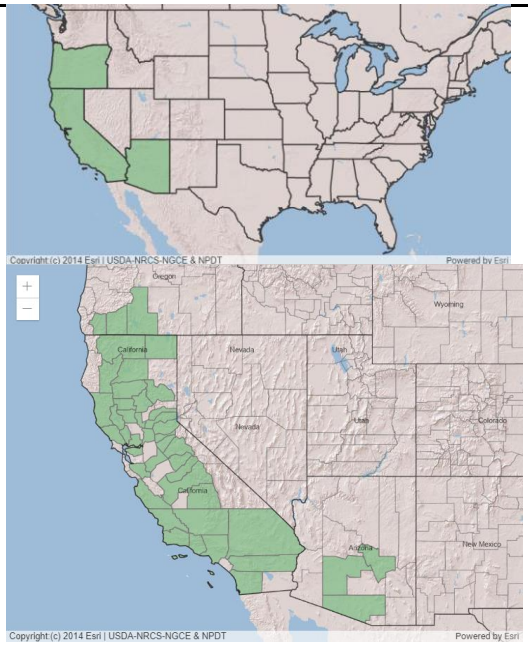
Plant Propagation Protocol for *Lonicera interrupta*
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/2024/LOIN4


Close-up image of the flowerheads[8] and larger image of the whole plant[7]

TAXONOMY	
Plant Family	
Scientific Name	Caprifoliaceae[3]
Common Name	Honeysuckle Family
Species Scientific Name	
Scientific Name	*Lonicera interrupta* Benth.[3]
Varieties	
Sub-species	No sub-species listed[3]
Cultivar	
Common Synonym(s)	No cultivars listed[3]
Common Name(s)	Chaparral Honeysuckle[3]
Species Code (as per USDA Plants database)	LOIN4
GENERAL INFORMATION	

Geographical range	 Found throughout California, southern Oregon, and central Arizona[3]
Ecological distribution	Dry slopes and ridges, floodplains, oak woodlands, and chaparral environments[2]
Climate and elevation range	790-4600 ft[2]
Local habitat and abundance	This plant is often found in Yellow Pine forests.[9] Yellow Pine forests in California often are associated with forms of Manzanita (*Arctostaphylos* spp.), currants and gooseberries (*Ribes* spp.), coffeeberries (*Rhamnus* spp.), Black Oak (*Quercus kelloggii*), and shrubby oaks like Oregon Oak (*Quercus garryana* var. *Breweri*) and Deer Oak (*Quercus sadleriana*).[10] *Lonicera interrupta* is found in chaparral environments as well with Manzanita (*Arctostaphylos* spp.), *Ceanothus* spp., Chamise (*Adenostoma fasciculatum*), and Scrub oak species (*Quercus* spp.).[11]
Plant strategy type / successional stage	Very drought and partially shade tolerant.[9] *Lonicera interrupta* also seems to be deer resistant.[10]
Plant characteristics	The Chaparral Honeysuckle is a hardy shrub that sends out numerous spike clusters of yellow flowers per stem that are very attractive to various pollinators.[9] It produces red, shiny, and spherical fruits that are edible, but bitter in taste.[9]
PROPAGATION DETAILS OF *LONICERA HISPIDULA*: From Seed Described by: Michael Herrera[5]	
Ecotype	Catalina Island, California
Propagation Goal	Plants
Propagation Method	From Seed
Product Type	Container (plug)
Stock Type	#1 Treepot (173 cubic inches)
Time to Grow	9 Months

Target Specifications	Firm roots developed in container
Propagule Collection Instructions	Fruits collected in September and October by hand when fully mature and brown in color.
Propagule Processing/Propagule Characteristics	Fruits dry in paper bags in a warm, dry room, then are cleaned by running fruits through a modified blender briefly to remove pulp from the seeds. Seeds are then dried again on wooden screens and a seed blower set at 30 is used to remove chaff. Additionally, fruits have been rubbed through a large screen with water to remove pulp, then the pulp is screened through US Standard test sieves (#10 and #18). After seeds have been cleaned and dried, they are stored under refrigeration in air tight glass containers at 40 F and 40% RH. With 6 collections, seeds average 0.93 grams per 100 seeds.
Pre-Planting Propagule Treatments	Either a Physan fungicide or a 5% bleach solution was used to soak the seeds for 3 minutes to sterilize seed coats prior to testing or sowing. Germination percentage was determined to be 100%.
Growing Area Preparation / Annual Practices for Perennial Crops	A shadehouse, mist facility and outdoor growing areas were all used at different stages of seedling growth to provide for the variance in temperature and shading requirements needed during the growing season. All containers are irrigated with an overhead emitter system in the shadehouses and use a drip system or hand water in the outdoor nursery.
Establishment Phase Details	Seeds germinate during winter and early spring months in a shadehouse where they remain for several weeks. Flats and containers are filled with an inch layer of special seed germination mix of 1:1 Sunshine Professional GrowingMix and sand on top of 4:1:1 peat, perlite, and organic compost. We incorporate Osmocote time release fertilizer (9 month release rate) (14 N : 14 P2O5 : 14 K2O) at the rate of a cup per 0.75 cubic yard of medium. Seeded flats are watered with an overhead emitter system as needed.
Length of Establishment Phase	2 months
Active Growth Phase	After seedlings are well established and have at least 2 true leaves, they are transplanted into containers filled with a growing medium of 4:1:1 peat, perlite, and organic compost. Osmocote time release fertilizer (9 month release rate) (14 N : 14 P2O5 : 14 K2O) is incorporated into the medium at a rate of a cup per .75 cubic yards of medium. Seedlings are ready for transplanting into 2 inch containers around 8 to 10 weeks after germination. Following transplanting, seedlings are moved to another shadehouse with more temperature variance where they remain for several weeks. Plants are then shifted, once they are root tight, to #1 treepots (173 cubic inches) after 9 weeks (end of May). Top pruning is used as needed to promote branching.
Length of Active Growth Phase	6 months
Hardening Phase	Any nursery stock grown under shadehouse conditions are hardened by placing them in full sun exposure for a minimum of 2 weeks prior to outplanting.
Length of Hardening Phase	2-4 weeks

