, Thurston County, 1999. Print.

Peck, Morton Eaton. *A Manual of the Higher Plants of Oregon*. Portland, OR: Oregon State U, 1961. Print.

Rose, Robin, Caryn E. C. Chachulski, and Diane L. Haase. *Propagation of Pacific Northwest Native Plants*. Corvallis: Oregon State UP, 1998. Print.