In the real world, one requirement that never changes is finding ways to help your crews work more safely. That's why Altec tree care equipment is built rugged, reliable and designed with integral safety features. Our complete line of aerial devices and wood chippers is highlighted by our newest machine - the Altec LRV60. It will help your crews work smarter and more efficiently. This unit combines 65 feet of working height and smooth maneuverability with the lowest cost of equipment ownership in the industry and unmatched financing options. For tree care units that help you work safer and smarter, call the company that builds them - Altec.
THE ORIGINAL
Stump Machine
Praxis Illinois Corp.

LIMITED WARRANTY
2 YEAR
STUMP MACHINE

SAVE 20% - BUY DIRECT FROM MANUFACTURER

733 Enterprise Avenue
DeKalb, Illinois 60115
Toll-Free: 888-316-8200
Phone: 815-787-6644

ORDER ONLINE:
www.stumpmachine.com

American Made, American Owned

PRX9.0

PRX13.0

Please circle 48 on Reader Service Card
Are You Keeping the Sacred Trust to Become Great?

One of the blessings of being a professional association executive is that no matter which professions, industries or causes you work for throughout your career, it puts you in touch with those who are viewed by their peers as leaders. In other words, you get to work with the best of the best. One of the opportunities that you have is to watch how different people view and implement leadership principles, and in particular, how they choose to think of and use “power.”

It always puzzles me when I run across people who think that power is something that they have been given or something that is passed on to hold onto with a vise grip during “your time.” The most effective leaders I have been privileged to serve with are those who recognize that power is something that you give away in the service of those around you. Viewing power as something other than belonging to the people is generally the first big step toward failure; not just individually – but for the business or organization as a whole. Abraham Lincoln said, “Nearly all men can stand adversity, but if you want to test a man’s character, give him power.”

I bring this up because all of us who are employers in this industry are entrusted with a certain amount of power when we take on the roles of leadership in our companies and in our associations. We have dreams we launched ourselves or built on from foundations passed on to us. What we do with this privilege is of utmost importance on a daily basis to the long-term viability of our businesses. It affects things like employee turnover, employee morale, community perception of our businesses, sales to new clients, and ultimately our profitability. What we have to remember in our ambitions is that power is actually a sacred trust given to us by our employees.

If you have the power every day to make someone on your employee roster safer, do you choose to do it? Do you choose to spend the money? If you have the power to make someone who works with you each day feel better, do you take the time to boost his or her morale? Do you think about the impact this could have on the employee’s loyalty to your company? That person’s removal of your power could be as simple as walking away.

Being ambitious has developed a negative overtone instead of representing legitimate goals to be met. There is nothing wrong with having admirable goals in developing a business. How you go about attaining those goals and how you use your power each day is defined by a personal moral code that each of us has to take the responsibility to devise; most hopefully remembering that how we define it affects every person around us.

Mark Twain had some great advice: “Keep away from people who try to belittle your ambitions. Small people always do that, but the really great make you feel that you, too, can become great.”

The tree care industry can fulfill its ambitions of greatness in the years to come, but how we build our ambitions and use our power each day can build great, safe companies or unpleasant, scary places to work.

I vote for greatness in each one of you!

Cynthia Mills, CAE
Publisher
Two new Terex Telelect models take tree care professionals to greater heights.

The Hi-Ranger XT-5 Series has grown with the addition of the XT-58 and XT-60 with 63 ft. and 65 ft. working heights. An optional transverse hydraulic lift available for all XT-5 Series models adds another 10 ft. of working height.

All have the attributes that have made the Terex Telelect Hi-Ranger XT Series the preferred aerial device for tree trimming: including emphasis on in-house design and manufacturing, unique Tri-Link upper boom articulation, and extended work zone with a more compact and maneuverable travel package. Plus great strength-to-weight fiberglass upper and lower booms also provide more uniform and consistent electrical insulating properties than other alternatives.

For more information on Terex Telelect Hi-Rangers, see your Terex Telelect distributor or call (605) 882-4000, FAX (605) 882-1842. **Telelect is ISO 9001 certified.**
June
continued on page 6

Features

8 Tree Chemicals that Kill or Cure
By Dr. Alex L. Shigo

34 Safety Aloft: Preventing Struck-by's
By Peter Gerstenberger

38 Turning Wood into Cash
By Michael Roe

Departments

2 Outlook
By Cynthia Mills, CAE
Power is something that you give away in the service of those around you.

18 Washington in Review
By Peter Gerstenberger
Congress gives OSHA its marching orders.

20 Branch Office
By Wayne Outlaw
Toxic behavior can kill a tree care company.

22 Cutting Edge
New products and news in the tree care industry

26 Arborist Equipment
By Tim Ard
The right boot for the right job.

28 Business of Tree Care
By Phil Perry
Are we headed for a recession? Smart moves for tough times.

8 Chemistry of Trees

Cover Photo

Some researchers believe that trees injured by leaf-eating insects, such as this gypsy moth caterpillar, send signals to other trees to start producing chemicals that deter further insect attacks. The signals are thought to be chemical volatiles that have a phenol base. Inside-laboratory proof looks great, but outside proof is still lacking. Photo courtesy Dr. Alex Shigo.

TCI's mission is to engage and enlighten readers with the latest industry news and information on regulations, standards, practices, safety, innovations, products and equipment. We strive to serve as the definitive resource for commercial, residential, municipal and utility arborists, as well as for others involved in the care and maintenance of trees. The official publication of the non-profit National Arborist Association, we vow to sustain the same uncompromising standards of excellence as our members in the field, who adhere to the highest professional practices worldwide.
A Tree Handling Team To Boost Your Profits
Own now with special combination incentives

ImpleMax 4836Lw Pro Grapple/winch and the Swinger Loader/Carrier

- Increase profitability with less landscape damage
- Improve handling compared to other equipment
- Move big logs, multiple log bundles, brush — fast
- Do the work of 2-3 people — save time
- Great 360 degree visibility
- Reduce manual labor for cleanup — save money
- Save labor — pick-up logs & trees where they fall
- Reduce ruts and “fix-it” work with articulated steering

Put this tree-proven duo to work for you and watch your bottom line grow. The system is easy to run, quick and profitable from day one. You’ll generate more dollar volume and higher profits without adding staff. Call us for special incentive programs.

Call now for FREE IMx video

"Unbelievable! Made it possible to get a 2-day job done in less than a day."
"Does the work of three people."
"I outbid other companies and did the job in 1/2 the time."
"Told me from a simple tree guy to a professional tree service."

IMx
ImpleMax
800-587-6656 (24 hrs)
www.implemax.com

SWINGER
Loader Division of NMC-WOLLARD, Inc.
800-656-6867
www.nmc-wollard.com

Please circle 29 on Reader Service Card
Departments

44 Industry Almanac
Important regional and national meetings and activities

46 Management Exchange
By Dick Proudfoot
Selling tree care. It’s what you bring that comes with the territory.

50 Health & Safety
By Ariana Elmakiss
Surviving the sweltering sun of summer.

56 NAA Forum
Student Career Days at TCI EXPO in Columbus is the place to find skilled employees.

58 Classified Advertising
Help wanted, services, businesses, new and used products for sale

70 Operational Safety
By Tim Ard
A training program without follow-up in the field won’t produce results.

74 Tree News Digest
Compiled by Keith A. Regan
News, stories and information on trees from around the world

76 From the Field
By Ismael "Smiley" Lopez
No matter what else happens, everyone goes home at the end of the day.
The American Group announces name change:

The American Group was created by the merger of Samson Ocean Systems, American Manufacturing and Herzog Rope in 1993 and the subsequent acquisition of First Washington Net Factory in 1999. From this merger was born one of the largest rope and cordage manufacturers in the Northern Hemisphere. In total, The American Group represents well over 300 years of rope making experience.

Each company can lay claim to innovations that set new industry standards. By joining the pacesetters of the last century and maximizing the strengths of each, one company was created with a common mission: leadership in rope technology into the next century.

To better reflect our common mission, and the strength of our combined histories, The American Group has been renamed. The new corporate name, Samson Rope Technologies, draws upon our combined past while reflecting our mission for the future. The Samson name, along with the trademark of Samson and the Lion is the oldest continuously registered trademark in the United States. It is a great symbol to represent the combined strength and performance of our product line. It also symbolizes strength over time; longevity which can only be achieved through commitment to continuous development and the creation of new fiber combinations and constructions to provide greater strength, safety and security.

Samson Rope Technologies
The Strongest Name In Rope

CORPORATE:
Samson Rope Technologies
2090 Thornton Street, Ferndale, WA 98248
(T)800.227.7673 / (F)800.299.9246
www.samsonrope.com

1876-1884:
Samson trademark is registered to the J P Tolman Company.

1888:
Tolman incorporates Samson Cordage Works.

1889:
American Manufacturing Company Founded.

1948:
AMCO Introduces synthetic 3-strand nylon ropes.

1952:
Herzog Rope founded in Canada. Specialize in ropes for the Northwest fishery.

1955:
First Washington Net Factory established. First company to produce nylon knotted netting to fishing industry.

1961:
Samson introduced the first all synthetic fiber double braided rope.

1972:
Samson Nystrom is the first synthetic fiber rope used to moor an oil tanker to a loading buoy in the North Sea.

1989:
Herzog develops Permaflex leadline for the seine fishery.

1992:
AMCO perfects coextrusion and produces Ultra Blue fiber, 30% stronger and 3 times more abrasion resistant than polypropylene.

1993:
The American Group is formed by merging AMCO, Herzog and Samson Ocean Systems.

2001:
Samson Rope Technologies is the banner that unites four illustrious cordage industry innovators under one name and one mission: Leadership in rope technology.
Chemicals are atoms arranged in an almost infinite number of ways. As the kind of atoms, their arrangements, and their numbers change, so do their properties. The keywords to remember when the word chemical is used are atoms, numbers, arrangements and properties. The kill or cure part of chemicals comes to play when "amounts" or "dose" are used. The best example of dose is any fast-release fertilizer. A little promotes lush growth while a lot will kill the plant. Is the fertilizer good or bad? Is it a helper or a killer? A professional is a person who understands dose.

We are bags of chemicals, and so are trees. We and trees grow and mature as chemicals increase and change over time. In time, chemicals are recycled for new life. Time becomes a major variable. A major responsibility of arborists is to provide care for trees in ways that optimize time for high-quality growth.

Trees and aspirin

Trees through the ages have been the source for chemicals used by humans for killing and curing. Some tree species stand...
Syrup can be a cure for many ailments.

Mango is in the same family as poison ivy. Some people are affected by chemicals in the skin of the fruits.

out in history. The most commonly used chemical or medicine today originally came from the bark of the white willow, *Salix alba*. The medicine, of course, is aspirin. It is not only a human painkiller - analgesic - but it is often recommended for lowering the risk of heart attack.

The bark was used by early humans for pain reduction, but it was not until 1899 that the chemical was discovered. Acetylsalicylic acid is aspirin but salicylic acid, the base molecule, is in a large family of analgesics. Exactly how aspirin works is still not well understood. It is known that the chemical blocks an enzyme that is necessary for nerve impulses.

Trees and malaria

Trees come to the aid of humans again with the bark of a tree native to South America. Ancient scholars believed that the cure for any human disease could be found in the plants growing where the disease was most severe. So it is with quinine, an alkaloid from the bark of the cinchona tree that grows where malaria is a severe disease.

Cherry blossoms are a sign of spring. When leaves that fall are injured, chemical reactions take place that form cyanide-based poisons. If animals eat many of the fallen injured leaves, death could follow.

Recycling? Maple syrup cures the "sweet tooth." Maple syrup is an ingredient in many spring tonics. Sassafras tea sweetened with maple syrup can be a cure for many ailments.
The mode of action of quinine is fascinating. The chemical binds with the DNA in infected cells. More interesting is that the greater the infection, the greater the binding. Once DNA is disrupted the cell cannot divide. Maybe the ancients knew more than we give them credit for.

Quinine is well known also for its place in tonic to make a gin and tonic. In higher doses, quinine causes uterine contractions in animals, and this action could lead to abortion. Dose is the thing!

An alkaloid is a naturally occurring molecule that contains nitrogen. They are bases (alkaline) and many are poisonous as doses increase.

Trees and cancer

Taxol is a tree chemical that has become very well known for its ability to stall some human cancers. The chemical comes from the bark of the Yew, or Taxus, tree that grows in the forests along the Pacific Northwest and into Canada.

The mode of action is similar to quinine and many chemicals used to stall or cure cancers. The chemical taxol attacks the apparatus that is supposed to stretch as cells divide. Taxol prevents the stretching and thus inhibits cell division. Remember, humans are regenerating systems. Parts grow, break down, and are replaced in the same spatial position. Cancer cells don't like to break down. They only want to divide. So any chemical that prevents cell division gives the cancer cells some problems. Taxol does give cancer cells some problems for rapid division.

Trees and other medicines

Aspirin, quinine, taxol — some big chemical actors — and all from trees originally. When the benefits of trees to humans are listed, the medicines are often left out. Most people are not aware that a tree in India, the Neem tree, has been at the center of international legal disputes. Why? Because the local people have used the chemical powers of the tree for medicines for centuries. Now some companies want

---

**The new MTI TM-270 Series.**

**Advanced degrees in trimming trees.**

Trimming even the largest trees has never been easier. Our new TM-270 Series offers a working envelope that is greatly enhanced with a 270 degree upper boom articulation and 135 degree lower boom articulation. With approximately 50 feet of side reach, you can get to more trees — and more of each tree — in less time — all without moving the truck.

Available in working heights from 58 feet up to 65 feet, this hard-working series was designed with the operator in mind: standard features include tool outlets at the platform, automatic two-speed throttle control, and one-handle platform control. With its generous 135 degree lower boom articulation, the TM-270 also allows easy bucket access from the ground.

The TM-270. It's tree trimming in the highest degree.

---

ISO 9001 Certified.
to concentrate the chemicals and trademark them for sale. This situation is not unique to India. Many tropical trees are being tested for the powers of their chemicals. And, again, local governments are stepping in to regulate or stop possible exploitation.

Most chemicals found in trees are in a very dilute form. Usually the chemical must be increased in concentration before it can be used for some purpose. The ancients cooked or boiled the tree parts; usually the bark. Most of the chemicals function as enzyme blockers. This is how most medicines work. To explain this in an extremely crude way, the chemicals “fit” into places where their presence blocks the next “fit” of a pathway.

### Enzymes: Biohelpers

Enzymes are chemicals that “help” natural essential processes to go on at highly efficient rates, while the enzyme itself is not “used up” in the process. Enzymes keep heat down while reactions speed up. If enzymes did not do their work, the processes themselves would “burn out” the cells.

Enzymes are big molecules with a protein core. Proteins are connected amino acids. Most enzymes have two other parts: one is a vitamin and the other is usually some element. Enzymes are often likened to keys. For a key to work, it must not only go into the slot, but the notches at the end must be arranged so that they fit exactly in the correct position to turn on a device or motor. If a key notch is altered, the key might slide into the slot, but it will not turn. Any chemical that connects onto an enzyme might so alter its shape that the function of the enzyme is blocked. Many enzymes are specific to different plant and animal species.

The way many pesticides and herbicides kill is that some introduced chemical alters some unique enzyme that fails to work, thus causing death.

### Tree defense chemicals

Trees produce chemicals that can kill other plants, insects and even animals, including humans. Chemicals that leach from
tree parts that kill other plants are called allelopathic substances. Juglone from black walnut roots is one well-known example. The list of allelopathic substances is long. As I will discuss later, most of these killer chemicals have a similar base or core structure that includes a phenol or terpene. But, before I go on with that, I would like to mention some other common killer chemicals against insects and animals.

About 25 years ago, the talk was all about trees sending signals to produce chemicals to kill attacking insects. The experiments worked well in the laboratory, as so many do, but they did not work outside, also, as so many do not. The story was that once a few insects began to attack one tree, that tree would “send out” chemicals that would alert nearby trees to start producing more chemicals that would stop the attack. In theory, and in the lab as stated, it all fit. In the field, no proof. Again, the killer chemicals were phenol based, which can kill insects.

Trees and human toxins

Now, onto some “big ones” that can cause human problems, even death: Just as I gave some good news for aspirin, quinine, and taxol, the bad news keeps coming back to phenol-based chemicals. Many

FORECAST
Sunny
High: 83
Low: 65
The New Line of Morbark Chippers is Taking the Industry by Storm!

MODEL 2060-D  Cyclone
MODEL 2100-D  Thunder
MODEL 2050  Clipper
MODEL 13  Tornado
MODEL 2090-D  Lightning
MODEL 2012-D  Storm
MODEL 2070  Twister
MODEL 2400  Hurricane

Dealer Inquiries Welcome!

Morbark, Inc.
8507 S. Winn Rd.  (800) 362-9010  Web:  http://www.morbark.com/
P.O. Box 1000  (517) 866-2381  E-mail:  morbark@worldnet.att.net
Winn, MI 48896  Fax:  (517) 866-2280

Please circle 38 on Reader Service Card
name of poisonwood, which tells you something. The tree is *Metopium toxiferum*. All parts except the pollen of this tree are deadly. The tree belongs to an infamous family that causes many animals and humans problems – Anacardiaceae. Other notable trees and vines in this family are poison ivy, poison oak and poison sumac. Mango belongs in this family and some people are highly sensitive to the skin of the fruit.

Another large family that has some notable species is the Roseaceae. The major genus that produces harmful chemicals is *Prunus*. And the species are *Prunus serotina*, black cherry, peach *P. persica*, and apricot, *P. armeniaca*. Cyanide is the basic culprit. In peach and apricot pits it is in a molecule called amygdalin. It has the taste of bitter almonds. The pits of cherries are much smaller, but they also have similar molecules. In black cherry, cyanide-based chemicals are also in the leaves, and especially in injured leaves. Death of cattle is well known after chewing leaves, again especially fallen injured leaves, have been eaten. A note here is that healthy cherry leaves contain the nontoxic cyanide precursor prunasin. When the leaves are injured, the prunasin is split to release prussic acid or hydrocyanic acid. Cyanide blocks oxygen from bonding with hydrogen, thus blocking the release of the hydrogen in water. In cyanide poisoning, one could still breathe even though death is due to suffocation.

### Pathway blockers

Blocking enzymes and pathways – and nasty phenols and terpenes – seem to repeat as the cause of problems. Some discussion on enzymes has been given. Here is a little more on the other subjects.

Cells are highly compartmented bodies. Or, you could say that many smaller bodies are highly compartmented in cells. The cell bodies are compartmented, yet they pass along their products to other bodies in the cells. Each body in a cell has a "job" to do. The job is to process chemicals in a highly ordered and efficient way, as in an assembly line. These processes are called biochemical pathways. The pathways differ from the conventional straightforward assembly line in that there are loops along the way. The loops are places where energy must come in to power the pathway along. The rules for the pathways are similar to your computer rules. Unless every dot, dash or comma is in absolutely the correct place, the system won’t work. To make an extremely long story short, some of the nasty chemicals disrupt or block the pathways. It really does not matter where in the sequence of items the block comes; in a short time the entire pathway scrambles or shuts down. As more pathways shut down, it is not long before chain reactions go on as others shut down. In the end, the entire system shuts down. We call it death.

