

TIMELY INFORMATION

Agriculture & Natural Resources

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Backyard Stream Protection – Live Staking

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Typical erosion along stream bend, Auburn, Alabama.

Streambank erosion and the accompanying loss of land along streams is a common problem among streams in Alabama. Techniques to address the erosion may range from simple and low-cost to technical and expensive and depend on the severity of the problem.

Replanting native vegetation along streams can go a long way in minimizing erosion and improving the health of local streams. Plant roots hold soil in place which reduces erosion, leaves shade the stream helping to keep water cool, and plants take up nutrients from stormwater that otherwise may pollute waterways.

Live staking is an inexpensive and effective technique to establish native vegetation along streams. Live stakes are branches that are clipped from trees or shrubs during the dormant (leaf off, winter) season. Like other plants, live stakes need water, sunlight, and nutrients to survive. Be sure to match shade or sun loving species to the conditions at the stream.

Species that live stake well include:

- Silky dogwood (*Cornus amomum*) - full sun to part sun, some shade
- Silky willow (*Salix sericea*) - full sun to shade
- Black willow (*Salix nigra*) - sun loving, partial shade
- Virginia sweetspire (*Itea virginica*) - full sun to shade
- Viburnum (*Viburnum spp.*) – part sun to part shade

Harvesting live stakes:

- Harvest stakes (branches) in the dormant season
- Select stakes that are 0.5 – 2 inches in diameter (at least as big as your thumb)
- Stakes should be 2 – 3 feet long, single stem (side branches trimmed)
- Cut top of stake level and trim the bottom of the stake at an angle. This helps to differentiate top from bottom so that stakes are planted with buds oriented upward and eases installation into the streambank.



Planting live stakes:

- Drive 2/3 of the live stake into the streambank with a rubber hammer. At least 2 buds should be above the ground.
- Install stake at a right angle to the streambank. If the soil is too hard for the live stake to be installed without splitting it, use rebar to make a pilot hole.
- Stakes should be installed at the water's edge or just above it where it will be moist in the growing season.
- Place stakes 2 – 4 feet apart, triangle spacing.
- For best results, don't let the live stakes dry out. Plant them the same day they are harvested or keep them cool and soaking in a bucket of water for no more than 2 days.



Leaves sprout from silky dogwood live stake.

When installed at the correct time of year in the right location along the streambank, live stakes will put out roots and sprout leaves that help protect the streambank in the first growing season. However, not all of the stakes may survive. Fortunately, you can use cuttings from the successfully established live stakes during the next dormant season to fill in any gaps along the stream.

For more information on Alabama streamside vegetation visit:

www.aces.edu/waterquality/streams/general.htm#veg