



Department of
Environmental
Conservation



Trees for Tribs

Site Maintenance Guide for Streamside Plantings



Site Maintenance

Maintenance of your Trees for Tribes site helps assure the long-term success of your plants and the overall strength of your new stream buffer. This guide provides step-by-step instructions for maintenance of your Trees for Tribes site. Plan to visit your site at least twice a year and also after major storms or extended dry periods.



Planted in
spring 2008

The same site
in spring 2012



A planting site after four years' growth.
The circle highlights the same tree.

Survey Your Site

Before leaving for your site, some things you may want to bring with you are listed below:

- Gloves
- Hammer
- Camera
- Ruler
- Bucket or watering device
- Extra tree tubes, zip ties and stakes (if available)

At Your Site

- Look over the whole site.
- Take pictures, capturing the entire site and any concerns.
- Fix any leaning or broken tubes (see page 5).
- Clean and straighten weed mats (see page 5).
- Assess the health of the plants (see page 7).



Tree Tubes

Tree tubes require regular maintenance. They help young trees grow and increase their chance of reaching maturity.

Generally the tree tube should stay on the tree for a few years. When your tree is large enough, remove the tree tube to allow the tree to grow unrestricted.

Is the tube ready to be removed?



The tube should not be removed until the tree is taller than the tube and the trunk diameter is at least $1\frac{1}{2}$ inches. Measure the diameter of the trunk at approximately six inches above the base.

- If the diameter is more than $1\frac{1}{2}$ inches, carefully remove the tube.
 - ▶ If a metal tag is attached to the tube, move the tag to a branch so that it stays with the tree.
 - ▶ If tubes and stakes are in good shape, please return them to the Trees for Tribes program, which will reuse them.
- If the diameter is less than $1\frac{1}{2}$ inches, leave the tube on and follow the tube maintenance guide on page 5.



Measure the tree's diameter six inches from the ground.

This tree is more than 1½ inches across (diameter) and no longer needs a tube.



Tube and Mat Maintenance

Clean and Straighten Your Tubes

- Before cleaning tube, tap to see if bees or wasps are present. Remove debris inside the tree tube. This may include leaf litter, weeds, and animal or wasp nests.
- Straighten leaning stakes and hammer them firmly into the ground.
- Replace broken or missing tubes and stakes.
- Securely attach the tree tube to the stake.
- Press tree tubes flush to the ground.

Weed Mats

Clean debris off mats and tighten staples that have come loose. Mats are designed to decay and do not need to be replaced after they have broken down.



Clean debris
off weed mats.



Tighten loose staples.



1. Clean all debris out of tubes.



2. Straighten tubes and stakes that have fallen or are leaning.



3. Hammer loose and leaning stakes firmly into the ground.



4. Press tubes flush to the ground.

Assess the Health of Your Plants

Look at all of your trees and shrubs to see how they're doing. If you find any of the following, you may need to take the recommended actions:

Wilted Leaves

- ▶ This could be a sign of dry soil. To check, dig 3-4 inches into the soil. If it feels dry, water your site at least once every 10-14 days. Generally each plant needs 2-3 gallons of water.

Bark Damage

- ▶ If tree tubes are still on, there may be mold damage from debris left inside. Be sure all debris is removed from the tubes.
- ▶ Once tree tubes have been removed, trees become susceptible to new dangers, including buck rub, beaver damage, and mower damage.

- **Protection from deer**

- ◆ <http://www.gardeningknowhow.com/plant-problems/pests/deer/how-to-protect-trees-from-deer.htm>

- **Techniques for Controlling Nuisance Beaver**

- ◆ www.dec.ny.gov/animals/6992.html

Mowing can easily injure or kill young trees and shrubs. Stream buffers are more effective when native flowers and grasses are allowed to grow around the trees and shrubs.



Assess the Health of Your Plants

Branch Ends are Missing Leaves or have Shredded Leaves

▶ This may be a sign of deer or rabbit browse. Make sure that tree tubes are correctly installed. If shrubs have significant damage, consider installing a fence or other form of protection. Some options are described in these resources:

- www.gardening.cornell.edu/factsheets/deerdef/
- www2.dnr.cornell.edu/ext/info/pubs/Wildlife/reducing%20deer%20damage.pdf

Discolored Leaves, Unusual Growth

▶ This may be a symptom of disease or insects. If problems are widespread, determine the cause to find out whether action is required. Many resources are available online to help diagnose problems, including these useful sites:

- www.treesaregood.com/treecare/resources/InsectAndDisease.pdf
- <https://www.americanforests.org/discover-forests/tree-care-questions/#care>

Other Tree and Shrub Problems

▶ Cornell Cooperative Extension office might be able to help with tree and shrub problems. Find your local office at the link below:

- www.cce.cornell.edu/learnAbout/Pages/Local_Offices.aspx

Identify and Remove Weeds

Look for shrubs or vines growing at the site that were not intentionally planted. Some of these plants may be welcome additions from local native sources. But if invasive plants are crowding out your Trees for Tribes plants, remove them using the recommended removal techniques provided in the resources below. This will help ensure that your plants become established, grow faster, and create a more effective stream buffer.

- Identify any invasive plants. Many resources are available to help with identification, such as New York Invasive Species Information: www.nyis.info/
- If you identify any invasive plants, find recommendations for their control or removal from the Plant Conservation Alliance's Alien Plant Working Group: www.nps.gov/plants/alien/factmain.htm



photo credit: Karin Verschoor

Multi-flora rose, a common invasive plant

Post-Storm Events

A major storm with heavy wind and flooding can knock down plants and tubes or wash them out of the ground.

- Following a storm, check your site as soon as possible once conditions are safe.
- If plants have been washed out of the soil, try to replant them before their roots dry out. Be sure to compact the soil around the roots to ensure there are no air pockets below the surface.
- Replace and straighten any tubes and stakes that have been washed away or that have fallen over.
- Clear off and straighten any remaining mats.



Be sure to straighten plants and cover all roots with soil when replanting after a storm.

Thank You!

The maintenance work that you do at your site helps to assure the health of your plants and the successful establishment of a healthy stream buffer.

Please send photos and updates on the condition of your site to Trees for Tribs staff.



Trees for Tribs engages volunteers in replanting New York's streams. Thank you for helping us!

Trees for Tribs

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