That is the worst-case scenario. There are ways out of this. Most pathways come with possibilities for shunts - detours. If you can get to the blocked area soon enough and encourage a shunt, the pathway could continue. Medicines do this by...
blocking the blockers. The shunts work as a temporary fix while the blocker is being unblocked. (Not very scientific, but that’s the way it is.)

Trees, energy and life

Life is a state where a system run by the power of the sun is so highly ordered that it repeats. We have seen that the system has many safeguards, redundancies, and protection and defense schemes. That is the good news. Disrupting agents (non-living) or pathogens (living) have ways of causing disorder in the system. That is the bad news.

Trees produce chemicals that defend and protect their system. The major killer chemicals are phenol- or terpene-based. The major targets for these killer chemicals are the pathogens that attack trees: insects, animals, bacteria and fungi. Sometimes humans get into the animal zone as shown here. But most of the time it is the others that are the targets.

An extremely quick summary must start with photosynthesis, where the energy of the sun is trapped in a molecule of ATP, adenosine triphosphate. Water and carbon dioxide are the main chemicals. Through many elaborate chemical processes, glucose is formed. In the process, oxygen is given off. In living cells, the process of respiration releases the energy stored in glucose and releases the carbon dioxide and water. Oxygen is required for this process. So, we start with carbon dioxide, water and oxygen, and we end with the same actors ready to act again as they trap, store, transport and use the energy of the sun. The end product we call life. Enough!

Glucose is the key

Glucose is the key molecule here. It is used to power living processes, but it is also used in other ways. It could be used to form cellulose, hemicellulose and lignins. Or it could be altered to a non-soluble state for future use - starch or oils. Or, it could be used to form a long list of chemicals essential for life as defense or protection chemicals. Here I focus on defense chemicals - phenols, terpenes.

Phenols are found mostly in angiosperms and terpenes mostly in conifers. Phenols have the basic pattern of a six-carbon ring with an oxygen and hydrogen on the second carbon. There seems to be an almost endless number of ways to connect the rings. As the rings connect, they are called polyphenols. Their major actions seem to be blocking enzymes, especially in the fungi that cause wood decay. As always in nature, there are exceptions. Some of the first fungi that are able to invade tree wounds are those that are able to not only grow in the presence of polyphenols, but can actually break down the chemicals and use them as an energy source. The major group are Phialophora species and related fungi. Many are closely associated with bacteria. I believe this is an extremely important subject that is not being studied. I suppose that splitting wood and isolating microorganisms is just not “hot” now. Too much work.
Terpenes are connections of isoprenes. Isoprene is the basic building block for many resinous chemicals and even latex and rubber.

Carbon and the chemistry of life

Organic chemistry is the chemistry of carbon. Exceptions are diamonds, graphite, coal, oil and a few other substances that are not considered organic. When you hear “organic,” you know there is a carbon there somewhere. Phenols and terpenes are organic molecules. They have carbon frameworks. When you connect carbon, hydrogen and oxygen, you can get thousands and thousands of chemicals for life. And when you add nitrogen, phosphorus and sulfur, you have molecules that make up about 98 percent by weight of all living matter.

Tree associates and more chemicals

Trees not only produce chemicals that kill or cure, they also support, through intimate associations, other organisms that also produce chemicals that kill or cure. Fungi that produce fruit bodies we call mushrooms head the list. Many mushrooms are edible, and others are not. Ancients used mushrooms in many of their ceremonies. Many of those mushrooms were the fruit bodies associated with mycorrhizae. The real killers are those in the genus Amanita.

Here is a fungus fact that relates directly to arboriculture but few people are aware of: One of the most well-known and famous fungi in the world grows on fresh tree wounds. This fungus produces a chemical so powerful that millions of people have been cured of many diseases that could have killed them. The fungus is Penicillium notatum. I isolated this fungus frequently from the surface of fresh wounds. When this fungus is around, few others will be. To this day I believe that species of Penicillium, Mucor, Aspergillus, Alternaria, and a long list of yeasts and bacteria, are a tree’s first line of defense after wounding. In a sense, these wound surface organisms are nature’s real “wound dressing.” It is the only wound dressing that I know of that works. The problem is that it comes free. It is so sad when you consider how much time and money has been spent and money made disrupting a beneficial natural defense. But, you have heard it before. Some are still not listening!

Time to accept chemistry in arboriculture

It is time to accept chemistry in arboriculture. Arborists that touch trees every day need to know about tree chemicals. Every species has something, from the fragrance of a pine to the sweet smell of a birch. Every time you cut into a tree, you release some chemicals. These chemicals tell you much about the tree.

In the end, the more you learn about the way trees work, the better and faster you will be able to work on them.

Dr. Alex Shigo is the owner of Shigo and Trees, Associates in Durham N.H.
PROBLEM: Economically Converting Waste Into Useable Products

SOLUTION: BANDIT

The BEAST has become the most popular waste reduction machine on the market for so many reasons:

- Low operating costs
- Energy efficient
- Up to 650 HP
- Reduces green waste, leaves, brush, stumps, whole trees, pallets, C&D, railroad ties, new shingle waste, asphalt and more to a consistent end product of varying sizes and consistencies
- Self-propelled unit available with 325 CAT undercarriage

MODEL 3680 BEAST RECYCLER

The ultimate stump and log shear attachment with a wide 92" opening and dual pivoting shear.

MODEL 1850 TRACK BANDIT™

Towable or Self-Propelled
18" x 19" capacity chippers that will convert an 80' whole tree to chips in under a minute.

MODEL 280 BRUSH BANDIT®

Hand-Fed
Disc-style chippers in 6", 9", 12", 14" and 18" diameter capacities are highly efficient and extremely versatile.

Call for more information or to arrange a demonstration.

BANDIT INDUSTRIES, INC.

6750 MILLBROOK ROAD • REMUS, MI 49340
PHONE: (800) 952-0178 OR (989) 561-2270 • FAX: (989) 561-2273
E-Mail: brushbandit@eclipsetel.com • Website: www.banditchippers.com

WO# 6707

Please circle 9 on Reader Service Card
OSHA Gets Ultimatum:
Write a Workable Ergo Standard

Labor Secretary Elaine Chao was grilled by two senators at an ergonomics hearing April 26 and was repeatedly asked to name a timeline and a deadline for a new ergonomics standard.

Chao protested to the Senate Appropriations Subcommittee on Labor, Health and Human Services, and Education that setting a deadline would lead to the same situation that caused Congress to overturn the Occupational Safety and Health Administration’s ergonomics rule in the first place.

OSHA’s ergonomics standard was overturned March 20 as President Bush signed Public Law 107-5, a congressional resolution disapproving the regulation. That action brought to an end a rule that the agency had been developing since the early 1990s to protect workers from carpal tunnel syndrome and other musculoskeletal and repetitive stress disorders. OSHA proposed the rule in 1999 and adopted it Nov. 14, 2000, in the waning months of the Clinton Administration.

In the past, there was no consensus on the rule and without the consideration of all the groups involved the agency would not be able to “craft something sustainable,” Chao told the senators. She maintained that she wanted to do what is right for workers.

Subcommittee Chairman Sen. Arlen Specter, R-Pa., replied that “consensus is good if you can do it.” But he made the point that “we all act on deadline” and most regulations are issued without consensus. “Indeed if you had consensus, you wouldn’t have to pursue this regulation,” he said.

Specter voted with the majority to overturn the previous administration’s ergonomics rule but lamented that the issue had not yet been resolved. He said that these hearings were intended to move the process forward as expeditiously as possible.

The ergonomics hearing demonstrated that opponents and supporters of a federal standard that would address job-related musculoskeletal disorders remain far from consensus on the need for a rule.

Deadline message unclear, disturbing

Specter said it was not too much to ask for a deadline and instructed Chao to “go back to the drawing board” and come back with an estimate.

Referring to the difficulty of promulgating worker safety rules in the current atmosphere in Washington, Specter doubted that the agency could “get a hard hat rule.” Despite that revelation, the senator felt that arriving at a new rule should not be that difficult because the agency has studied ergonomics for 10 years.

How can the standard be fixed?

Specter was joined in his concern by subcommittee ranking member Sen. Tom Harkin, D-Iowa. Harkin expressed his disappointment that Congress and the president took the “extreme action of repealing this very important worker safety standard.” Harkin told Chao he wanted to know what was wrong with the OSHA ergonomics standard that caused it to be overturned.

Those of us who would have been subject to that standard’s requirements can only hope that the Iowa senator’s question to the secretary was meant to be rhetorical, to cause her administration to think about how to fix what was broken.

In remarks to reporters outside the hearing room, Chao said that the previous administration set an “artificial, irresponsible, and unrealistic” deadline to complete the rule, but she emphasized it was not her intent to drag out the process. She has been meeting and will continue to meet with interested parties.

Although the senators interrupted Chao’s testimony, her written testimony listed several reasons why the standard failed. It noted that although the DOL began looking at the ergonomics issue in 1979, the actual proposal came out in 1999, followed by a final rule in 2000. Within the 12-month period between the proposed rule and the final standard, OSHA received more than 11,000 written comments totaling nearly 200,000 pages. The secretary wrote that in the rush to make the standard final, OSHA had to “rely heavily on contractors to assist in the review of documents.” According to Chao, the “government has a responsibility to listen to the people, especially the regulated community.”

In the preamble to the Nov. 14, 2000, final rule, OSHA noted it had issued voluntary ergonomics guidelines for general industry and for the meatpacking industry in 1989 and 1990, respectively; an advance notice of proposed rulemaking in 1992; and draft proposed rules in 1995 and 1998.
The agency said it collected and considered comments throughout the process.

The disparity between OSHA and private sector cost estimates approached $100 billion, according to Chao. "As a result, the department will consider having future cost estimates reviewed by an independent entity," Chao said. She also suggested that the labor department could help lower the overall cost of an ergonomics regulation by "focusing on high-risk occupations."

One of the hotly contested issues in the former rule was the medical removal provision, which opponents claimed would interfere with states' workers' compensation programs. Chao's testimony stated, "State jurisdiction should also be preserved by permitting states to administer workers' compensation programs without federal intervention by OSHA."

**No Consensus**

Supporters and opponents of a federal regulation presented testimony at the hearing. In comments throughout the testimony, Specter said he heard arguments that conflicted. "I do not see a consensus emerging at all," was his conclusion.

One perceived problem is how the agency will enforce the standard. Specter said he has heard complaints about the agency "everywhere." He cautioned that the agency will have to see that it doesn't overstep its bounds and suggested that there needs to be safety checks from government, business, and labor to make sure that enforcement is fair.

The senator noted that he and others have labored long hours in conferences over the ergonomics issue in past years. Specter called ergonomics "extraordinarily important," and promised that "this committee plans to pursue it."

The senator and his fellow members of Congress aren't the only ones to have agonized over ergonomics. Those of us on the receiving end of such a standard have thus far been reactive, and must become more proactive, in the pursuit of responsible regulation.

*Peter Gerstenberger is vice president of business management, safety and education for the National Arborist Association.*
Building Positive Workplaces ... by Eliminating Toxic Behavior

By Wayne Outlaw

When doing workshops, I often ask the participants to go back in time and recall their first supervisor or manager and write down the words that best describe him or her. Even before I ask them to speak, I have a clear idea of what they thought of their manager or supervisor. Their facial expressions show affection, dislike or even sometimes anger, and they sometimes blurt out comments that give their feelings away.

Some speak in glowing terms about their first supervisor while others have little or nothing good to say about theirs. Few people ever have difficulty in describing this person in great detail, because a person’s first manager or supervisor is often so influential to his or her worklife.

It is interesting to note how vivid those memories are and how they help form an individual’s perception of how he or she should treat people, especially employees. Some say, “I want to be just like my first supervisor.” Others say, “I want to be nothing like that person.” Whether positive or negative, they have a tremendous influence in the first and all future jobs.

For those who have positive recollections, I typically hear words such as supportive, cooperative, friendly, inspiring, consistent, or good communicator/listener/teacher. Many credit the individual with giving them a good start or inspiring them to be a good manager of others.

Those with less positive recollections use words like overcontrolling, inconsiderate, dishonest, non-appreciative, poor listener, and indecisive. They generally follow up those recollections with comments that indicate they did not like the person and that their behavior either demotivated them or provided extra incentive to perform in spite of the manager. Many say they vowed not to be anything like him or her and to never treat people the way the supervisor treated them.

My first manager, when I worked during high school, was in a manufacturing plant. He had a fiery temper, frequently used profanity and showed little or no respect for anyone’s feelings. I vowed to never treat anyone that way and to create a positive work environment for those I work with.

How we treat others affects not only self-esteem in the workplace, but also motivation, performance and ultimately career advancement. Some question how this can have so great an affect, and many business owners — arborists included — question if they should be concerned about how their foreman or crew leaders treat employees. They should be very concerned!

Many studies have examined the effects of managers and supervisors on staff or crew. One of the most significant studies was done at Oak Grove School in California by Dr. Robert Rosenthal. His study measured the effects of teacher expectations on pupil performance and uncovered many valuable insights into expectations, treatment and performance.

He met with the teachers of the school before the year began and told them he had identified students who would “academically bloom” that year, regardless of previous performance. However, he told the teachers not to tell the students they were identified as high-achievers or academic bloomers. Testing at the end of the school year dramatically proved he was right about who would academically bloom or increase their test score 20 percent or greater. Of the academic bloomers, 47 percent exceeded the benchmark improvement in test scores. Only 19 percent of the base group, which were those not identified as potential high-performers, improved their scores by the same benchmark.

Dr. Rosenthal then met with the teachers and “dropped the bomb.” He revealed that the students had been chosen at random. Even though they could not tell the students they had been identified, he found their behavior had an effect. It was the teacher’s treatment of the students that caused the improvement. They communicated their expectations in subtle and non-verbal ways, such as being patient when a student had trouble, encouraging the student to continue trying when he or she experienced difficulty, telling the student he or she could do better, and even assigning more challenging work. In many ways, the teachers communicated their high expectations without stating it explicitly. In contrast, they found that if they didn’t expect the student to bloom, they gave them less of a chance to succeed before offering assistance, gave less challenging work and even interrupted them when they spoke more. Even without saying it explicitly, they were clearly communicating expectations.

If we understand the vivid memories most of us have of our first manager and the power of expectation, it stands to reason that when we staff crews with young employees, it is important to have positive, skilled supervisors as foremen. The foreman not only has a tremendous ef-
fect on the productivity and quality of the tree work, he has a significant effect on forming the expectations, habits, and even tenure of a new employee. His daily interaction and communication with the employee not only affects the employee’s expectation of himself, but also the employee’s expectation of the organization.

If the employee is treated with respect, consideration and integrity by the supervisor, he or she will develop trust and confidence in the company and loyalty will increase. On the other hand, if the employee is treated harshly, is not considered and feels the supervisor is not looking out for his or her welfare, there will be little loyalty.

A unique characteristic of good supervisors in tree care and elsewhere is that they tend to cause employees to live up to their high-expectations. They also set the tone of a positive relationship between employee and company. The supervisor is key because he is the one who many times translates company policy and procedures into actions and, importantly, trains new employees.

A poor supervisor or manager fails to develop high expectations in employees and, as a result, promotes lower performance by the employee. A supervisor’s or foreman’s expectations become a self-fulfilling prophecy.

A manager’s or supervisor’s expectations of his subordinates and the way he treats them develops loyalty, determines their performance, and ultimately determines career progress. A unique characteristic of superior supervisors is their ability to create high expectations that subordinates fulfill. Less effective supervisors fail to develop similar high expectations in employees and as a result the productivity of subordinates suffers. This lower expectation affects the performance and productivity of not just the new employee, but also the entire crew.

A unique characteristic of good supervisors in tree care and elsewhere is that they tend to cause employees to live up to their high-expectations. They also set the tone of a positive relationship between employee and company. The supervisor is key because he is the one who many times translates company policy and procedures into actions and, importantly, trains new employees.

A poor supervisor or manager fails to develop high expectations in employees and, as a result, promotes lower performance by the employee. A supervisor’s or foreman’s expectations become a self-fulfilling prophecy.

A manager’s or supervisor’s expectations of his subordinates and the way he treats them develops loyalty, determines their performance, and ultimately determines career progress. A unique characteristic of superior supervisors is their ability to create high expectations that subordinates fulfill. Less effective supervisors fail to develop similar high expectations in employees and as a result the productivity of subordinates suffers. This lower expectation affects the performance and productivity of not just the new employee, but also the entire crew.

Without assistance or training, it is unrealistic to expect supervisors to have excellent people skills and understand the importance of high expectations. If they learn people skills and develop their perceptions of how to treat people from previous managers – especially their first manager – it is no wonder we are at times unwillingly propagating situations that cause us difficulty.

It is almost as if the “toxic” attitudes and actions of previous supervisors get passed on to future workers. They in turn become supervisors passing them on to their crew. If you were trying to ensure the health of a tree and realized a toxic substance was reducing its growth and killing it, you would take action.

By being aware of your managers’ and supervisors’ attitudes and actions, you can see if “toxic” attitudes and actions are killing performance and causing turnover. Just as a tree must be fertilized, pruned and directed in order to grow into a healthy, well-formed tree, so must individuals. By providing the supervisor the opportunity to develop people skills, and receive performance feedback, the supervisor or crew leader can become a positive effect on those he works with.

Bobcat Co. introduces the Advanced Control System (ACS) for selecting hydraulic lift and tilt functions in skid-steer and compact-track loaders. The Bobcat ACS gives operators the ability to select either hand or foot control in seconds by pushing a rocker switch on the loader’s dash. ACS is available as a factory option on Bobcat G-Series loader models 753 and larger. This factory-installed ACS option includes the hand controls, foot pedals, dash panel switch and the lift-arm float control button, which is mounted on the left control handle facing the operator. The ACS option allows machines to be used by a number of operators who can each choose their preferred control option. Engaging the lift arm float function is now controlled by a detent button on the left handle of machines equipped with Advanced Hand Controls or the Advanced Control System. For more information, contact a Bobcat dealer or visit www.bobcat.com.

The FECON BA Wood Hog horizontal grinder reduces wood waste, stumps, C&D material, yard waste and other organics. It has a 40-inch-by-62-inch feed opening and can process material, such as stumps or large volumes of brush, leaves and grass, and reduce it to a controlled size through a wide range of particle sizing screens. The horizontal grinding technology pioneered by FECON reduces fuel consumption, labor, and service/maintenance costs. A 600 hp or 800 hp Caterpillar engine powers the BA Hog’s 62-inch hammermill. A single button on the control panel or the wireless remote control engages the hammermill, so operators need not operate a manual clutch and cannot wear out costly clutch components. The system also provides excellent protection from debris. The hammermill is effective on a wide range of tough materials. Each of the 24 fixed-position hammer assemblies or optional 48 swing hammers incorporates an easily changed, reversible cutting tool. One person can change a complete set of cutting tools in only 45 minutes. For more information, contact FECON, Inc., 10350 Evendale Drive, Cincinnati OH 45241, or call (800) 528-3113, fax (513) 956-5701, or visit www.fecon.com.

