



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

'Placer' erect willow

Salix ligulifolia (C.R. Ball) C.R. Ball ex C.K.
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A Conservation Plant Release by USDA NRCS Corvallis Plant Materials Center, Corvallis, Oregon



'Placer' erect willow (*Salix ligulifolia*), also known as strapleaf 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 stabilization, wildlife habitat improvement, windbreaks, and other low maintenance plantings.

Description

Placer erect willow is a medium sized shrub that grows to a height of 8 to 18 ft, depending on the site. Its form is multi-stemmed and upright to broadly branching with a rounded crown. The leaves are relatively long, narrow, light green above and whitish below with small scattered teeth along the margins. Alternate and deciduous, they fall by late November or early December. While young twigs are yellowish-green in spring, they often become tinged with red by winter. Both the foliage and twigs lack pubescence (short fine hairs). The bark of older limbs and the trunk is mostly smooth and gray. Placer is a male clone and as such, bears only staminate (male) catkins. They emerge in mid-February to March, two weeks before the leaves. This cultivar flowers earlier than other willows released by the Corvallis Plant Materials Center.

Source

The original vegetative material for Placer erect willow was collected in 1978 from a stand near Auburn in Placer Co., California. Placer (9004765, PI 508556) was evaluated in an observational row nursery against 105 sources or clones comprising at least 8 native willow

species. The only clone of erect willow tested, Placer was chosen for its high density of basal stems, good survival under grass and weed competition, male sex, shrubby form, and attractive foliage. Vigorous new shoots develop branches more readily than other willows studied.

Conservation Uses

Placer erect willow is recommended for stabilizing the banks of lower velocity streams, renovating riparian area, and improving shoreline and aquatic habitat for fish and wildlife. Deer 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. Willows growing 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 windbreaks, natural area landscaping, wetland plantings, and screens.

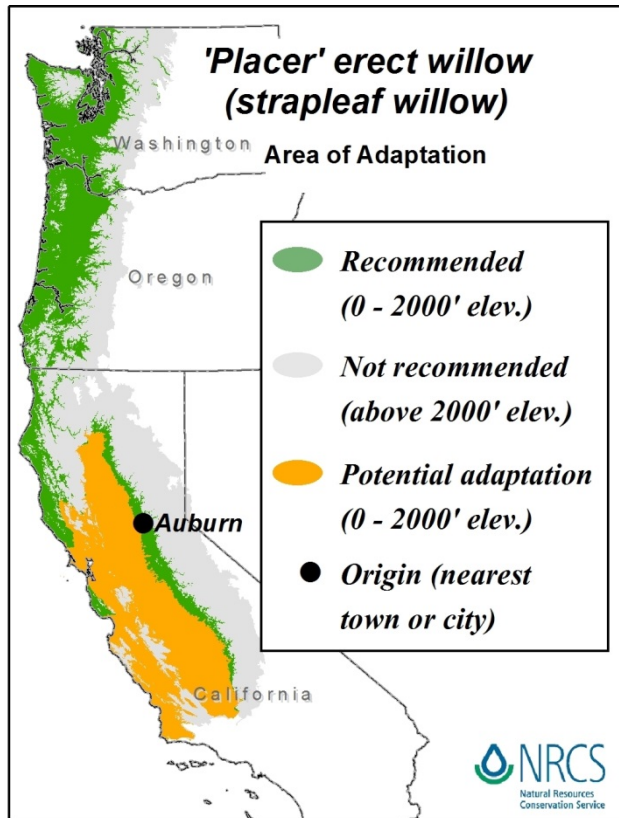
Area of Adaptation and Use

Placer erect 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. The species grows best along streams and in moist meadows with full sun. However, Placer has also performed well on moderately well-drained clay loam upland sites where the average annual precipitation exceeds 35 inches. Area of adaptation and recommended use for this cultivar includes valleys and stream corridors west of the Cascade Mountains in western Oregon and western Washington, as well as northwestern California and the Sierra Nevada Mountains below an elevation of 2,000 ft (see map below).

Establishment and Management for Conservation Plantings

Placer erect 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 'Placer' erect 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 erect 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, Placer erect willow can be subject to certain insect pests such as aphids, scales, willow leaf gall sawfly, and poplar borers, as well as various diseases. A common disease of this cultivar is willow canker. It causes rapid wilting and dieback of new shoots in spring,

but damage is usually temporary as new shoots replace those that are lost. As a male clone, Placer 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 Placer erect 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 Placer erect 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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