Editor’s note: PASS ON EACH ISSUE OF THIS NEWSLETTER TO EVERYONE WITH SAFETY RESPONSIBILITIES AT YOUR COMPANY.

Arborist PPE and Other Equipment

*Note: This is the third in a three-part series of newsletters about tree care safety. Previous editions covered tree trimming safety and tree climbing safety.*

**Key Points**

- When crews are performing tree care work, it is vital for everyone to wear the appropriate arborist personal protection equipment and properly use the right tools and equipment. Doing so significantly mitigates dangers posed by heights, electrical lines, sharp blades and falling tree branches or sections.

- Because of a trend toward sharper hand saw and pole saw blades, the number of cuts involving these tools has risen and is outpacing chain saw injuries. While sharper blades are more efficient and safer in general, company training should emphasize safe use and handling of them.

- Safety glasses, hearing protection and hard hats are the PPE crew members most often fail to wear when trimming trees. Education that includes the reason for particular PPE is needed in tree care applications and management-employee collaboration, and constant enforcement of PPE rules can improve compliance.

**Checklist for Employers, Supervisors and Crew Leaders**

- ✓ Make standard PPE mandatory at all times on tree care jobsites. Three things this should include are safety glasses or goggles, earmuffs or earplugs and a hard hat. Some companies require employees to put on these three things as soon as they get out of the truck.

- ✓ Give crew members reasons why PPE, especially gear they commonly neglect to wear, is needed. Eye injuries often occur when people work around tree limbs and branches without safety glasses or goggles. An employee might think he or she doesn't need to wear hearing protection when using a chain saw for a short time, but repeated exposure will cause hearing loss. Someone who is cutting small branches might not think a hard hat is necessary, but a branch doesn't have to be large or fall far to cause a head injury.

- ✓ Have clear PPE policies and enforce them through awards programs and penalties. Ensure employees know that management wants them to wear PPE because they want workers to be safe and because the company has to comply with laws requiring it. Positive enforcement could include writing employees' names on pieces of paper when they are spotted properly wearing PPE and having drawings for gift cards during safety meetings.

- ✓ Know that federal OSHA looks at enforcement records as part of inspections and audits. If your company doesn't show safety violations and disciplinary actions, your safety policy will look hollow.

- ✓ Every year, look at new PPE products and give employees several types to choose from. Items that are more comfortable and better functioning enter the market all the time, and offering these
products and giving crew members a say in the selection process can make them more likely to wear the gear.

- Ensure crew members wear high-visibility/reflective apparel in accordance with the U.S. Department of Transportation and any state/local requirements anytime they will be working near a roadway.
- Consider high-visibility colors for employee shirts rather than company colors, which tend to be greens and browns and blend with landscapes. Crew members working in trees will have an easier time spotting co-workers on the ground and will be less likely to drop objects on them.
- Supply appropriate fall-protection equipment that is manufacturer-approved for tree care work, and ensure workers use it.
- Use ANSI Z133 standards as a fall-protection guide. Anytime a climber is off the ground, he or she should be using personal fall-protection gear. When using a chain saw aloft, the climber must be secured with two forms of fall protection.
- Make sure fall-protection equipment is inspected before each use and replaced as necessary.
- Know that when employees work from an aerial lift, they should wear a safety harness and lanyard. When the aerial lift is boom-supported (a bucket truck, for instance), the fall-protection equipment should be attached to the arm of the boom in case the bucket breaks off.
- Ensure the climbing saddles that are worn by workers who climb trees meet ANSI standards as there are dozens of types and styles.
- Be cautious when adopting new fall-protection technology. There have been many advances in ropes, pulleys and other systems recently, and much of this equipment has transitioned from rock-climbing applications. For example, new climbing rope is smaller in diameter, lighter, easier to use and, in many cases, stronger. But, accidents have happened involving equipment that hasn’t been proven in arborist applications. A taut, small-diameter rope broke when a worker tapped it with a chain saw. The worker fell and was paralyzed for life. Research showed a tap with a sharp handsaw could cut a few types of new rope.