V&B Manufacturing Co. is stressing the wide range of applications now possible with its broader line of 15 multi-purpose Groundbreakers Landscaping tools. The dual-headed tools, offered with 16-, 26- and 36-inch handle lengths, provide a wide range of options for the most rugged ground breaking to the finest finished small garden bed. The full-size tools feature multi-purpose tool heads with pick ends, broad mattocks, axe heads, tines and scoops that can penetrate, dig, trench, chop and till. The 16- and 26-inch tools offer the same tool head configurations in lighter-weight versions for smaller garden requirements. V&B has addressed the problem of twisting on impact with its patented rectangular fit of the tool head to the handle. The company’s range of tools includes six models of the full-size 36-inch Groundbreakers; six versions of the 26-inch and 36-inch lightweight Handy Mattock Series; and three models of the 16-inch Mini-Series for small-scale gardening. For more information, contact V&B Manufacturing Co., PO Box 268, Walnut Ridge, AR 72476, call (800) 443-1987, or visit www.vbmfg.com.

Bandit’s 3680 Beast Recycler has gone mobile. The compact recycler is now available as a self-propelled unit designed for off-highway and off-landing use. It is ideal for land clearing and logging operations wishing to dispose of unwanted slash and cull material. Orchard operators might find the machine effective in processing unwanted trees. Features include a CAT Model 325 undercarriage with a variable speed hydraulic drive and enough hydraulic power to traverse fairly rough terrain, 11-inch long track type infeed conveyor; and a 12-foot long by 40-inch wide discharge conveyor. This unit can be powered by either a Caterpillar or John Deere 500 hp diesel engine. For more information, call (800) 952-0178 or visit www.banditchippers.com.
The Morbark Model 60 Talon Debris shear is the newest addition to the Morbark recycling equipment lineup, providing contractors with another tool for recycling stumps, logs, ties, poles and other wood waste. The Talon is designed to split and shear stumps and other bulky wood material up to 60 inches, and is also useful for stump removal. In addition, it is designed to process large material prior to grinding. Pre-processing with the Talon eliminates rocks and dirt from material, which means less wear and tear on the grinder. It also sizes the material, allowing wood waste to quickly flow through the grinder. The Talon can be used as a splitter for large-diameter logs, stumps and limbs. Standard equipment includes a dual movable fingered bucket with replaceable hard-surfaced weld-on splitting tips; one heavy duty movable scissors action shear blade designed to split and shear material both in and out of ground; and two replaceable weld-on blades. For more information, contact a local Morbark dealer or visit www.morbark.com.

Tanaka Power Equipment has introduced the new TBL-4610 Backpack Blower. The TBL-4610 features a 43cc, 2.5 hp engine and is C.A.R.B. Tier II certified. This blower has an air velocity of 200 mph, and air volume of 500 cfm measured at the end of the blower tube (not at the housing). It also comes with swivel/flexible blower tubes, a multi-point, anti-vibration frame, and a comfortable front handle for added comfort and control. For more information, call (253) 333-1200 or visit www.tankapowerequipment.com.

Four years ago, Wood-Mizer introduced SimpleSetworks, the first setworks available from a portable sawmill manufacturer. SimpleSetworks allowed Wood-Mizer mill owners to automatically cut the board thickness they wanted, including kerf-loss. For 2001, Wood-Mizer introduces the ACCUSET setworks option. Accuset constantly references the blade position from the bed, enabling the mill operator to easily cut patterns from the log. Sawyers no longer need to make complicated calculations to cut a stack of accurate boards, while still having a specific-sized cant when they are done. ACCUSET is designed to operate in fractional inches (6/4), decimal inches (1.50), or metric (38mm). Its five language settings are English, Spanish, German, French and Polish. ACCUSET is completely water-resistant, and can be used indoors or outdoors. For more information, contact Wood-Mizer at (800) 553-0182, or visit www.woodmizer.com.

Anyone who cares for trees — from a homeowner to a professional arborist — has probably had trouble with suckers and sprouts that come up from the tree base in the spring. It usually takes two to three times pruning throughout the season to keep them trimmed down. Sticker Stopper Concentrate is aimed at reducing this labor-intensive process. Mixing and spraying at the base of the tree when suckers appear will give up to three months’ suppression. It can be used on trees such as olive, elm, pear, apple, crabapple, redwood, crape myrtle, maple, sycamore, oak, willow and others. It can also be mixed with latex paint and painted on the tree surface. For more information, contact Monterey Chemical Co. at P.O. Box 35000, Fresno, CA 93745, call (559) 499-2100, fax (559) 499-1015, or visit www.montereychemical.com.
28 graduate from Golf Course Turfgrass program

The 42nd Golf Course Turfgrass Management Program class at Pennsylvania State University graduated March 3. Twenty-eight students received their certificates at a ceremony held at the Nittany Lion Inn. Dr. Paul Backman, director of the Agricultural Experiment Station and Associate Dean for Research and Graduate Education, addressed the graduates during the commencement ceremonies. The keynote speaker was Oscar Miles of The Merit Club in Illinois.

Scholarship and award winners were: Trans-Mississippi Golf Association: Aaron Baker, George (Ben) Jones, Joseph Maloney; Penncross Bentgrass Growers Association: Aaron Baker, Daniel Brickley, George (Ben) Jones, Sean Jordan, Toby Kiggins, Joshua Laughridge and Joseph Maloney; Duff Shaw Memorial: R. Geoffrey Brunner; Myles Adderly Technical Report Writing Award: Robert Raley (sponsored by Denis Griffiths and Associates Inc.); PSU Alumni Outstanding Student Award: Toby Kiggins; Zimmerman Memorial Award (sponsored by Lesco Inc.) for Outstanding Turfgrass Student as selected by fellow classmates: Sean Jordan.

Expect shortages of mulch in East

Gardeners in New England and the Mid-Atlantic states could experience shortages in mulch supplies this season. Members of the National Bark and Soil Producers Association (NBSPA) are reporting severe shortages in pine bark and pine byproducts typically screened, processed and packaged for garden mulch.

The shortages are the result of several downward economic trends in the forest products industry that are beyond the control of mulch producers. Recent closings of a large number of paper production facilities and sawmills up and down the Eastern seaboard have stopped the flow of pine byproducts used for mulch production. The plant closings are reportedly the result of poor market prices for lumber and paper and an influx of foreign goods that have displaced U.S.-made products.

Throughout the region, deregulation of the electric power industry and rising prices for oil and gas used to generate electricity has encouraged power companies to burn bark products as fuel. Biomass plants that typically supply mulch companies with raw materials are now consuming the resource themselves.

The NBSPA survey of available raw material supplies indicates member companies reporting insufficient inventories to meet last year's demand, which is expected to grow by 8 to 10 percent for 2001. The shortage of raw materials does not appear to be affecting hardwood mulch inventories in the eastern regions.

Samson consolidates under American Group

The American Group recently announced the consolidation of its operating divisions under a single corporate identity: Samson Rope Technologies.

The consolidated company is a result of the 1993 merger between Samson Ocean Systems, American Manufacturing Co., Herzog Rope Ltd. and the 1999 acquisition of First Washington Net Factory. All of these operations are now consolidated under the Samson Rope Technologies name, with corporate headquarters remaining in Ferndale, Wash.

Chipper safety video available from Morbark

As part of Morbark's hand-fed chipper safety guidelines, the Winn, Mich., company has recently produced an updated safety video.

The video highlights proper clothing to be worn and appropriate safety equipment to be used when operating chippers, and it includes a list of clothing and accessories to not be worn while operating this machinery. Pre-start up procedures, such as the proper technique to inspect chipper wear, is also included in the video. Chipper operation safety is also featured.

The 11-minute video is sent to all new owners of Morbark hand-fed brush chippers. A Spanish version of this video is also available. For a free copy of the safety video, call Jolene Priest at (800) 233-6065.

Dow announces winners in Vistas program

Dow AgroSciences presented five electric utility companies with awards from the inaugural *Right-of-Way Vistas* Lines of Distinction Awards program during a recent banquet held in Nebraska City, Neb. This honor recognizes excellence in vegetation management practices and procedures.

Allegheny Power (Greensburg, Pa.), Energy United (Statesville, N.C.), Gainesville Regional Utilities (Gainesville, Fla.), Lakeland Electric (Lakeland, Fla.) and Potomac Electric Power Company (Washington, D.C.) received 2000-01 Lines of Distinction Awards for their superior efforts in each of the following categories:

Operational integrity - Promoting worker safety and service reliability.

Meeting objectives - Achieving company financial and business objectives.

Innovation - Innovative implementing of chemical and equipment technologies, as well as labor practices and public relations efforts.

Stewardship - Attaining high standards of chemical and equipment technologies, as well as labor practices and public relations efforts.

Biodiversity - Improving plant and wildlife habitat, as well as aesthetics, on company rights-of-way.

The *Right-of-Way Vistas* Lines of Distinction Awards program is open to all utility right-of-way managers, as well as contractors and distributors, who may nominate their customers. For entry forms, visit www.dowagro.com/vrvm, click on *Rights-of-Way Vistas*, Volume 14, Issue 2, entry form. Or, contact Greg Baldwin at (262) 784-7200 or gbaldwin@bader-rutter.com.
Grow Your Future in Tree Care
at the ISA Milwaukee 2001
Conference & Trade Show • August 12-15, 2001
Midwest Express Center
400 W. Wisconsin Ave. • Milwaukee, WI

SIGN UP TODAY—don't miss out on one of the country's largest and most versatile Tree Care Shows for 2001! FREE Trade Show Passes and Climbers' Corner Live Demonstration Tree!

Come see the latest in arborist gear, equipment, supplies, and services from over 120 tree care companies. Shop and compare products from the industry's major suppliers. Enter you name for our BLUE LIGHT SPECIAL RAFFLE and win valuable prizes!

Free Trade Show Only Passes are valid August 13 & 14, 11:30 AM—5:00 PM. Sign-up today and avoid long lines at Trade Show registration!

ISA CLIMBERS' CORNER LIVE! ON THE TRADE SHOW FLOOR
The stage is set and the ropes are rigged—get ready for the excitement of live demonstrations from the world's top experts on climbing, rigging, cabling, bracing, and more! See the latest gear in action.

DON'T MISS OUT—REGISTER FOR YOUR FREE PASS TODAY!
Register up to three people from your company for Trade Show Only Passes, or request an ISA Milwaukee 2001 Preliminary Conference Program.

At the Midwest Express Center, stop by the Trade Show Only counter to receive your name badge (required to enter the Trade Show floor).

Fax or mail completed forms by August 1 to:
International Society of Arboriculture
P.O. Box 3129
Champaign, IL 61826-3129
Fax (217) 355-9516

Company/Organization: ____________________________
Mailing Address: __________________________________
Phone: ____________________________ Fax: ____________

Please register the following people for free Trade Show Only Passes (type or print clearly).
1. ____________________________
2. ____________________________
3. ____________________________

☐ CHECK HERE if you would like to receive a Conference Preliminary Program—highlighting over 25 hours of educational sessions covering a broad range of the latest information, methods, and practical application for the Tree Care Professional.

For more information about ISA, visit the ISA Web site at www.isa-arbor.com

Please circle 31 on Reader Service Card
Your crew has arrived at a beautiful park where work is soon to begin. Trees are to be trimmed today to maintain this pristine park’s appearance and safety. The workers involved are assembled and ready for work. Look around and observe – not up; look down. Check out your crew’s feet. What is the footwear choice of the day? Hikers, bikers, sneakers or boots?

So often the foundation (footwear) of our work attire is overlooked. We plan our uniforms for the day, collect our personal protective gear, slip on our footwear, and off to work we go. However, look again at your feet. Especially if you are in a crowd or crew, very seldom do you see more than two feet with the same design, style or size of footwear. Well, what does this mean? There are as many personal preferences for footwear as there are colors of the rainbow. I guess comfort and style is in the eye – or in this case, foot – of the beholder. If we are going to begin work, however, we need to look closely at our footwear choice.

Here are a couple of considerations in footwear selection criteria I hear often in my travels:

**Are they comfortable and will they last?**

Boots or work shoes that are comfortable on one set of feet might not be as fitting to others. The support, sizing and design of a certain style might be the best ever for one person, but the worker in the next workstation might have problems with them. Feet are different. Try the shoes on.

First impressions are usually very accurate. If you try shoes on and they are comfortable (yet might be a little stiff and need to be broken in), they will most likely be comfortable for weeks, months and possibly years to come.

**Will they last long enough to become comfortable?**

Looking at footwear in the field, the life expectancy is directly related to the job, conditions and the care the owner gives them after work. Keeping boots clean, dry and conditioned is the ticket to many miles of comfortable use.

**How expensive are they?**

Well, it’s been said you pay too much for bad boots and too little for good ones. Some are less expensive but do not offer the support, protection, water resistance or long life of a pair that costs a few dollars more.

I had one training participant tell me that all footwear is expensive if it doesn’t provide protection or reaction time. In one near-injury accident involving the participant’s wife and a chain saw, a new pair of tennis shoes was ruined. Well, one sneaker, anyway. It was cut by the saw chain. Luckily there was no injury to the foot. Regarding expense, he said, “Have you ever tried to buy one sneaker?” They had just purchased the new sneakers a few days before the incident. All footwear is expensive if it doesn’t last long for any reason. I think...
in this case, sneakers were not a proper choice of footwear for the task. The decision was a bad one for several reasons.

What should be some of the considerations in footwear selection?

Select a sole for adequate traction. Consider lug soles for ground traction. Buy a limited or non-slip sole if you operate equipment. Climbers need soft but durable soles for rope- and limb-walking tasks. In other aspects, consider shank support for gaff work.

Vamp materials should resist wear, abrasion and water. They must also be easy to maintain. High-quality leather, rubber or heavy woven fabric is a necessity. The material should also resist puncture from sharp sticks, workplace debris, etc. Designs and materials should support your lower leg and ankle well.

When working just about any task, I prefer footwear with protective toes. Make sure to check company, state and federal regulations for your job task. Many occupations require ANSI-approved protective toes in the workplace. For me, it’s not the rule – it’s common sense.

With certain special tasks (such as chain saw groundwork), I suggest the operator’s footwear be of chain saw resistant design. Inner liners of rubber composites or woven nylon give the wearer a little extra reaction time from the saw should the need arise. In some occupations where chain saws are used, OSHA requires chain saw resistant footwear designed to resist saw chain penetration.

Look around again, yes, down again... To what footwear do you trust your foundation? Consider the tasks you perform daily.

Tim Ard is president of Forest Applications Training, Inc., a national chain saw applications and safety training company. Forest Applications Training, Inc. is based in Hiram, Ga., and provides chain saw training and demonstrations across North America. Tim is sponsored by Husqvarna, PFERD Inc. and Oregon® Cutting Systems. Forest Applications Training, Inc. PO Box 1048, Hiram, GA 30141-1048. phone (770) 459-3791, e-mail info@forestapps.com.
Troubled by recent trends in the economy? You are not alone. The collapse of the dot-coms, the softening of the stock market, the layoffs in the workforce. All of these headline-making and headache-inducing events seem to threaten the prosperity that has energized customers over the past decade.

While no one wants to overreact to unsettled times, you probably want to know what steps you should take now to protect your tree care business if the economy worsens. Here’s what top consultants advise:

Reinforce sales efforts

“In fat times, sales efforts can get lax,” says Les Behrend, president of Preferred Management Installations, a retail consultancy in North Barrington, Ill. Now’s the time to beat the drum.

Great selling tactics include telephone calls to new and past customers, more aggressive direct mail programs, more field demonstrations, and creative thinking about how current products and services can be sold to new groups of customers.

Successful sellers, says Behrend, will also improve their “upselling,” a term that encompasses a number of techniques to increase the size of the average ticket. For starters, always mention additional services your company offers to active customers, and explain the greater benefits of higher-priced selections.

**Bonus tip:** Ask your staff to share their experiences about “what works and what doesn’t” when it comes to selling services and products to a customer.
Watch expenses closely

In good times, expenses tend to grow beyond their usual limits as company owners drop their guard. Now is the time to take a fresh look at each expense, eliminating those that do not contribute to profit. If you keep a constant review of costs on a daily and weekly basis, you won’t face unmanageable bills at the end of the month.

Pay particular attention to equipment and to getting more out of what you already own. “Instead of throwing something away and getting a new computer or a larger building, figure out what’s wrong with what you have and make it work,” says J. Tom Brown, president of Tom Brown & Co., Wilton, Conn. Look at each expense in terms of value, suggests Brown. “Especially in the area of computers, a lot of times people rush to upgrade when they don’t need the latest and greatest.”

One big expense can be advertising, where allocating dollars can be both art and science. Blanket rollbacks of advertising programs can backfire. “You will lose something if you stop the flow of advertising, which is a cumulative thing,” says Brown. “People don’t buy until they are ready, and the whole idea of advertising is to help them remember you when that time comes. Of course, it’s also possible you are advertising too much, and in some places you can be more selective.”

Brown suggests consulting with your workers, who interact with customers daily, to see which advertising vehicles they believe are attracting people and increasing sales.

**Bonus tip:** Take advantage of the increased leverage that results when companies in general cut back on their advertising budgets. Be aware that your competitor may cut back on advertising, providing you an opportunity to expand your market by redirecting your own program.

Monitor your cash and inventory mix

In times of greater risk, companies need to increase their liquidity to assure survival in the event of a sudden downturn. “Cash is king,” says Joel Getzler, president of Getzler & Co., New York. “Monitor your cash on a regular basis to
make sure you are not keeping it tied up.” Cash flow can dry up if a work slowdown occurs and bankers restrict lending. You’ll need a reserve of cash to keep you going.

If you sell fertilizer, mulch or small machines as a side business, keep an eye on your cash. Cash tends to disappear into a black hole of inventory when sales slow. “It’s easy to fall into the habit of holding too much inventory, with the idea that tomorrow will be a better day,” says Getzler. “Now is the time to move the dead or semi-dead inventory to raise additional cash.”

Various psychological motivations may cause small dealers to hold onto too much inventory. Already mentioned is the “sun will come out tomorrow” syndrome. But consultant Tom Brown points to the trap of overlooking merchandise holding costs. “Sometimes people get suckered into thinking the only thing that counts is what they pay their suppliers for merchandise, so they buy more than they need to get the best price,” says Brown. “But both space and inventory have costs. It’s easy for their combined values to be greater than any discount enjoyed by purchasing excess quantities.”

The smallest retailers often have the biggest problem in this area, cautions Brown, largely because their computer systems do not track costs adequately. “Often retailers will hold slow-moving inventories because they don’t want to take a bath,” says Brown. “But they doom themselves to long-term declines in sales and profits. You need to free up space at your shop for faster-moving items.”

