

TREETISE

SPRING 2010

Awww Shoots!!

R O O T E D I N K N O W L E D G E

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Some of the most important parts of a tree are often those that go overlooked; for example, the “shoot,” which happens to be one of the most crucial players in the overall development of a tree. A shoot is defined as “any new growth on a plant.” And at the tip of a shoot you can find a small area, called the “apical meristem,” where cells constantly divide and expand.

The apical meristem basically represents the dominant part of a tree that controls the growth of everything around it. As regards branches, the apical meristem inhibits the activity of hundreds or even thousands of buds within the branch through a phenomenon called “apical dominance,” which is a very important function of tree health. If every bud within a tree were to be activated and allowed to produce more new shoots, the tree would quickly use up all its stored sugars (in order to facilitate the new shoot development) and, ultimately, die.



One of the most common components of proper tree care that affects shoots is trimming. At this point in time, especially in the United States, it should be a well-known fact that “tree-topping” is an unacceptable maintenance practice. In fact, tree-topping is one of the worst practices that can be performed on trees (save for cases that necessitate line-clearance or involve extreme safety issues).

Tree-topping eliminates apical dominance and causes dormant buds to begin developing new shoots. The new shoots developed where the topping cuts are made are known as “epicormic shoots” and develop with a very weak attachment to the recently cut branch. Additionally, tree-topping makes trees vulnerable to pests and pathogens by opening unprotected access points into the tree. Some arborists even speculate that the odors caused by tree-topping end up attracting specific pests, but research to support this theory has yet to surface.



Although branches are readily visible and typically the first part of a tree the layperson thinks of when it comes to the role of shoots, it’s important to realize shoots also have a pivotal responsibility in root development.



Message from the President

Congratulations to Armando Flores and Victor Silva for becoming our fourth and fifth employees to become ISA Certified Tree Workers. We realize the importance of safety while working in trees and it is our goal to support each of our climbers to become ISA Certified Tree Workers.



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ROOTED IN KNOWLEDGE

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To explain... leaves in a tree produce a hormone called “auxin.” Auxin acts as a growth regulator for both stem and root tip growth. Auxin is produced in the leaves and is vital in determining the way a tree grows, balancing the size of the canopy and root system. Auxin also suppresses the activity of dormant buds along branches and stems so that an entire branch is never covered in leaves and new buds at one time.

The efficiency of auxin pathways from the leaves to the root tips has important implications for water and nutrient transport. If an auxin pathway produces very little auxin, or less auxin than normal, it's possible the roots will wall off that specific auxin pathway. This means the leaves and buds on that specific auxin pathway will be deprived of water or nutrients (from the roots) and eventually die.



Furthermore, if auxin pathways are closed as a result of faulty pruning, the auxin that regulated bud dormancy for said branches is no longer available, thus activating buds that should be undeveloped. Ultimately, the process of auxin development will resume and growth regulation will reoccur, but not until many resources are unnecessarily used by the tree – potentially to its detriment.

Topping trees or incorrect pruning exacerbates the above phenomena while proper pruning practices manage the phenomena. Hiring a reputable arborist who has sufficient knowledge and experience in arboriculture is an absolute must when caring for your trees. There are many “arborists for hire” but very few who are both capable of delivering high-quality care and passionate about their work. In response to this, the tree care industry has begun to offer the consumer many avenues to help ensure that professional companies are easier to find.

Along this vein, the Tree Care Industry Association (TCIA) has started an accreditation program designed to provide just such an avenue for consumers dubbed “TCIA Accredited” (http://www.treecareindustry.org/public/main_accreditation.htm). Other associations, such as the International Society of Arboriculture (www.isa-arbor.com) and the American Society of Consulting Arborists (<http://www.asca-consultants.org>) have designations of BCMA (Board Certified Master Arborist) and RCA (Registered Consulting Arborist) for those arborists with advanced levels of education and experience.



If the company you work with is TCIA Accredited you are assuredly in good hands. Having an RCA or BCMA on staff is absolutely a benefit so long as the education and skill-sets of those individuals are used to assist those in the trees to perform high-quality work. As in most cases, knowledge is power and working with companies like Four Seasons Tree Care, who takes their education seriously, will almost always guarantee consumers a job well done.

n. (tree• tis) a formal and systematic exposition of the principles of a subject; more detailed than an essay.

Four Season Tree Care

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**Four Seasons
Tree Care is TCIA
Accredited!**



Since we all know how important safety is, as an Accredited company by the Tree Care Industry Association, we are required to employ one Certified Tree Safety Professional. Not only will we have one we soon will have two. Our Arborists, Adam Heard and Bryan Moller, are both in application to become Certified Tree Safety Professionals. This is just one more benefit our company brings to our clients, in creating a safe environment for

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Palms A Plenty

