



St. Croix Hazard Tree Assessment Progress Report - Feb. 2011

Plantable Roadsides and Planting Methods



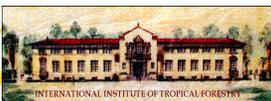
Roadsides Assessed	Trees Assessed	Poles Mapped	Culverts	Project Completed
320 km	2,814	1,295	96	65%

Geographic Consulting continues to inventory the trees on both sides of St. Croix’s major roads. We are collecting data on the health of existing trees, and are also surveying sites without trees where saplings could be planted in the future. Thus far we have identified 109 km (68 miles) of plantable areas, such as the area in the photo to the right,



which appear green in the map.

To be considered **“plantable”**, an area must have sufficient space to plant the tree 15—20 feet from the road edge and for the tree to grow to adult size. For roadside trees, it is especially important to put THE RIGHT TREE IN THE RIGHT PLACE. When a large tree like a mahogany is planted directly under a utility line there are only a few possible outcomes; frequent power outages or severely pruned ugly trees like the one in the photo to the left.



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A Tree Planting Guide for the U.S. Virgin Islands

To successfully plant and establish a healthy tree the tree planter must consider the trees' needs. Different tree species have different requirements and a healthy tree depends on receiving the proper amount of sun and water, as well as having appropriate soil conditions. This guide will help you put THE RIGHT TREE IN THE RIGHT PLACE and give you the "how to" of planting healthy trees.

When Timing tree planting projects to coincide with the rainy season is a great way to save time and ensure the sensitive young plants get enough water. In the Virgin Islands the best planting time is between August and October if you are planting a large number of trees far from a water source.

Where Putting the RIGHT TREE IN THE RIGHT PLACE requires a simple plan and some basic knowledge of the site and the trees being planted there. Here are a few questions to answer before planting:

Height. What is the tree's adult height? Is there enough room for the tree to grow without bumping into power lines or threatening a building. Don't plan on planting large trees and pruning them every year, it is expensive and a waste of time. Plant small trees near power lines and buildings and large trees in open areas.

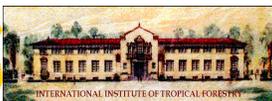
Canopy. How wide does the tree get? Trees such as flamboyant, ficus and saman only grow to a medium height, but have large spreading canopies.

Roots. Trees absorb all of the moisture that they need to survive from their roots, and most of these roots are very close to the soil surface. Ideally, trees should have 15 feet of space in every direction that is free of concrete. Paving kills tree roots and roots can break sidewalks and roads. The best plan is to keep roots and concrete separated.

Moisture. What is the rainfall on site? The east ends of the Virgin Islands tend to be drier than the west ends. Royal palm and Locust thrive in wet sites. Divi, turpentine, and fiddlewood do well in dry areas while lignum-vitae, frangipani and others grow well even during extreme drought.

Soil. The Virgin Islands has several soil types, such as rotten rock, white caliche soil and sandy coastal. Certain tree species perform well in some and cannot tolerate others. Mango and guavaberry, for example, will not tolerate caliche soil, but guavaberry will excel in very rocky, seemingly low-quality soil. Coastal plants such as sea grape and coco plum thrive in sandy, salty coastal soils that other plants could not tolerate.

Consider planting native trees. Native trees are adapted to all climatic and soil conditions in the Virgin Islands. No matter how rocky, dry, salty or wet your site is, there is a native tree adapted to those conditions. They are also adapted to resist local pests and support native wildlife.



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How to Plant a Healthy Tree

Start by choosing the **RIGHT TREE FOR THE RIGHT PLACE**. Make sure your tree has enough room to grow to its adult height and **DON'T FORGET TO LOOK UP**. You need to know the adult size of the tree you are planting and make sure it will not grow into utility lines, buildings or roads. At least 15 feet of space is needed for small trees and more for larger trees

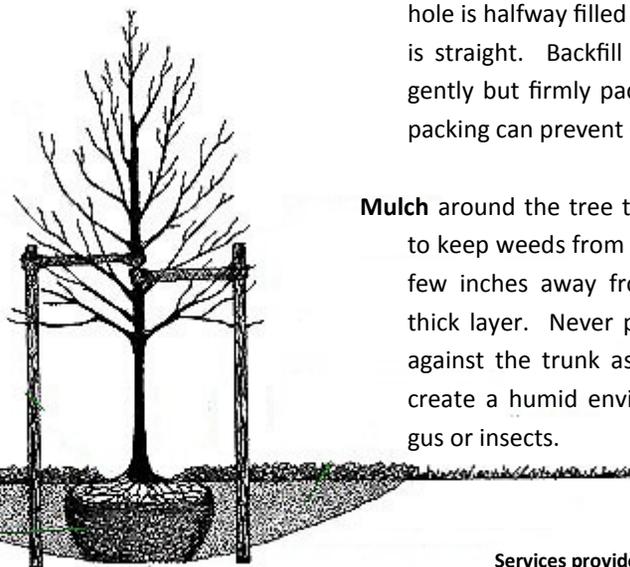
Dig a wide shallow hole about the same depth as the pot and roughly **three times the diameter** of your container, pot or root ball. It is important to dig a wide hole, not a deep one.



Remove the container, plastic, burlap or wire from around the tree's roots. These things only impede growth after planting. With your fingers, gently pull apart any coiled or 'potbound' roots. This is important to ensure the roots spread and grow into the large hole you created.

Identify the trunk flare, which is where the roots begin to spread out from the base of the tree. This point on the trunk should still be partially visible after the tree is planted. Never bury the trunk flare of a tree as you would with herbs or vegetables.

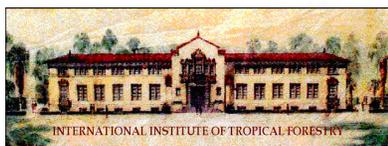
Place the tree in the hole at the proper height. The roots should be spread out in the hole and the trunk flare should be at approximately the same depth as the surrounding ground.



Staking the tree is not always necessary, but is recommended for roadside and urban planting. The ties should be tight enough so they do not rub the trunk and loose enough for the tree to flex in the wind. Staking is only for initially establishing the tree and should be removed after one year.

Backfill the hole using the soil you dug from the hole mixed in with any compost. When the hole is halfway filled in make sure the tree trunk is straight. Backfill the rest of the hole, then gently but firmly pack the soil in place. Over-packing can prevent water reaching the roots.

Mulch around the tree to help retain moisture and to keep weeds from growing. Keep the mulch a few inches away from the trunk and apply a thick layer. Never pile mulch, soil or rocks up against the trunk as it can cause damage and create a humid environment for bacteria, fungus or insects.



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