Harvesting, Storage and Shipping	Containerized seedlings are over wintered directly in the open growing compound.
Length of Storage	The length of storage is dependent on the outplanting timeline.
Other Comments	This propagation information was prepared for different species than the protocol is for, but they are of the same genus and inhabit similar environments, so may require similar propagation practices from seed.
PROPAGATION DETAILS OF *LONICERA INVOLUCRATA*: From Vegetative Cutting Described by: Betty Young[6]	
Ecotype	Marin County, California
Propagation Goal	Plants
Propagation Method	Vegetative
Product Type	Container (plug)
Stock Type	Deepot 40
Time to Grow	No information is given in this section.
Target Specifications	Firm roots in container.
Propagule Collection Instructions	Hardwood cuttings are collected between November 1st and January 15th. Th cutting diameter is 0.5 inches and length is 10 inches with at least 5 nodes on each. Cuttings should be collected before any sign of bud break.
Pre-Planting Propagule Treatments	Cuttings are kept moist and cool prior to treatment. Cuttings are dipped in a mild bleach solution, of 1tsp of bleach in 1 cup of water, for 30 seconds and treated with Hormex (3000 ppm IBA) rooting powder and struck in flats containing 3:1 Perlite/Vermiculite. 50 Cuttings are struck 2.5 inch deep per flat and it was found to have a 50% rooting success.
Growing Area Preparation / Annual Practices for Perennial Crops	Flats are kept in a fully controlled greenhouse and watered with an automatic mist system until roots are fully developed.
Establishment Phase Details	Cuttings with fully developed root systems are transplanted to individual containers 2"x10" tubes (Deepot 40) containing standard potting mix of 1:1:1:1 peat moss, fir bark, perlite, and sand. Cuttings are placed in the shadehouse. Transplant Survival rates were calculated to average 75%.
Active Growth Phase	No active growth phase details provided.
Hardening Phase	No hardening phase details provided.
Harvesting, Storage and Shipping	Cuttings should be stored for a maximum of 50 days.
Guidelines for Outplanting /	No guides for outplanting are provided.

Performance on Typical Sites	
Other Comments	This propagation information was prepared for different species than the protocol is for, but they are of the same genus and require similar propagation practices vegetatively.
INFORMATION SOURCES	
References Consulted but not Utilized	Calflora: Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals. [web application]. 2024. Berkeley, California: The Calflora Database [a non-profit organization]. Available: https://www.calflora.org/ (Accessed: 05/19/2024)
Resources	[1]Sturla, E. (2015, June 2). Southwest Desert Flora. Lonicera interrupta, Chaparral Honeysuckle, Southwest Desert Flora. https://southwestdesertflora.com/WebsiteFolders/All_Species/Caprifoliaceae/Lonicera%20interrupta,%20Chaparral%20Honeysuckle.html [2]University of California, Berkeley. (2024). The Jepson Herbarium. Lonicera interrupta. https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=31506 [3]United States Department of Agriculture. (2024). Lonicera Interrupta. USDA plants database. https://plants.usda.gov/home/plantProfile?symbol=LOIN4 [4]The University of Texas at Austin. (n.d.). Plant database. Lady Bird Johnson Wildflower Center. https://www.wildflower.org/plants/result.php?id_plant=LOIN4 [5]Herrera, Mike. 2006. Propagation protocol for production of Container (plug) Lonicera hispidula (Lindl.) Dougl. ex Torr. & Gray plants #1 Treepot (173 cubic inches); Catalina Island Conservancy Avalon, California. In: Native Plant Network. URL: https://NativePlantNetwork.org (accessed 2024/05/19). US Department of Agriculture, Forest Service, National Center for Reforestation, Nurseries, and Genetic Resources. [6]Young, Betty. 2001. Propagation protocol for production of Container (plug) Lonicera involucrata Banks ex Spreng. plants Deepot 40; San Francisco, California. In: Native Plant Network. URL: https://NativePlantNetwork.org (accessed 2024/06/02). US Department of Agriculture, Forest Service, National Center for Reforestation, Nurseries, and Genetic Resources. [7] Winchell, C. (2007). Lonicera Interrupta. photograph, Chowchilla Mountains, SNF (Madera County, California, US). [8]Makings, L. (n.d.). Lonicera Interrupta. photograph, Bear Canyon, Mt. Lemmon. [9]California Native Plant Society. (n.d.). Chaparral honeysuckle, Lonicera interrupta. Calscape. https://calscape.org/Lonicera-interrupta-(Chaparral-Honeysuckle) [10]Wilson, B. (2013, January 14). California yellow pine forest. Las Pilitas. https://www.laspilitas.com/nature-of-california/communities/yellow-pine-forest [11]California Chaparral Network. (n.d.). Chaparral species are a feisty group of plants and animals. https://californiachaparral.org/chaparral/species/
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