

Arborist Training and Best Practice

By Ken Palmer and Juan Torres

IN TODAY'S TREE CARE INDUSTRY, SAFETY, SKILL AND PRODUCTIVITY ARE

essential ingredients for professional success. Keeping up with the latest tools and techniques -- and actually using them on the job -- can be a challenging task. From knowing the trees



to knowing the ropes, there are many things for a tree worker to learn in order to become familiar with safety and best practices.

Chain saw safety, skill and productivity can be attained with a thorough understanding of the saw's basic design and limitations, reaction forces, wood fiber, tension and compression wood, the

knowledge to formulate a felling/cutting plan and the ability to skillfully work the plan. *All photos and graphics courtesy of ArborMaster Training, Inc.*

The fact is that the decision making is often based on personal experience and/or a mixture of the experiences of co-workers. How many times have you heard, "We've done it before and it worked out ok, I'm not sure what went wrong!" There are at least two problems with this type of decision making process:

1. Though experience is an essential part of skill development, it can also be a very dangerous teacher as well. Tree workers can experience way too much pain and suffering just to "chalk one up for experience."
2. It is dangerous to base our critical decisions on what we have "gotten away with before." That would be flirting with disaster, because everything changes at each job site -- from the equipment to the trees -- often from one cut to the next.

Arborists/tree workers have to be able to think on their feet and adjust to their surroundings. Accidents can be dramatically reduced, and productivity dramatically increased, when tree workers have the information and knowledge to think first and make sound decisions. The more they have

developed the skill sets required to safely and productively carry out the challenging tree jobs they are assigned, the more successful they will be.

Hispanic workers

Along with a huge growth in the number of Spanish-speaking workers in the tree care industry, there has been a large increase in the number of injuries and deaths among the non-English-speaking workforce. \$2.2 million of OSHA's \$450 million 2004 budget will be used to increase safety training for Spanish- and other non-English-speaking workers. The new money follows an 11 percent and 9 percent increase in fatality rates for Spanish-speaking workers in 2000 and 2001 respectively.

Manuals, fact sheets, procedural information, warning decals, etc., should be provided in Spanish and English. Check with manufacturers for assistance with acquiring Spanish manuals and warning decals.

Emergency Preparedness

Emergency preparedness on the job means being prepared to deal with emergency situations to the best of everyone's ability. Training, preparation and planning ahead are all necessary in order to be ready to handle the unexpected. Safety is everyone's responsibility.

Managing Fall Hazards

Professional tree climbers wear a climbing saddle that is designed to protect them in two very specific ways. The lower part of the saddle is designed to suspend the climber with an arborist climbing line when they are sitting (suspension system). The upper part, or waist belt, typically has two or more D-rings for use with a work positioning lanyard similar to a lineman's belt (work positioning system).

Professional lift operators wear either a full body harness with a dorsal attachment and a shock absorbing lanyard that is connected to the upper boom and designed to decelerate or bring a person to a gradual stop should they fall or be launched from the bucket or platform (fall arrest system). Or an operator may wear a body belt and connect to the upper boom with a very short lanyard designed to prevent the operator from being able to fall from the bucket or platform at all (fall restraint system).

All four forms of fall protection must be used correctly in order to function properly, and each has its advantages and disadvantages. Though the fall restraint system is relatively simple and inexpensive, it restricts body movement when working. However if we were to lengthen the lanyard, it would no longer be able to prevent a fall from occurring. Even with a shock

absorbing lanyard, a fall in a body belt could be catastrophic. For this reason the fall arrest system is often preferred.

Each of the four systems can be manufactured with their own unique features. However they are still each designed to function in a very specific way, and must be inspected daily and used for their proper task.

Chain Saw Operations

Almost anyone can manage to get a chain saw started. In the hands of a person that has no training and/or no time for skill development, the potential for injury is everywhere. Experience building and skill development on the job must be an ongoing process in order to reach a true level of competence and proficiency.

With today's chain saw technology, safety, skill and productivity can be attained with a thorough understanding of the saw's basic design and limitations, reaction forces, wood fiber, tension and compression wood, the knowledge to formulate a felling/cutting plan and the ability to skillfully work the plan.

Rigging

Up until 10 to 12 years ago, arborists almost exclusively utilized natural crotches for rigging points. Though this method has worked for many years and requires only basic equipment, it must be done properly and also has its own limitations. We have fewer choices of rigging points, which can limit work flow and can force us to cut a bigger piece than we want.

In many ways, arborist rigging blocks (specialized rigging pulleys) can make rigging operations safer, easier and more efficient. However, working with large sources of potential energy, which arborists do during tree dismantling operations, can be disastrous without an understanding of the forces involved in the rigging operations.

It is important to remember that no matter how strong the rigging equipment is, the trees and the rigging equipment are still impacted by the decisions and actions of the tree worker. The whole tree or parts of a tree can still fail if the operator cuts a piece that is too big. The equipment can fail if it is pushed beyond its limits, or if the rigging line is not allowed to run in order to decelerate the load and minimize the forces. Every time we overload rigging equipment, residual strength can be significantly reduced.

Training

In the tree care industry the arborist/lift operator must also have a good

working knowledge of trees and tree care/removal operations. Training must be an ongoing process in order to succeed. When a career path is structured with a systematic training process followed by time for practice and experience building, competence and proficiency can be achieved. The objective is to build confidence and enhance productivity through



measurable and more consistently successful results. A more professional attitude and commitment to safety is inevitable.

A more professional attitude and commitment to safety begins with training and practice. It continues with experience building and skill development.

The process begins with training and practice. It continues with experience building and skill development. Tree workers can be motivated, rewarded and kept on track through a competency assessment and credential/recognition process. Ultimately, proficiency and mastering can be motivated and developed through additional training and personal development opportunities.

Professional development opportunities can yield huge results in employee development and retention. Most professional arborists want to help you grow and they need opportunities to grow and the vision of a prosperous future.

Let's take the time to stop, take a step back, and think outside the box in order to see the big picture. If we truly want to attract and keep responsible, productive people, and gain the respect of the general public for the truly important and valuable work that we do, then it's up to each of us to develop and build our respective companies from the ground up with a focus on safety and best practice.

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