



United States Department of Agriculture
Natural Resources Conservation Service
Plant Materials Program

'Rogue'

arroyo willow

Salix lasiolepis Benth.

A Conservation Plant Release by USDA NRCS Corvallis Plant Materials Center, Corvallis, Oregon



'Rogue' arroyo willow (*Salix lasiolepis*) is a vegetatively propagated cultivar released in 1990 in cooperation with the Oregon Agricultural Experiment Station and Washington Agricultural Research Center. It is useful for stabilizing streambanks and improving wildlife habitat and freshwater fisheries.

Description

Rogue arroyo willow is a large shrub or small tree that grows to a height of 15 to 35 ft depending on the site. It has an upright, multi-stemmed, or occasionally single-trunked form with a broadly spreading, irregular to rounded crown. The leaves are broadly lance shaped, wider than typical for the species, smooth or occasionally toothed along the margins, dark green above, and whitish below. Comprised of two clones, individuals will have reddish-brown twigs and pubescence on the stems and underside of the leaves or yellowish-red to green twigs with both twigs and leaves lacking pubescence. The leaves are alternate and deciduous, falling by late November. The bark of older limbs is thin, smooth and gray, becoming fissured into ridges with age. Rogue is a male clone and as such, bears only staminate (male) catkins in March. They are upright to tilted on the stem and appear well before the leaves in early spring.

Source

The original vegetative material for Rogue arroyo willow was collected in 1978 from a stand growing along the north bank of the Rogue River in Curry Co., Oregon, near Illahe. Rogue (9004818, PI 508557) was evaluated in an observational row nursery against 105 sources or clones comprising at least 8 native willow species. The tallest growing of all the willow cultivars released by the Corvallis Plant Materials Center, it was selected for its high survival, male sex, rapid early growth rate, and dense

branching. Fewer insect and disease pests were observed compared to most willows tested.

Conservation Uses

Rogue arroyo willow is recommended for stabilizing the banks of lower velocity streams and rivers as well as improving terrestrial and aquatic wildlife habitat. Deer, elk, and rabbits browse the stems and foliage. Its male catkins are a source of pollen for beneficial insects and the catkins and buds are food for small game and songbirds in spring. Large willows like Rogue along a stream will benefit fish by increasing food availability and reducing water temperatures through shade.

Dormant limbs and stems of this variety can also be used for certain stream and slope protection measures such as live stakes, live posts, fascines, brush mats, or branch packing; they may be installed alone or with traditional hard treatments such as rock riprap (refer to publications on soil bioengineering for further explanation of these practices). Other potential uses include wetland enhancement, windbreaks, natural area landscaping, and screens.

