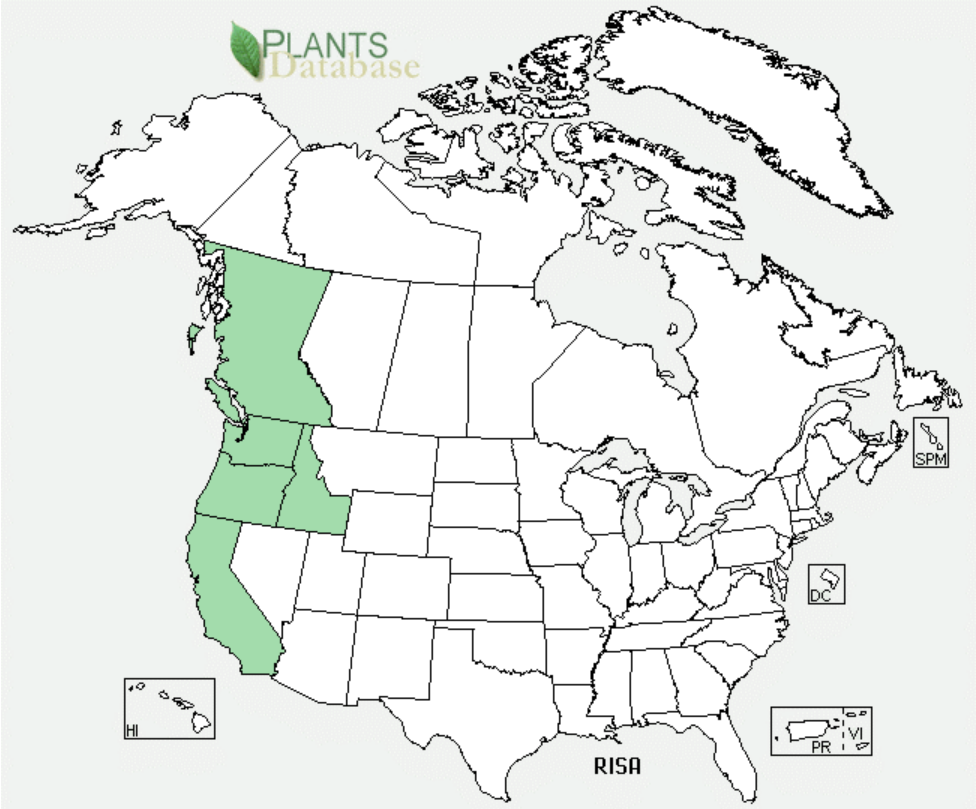
Plant Propagation Protocol for *Ribes sanguineum*
ESRM 412 – Native Plant Production
Spring 2008

