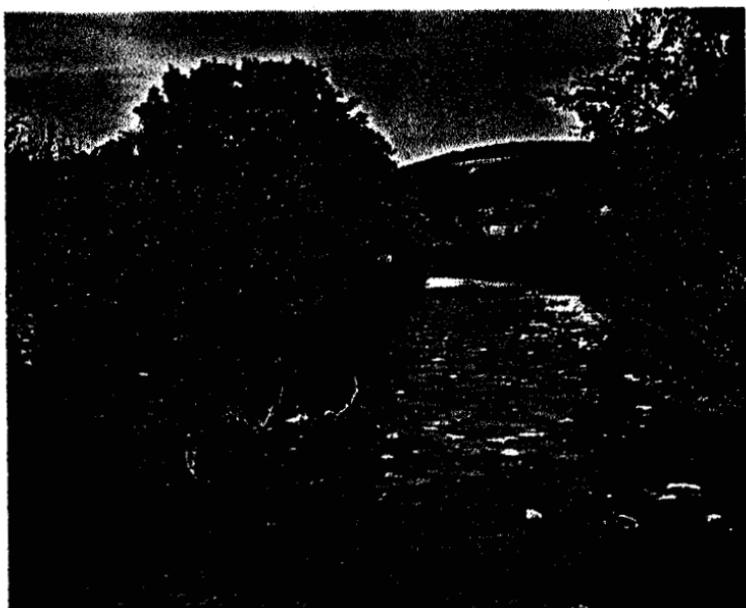


# 'Streamco' Purpleosier Willow



Excellent Plant for Protecting Streambanks

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Soil Conservation Service  
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### '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 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.

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 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. It is useful in combination with structural measures only on curves of large streams and rivers.

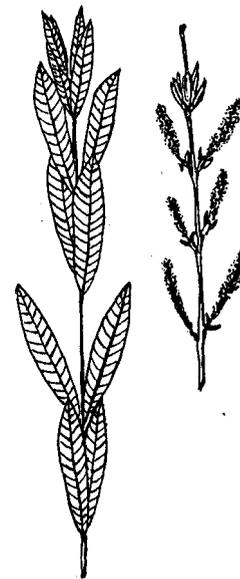
The resilient stems of Streamco enable it to bend during rapid flows and recover erectness quickly. When streams carry large ice floes, the bent Streamco stems help prevent damage to ground cover and gouging of the streambank.

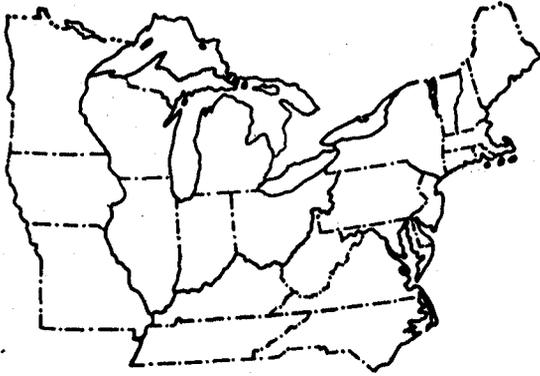
### Description

Streamco is a cultivar of purpleosier willow selected by the Soil Conservation Service. It has been evaluated in the northeast since 1943.

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 suckers profusely from the base of the plant. It can spread by layering from the branches if they come in contact with moist soil. Growth is rapid, two to four feet in two years, and most of its mature height of 10 to 20 feet is reached in about five to seven years.





### Adaptation

The climatic zone of adaptation of Streamco is shown on the map above. Streamco is probably 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 poor drought tolerance, good shade tolerance, and tolerates poorly drained soils.

### Establishment

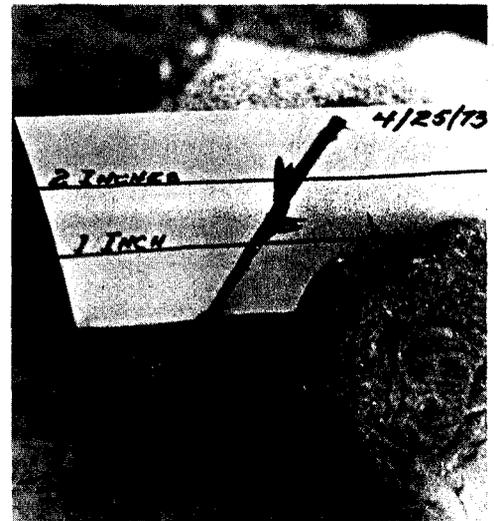
Before planting Streamco, grade steep or eroded streambanks. Remove trees from the planting site.

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

**Unrooted cuttings:** Unrooted cuttings are easier to handle but growth success is less reliable. They should be fresh,  $\frac{3}{8}$  to  $\frac{1}{2}$  inch in diameter at the thick end, and nine inches long. If cold storage is available, fresh cuttings may be held until midspring. Plant cuttings deep enough to leave one to two inches of wood showing above ground.

**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.

**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.



b) Cuttings should extend 1-2 inches above



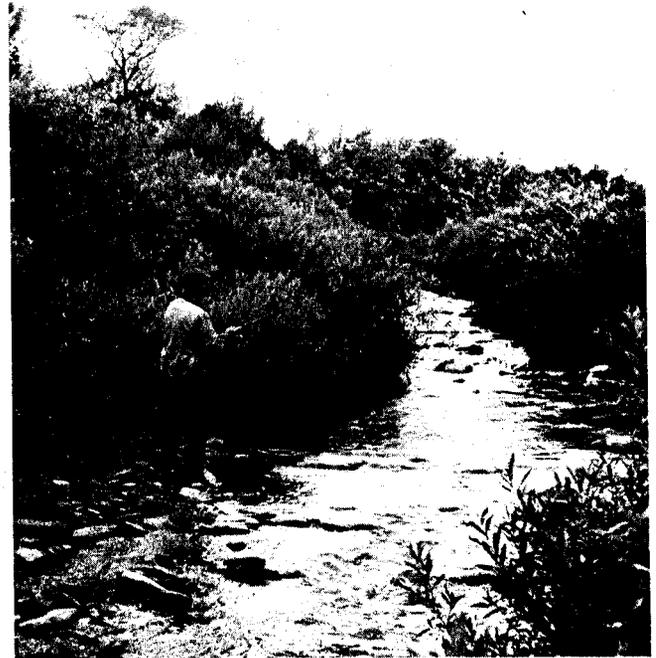
a) Plant Streamco close to waterline

Use with grass: Newly planted willows are ineffective for erosion control during the first two years. To provide initial streambank protection, plant grasses immediately after planting the willows.

Use a mixture of tall fescue, red fescue, red-top, 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.

c) Streamco improves fish habitat



ground

## Management

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

Replant damaged areas using willow cuttings from adjoining shrubs. Larger stems or poles several feet long can be planted with butt in soil beneath water and stem laying up the bank.

Keep riprap and bulkheads in good condition. Interseed grasses and legumes for short term erosion control. Fencing will prevent damage from livestock.

## Availability

Nurserymen may obtain propagating material from the Big Flats Plant Material Center (c/o **SCS**, Box **295**, Big Flats, New York 14814) to start their cutting blocks for commercial production. All production of Streamco is by vegetative means.

SCS field offices maintain a list of sources for planting stock. Persons interested in locating a commercial nursery selling Streamco should contact their local **SCS** representative. The SCS office is listed in the telephone directory under **U.S.** Government, Agriculture, Soil Conservation Service. Assistance is available without regard to race, creed, color, sex, or national origin.