

Plant Propagation Protocol for *Penstemon ovatus*

ESRM 412 – Native Plant Production

URL: [https://courses.washington.edu/esrm412/protocols/\[2025\]/\[PEOV2.pdf\]](https://courses.washington.edu/esrm412/protocols/[2025]/[PEOV2.pdf])



Photos courtesy of Ben Legler and the Burke Herbarium (7)

TAXONOMY	
Plant Family	Plantaginaceae
Scientific Name	Plantain family (formerly in <i>Scrophulariaceae</i>)
Common Name	Eggleaf beardtongue (formerly in the figwort family)
Species Scientific Name	<i>Penstemon ovatus</i>
Scientific Name	<i>Penstemon ovatus</i> Douglas ex. Hook
Varieties	No varieties are recognized in the USDA Plants database.
Sub-species	No subspecies are recognized in the USDA Plants database.
Cultivar	No cultivars exist, however, <i>P. ovatus</i> is sold commercially.
Common Synonym(s)	<i>Penstemon ovatus</i> Douglas ex. Hook
Common Name(s)	Eggleaf beardtongue, broadleaf penstemon, broadleaf beardtongue
Species Code	PEOV2
GENERAL INFORMATION	

Plant strategy type / successional stage	It is currently unknown what strategy type most fits <i>P. ovatus</i> , however, other <i>Penstemon</i> tend to be early successional, due to their wide tolerance of different environmental conditions and ability to thrive on exposed rocky slopes (6).
Plant characteristics	<i>Penstemon ovatus</i> is a 2-3' perennial flowering shrub. Its foliage is basal and cauline, with roughly serrated margins. Inflorescences are royal blue and vaguely orchid-like, with flowers having 5-lobes, three at the base of the bloom and two at the top. The inside of the flower is a lighter blue with ripples of purple. Petals are haired, and a long anther protrudes from the trumpet-shaped flower. Flowers grow at the top of the stem in clusters similar to bluebells.
PROPAGATION DETAILS: FROM VEGETATION	
Ecotype	Protocol was not experimentally derived.
Propagation Goal	Plants.
Propagation Method	Vegetative propagation through softwood cuttings.
Product Type	Container
Stock Type	Supercell, then transplanted to a 4-inch square pot.
Time to Grow	About 3-9 months depending on when cuttings are collected. <i>Penstemon spp.</i> take 3-4 months to reach target specifications, but should not be outplanted until plants are well-rooted and outdoor conditions are optimal, late spring to mid summer (8, 9, 10, 14).
Target Specifications	6-10 true leaves and a well-established root system (11).
Propagule Collection Instructions	Select a 10 cm non-flowering section of the plant with nodules present. Gently remove any leaves from the base of the stem. Cut the basal end, using secateurs just below a leaf joint (9, 12). Cuttings should be taken in late summer to early fall (10).
Propagule Processing/Propagule Characteristics	Propagules should be roughly 10 cm in length, with at least two nodules present, as well as have leaves present towards the apical end of the cutting (9).
Pre-Planting Propagule Treatments	After cutting with secateurs, treat the plant by applying rooting hormone or dipping the basal end in root stimulating liquid, ensuring to remove excess before planting. Cut the top section of the stem just above any nodules with intact leaves. Ensure supplies used are cleaned to limit any potential spread of disease (9, 12).

Growing Area Preparation / Annual Practices for Perennial Crops	<p>Propagules should be grown in a warm greenhouse with high humidity and air movement. The plant should be kept out of direct sunlight (9).</p> <p>For media, use a rooting medium made with a mix of perlite, vermiculite and/or sand to promote drainage. Before planting, ensure media is well dampened before inserting of propagules, and create a hole in the media to guide the cutting in to not rub off any rooting hormone during insertion. Plant cuttings 3-5” deep in a Supercell (9).</p>
Establishment Phase Details	While cuttings establish, ensure the rooting media stays moist but not wet. One can add a very well diluted nitrogenous fertilizer to encourage establishment, but avoid over watering or overfertilizing as this can increase susceptibility to Fusarium wilt (4, 9, 10, 11, 14).
Length of Establishment Phase	Reputable information for establishment phase length not available for vegetative propagation practices.
Active Growth Phase	<p>After roots have developed, transfer the propagule from the Supercell into a 4” square pot. For media, use a soil mix that is moist, well-draining and high in organic matter (4, 9, 10, 12).</p> <p>Water regularly to prevent soil from drying out, but ensure not to overwater as <i>Penstemon</i> is susceptible to getting waterlogged (10).</p>
Length of Active Growth Phase	Reputable information for active growth phase length not available for vegetative propagation practices.
Hardening Phase	Gradually decrease frequency of watering and fertilization, as well as increasing exposure to wind, low humidities and sunlight. When night time temperatures are mild, move plants outdoors to harden. In inclement weather or cold spells, return into greenhouse conditions (11, 13).
Length of Hardening Phase	Reputable information for hardening phase length not available for vegetative propagation practices.
Harvesting, Storage and Shipping	Not applicable for vegetative propagation.
Length of Storage	Not applicable for vegetative propagation.
Guidelines for Outplanting / Performance on Typical Sites (e.g.,	Once propagules have reached target specifications, been hardened, and outdoor conditions are correct (late spring to early summer), plants can be outplanted. Transplants should be well-watered until established at the outplanting site.

