



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

# 'Multnomah' Columbia River willow

*Salix sessilifolia* Nutt.

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



'Multnomah' Columbia River willow (*Salix sessilifolia*), also known as northwest sandbar willow, is a vegetatively propagated cultivar released in 1988 in cooperation with the Oregon Agricultural Experiment Station and Washington Agricultural Research Center. It is useful for streambank, shoreline, and dredge spoil stabilization, as well as wildlife habitat improvement.

### Description

Multnomah Columbia River willow is a medium to large shrub that grows to a height of 10 to 20 ft depending on the site. Multi-stemmed and compact with upright slender branches, this species is known for its spreading or suckering habit. The leaves are relatively narrow and sparsely to moderately hairy with many scattered teeth along the margins. They are alternate and deciduous, falling by late November to early December. Young twigs are brown or green and smooth to slightly hairy. The bark of older limbs becomes grayish-brown and scaly with age. Multnomah is a male clone and as such, bears only staminate (male) catkins in May or early June. They are upright and flower after leaf formation in spring (later than most native willows in the same region).

### Source

The original vegetative material for Multnomah Columbia River willow was collected in 1980 from plants growing along the banks of the Sandy River in Multnomah Co., Oregon, near Portland. Multnomah (9019469, PI 508553)

was evaluated in an observational row nursery and chosen as the best of six surviving sources of Columbia River willow from an original assembly of 24. It was selected for its higher survival, male sex, compact form, attractive foliage, and ability to spread from underground stems. Multnomah demonstrated rapid initial growth rate the first few years after establishment.

### Conservation Uses

Multnomah Columbia River willow is well suited to stabilizing sandbars and dredge spoils because of its ability to sucker and colonize moist, open sandy areas. It can also be used for general streambank stabilization along low velocity streams, reservoir shoreline plantings, screens, windbreaks, wetland enhancement, and wildlife habitat improvement. 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. The shade created by mature willows along a stream reduces water temperatures and improves conditions for many fish.

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).

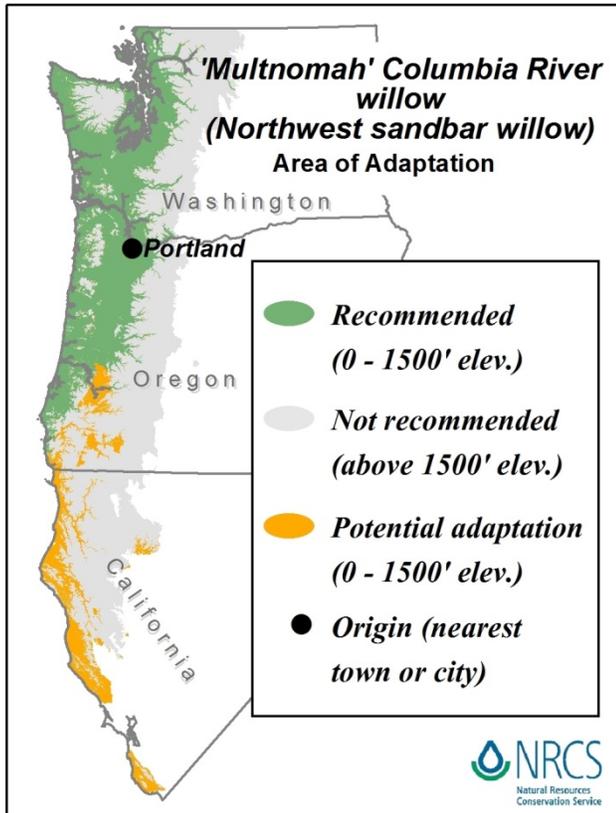
### Area of Adaptation and Use

Multnomah Columbia River willow is tolerant of most soil textural types and drainage classes where moisture is not limiting. However, the species does best on moist sandy, gravelly, or silty soils along sandbars, streams, ponds, and lake shores. As a pioneer plant, it does not tolerate shade or significant plant competition. Multnomah can withstand prolonged soil saturation and flooding and will persist on well-drained upland sites where the average annual precipitation exceeds 40 inches. Known area of adaptation and recommended use for Multnomah includes valleys west of the Cascade Mountains in western Oregon and Washington below an elevation of 1,500 ft (see map below).

### Establishment and Management for Conservation Plantings

Multnomah Columbia River 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.



Area of adaptation and recommended use for 'Multnomah' Columbia River 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-ft 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 Columbia River 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, Multnomah Columbia River willow can be subject to certain insect pests such as aphids,

scales, and poplar borers, as well as various diseases. However, the incidence of insect and disease pests was low during the evaluation period. The ability of Multnomah to spread from underground shoots can make it weedy in certain situations. 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 Multnomah Columbia River 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 Multnomah Columbia River willow, as well as four other native willow cultivars, for distribution to commercial nurseries, arboreturns, 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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