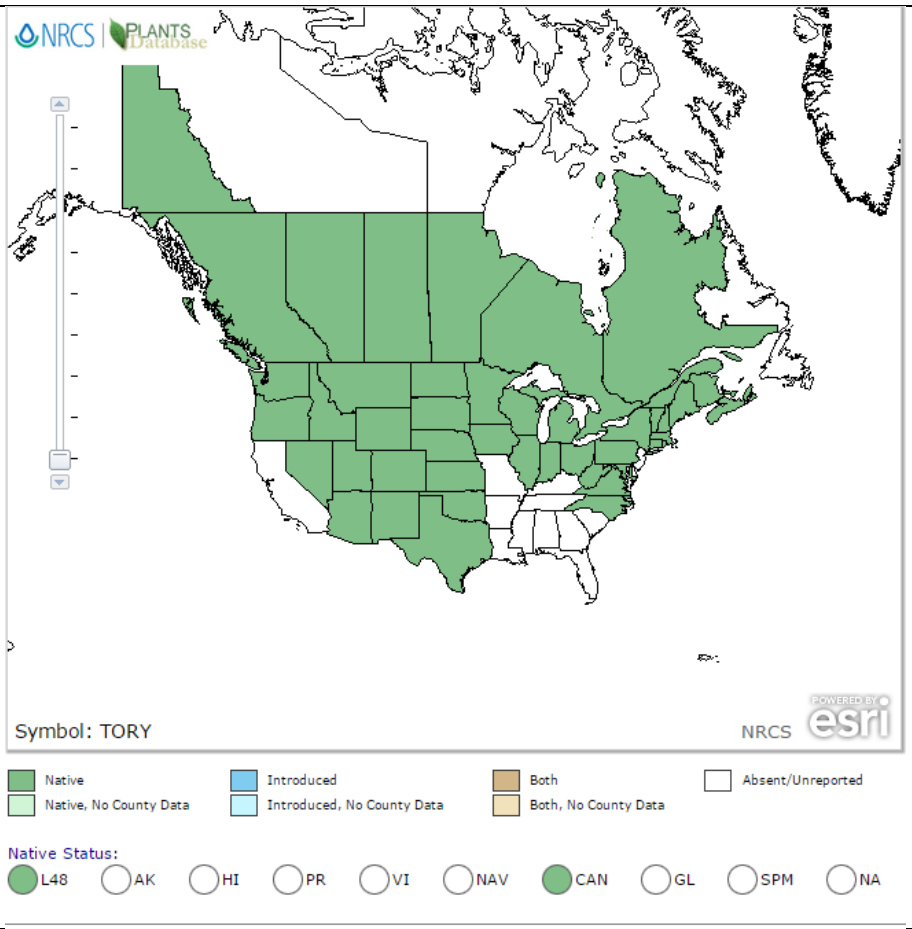
Plant Propagation Protocol for *[Toxicodendron rydbergii]*

ESRM 412 – Native Plant Production

Protocol URL: https://courses.washington.edu/esrm412/protocols/*[TORY.pdf]*

TAXONOMY	
Plant Family	
Scientific Name	Abacardiaceae
Common Name	Sumac
Species Scientific Name	
Scientific Name	*Toxicodendron rydbergii* Greene
Varieties	None
Sub-species	None
Cultivar	None
Common Synonym(s)	*Rhus radicans* L. var. *rydbergii* Rehder, *Rhus radicans* L. var. *vulgaris* DC, *Rhus toxicodendron* L. var. *vulgaris* Michx, *Toxicodendron cernatum* Mill, *Toxicodendron desertorum* Lunell, *Toxicodendron radicans* L. Kuntze var. *rydbergii* Erskine, *Toxicodendron volubile* Mill.
Common Name(s)	Western poison ivy, Eastern poison ivy, Eastern poison ivy, Atlantic poison oak, Poison ivy, None, Eastern poison ivy, None
Species Code (as per USDA Plants database)	TORY
GENERAL INFORMATION	

Geographical range	
Ecological distribution	The ecology of this species varies greatly but it prefers riparian areas and disturbed areas like roadsides, logged areas, sand dunes, and talus slopes in subalpine areas (Francis).
Climate and elevation range	This species can grow for elevations up to 2500m down to 600m in the interior and in coastal areas can reach down to sea level (Francis). It also can tolerate a variety of climates from the Northwest coast to the Northeast coast.
Local habitat and abundance	In Washington this species is mostly found on the east side of the Cascades in areas that are much drier than the west side.
Plant strategy type / successional stage	Western poison ivy tolerates both full sun and the shade of the forest floor. It colonizes quickly after disturbances and is capable of tolerating almost any kind of soil from nutrient poor sandy soils to soils that range from mildly acidic to mildly alkaline (Francis).
Plant characteristics	Unlike eastern poison ivy, western poison ivy is a shrub that is capable of growing to 3m tall but usually ranges from 20 to 100cm in height. The underground stem of the plant can range up to 2m away from the above ground stem (Francis). The key characteristics of this plant are the alternate trifoliate leaves that are ovate to rhombic in shape. It has ivory colored fruits that remain on the shrub throughout the winter. This species is deciduous and rarely known to grow like a vine.
PROPAGATION DETAILS	

