Avoiding Bad Pruning Practices

The Hillsborough County Land Development Code (LDC) regulates tree pruning, removal permitting, and replacement. The LDC Section 4.1.6.1.8 (Natural Resources) of the Development Review Procedures Manual (DRPM) states the standard to be utilized for all tree pruning activities is compliance with the American National Standards Institute (ANSI) A 300 Pruning Standards. Failure to comply with the ANSI A 300 Pruning Standards may result in prosecution under the LDC for effective tree removal unless a tree removal permit has been obtained and is valid.

ANSI A 300: Outlines how much to prune in order to preserve energy reserves (starch, sugars, and oils) that are stored in branches, stems, trunk and roots. Excessive branch removal starves the tree of it's energy reserves and greatly reduces its ability to produce sugar through photosynthesis. The standard of a maximum removal of 25% of the live crown is allowed.

When trees are vigorously over- pruned, branch attachment becomes a major concern. When branches are improperly pruned, either by the location on the branch or the quantity of branches – or both, the tree responds with a flourish of growth called epicormic (or adventitious) sprouts to "feed" itself through photosynthesis. Photosynthesis is the conversion of sunlight into sugars for the plant to survive.

Those epicormic sprouts are very poorly attached to the parent stem, resulting in a very weak attachment which will tear away in even a minor wind event. These poorly attached new branches will tear away from the tree because it no longer has a branch collar to laminate or connect it (strongly) to the parent stem. Therefore, this type of pruning is considered "effective removal" because you have, in effect, removed the tree because it will no longer be safe, or be able to have good, sound structure.

Structure in a tree is paramount. If you have a green tree with a super dense canopy due to bad pruning that flies apart in a wind storm, you have a liability. If you allow the weak connections to the parent stem to remain until the tree "looks normal" or gets big, you have a lot of potential flying debris because the energy from the wind will grab the branches and twist it, often snapping off the poorly attached branches.

The examples on the following pages of bad pruning should be avoided in order to ensure the proper, healthy and safe growth of a tree.

Hillsborough **County** Florida
Development Services
EST. 1834 SM

Pruning Methods to Avoid

The following are examples of bad pruning techniques that should be avoided in order to ensure the proper, healthy and safe growth of a tree.

Topping & Hat Racking of a Live Oak

The leaves, or foliage, are the food factories of the tree. Removing 50–100% of the canopy causes a great deal of stress for the tree. This results in dormant bud activation that produces vigorous but poorly attached sprouts. These can become dangerous as the limbs generated from these sprouts have a very weak attachment which will tear away in even a minor wind event. A stressed tree with large open wounds is also more likely to die from insect or disease infestations.

Rounding or Topiary

Large growing shade trees like Oaks should not be pruned in this manner. The natural shape of a large shade tree is wide and spreading. None of these examples are wide and spreading. This practice is also expensive for the property owner due to increased maintenance and reduced property values as disfigured or topped trees are consider an impending expense by potential homebuyers.

Hurricane Cut or
Lion's Tail Pruning

This type of pruning is often "sold" to the consumer/homeowner as a way for the wind to pass through the tree and verses against it. This is false information. The result is the wind grabs the leaves on the end of the branch, causing torsion (twisting) damage will results in more limb damage that an unpruned tree.

Good Healthy Palm

Bad Pruning

With palm trees, this type of pruning leaves newer fronds exposed. The center "new spear" frond is very tender. It is the "heart" of the palm. If the heart of the palm is damaged due to wind stresses the palm will die. Had the fronds been properly pruned, as shown in the before photo, the older (tougher) fronds would protect the spear frond from damage potentially save the palm during adverse weather.

How to keep your trees healthy

Good Pruning Practices start with hiring the right company or individual to provide the appropriate service for your situation. Healthy, well-maintained trees add value to your property. By providing the required and proper care through-out their lifetime, trees are given the best opportunity to be long-lived.

Ensuring the best company/individual is hired:

Before hiring someone to prune trees, interview companies and individuals by asking the following questions:

1. Ask if they are an ISA Certified Arborist or if they have an ISA Certified Arborist on staff

2. Ask how they will prune your tree and if the pruning they are recommending is within ANSI A300 industry standards

3. Ask if they are insured for liability and worker compensation.

4. Ensure you get everything that is agreed upon in writing.

Ensuring healthy trees:

A good rule-of-thumb is to remove no more than 25% of the tree's canopy in a growing season.

The frequency of pruning will vary. Generally speaking, mature trees will not need annual pruning. As trees age, they typically need less pruning if they were properly cared for earlier in their lifespan.

Good pruning cuts should be round and not oval shaped. Round pruning cuts (circular when you look at there the limb was removed) will result in a stub remaining. This is ideal because the tree's anatomy provides protection from rot, decay and other nefarious things when you prune outside the branch collar. Flush cuts, which generally result in an oval shaped wound, are improper and will not compartmentalize, or "heal", the wound.

To request additional information or for any questions, please call Hillsborough County Natural Resources at 813-572-5600.