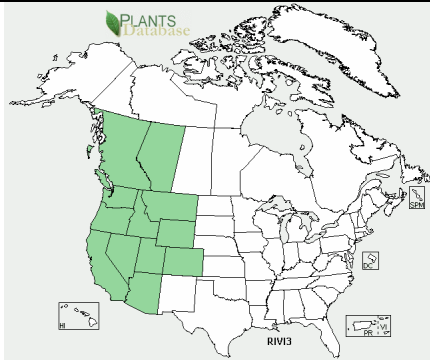
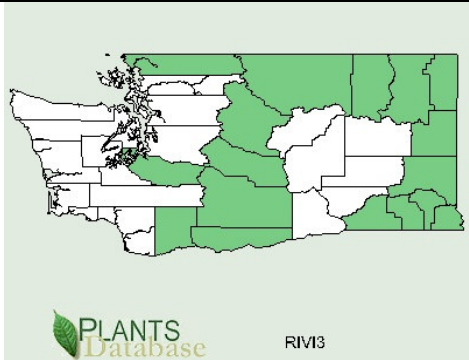



Plant Propagation Protocol for *Ribes viscosissimum*
 ESRM 412 – Native Plant Production
 Spring 2008

TAXONOMY	
Family Names	
Family Scientific Name:	Grossulariaceae
Family Common Name:	Currant
Scientific Names	
Genus:	<i>Ribes</i>
Species:	<i>viscosissimum</i>
Species Authority:	Pursh
Sub-species:	<i>Ribes</i>
Cultivar:	<i>viscosissimum</i>
Authority for Variety:	Pursch
Common Synonym:	<i>Ribes viscosissimum</i> Pursh var. <i>hallii</i> Jancz.
Common Name:	Sticky currant
Species Code:	RIV13
GENERAL INFORMATION	
Geographical range:	  <p>(USDA, 2008) http://plants.usda.gov/java/nameSearch?keywordquery=ribes+viscosissimum&mode=sciname&submit.x=0&submit.y=0</p>
Ecological distribution:	Grows in sagebrush and forest (Dyer, 2001).
Climate and elevation range:	Grows on mostly dry sites (Pojar & MacKinnon, 1994). Occurs from 4,000 to 10,000 feet (Dyer, 2001).

Local habitat and abundance:	White pine blister rust uses <i>Ribes viscosissimum</i> as an alternate host (Pojar & MacKinnon, 1994). Associated species include: <i>Aquilegia formosa</i> , <i>Luzula comosa</i> , <i>Salix lasiolepis</i> , <i>Ribes nevadense</i> , <i>Mimulus guttatus</i> , <i>Hordeum brachyantherum</i> ssp. <i>brachyantherum</i> , <i>Deschampsia elogata</i> , and <i>Salix scouleriana</i> (California Native Plant Link Exchange, 2008).
Plant strategy type / successional stage:	
Plant characteristics:	Erect and spreading shrub (Pojar & MacKinnon, 1994).
PROPAGATION DETAILS	
Ecotype:	Dyer collected in Yosemite National Park. Barner collected from Willamette National Forest, in Lower Salmon Creek, in Oregon at 4,500 ft elevation.
Propagation Goal:	Dyer's goal was rooted cuttings. The goal for Barner was seeds.
Propagation Method:	Dyer used cuttings.
Product Type :	Dyer's product was a container (plug). Propagules (seeds), for Barner.
Stock Type:	
Time to Grow:	
Target Specifications:	No information for cultivation, naturally takes 3 to 5 years to fruit (Schopmeyer, 1974).
Propagule Collection:	Information not available for Dyer. Seeds were collected in small lots into plastic bags (Barner, 2008). Plants begin setting seed at 3 to 5 years, and set good crops in intervals of 2 or 3 years. Pick or strip fruit immediately after ripening to prevent loss to birds. Seed should be spread thinly and dried. Dried fruits can be soaked before macerating and washing to separate seed. A good method is to use a kitchen blender for 15-45 seconds then add water and decant to remove empty seeds and pulp (Schopmeyer, 1974). Toogood recommends taking hardwood cuttings in late autumn or midwinter for plants of <i>Ribes</i> in general.
Propagule Processing/ Characteristics:	It is estimated that cuttings can be placed in cold storage for a short time period (Dyer, 2001). Other information for Dyer not available. There are 287,090 seeds per pound (Barner, 2008). Barner suggests cold storage at temperatures of 33 to 38 degrees Fahrenheit. Seeds stored at 70 degrees Fahrenheit had 23% viability after 17 years,

