

Plant Propagation Protocol for *Mertensia platyphylla*

ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2026/MEPL.pdf>

TAXONOMY	
Plant Family	
Scientific Name	Boraginaceae
Common Name	Borage
Species Scientific Name	
Scientific Name	<i>Mertensia platyphylla</i> A. Heller
Varieties	<i>Mertensia platyphylla</i> A. Heller var. <i>platyphylla</i> <i>Mertensia platyphylla</i> A. Heller var. <i>subcordata</i> (Greene) L.O. Williams
Sub-species	None
Cultivar	None
Common Synonym(s)	<i>Mertensia platyphylla</i> var. <i>subcordata</i> <i>Mertensia subcordata</i>
Common Name(s)	Broadleaf bluebells, western bluebells
Species Code (as per USDA Plants database)	MEPL
GENERAL INFORMATION	
Geographical range	Native to the west coast of Oregon and across Washington ⁷ . Refer to Figure 1. Distribution Map
Ecological distribution	Stream banks, moist low woods, meadows, damp thickets ^{2&5} .
Climate and elevation range	Found in low-light, high moisture environments ¹⁰ . Elevation range is sea level to 1000 meters ¹⁰ .
Local habitat and abundance	Primarily occurs west of the Cascades crest ² .
Plant strategy type / successional stage	Shade-tolerant, prefers moist environments, relatively fast growing; most prominent in early-mid successional communities but can persist in late successional habitats as well ¹⁰ .
Plant characteristics	Deciduous, perennial forb that grows to be around 3ft tall with stems that rise from a branching rhizome; thin, veined leaves, if present, basal leaves have long petiolate and cordate; has seasonal blue, tube-like flowers that are around 9-16mm long. Produces fruit in the form of a 4 nutlet. ^{2,8,10}

	Flowers attract pollinators such as bees and butterflies, which feed on the nectar. They also act as a host and larval food source for several species of butterflies and moths ¹⁰ .
PROPAGATION DETAILS: FROM SEED Baskin protocol on <i>Mertensia virginica</i> ¹	
Ecotype	None
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container
Stock Type	4-inch pots
Time to Grow	6-8 weeks ³
Target Specifications	Seedlings that can be transplanted and survive the dormancy period.
Propagule Collection Instructions	Collect seeds after blooming but before the plant dies off ³ .
Propagule Processing/Propagule Characteristics	Seeds experience physiological dormancy.
Pre-Planting Propagule Treatments	Prior to planting, seeds should be cold stratified and germinated at 15/6 C for six weeks. ^{1,3,8}
Growing Area Preparation / Annual Practices for Perennial Crops	Transplanting zone should have part to full shade and moist, fertile soil with neutral pH ⁶ . Ensure soil is kept moist ³ . Avoid moving or disturbing plants once they've been established, as they have long taproot; if moving is necessary, do so during dormant period ⁹ .
Establishment Phase Details	None found.
Length of Establishment Phase	30-60 days ^{A-Z}
Active Growth Phase	None found.
Length of Active Growth Phase	<i>Mertensia</i> take 2-3 years to begin producing seeds ³ .
Hardening Phase	In colder zones, put 2-3 inches of leaf mulch around the stem to insulate and protect the roots in the winter ³
Length of Hardening Phase	None found.
Harvesting, Storage and Shipping	None found.
Length of Storage	None found.
Guidelines for Outplanting / Performance on Typical Sites	When outplanting, space seedlings 8-12" apart ⁶ and expect flowering to take up to 3 years ³ .
Other Comments	There is minimal information available for broadleaf bluebells, so the main protocol and articles used as a baseline were written for <i>Mertensia virginica</i> , which is closely related to <i>Mertensia platyphylla</i> and has a

	<p>similar climate range. Both plants are spring ephemeral, but <i>Mertensia virginica</i> is native to the east coast, meaning there are some differences in life cycle^{2&4}.</p>
<p>INFORMATION SOURCES</p>	
<p>References</p>	<p>¹Baskin, Jerry. "Mertensia (virginica)." Reforestation, Nurseries, & Genetic Resources, 2002, https://nnp.rngr.net/renderNPNProtocolDetails?selectedProtocolIds=boraginaceae-mertensia-1941&referer=wildflower</p> <p>²Giblin, David. "Mertensia Platyphylla." Burke Herbarium Image Collection, burkeherbarium.org/imagecollection/taxon.php?Taxon=Mertensia+platyphylla. Accessed 18 May 2026.</p> <p>³Heath, Sienna. "How to Grow and Care for Virginia Bluebells." The Spruce, 9 Mar. 2025, www.thespruce.com/virginia-bluebells-plant-profile-4797478.</p> <p>⁴Mahr, Susan. "Virginia Bluebells, Mertensia Virginia." Wisconsin Horticulture, 13 May 2025, hort.extension.wisc.edu/articles/virginia-bluebells-mertensia-virginica/.</p> <p>⁵Meyers, Stephen C., et al. Flora of Oregon: Volume 2, Dicots A-F. Vol. 2, Botanical Research Institute of Texas Press, 2020.</p> <p>⁶Powell, Eileen. The Gardener's A-Z Guide to Growing Flowers from Seed to Bloom. Storey Publishing, 2004.</p> <p>⁷"Mertensia platyphylla A. Heller." USDA Plants Database, USDA Natural Resources Conservation Service, plants.sc.egov.usda.gov/plant-profile/MEPL. Accessed 18 May 2026.</p> <p>⁸"Mertensia Platyphylla Var. Subcordata." Lady Bird Johnson Wildflower Center, The University of Texas at Austin, www.wildflower.org/plants/result.php?id_plant=MEPLS. Accessed 18 May 2026.</p> <p>⁹"Mertensia virginica." Lady Bird Johnson Wildflower Center, The University of Texas at Austin, www.wildflower.org/plants/result.php?id_plant=MEPLS. Accessed 18 May 2026.</p> <p>¹⁰"Western Bluebells." Sparrowhawk Native Plants, sparrowhawknativeplants.com/products/western-bluebells. Accessed 18 May 2026.</p>

Other Sources Consulted	None.
Protocol Author	Nico Favorito
Date Protocol Created or Updated	05/18/2026

Figure 1. Distribution Map



Source: Esri, 2014 USDA Plants Database