**Bonus tip:** Inefficiencies rise to the top in the event of an economic downturn. Reassess all activities to gain more productivity from the same investment in time and money.

**Track individual inventory items**

While the need to trim overall inventory has been covered above, it’s also vital to monitor the sales of individual items, or stock-keeping units (sku’s), and replace sold items, if they move well, with like ones. Watch out for bad restocking habits that may have been cultivated over recent fat times. For example, you may be routinely buying the same quantities of fertilizer or pesticides as last year, even though orders have started to slow.

“If you don’t control your inventory mix in changing times, your profitability will be compromised and your working capital will be tied up in inventory,” says Michael Appel, president of Appel Associates, Purchase, N.Y.

Appel suggests holding back some of your budget for opportunistic buys, which can occur more often in difficult times. “If you stay alert and in the market, and keep some money on hand, you can cut some good deals,” says Appel. “Avoid the temptation to program your buys completely up front, under the apprehension that if you don’t order early you can’t get it.”

**Bonus tip:** When selecting new services to sell to customers, stay in your core business and expand it. Avoid straying to areas...
Your business is our business

Soar with the BEST!

Join

National Arborist Association
Dedicated to the Advancement of Commercial Tree Care Businesses

U.S. Office
3 Perimeter Road, Unit 1
Manchester, NH 03103
Phone 800-733-2622
(outside U.S.) 603-314-5380

European Office
110 Below Westgate
80 High Street, WINCHESTER
Hampshire, S023 9AT, UK
Phone +44 (0) 1794 512367

www.natlarb.com

Please circle 40 on Reader Service Card
that require expensive new equipment, operations training or marketing.

**A human touch**

Should you cut your staff in response to slowing sales? These days, most tree care companies are looking to hire workers—not lay them off. However, should business slow down enough, layoffs could become a reality. Any decision to reduce personnel must be weighed against the psychological impact on the individuals who remain, and the effect that impact will have on customer service. The one thing you need to preserve is your connection with your customers, which can be harmed when employees are unhappy with their employer.

“If staff cutbacks are not done right, you violate the doctrine of perceived fairness, and people break trust with the organization,” says Larry Senn, chairman of Senn-Delaney Leadership Consulting, Long Beach, Calif. “Rather than just wield an ax, appeal to people in terms of human motivations. Create a positive environment and maintain it in spite of a downturn.”

Leaders need to be inspirational, says Senn, to let people know that better times are coming. If you make a staff change, you need to explain it to people in terms they can understand or you risk creating uncertainty that sends your operation into a downward spiral.

**Control Emotional Stress**

Hard times damage more than your balance sheet. Your own emotional health—and that of your employees—is tied up with the well-being of your retail operation. One consultant recommends establishing a system of emotional support for yourself and your staff.

“In difficult times, people tend to retreat into their shells because they think they are next on the list to be terminated,” says Mark R. Haas, president of Research and Organization Management, Bethesda, Md.

“The best companies have some structured time and place for employees to get together socially. Even something as simple as beer and hot dogs on Friday afternoons can make a big difference. Maybe the move looks forced to your staff, says Haas, but it’s worth doing.

You and your top people need support, too. “Set up an informal advisory board with your attorney, your accountant and several friends in different industries,” Haas suggests. “Schedule a dinner once a month to discuss how business is going. Share your pain, and discuss how you can build on your strengths.”
Royal TRUCK & EQUIPMENT

1990 to 1997 International 4900's
DT466 Engine, 5-7 Speed, 33,000 GVW, New Royal Forestry Body, Cormach Knuckleboom Crane. Painted your color.

1994 Ford F700 Lo Pro

1994-1996 Freightliner Forestry Trucks
Cummins Turbo Diesel, 5 Speed Transmission, 25,500 GVW (No CDL), 14 ft. Royal Forestry Body. Sharp trucks!

1995 GMC Topkicks
3116 CAT, Allison Automatic or 5 Speed, 25,950 GVW, with Flatbed, Stake Body, or Royal Forestry Body. From $18,900

1996 Freightliner FL60 Chip Truck
Cummins 8.3L, 10 to 16 ft. Royal Forestry Body with Removable Lids. Ready to work. $27,900

1996 Freightliner FL80 Chip Truck
Cummins 8.3L, 10 to 16 ft. Royal Forestry Body with Removable Lids. Ready to work. $27,900

1990 Int'l 8100 Deluxe Forestry Package
Cummins Del, 9 Spd, 32,000 GVW, New 14 ft. Body, Hoist, New Cormach 6800 E2 Knuckleboom, Ext Bumper for Winch.

Royal Truck Carries Cormach Cranes
The finest cranes in the industry. Unbeatable quality and value especially when mounted on a Royal chassis.

1990-1997 Int'l Knuckleboom Trucks
10 to 16 ft. Royal Forestry Body with Removable Lids, New and Used Cranes. Let Royal build the perfect truck for you!

New Royal heavy duty landscape bodies mounted on clean, low mileage chassis. Over or Under CDL, Automatic or Manual Transmission. All makes.

Custom Built Landscape Bodies
Built To Your Specs
Mounted on our large selection of clean chassis. Call Royal Truck today.

1995 GMC Topkick Dumps
3116 CAT, 25,950 GVW, Allison Auto or 5 Speed, New 10 ft. 5-7 yd. Rugby Dump Body, Hoist. Painted your color. $24,900

Toll Free 1-800-283-4090
Royal Truck & Equipment
6910 Route 309 • Coopersburg, PA 18036
Phone (610) 282-4090 • Fax (610) 282-8986
www.royaltruckequip.com

Please circle 51 on Reader Service Card
Safety experts use the term "struck-by" to describe an accident caused by forceful impact. It is one of the broadest — and most populated — categories of accident across all industries.

Commonly, arborists are injured when they are struck by falling or swinging branches, limb sections, etc., during tree pruning, tree take-downs and rigging operations.

Another serious type of struck-by accident can occur when either the chain saw operator or co-workers are struck by a tree or spar being felled from the ground.

Struck-by's caused about 30 percent of all fatalities in the tree care industry in a recent five-year period, barely edging out electrocution as the leading cause of worker fatalities. In other words, on average, one arborist dies from a struck-by accident every six weeks. This is morbid to be sure, but it certainly underscores the importance of this subject for you and your fellow arborists in the field.

You can avoid struck-by's with a combination of adequate planning, good communication and proper technique.

Your workday should start with the formulation of a work plan and a job briefing to communicate the plan to others. The work plan/job briefing should discuss any overhead hazards such as widow-makers or hangers that might
be present at the work site. Be sure to address the relative hazard created by so-called “risk trees.” For the purpose of this article, I’ll define a risk tree as one whose mere presence on the work site adds risk for members of your crew or in some cases the public. Tree hazards take many forms, so let’s focus on those hazards that might cause the tree, or some portion of it, to fail and cause a struck-by.

Making decisions about risk trees takes experience and knowledge. Sales people and supervisors need to clearly communicate information about suspected risk trees to the arborists in the field, and crews should evaluate the tree in question for themselves before starting the job. Generally, the crew should start with an evaluation of the entire tree, followed by a closer examination of its root flare, trunk and major limbs.

Tree hazards aren’t always easy to quantify or even identify. For more information on how to evaluate a tree for potentially hazardous conditions, please see the references at the end of this article.

About half of all struck-by fatalities involve falling tree debris. Commonly, a crew member on the ground is struck by debris dropped by a co-worker aloft.

About half of all struck-by fatalities involve falling tree debris. Commonly, a crew member on the ground is struck by debris dropped by a co-worker aloft.

Your work plan should establish the landing zone (drop zone). This is the area under the tree where debris will fall. Entry into or activity within the landing zone requires planning, coordination and constant communication. Therefore, your job briefing with all crew members should discuss the hazard of debris falling in the landing zone as well as what specific measures the crew will take to reduce or avoid the hazard.

The work site should be set up so workers on the ground are able to avoid the landing zone and other overhead hazards as much as possible. Of course, if their job is handling debris and lines for the person in the tree, entering the landing zone is unavoidable.

Prior to dropping any limb or branch that has the potential to cause injury, the worker in the tree must check to see that the landing zone is free of people and property that may be damaged. But that person doesn’t always have a clear view of the ground under the tree. It is equally the ground crew’s responsibility to know what is happening in the tree and take the proper precautions, especially when the climber’s or bucket operator’s vision is obstructed or his attention is focused on a particularly difficult task.

Two-way communication is key to worker safety. The principle of the so-called “command and response” system...
is that the person in the tree has to give clear, audible or visible "commands" to the ground crew, and the ground crew has to respond that the warning was received and heeded. Verbal warnings like, "Stand clear!" and responses like, "All clear!" can be used. When noisy operations, long distances and language barriers prevent verbal communication, pre-arranged hand signals can be used.

Controlled situations yield more predictable results, and uncontrolled events cause accidents. Control on a tree job is gained several ways. The right kind of cut can provide some control over the limb being removed. The wrong cut, or the right cut made improperly, can cause a loss of control. A little extra time taken in making a proper face cut with no bypass and a proper back cut can save endless grief over the results of an improper cut. This applies to felling cuts on the ground as well as to directional cuts in the tree canopy.

When using chain saws during rigging operations, the arborist should use special care and take the time to position himself to be able to make cuts with accuracy, and to finish cuts comfortably and securely.

Just as with take-downs, a suitable notch and back cut creates a hinge that gives the arborist control over the piece. This is especially true on spars – vertical stems larger than 5 inches in diameter. Hinging reduces splitting and provides a means to direct the fall or swing of the wood.

Proper rigging practices should be taught and used because they increase the arborist’s control, increasing the safety and efficiency of the overall operation. Rigging should be used when:

- It will decrease workers’ exposure to falling limbs or tree sections.
- Limbs might damage power lines or become energized.
- Limbs might damage other structures, sensitive yard areas, or landscaping.
- It is advantageous to control where the material lands.

The principles of good rigging directly affect the crew’s safety. The crew must not attempt anything beyond its capabilities without expert supervision. Have them practice new techniques in non-critical situations. Never rely upon rigging to protect workers from falling or swinging limbs. All personnel should...
One key to avoiding injury from struck-by's is to mark off a drop zone around the base of a tree where branches and other debris are likely to fall. Here, orange cones placed around the trunk of the tree keep the public out of danger as a tree worker prunes a tree in a public park.

be positioned well out of the way of, or in a location protected from, falling or swinging limbs.

If you want to provide your crews with training to recognize and avoid struck-by hazards, the NAA recommends its new Preventing "Struck-By's" Pocket Guide.

These related tree care safety resources from the NAA (800-733-2622) address different aspects of this workplace hazard:

**Rigging for Removal** – A two-part video series and workbook

**Tailgate Safety Program** – Sixty different tree care safety lessons

**Pocket Guides:** Identifying Hazard Trees, Safe Tree Felling, Avoiding Electrical Hazards, and Preventing Falls

The following programs and publications are available through the ISA (1-800-ISA-TREE):

**Tree Climber's Guide** (illustrated book or audiocassette)

**Arborist Equipment,** by Donald Blair

**A Photographic Guide** to the Evaluation of Hazard Trees in Urban Areas/Study Guide

**A Handbook of Hazard Tree Evaluation** for Utility Arborists.
Firewood Processing for Success

By Michael Roche

With today's new machinery, and the right planning, an arborist should be able to put some well-earned income into his pocket during a time of year when not much else is going on.

The Timberwolf TW-PRO-HD keeps its grip on even the most irregular wood.

Splitters, such as this one from Big Foot Industries, Inc., can process large logs to fit into small diameter chippers.
Making extra money from firewood is something every arborist thinks about. It is a natural byproduct of the industry. But the problem has always been the high cost of labor and machinery with low price for the wood. With soaring energy costs and today's more efficient machines, that problem may be swinging in the wood processor's favor. The cost for the machinery is still there, but the equipment is faster, churning out more wood per hour. It is also more reliable, resulting in fewer breakdowns. And you can frequently get twice as much for the wood that you could get three years ago.

Setting up a profitable firewood division for your company is, of course, the hard part. A typical high-volume wood splitter can cost just over $7,000 and wood processors begin at $20,000 and up. The companies that have been successful combine several key ingredients.

Firewood wrapped in plastic retails in smaller loads for higher prices per cord. They get their wood for nothing from either tree work or logging jobs. They always have a place to stockpile wood. They handle it as few times as possible. And when it comes time to make the wood, they produce a lot of it in a short period of time, often delivering to their customers the same day.

---

<table>
<thead>
<tr>
<th>Forestry Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3 Locations To Serve You Better:</strong></td>
</tr>
<tr>
<td>Forestry Equipment of Virginia • 804.525.2929 Phone • 804.525.0817 Fax</td>
</tr>
<tr>
<td>Forestry Equipment of Shelby, NC • 866.824.1100 Toll Free • 570.558.6700 Phone • 570.558.6703 Fax</td>
</tr>
<tr>
<td>DeNaples Equipment, Pennsylvania • 866.824.1100 Toll Free • 570.558.6700 Phone • 570.558.6703 Fax</td>
</tr>
</tbody>
</table>

---

Please circle 23 on Reader Service Card
Still, there are other factors that must be considered. Arborists have to be aware that their costs are usually higher than costs for other companies that might sell firewood. Free wood from job sites might help level the playing field but that might not be enough. Most tree care companies that have made money from firewood have made sure their profit centers in other areas of the business are in place. Then they add firewood.

A typical scenario for a company that successfully enters the firewood business is that the company made its money doing other tasks, such as tree work or logging. After a successful season, the company has extra money and the tax man is going to take a huge portion of it if they don’t spend it. They have enough trucks and chippers, so they buy a splitter or processor. It might not be the most profitable part of their company, but many owners look at it as another piece of the services they offer.

Firewood production is also a good way to keep employees busy on rainy days or in the slower winter months. Another issue is: sometimes you just have no place else to get rid of the wood. Landfill costs are too high in many parts of the country, and a growing number of states have banned landfilling of green wastes. Also, it just bothers many tree care owners to throw away so much good wood.

One such operator is Jim O’Donnell, owner of a tree care company in Infield, Conn. He owns a Timberwolf TW-6. It comes with a twin cylinder 18 HP OHV Honda engine and 4-way or 6-way wedge. It also has an optional log lift, which rotates the log from the ground onto the splitter. The lift costs an additional $550, but according to Lewis, “You’re a moron if you don’t get it.” Lewis reports he and one other man can split and deliver five cords of wood in one day, but that is a tough day. He charges $135/cord plus $15/cord for delivery. At five cords, that is $750 for one day. Pretty good – especially if you have some downtime or are trying to keep the help busy during winter.

Another man involved in the firewood business is Brett Lewis of Strafford, Vt. Lewis also owns a Timberwolf firewood processor. He reports processing as much as 18 cords in one day, although a more typical day is 10 to 12 cords. Lewis is a logger by trade. Firewood is a large by-product of his more profitable work and he has a large yard to store the wood.

Lewis is incredibly efficient when it comes time to process the wood. First he makes sure that he has all his customers lined up. At the production site, he has his wood processor, a conveyor, two dump trucks, and a loader for putting the
98 Ford LNT8000: 8.3L, Fuller Road Ranger 8 spd + LO, tandem axle, with 10 ton National crane, model 5388, tandem axle, 64' hook ht. $59,500.

93 Ford LTS8000: 8.3L, Fuller Road Ranger 8 spd + LO, tandem axle, with 10 ton National crane, model 5388, tandem axle, 64' hook ht. $49,500.

92 Kenworth T450A tractor: CAT 3176, Fuller Road Ranger 9 spd, tandem axe, with 10 ton National crane, model 5388, 64' hook ht. $59,500.

90 Ford LTS9000: CAT 3406B, Fuller Road Ranger 8 spd + LO, tandem axle, with 10 ton National crane, model 5388, 64' hook ht. $59,500.

98 Ford LNT9000: Cummins LTA10, Fuller Road Ranger 8 spd + LO, tandem axle, with 9 ton Copma knuckleboom, 46'9" max side reach. $44,900.

88 Autocar ACM64: Cummins LTA10, Fuller Road Ranger 8 spd + LO, tandem axle, with 7 ton IMT knuckleboom, 41'7" max side reach, pin-on forks, remote controls. $39,500.

89 INT 2375: Cummins LTA10, Fuller Road Ranger 6 spd + LO, tandem axle, with 6½ ton Hiab knuckleboom, model 160, 33'2" max side reach, 42" forks, 20' wood flatbed. $32,500.

1999 Ford F350: Used only as a demonstrator, V10, Auto, A/C, 11Gvw, with 9½ft aluminum dump chip body (mulch, firewood, etc.), roof comes off, 2,000 miles. $32,500.


1996 Rayco T175: We have owned since new. 900 hours, rock teeth on stump cutter, with fin mower, excellent condition. $39,500.

1996 Rayco T175: Stump cutter with super teeth. 1,400 hours, no fin mower. $59,500.

1990 Ford F600: Gas, V8 on propane, 6 speed, with Hi-Ranger - model 6H65 bucket, 6,218 original miles. Looks and runs like new. $56,500.


1995 Ford F800: 5.9L Cummins diesel, 5 spd + 2 spd, with 4 ton Hiab 671 crane with choice of body. CALL FOR INFO.

1996 Rayco T175: Stump cutter with super teeth. 1,400 hours, no fin mower. $59,500.

1996 Peterbilt 320/CO: 8.3L Cummins, Allison auto, 16 ft dump body, 5 ton Effer Knuckleboom, 19ft side reach. $34,500.

1997 Ford LNT8000: 275 HP, Cummins, 8 speed, 56 GVW, 20ft flatbed, with 22 ton JLG - model 2250, 95' hook ht. $69,500.

1990 Peterbilt 320/CO: 8.3L Cummins, Allison auto, 16 ft dump body, 5 ton Effer Knuckleboom, 19ft side reach. $34,500.

1994 Ford LT800: Cummins 8.3L, 225 HP, 8 speed, 11½ft flatbed. 52,000 miles, with 10 ton National Crane, 68ft hook ht. $39,500.

1993 Ford LTS9000: L10 Cummins, 8 speed +Lo +Lo/Lo, 8ft, 44 gears with Barko model 80 log loader. 34,500.

1987 Ford LTS9000: L10 Cummins, 8 speed +Lo +Lo/Lo, 18ft, 44 gears with Barko model 80 log loader. 34,500.

1998 Ford LTS9000: Crew Cab: Cummins 8.3L, 5 spd + 2 spd, 14ft bed, with 7 ton National Crane, 47' hook ht. $34,500


1994 LN9000: CAT 3306, 350 HP, 9 speed, 33 GVW, 196,000 miles, with NEW 99 Rugely 6 to 3 yard dump, with pintle hook. $29,500.

160 SPECIALIZED TRUCKS IN STOCK

50 Bucket trucks, 15 Boom trucks, 15 Knuckleboom trucks, 5 Sheetrock trucks, 10 Unmounted Knucklebooms, 15 Dipper Derricks, 25 Mechanics trucks with cranes, 30+ Fuel and Lube trucks...
the cycle again with the truck that just came back.

