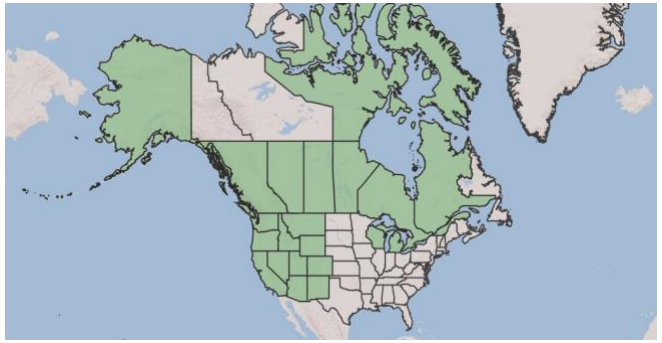
Plant Propagation Protocol for *Lonicera involucrata* (twinberry honeysuckle)
ESRM 412 – Native Plant Production
Spring 2025

North America Distribution



United States Distribution

Washington State Distribution

Source: USDA PLANTS Database

TAXONOMY	
Plant Family	
Scientific Name	Caprifoliaceae
Common Name	Honeysuckle
Specie Scientific Name	
Scientific Name	Lonicera involucrata Banks ex Spreng.
Varieties	*Lonicera involucrata var. ledebourii*[6]
Sub-species	No available information.
Cultivar	No available information.
Common Synonym(s)	No available information.
Common Name(s)	twinberry honeysuckle, bearberry honeysuckle, bracted honeysuckle, Californian Honeysuckle, twin-berry, black twinberry

Species Code (as per USDA Plants database)	LOIN5
GENERAL INFORMATION	
Geographical range	Throughout the western United States from Alaska to Mexico. The species also occurs east of the Great Plains in Michigan and Wisconsin, where it is rare and listed as threatened and endangered.[4] (see maps above)
Ecological distribution	The species is adapted to soils that vary from coarse sand to fine textured silt and clay with a pH of 5 to 8 (moderately high acidity to slightly basic). Found on moist, seasonally wet, and flooded sites, habitats include moist woods, thickets, riparian zones, and bogs. It also occurs in brackish tidal swamps and sandy areas along the coast. While tolerant of full sun, twinberry honeysuckle is most commonly found under shady conditions. It will grow on upland soils with moderate fertility, but drought tolerance is lacking.[7]
Climate and elevation range	Twinberry honeysuckle occurs from the seacoast to high elevations in alpine regions.[7] Twinberry prefers moist, well-drained soil in full sun or partial shade, and is tolerant of cold climates[4].
Local habitat and abundance	Habitats are generally moist forest openings, swamps, stream sides, and meadow edges, ranging in elevation from sea level along the Pacific Coast to subalpine sites in the mountains[4]. *Populus trichocarpa, Spiraea douglasii* are commonly associated species[2].
Plant strategy type / successional stage	Long-lived competitor. Has high seedling vigor and moderate growth rate, but low seed abundance and no vegetative spread.[2]
Plant characteristics	Deciduous shrub
PROPAGATION DETAILS: FROM SEED	
Ecotype	Crater Lake, around 6,500 feet near Vidae Falls; Park headquarters.[5]
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container (plug)[5]
Stock Type	1-gallon containers[5]

Time to Grow	1 year[5]
Target Specifications	Well-branched roots and tops; free of foliar disease.[5]
Propagule Collection Instructions	Ripened berries picked in August / Sept.; berries scarce in some years.[5]
Propagule Processing/Propagule Characteristics	Clean seed approximately 327,000 / lb.[5]
Pre-Planting Propagule Treatments	Seeds processed by breaking up berries in blender with dulled blades (or covered blades with rubber tubing); pour off pulp, rinse, strain and dry seeds on paper toweling. Gently rub seed and hand screen to remove any remaining chaff. Clean seed approximately 327,000 / lb. Seed germination of young lots cold-moist stratified for 90 days was up to 55%; a small comparison of 2 1-year-old vs. 3-year-old seeds showed slightly reduced germination and initially weaker seedling vigor; however these seedlings grew quite well after one season.[5]
Growing Area Preparation / Annual Practices for Perennial Crops	Seedlings started in shallow propagation trays and transplanted directly into vertically ribbed, 1-gallon pots filled with a rich soil mix of Sunshine #`1 peat-based potting medium amended with low rates of Micromax trace elements. Plants should be closely monitored for aphids throughout spring and summer.[5]
Establishment Phase Details	Seedlings or cuttings sensitive to drying out; media should be kept moist during initial establishment. Intermittent mist especially important for summer softwood cuttings.[5]
Length of Establishment Phase	6 weeks[5]
Active Growth Phase	Whether established from seed or cuttings, established plants are held over summer in outdoor shade house (50% shade) with drip irrigation on elevated benches to provide air flow / air pruning to roots. Peters' Triple-20 NPK fertilizer at 50% strength applied at 2-week intervals in May to July. Shoot pruning often needed in June to head back tall leaders and encourage branching.[5]
Length of Active Growth Phase	May-July[5]
Hardening Phase	Fertilizer withheld in August; watering intervals lengthened to encourage vegetative maturity; shade cloth removed by the end of August. Shoot growth should not be pruned back at this time because it will cause lateral bud break and start a new growth cycle.[5]
Length of Hardening Phase	August-September[5]