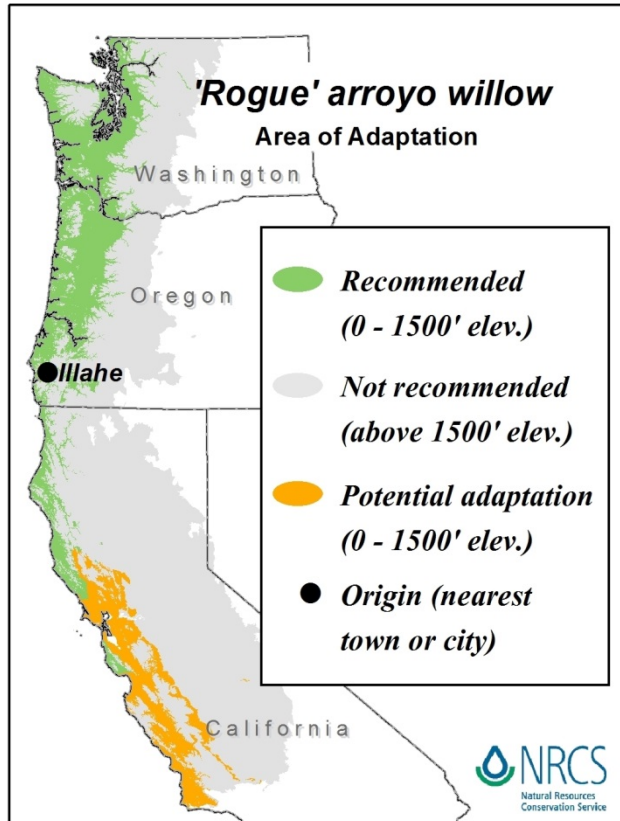
Area of Adaptation and Use

Rogue arroyo willow is tolerant of most soil textural types and drainage classes where moisture is not limiting. This includes the ability to withstand prolonged soil saturation and flooding. However, the species does best on moist, well-drained coarser textured soils in full sun. Rogue has performed well on moderately well-drained clay loam upland sites where the average annual precipitation exceeds 35 inches. Known area of adaptation and recommended use for Rogue includes valleys, riparian areas, ravines, gulches, and other drainage ways west of the Cascade Mountains in western Oregon, western Washington, and northwestern California below an elevation of 1,500 ft (see map below).

Establishment and Management for Conservation Plantings

Rogue arroyo willow should be planted in the fall once the rainy season commences and the root zone is moist. Winter is the next best season in areas with a milder climate, followed by early spring. Use dormant stock such as unrooted hardwood cuttings, containerized rooted cuttings, or bareroot plants. For direct planting on revegetation sites, cuttings (slips, live stakes) should be 18 to 30 inches long and at least ½ inch in diameter. Make a pilot hole with a steel bar or water drill and insert or tap two thirds or more of the length of the cutting into the soil. At least two nodes (buds) should remain exposed above ground. Tamp the soil firmly around each slip to

remove air pockets. Larger and longer material (such as live poles and live posts) can be used in places where competing vegetation is tall or planting depth must be increased to reach reliable moisture.



Area of adaptation and recommended use for 'Rogue' arroyo willow. Map by Ian Reid.

Prior to planting, competing vegetation should be minimized by localized scalping of the soil surface or spot treating with an approved herbicide. Apply herbicides according to label instructions and in areas where the contamination of surface water and wildlife are not threatened. For vegetative streambank stabilization, planting on a 2- to 3-foot spacing is generally recommended, beginning just above the protected toe of the slope and proceeding to the top of the bank. Consider establishing several selections or sources of arroyo willow, as well as other willows and riparian shrubs for habitat diversity. For maximum survival and growth on some sites, irrigation or mulch may be needed the first summer, along with weed suppression, wildlife damage control, and livestock exclusion the first few years.

Ecological Considerations

Like most willows, Rogue arroyo willow can be subject to certain insect pests such as aphids, scales, willow leaf gall sawfly, and poplar borers, as well as various diseases. Often the most obvious damage is the die off of large branches from the girdling and tunneling done by borers

near the base of the trunk. However, the overall incidence of insect and disease pests on this variety was low during the evaluation period. As a male clone, it does not produce seed or spread by seedlings.

Seed and Plant Production

This cultivar is vegetatively propagated. Carefully weeded, fertilized, and irrigated mother plants or "cutting blocks" are the best source of healthy cuttings for direct planting on revegetation sites, container production, and bareroot nursery culture. Cuttings as short as 6 inches with at least two nodes will root readily year round in moist potting media under greenhouse or outdoor conditions, but hardening off and winter dormant periods must be observed. Treatment with rooting hormone is unnecessary. Fall and winter are the preferred seasons for harvesting and planting.

Availability

For conservation use: Cuttings or rooted stock of Rogue arroyo willow are only available from a few specialized nursery growers and certain Soil and Water Conservation Districts.

For plant increase: The NRCS Corvallis Plant Materials Center maintains foundation equivalent, vegetative stock of Rogue arroyo willow, as well as four other native willow cultivars, for distribution to commercial nurseries, arboretums, wetland scientists, and others.

For more information, contact:
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For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<http://www.nrcs.usda.gov/>>, and visit the PLANTS Web site <<http://plants.usda.gov/>> or the Plant Materials Program Web site <<http://www.plant-materials.nrcs.usda.gov/>>

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