

Establishment

Before planting 'Streamco,' grade steep or eroded streambanks. Remove trees from the planting site.

Plant in the early spring, using dormant stock. Do not plant after May. Either fresh, unrooted hardwood cuttings or 1 year old rooted cuttings can be used.

Unrooted cuttings are easier to handle but growth is less reliable. They should be fresh, 3/8 to 1/2 inch in diameter at the thick end, and nine inches long. If cold storage is available, fresh cuttings may be held until mid-spring. Plant cuttings deep enough to leave one to two inches of wood showing above ground.

For rooted cuttings, use a dibble or a planting bar to make the hole wide and deep enough to accommodate the root system when well spread.

For rooted and unrooted cuttings, plant both types vertically. Tamp the soil firmly around the roots or the cuttings to eliminate air pockets. Use a diamond planting pattern with two foot spacing for either cutting type. Plant the first row as close to the toe of the slope as possible.

Newly planted willows are ineffective for erosion control during the first 2 years. To provide initial streambank protection, plant grasses immediately after planting the willows. Use a mixture of tall fescue, red fescue, redtop, and birdsfoot trefoil for seeding. Broadcast seed, cover it lightly, and mulch with two tons of straw per acre or 1,500 pounds of wood fiber mulch. Fertilize with 400-800 pounds per acre of 10-10-10 or comparable.

Where riprap or similar structures are used, plant willows from the edge of the stone material to the top of the bank. Use the same grass-legume mixture on these plantings.

Management

Protecting the waterline as damage occurs is necessary to prevent accelerated erosion.

Re-plant damaged areas using willow cuttings from adjoining shrubs. Larger stems or poles several feet long can be planted with butt ends in the soil to permanent water table depth.

For More Information

Visit our Plant Materials Internet site at <http://Plant-Materials.nrcs.usda.gov> to find more information on solving conservation problems using plants.

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'Streamco' purpleosier willow



An improved
conservation
plant developed by
the Big Flats Plant
Materials Center,
Corning, NY



'Streamco' purpleosier willow

Purpleosier willow (*Salix purpurea* L.) is a native shrub of Europe. It was introduced to colonial America to further the basketmaking trade. It has since naturalized in the eastern United States and southeastern Canada. 'Streamco' purpleosier willow was cooperatively released by the Natural Resources Conservation Service and the New York State Department of Environmental Conservation.

'Streamco' purpleosier willow is used primarily for stabilizing streambanks. It may be used with structures, such as riprap, planted alone, or planted in combination with other shrubs or ground cover plants. It is highly effective in soil bioengineering treatments.

The twigs and buds of 'Streamco' are eaten by ruffed grouse, rabbits, beaver and muskrat. Its use along streams can enhance trout habitat by providing shade which cools the stream during summer.

'Streamco' is very useful in windbreaks or living snowfences and as noise barriers and visual screens. The combination of fast growth and good stem density help it to perform these functions. 'Streamco' can be grown as a hedge where a formal appearance is required.

'Streamco' is too large for use on intermittent or small streams. When grown in combination with good stands of grass, it is equal in resistance to riprap of seven inch medium stone size.

The resilient stems of 'Streamco' enable it to bend during rapid flows and recover erectness quickly. When streams carry large ice flows, the bent 'Streamco' stems help prevent damage to ground cover and gouging of the streambank. Ice will damage the 'Streamco' stems but they will resprout in the next growing season.

'Streamco' willow stems can be grown to specification for various conservation uses.



Description

'Streamco' purpleosier willow is a medium to tall shrub. Branches are smooth, slender, tough and resilient. They are purple when young but change to gray or olive-gray. Catkins are small and mature before the leaves bud out. Leaves are two to four inches long, smooth, and tongue-shaped with tips finely toothed. They grow in subopposite pairs. Leaf surfaces are blue-green above and pale below.

Purpleosier sprouts profusely from the base of the plant. It can spread by layering from the branches if they come in contact with moist soil, but the upright growth prevents significant spread. Growth is rapid, two to four feet in 2 years, and most of its mature height of 10 to 20 feet is reached in about 5 to 7 years.

'Streamco' is a male clone and does not produce root suckers. It does not pose a danger of spreading.

Pests

'Streamco' is susceptible to willow blight, and can be killed by the fungi which cause it. 'Streamco' is also attacked by gypsy moths, though the damage is not severe on well established plants.

Livestock will severely damage plantings of 'Streamco' with grazing and trampling. Streambanks must be protected from grazing for 'Streamco' plantings to be successful.



Adaptation

'Streamco' is adapted wherever purpleosier willow is found naturalized in the United States and Canada. It grows in medium fertility, slightly acid, clayey, loamy or sandy soils, has some drought tolerance, good shade tolerance, and tolerates poorly drained soils.

Area of Adaptation of 'Streamco'