Harvesting, Storage and Shipping	Plants overwintered in outdoor lathhouse at PMC; aphids on new growth were a problem in the second spring; treated with Safers' insecticidal soap at label rates. Otherwise, plants shipped via refrigerated van in August to a holding facility at Crater Lake National Park to acclimate for out planting in September.[5]
Length of Storage	Overwintering outdoors was ok; may need repotting / root and shoot pruning following spring.[5]
Guidelines for Outplanting / Performance on Typical Sites	Root ball should be scored prior to transplanting; survival around the lodge at Crater Lake NP was 3 very good.[5]
Other Comments	Watch for aphids.[5]
PROPAGATION DETAILS: VEGETATIVE	
Ecotype	Some information is based on the Crater Lake protocol but other was collected from different sources.
Propagation Goal	Plants
Propagation Method	Vegetative
Product Type	Propagule cuttings
Stock Type	1-gallon containers[5]
Time to Grow	Summer softwood cuttings can be collected in July[5]
Target Specifications	Collect hardwood cuttings .5 inch in diameter and at least 10 inches long with 5 or more nodes[2]
Propagule Collection Instructions	November and mid-January before any sign of budbreak.[2]
Propagule Processing/Propagule Characteristics	No available information.
Pre-Planting Propagule Treatments	No available information.
Growing Area Preparation / Annual Practices for Perennial Crops	Treat with rooting powder. Plant in flats in greenhouse and water until roots develop[2]

Establishment Phase Details	Fine to medium textured moist soils.[2] Cuttings sensitive to drying out; media should be kept moist during initial establishment. Intermittent mist especially important for summer softwood cuttings.[6]
Length of Establishment Phase	8 weeks, transplant to containers in about 50 days.[2]
Active Growth Phase	Established plants are held over summer in outdoor shade house (50% shade) with drip irrigation on elevated benches to provide air flow / air pruning to roots. Peters' Triple-20 fertilizer at 50% strength applied at 2-week intervals in May to July. Shoot pruning often needed in June to head back tall leaders and encourage branching.[6]
Length of Active Growth Phase	May to July[6]
Hardening Phase	Fertilizer withheld in August; watering intervals lengthened to encourage vegetative maturity; shade cloth removed by the end of August. Shoot growth should not be pruned back at this time because it will cause lateral bud break and start a new growth cycle.[6]
Length of Hardening Phase	August – September[6]
Harvesting, Storage and Shipping	Plants overwintered in outdoor lathhouse at PMC; aphids on new growth were a problem in the second spring; treated with Safers' insecticidal soap at label rates. Otherwise plants shipped via refrigerated van in August to a holding facility at Crater Lake NP to acclimate for outplanting in September.[5]
Length of Storage	Overwintering outdoors ok; may need repotting / root and shoot pruning following spring.[1]
Guidelines for Outplanting / Performance on Typical Sites	No available information.
Other Comments	Watch for aphids! Softwood cuttings rooted easily under mist in midsummer without hormone treatment; these cuttings were ready for transplant into 1-gallon containers in early fall.[1]

INFORMATION SOURCES	
References	[1]Native Plant Network — reforestation, nurseries and genetics resources. (n.d.-a). https://npn.rngr.net/renderNPNProtocolDetails?selectedProtocolIds=caprifoliaceae-lonicera-629 [2]Plant Data sheet. (n.d.). https://depts.washington.edu/propplnt/Plants/Lonicera%20involucrata.htm#:~:text=Cuttings%3A%20Collect%20hardwood%20cuttings%20.,and%20water%20until%20roots%20develop. [3]Plant propagation protocol for [Lonicera involucrata] ESRM ... (2009). https://courses.washington.edu/esrm412/protocols/2009/LOIN5.pdf [4]Twinberry Honeysuckle. (n.d.-b). https://www.fs.usda.gov/wildflowers/plant-of-the-week/lonicera_involucrate.shtml [5]USDA. (n.d.-c). https://www.nrcs.usda.gov/plantmaterials/orpmcot9930.pdf [6]Washington. (2003). https://courses.washington.edu/esrm412/protocols/2009/LOIN5.pdf [7] Plant fact sheet for twinberry honeysuckle (Lonicera ... (n.d.-b). https://plants.usda.gov/DocumentLibrary/factsheet/pdf/fs_loin5.pdf
Other Sources Consulted	Kbroadli. (2014, August 25). *Plant profile: Lonicera involucrata*. Fourth Corner Nurseries. https://fourthcornernurseries.com/plant-profile-lonicera-involucrata/ Lovell, A. (2023, September 1). *Grow native plants with the cutting and staking method*. Tualatin Soil and Water Conservation District. https://tualatinswcd.org/cutting-and-staking-method/

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