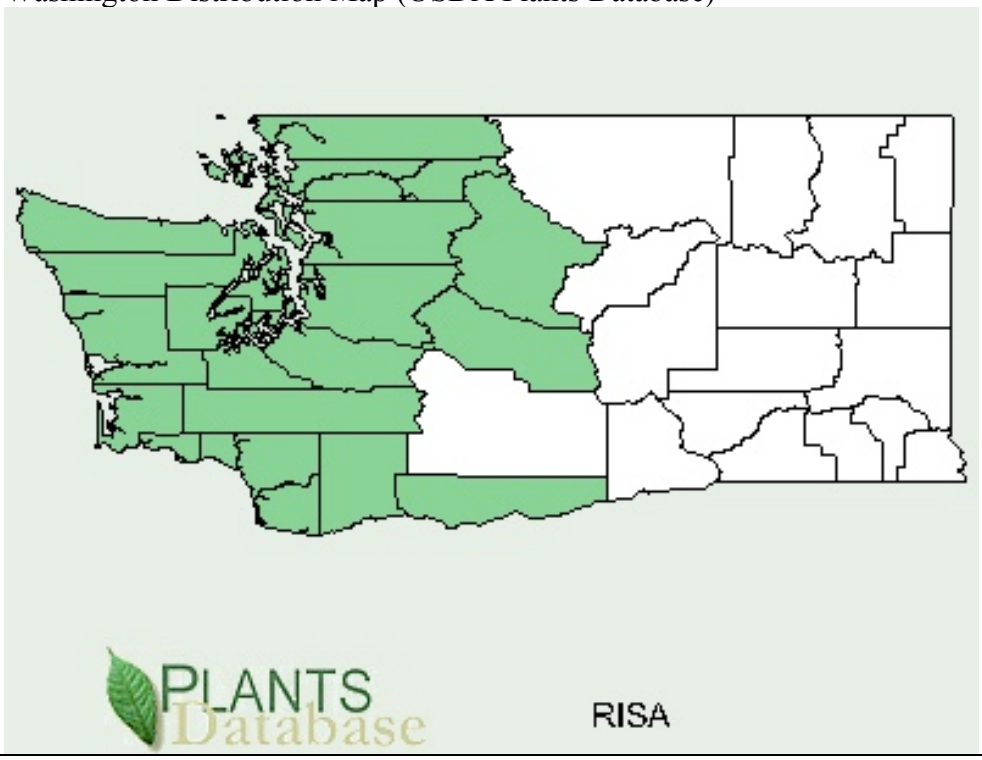


TAXONOMY	
Family Names	
Family Scientific Name:	Grossulariacea
Family Common Name:	Gooseberry Family
Scientific Names	
Genus:	*Ribes*
Species:	*sanguineum*
Species Authority:	Pursh
Species Code:	RISA
Variety:	*sanguineum*
Variety Authority:	None listed
Species Code:	RISAS
Variety:	*glutinosum*
Variety Authority:	(Benth.) Louden
Species Code:	RISAG
Common Names:	Red flowering currant Red currant Blood currant Winter currant Pink winter currant
GENERAL INFORMATION	
General Distribution:	Southern British Columbia south to California Coast Range, In Washington and Oregon from coast to east slopes of Cascade Range (Hamilton and Kruckeberg, 1994)

National Distribution Map (USDA Plants Database)



Washington Distribution Map (USDA Plants Database)



Climate and elevation range:	Found at low to mid elevation (Robson, 2008). Tolerant of sun or shade, although more leggy in wooded setting (Kruckeberg, 1982). Commonly occurs in maritime to submaritime cool mesothermal climates (Klinkenberg, 2008).
Local habitat and abundance:	Moist to dry forests and valleys, rocky slopes (Robson, 2008). Intolerant of saturated soils (Leigh, 1996). Occurrence decreases with increasing elevation, precipitation, and continentality (Klinkenberg, 2008).
Plant strategy type / successional stage:	Sporadic to scattered in early-seral communities and open-canopy Douglas-fir forests. Not invasive (Klinkenberg, 2008).
PROPAGATION DETAILS	
Ecotype:	Muir Woods, California – vegetation (Young, 2001) Presidio, California - seeds (Young, 2001)
Propagation Goal:	Plants
Propagation Methods:	Vegetative: cuttings (Young, 2001) (Kruckeberg, 1982) layering (Leigh, 1996) (Kruckeberg, 1982)(Leigh, 1996) (Pettinger, 2002) self-sown wild seedlings (Kruckeberg, 1982) Seeds (Young, 2001) (Kruckeberg, 1982)(Leigh, 1996)(Pettinger, 2002)
Product Type:	Vegetative: Container – plug (Young, 2001) Seeds: Container – plug (Young, 2001)
Time to Grow:	Vegetative: 90 days (Young, 2001) Seeds: 24 days (Young, 2001)
Target Specifications:	Firm plug in container (Young, 2001)
Propagule Collection:	Vegetative: Semi-hardwood cuttings (3-4 inches in length) are collected between mid-July and mid-August. Hardwood cuttings can be collected from November 1 to January 31, but will likely see reduced rooting success (~50%). Keep cuttings moist and cool (Young, 2001). Seeds: Mature fruits are 4 – 8 mm, blue-black, and covered with glandular hairs. Collect from end of June to mid-September (Young, 2001).
Propagule Characteristics:	Seeds: 335 per gram (Young, 2001)
Pre-Planting Propagule Treatments:	Vegetative: To clean, dip cuttings in mild bleach solution for 30 seconds. Treat cuttings with Hormex rooting powder (1000 pppm IBA). For winter-collected cuttings, use Hormex rooting power at 3000 pppm IBA (Young, 2001). Seeds: To extract seeds from fruit, put in water and mash through screen (Young, 2001). Seed not sown in fall, requires 3 – 5 ½ months cold stratification at 32F to 36F (Leigh, 1996).

