

Plant Propagation Protocol for *Phlox mollis*

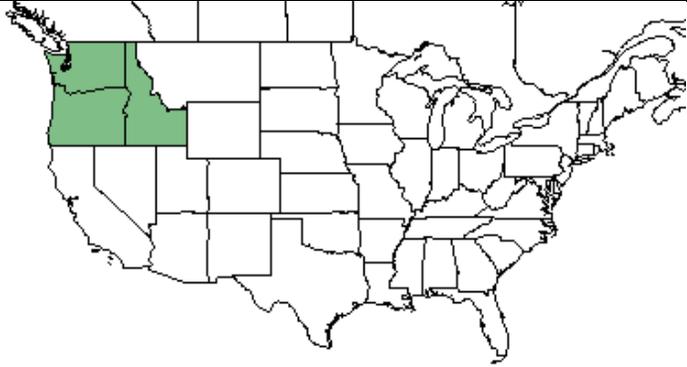
ESRM 412 – Native Plant Production

Protocol URL: <https://courses.washington.edu/esrm412/protocols/PHMO6.pdf>



Ben Legler, 2009

TAXONOMY	
Plant Family	
Scientific Name	Polemoniaceae
Common Name	Phlox
Species Scientific Name	
Scientific Name	<i>Phlox mollis</i> Wherry
Varieties	<i>Phlox kelseyi</i> Britton var. <i>ciliata</i> (Brand) Wherry (2)
Sub-species	N/A
Cultivar	N/A
Common Synonym(s)	<i>Phlox kelseyi</i> var. <i>ciliata</i> (3)
Common Name(s)	Soft phlox (1, 8)
Species Code (as per USDA Plants database)	PHMO6 (1)
GENERAL INFORMATION	
Geographical range	North America

	 <p data-bbox="532 569 760 600">Washington State</p>  <p data-bbox="532 1024 573 1056">(1)</p>
Ecological distribution	Soft phlox is distributed throughout the Northwestern Continental United States, specifically Washington, Oregon, and Idaho. (.9)
Climate and elevation range	N/A
Local habitat and abundance	The Soft phlox are abundant throughout all of Washington, Oregon, and Idaho and prefers to grow in large bunches together in open areas with drier conditions (1,3)
Plant strategy type / successional stage	The strategy of the Soft phlox is to grow in open areas away from other plants to limit the competition for water, nutrients, and space. (4)
Plant characteristics	The Soft phlox is a forb that can grow to a size between 6 inches and 16 inches tall. The flowers consist of 5 petals that are pink and white. The flower also only produces one seed per season that becomes black when ripe. (4,5,7)
PROPAGATION DETAILS	
Ecotype	N/A
Propagation Goal	Plants
Propagation Method	Vegetative and Seed (4,5,6)
Product Type	Information taken from <i>Phlox diffusa</i> protocol Container plug (6)
Stock Type	Information taken from <i>Phlox diffusa</i> protocol 4 (6)
Time to Grow	Information taken from <i>Phlox diffusa</i> protocol

	1 year (6)
Target Specifications	6 inches tall and 2 inches wide. The Soft phlox should have a healthy central tap root as well as branched out and healthy crown foliage. When flowering, the flowers should be pink or white. (3,6,7)
Propagule Collection Instructions	Information taken from <i>Phlox diffusa</i> protocol Only a sparse amount of seeds, if any, are able to be collected from the plant every season making seed collection difficult. Each flower has about one seed and is hand collected by putting a small bag around the base of the flower. If the seed is collected too early, the plant will wither. Vegetative cuttings from a mother plant can also be used to propagate a new plant. (4,6)
Propagule Processing/Propagule Characteristics	Only a limited amount of seeds are produced from the Soft phlox every season making it difficult to collect seeds. Currently there is no data on seed longevity. (5,6)
Pre-Planting Propagule Treatments	Information taken from <i>Phlox diffusa</i> protocol Seeds need to be cleaned and then go through a 17 week cold and moist stratification and pre-chill. (6)
Growing Area Preparation / Annual Practices for Perennial Crops	The Soft phlox should be planted in loamy soil that is enriched with dung and leaf-mold. Gravel and sand can be mixed into the soil. The Soft phlox should be regularly watered as to not dry out. To propagate from cuttings, the plantings should happen in rows 6 inches apart from each other and each plant should be planted 4 inches apart from each other. (4)
Establishment Phase Details	Information taken from <i>Phlox diffusa</i> protocol After stratification, the seeds need to be placed in a warm greenhouse and lightly watered until germination. (6).
Length of Establishment Phase	Information taken from <i>Phlox diffusa</i> protocol 12 weeks (6)
Active Growth Phase	Information taken from <i>Phlox diffusa</i> protocol Seedlings are placed in a light potting medium that allows for water to drain in 4 inch pots. The pots are moved outside into a slightly shady area. (6)
Length of Active Growth Phase	Information taken from <i>Phlox diffusa</i> protocol May-July (6)
Hardening Phase	During hardening, the phlox can be allowed to live in a drier environment and have drier soil. The soil should easily drain water, but watering should remain regular when reaching the hardening phase. (4,6)
Length of Hardening Phase	Information taken from <i>Phlox diffusa</i> protocol August-September (6)
Harvesting, Storage and Shipping	To harvest seeds, loosely tie a small, fine material bag around the stem of the flower and allow the seeds to drop between June and July and collect in August. (5) The storage conditions of the seeds are unknown, but seeds can be stored and transferred for a short period of time and over the winter. (6)
Length of Storage	N/A
Guidelines for Outplanting /	About 50% of seeds that are propagated are able to survive and grow. The survival percentage for Soft phlox is much greater for plants that were

Performance on Typical Sites	propagated from vegetative cuttings. It takes about a year for flowering to occur once planted on the site. (4,5,6)
Other Comments	Much of the information gathered was collected from protocols focused on <i>Phlox diffusa</i> or the general Phlox family.
INFORMATION SOURCES	
References	<ol style="list-style-type: none"> 1. "Phlox Mollis." <i>Plants Profile for Phlox Mollis (Soft Phlox)</i>, USDA, plants.usda.gov/core/profile?symbol=PHMO6. 2. "Phlox mollis." <i>Burke Herbarium Image Collection</i>, The University of Washington. http://biology.burke.washington.edu/herbarium/imagecollection/taxon.php?Taxon=Phlox%20mollis 3. "Plant Database." <i>Lady Bird Johnson Wildflower Center - The University of Texas at Austin</i>, www.wildflower.org/plants/result.php?id_plant=PHMO6. 4. Hibberd, J.S. <i>The Fuchsia, Pansy and Phlox: Their History, Properties, Cultivation, Propagation, and General Management in All Season, Volume 8</i>. (1858). 5. Zimmerman, J.H. <i>Propagation of Spring Prairie Plants</i>. (1972). 6. "Protocol Information." <i>United States Department of Agriculture Natural Resources Conservation Service, USDA and NRCS</i>, www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/orpmcot9935.pdf. 7. "Phlox Subulata." <i>Phlox Subulata</i>, hvp.osu.edu/pocketgardener/source/description/ph_ulata.html. 8. "Phlox Mollis." <i>ITIS Standard Report Page: Phlox Mollis</i>, 2019, www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=30963#null. 9. Barker, Christine. "Plant Name Details." <i>The International Plant Names Index: Error</i>, 2005, www.ipni.org/ipni/idPlantNameSearch.do?id=193586-2.
Other Sources Consulted	"Plants." <i>CalPhotos</i> , calphotos.berkeley.edu/flora/ .
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