percent survival, height or diameter growth, elapsed time before flowering)	Statistics for performance are not available, however sources indicate success is usually high with proper care of recent transplants, and transplants may flower the same year they are outplanted (14).
Other Comments (including collection restrictions or guidelines, if available)	Note: No academically sourced information was available on propagation methods specific to <i>Penstemon ovatus</i> , therefore, the protocol above was created using congeners, as well as socially derived (gardening magazines, blogs, etc.) information on propagating <i>Penstemon ovatus</i> vegetatively.
INFORMATION SOURCES	
References (full citations)	<ol style="list-style-type: none"> 1. USDA. (n.d.). <i>Penstemon ovatus</i> S. Watson - Eggleaf beardtongue. USDA Plants Database. https://plants.usda.gov/plant-profile/PEOV2 2. PNW Flowers. (n.d.). <i>Penstemon ovatus</i>. https://www.pnwflowers.com/flower/penstemon-ovatus 3. NW Wildflowers. (n.d.). <i>Compare: Penstemon ovatus</i>. https://nwwildflowers.com/compare/?t=Penstemon+ovatus 4. Real Gardens Grow Natives. (n.d.). <i>Penstemon ovatus</i> (egg-leaf beardtongue). https://realgardensgrownatives.com/?p=2840 5. Gardenia.net. (n.d.). <i>Penstemon ovatus</i> (Eggleaf Beardtongue). https://www.gardenia.net/plant/penstemon-ovatus-eggleaf-beardtongue 6. USDA Forest Service. (n.d.). <i>Royal Penstemon</i> (<i>Penstemon speciosus</i>). https://www.fs.usda.gov/rm/pubs_journals/forbs/royal_penstemon.pdf 7. Burke Museum of Natural History and Culture. (n.d.). <i>Penstemon ovatus</i>. https://burkeherbarium.org/imagecollection/taxon.php?Taxon=Penstemon%20ovatus 8. American Horticultural Society, & Toogood, A. R. (1999). <i>Plant propagation</i>. DK Publishing. 9. American Penstemon Society. (n.d.). <i>Cuttings</i>. https://penstemons.org/index.php/propagation/39-cuttings

	<p>10. Gardeners' World. (n.d.). <i>How to grow penstemons</i>. https://www.gardenersworld.com/how-to/grow-plants/how-to-grow-penstemons/</p> <p>11. University of Washington. (2012). <i>Penstemon serrulatus protocol</i>. https://courses.washington.edu/esrm412/protocols/2012/P/ESE5.pdf</p> <p>12. Gardeners' World. (n.d.). <i>How to take softwood penstemon cuttings</i>. https://www.gardenersworld.com/how-to/grow-plants/how-to-take-softwood-penstemon-cuttings/</p> <p>13. American Penstemon Society. (2006–2012). <i>Penstemon serrulatus</i>. http://apsdev.org/identification/descriptions.php?whichspecies_name=serrulatus</p> <p>14. United States Forest Service. (n.d.). <i>O & P genera</i>. https://permanent.access.gpo.gov/LPS113557/LPS113557/www.nsl.fs.fed.us/O&P%20genera.pdf</p>
<p>Other Sources Consulted (but that contained no pertinent information) (full citations)</p>	<p>All sources consulted were cited within the protocol.</p>
<p>Protocol Author (First and last name)</p>	<p>Stella Christopherson</p>
<p>Date Protocol Created or Updated (MM/DD/YY)</p>	<p>05/23/25</p>