



Pruning To Develop A Strong Tree

By Jane Morse, University of Florida/IFAS Extension Agent for Pinellas County

Tree structure and proper pruning make a difference in the survival of trees during storms and hurricanes and in their general health and appearance.

The most wind-resistant form for a tree is one with a central strong trunk and a well-spaced framework of branches around and up and down the trunk. Branches that have an angle of 45 to 90 degrees from the trunk are well attached, whereas those with an angle of 40 degrees or less are not well attached and more likely to break off. The tree below has good structure.



A wind-resistant tree is one that has been regularly pruned to develop one strong trunk with well spaced lateral (side) branches. All the lateral branches should be less than $\frac{1}{2}$ the size of the trunk diameter, and the tree should have only one main trunk growing straight up.

Trees that have been topped or trimmed to make them bushy are more likely to rip apart during storms. Trees that have had large branches removed are more prone to wind damage because large pruning cuts can allow rotting organisms to enter the tree and cause decay into the branch and trunk.

Trees that are "lion tailed" where most of the inner branches have been removed leaving only canopy at the ends of branches are more likely to fail in storms. Trees that have co-dominant trunks (2 trunks or more the same size) are more likely to split down the middle.

All the pictures below show trees more likely to fail in a storm because of their poor structure – all caused by improper pruning (lion-tailing, co-dominant stems) or mutilation (topping). A suggested minimum pruning schedule would be to prune at planting, again at 2 or 3 years, 5 or six years, 8 to 10 years and 13-15 years. This schedule will vary depending on the structure of the tree initially and how well the tree species can compartmentalize rot. When choosing new trees look for a single trunked tree with good lateral branching.



If you want to do your own pruning or want to learn more please see

Dr. Ed Gilman's web page on pruning cuts at: <http://hort.ufl.edu/woddy/pruningcuts.html> and his fact sheets on trees and hurricanes at: <http://treesandhurricanes.ifas.ufl.edu> or call the Pinellas County Extension Service for

more information at 582-2110 Monday, Tuesday or Thursday from 9AM-noon and 1-4 PM or visit the office M-F, 8-5 PM at 12520 Ulmerton Road, Largo or visit the Extension website at <http://www.pinellascountyextension.org>

Anytime you have to climb, use a rope, or a chainsaw consider hiring a professional. Tree work is dangerous and homeowners can be seriously injured trying to do their own tree work.

When hiring someone else to do your tree pruning be sure to ask these questions:

1. *Are you insured for property damage, personal liability, and worker's compensation?* You can be held responsible for medical bills and lost wages for injured workers if you hire an uninsured company. Ask to see it in writing.
2. *Are you certified by the International Society of Arboriculture (ISA) and will you personally be pruning the tree?* Being certified requires professional experience and knowledge of the best techniques in the industry. Just as with any profession, some are much better than others at their job (ask to see their prior work). Make sure either they personally do the work or are on-site supervising their workers.
3. *What are the ANSI Z133.1 and ANSI A300 guidelines?* The American National Standards Institute (ANSI) prints these two guidelines, with which all tree care professionals should be familiar. ANSI Z133.1 represents safety standards for tree care operations in the United States. ANSI A300 represents the best management practices in the industry for pruning and other tree care operations.
4. *What are the procedures involved, equipment used, price, and time frame?* Get more than one written estimate. Keep in mind that specialized equipment, qualified skills, and insurance will cost more. Good tree work is worth the additional investment. Poor work can ruin a tree and cost more in the long run.

Remember that a healthy tree can save you money by keeping your house cool. Trees improve air quality and benefit your health. They reduce flooding and erosion and help to lessen hurricane force winds (especially when grouped together). Trees can also increase the value of your property. So take good care of your trees and make sure they are properly cared for. If a tree is removed, plant another one to take its place.

Information for this article came from: *How to Minimize Wind Damage in the South Florida Landscape* by Timothy K. Broschat and Derek Burch; *Get the Right Tree Care Professional* by Eliana Kamph, Astrid Delgado and Mary Duryea; *Developing a Preventive Pruning Program: Young Trees* by Edward Gilman and Amanda Bisson.

Pictures of co-dominant stems and tree topping were from Dr. Gilman; Pictures of good structure and lion-tailing were by Jane Morse.

November 10, 2008

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