

# Mature Tree Pruning

Urban Horticulture

[www.pinellascountyextension.org](http://www.pinellascountyextension.org)

Compiled by Theresa Badurek, UF/IFAS Extension, Pinellas County



**Mature trees** provide many valuable services in the landscape. They provide habitat for wildlife, a cool place to rest outside on a hot day, and can even lower energy bills when planted to shade the building. Mature trees also increase the value of your property, which means proper care of your trees is really an investment in your investment! So, how do you make sure they are well-cared for? Below are some great resources on proper pruning of mature trees. If you hire someone to do the work for you, be sure to hire an ISA (International Society of Arboriculture) certified arborist. To find one in your area visit:

<http://www.treesaregood.com/findtreeservices/FindTreeCareService.aspx>

## Websites:

Pruning Shade Trees in Landscapes: <http://hort.ufl.edu/woody/pruning.shtml>

Tree Structure Basics: <http://hort.ufl.edu/woody/tree-structure-main.shtml>

Trees and Hurricanes, Preventing Problems:

[http://hort.ufl.edu/treesandhurricanes/preventing\\_problems.shtml](http://hort.ufl.edu/treesandhurricanes/preventing_problems.shtml)

## Fact Sheets:

*Developing a Preventive Pruning Program in Your Community:*

[http://hort.ufl.edu/woody/documents/ch\\_13\\_mw06.pdf](http://hort.ufl.edu/woody/documents/ch_13_mw06.pdf)

*Pruning Cuts:* <http://www.ext.colostate.edu/mg/gardennotes/612.html>

*Assessing Damage and Restoring Trees After a Hurricane:* <http://edis.ifas.ufl.edu/pdf/EP/EP29100.pdf>  
(**Opposite page** is a selection from this fact sheet.)

## ISA Brochure:

*Pruning Mature Trees:* [http://www.treesaregood.com/treecare/pruning\\_mature.aspx](http://www.treesaregood.com/treecare/pruning_mature.aspx)

# Preventive Pruning

## Strong Structure Can Reduce Damage

The urban forest is much different from a natural forest. Trees often develop a form that is more susceptible to breakage when growing in urban environments. As a result, trees need preventive pruning to develop strong structure. Research and observation show that well pruned trees can create a more wind resistant urban forest. Listed below are the key components of strong structure.



Codominant stems are weakly attached, and more likely to split from the tree in strong winds.

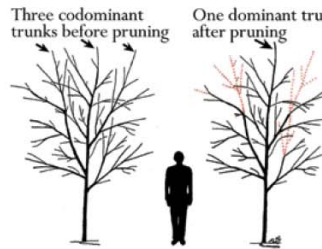
### One dominant trunk

Trees with branches less than  $\frac{1}{2}$  the trunk diameter have one dominant trunk. A tree with two or more trunks is said to have codominant stems, or stems of equal size originating from the same point on the tree. This form is weak.

## How to Build Strong Structure

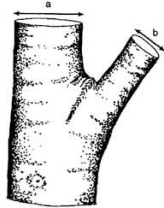
Pruning to create stronger tree structure is an ongoing process known as *structural pruning*. The drawings below show how to achieve each principle of strong structure through making proper reduction and removal cuts. Refer to *Restoration Pruning* (page 6) to learn more about how to make good reduction and removal pruning cuts.

### Pruning young trees



Develop one dominant trunk by shortening competing branches with reduction cuts. When performed regularly, this makes trees stronger by allowing the main trunk to grow larger than branches.

### Strong branch unions

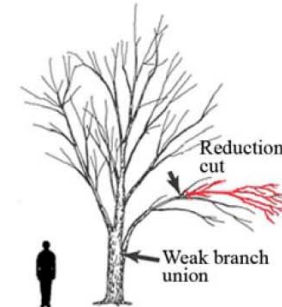


Strong attachments form when the union of the trunk and branch is u-shaped.



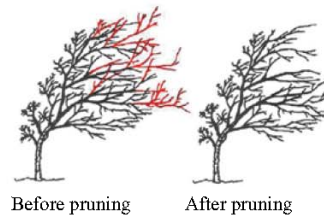
Weak attachments are indicated by a v-shaped union.

### Pruning mature trees

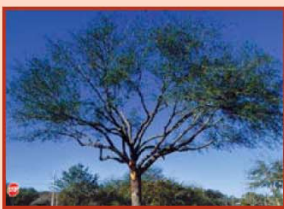


To minimize the likelihood of tree damage:

Reduce the length of limbs with a weak attachment to the trunk. Also, reduce limbs that are more than  $\frac{1}{2}$  the diameter of the main trunk or extended beyond the main canopy.



Balance the canopy by reducing the length of limbs on the side where weight is concentrated. Do not remove interior branches, as this concentrates foliage at the tips of branches and causes them to break in strong winds.



Trees pruned in this manner result in unbalanced canopies that break in storms.

### Balanced canopy

The canopy of the tree should be evenly distributed. When only interior branches are removed the tree becomes unbalanced because foliage is concentrated at the tips of branches. This form is more susceptible to breakage and difficult to restore.

## Decay resistant trees

Trees that resist decay are likely to recover well after a hurricane. Decay-prone trees can become a risk when severely damaged.



### Trees that resist decay

Buttonwood, *Conocarpus erectus*  
Live oak, *Quercus virginiana*  
Mahogany, *Swietenia mahogani*  
Tamarind, *Lysiloma latisiliquum*  
Winged elm, *Ulmus alata*

### Trees prone to decay

African tuliptree, *Spathodea campanulata*  
Hong-Kong orchid, *Bauhinia blakeana*  
Laurel oak, *Quercus laurifolia*  
Redbay, *Persea borbonia*  
Red maple, *Acer rubrum*