



Safety *in* the Tree Care Industry:

It is about changing behavior, not just tools and techniques

By John Ball

Quantifying accidents in the tree care profession is something that I became interested in around 1999, because, unfortunately, it was too common for arborists to know somebody personally who was seriously injured or died while performing tree work.

There are not too many professions that you can say that about. The tree care profession has a fatality rate that is at least 10 times the national all-industry average, an unenviable ranking that is only exceeded by a few other high-risk professionals, such as logging and commercial fisheries. The fatalities are not highly visible, since tree workers tend to be seriously injured or die as individuals on a job site, not in a group, which tends to attract the news.

We also try to explain the accidents we hear about by saying "that's the other guy." The typical tree care accident does not occur to workers because they were stupid, clumsy or any other excuse. For the most part they are just workers who made some serious mistakes, ones we are all capable of doing. Calling the victims names is a way to separate "them" from us, but that also keeps us from investing the time to figure out why the accident occurred in the first place.

When does an accident occur? I shake my head every time I hear a company owner or manager say to me "We don't need any safety talks and we don't need a safety person because we are not planning on having an accident."

Must be nice, but an accident by definition is an unplanned event. Unplanned does not mean random, however. A frequent response by a worker who had a close call is, "I have done it this way thousands of times without a problem."

Not exactly. An accident occurs when a



An accident waiting to happen. The typical tree care accident does not occur to workers because they were stupid or clumsy, but because of serious mistakes or bad practices or habits. Never use your foot to push material into a chipper.

series of mistakes are made in a proper sequence. This is an important point. When we start looking at accidents to determine why they occurred, usually it is not one mistake or even two but several mistakes all made in a critical sequence. Accidents are like dominos; everything has to be set up just right (or perhaps wrong is a better word) to happen.

A common accident in this industry is being struck by a falling tree – either the feller or another worker who walked into the path of the falling tree. Accidents to fellers tend to have at least two mistakes in common. They cut through their hinge, so now the tree can move off the butt. And since they are still cutting while the tree is

falling, the feller is not standing back along the safety route. The unfortunate outcome is too often the feller lying beneath 10 tons of tree – a fatal outcome. The other typical accident occurs to a ground worker who walks into the work zone and the path intersects that of the falling tree. Why?

Most likely these series of mistakes were made; no work zone was established, no command and reply system used or in place, the feller focused on the cut and did not have a second to look out into the work zone (probably because the feller was still running the saw while the tree was falling); and the ground worker was concentrating on where he or she was heading, not what might occur along the way.

Since accidents are unplanned but not random, this means we can take steps to reduce them. They do not have to be accepted as part of the job. These steps start at the top of the company, not at the bottom. When I have company managers come up to me and say the problem is they cannot get their crews to start wearing PPE or stop standing on chipper chutes to clear jams, the problem is not entirely with the crew. The problem is the lack of leadership. Everyone who has worked on a tree crew knows when the boss is giving lip service to safety, whereas production (at almost any cost) is the only thing that is truly important.

A culture of safety begins with company owners and their safety manager understanding the behavior of adult learners and effective on-the-job training. These are not skills that come naturally to most of us. Owners and safety managers can benefit greatly from education in these critical subjects. After all, the tree care industry does not lack safe practices and equipment; we have made great strides in these areas during the past 50 years. The root cause of many of our accidents is related to unsafe behavior – not tools or techniques – and this is the area that needs to be addressed more in our efforts to improve safety in the industry.

A good example of the need to change behavior is the number of chipper accidents that have occurred in the past couple of years. Chippers are a common piece of equipment. They are a big improvement over the old method of shrinking brush that I was taught – stand in the back of the dump box and use a chain saw to cut everything into smaller sizes. This was definitely a risky task but one many of us accepted as a matter-of-fact back in the '60s and '70s.

The modern chipper is a very safe and efficient piece of equipment, but accidents still occur. It frustrates the manufacturers because they can put all the safety labels and features on that are possible and practical, but if someone wants to figure out a way around them, they can. The most serious chipper accidents, those that result in amputations or death, usually involve the worker either being pulled in hands-first or feet-first. Recently a tree worker, with more than 20 years of experience was killed when the brush caught him on the

gloved hand and he was pulled through hands-first.

Even more common are workers pulled in feet-first. Typically, a tree worker jumps up on the chute to clear a jam and his foot is pulled in. Crew members hit the reverse bar but it does not work and the worker is pulled all the way into the chipper.

Two lessons from this type accident are:

- ▶ never to stand on the chute
- ▶ never depend on the reverse bar as an escape if your foot is caught.

I would guess that everyone reading this article knows these warnings already. The question becomes, does everyone on your crews know this? If not, what are you going to do to change this behavior?

The simple solution is to fire anyone caught trying to kick brush through a chipper (before the chipper catches them). And, no question, it may come down to this. But the company needs to understand why this behavior is occurring in the first place. Is it a lack of training, improper training, or is training given lip service while the crew believes production is the priority, not safety?

Firing workers is not the solution. Understanding and correcting the underlying problem is the key, though obviously the need to fire workers who cannot follow safety rules is necessary for the welfare of



Never one-hand a chain saw, always use two hands on the saw.

the company and even the worker.

Fostering a culture of safety means the company is dedicating the time and resources to ensure that the workers have the equipment and training to operate safely and efficiently in this high-risk

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Tailgate sessions and safety briefings are certainly a critical part of this training, but having a safety manager who understands how to train adults is essential to having the needed behavioral changes on the crew. Another critical need is to have outside trainers in addition to all the safety training conducted in-house. The advantages of bringing someone in are several fold. First, even if this outside trainer covers the same material, the message will be heard differently. We, as learners, often become used to an instructor's style and voice cadence.

An instructor from outside the company forces us to adapt and consequently we often hear something said in a new light. Outside trainers often have specialized skills in a particular area of tree care – aerial rescue, rigging, felling or other topic. This knowledge conveyed to the crew can enhance safety.

Outside training is of no value and can even be a detriment if the trainer is not knowledgeable or does not understand how

adults learn. In recent years our industry has seen an increase in the number of individuals and companies that provide outside training. This is a welcome change to the industry where safety training was often ignored or not given much emphasis. Unfortunately, not everyone who is a trainer should be training. Our industry has seen serious injuries and fatalities during training, not to mention the number of accidents that may be occurring following bad training sessions.

While utilizing outside trainers should be a key part of any company's training program, it is essential for the manager to investigate the qualifications of the individuals or company as to their expertise in the particular training topic and their ability to train adults. At this point, this is a difficult task as standards for trainers is in its infancy.

TCIA's Certified Treecare Safety Professional (CTSP) program is an important step in that direction. In addition, company managers may want to investigate the success of the training programs the trainers have conducted in the past. How many programs have they done during the past year? Is there any documentation as to the success of their programs? Are companies that have participated in the training seeing fewer and less serious accidents as a result of the training? These are all good questions to ask.

At times, training should extend for days, not hours. One day or even one hour training has its value. Short seminars and workshops are an excellent means to alert workers to the risks entailed in this work and the basic steps to reduce accidents. But short sessions provide familiarity, not competency. If the topic is some aspect of climbing, rigging or other detailed subject, it can take several days for the topic to be covered in sufficient detail. Participants must be allowed to practice what they have learned.

We are all working toward the same goal – a safer work environment – and the path begins at the top with the company providing the leadership and direction.

John Ball is a professor of forestry at South Dakota State University where he teaches courses in forestry and arboriculture as well as serving as the campus arborist. He also currently serves as the academic advisor to the CTSP Council.

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