He makes money at firewood, but not a lot, and he wouldn’t do it if he had to buy the wood. It’s a tough business where everything must be efficient if you want to make those few extra dollars.

It’s not just tough on the arborists when it comes to making money. John Norton-Griffiths is owner of Brute Manufacturing Corp., a manufacturer of firewood processors and splitters in Rutland, Vt. He talks about the demographics of making a living from firewood. He estimates that total sales of all splitters and processors nationwide are only about 1,000 units per year. That’s because the number of households that actually heat with wood has fallen by half. The price of oil and gas was so cheap in the past, many people converted over to fossil fuels.

If a company buys a splitter for $4,500 to $7,500, the company can produce between 300 and 500 cords per year. At $125 per cord, that is $62,500 if you make 500 cords. However, if you make five cords per day, that is 100 days to make the firewood, or five months of five days a week splitting.

Norton-Griffiths says that if you plan to buy even a small processor for $21,000 you should be prepared to sell 1,500 to 2,000 cords per year. As much as he would love to sell you a splitter or processor, he admits that arborists should look to sell as much wood as they can to sawmills, then treat “firewood as a last resort for the wood.”

One end of the business that Norton-Griffiths thinks is worth pursuing is bundled wood. Firewood is wrapped in plastic and sold at grocery stores and gas

---

**How To Eliminate the Labor of a 3-man Crew**

“A Two-day Job Got Done in 8 Hours! This ImpleMax 4836Lw Is Unbelievable!”

- G. Mayton, Hopewell Junction, NY.

See the ImpleMax 4836Lw video!
The ImpleMax 4836Lw attaches to Tractors, Tracked Skid Loaders, Skid Steers & Articulated Loaders!

Great Financing Again Available
Pay NO Interest For Up To 6 Months!*
Order your ImpleMax in May, Make NO Payments ’til November 1st!

Put the 4836Lw to work immediately. It could pay for itself before your first payment is due!

* On Approved Credit, Approval within 24 Hours. Up to 6 Months Same-as-Cash

FREE Video
Call 800-587-6656
24 Hours

www.implemax.com

---

Please circle 28 on Reader Service Card

42 TREE CARE INDUSTRY - JUNE 2001
stations. The wood retails for around $700 per cord. The stores typically pay between $350 and $450 per cord. Be aware that stores frequently want to pay for the wood on consignment. Who gets hurt if the wood is stolen from the front of the store? Also, now you have to buy a plastic wrap machine, which costs around $2,400.

On the wood-processing fringe

One other piece of wood processing machinery worth noting is the Bandit Logbuster. These machines are made for a niche in the market, which is handling trees too large to fit into a whole tree chipper. The Logbuster splits these massive trunks in log length, which allows them to be run through a chipper or horizontal grinder. The machines cost between $71,000 and $72,000, depending on the desired engine. Leslie Kinnee at Bandit in Remus, Mich., reports of knowing only one person who bought a Logbuster for making firewood, but she says he was very happy with its performance. The vast bulk of these log splitters go to companies clearing lots that have no market for firewood and just need to make the logs smaller to fit into a chipper or grinder. Kinnee says that the Logbuster helps sell their whole tree chippers.

Firewood. The name conjures up warm thoughts of a cozy hearth, fluffy blankets, and good books on a cold winter night. If you are a producer of firewood, however, the name brings memories of sore backs, slow repetitious work, and little money. But with today's new machinery and the right planning, an arborist should be able to put some well-earned income into his pocket during a time of year when not much else is going on.

Michael Roche is a certified arborist and owner of Stowe Tree and Landscape Services in Stowe, Vt.
Don't miss these upcoming events

June 6, 2001
Evening with NAA – UK
LOLER/Equipment Regulations
The Anomalies of the CIS scheme and Employment Law
Headley Park Hotel
Bordon, Hampshire, England
Contact: Jean Leslie, phone: +44 (0) 1794 512367, fax: +44 (0) 1794 512376, e-mail: Leslie@natlarb.com

June 14, 2001
Evening with NAA – UK
Programme to be announced
To include LOLER/Equipment Regulations
Myerscough College, nr Preston, Lancashire, England
Contact: Jean Leslie, phone: +44 (0) 1794 512367, fax: +44 (0) 1794 512376, e-mail: Leslie@natlarb.com

June 19, 2001
National Arborist Association
Worksite Safety
One-day Workshop launching European version of U.S.
Tailgate Safety Training Programme
Headley Park Hotel, Bordon, Hampshire, England
Contact: Jean Leslie, phone: +44 (0) 1794 512367, fax: +44 (0) 1794 512376, e-mail: Leslie@natlarb.com

June 21, 2001
National Arborist Association
Worksite Safety workshop
European version of U.S.
Tailgate Safety Training Programme
Askham Bryan College, York, England
Contact: Jean Leslie, phone: +44 (0) 1794 512367, fax: +44 (0) 1794 512376, e-mail: Leslie@natlarb.com

June 23, 2001
N.J. Chapter of ISA
N.J. Tree Climbing Championship
Cadwalder Park
Trenton, N.J.
Contact: Steve Chisholm, (732) 462-7278

June 23-26, 2001
Trees Florida 2001
Innisbrook Resort
Tarpon Springs, Fl.
Contact: Sandy Temple, (407) 872-1738 or www.floridaisa.org

June 28-July 1, 2001
European Arboricultural Council Symposium
“The Importance of Tree Care and the Role of the European Tree Worker”
Pruhonice, near Prague, Czech Republic
Contact: jean@eventsrus.freeserve.co.uk or www.eac-arboriculture.com

July 9, 2001
Ohio Turfgrass Foundation
Annual Golf Tournament
City of Blue Ash Golf Course
Blue Ash, Ohio
Contact: (888) 683-3445 or visit www.ohioturfgrass.org

July 11, 2001
N.J. Chapter of ISA
N.J. Certified Tree Expert Exam
Rutgers University
New Brunswick, N.J.
Contact: John Perry (732) 833-0325

July 14, 2001
Michigan Forestry & Park Association
Tree Identification Workshop
Michigan State University
Contact: (517) 482-5530

July 16-17, 2001
PLCAA
12th Annual Legislative Day on the Hill and Cemetery Project
Washington, D.C.
Contact: PLCAA (800) 458-3466

July 18, 2001
Evening with NAA – UK
Visit to the premises of NAA members Gristwood & Toms
Shenley, Herts - Chipper Safety the manufacturer/supplier point of view.
Contact: Jean Leslie, phone: +44 (0) 1794 512367, fax: +44 (0) 1794 512376, e-mail: Leslie@natlarb.com

July 18-22, 2001
Turfgrass Producers International
36th annual Summer Convention and Field Day
Westin Harbour Castle
Toronto, Ontario, Canada
Contact: TPI, (800) 405-8873

July 19-20, 2001
Dr. Alex Shigo
“The Mission: Better Tree Care through Better Understanding of Tree Life”
Portsmouth, N.H.
Contact: Jeff Ott, (800) 841-2498

July 20, 2001
Conference on Woody Plants
The Scott Arboretum
Swarthmore, PA
Contact: (610) 388-1000 x 507

July 21-23, 2001
Turfgrass Producers International
Convention & Field Day
Spokane, Wash.
Contact: (800) 405-8873

July 26-27, 2001
Emerald Expo
Green Industry Trade Show & Seminar
Seattle, Wash.
Contact: Julie Ellenhorn (877) 4GREEN55

August 12-15, 2001
International Society of Arboriculture
ISA Milwaukee 2001 Conference & Trade Show
Midwest Express Center
Milwaukee, Wisc.
Contact: (217) 355-9411
August 15, 2001
Ohio Turfgrass Foundation
Turfgrass Research Field Day
Ohio State University West Campus
Columbus, Ohio
Contact: (888) 683-3445 or visit www.ohioturfgrass.org

August 22, 2001
National Arbor Day Foundation
Trends and Utilities seminar
Alexandria, La.
Contact: (888) 448-7337
or visit www.trendsday.org

August 22, 2001
Michigan Turfgrass Field Day
Hancock Turfgrass Research Center
Michigan State University
Contact: Kay Patrick (517) 321-1660 or visit www.michiganturfgrass.org
or e-mail mtfturf@msn.com.

September 11, 2001
Michigan Forestry & Park Association
Michigan Climbing Championship
Multi Lakes Conservation Camp
Contact: (517) 482-5530

September 11-12, 2001
Michigan Forestry & Park Association
Annual Summer Meeting
Multi Lakes Conservation Camp
Contact: (517) 482-5530

September 12, 2001
Michigan Forestry & Park Association
ISA Certification Exam
Multi Lakes Conservation Camp
Contact: (517) 482-5530

September 12, 2001
Virginia Tech’s Hampton Roads
Agricultural Research & Extension
Field Day
Virginia Beach, Va.
Contact: Bonnie Appleton,
(757) 363-3906

September 13, 2001
Wisconsin Arborist Association
Summer Workshop &
Tree Climbing Championship
Olin-Turville Park
Madison, Wis.
Contact: Jesse Ziemienski,
(262) 542-0404;
email: atetrees@aol.com

November 1-3, 2001
National Arborist Association
TCI EXPO 2001
Greater Columbus Convention Center
Columbus, Ohio
Contact: Carol Crossland, (800) 733-2622; crossland@natarb.com

February 13-17, 2002
National Arborist Association
Winter Management Conference
Ritz-Carlton Kapalua
Maui, Hawaii
Contact: Carol Crossland, (800) 733-2622; crossland@natarb.com

Send information on your event to:
Tree Care Industry,
3 Perimeter Road, Unit 1,
Manchester, NH 03103
Fax: (603) 314-5386
E-mail: Elmakiss@natarb.com

AERIAL EQUIPMENT, LLC
Arborist Supplies and Fleet Service
Midwest Headquarters for equipment, supplies & service for the Arborist & Landscape Industries since 1980!

2381 S. Foster Avenue
Wheeling, IL 60090
www.aerialequipment.com
Email: aerial@aerialequipment.com

CALL TOLL-FREE: 1-888-822-8008

Please circle 1 on Reader Service Card

TREE CARE INDUSTRY - JUNE 2001
Selling tree care

Are you tired of calling on enthusiastic "prospects" who look promising at the outset, but when it's all over, you can't find any justification for having spent so much time on them? Are you tired of making "million-dollar" presentations to people who don't have the money or power to make a decision? Are you tired of being pressured into bidding the work for "low-dollar" because you need the work? Are you tired of spending time on prospects who buy from the competition? Are you tired of hearing "Call me in a week or two" or "We need to think it over, I'll get back to you"?

Then why do people selling tree care or other services or products find themselves in these situations every day, week after week? "It comes with the territory," or "That's just the way it is," and "There's nothing I can do about it," are answers I hear.

What salespeople don't realize is that the only thing that "comes with the territory" is what they bring to it. If they believe there is nothing they can do about it, then there isn't. But, there are two people in the selling process. If salespeople are unhappy with the way things are, and they accept the fact that prospects aren't going to
change, then they must realize that the only alternative is for them to change. Furthermore, they have the right to change and they have the right to change now!

Selling, just like life, tends to be a self-fulfilling prophecy. Salespeople who are uncomfortable asking questions to get needed information will often find themselves talking to prospects who are uneasy about giving information. Salespeople who are afraid to find out if the prospect qualifies to do business with him or her will often spend a lot of time with just such people.

Salespeople who are uncomfortable discussing money will find themselves with prospects who are uncomfortable revealing their budget. If we don’t discuss money up front, we can’t determine if our service fits the prospects requirements, one of which is most certainly money.

Salespeople who want to weigh all the facts and check all the options before making a decision will usually find themselves dealing with prospects who also want to “think it over.” When will they realize that their decision-making ability affects the way the prospects make decisions?

Why do salespeople continue to make feature/benefit presentations to prospects who have seen and heard the same thing from the competition? Why do they continue to provide prospects with free consulting with only the hope of getting the sale? Why do they continue to ask “maybe” and “think it over” from prospects who, if they were going to buy, would have? Why don’t they realize that keeping open a door that should have been shut down wastes time and money – and brings frustration?

Why don’t salespeople learn from their experiences? Why don’t they learn the lessons that their prospects teach? Here are some possible explanations:

♦ Prospects would rather “buy” then “be sold.” They would rather have the opportunity to discover they can benefit from your service then to have you convince them they need it.
♦ Even the best presentation won’t convince a prospect to spend money he or she doesn’t have or is unwilling to spend.
♦ While “yes” is great, “no” is OK.

Can asking questions be the answer to increasing sales?

In a sales situation, questions accomplish the following:

♦ When you ask questions, the right person – the prospect – is doing the talking.
♦ Questions shift the focus from the salesperson to the prospect, where it

---

**Exhensive**

**Sheyenne TELE-SAW**

**NEW!**

**Prune Quickly, Safely with the New Tele-Saw Attachment**

Turn your Tele-Room into an overhead pruner with the revolutionary Tele-Saw attachment. Tele-Saw is a powerful, hydraulically driven chainsaw. It quickly attaches to your Tele-Room and allows you to trim and prune large branches from the safety of your skid steer loader's cab.

Tele-Saw is safer than boom baskets and perfect for:
- City Forestry Departments
- Landscapers
- Contractors
- Utilities
- Timber Companies
- Orchards

Tele-Saw saves money! One person operates skid steer loader and saw.

Order **Tele-Saw Today!**

7th & Lenham Ave. • P.O. Box 647
Cooperstown, ND 58425
800-797-1883 • 701-797-2700 • 701-797-2584 Fax
www.sheyennemfg.com

Due to continual improvements, Sheyenne Tooling & Manufacturing's designs and specifications are subject to change.

---

GREAT FOR LANDSCAPERS

Please circle 58 on Reader Service Card
How do we find this elusive pain? We do it by asking questions. Lots of questions. A prospect will not tell you the real problem up front. He or she will usually give you what I call an intellectual smoke screen, or will lie to you. Let me give you an example:

A man goes to see a psychiatrist and the conversation goes as follows:

**Psychiatrist:** Is there anything you would like to tell me?

**Man:** I don’t feel good.

**Psychiatrist:** Tell me more.

**Man:** I’m having a little problem at work.

**Psychiatrist:** Go on.

**Man:** Well, actually it’s a big problem.

**Psychiatrist:** Which means?

**Man:** I’ve been siphoning some money from the company.

**Psychiatrist:** When you say “some,” you mean ....

**Man:** Well, actually it’s been about 3.5 million. But, that’s not all.

**Psychiatrist:** (Says nothing.)

**Man:** I also have this gambling problem. I lost all the money and the auditors are coming in. I’ll lose my job, house, wife, kids and I’ll go to jail. My life is over.

Notice that initially the man told the psychiatrist that he did not feel well. If the doctor had accepted that, he would have prescribed an aspirin and told him to get some rest. Instead, by asking questions and listening, the doctor found that, in fact, the man had a serious problem (pain) and that his life as he knew it was over.

People buy for their reasons, not our reasons, and until you uncover that reason or pain, your chances of doing business are not good.

The dictionary defines pain as suffering or hurt, but in sales, pain is something that makes your prospect uncomfortable, is personal, and gives you leverage in the selling process. Pain will get you the sale, price will not. The salesperson’s job is to find someone who has pain, can pay to get rid of it, and is in a position to make the decision.

You cannot create pain because that is manipulation. Manipulation will win the battle, but lose the war. Instead, you ask probing questions (gently) and help your prospect discover his or her existing pain. Before you move on and offer solutions, you must establish the following:

• The problem is one that you can fix.
• Your prospect must recognize the problem.
• Your prospect must be willing to pay to fix the problem.
• Your prospect must be in a position to make a decision.

Only when the above conditions have been satisfied can you proceed and offer solutions that will make your client’s pain go away.

Salespeople create their own reality. They can continue to do what they have always done, getting the results they have always obtained – results sometimes mixed with frustration and disappointments. Or, they can change. Growth only comes with change, and change often has some discomfort associated with it.

You can be learning and growing, working through the “pain” of growth, reaping the rewards that follow. Or, you can stand still because “that’s just the way it is.” And the wonderful thing about it is, you get to choose!

What we think, or what we know, or what we believe is, in the end, of little consequence. The only consequence is what we do!

Dick Proudfoot is the owner of Pruett Incorporated in Lake Oswego, Ore. TCI
Chain Saw Aware

By: Jeffrey Lee, Branch Management, Riverside, CA (909) 276-8060
Sponsored by The Bishop Company for the advancement of our industry.

The Widow Carter stood on the patio of her quaint little cottage. Shielding her eyes from the sun with one hand, she peered eagerly upward to see what she could of Big Al Fontaine's No. 1 man, Max Bunyan, who was perched high in the summit of the widow's colossal sycamore tree.

Preparing to remove a giant limb hanging precariously over the widow's tiny cottage, Max situated a pulley, lowering line, chain saw and himself, and began a routine lowering operation.

With ons of chain saw experience behind him, Max gave the starter cord a confident yank. Issuing a ferocious growl, the mechanized beast sprang to life in Max's capable hands. With a well-deserved air of arrogance, Max leaned back and tightened the slack on his lanyard as lie slowly placed the 16-Inch guidebar of the saw on the targeted branch. The chain was whizzing with a blur as Max eased the cutting machine into the wood.

Pale flakes of wood surged from behind the saw like a rooster tail, and the limb sagged as Max's saw plunged deeper into the wood. Just then, the tip of the saw made inadvertent contact with another branch, which had been hidden from Max's (otherwise) keen eyesight. Violently, the maverick saw wrested itself from Max's grasp, and leaped from the cut. To Max's horror, the fugitive saw found its way to the lowering line (now supporting the full weight of the severed limb). With a flurry of polyester "puffs," the bone-crushing limb splintered the roof of the poor widow's house.

Regardless of your experience level, there are a few basic principles that you can apply to prevent a similar incident from happening to you.

- **Use a sharp chain** and be sure it is tightened properly - not too tight and not too loose. One should be able to move the chain saw with a gloved hand, without the chain "sagging" on the bottom side of the guidebar. A dull and loose chain increases the possibility of that bad boy coming off the bar and cutting limbs (other than wooden ones).

- **Be sure the chain brake is operable.** Hold the saw by the handle (with the motor off) 10 inches or so over a stump or biscuit of wood. Carefully, while still holding the handle, let the guidebar drop to the wood. The impact should set the brake. If not, adjust it.

- **Be aware of the “kickback zone” on the guidebar.** The zone is generally located in the upper quadrant of the tip. If contact is made with this area, the saw is likely to get out of control very quickly, and remember, the saw doesn't care how strong you are.

There are nose guards, anti-kick saw chains, and even a specially designed guidebar called a "banana bar" to help prevent kickback.

Above all else, remember: Chain saws are dangerous and always require your undivided attention.

---

**New Dura Max Mini Grinders...**

Two new bar mount Dura Max grinders by Oregon. Available in either a 110 volt model for in the shop use or a 12 volt model for field or shop use. Both models feature:

- High-output high-torque 5,000 RPM motor giving plenty of power for the job. Professional, consistent and accurate grinds every time.
- Bar-mounted grinders can be used right on the saw for ease of set up and use, saves time.
- Selection of wheels enables grinding of any round-ground 1/4", .325", 3/8" or .404" pitch chain. (3/16" wheel included with a grinder).

