

# Tree Pruning: Part I – The Fundamentals

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The mechanical removal of limbs, whether live or dead, is perhaps the most consequential impact that arborists inflict on trees. Tree removal is, of course, the most consequential step. However, if our aim is to “improve” the health of a tree, then pruning is the most impactful.

I wish that I had a dollar (okay, five dollars) for every time I visited a site where a tree care company has proposed: “Pruning three trees on property. One white oak at rear, and two red oaks at front of house.” Also, let’s add some sort of fertilizer. (Don’t get me started on fertilizers. This is an article in and of itself.) But, think about all of the gaps in that “prescription.” The homeowner is spending several thousands of dollars for pruning, but with no understanding of what is about to happen. They just want to help their trees.

As arborists, we must impart sound arboricultural science to tree owners who have little, to no, understanding of trees. For the example, the owner should know exactly what species of white or red oak they have (I assume here that you can properly ID a tree). How does species influence the pruning decisions? What type of pruning is to occur? What is the justification for this pruning? Are there seasonal impacts to this pruning? What about insect or disease considerations? In short, there **must** be a complete **description, objective** and **justification** for any pruning. Furthermore, it is valuable to discuss the tree type and age classes of the tree(s) in question and why pruning affects trees differently at various stages of their lifespan. Pruning must not occur simply for the sake of pruning, and certainly not just to make money.

Early in my career, I was fortunate to spend a week in a workshop led by Dr. Alex Shigo. It was a small group, so there were many opportunities to simply talk about trees. We discussed compartmentalization, which Dr. Shigo was just starting to introduce, but also about tree care in general. He often imparted words of wisdom in his lectures. One gem that has stuck with me is “Don’t be greedy. There is plenty of work in arboriculture for everyone. Be honest and do good work. If you do, you will never lack for work or money.”

Pruning limbs wounds a living organism. In most cases, it breaches the bark, which is the tree’s defensive system. Even when pruning dead stubs beyond an actively forming branch collar, you are inducing a response from the tree. Pruning becomes especially relevant when removing a live limb. Even when cuts are made at exactly the right location at a branch collar, they are inflicting serious wounding.

How would you like it if someone inflicted a wound on you that breached your skin? I suspect that your response would be to hit back or run. Well, guess what? Trees can’t do that. They rely on us to ensure that any pruning cut is done appropriately and is absolutely necessary.

It takes trees much longer to “seal” a wound as opposed to the “healing” process that humans undergo. Don’t tell a client (or anyone) that a tree is “healing” a wound. They aren’t. Trees “seal” wounds and humans “heal.” Big difference. But imagine if it took you decades to heal a wound. Not a pretty picture. But yet arborists think nothing of inflicting wounds on trees that might take years to seal. In fact, depending upon the size of the wound, it may take several decades to fully seal a wound, which can have serious implications (more on this in Part IV).

There is no question that pruning has an important role in tree care. When done properly and at levels appropriate for the objective and tree type involved, it can have positive effects. In the ensuing three articles, I will discuss how best to apply pruning to trees based on their age class, and with some mention of variations by species.

At all times, please remember that pruning cuts must be made with an objective in mind. These are the questions to ask yourself: What? When? And, why?

