

A Conservation Plant Released by the Natural Resources Conservation Service  
Big Flats Plant Materials Center, Big Flats, New York

# 'Streamco'

## Purpleosier willow

*Salix purpurea L.*



*Streamco branch and leaves. Photo taken at the USDA NRCS Big Flats Plant Materials Center.*

Streamco (*Salix purpurea L.*) is a cultivar released in 1976, in cooperation with the New York State Department of Environmental Conservation. It was selected because of its resilience and superior performance in streambank stabilization practices.

### Description

Streamco is an introduced shrub from Europe. The young, purplish branches are smooth, slender, and tough enabling the shrub to withstand floods and heavy ice floes. Its leaves are 4 inches long, smooth, tongue-shaped, finely toothed near the tip, bluish green above and pale below. The catkins are small and mature before the leaves bud out in the spring. It grows rapidly, reaching 2 to 5 feet in two years, and in 5 years can reach heights of up to 25 feet.

Streamco sprouts profusely from the base of the plant. It can spread by layering from the branches if they encounter moist soil, but the upright growth prevents significant spread. **Streamco is a male clone and does not produce root suckers.** It does not pose a danger of spreading.

### Source

Streamco was selected from a naturalized stand in Schuyler County near Montour Falls, New York and was given the accession number NY-2178. A total of 8 purple osier willow accessions were evaluated at Big Flats, and NY-2178 rated equal or superior on characteristics important for streambank plantings, such as stem density

near its base, root biomass, stem resiliency, ease of establishment, and rapid growth during the first three years.

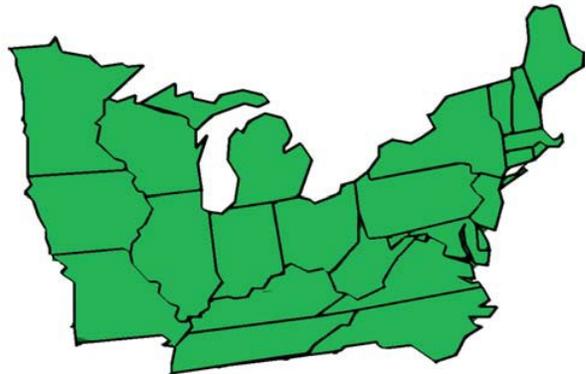
### Conservation Uses

Streamco 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.

Streamco is also valuable for wildlife. Many plantings have enhanced trout habitat by providing shade to cool streams during the summer. The twigs and buds of Streamco are eaten by ruffed grouse, rabbits, beaver and muskrat.

Streamco is also used for windbreaks, living snow fences, noise barriers, visual screens and odor abatement in front of exhaust fans. Streamco can be grown as a hedge where required. When grown in combination with established stands of grass, it is equal in resistance to riprap of 7-inch medium stone size.

### Area of Adaptation and Use



*Area of adaptation and use of Streamco purpleosier willow.*

### Establishment and Management for Conservation Plantings

Streamco establishes easy and quickly compared to other species when planted early. Eroded or steep streambanks should be graded before planting. Streamco performs best when planted in the early spring with dormant planting stock. A planting after May 1<sup>st</sup> will reduce successful establishment and survival, especially in lower rainfall years.

Streamco rooted or un-rooted cuttings are stuck vertically into the bank on 2' x 2' spacing. Survival is generally better with rooted cuttings, but unrooted cuttings are also used successfully. After planting, it is desirable to seed a grass-legume mixture and mulch to provide soil protection until the willows are large enough to protect

the bank. On slopes subject to strong currents, it is necessary to combine structural measures with the willow planting for adequate erosion control. Most planting failure occurs when this is not done.

On large scale engineering practices, if rip rapped, Streamco should be planted immediately above to the top of the bank. Brush matting or other coarse plant material mulch, tacked down after planting, is effective for temporary erosion control.

#### *Management:*

Streamco used on streambanks is subject to mechanical damage. The site should be inspected annually for needed repairs, in the spring, after heavy runoff or ice floes. Gaps need to be filled in by replanting or laying down and covering branches of nearby plants. Small plants of Streamco can be washed away if not protected on the outside of the stream curve.

#### **Ecological Considerations**

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 plantings to be successful.

#### **Seed and Plant Production**

Plant Streamco in the early spring, using dormant stock. Do not plant after May. Either fresh, uprooted 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 and 9 inches long. If cold storage is available, fresh cuttings may be held until planting. Plant cuttings deep enough to leave 1 to 2 inches of wood showing above the ground surface. For rooted cuttings, use a dibble or a planting bar to make a 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.

#### **Availability**

Streamco cutting material for streambank stabilization is routinely available from commercial nurseries.

*For plant increase:* Vegetative foundation material of Streamco is maintained by the USDA NRCS Big Flats Plant Materials Center, near Corning, New York.

*For more information, contact:*  
USDA NRCS Big Flats Plant Materials  
Center  
3266 State Route 352  
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Or  
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#### **Citation**

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