Ecotype	Not Found
Propagation Goal	Cuttings
Propagation Method	Vegetative
Product Type	Cuttings should be put into 10-cm, square, plastic pots with a 6:1 ratio of pine bark to sand substrate (Wehtje, 2015)
Stock Type	Not Found
Time to Grow	8 weeks before transplant then 2 years before experimental use (Wehtje, 2015)
Target Specifications	Not Found
Propagule Collection Instructions	Cuttings collected in late June through early July (Wehtje, 2012)
Propagule Processing/Propagule Characteristics	Not Found
Pre-Planting Propagule Treatments	Not Found
Growing Area Preparation / Annual Practices for Perennial Crops	10 cm square pots to start then transferred to 2.5 L plastic pots after 8 weeks (Wehtje, 2015). Grown in pine bark – sand substrate and transferred to pots with three types of fertilizer: Polyon 17N-6P-12K, dolomitic limestone, and Micromax (Wehtje, 2015)
Establishment Phase Details	Not Found
Length of Establishment Phase	8 weeks
Active Growth Phase	Not Found
Length of Active Growth Phase	Not Found
Hardening Phase	Not Found
Length of Hardening Phase	Not Found
Harvesting, Storage and Shipping	Not Found
Length of Storage	Not Found
Guidelines for Outplanting / Performance on Typical Sites	Not Found

Other Comments	Due to the dermatitis that can be caused by directly handling this species, protective clothing and gloves must be worn at all times when handling this plant. The resin has been studied for use in textiles and in small doses has shown medical potential (Gladman, 2006). Although this plant can be a nasty one it provides habitat cover for a number of small mammals and wild quails and turkeys use the berries as a food source (Unknown).
INFORMATION SOURCES	
References	Francis, John K. "*Toxicodendron Rydbergii*." *Toxicodendron Rydbergii (Small Ex Rydb.)* Greene (n.d.): n. pag. U.S. Department of Agriculture. Web.http://www.fs.fed.us/global/iitf/pdf/shrubs/Toxicodendron%20rydbergii.pdf>. Unknown. "Toxicodendron Radicans, T. Rydbergii." *Toxicodendron Radicans, T. Rydbergii*. U.S. Forest Service, n.d. Web. 18 May 2015. <http://www.fs.fed.us/database/feis/plants/shrub/toxspp/all.html>. Wehtje, Glenn, and Charles H. Gilliam. "Cost-Effectiveness of Glyphosate, 2,4-D, and Triclopyr, Alone and in Select Mixtures for Poison Ivy Control." *Weed Technology* 26.3 (2012): 469-73. Web. Wehtje, Glenn, and Charles H. Gilliam. "Poison Ivy (Toxicodendron Radican) Control with Dicamba and 2,4-D Applied Alone and in Tank Mixture." *Weed Technology* 29.1 (2015): 115-20. Web.
Other Sources Consulted	Gladman, Aaron C. "Toxicodendron Dermatitis: Poison Ivy, Oak, and Sumac." *Wilderness & Environmental Medicine* 17.2 (2006): 120-28. Web. Kujawski, Jennifer. "You're Growing That Nasty Plant?" *Propagation Protocol for Poison Sumac (Toxicodendron Vernix)*. Native Plants Journal, n.d. Web. 18 May 2015. Lashley, Marcus A., and Craig A. Harper. "The Effects of Extreme Drought on Native Forage Nutritional Quality and White-Tailed Deer Diet Selection." *Southeastern Naturalist* 11.4 (2012): 699-710. Web. Senchina, David S. "Ethnobotany of Poison Ivy, Poison Oak, and Relatives (*Toxicodendron* Spp., *Anacardiaceae*) in America: Veracity of Historical Accounts." *BioOne*. The New England Botanical Club, Inc., 2006. Web. Thone, Frank. "Nature Ramblings: Poison Ivy, Poison Sumac." *The Science News-Letter* 27.738 (1935): 356. Web.
Protocol Author	Andy Hennessey
Date Protocol Created or Updated	05/18/15