Growing Area Preparation / Annual Practices for Perennial Crops:	Vegetative: Cuttings are planted 1.5 inches deep into flats of 3 parts perlite to 1 part Vermiculite. Cuttings are kept in greenhouse and watered with mist system until roots are developed (Young, 2001). Seeds: Seeds are sown in flats on June 1. Soil mix is Sunshine Mix #4 Aggregate Plus (peat moss, perlite, major and minor nutrients, gypsum, and dolomite lime. Lightly cover seeds. Flats are kept in greenhouse on heated bench and watered with misting irrigation system (Young, 2001).
Establishment Phase:	Vegetative: Cuttings are transplanted at 90 days to individual 2" x 7" Deepot 16 tubes with mix of peat moss, fir bark, perlite, and sand (Young, 2001). Seeds: Seedlings are transplanted at 12 days to individual 4" pots with mix of peat moss, fir bark, perlite, and sand (Young, 2001)
Harvesting, Storage and Shipping:	Cuttings in individual tubes are placed in shade house until planted out. Keep seedlings well spaced to prevent leaf rust (Young, 2001).
Guidelines for Outplanting / Performance on Typical Sites:	Seed transplant survival averaged 75% (Young, 2001). Susceptible to root rot, do not over water when planted out (Sound Native Plants, 2008)
Other Comments:	No restrictions (USDA Plants Database). Introduced to horticulture in 1826 by David Douglas (Kruckeberg, 1982). Cultivated species include 'Album', 'White Icicle', and 'Inverness White', 'Clarement', 'Spring Shower', 'Elk River Red', 'King Edward VII' (Robson, 2008).
INFORMATION SOURCES	
References:	Hamilton, C. and A. Kruckeberg. 1994. *Woody northwestern native plants for urban landscapes: ornament and restoration in the native idiom.* University of Washington, Center for Urban Horticulture, Seattle. Klinkenberg, Brian. 2007. *E-Flora BC: Electronic Atlas of the Plants of British Columbia.* Lab for Advanced Spatial Analysis, Department of Geography, University of British Columbia, Vancouver. Accessed: 4/28/2008. http://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Ribes%20sanguineum Kruckeberg, Arthur R. 1982. *Gardening with Native Plants of the Pacific Northwest*. University of Washington Press, Seattle, WA. Leigh, Michael. 1996. *Grow your own native landscape: a guide to identifying propagating and landscaping with western Washington native plants*. Native Plant Salvage Project, WSU Ex Washington Native Plants Washington State University Cooperative Extension, Thurston County.

