USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Plant Guide

WOODS' ROSE

Rosa woodsii Lindl.

Plant Symbol = ROWO

Contributed by: The Pullman Plant Materials Center, Pullman, Washington

***Rosa woodsii* flowers. Don Knoke, University of Washington Burke Museum of Natural History and Culture**

Alternate Names

Common Alternate Names: common wild rose, wild rose, mountain rose, pearhip rose, interior rose, prairie rose, Fendler rose, Tehachapi rose (Parish et al., 1996; Hauser, 2006; Burke Museum of Natural History and Culture, 2012)

Scientific Alternate Names: *R. arizonica* Rydb., *R. californica* Watson, *R. chrysocarpa* Rydb., *R. grosseserrata* E. Nels., *R. fendleri* Crepin, *R. fimbriatula* Greene, *R. lapwaiensis* St. John, *R. mocounii* Greene, *R. neomexicana* Cockerell, *R. puberulenta* Rydb., *R. pyrifera* Rydb., *R. salictorum* Rydb., *R. sandbergii* Greene, *R. ultramontana* (S. Wats.) Heller (Hitchcock et al., 1969; Welch, 2004; Hauser, 2006)

Uses

Ornamental: Woods' rose is an attractive shrub that can be incorporated into landscaped areas. It will spread by suckers and rhizomes however, and should not be planted where it may become a problem.

Pollinators and Beneficial Insects: Roses produce small amounts of nectar, so the primary insect pollinators of roses are bees gathering pollen (Mader et al., 2011). The open-faced flowers of native roses are more attractive to pollinators than varieties with double flowers (Mader et al., 2011).

Wildlife: Woods' rose fruits (hips) remain on the plant throughout the winter, and are eaten by insects, birds, small mammals, and large mammals such as grizzly bears (Hauser, 2006). Antelope, mule deer, white-tailed deer, elk and moose browse the leaves and branches. The plant provides cover for many birds, small mammals, ungulates and fish (Hauser, 2006).

Livestock: Woods' rose is a highly digestible winter and spring forage (Welch and Andrus, 1977; Welch, 1989). It has fair palatability for cattle and sheep, but poor for horses (Hansen et al., 1990, as cited by Hauser, 2006). Studies show variable effects on Woods' rose from livestock browsing.

Ethnobotanical: Native Americans throughout the Pacific Northwest and Rocky Mountain region used Woods' rose as food, medicine, and for ceremonial purposes (Moerman, 2012). Hips of all wild roses are high in vitamin C and are made into jams, jellies, syrups and teas.

Revegetation: Woods' rose is an ideal plant for revegetating disturbed sites because it produces rhizomes, regenerates quickly, and has excellent survivability. It can be used to rehabilitate mine spoils and road cuts, control soil erosion on hillsides, and stabilize eroded streambanks (Shaw et al., 2004; Hauser, 2006).

Status

Consult the PLANTS Web site and your state department of natural resources for this plant's current status (e.g., threatened or endangered species, state noxious status, and wetland indicator values).

Description

General: Rose family (Rosaceae). *Rosa woodsii* is a spreading to erect, long-lived shrub native to the central and western U.S. and Canada. It grows 2 to 10 feet tall and forms loose or dense thickets. Stems are straight, red to grey-brown and have well-developed, straight or curved thorns, or are sometimes unarmed. The thorns are often in pairs at the base of each leaf. Leaves are alternate, deciduous, and odd-pinnate with 5 to 9 leaflets. Leaflets are elliptic to obovate with singly or doubly serrated margins, and undersides can have short hairs or glands, or are smooth. Flowers occur at the ends of branches, bloom May through July, are solitary or in clusters of 2 to 15, and are relatively small. Petals are 0.6 to 1 inch long, are light to dark pink and have broad notches. Sepals are usually smooth and nearly as long as the petals. Flowers have numerous stamens and pistils, and the styles are deciduous as the fruit matures. The fruit is a round, elliptic or pear-shaped hypanthium (hip)

0.25 to 0.5 inch wide. It matures in August to September, is bright red to reddish purple, and has persistent sepals. The fruit contains numerous seeds that are angled achenes. The plant reproduces sexually by seed and vegetatively by sprouts, rhizomes and layering. (Hitchcock et al., 1969; Hitchcock and Cronquist, 1973; Young and Young, 1992; Parish et al., 1996; Welch, 2004; Hauser, 2006; Lewis and Ertter, 2007; Burke Museum of Natural History and Culture, 2012; Turner, 2012).

