Plant Propagation Protocol for *Parthenocissus vitacea*
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/2023/PAVI5.pdf


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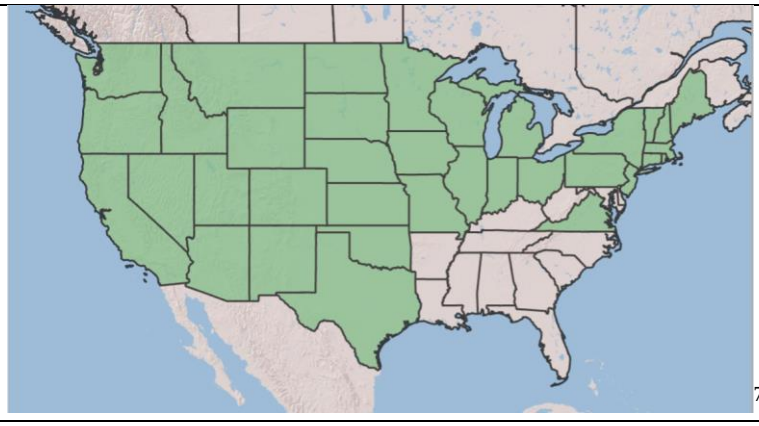
TAXONOMY	
Plant Family	
Scientific Name	Vitaceae Juss.[7]
Common Name	Grape Family[7]
Species Scientific Name	
Scientific Name	*Parthenocissus vitacea* (Knerr) Hitchc.[7]
Varieties	None Specified
Sub-species	None Specified
Cultivar	None Specified
Common Synonym(s)	• *Psedera vitacea* (Knerr) Greene[6] • *Parthenocissus inserta* (Kerner) Fritsch [6]
Common Name(s)	Woodbine[7], Hiedra Creeper[5], False Virginia Creeper[1], Thicket Creeper[1]
Species Code	PAVI5[7]
GENERAL INFORMATION	
Geographical range	 7

	 [7] This vine is found in most states excluding the southeast part of the U.S.[1] In Washington it occurs mostly east of the Cascade mountains. *Parthenocissus vitacea* was introduced to the PNW from central and eastern U.S. but is not considered invasive.[3]
Ecological distribution	This plant can be found in a variety of ecosystems from open woods to roadsides.[2]
Climate and elevation range	*Parthenocissus vitacea* grows at elevations ranging from 40-2500m.[2]
Local habitat and abundance	This vine is found growing in riverbanks, open wildlands, thickets, fencerows, and disturbed areas.[2,3,5] It can grow well in a variety of light, moisture, and soil conditions.[5]
Plant strategy type / successional stage	Not specified, but it is found in disturbed areas such as roadsides and urban areas so it may be able to tolerate stress and be a weedy speceis.[2]
Plant characteristics	*Parthenocissus vitacea* is a perennial deciduous vine.[5] It has twining or trailing stems that can grow 30-90 feet long, although it is a low climber, so it only grows a few feet high.[5,6] It blooms from May-August and fruits from August-September. [5,6] Its leaves are palmately compound with serrate edges. This vine produces berries as its fruit which are globose, measure 6-12 mm in diameter, and contain 1-4 seeds. Seeds are 5mm long, brown, and slightly wrinkly. The seeds are largely dispersed by birds. One feature that distinguishes it from other vines in the same family is that it does not have adhesive disks for climbing. It is commonly confused with *Parthenocissus quinquefolia* or *Parthenocissus tricuspidate*.[6]
PROPAGATION DETAILS	
Ecotype	Cumberland Gap National Historical Park, George Washington Memorial Parkway, Kentucky[4] This protocol was made for *Parthenocissus quinquefolia* but may be useful for propagating *Parthenocissus vitacea*.
Propagation Goal	Plants[4]
Propagation Method	Seed[4]