- Consult with a professional arborist supply company—not a hardware store, Lowe’s, Home Depot or a landscape supply company—when purchasing PPE and other equipment for tree care applications. People at these companies can tell you what equipment is tried and true. While there’s a lure to try the latest thing, most progressive companies adopt new technologies only after they are proven safe and employees have been familiarized with them.
- Train employees to safely use and handle all tools and equipment. Make sure they know how to operate equipment and tools, such as chain saws, loppers, pole pruners, pruning saws and brush chippers, in the particular applications they undertake and know how to choose the right tool for the job.
- Teach crew members how to hold their fingers when using handsaws and hand pruners, and how to put these tools into scabbards in a way that will reduce the likelihood of cuts.
- Regularly review the safe use of tools and equipment used in tree care. Make this a topic of tailgate safety meetings and daily briefings on the types of tools workers will be using.
- Ensure that the blades and chains on cutting tools employees use are sharp. Make sure disposable blades are replaced as directed by the manufacturer.
- Know that workers using brush chippers should be trained on the specific machine they’re asked to use. See more on operating wood chippers here.

**Employee Dos and Don’ts**

**Do:**
- Always wear safety goggles, earmuffs or earplugs, and a hard hat when on a jobsite to trim trees or even shrubs.
- Also wear long sleeves, pants, sturdy shoes with toe protection and a high-visibility vest or shirt if you will be working close to a roadway.
- Wear chain saw chaps when using a chain saw on the ground. When working in a tree, don’t wear chain saw chaps because they could get caught on branches. Chain saw pants are a better option.
Put on heavy-duty, tight-fitting gloves without gauntlets. Gauntlets could get caught on material you feed to a chipper and pull you into the machine. Gloves specific to tree work are now available. They are usually abrasion resistant, keep your hands from getting scuffed on trees, and have sticky rubber palms to help you grip trees and branches better.

Examine all PPE, tools and equipment before each use. Pay special attention to spark plug caps on tools you’ll use to trim trees. The rubber caps often become worn, which can cause you to be shocked while using the tool. If this happens, you could drop the equipment, which might cut your legs or feet.

Bring damaged, defective or worn tools, equipment or PPE to the attention of your supervisor.

Wear personal fall-protection gear anytime you climb a tree.

Use two types of fall protection when operating a chain saw in a tree. Your main lifeline should be attached high in the tree, and a lanyard attached to your climbing saddle should be secured to a closer branch. This way, if you accidentally cut your lifeline, you’ll still be attached to the tree via the lanyard.

Make sure your main climbing rope is secured at a structurally sound location. A rotten or hollow portion of the tree will give way when rope pressure is strong.

Don’t:

- Decide not to wear PPE because you’re just going to cut one limb. That’s when accidents happen.
- Use any tool or piece of equipment unless you have been properly trained to do this in a tree-trimming application and fully understand the training.
- Use blades and other cutting surfaces of tools and equipment that is dull. When blades are dull, you have to pull harder on tools, resulting in ergonomic injuries.
- Be complacent when using a hand saw or pole saw. New hand saw and pole saw blades are incredibly sharp, and injuries stemming from their use are on the rise. Because they cut on the down stroke, momentum can carry through, causing you to cut your leg. Stitches often are required. Follow all training and manufacturers’ recommendations on making safe cuts with these tools.
- Lose awareness of where your body is in relation to the cutting blades. When pruning a branch, you usually have the branch in one hand and a saw in the other. Workers often cut their fingers or thumbs when they are unaware of the location of their hand holding the branch.
- Leave tools and equipment unattended. Put scabbards on blades and store items properly. Children or people who aren’t aware sharp objects are present could injure themselves while you’re at lunch.
- Put sharp tools in a truck or storage area without covering the blades. A person who reaches in to retrieve something could be cut.
- Use conductive tools around overhead lines. Opt for fiberglass or wood instead.

Scott Jamieson, vice president of Bartlett Tree Experts, president of NALP’s board of directors and a member of its Safety and Risk Management Committee, contributed to this issue of Safety Sense.