



## Coastal Plant Care

### **Structural Pruning Young Trees**

Most people assume young or newly planted trees do not need to be pruned. If they do prune them, attempts at improving their shape to provide the tree with a more “formal” appearance is common. As with raising children, your focus is never their appearance at a young age but rather, their structure. All you want is for your kids to grow up healthy and happy. We all know this takes regular attention and consistency. The same is true for young trees.

Most structural defects that cause limb or total tree failure in mature trees can be prevented by regular pruning in the first 15 years of a tree’s life. Not only is this annual pruning quick and easy, it will help prevent costly tree care measures when the tree matures. Trees allowed to grow at will often suffer from limb or trunk failure, require costly cabling or bolting systems to keep the tree intact, or may pose a higher risk requiring total tree removal.

In a natural forested environment, competition from neighboring trees forces trees to grow tall and straight. In addition, reduced sunlight available to the lower portions of forested trees reduces the instance of large lower limbs. In general, this creates strong mature trees in a forested setting. When you plant a tree in full or near full sun, it encourages the tree to grow broader. The tree is able to grow large lower limbs, branching can become overly dense, and canopies are much more complicated than those in a forested setting. So, what should be done?

The first goal of pruning a young tree is to establish a central leader. The central leader will serve as the top of your tree and will follow the main trunk down to the root system. For all intensive purposes, all lateral branches on the tree will originate and be subordinate to this central leader. A good rule of thumb is that no lateral limb should be greater than 50% the diameter of its parent limb.

*Example: My Maple tree’s trunk averages 12 inches in diameter. I want to be sure no limb originating from the trunk to be greater than 6 inches in diameter.*

In some trees, the central leader may already be established. In the case of trees with opposite branch structure such a Red Maple, you will have to determine which leader will serve as the center and eliminate or reduce the height of competing leaders. Keep in mind, you will be pruning these trees at least once a year so you do not have to totally remove a competing leader in year’s 1-3 if you feel it will remove too much foliage from the tree at one time. Once this central leader is established, it should remain intact until the tree reaches a height of 20-35 feet at which time, you can let the tree have its way (think of this phase as the tree graduates from college).

The second step to structural pruning is to provide the tree with adequate branch spacing and to remove dead branches. You will want to eliminate any rubbing or crossing limbs and any limbs that may be diseased or broken. In addition, prune away limbs with poor limb attachments. Ideal branch spacing varies between tree species but should be between 3-8 inches.

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It is important to note that regardless of age, no more than 25% of a tree's branches and foliage should be removed in any single year. The roots feed the leaves and the leaves feed the roots. If you desire a healthy tree, remember to preserve this symbiotic relationship the foliage plays in overall well-being. A common misconception is that pruning away low branches will encourage the tree to grow taller and straighter. This is false. A tree's growth pattern is based on two factors, the plant genetics and the light availability. Excessively pruning low branches on young trees can have significant negative impacts, including a reduced growth rate. Let me explain.

A young tree's bark is thin. As it matures, the bark becomes more pronounced and often takes on that corky feel to the touch. Thin bark is prone to sun scald, essentially a sunburn for the tree if overly exposed to direct sunlight. In addition, injury to this thin bark will become prone to freeze and thaw cracking in the winter months. Once this bark is damaged, it becomes susceptible to pest and disease and most often will not live past year 5-10. This is also why you see so many trees die from string trimmer injuries at a young age as the think bark does little to protect the vascular system from damage. Another good reason to never allow turf to grow up to the trunks of trees! Therefore, you want to keep these lower limbs that shade the sensitive trunks of these young trees intact as long as possible. They can be removed slowly over time, please exercise patience.

Finally, although you can perform structural pruning during any season, I recommend performing it in the fall or winter. In total, you may only make a handful of pruning cuts a year on young trees. This will go a long way to promote a healthy and happy tree, and one that doesn't ask for too much money after they graduate from college. Happy gardening!

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