<table>
<thead>
<tr>
<th>Model</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>109176 110 Volt Bar Mount Mini Grinder</td>
<td>$134.60 ea.</td>
</tr>
<tr>
<td>109178 12 Volt Bar Mount Mini Grinder</td>
<td>$146.10 ea.</td>
</tr>
</tbody>
</table>

To Order Call...

**Bishop Company**

1-800-421-4833

FREE 50th Anniversary Catalog
160 pages plus complete price list.

---

Please circle 12 on Reader Service Card
Surviving Sweltering Summer Days

By Ariana Elmakiss

Plenty has been said about occupational hazards in the tree care business. Many hours and dollars are spent on training employees and purchasing the proper gear; ensuring proper measures are taken when climbing trees; and double-checking all procedures to ensure we walk away from a work site in just as good shape as we arrived.

In spite of all our efforts, one factor that can easily be overlooked during training procedures - but is never overlooked in the field - is heat. Southern climates can reach 120 degrees in the summertime; northern climates can also strike an oppressing 100 humidity-packed degrees. How the heat affects your workers, your morale and your profits can all depend on how you take the heat.

Why heat can make you sick

The body's No. 1 method of cooling is sweating. In this process, the body circulates blood to the skin, increasing the skin's temperature and allowing the body to release heat through sweat. Sweat then evaporates from the skin's surface, and the body cools.

Working out in field, this process of cooling through sweating is often compromised by various obstacles. First off, while doing hard physical labor, the body is using many muscles that demand blood. As a result, the body is forced to deliver more blood to the muscles and less blood to the skin, meaning less heat can be released.

Secondly, if the air is humid, sweat cannot evaporate easily since the air is already wet. When sweat is forced to remain on the skin, the dampness holds heat in the body. Providing the air is not humid, sweating will occur efficiently. Nevertheless, the danger of dehydration remains if too much fluid is lost through sweating and not enough fluids are replaced through drinking water and/or other non-alcoholic beverages. Keep in mind the body also loses nutrients such as potassium through sweating. Nutrient deficiencies have their own set of ill effects, ranging from cramps and fatigue to collapse and even death.

Steps to take to avoid heat-related illnesses:

- Drink plenty of water. Thirst is not an accurate indication of dehydration; if you are thirsty, you are already dehydrated. Drink plenty before you feel thirsty. OSHA recommends consuming water every 15 to 20 minutes while working outside in summer heat.
- Stay in the shade when possible.
- Wear light-colored clothing to reflect the heat.
- Take a break if the heat gets to be too much. As an employer, make sure your workers can take breaks when they feel they are at risk of getting overheated.

Guard against heat stress

The best way to deal with heat can be summed up in three items: Common sense, water, and acclimation.
STUMP CUTTERS

2500-4
- 25 Horsepower • Self Propelled
- Full Hydraulic Control • 35" Width

3500
- 35 Horsepower • Compact Tow Behind • Large Cutting Dimensions

3500-4
- 35 Horsepower • 35" Width
- Self Propelled

4400-4
- 44 Horsepower Diesel • Remote Control Available • Most Powerful Portable

7500
- 75 HP Diesel • 1 1/2" Thick 31" Diameter Cutterwheel • Suspension Available • Remote Control Available

Hurricane
- 125 Horsepower Diesel • 6' Tongue Extension • Suspension Standard • Remote Control

Please circle 16 on Reader Service Card

J.P. Carlton builds the highest quality stump cutters available. For more information, or to arrange a demonstration call: (800) 243-9335.


Competitive Rate Financing Available
121 John Dodd Road • Spartanburg, South Carolina 29303
800-243-9335 • 864-578-9335 • FAX 864-578-0210
2001

Columbus
We're back!

November 1-3
Greater Columbus Convention Center
Columbus, Ohio
Common sense

First and foremost, work smart and train your employees to work smart. If you have guys who have been doing this work for 20 years, they will be used to dealing with the heat. If you have a new worker who has never labored outdoors in 100-degree weather, you will need to offer him guidance.

Kathy Shaw of McCoy Tree Surgery in Norman, Okla., says common sense is the name of the game when temperatures hit upwards of 115 degrees in the summer. “We slow down and we provide several breaks and lots and lots of water and a lot of training,” says Shaw. Normal 10-hour workdays are cut to eight hours (as long as the utility companies allow it) and work starts early and ends early.

In Houston, Texas, where heat is the norm, Charles Smiley of Smiley’s Landscape & Design Inc. says he and his employees pace themselves to keep production high and heat illnesses to a minimum. “They work smart, not hard,” Smiley says. “I let the guys take breaks as needed. ... We don’t carry salt pills or anything. There’s just so much common sense.”

Common sense for Smiley’s crew translates into drinking plenty of water, working early in the day (before oppressive heat sets in), and working less during part of the summer months. “Things slow down dramatically in July and August. Business regulates itself. We do a lot of trims (that time of year) and fewer removals.”

Likewise, Candalario Sanchez, a crew supervisor at Total Care Tree Service Inc. in New Litchfield, Ariz., said in the summer months, his crews work from 3 a.m. till 10 a.m. Most of their work is done in the city, where lights allow them to see during the night. When the sun is up, his workers wear light-colored clothing and hard hats to reflect the sun.

Water, water, water!

Not enough can be said about water. Water is essential for nearly every function in the human body. When workers sweat too much of it, fatigue sets in, production slows, and heat-related illnesses occur. Make sure you always have plenty of water available for your employees to drink or to splash themselves with.

Water is such an essential that OSHA has developed guidelines for employers to follow with regards to fluid replacement on the job. According to OSHA, “Cool (50 to 60 degree) water or any cool liquid (except alcoholic beverages) should be made available to workers to encourage them to drink small amounts frequently. ... Ample supplies of liquids should be placed close to the work area.”

In addition to water, sports drinks and thirst quenchers can also help workers replenish nutrients. Shaw swears by a drink called Squencher. Squencher is bought as liquid in an envelope; you add water to it and gulp it down. Shaw says she prefers Squencher to Gatorade because Squencher has more potassium and less sodium.

Acclimate

Acclimating to the heat is the process of allowing a body to gradually get used to the temperature. In the field, this translates into having an inexperienced employee working for gradually longer periods of time in the heat. For example, on the first day of employment, you might have the new worker spend two hours working in the heat, and six hours helping with less strenuous tasks in cooler environments. On the employee’s second day, you might have him work four hours in the heat, and four in the shade. The next day, he might work five hours in the heat; the fourth day, six hours, and so forth, until his body is accustomed to the high temperatures and/or humidity.

As a body acclimates to a hot environment, it becomes more efficient at cooling the body (sweats more) and can maintain safe body temperature more easily than it could when it was not acclimated. According to OSHA, “A properly designed and applied acclimatization program decreases the risk of heat-related illnesses.” If you hire and train new employees on a regular basis, make sure acclimatization is a part of the training procedure.

When it comes to new employees, “We try to take it easy for at least (the first) seven working days. We watch them closely and give them plenty of Squencher – even some to take home if they want. We keep an eye on them really close and make sure they are not overexerting themselves.”

“Our main focus – especially with turnover like it, is that new, unacclimated employees ... go home at night and get cramps (from the heat), not knowing what they are up against, and don’t return to work,” says Smiley.

As the employer, you need to train your workers take care of themselves and their bodies both on and off the job. If you have a new employee who is not used to working labor-intensive jobs outdoors in 100-degree weather, you are responsible for training him to be cautious and smart while working outdoors.

Another issue to watch out for a new employees who ignore what their body is telling them and insist on working harder than they can handle just to prove they can keep up with the guys who have
been working three for a while and are used to the heat. Smiley says he has often had to intervene when he sees a new employee fighting the heat to keep up with a seasoned employee. On occasion, he has had new employees get overheated because they were not used to the heat. The cases of overheating were minor, but if an employer is not careful, it can be easy for a new employee to over-exert himself in the heat.

Heat illnesses – and how to treat them

Heat can kill. Above and beyond all other ailments that can arise from high temperatures and high humidity, remember that it should not be taken lightly.

For many instances of overheating, the first thing to do is common sense: Get the person in the shade or in a cool environment, give him plenty of water, cool him with a damp cloth, and let him relax.

OSHA cites several heat illnesses that are widely recognized. The most common ailment is heat rash. Heat rash occurs around areas where clothing is restrictive and where skin is constantly dampened by unevaporated sweat. Heat rash will usually go away once the person returns to a cool environment and usually does not require extensive treatment. However, if heat rash persists, the red bumps on the rash could become infected.

Heat cramps are another fairly common effect of doing hard physical labor in sweltering conditions. Cramps appear to be caused by not drinking enough water. The cramps occur when the body loses a significant amount of water – but not a lot of salt – through sweating, allowing the salt to build up in the body. Heat cramps can easily be avoided by drinking plenty of water during the day, even when not thirsty. In addition, workers should drink plenty of water before they even go out into the field. This gives the body reserves that will be necessary in the heat. Note that sometimes heat cramps can affect a person after he has gone home for the day.

Unlike heat cramps and heat rashes, heat fatigue has an effect on a person’s entire body, and can lead to more dangerous heat-related illnesses if not treated. Heat fatigue is diagnosed by a general incoherence and impaired mental and/or physical performance. It usually affects individuals who are not used to working in such conditions. If you notice one of your new workers being oddly apathetic or lethargic, you might want to take him or her aside to a cool area – perhaps even an air conditioned truck or office – to relax.

If heat fatigue is left untreated, it can lead to the more serious heat exhaustion, which is diagnosed by headache, nausea, vertigo and weakness. Treatment for heat exhaustion is similar to treatment for heat fatigue – cool shade and plenty of water. Note, however, that symptoms of heat ex-
haustion can be similar to symptoms of heat stroke, which can be fatal in a short period of time.

Heat collapse is when an individual faints and loses consciousness because the heat has prevented enough oxygen from getting to the brain. Heat collapse happens quickly and without warning and usually effects individuals who are not accustomed to the heat. The best treatment for this is prevention by making sure a new worker is acclimated to the heat. Heat collapse can be deadly if the person is in a tree or operating machinery; if you suspect any of your workers shows symptoms of heat fatigue or heat exhaustion, take him aside and have a more acclimated worker handle the tree climbing and machinery.

The most serious heat-related illness is heat stroke. Heat stroke occurs when the body can no longer cool itself and the core body temperature rises. Symptoms are serious and include mental confusion, delirium, loss of consciousness, convulsions and coma. Usually during heat stroke, the body has stopped sweating even though the skin is still hot, and the body’s temperature is usually above 106 degrees. Heat stroke requires immediate emergency medical attention. Victims of heat stroke will die if they are not treated right away. If you suspect an employees has heat stroke, call an ambulance immediately, move the person to a cool area, and soak the victim with damp cloths.

Overall health

The overall health of an employee also plays a key role in how he can handle the heat. People working in the heat should get plenty of rest, drink plenty fluids, avoid greasy, salty foods and avoid excessive alcohol consumption. Maintaining overall good health with allow a body to deal with heat much more efficiently and effectively.

Have a little fun

In the battle against the heat, it is good to have a little fun staying cool. You might want to try out products designed to cool outside hard-labor workers. Water-containing vests with reflective strips might be handy for some crews. Other products might include camel backpacks, water-holding neckerchiefs or wide-rimmed hard hats. Shaw said she has tried jackets, a cooling type of neckerchief and even a forehead band designed for cooling workers. Most of the time, Shaw said, the devices were more of a hinderance than a help for tree workers, but she said it was worthwhile trying them out, and it shows employees that you care about keeping them comfortable.

The bottom line when it comes to heat safety is common sense. Look for shade, keep plenty of water on hand, and make sure your employees drink it.

Ariana Elmakis is assistant editor of TCI magazine.
Finding Employees at TCI EXPO

What is your company’s biggest challenge? If you have an established business, it’s a safe guess the answer is finding employees. The problem isn’t new, nor is it about to go away. The question is, what can we do about it?

Find employees who share your vision and values by exhibiting at the Job and Internship Fair of the sixth annual NAA Student Career Days at TCI EXPO, being held at the Columbus Convention Center. This is a great way to present a positive image of your company to the newest members of the tree care industry—Job Corps, 2-year and 4-year students!

The purpose of Student Career Days is to use the attraction of TCI EXPO to expose students to commercial arboriculture and directly assist companies with employee recruitment. This year, it is expected that Career Days activities will attract over 300 high school and college students. Employers will have the chance to meet with them one-on-one in the Career Fair to talk about employment options. By using opportunities like those presented at TCI EXPO, savvy business managers can meet the recruitment/retention challenge.

The following companies are joining together in the Partners Advancing Commercial Tree Care program (PACT 2001), assisting the NAA in making Student Career Days a huge success: The F.A. Bartlett Tree Expert Co.; The Davey Tree Expert Co.; Fanno Saw Works; SavATree; Husqvarna; Weaver Leather, Inc.; STIHL, Inc.; and Moran’s Tree Service.

For exhibitor information on how your company can recruit students, contact Robert Rouse at the NAA at (800) 733-2622. To receive a promotional benefits program and have your company recognized as an NAA partner, call Sachin Mohan at (516) 625-1613.
Featured Course

"Plant Appraisal Workshop"

Online Arborist Education will:

- Improve your professionalism
- Fit self-improvement into your schedule
- Provide cost-effective training

... all conveniently delivered to your home or office PC

Presented by: American Society of Consulting Arborists
in association with: International Society of Arboriculture
National Arborist Association
HELP WANTED

**TREE CLIMBERS & GROUNDPERSONS NEEDED**

Tree Works Environmental Tree Care, Inc. is looking for qualified tree care professionals to become a part of a growing team of arborists. (Groundperson positions also available. Please call.) Applicants must meet the following criteria for consideration:

- Must LOVE to climb
- Must have current CDL
- Must have 3 years experience
- Certification a plus

Starting pay is $15.00 per hour, $18.00 per hour for Certified Arborist. Full benefit package. Send resume to: Tree Works ETC, Inc., 3915 Misty Court, Land O' Lakes, FL 34629. Or for more info contact us at (813) 973-1931 or treeworksetc@iol14.com.

**Climbers Wanted**

Min. of 3 years experience in all aspects of aerial tree care. Must have or be willing to obtain Class A CDL and ISA certification. We offer top wages, benefits and continuing education. Please call (770) 992-1973 or fax resume to (770) 518-8527 (Atlanta, Ga.).

---

**Tree Care Professionals**

in Sunny Phoenix.


Master's Touch Tree Service

Box 6682

Phoenix, AZ 85005-6682

Fax (602) 278-9281
treeservice@owol.net

---

**Tree Arborist/Working General Foreman**


Please mail, fax or e-mail your resume with salary inquiries to:

56 Ridge Ave.

Putnam Valley, NY 10579

Phone/fax: (845) 526-8186
saknapp@bestweb.net

---

**Plant Your Roots at Almstead**

Almstead Tree & Shrub Care, the Northeast's most actively expanding tree & shrub care company, is seeking certified Arborists to join our family. Work territories in affluent areas of NY, NJ, and CT. Incredible opportunities for growth. Find out why your fellow arborists prefer Almstead. We offer full administrative and marketing support, state-of-the-art equipment, and continuing education.

Interested arborists call 1-800-427-1900, or fax your resume to 914-576-5448, attn: HR Manager.

www.almstead.com

Please circle 2 on Reader Service Card

---

**RELIABLE**

CHAIN SAWS • CUT-OFF SAWS • TRIMMERS
BRUSHCUTTERS • HEDGE TRIMMERS • AUGERS

The 935D

35cc / 8.6 lbs.
Chrome Cylinder
Forged 3-piece crankshaft
Adjustable oiler
S.R.P. $269.95 w/ 14" bar & chain

Efco products formerly sold under the "Olympyk" brand.
Imported & Distributed Since 1976 by:
Tilton Equipment Company
For more information call: 1-800-447-1152
www.tiltonequipment.com

Please circle 64 on Reader Service Card
Tree Climber – Foreman

Climber Foreman

Plant Health Care Coordinator
Tree & Plant Health Care Company located in Northern Bergen County, N.J., has a management position open for a Plant Health Care Coordinator. Candidates must have sales & management experience in the green industry, excellent communication & customer service skills and be dedicated to the highest quality of industry standards. Company offers competitive salary & benefits. Send or fax resume to: Ken’s Tree Care, Inc., 401 Paulding Ave., Northvale, N.J., 07647 Fax: (201) 768-6758 Phone: (201) 768-0694.

EXCITING CAREER OPPORTUNITIES FOR SERVICE INDUSTRY MANAGERS
Come Join One of the Largest Vegetation Management Companies in the United States
DeAngelo Brothers, Inc. is experiencing tremendous growth throughout the country, creating the following openings:

General Managers
Division Managers
Branch Managers

We have immediate openings in:
IL, GA, MI, SC, CO, PA, OH, CA, TX

Responsible for managing day-to-day operations, including the supervision of field personnel. Business/Horticultural degree desired with a min. 2 years experience working in the green industry. Qualified applicants must have proven leadership abilities, strong customer relations and interpersonal skills. We offer excellent salary, bonus, and benefits packages, including 401(k) and company paid medical coverage.

For career opportunity and confidential consideration, send or fax resume, including geographic preferences and willingness to relocate, to: DeAngelo Brothers, Inc., Attention: Paul D. DeAngelo, 100 N. Conahan Drive, Hazleton, PA 18201. Phone: (800) 360-9333; Fax: (570) 459-2690. EOE/AAP M-F.

HAWAII - Tree Climbers and Working Foremen. Climbers MUST have a minimum of 5 years climbing experience (which includes pruning, shaping, rigging, take downs and removals) and a current driver’s license (a CDL license is preferred). Foreman applicants MUST be a certified arborist (with knowledge of disease diagnosis and fertilization), have a minimum of 5 years climbing experience (which includes pruning, shaping, rigging, take downs and removals), 5 years utility line clearance experience, experience working with cranes and have a current driver’s license (a CDL license is preferred). Pay starts at $18.00 per hour but is based on experience. Benefits include paid medical and dental insurance, paid federal holidays, vacation pay, 401(k) pension plan and a profit-sharing plan. Send resume with salary history and employment references to: Jacunski’s Complete Tree Service, Inc. PO Box 4513, Hilo, HI 96720 Phone: (808) 959-5868 Fax: (808) 959-0597

... continued on page 60
**Tree Care Professionals Needed!**

Large Chicago metro area firm needs experienced tree care personnel to immediately fill the following year-round openings: Production & Crew Foremen; Sales; Climbing Positions; Office Management.

Homer Tree Care, Inc. offers wages above industry standards with benefits including Health, Dental, Disability, Life, Paid Holidays, Paid Vacation and Profit Sharing. The overwhelming demand for our services proves that our name is synonymous with the tree care industry. Please submit resume with cover letter to Homer Tree Care, Inc., 1400 S. Archer Ave., Lockport, IL 60441, or call Rich or Steve at (815) 838-0320 /Fax (815) 838-0375.