***Rosa woodsii* pedicel and sepals. G.D. Carr**

Rosa is a complex and variable genus which hybridizes freely and sometimes exhibits polyploidy and/or apomixis (Hitchcock et al., 1969). Hybridization may occur between *Rosa woodsii* and other native roses throughout its range (Hitchcock et al., 1969, Shaw et al., 2004).

The genus name *Rosa* is an ancient Latin name for rose (St. John, 1963). The species name *woodsii* is in honor of Joseph Woods (1776-1864), who was an English architect, geologist and botanist. He was a member of the Linnean Society and published several botanical works, including the Synopsis of the British Species of *Rosa* (1818) and The Tourist's Flora: A Descriptive Catalogue of the Flowering Plants and Ferns of the British Islands, France, Germany, Switzerland, Italy, and the Italian Islands (1850) (Charters, 2012).

Distribution: *Rosa woodsii* grows in Wisconsin south to Texas and west to the Pacific coast and Alaska. It grows in all of the Canadian provinces except in the far north and east. The genus is divided into five subspecies: subsp. *woodsii* is found in the prairies and plains of central North America and extends into the low elevations of the Rocky Mountains and adjacent southwest; subsp. *manca* is endemic to the high elevations in the Rocky Mountains and outlying peaks and ridges; subsp. *arizonica* is found in the low mountains and high riparian areas in northern Arizona and New Mexico, and in Colorado to Nevada, with possible disjuncts in southern Idaho; subsp. *ultramontana* is found in the intermontane area between the Rocky Mountains and Cascade Mountains, from British Columbia to the Great Basin; and subsp. *gratissima* is found in the southwestern Great Basin, Mojave desert and nearby mountains (Lewis and Ertter, 2007). For current distribution, consult the Plant Profile page for this species on the PLANTS Web site.

Habitat: *Rosa woodsii* is a widely adapted species and grows in many habitat types. It is an understory plant in dry and moist forest communities, including elm-ash-cottonwood (*Ulmus-Fraxinus-Populus*), aspen-birch (*Populus-Betula*), Douglas fir (*Pseudotsuga menziesii*), ponderosa pine (*Pinus ponderosa*), western white pine (*Pinus monticola*), fir-spruce (*Abies-Picea*), hemlock (*Tsuga mertensiana*), Sitka spruce (*Picea sitchensis*), larch (*Larix* spp.), lodgepole pine (*Pinus contorta*), redwood (*Sequoia sempervirens*), and western hardwoods (Hauser, 2006). It also grows in sagebrush (*Artemisia* spp.), Texas savanna, Southwestern shrub steppe, chaparral-mountain shrub, shinnery oak (*Quercus havardii*), pinyon (*Pinus* spp.), juniper (*Juniperus* spp.), mountain, plains and desert grasslands, prairie, and alpine habitats (Hauser, 2006).

Woods' rose occurs in several stages of succession, including early seral stages (Hauser, 2006). It often colonizes sites disturbed by fire, land cuts and fills, bank erosion, and animal activity (Hauser, 2006). It is a facultative upland species; it primarily grows on upland sites, but can be found in wetlands (1 to 33% probability) (Hansen et al., 1990, as cited by Hauser, 2006). It is found in riparian areas, in marshes, along lakeshores, in rocky ravines and canyons, along roadsides, and on all aspects of upland slopes (Shaw et al., 2004).