Product Type	Container (plug)[4]
Stock Type	1 + 0 containers[4]
Time to Grow	1 year[4]
Target Specifications	The target specification for these seedlings were a full plug root system in multipots or quarts.[4]
Propagule Collection Instructions	Propagules were collected in Cumberland Gap National Historical Park, but there is no specification about how the seeds were collected.[4]
Propagule Processing/Propagule Characteristics	There were approximately 18,298 seeds per pound. Seed longevity is not specified.[4]
Pre-Planting Propagule Treatments	**Cleaning seeds:** This vine has fleshy fruit, so seeds were removed by maceration, letting the pulp float.[4] **Dormancy treatment:** Seeds were placed in mesh bags in moist sand for cold stratification at 40 °F and 35% relative humidity for 60 days. Seeds were dipped in fungicide to prevent mildew buildup. Other seeds were sown in 392 plug trays, drenched in fungicide, wrapped in plastic, and cold stratified in the same conditions as the seeds in mesh bags.[4]
Growing Area Preparation / Annual Practices for Perennial Crops	Some seeds that were in cold stratification were already planted in 392 plug trays, the rest of the seeds were sown in Ropak multipots and quarts.[4] **Growing Media:** A few different growing media were used such as Fafard Germinating Mix, Sunshine #5 with 180 day Nutricote SR 18-8-6, and woody mix (2:1 mix of Sunshine #1 pine bark with above Nutricote).[4]
Establishment Phase Details	Seeds were hand sown in plug trays.[4]
Length of Establishment Phase	No information available
Active Growth Phase	No information available
Length of Active Growth Phase	No information available
Hardening Phase	Seedlings were moved outside to a shade house in late summer.[4]
Length of Hardening Phase	No information available
Harvesting, Storage and Shipping	**Harvesting:** Seedlings in quart containers were ready to outplant in 1-2 years.[4] **Seed storage:** Seeds can be stored in a cooler at 40 °F and 35% relative humidity.[4] **Seedling Storage:** Container plants smaller than 1 gallon are stored in a cold house at 40 °F for the winter. The plants are watered when needed to prevent dehydration.[4]
Length of Storage	December to mid March[4]
Guidelines for Outplanting / Performance on Typical Sites	No information available

Other Comments	Propagating *Parthenocissus quinquefolia* from cuttings is easy as they root readily and are easier to get consistent numbers of plants than propagating from seed.[4]
INFORMATION SOURCES	
References	1. California Native Plant Society Calscape. (n.d.). Virginia Creeper. Retrieved May 21, 2023, from https://calscape.org/Parthenocissus-inserta-(Virginia-Creeper)?srchcr=sc646505533e856 2. Flora of North America. (n.d.). *Parthenocissus vitacea* (Knerr) Hitchcock. Retrieved May 21, 2023, from http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242416947 3. Giblin, D. (n.d.). *Parthenocissus vitacea*. Burke Herbarium Image Collection. Retrieved May 21, 2023, from https://burkeherbarium.org/imagecollection/taxon.php?Taxon=Parthenocissus%20vitacea 4. Kujawski, J.L.; Davis, K.M. (2001). Propagation protocol for production of Container (plug) *Parthenocissus quinquefolia* plants 1+0 containers; USDA NRCS - Norman A. Berg National Plant Materials Center Beltsville, Maryland. In: Native Plant Network. US Department of Agriculture, Forest Service, National Center for Reforestation, Nurseries, and Genetic Resources. Retrieved May 21, 2023, from https://NativePlantNetwork.org 5. Lady Bird Johnson Wildflower Center. (2022). *Parthenocissus vitacea*. Retrieved May 21, 2023, from https://www.wildflower.org/plants/result.php?id_plant=PAVI5 6. Sisson, B. (2013). *Parthenocissus vitacea.* In: Climbers, Censusing Lianas In Mesic Biomes of Eastern Regions. Retrieved May 21, 2023, from https://climbers.lsa.umich.edu/?p=476 7. USDA. (n.d.). *Parthenocissus vitacea* (Knerr) Hitchc.. Retrieved May 21, 2023, from https://plants.usda.gov/home/plantProfile?symbol=PAVI5 Pictures: 1. Porse, S. (2007). *Parthenocissus vitacea* [photography]. https://calscape.org/view.php?pl=2717&img=20136 2. Vanderhoff, R. (2016). *Parthenocissus vitacea* [photography]. https://calscape.org/view.php?pl=2717&img=214314&calphoto=1
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