	but 7% viability after 22 (United States, 1947). Store in sealed vials (Young & Young, 1992).
Pre-Planting Propagule Treatments:	<p>Cuttings were dipped into a fungicide of Hormex and Captan solution of #3 and #16 (Dyer, 2001).</p> <p>Seeds were cleaned by macerating, floating off pulp and other material, and then drying on mesh trays. An office Clipper was then used to air-screen the seeds. The seeds were top screened, 6 round and a bottom screened, and 1/25 round screened, with medium speed, and medium air. This resulted in 95% purity, with X-ray determining that 92% of seeds are filled (Barner, 2008).</p> <p>Seeds naturally germinate in spring after dispersal, and will germinate after a cold stratification mimicking natural conditions. Seeds have also been shown to germinate well with treating with 2-10% sulfuric acid for 5 minutes and then placing them in alternating diurnal treatments of 77 and 41 or 50 degrees Fahrenheit. Cover seeds with 1/8" to 1/4" of soil (Schopmeyer, 1974).</p> <p>Ideal cutting length for <i>Ribes</i> in general could be from 8" to 15" and lower buds could be removed immediately to prevent suckering or retained for 1 year to help rooting. Cuttings should be inserted to either half their length or with only two buds above the soil (Toogood, 1999).</p>
Growing Area Preparation:	<p>Dyer used a soil mix of 75% perlite and 25% peat moss that was sterilized for 24 hours at 160 degrees Fahrenheit.</p> <p>For general <i>Ribes</i> propagation, potting soil may be used for seeds, and pumice or another medium may be used for cuttings (Robson et al, 2007).</p>
Establishment Phase:	Bottom heating was set up for 70 degrees Fahrenheit, and cuttings were misted for 3 seconds every 10 minutes. Grow lights were applied from 5:30 am until 8:30 pm (Dyer, 2001).
Length of Establishment Phase:	
Active Growth Phase:	
Length of Active Growth Phase:	
Hardening Phase:	Plants were placed in a lathhouse and then subsequently started to die back (Dyer, 2001).
Length of Hardening Phase:	
Harvesting,	

Storage and Shipping:	
Length of Storage:	
Guidelines for Outplanting / Performance on Typical Sites:	Survival was low for Dyer.
Other Comments:	<p>It is prohibited to plant currants or gooseberries in certain parts of Michigan (USDA, 2008). May be banned in other areas due to being an alternate host for white pine blister rust (Robson et al, 2007).</p>  <p>Photo credit: ©2007 Walter Siegmund, http://commons.wikimedia.org/wiki/Image:Ribes_viscosissimum_15707.JPG</p>

INFORMATION SOURCES

References:	<p>The American Horticultural Society. Toogood, Alan, ed. <u>Plant Propagation</u>. New York, NY: DK Publishing, Inc., 1999.</p> <p>Barner, Jim. 2008. Propagation protocol for production of <i>Ribes viscosissimum</i> Pursh seeds; USDA FS - R6 Bend Seed Extractory, Bend, Oregon. In: Native Plant Network. URL: http://www.nativeplantnetwork.org (accessed 28 April 2008). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.</p> <p>California Native Plant Link Exchange. Version 2.35. Hosted by kattare.com. 1/21/2008. 4/21/08. <http://www.cnplx.info/></p>
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	<p>Dyer, Dave. 2001. Propagation protocol for production of container <i>Ribes viscosissimum</i> cuttings; USDA NRCS - Lockeford Plant Materials Center, Lockeford, California. In: Native Plant Network. URL: http://www.nativeplantnetwork.org (accessed 28 April 2008). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.</p> <p>Robson, Kathleen, Alice Richter, and Marianne Filbert. <u>Encyclopedia of Northwest Native Plants for Gardens and Landscapes</u>. Portland, OR: Timber Press, 2007.</p> <p>Schopmeyer, C.S. U.S. Department of Agriculture. Forest Service. <u>Seeds of Woody Plants in the United States</u>. Agriculture Handbook No. 450. Washington D.C.: GPO, 1974.</p> <p>United States. U.S. Bureau of Entomology and Plant Quarantine. 1947. "Some experimental aspects of Ribes seed longevity." Berkely, Calif. Serial no. 137, 8 p.</p> <p>Young, James A. and Cheryl G. Young. <u>Seeds of Woody Plants in North America</u>. Dioscorides Press: Portland Oregon 1992.</p>
Other Sources Consulted:	<p>Baskin, Carol C., and Jerry M. Baskin. <u>Seeds: Ecology Biogeography, and evolution of Dormancy and Germination</u>. San Diego, CA: Academic Press, 1998.</p> <p>Dirr, Michael A., and Charles W. Heuser Jr. <u>The Reference Manual of Woody Plant Propagation</u>. Athens, Georgia: Varsity Press, Inc., 1988.</p>
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