Adaptation

This plant is adapted to medium and coarse textured, moderately fertile soils with pH that is moderately acidic (5.0) to slightly basic (8.0) (USDA NRCS, 2012). It grows in open and shaded areas receiving 12 to 40 inches of annual precipitation. It is moderately tolerant of drought (USDA NRCS, 2012) and seasonal flooding (Hauser, 2006). All subspecies grow at low to mid-elevations, except subsp. *manca*, which is endemic to high elevations (Lewis and Ertter, 2007). The plant will resprout following a fire, however intense or multiple fires may damage or kill the crown (Wasser, 1982, as cited by Shaw et al., 2004).

Establishment

Freshly cleaned Woods' rose seed can be broadcast or drilled at a rate of 0.5 to 1.0 pound per acre and covered with firm soil or mulch (Young and Young, 1992; Shaw et al., 2004). Dried seed needs a cold moist stratification period for optimal germination. The seed can be mixed with other shrub seed, but should be separated from grass

and forb seed (Shaw et al., 2004). Plants can also be established by transplanting seedlings or cuttings (see the Seeds and Plant Production section, below).

Pests and Potential Problems
Woods' rose is susceptible to fungal diseases such as leaf spots (*Alternaria* spp., *Cercospora* spp., *Colletotrichum* spp., and *Sphaceloma rosarum*), leaf rusts (*Phragmidium* spp.), gray mold (*Botrytis* spp.), powdery mildew (*Sphaerotheca pannosa* var. *rosae*) and stem cankers (*Coniothyrium* spp. and *Cryptosporella umbrina*), and common gall bacteria (*Agrobacterium* spp.) (Pacific Southwest Experiment Station, 2002, as cited by Welch, 2004). Insect pests in forest ecosystems include tent caterpillar (*Malacosoma* spp.), rose leaf hopper (*Edwardsiana rosae*), and western tussock moth (*Orgyia vetusta*) (Pacific Southwest Experiment Station, 2002, as cited by Welch, 2004).

Environmental Concerns
None

***Rosa woodsii* hips. Ben Legler, University of Washington Burke Museum of Natural History and Culture**

Seeds and Plant Production
Rosa woodsii plants are sexually reproductive after 2 to 5 years of growth (Welch, 2004). Seed is obtained by collecting rose hips after they turn a bright red color (Gill and Pogge, 1974). The seeds can be removed from the hip flesh by macerating the hips and rinsing in water, allowing the debris and unfilled seed to float to the surface (Scianna, 2003; Barner, 2008). Seeds collected soon after ripening and not allowed to dry will be less dormant than dried seeds (Gill and Pogge, 1974; Young and Young, 1992). Dried seeds require a cold moist stratification period of 30 to 365 days at 40 degrees Fahrenheit to improve germination (Gill and Pogge, 1974; Shaw et al., 2004). A warm moist stratification period preceding the cold moist period may further improve germination (Gill and Pogge, 1974).

In nature, seeds are eaten and dispersed by birds and other wildlife. The seed coat is broken down by the animals' digestive process, which reduces the overall seed viability, but alleviates the dormancy of unharmed seed (Shaw et al., 2004).

There are about 51,000 seeds per pound (USDA NRCS, 2012). Dried seeds stored in air-tight containers will remain viable for 2 to 4 years (Young and Young, 1992).

Plants can be produced by sowing seed into pots or flats outdoors in October or November, and moving into a greenhouse in January or February. Seedlings should be moved to a lath house or other structure in the spring and grown for one year to develop an adequate root system before transplanting. Seedlings can be transplanted to the field in containers or as bareroot stock.

Woods' rose can also be reproduced by hardwood cuttings, softwood cuttings, root suckers or layering (Snyder, 1991, as cited by Rose et al., 1998; Shaw et al., 2004). All seedlings and propagated plants should be hardened off for two to four weeks prior to transplanting in the desired field location. In the field, young plants may need protection from rodents, livestock and wildlife (Shaw et al., 2004).

Cultivars, Improved, and Selected Materials (and area of origin)
None, but seeds and seedlings are commercially available.

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