---

**Simply The Best**

Joining the sales team at The F. A. Bartlett Tree Expert Company guarantees you unlimited growth potential, the use of cutting-edge technology and membership in one of the most prestigious firms in arboriculture.

At Bartlett, we're not just utilizing the latest scientific advances in tree care, we're pioneering them. Our sales representatives stand head and shoulders above the competition because they're backed by a team of scientists at the Bartlett Tree Research Laboratories. This gives both you and your customers an advantage you can't get with just any other tree company.

**The F.A. Bartlett Tree Expert Company**

Equal Opportunity Employer
Carmen Berrios, Manager of Employment and Benefits
P.O. Box 3067 • Stamford, CT 06905 • Phone: (203) 323-1131 • Fax: (203) 323-3631
cherrios@bartlett.com
Scientific Tree Care Since 1907

Please circle 10 on Reader Service Card

---

**Cag Corporation**

Fast, Easy Financing For Specialized Trucks & Equipment

$ New Companies Welcomed  $ Credit Decisions Are Made At Our Location
$ Excellent Credit = High Quality Credit Program
$ Less Than Perfect Credit = Customized Structures Programs

Call today for a no obligation approval by phone!
Ask for Marcus or Brian
1-800-932-2274
www.cagcorp.com

We listen to our customer's story.

Please circle 15 on Reader Service Card

---

**Plant Health Care Technician**

Join the most prestigious firm in arboriculture. National leader in tree care seeks motivated individual interested in stable career opportunity. We require top-notch professional to implement plant health care/PM programs on landscape plantings in North Florida. Knowledge of ornamental plant and pest identification required. Must be Florida Certified Applicator in turf and ornamental categories. Competitive salary, medical/dental benefits, 401(k) w/ company match, continuing education and potential career growth into sales & management. Please fax resume and cover letter to (770) 414-9762.

---

**Climbers-Class I and II**

Foreman and Bucket Operators
Tractor Operators

CDL License, experience in arboriculture, urban forestry or related fields a plus. We offer excellent starting wages, company benefits, excellent working conditions and the opportunity for year-round work. For a confidential interview, mail or fax your resume to: DeAngelo Brothers, Inc., 100 N. Conahan Dr., Hazleton, PA 18201. Attn: Charlie Sizer. Phone: (800) 360-9333; Fax: (570) 459-0321.

EOE / AAP / M-F

---

**Exciting Career Opportunity for Tree Trimming Personnel**

DeAngelo Brothers, Inc., is a vegetation management company with five (5) regional U.S. offices servicing railroads, utilities, industries and state departments of transportation for the last twenty years. There is an immediate need for the following positions:

Climbers-Class I and II
Foreman and Bucket Operators
Tractor Operators

Call for Marcus or Brian
1-800-932-2274
www.cagcorp.com

We listen to our customer's story.
Share the Profits
Climber – Foreman for an area leader in tree removal and tree trimming will share in the results of his efforts. Base wage plus profit sharing, year-round work, good equipment and large heated shop are provided. Unlimited potential for an experienced and motivated individual. Call or write MRFS Inc., 901 Jana Lane Suite 3, Madison, WI 53704. (608) 246-8848 or e-mail MRFS@execpc.com

Urban Forester
The City of Little Rock is seeking an individual to develop and administer the City of Little Rock’s Urban Forestry Plan to provide a safe, healthy environment for the City’s urban forest. Requires completion of a Bachelor’s degree in Urban Forestry, Arboriculture, Forest Management, Horticulture, Agriculture or related area; at least two years experience in urban forestry or a related area; at least one year of supervision. Equivalent experience and training will be considered. Current salary range is $30,506 – $45,762 with an excellent benefits package. Please submit resume, including employment dates and job duties and a cover letter by 5 p.m. CST, Thursday, July 5, 2001, to the City of Little Rock Human Resources Department, 500 West Markham – Suite 130W, Little Rock, AR 72201-1428 or e-mail HR-Employment@littlerock.state.ar.us or fax (501) 371-4496. Submitted resumes will be subject to disclosure under Arkansas Freedom of Information Act. Little Rock is an Equal Opportunity Employer. More information is available at www.accesslittlerock.org/HumanResources/

Fairfield County, CT - 20+ years established company seeks Plant Health Care (IPM) Technician. We are looking for a professional, take-charge person to manage our IPM program. CDL and pesticide license preferred but not req. We offer exc. salary, commission opportunities, training & benefit packages (health, dental, pension, tuition reimbursement), pd. vacation & holidays. Call O'Neill's Tree Care - (203) 655-7865 Fax resume (203) 327-5455 E-mail - otc2oneillstree@aol.com

LANDSCAPER WANTED
IN FLORIDA
D&L Land Management, Inc. in Apopka, Fla., is organizing a new tree farm. We are seeking a landscaper with hands-on growing experience. Must be experienced in growing landscape trees and know how to spade trees out of the ground. For more information, contact Cheryl at (407) 886-0852, Ext. 24.

Arborist/Salesperson
Looking for great income opportunities? The Care of Trees is seeking an experienced Salesperson for the Gaithersburg, Md., office. This is one of the best sales territories in the country. Must be a Certified Arborist with estimating and sales experience. Excellent benefits, including paid vacation; 401(k); and health, dental and life insurance. Fax resume to Chris Smith at (301) 948-5885, or e-mail to csmith@thecareoftrees.com.

Hiring
Ambitious, energetic, ex’d tree climbers w/ pick up truck & equip. $200 - $500 + per day. Year-round work in warm, friendly Baton Rouge, LA. Potheads, drug addicts and ex-felons need not apply. Best time to call 8 a.m. or 7 p.m. Monday thru Friday; 10 a.m. to 12 noon on Saturday. Keep calling till you reach me personally. Tree Surgery by Ricky Vincent (225) 683-3800.

... continued on page 62
**Tree Workers**


---

**Why choose SavATree?**

**GROWTH**

At SavATree, we are expanding throughout the northeast. Our team is growing along with us, propelled by our career advancement program, tuition reimbursement and creative compensation packages.

If professional growth is important to you, call SavATree.

Phone: (914) 241-4999, ext. 153
Fax: (914) 242-3934
Visit our website!

www.savatree.com

---

**Company Sales & Service Representative**

Are you an experienced tree climber, foreman or plant health care technician motivated to advance your career? Can you provide excellent service to existing and new clients?

McFarland Tree & Landscape Services has opportunities for high energy and ambitious individuals to grow with our full-service tree care, landscaping and turf maintenance company, based in Philadelphia, Pa. The successful candidate will manage sales and services for existing clients while developing new clients in assigned territories.

After an initial training period, benefits will include pension and 401(K), vacation, choice of medical plans, and monthly auto allowance.

Certified Arborists and persons with a college degree related to the green industry are preferred but other qualified candidates will be considered. For a confidential discussion, contact:

Tom Shotzburger, General Manager
MCFARLAND TREE & LANDSCAPE SERVICES
255 W. Tulpehocken St.
Philadelphia, PA 19144-3297
Phone: (215) 438-3970
Fax: (215) 438-1879
E-mail: mcfarland@onrampcom.com

---

**Tree & I.P.M. Sales**

Qualified person to sell for established full-service tree company. Must have previous experience and Certified Arborist license helpful. Full benefits including 401(k)/Profit Sharing. All replies confidential. Fax or send resume to:

ANTIETAM TREE & LANDSCAPE
405 N. Burhans Blvd.
Hagerstown, MD 21740
Attn: Roger Finn.
Phone: (301) 791-3500
Fax: (301) 791-3756
E-mail: roger@antietamtree.com

---

**Fairfield County, CT**

Growing company with over 20 years impeccable tree care experience is looking for quality-oriented individuals to join our staff. Experienced and professional candidates are needed. Responsibilities would include tree removal, cabling and bracing, truck and equipment maintenance. Supervisory positions are available. Excellent compensation, paid vacation/holidays, medical benefits, including dental and pension plan. We offer a drug-free environment. Please contact O'Neill's Tree Care, Inc., PO Box 2387, Darien, CT 06820, (203) 655-7865 or fax resume to (203) 327-5455.

---

**A World-Class Company**

Arbor-Nomics, Inc. is a rapidly growing company based in Atlanta, GA. We offer benefits and training with an opportunity for advancement. We are presently seeking a:

**Climber/Foreman/Salesman**

Successful candidate will supervise 3-5 crewmembers & must have experience managing tree removal, pruning, associated equipment, and ground people. No DUI's, No felonies, or drugs. MVR Req'd. Call (770) 447-6037 Ext. 1 or fax resume to (770) 448-4804, or mail to 585 Langford Lane, Norcross, GA 30071.

---

**Plant Health Care**

Climbing Arborist.

Sales. Boston-area company of professional arborists has sales, leadership and crew positions avail. for outstanding indiv(s) w/min. 2 years exp. Candidates must be committed to highest industry stds. of safety, workmanship & cust. service. Exc. wage & benefit package, including pension (401(k)), medical, education & more. Send resume to: Lueders, PO Box 920279, Needham, MA 02492 or call (508) 359-9905 or e-mail LuedersCo@AOL.com

---

**Buy my pants. So I can move out of my parent’s basement.**

Rugged yet remarkably comfortable. Designed by a tree climber, to stand up to almost anything. Especially trees that seem to have it in for you. 888-578-TREE.

---

Please circle 6 on Reader Service Card
INDUSTRIES, INC.

MODEL: S-1472
(20 CU. YD. CAPACITY)

Specifications:

A. General:
1. All G-60 Galvannealed Material (zinc coated, resists rust)
2. All Wiring in Conduit
3. Sealed Lexan Lens Lights Meet FMVSS 108 Specifications
4. Anti-Sail Mud Flaps
5. Hoist with Power Take Off
6. Trailer Light Connector, Six Pole
7. Pintle, Pin, or Pintle/Ball Combination Trailer Hitch with Tow Hooks
8. Bodies: Mounted, Undercoated, Chemically Degreased, Coal Tar Epoxy Coating inside Chip Box, Primed and Painted
9. Stainless Steel Hinge Pins with Grease Zerks
10. Weatherproofed Tool Boxes
11. Chipper Air Exhaust Vents

B. Overall Body Dimensions:
Length: 168"
Height: 72" (inside)
Width: 92"

C. Chip Box Material: (Galvannealed)
1. Floor: 10-ga. plate
2. Sides & Front: 12-ga. plate
3. Top: 14-ga. plate
4. Tailgate: 12-ga. plate with tubing frame (270° swing)
5. Runners: 8" structural channel
6. Cross Members: 3" structural channel
7. Rear Vertical Support: formed 1/4" plate
8. Rear Horizontal Support: 4" x 4" x 1/4" square tubing

D. Tool Boxes: (14-ga. Galvannealed)
1. Underbody Tool Boxes:
   (two) 48" long x 20" high x 20" deep

2. "L" Cross Box:
   24" long x 92" wide x 26" high across chassis rails
   Door: 24" long x 48" high; six rope hooks, stationary shelf and water cooler holder

3. Ladder Box: (inside chip box)
   143" long x 17" wide x 27" high

4. Pruner Box: (inside chip box)
   168" long x 17" wide x 12" high

5. Locks:
   Slam, keyed with hidden theft resistant rods

E. Optional
1. Tool boxes and Step-Type Rear Bumper
   Behind rear axle 34" long x 20" high x 20" deep
2. Cab Protector
3. Top Ladder Rack with Access Steps
4. Electric Trailer Brake Control
5. Wheel Chocks and Holder

NOTE: Chassis Cabs Available to complete the package 102"
CA Chassis Cab required.

Please circle 59 on Reader Service Card
Interested in relocating to beautiful Denver, Colorado? Mountain High Tree Service and Lawn Care, an industry leader since 1974, is hiring Tree Climbers, Plant Health Care and Lawn Technicians. We offer top pay, unmatched benefits and a modern facility with new equipment. Check out our Web Site: www.mountainhightreeservice.com. Call our office: (303) 232-0666 or fax your resume to: (303) 232-0711 or e-mail us: mhttree@pcisys.net. Please send attn: David Entwistle.

We Want You!

**Arborists, Plant Healthcare, Crew Leaders, Climbers**

Career team players. Work year-round. Relocation assistance, excellent compensation, retirement & benefits package. Fax, e-mail or send resume to:

Arborguard
PO Box 477
Avondale Estates, GA 30002
Phone: (404) 299-5555
Fax: (404) 294-0090
E-mail: sprophett@arborguard.com
Web: www.arborguard.com

---

**Plant Health Care Coordinator**

Tired of spraying? Do you want to be paid for your knowledge, experience and personality? Do you think you have what it takes to run a spraying operation in an aggressively expanding company? If you're organized, self-motivated and sociable, call Dan at Autumn Tree Care Experts, (847) 729-1963 or Fax resumes at (847) 729-1966.

**IRA Wickes/Arborists**

Rockland County based firm for over 70 years seeks qualified individuals with experience. Arborists / Sales Reps, Office Staff, Crew Leaders, Climbers, Spray Techs (IPM, PHC, LAWN). Great benefit package includes 401(k) matching, advancement opportunities, E.O.E. Check us out on the web at irawickes.com. E-mail your resume to info@irawickes.com. Fax us at (914) 354-3475 or snail mail us at IRA Wickes / Arborists, 11 McNamara Rd., Spring Valley, NY 10977.

Portland, Maine – Great place to live and work. We are seeking experienced climbers to join our company. Three positions to fill from entry level to foreman. Please call (207) 828-0110.

---

**San Francisco Bay Area Tree Service**

**Tree Crew/Spray Technician**

Experienced tree climbers and spray technicians needed. We have cake! Call Dan at Autumn Tree Care Experts, (847) 729-1963 or Fax resumes to (847) 729-1966.

**Production Manager**

Maxed out in your current position? St. Louis, Mo. residential tree care co. in operation for 25 years is looking for a well-rounded individual with strong leadership qualities and the ability to train 12-15 team members in safety, equipment use, proper technique and efficiency. Must be able to schedule multiple projects and crews, maintain client satisfaction and high quality standards. Climbing experience a must. Salaried position with benefits, vacation, holidays, medical, retirement, bonuses and advancement. Send resume to Metropolitan Forestry Services, Inc., 502 Old State Rd., Ballwin, MO 63021.

...continued on page 66
NEW

Basic Training for
Ground Operations in
Tree Care

Five part video series
with workbook and CEU tests

with their expertise and knowledge
you can expect the BEST

also available:
Basic Training for Tree Climbers

Get your copy, TODAY!

Peter Gerstenberger
VP of Business Management,
Safety & Education, NAA

Sharon Lilly
Director of Technical Resources
& Marketing, ISA

NAA
1-800-733-2622
Web: www.natlarb.com
Email: naa@natlarb.com

ISA
1-888-ISA-TREE
Web: www.isa-arbor.com
Email: isa@isa-arbor.com

Please circle 41 on Reader Service Card
Experienced climbers and PHC techs needed. We work year round in booming beautiful Boulder, Colorado where the sun shines 300 days a year. We're looking for career minded arborists who are proud of what they do! Advancement potential. Call Boulder Tree & Landscape Co at (303) 449-2525 or fax (303) 413-1042.

Tree Climber & Climbing Foreman
We seek reliable, quality oriented people with 3 plus years experience. Good benefits and bonus plan. Must have valid drivers license.
Foreman $22.00 - $25.00 per hour
Climbers $19.00 - $22.00 per hour
Call Audubon/VTM Arborists at (703) 818-9484 in Fairfax, VA

For Sale
- (1) 6TD 65-foot Hi Ranger mounted on 1984 Int. DT466, $27,500;
- (1) 4FI 45-foot Hi Ranger mounted on 1985 Int. DT466, $13,500;
- (1) 1989 Vermeer model 630 stump grinder, low hrs., $5,000. Call (603) 424-1464.


Equipment for Sale

**Powerful**
**Proven**
**Patented**
**Performers**

**Miller Machine Works**

**PTO**
**Stump Grinders**

**Pto 75/Pro 150**
50 to 150 HP

**M25E**
M50E/M75E
30 to 90 HP

**Morbark**

(1) Mdl 7 Wisconsin 26HP; (1) Mdl 10 John Deere 56HP; (2) Mdl 16 Cummins 194 & 250HP; (1) Mdl 17 Turbo Perkins 102HP; (1) Mdl 18 Chip harvester Cummins 400HP; (1) Eeger Beever curb feed Wisconsin gas; (3) Eeger Beever Cummins 76HP, Ford 2.3L; (1) EZ 10 John Deere 50HP; (1) 30/36 w/loader John Deere 325HP; (1) 20 Whole tree Vermeer; (1) 1250 Perkins 80HP.

**Bandit Miscellaneous**

(1) Log Buster John Deere 80HP; (2) 3680 Beast Recycler John Deere 375HP

**miscellaneous**

(4) 12-inch Chipmore drum Ford 4 & 6 cylinder, Deutz 106HP, Hercules gas (1) 310 Prochip 993 Series Kohler 23HP; (5) Olathe 986 Ford 4 cylinder; (1) Olathe disc; (1) Olathe drum Ford 3.30 gas; (1) Wayne 16-inch drum Perkins 80HP; (3) Asplundh 12-inch Ford 4 & 6 cylinder, Ford V8, TM27; (1) Asplundh Whisper Ford gas; (1) Fecon Willibald CAT; (1) Woodchuck 17 John Deere 81HP; (1) Mitts & Merrill drum 6 cylinder gas; (1) Trelan 18 Deutz 250HP; (1) Innovator 8-foot tub Cummins 177HP; (1) Jenz wastewood grinder John Deere 6 cylinder; (1) Haybuster Big Bite 10-foot tub CAT 300HP; (1) Bio Grind CMI 175 Cummins 174HP; (1) Royer John Deere; (1) Toro ProGrind Cummins 177HP.

Bandit Industries, Inc. 6750 Millbrook Road, Remus, MI 49340. Phone: (800) 952-0178 or (517) 561-2270. Fax: (517) 561-2375.

**Used Equipment**

**Brush Bandit Chippers**
(2) Mdl 65 Wisconsin 30HP; (4) Mdl 90 Wisconsin 37 and 65 HP; (4) Mdl 90W Wisconsin, Deutz 411HP, Perkins 50HP; (1) Mdl 95 GM 76HP; (4) Mdl 150 John Deere 80HP; (2) Mdl 200+ Ford 6 cylinder, Cummins 100HP; (15) Mdl 250 Cummins, Perkins, Ford, John Deere; (3) Mdl 260 Cummins 200HP, John Deere 125HP, Cummins 200HP; (2) Mdl 1290 drum John Deere 80HP; (3) Mdl 1890 drum Cummins 200HP, John Deere 125HP.

**Bandit Whole Tree Chippers**
(1) Mdl 1250 Cummins 174HP; (2) Mdl 1254 Cummins 177 & 200HP; (2) Mdl 1400 Tree Cummins 200HP; (3) Mdl 1400 Track Cummins 200HP; (1) Mdl 1700 John Deere 375HP; (2) Mdl 1850 Track Cummins 250HP; (3) Mdl 1900 Track CAT 425HP, Cummins 475HP.