References:	Hamilton, C. and A. Kruckeberg. 1994. *Woody northwestern native plants for urban landscapes: ornament and restoration in the native idiom.* University of Washington, Center for Urban Horticulture, Seattle. Klinkenberg, Brian. 2007. *E-Flora BC: Electronic Atlas of the Plants of British Columbia.* Lab for Advanced Spatial Analysis, Department of Geography, University of British Columbia, Vancouver. Accessed: 4/28/2008. http://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Ribes%20sanguineum Kruckeberg, Arthur R. 1982. *Gardening with Native Plants of the Pacific Northwest*. University of Washington Press, Seattle, WA. Leigh, Michael. 1996. *Grow your own native landscape: a guide to identifying propagating and landscaping with western Washington native plants*. Native Plant Salvage Project, WSU Ex Washington Native Plants Washington State University Cooperative Extension, Thurston County. Pettinger, A. And B. Costanzo. 2002. *Native Plants in the Coastal Garden*. Whitecap, North Vancouver, BC. Robson, K.A., Richter, A., Filbert, M. 2008. *Encyclopedia of Northwest Native Plants for Gardens and Landscapes.* Timber Press, Portland, OR. Sound Native Plants, Accessed 30 April 2008. http://www.soundnativeplants.com/catalogtrees.htm#RISA Young, Betty. 2001. *Propagation protocol for production of container Ribes sanguineum Pursh plants (4 inch pot).* USDI NPS - Golden Gate National Parks, San Francisco, California. In: Native Plant Network. Accessed 30 April 2008 http://www.nativeplantnetwork.org Young, Betty. 2001. *Propagation protocol for production of container Ribes sanguineum Pursh var. glutinosum (Benth) Loud. plants (Deepot 16).* USDI NPS - Golden Gate National Parks, San Francisco, California. In: Native Plant Network. Accessed 30 April 2008 http://www.nativeplantnetwork.org Washington Native Plant Society website, accessed 27 April 2008. http://www.wnps.org/plants/ribes_sanguineum.html United States Department of Agriculture. "Plants Database". Accessed 27 April, 2008. http://plants.usda.gov/.
Other Sources	

Note: This template was modified by J.D. Bakker from that available at:
http://www.nativeplantnetwork.org/network/SampleBlankForm.asp

2003 Plant Data Sheet:

red-flowering current
Ribes sanguineum var. sanguineum

Range
British Columbia south to northern California, from the coast east to the Cascade Mountains. Also Idaho.

Climate, elevation
Low to mid elevation. Moderate winter temperatures (average low temps 32F-37F with extremes in the single digits). Mild summer temperatures with growing season extending approximately March to October. Dry summers and wet winters.

Local occurrence (where, how common)
Common. Dry to somewhat moist wooded or open sites. Also rocky slopes and disturbed sites.

Habitat preferences
Intolerant of saturated soil. Full sun to part shade.

Plant strategy type/successional stage (stress-tolerator, competitor, weedy/colonizer, seral, late successional)
Colonizer. Not a nitrogen fixer.

Associated species
In part shade: bigleaf maple, bitter cherry, Doug-fir, grand fir, baldhip rose, evergreen huckleberry, Indian-plum, mock-orange, Pacific rhododendron, salal, vine maple, sword fern, ocean spray, Western serviceberry. In sun: Pacific madrone, snowbrush, hairy manzanita, kinnikinnick, blue elderberry

May be collected as: (seed, layered, divisions, etc.)
Seed, hardwood cutting, layer.

Collection restrictions or guidelines
Collect seed as soon as fruit is ripe (blue-black) in mid-July until late August. Hardwood cutting in late autumn to early winter, outdoor nursery beds.

Seed germination (needs dormancy breaking?)
If seed is not sown in the fall, it requires 3-51/2 months cold strat at 32F-36F.

Seed life (can be stored, short shelf-life, long shelf-life)
Long.

Recommended seed storage conditions
Put clean, dry seeds in an airtight container in a cool dry place. Ideal temp for storage is between 34F-38F. Do not expose to freezing temps.

Propagation recommendations (plant seeds, vegetative parts, cuttings, etc.)

High seed abundance. Hardwood cuttings: cut out all but the top three to four buds.

Soil or medium requirements (inoculum necessary?)

Installation form (form, potential for successful outcomes, cost)
Seeds, container plants, hardwood cuttings.

Recommended planting density

Care requirements after installed (water weekly, water once etc.)
Container plants require weekly watering the first summer. Do not let soil become saturated. Tolerates 14"-30" precipitation per year.

Normal rate of growth or spread; lifespan
Long life, moderate growth rate.

Sources cited
Pojar & Mackinnon. 1994. Plants of the Pacific Northwest Coast.
www.plants.usda.gov
Liegh, M. 1997. Grow Your Own Native Landscape.

Data compiled by (student name and date)
Katie McGowan April 16, 2003