

4 Life at the Water's Edge

Plant Live Stakes to Stabilize Your Stream!

four in a series of six fact sheets on stream management

Streambanks without trees and shrubs on the land neighboring the stream (riparian area) are not as effective in the erosion battle. One of the easiest and most inexpensive methods of stabilizing streambanks is the use of live, but dormant, unrooted stakes (no buds, leaves, or visible roots).

The following shrub species develop a dense, fibrous root system that helps hold soil in place.

Redosier Dogwood
Cornus stolonifera

Grey Stem Dogwood
Cornus racemosa

Silky Dogwood
Cornus amomum

Green Twig/Round-leaved Dogwood
Cornus rugosa

Sandbar Willow
Salix interior

Pussy Willow
Salix discolor

Black Willow
Salix nigra

Buttonbush
Cephalanthus occidentalis

Black Elderberry
Sambucus nigra

Common Ninebark
Physocarpus opulifolius



Live Stake Bundles



Live Stakes at a restoration project.

After 3 years, these plants can be used as a source of cuttings for additional streambank planting projects!

Avoid planting large, heavy tree species directly on the streambank. They can eventually get so heavy that they cave in the streambank, blocking stream flow and contributing to local flooding problems. If you already have an erosion problem and large trees are in danger of caving in the streambank, consider cutting down the tree. ALWAYS leave the existing stump in the streambank and dispose of the tree remains properly (that means not in the stream channel or the floodplain!).

Frequently Asked Questions

What do these shrub species look like?

Dormant shrub cuttings are usually between 1-3 feet in length and about 1/2 inch in diameter.

How much do they cost?

Live stakes typically cost \$1 to \$2 each and may be less expensive when bought in bulk.

Where do I get them?

Many of these shrubs are available through mail-order suppliers. If you already have some of the mature shrub species listed here, you can use them as a source of new cuttings!

How big will they get?

Shrubs like these will have trunks 1.5-2 inches in diameter, and will reach a height of 6-18 feet, but they can be pruned to maintain a smaller size.

When do I plant them?

The best time to plant live stakes is when the plants are dormant between early December and mid-April, when soils are unfrozen and workable.



Dormant Live Stake Installation

After Establishment

How do I plant them?

1. Create pilot holes on the streambank using rebar and a fence post driver. Spacing should be 2-3 feet apart. Insert the stakes pointed end down so at least 1/2 to 2/3 of the stake is in the soil.
2. Backfill around the stake with soil, and pack the soil tightly. Always insert the cutting with the buds pointing up toward the sky!
3. Water as necessary, until well established.
4. Avoid planting them in the active stream channel where they'll be washed away

While vegetated riparian areas go a long way to controlling flooding and erosion, your erosion problem may require a more "engineered" solution. If your streambanks are eroding and a structure is threatened, contact your community or Cuyahoga SWCD.



Backyard

Habitat

Improvement

Ideas

Native Plants for Wildlife

Our native wildlife populations, including birds, butterflies and insects, have evolved using native plants as their primary food and nectar sources. Plant a variety of native plants that provide shelter and food sources throughout the year. Some suggestions include:

Trees: Apple, Black cherry, Crabapple, Hawthorn, Hickory, Oak, Balsam fir, Eastern white pine

Shrubs: Dogwood, Elderberry, Holly, Ninebark, Pyracantha, Serviceberry, Spicebush, Sumac, Viburnum, Willow

Vines: American bittersweet, Virginia creeper, Wild grape



Nectar plants for hummingbirds, butterflies, and bees:

Aster, Azalea, Bee balm, Black-eyed susan, Cardinal flower, Clover, Columbine, Lobelia, Lupine, Milkweed, Perennial phlox, Purple coneflower

More Native Plant Resources:

<https://www.cuyahogawcd.org/programs/rain-gardens-and-native-plants>

Acting today to maintain the Watershed

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