**Bandit Miscellaneous**

(1) Log Buster John Deere 80HP; (2) 3680 Beast Recycler John Deere 375HP

**miscellaneous**

(4) 12-inch Chipmore drum Ford 4 & 6 cylinder, Deutz 106HP, Hercules gas (1) 310 Prochip 993 Series Kohler 23HP; (5) Olathe 986 Ford 4 cylinder; (1) Olathe disc; (1) Olathe drum Ford 3.30 gas; (1) Wayne 16-inch drum Perkins 80HP; (3) Asplundh 12-inch Ford 4 & 6 cylinder, Ford V8, TM27; (1) Asplundh Whisper Ford gas; (1) Fecon Willibald CAT; (1) Woodchuck 17 John Deere 81HP; (1) Mitts & Merrill drum 6 cylinder gas; (1) Trelan 18 Deutz 250HP; (1) Innovator 8-foot tub Cummins 177HP; (1) Jenz wastewood grinder John Deere 6 cylinder; (1) Haybuster Big Bite 10-foot tub CAT 300HP; (1) Bio Grind CMI 175 Cummins 174HP; (1) Royer John Deere; (1) Toro ProGrind Cummins 177HP.
Hardware and software by an arborist for the arborist. For more information about the industry’s best-selling package, call or write Arbor Computer Systems, 117 Weston Road, Westport, CT 06880. Phone: (203) 226-4335; Web site: www.Arborcomputer.com; E-mail: Phannan@Arborcomputer.com

VERMEER TREE SPADE-TS44 on trailer. Only lightly used since complete overhaul. Will move 5-inch trees. Ready to go to work. Private owner. Asking $14,000. Charlottesville, Va., (804) 984-5175.

Bucket Truck, 1989 International Diesel, 52-foot Skyworker, Custom steel chip box 14 foot x 5 foot, 4 LG toolbox very good condition working everyday - Long Island, NY (516) 325-1849, $17,000.

For Sale:
RG 1625 Super Jr. 1997 Model Stump Grinder with Trailer, Good Condition $6,000 firm. For information call: (706) 628-4055.

1994 Brush Bandit 200+ disc chipper w/ 2950 hrs. 76hp Cummins 4B3.9 Asking $9500. (860) 344-1310

Bucket Truck

1998 FMC 35 gal. a minute John Bean Pump, 3 compartments with mechanical agitation, 2 Hannay Reels and hoses. Also several other old used sprayers. (317) 898-3257 or (317) 894-5015.

Stump grinder
Nicest Vermeer 630B you will find. Too many upgrades to list. $6,800. Call for details. (203) CUT-TREE (288-8733).

Alexander Equipment
The only used equipment source offering a full satisfaction guarantee! We have a huge selection of used chippers and stump grinders...fully serviced and ready to work! See our complete inventory list at www.alexequip.com or call Matt or Steve at (630) 663-1400. Alexander Equipment Company, 4728 Yender Ave., Lisle, IL 60532. We can deliver anywhere!
28-inch Valley Firewood Processor with 35-inch conveyor, 4-cylinder Kubota motor, three-leg 10-foot live decks. Complete with sawdust blower, 2 bars and 100-foot roll of chain. 119 hours – 1½ cords per hour. Like new, $34K. Call Mike’s Professional Tree Service (401) 823-7485 between 9 a.m. and 4 p.m.

For Sale


Mickey's Truck & Equipment Sales
Sugarloaf, PA
www.mickeysextruckandequipment.com
Financing Available
90 Down / No Payment for 90 Days
Flexible Delivery Terms

90 GMC & Ford, 50 ft. Forestry Trucks, Gas & Diesel, low miles Starting at $28,900

91 to 94 GMC & Ford, 55 ft. Forestry Trucks, Gas & Diesel, low miles Starting at $42,900

89 to 93 GMC & Ford Gas & Diesel Man-Cabs Starting at $13,900

91 GMC Crane Trk. 40 ft., 6.5 ton. New dump bed & tool boxes $29,900

91 to 94 GMC & Ford 55 Ft. Flat Bed Buckets, Gas & Diesel Starting at $44,900

Wood chippers & Stump Grinders Many styles to choose from Call for prices

More Trucks Available..........If You Don't See It, We Will Get It!

1-888-340-1756

Please circle 36 on Reader Service Card
Sarasota, Fla.,-based tree service. The only place to live & work. Just the right amount of advertisement and equipment needed for a very profitable business. In excellent condition. Don’t miss out, offered at $180,000. Possible for sale or rent, 7-acre property w/4000-foot sq. new building. Call (941) 266-0365.

PRODUCST & SERVICES

ArborWare
The Business Solution for Arborist, Landscape & Lawn Care Professionals
Includes complete Customer Management: Estimates, Proposals, Work Orders, Invoices, Statements, and Accounts Receivables. Also includes: Customer Property Inventory, PHC and Pest/Disease control, chemical application and DOA reporting, maintenance and generation of Renewal Contracts, scheduling/routing of Crews and Sales Reps, Vehicle Maintenance and DOT reporting, Job Costing, Marketing and Management Reporting, comprehensive User Manual, and more ... Call (800) 49-ARBOR (2-7267) for more information.

ArborGold Software – Complete job management! Phone message center, proposals with built-in landscape CAD designer, scheduling, invoicing and more. Posts to QuickBooks. Print estimates on site with new hand-held PCs and download to office. Call Tree Management Systems – 1 (800) 933-1955, see demo at www.turftree.com

Classified ad rates for 2001
$65 per inch ($55 NAA members), 1-inch minimum. Payable in advance. Ad deadline is the 20th of the month, two months prior to publication.

Send ad and payment to: TCI, 3 Perimeter Rd, Unit 1, Manchester, NH 03103
Phone: 800-733-2622, Fax: 603-314-5386, E-mail: Stone@natlarb.com

Wood-Mizer
Freesawmills From:
Personal Sawmills From:
$4995
1-800-553-0219
I want to convey to you with this article something that has been an issue with training for years, probably centuries. What do we do after that first training session is completed?

Training, in the Ard dictionary, is communicating things of importance related to a particular subject or issue. Yes, it's complicated and philosophical, I know, for a small-town Georgia boy. However, even I know training is essential to safety and productivity in just about all situations. We all try to do without it. We use a tool; it seems easy to operate. We work with a computer program before we read the manual; it takes too much time to read. Who wants to be a millionaire on that show if you can’t miss one question? I don’t have time to study and practice.

Calls and e-mails related to training requests arrive at our office often. (I guess that’s not surprising, given that all we really do is train.) These requests ask us to give chain saw safety classes to organizations, companies, groups or other. Not a problem — we need and are always looking for new business. However, I guess the follow-up questions and thoughts are sometimes a little disheartening to us.

Don’t take these next few paragraphs the wrong way, Your company should constantly be re-evaluating, restructuring, updating and re-writing your safety and training program so that it becomes a meaningful program that gets results.
but think slowly through the logic. Here are a few of the thoughts, or should I say initial thoughts, of some training requests:

“We have an extra hour in our morning safety program and wonder if you can cover sharpening, starting the saw, and cutting up storm-damaged trees.”

“How long would it take to train our people to take down trees?”

“Our people have been using saws for several years; we would like to make sure they are doing it right. We have never had chain saw training. They need a refresher class.”

Now we can formulate some training plans. All of these questions and/or answers are the right places to begin. No, we probably can’t make fallers out of a group in an hour, possibly not in a month, according to their experience and attitudes, but it is a great beginning.

The challenges and sad situations are the first-time training program requests to meet new requirements. An organization is trying to train employees quickly to have a certificate on file to meet a requirement of a policy or law. Watch a video, bring in a saw user or trainer to do a three-hour demonstration of pertinent safety areas and then give them a card or certificate. Again, this isn’t a bad place to start, and it’s definitely a great refresher for previous trainees, but many of these training programs stop there. What’s the next step?

Some companies buy piles of equipment costing thousands of dollars – PPE, tools, machinery, etc., then never offer training or revisit the training issues often enough to strengthen compliance. Commonly, organizations have leg protection for saw operators, but the saw operators never put them on. This isn’t an issue of regulation; it’s a matter of training. Until people see the need, they won’t make it a practice to wear them every time out.

We can revise our industry safety standards to require safety protection for ground operations, but a rule in a book doesn’t equal compliance.

I once heard a panelist discussing safety say, “We need more regulation to get into the pocketbook of these offenders, and then they would comply.”

Another panelist responded, “If regu-
There are signs against littering along highways. Everyone knows that littering is against the law. Yet people still throw trash out the window. We have to train people to see the need and the reason for regulations covering safe operations, because rules alone won’t work.

Lastly, I find this situation too often after training:

The participants are excited about the training program. They were amazed by the instructor’s tools, wore his PPE, watched his skills, have positive attitudes toward correcting or establishing new work techniques and habits, and yet the next day, they:

- work without PPE because it’s not available to all workers
- are expected to directionally fell trees without wedges
- are asked to “produce” with inferior or poorly maintained chain saws.
- are expected by management to have sharp saw chains without filing devices or established shop chain sharpening programs.

Training needs to instill a passion for the task, a positive attitude, and teamwork. Interesting, applicable and ongoing training will initiate a work-style change. How long does this take? I guess you have to decide what’s profitable for you and your situation. Remember, though, everyone is trainable ... but not everyone is suitable, or could work profitably, on a given task with a given amount of training investment time. Don’t forget – there are sometimes surrounding issues concerning a task that must be in place for training to establish measurable results quickly.

The U.S. Forest Service posted three skill requirements years ago, defining saw operators, saw applications and training needs. They compiled and outlined progressive training to establish and maintain these skills for saw operations. It has worked for years. You want to know the real kicker? They are constantly, almost yearly, re-evaluating, restructuring, updating and re-writing this program for a viable, usable, meaningful program that gets results. That’s what your program has to do, too.

Establish needs, pool resources, evaluate results. Training is an ongoing plan to better our employees, our company, our organization, our industry, ourselves. Communicate and make people aware of safety and productivity issues. ... Train!

"After training…” Is there really such a time?

Tim Art is president of Forest Applications Training, Inc., a national chain saw applications and safety training company. Forest Applications Training, Inc., is based in Hiram, Ga., and provides training and demonstrations across North America. He may be reached at Forest Applications Training, Inc., PO Box 1048, Hiram, GA 30141-1048. Phone: (770) 459-3791; e-mail info@forestapps.com.
TAILGATE SAFETY

ORDER TODAY!

Cost-Effective Training

1-800-733-2622
www.natlarb.com

60 Vital Safety Topics Available in Spanish

Please circle 42 on Reader Service Card
New York to Asian visitors: Go away

Arborists in New York used the advent of spring to launch their fiercest and, they hope, most effective attack to date on the invading Asian long-horned beetle. According to an Associated Press article, the city has decided to use the insecticide imidacloprid — they’re calling it Beetle Juice for short — to stem the spread of the beetles. Chicago officials, also battling an infestation, have tested the insecticide in limited areas.

The beetle was first spotted in Brooklyn nearly five years ago and has been blamed for the death or removal of about 3,000 trees. The plan calls for 8,200 trees to be treated with the systemic poison, which kills a beetle when it tries to eat the tree. The insecticide is to be tested this year in New York City, on Long Island, and in other parts of the state. More widespread use is possible in 2002.

Meanwhile, Maryland arborists expect to be up to their elbows in gypsy moth caterpillars this summer.

State officials are predicting the worst defoliation in six years, even after last year saw a 20-fold increase in the number of acres damaged by the voracious insects over 1999. And, according to a Baltimore Sun article, they’re hoping to win approval for a $1.7 million spraying program designed to save trees from a potentially fatal second defoliation.

Trees at issue in memorial debate

The high-profile attempt to build a World War II memorial on the Mall in Washington, D.C., has landed in court as opponents say the project will ruin trees in the area. At issue is ownership of some elms that will have to be pruned to make room for the WWII memorial and whether the root pruning to be done to build the monument will kill the elms altogether.

A group calling itself the National Coalition to Save Our Mall has sought an injunction to halt work, saying the trees belong to the nearby Lincoln Memorial. In its lawsuit, the coalition quotes a landscape architect, Henry Arnold, who predicts “the proposed root pruning is likely to result in the destruction of at least the largest 10 trees within one and five years from the time of the root-pruning activity.”

Make peace, not trees

The recent sequencing of the human genome has set off a firestorm of ethical questions. But can there be any harm in refining our understanding of tree genetics? Apparently, some people think so, because 700 poplars being used to research tree genetics at Oregon State University were vandalized. According to Associated Press, a group calling itself GenetiX claimed responsibility.

The university said that although the trees were the focus of experiments into controlling flowering, fertility and other aspects of tree physiology, not all of the specimens were genetically altered. Many were the result of traditional cross-breeding techniques.

Arborists support foot-and-mouth disease fight

Many arboricultural businesses in the UK have been hit by the restrictions caused by foot-and-mouth disease, and that means lost earnings. Many tree work contracts in the areas affected by the disease have been suspended, as has most utility work due to the restriction on access to farmland and public footpaths.

For the first time in its 80-year history, the United Kingdom Forestry Commission has closed all its forests except for essential forestry business. The Forestry Commission is the UK’s largest land manager, and owns 2.4 million acres of forests and woodland.

UK arboricultural organizations are actively seeking support from the government, which is currently assessing the effects on industry beyond the immediate farming community.

Advice to arborists:
- Obey the law — keep out of restricted areas.
- Avoid operations on or adjacent to non-restricted farmland if at all possible.
- Act on any instructions given by a veterinarian or any other official from the Ministry of Agriculture, Fisheries and Food (MAFF).
- Comply with any request from landowners to reduce the risk of transmitting the disease.
- Use approved disinfectant mats on vehicle wheels/undersides in areas of lower risk.
- Report any sightings of sick or lame deer to the nearest Animal Health Divisional Office.

Regulations require that the tires of road vehicles leaving the British Islands from ports of exit be exposed to disinfectant.

Further information can be obtained from www.forestry.gov.uk or www.maff.gov.uk. If you are a member of the National Arborist Association and can quantify the impact of the disease on your arboricultural business, put it in writing to the European Office and we will press for government support on your behalf. Contact:

NAA European Office, 110 Below Westgate, 80 High Street, Winchester, Hampshire S023 9AT. Phone: +44 (0) 1794 512367; Fax: +44 (0) 1794 512376.
One of my favorite pages in TCI is the From the Field column. It brings back memories. I have been climbing for the past 21 years, and I never thought I would have a story to share.

This story begins with the first tree service I worked for. Sam Town, owner of Valley Tree Service, always took his time with us. Safety training was the main thrust of his company. His motto was, “Everybody goes home at the end of the day.” It didn’t matter whether we were pushing brush, chipping or climbing, safety came first. He would take the time to make sure we knew what street we were working on, and where the first aid box could be found. He taught us how to talk calmly over the radio. And when you became a climber, the training was more intense. We went over and over aerial rescue drills. He taught us everything he knew to get the job done safely.

As years went on, I went on to other companies but I took all his training with me. I would do everything the same way Sam trained me. The men would tease me about it. I made sure they knew how to do it in their sleep.

It paid off last year. We had been on this job site for months. We were reducing tops in blue gum eucalyptus trees. Twelve years before, a tree company had topped these trees. No one had done any maintenance since. Not surprisingly, they had become a safety hazard to the community.

On May 9, 2000, all the safety training paid off. I was employed at Pleasant Valley Recreation and Parks District in Camarillo, Calif. I was working from a lift. I was about 65 feet up, extended out, taking down a good-sized branch that was leaning away from the bucket. No problem, I thought.

I tied on the bull rope with some tip lines. I started up my saw and notched out the front. I looked down to the men to make sure everybody was ready. As I started my back cut, all of a sudden a gust of wind came up and took the branch around me. The next thing I knew the bull rope was around my neck, pinning my right arm. Half of my body was pulled out and the toes of my boots were the only things holding me in!

My first thought was, don’t let the branch down, since it was cutting into my neck. If they had let down the branch, the bull rope would have ripped my neck wide open. I could not breathe or speak. I thought to myself, this is it.

What I did not know was that the crew below, the ones who had made fun of the training, were jumping into action. John, who had control of the bull rope, immediately put on an extra wrap. Bob jumped on the boom to switch it over to manual and was on the phone.

My saw was still running. With all my strength, I brought my arm up to cut the rope. The blade was inches away from my face. I didn’t care if I cut myself, I was choking! I cut the rope and fell back in the bucket. Bob had switched over the controls and started to bring me down. The next thing I knew, I was on the ground, hurting but breathing. Safe.

All the training had paid off. I was alive. These two men had done it. They saved my life. Bob and John had kept their cool and it paid off.

These days, because of injuries, I have had to hang up my gaffs. But when I think back to that day, I thank God for two men who listened and applied what they were taught.

Ismael “Smiley” Lopez lives in Oxnard, Calif.
CONTROL BORING INSECTS SAFELY
WITH MAUGET'S MICRO-INJECTIONS TECHNOLOGY
- FULL SEASON PREVENTIVE CONTROL -

EUCALYPTUS LONGHORNED BORER
COTTONWOOD LONGHORNED BORERS
BARK BEETLES.. SYCAMORE BORER
FLATHEAD BORERS.. BRONZE BIRCH BORER
LESSER PEACH TREE BORER.. DOGWOOD TWIG BORER

Other insects controlled:
.. Aphids.. Scale Insects.. Adeleigds.. Mealybugs.. Thrips.. Psyllids
(including Lerp Psyllids) .. Whiteflies.. Elm Leaf Beetle .. Lacebugs.. Spider Mites
Japanese Beetle.. Leafminers.. Leafhoppers .. and many more ..

SAFE for BENEFICIAL'S & THE ENVIRONMENT

PINE BARK BEETLE
EUCALYPTUS LONGHORNED BORER
FLATHEAD BORER

FAST & EASY.. NO SPRAY'S.. NO DRIFT ..
NO HIGH PRESSURE DAMAGE .. WEATHER PROOF .. COST EFFECTIVE ..

www.mauget.com

Mauget
800-TREES Rx (800-877-3779)
877-TREE HLP (877-877-3457)
(Toll free technical support Line)

THIS SPRING
THINK DIFFERENTLY
ABOUT TREE INSECT CONTROL

Please circle 35 on Reader Service Card
Of course, the ultimate stump cutter is only as good as its teeth. The SUPER TOOTH™ is in a class of its own for cutting performance, durability, low operating cost, and ease of maintenance.

This high performance Diesel Xtra Heavyduty machine has huge cutting dimensions and is constructed for the big work. Plus it has the smooth cutting action and low maintenance of a hydrostatic drive system. Best of all, this performance is built into a sleek, compact chassis for maneuverability in confined residential premises.

The level mounted engine protects the diesel power plant from failure caused by oil starvation. The no tilt engine and low profile enables this RAYCO to operate on grades 200% steeper than other stump cutters.