

Plant Propagation Protocol for Nootka Rose

ESRM 412 Native Plant Production

Spring 2008

Family Names

Family Scientific name: Rosaceaea

Family Common name: Rose Family

Scientific Names

Genus: Rosa

Species: nutkana

Species Authority: K. Presl, possibly Bot. Gaz Fernald 1894 (9)

Variety nutkana

Sub-species:

Cultivar:

Authority for Sub-species:

Common synonym(s)

Genus:

Species:

Species Authority:

Variety:

Sub-species:

Cultivar:

Authority for variety/sub-species:

Common Names: Nootka Rose

Species Code: RONU

General Info

Nootka rose is a deciduous, deep-rooted rhizomatous perennial shrub 1 – 3 m tall with erect or trailing stems reaching its maximum height in 10 years, leaves alternate with paired thorns on the stem at the base of the petiole, 5 or 7 compound with doubly serrate elliptical leaflets, flowers pink 4 – 8 cm wide, fruits pear-shaped hips with persistent calyx contain several long, hairy achenes. (1,3,6)



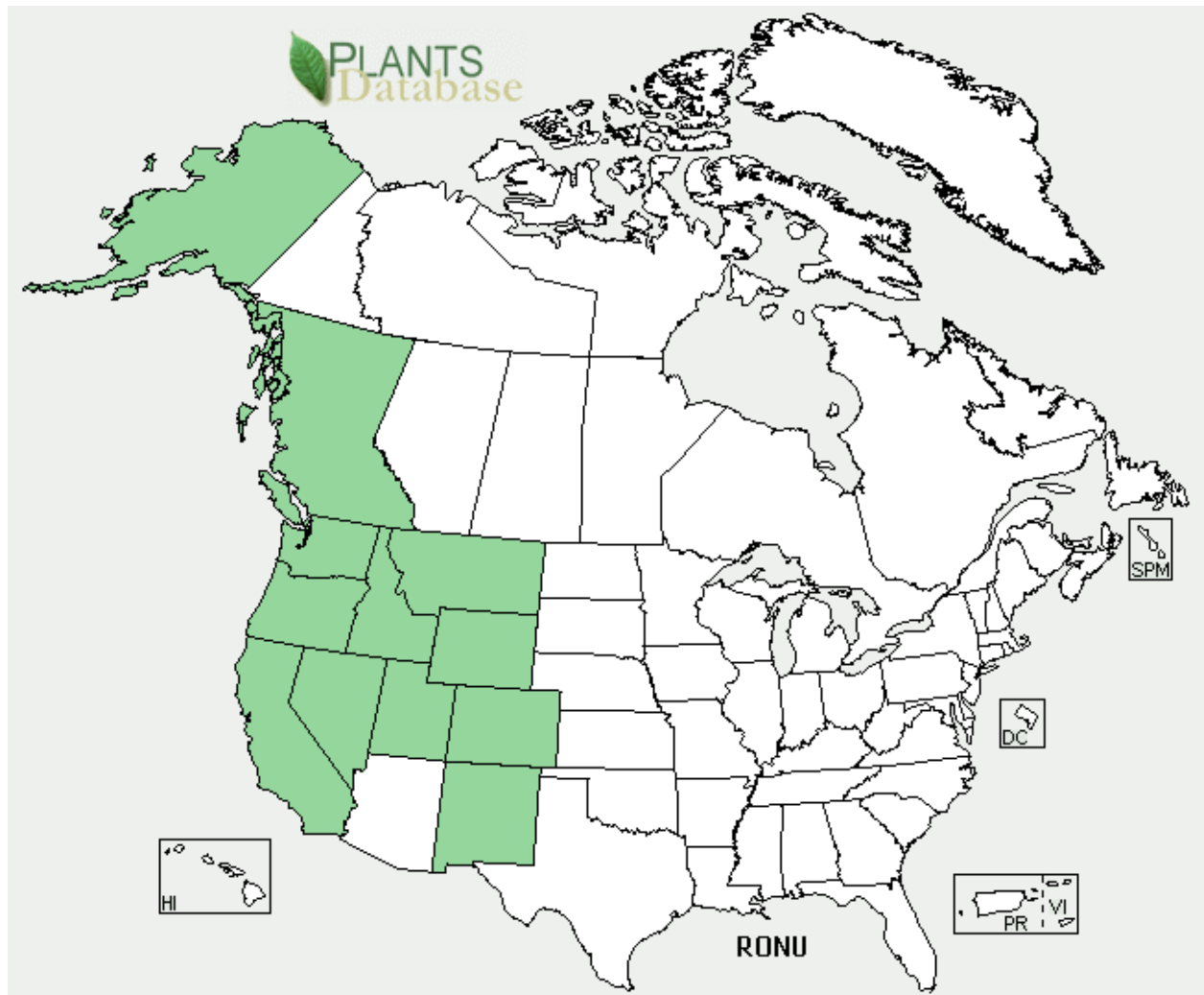
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General distribution:

Nootka rose occurs at sea level to middle elevations from Alaska south to California and east to western Montana and New Mexico. (1,3,6)



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Climate and elevation range:

Nootka rose is commonly found in moderately dry to moist climates from sea level to mid elevation montane zones. (1, 3, 6)

Local habitat and abundance:

Common throughout Puget Sound in dry to moist open forests, clearings, bluffs, thickets and ravine edges from sea level to mid elevations. (1, 3, 6) Nootka rose occurs on nitrogen-rich, fresh to

very moist soils frequently in floodplains, open stream banks, and meadows. It is sporadic in open-canopy forests with fluctuating groundwater tables. It is occasionally found on brackish-water sites or sites exposed to coastal salt spray. Nootka rose grows best at pH ranges of 5.6 to 7.0 thriving on moderately fertile, well-drained clayey-loam, sandy-loam, or sandy soils. (5, 6)

Widely associated with a broad range of coniferous and deciduous forest, prairie, coastal and steppe ecosystems. Locally associated with openings and edges of Douglas-fir (*Pseudotsuga menziesii*), ponderosa pine (*Pinus ponderosa*), Sitka spruce (*Picea sitchensis*), western hemlock (*Tsuga heterophylla*), western red cedar (*Thuja plicata*), logdepole pine (*Pinus contorta*), black cottonwood (*Populus balsamifera*), trembling aspen (*Populus tremuloides*), and willow (*Salix* spp.) overstories. Also often invasive in remnant western Washington prairie systems and in abandoned pastureland. Common understory plant associates of Nootka rose include common snowberry (*Symphoricarpos albus*), red-osier dogwood (*Cornus stolonifera*), Pacific ninebark (*Physocarpus capitatus*) and oceanspray (*Holodiscus discolor*). (6)

Plant strategy type:

Nootka rose is tolerant of both sun and shade showing increased growth and fruit production with increasing light. Nootka rose increases in cover with canopy closure, but may produce less fruit. Given it's propensity for droughty conditions, low to moderate fire tolerance and disappearance with canopy closure it may be considered an early to mid successional stress tolerator, though not specifically sited as such in the literature. (6)

Propagation details

Ecotype: n/a

Propagation goal: Plants

Propagation method: Seeds

Product type: Container

Stock type: Container

Time to grow: Rose seeds typically take two years to germinate

Target specifications: n/a

Propagule collection:

Seed – (up to 1×10^5 seeds/kg) ripens in fall when hips turn deep purple-red to orange. Hips should be macerated with water until sufficiently softened and then either blenderized and seed allowed to settle from floating pulp or rubbed through a sieve to separate pulp from seed. Mummified hips may be either crushed and then sieved or given an extended maceration then sieving. (2, 4, 5, 6)

Cuttings – root crown sprouts and short rhizomatous offshoots can be collected and rooted. Live softwood stakes may also be taken and rooted. (2, 4, 5, 6)

Propagule processing:

\$36 per pound of seeds. (10)

Pre-planting propagule treatments:

Collect hips August to September and dry and crush or macerate to remove seeds. (8)

Growing area preparation:

Succeeds in most soils, preferring a circumneutral soil and a sunny position. Grows well in heavy clay soils. Prefers a slightly acid soil. Dislikes water-logged soils. (8) Best grown in styro 60/250 ml (515A)(11).

Establishment phase:

Stratify 3 months warm and 5 months cold in mesh bag, between layers of peat. Begin warm stratification in August and stratify naturally. Sow in fall or spring. Soak seed for 24 hours prior to stratification. (11)

Length of establishment phase:

At least five months, or immediately if sown right away in fall.

Active growth phase and Length:

Nootka rose is a moderately fast grower reaching sexual maturity in 2 – 5 years and maximum height at 10 years. Lifespan has been cited as ‘moderate’ though not given a specific range. (5,6)

Hardening phase: n/a

Length of hardening phase: n/a

Harvesting, storage and shipping:

Not cited in literature however typical low temp, low humidity conditions may apply.

Length of storage:

Collect fresh seed in late summer; put it directly into stratification before it is allowed to dry and go hard. Stratify naturally over winter to sow the following spring. (11)

Guidelines for outplanting:

USDA Plants Database indicates 800 – 2000 plants per hectare which results in approximately 3 m spacing. Given Nootka rose’s fast growing, thicket forming habit spacing should depend on restoration strategy, closer for invasive exclusion, wider for enhancement of diversity. (5)

References:

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- (2) Leigh, Michael. Grow Your Own Native Landscape. 1999. Washington State University Cooperative Extension – Thurston County, WA.
- (3) Pojar, Jim and McKinnon, Andy, eds. Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia and Alaska. 1994. Lone Pine Press, British Columbia.
- (4) Rose, Robin, Chachulski, Caryn and Haase, Diane. Propagation of Pacific Northwest Native Plants. 2000. Oregon State University Press, Corvallis.
- (5) USDA, NRCS. 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>) National Plant Database Center, Baton Rouge, LA 70874-4490 USA.
- (6) USDA Forest Service Fire Effects Information System (FEIS) database. <http://www.fs.fed.us/database/feis/plants/>
- (7) Veins of Life Water shed society
http://www.salishsea.ca/resources/Plants/plant_descriptions_photos/Shrubs.htm
- (8) Plants For a Future. http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Rosa+nutkana
- (9) Weber & Wittmann, Catalog of the Colorado Flora, 1992
<http://www.colorado.edu/CUMUSEUM/research/botany/CADDVAS.rtf>
- (10) Native Seed Network,
<http://www.nativeseednetwork.org/>
- (11) Propagation of Interior British Columbia Native Plants from Seed Shelly Hudson and Michael Carlson, <http://www.for.gov.bc.ca/hfd/pubs/Docs/Mr/Mr093/Mr093.pdf>

Other sources consulted:

- Native Plant Network, www.nativeplantnetwork.org

Data compiled by

Rodney Pond 05.23.03

Revised by

Danielle Cook 04.16.2008