



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

'Clatsop' Hooker willow

Salix hookeriana Barratt ex Hook.

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



'Clatsop' Hooker willow (*Salix hookeriana*), also known as dune or coast willow, is a vegetatively propagated cultivar released in 1988 in cooperation with the Oregon Agricultural Experiment Station and Washington Agricultural Research Center. It is well suited to streambank stabilization and the revegetation of coastal marshes or other moist, sandy areas.

Description

Clatsop Hooker willow is a medium to large shrub that grows to a height of 6 to 26 ft depending on the site. Mature shrubs with ample spacing in full sun are typically dense, multi-stemmed, and upright to broadly branching in form. The species can be distinguished in part by its stout hairy twigs and oblong leaves that are thick, woolly beneath, and leathery to the touch. The broad leaves have margins that are smooth to somewhat wavy. They are alternate and deciduous, falling by mid to late November. Young twigs are green and the bark of older limbs is dark gray. Clatsop is a female clone and, as such, bears only pistillate (female) catkins. They are upright, appear about two weeks before the foliage (late March to early April), and are retained for several weeks.

Source

The original vegetative material for Clatsop Hooker willow was collected in 1978 from a stand growing along a coastal lake near the city of Astoria in Clatsop County, Oregon. 'Clatsop' (9004737, PI 508554) was evaluated in an observational row nursery against 105 clones or collections comprising at least eight native willow species. As the best of four clones of Hooker willow tested, it was chosen for its attractive foliage, density, stout branching, and fewer observable disease symptoms. This variety demonstrated rapid initial growth the first few years after establishment.

Conservation Uses

Clatsop Hooker willow is recommended for stabilizing the banks of low velocity streams, improving wildlife habitat, and restoring native plant communities along lakes, marshes, and older dunes near the coast. Deer, moose, and rabbits browse the stems; catkins are food for small game and songbirds. The shade created by willows along a stream reduces water temperatures and improves conditions for many fish.

Dormant limbs and stems of this variety may 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). Clatsop has excellent potential for natural area landscaping, screens, and windbreaks on moist sites. The large female catkins, thick leathery leaves, and stout branches add ornamental value.

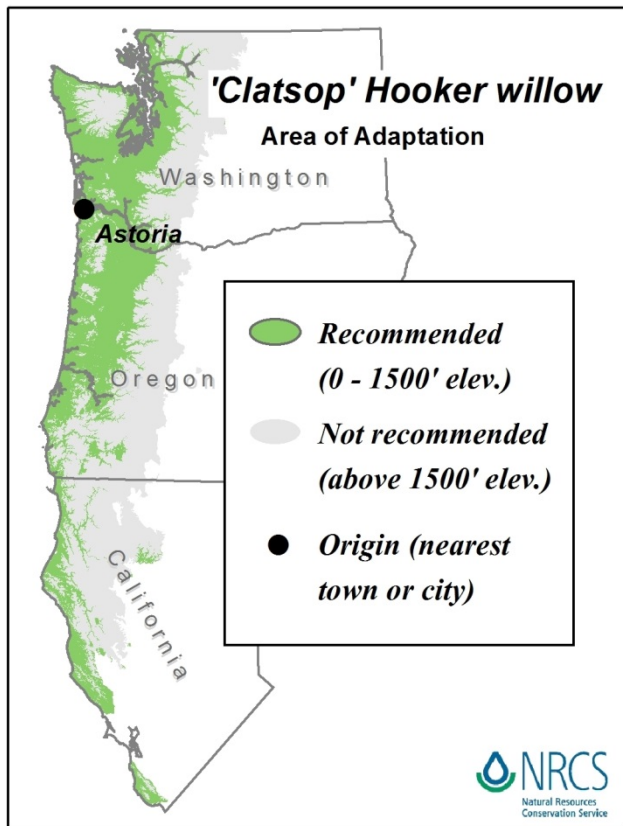
Area of Adaptation and Use

Clatsop Hooker willow is tolerant of most soil textural types and drainage classes where moisture is not limiting. This includes moist sandy, gravelly or mucky soils and sites with prolonged, if not indefinite, soil saturation and flooding. On better drained upland sites the average annual precipitation should exceed 40 inches. Clatsop is best suited to streambanks, coastal meadows, stabilized dunes, and marshes where sunlight is abundant. Known areas of adaptation and recommended use for Clatsop include riparian areas and valleys west of the Cascades in western Oregon, western Washington, and northwestern California below an elevation of 1,500 ft (see map below).

Establishment and Management for Conservation Plantings

Clatsop Hooker 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 (or 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. However, 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 'Clatsop' Hooker 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 Hooker 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

Clatsop Hooker willow is a female clone and as such can produce viable, cottony seeds in spring in the presence of male shrubs. In such a case, significant numbers of seedling may volunteer on moist open ground. Willow insect pests such as aphids, scales, and poplar borers, as well as leaf and stem diseases have been minor in most

years and are not considered a limiting factor in the use of this cultivar.

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 Clatsop Hooker 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 Clatsop Hooker willow, as well as four other native willow cultivars, for distribution to commercial nurseries, arboretums, wetland scientists, and other researchers.

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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