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Over the last eight years, the magazine has provided yeoman's service to the industry, covering every imaginable topic related to tree care. And no other publication has devoted more space and commentary regarding the successful managing of a tree care company, with hosts of articles written by business management experts from inside and outside the industry.

Safety, professionalism, excellence and continuing education in every phase of the business have been constant themes over the years. Of course, consistent with our new NAA strategic plan, we are working to improve the magazine even more, expanding its coverage, increasing its advertising base, and getting it into the hands of even more readers. We intend to continue the strong track record of the past.

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Barry Cullen
Publisher
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By Mark Garvin

Firewood & Tree Business
By Jeff Weeks

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What are the risks and rewards of entering the firewood business? Green or dry? Splitter or processor? Here's information you need to know before you make the leap.

Elm injection is a valuable tool, however, the most important aspect of disease control is the removal and disposal of diseased elms.

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.
More Than Mulch

Defining markets for wood

By Mark Garvin

Vermeer TG-400A tub grinder with loader

Bandit Model 3680 Beast Recycler

Morbark 950 Tub Grinder
Every year owners and managers of tree care companies have a simple, yet complex, decision to make: As they look at their long-term capital expenditure budgets, they must decide which markets they wish to enter or expand and what equipment will be needed to accomplish that goal.

By doing this, they’re really searching for profit centers they can expand into, while keeping in mind the size of their companies and the type of equipment they have or can afford. The market for pruning and fertilization, for example, is not the same as the one for small-scale tree removal or large-scale land clearing. By the same token, producing quality brush chips is not the same as processing bark mulch.

Only by knowing which markets can be served profitably can a company owner determine which equipment is needed to succeed in that goal. Decisions are then possible based on which business makes sense to bid on and which must be passed up.

Vince Winkler, president of Winkler Tree & Landscape, Inc. in LaGrange Park, Ill., produces a lot of wood in his tree care operations. He isn’t looking to expand into new markets.

“We have several outlets for our wood now,” says Winkler. “People take it from us for firewood or mulch. Both of those are whole new businesses. I’m not going to get into the mulch business, for example, until I can’t get rid of the logs.”

Winkler has ten Morbark chippers, and delivers the chips. “As long as people take truckloads for free, I don’t care what use they have for the chips. To me, it’s just a byproduct of our tree business.”

The larger chippers in his fleet allow Winkler to chip larger logs, making disposal faster and easier. “You can save if you don’t have to call out log loaders,” he notes.

He has found a drawback with larger chippers, however. “The only downside is you need bigger trucks. You can’t put it behind some one-ton dump. If they get any bigger, you’ll need tandem axle trucks to pull them.”

Winkler also has a small tub grinder, but he doesn’t actively pursue it as a business. “To me, it’s just a convenience. We don’t make a lot of money on it. We sell the mulch to existing clients through a newsletter, but we don’t spend much on marketing.”

Winkler isn’t enthusiastic about entering the mulch business. He has seen too many try and fail. “I see people buy these new tub grinders, and they turn out a good mulch,” he cautions. “But most of the ones who go out of business don’t have a marketing plan to get rid of it. They produce lots of the stuff, but if you don’t have a good plan the piles get bigger and bigger.”

Winkler cites another reason why he would shy away from entering the mulch business full time. “If you buy one of the recycling machines for $300,000, you’re going to need $300,000 worth of support equipment. A semi, loaders, etc., not counting the land. To support all this, you would need other people to dump there,” he says. “What happens to these operations is that they start in the middle of nowhere, which is good because they’re creating all sorts of dust. Ten years later they’re surrounded by $350,000 houses. Suddenly you’re an eyesore.”

J&B Professional Tree Service Inc. of Kalamazoo, Mich., also doesn’t take on every type of tree-removal or land-clearing project in its market area. Owner John B. Wardlaw, who has grown his business over more than two decades, knows what type of work he can do profitably. His 12 employees operate three 12-inch chippers, two stump cutters, three Hi Rangers and assorted chip trucks and skid loaders for his yard. As he took a look at the 1998 mar-
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pers—even large ones—have their limits, and this is one of them."

Another Chicago-area operation is B. Haney & Sons in Lombard, Ill., which has a tub grinder and a Morbark waste recycler. Vice President Dave Haney admits, "We're a little bit different than your average tree care firm, since we also run a recycling facility. We recycle our own material, material for about 15 municipalities, and 20 or so other private contractors. Everything that comes in is brush and logs. All of that goes through the waste recycler, the primary processing unit, then we regrind it through the tub grinder to make a mulch product. We only take tree waste."

Haney estimates his company's tree care operations generate about 40 percent of the wood waste they process. They accept waste from other tree care companies for a fee.

"We started recycling our own material in the late '60s, before tub grinders even existed," relates Haney. "We don't handle any leaves or grass—tree material only. We sell it wholesale. We deliver most of the mulch on our own trucks to landscapers. We have three semis running all day just delivering mulch."

Haney suggests tree care company owners think carefully about their present operations and the market for mulch before investing in more equipment. "I'm not sure a tub grinder is the best thing for a small guy who is generating 15 yards of brush chips a day. He may be better off trying to give that one load a day to the local nursery or garden center. I run four residential tree care crews with about 30 guys working. All of the mulch is sold, none of it is burned. Our utilities here are choking of the brush they create from their line clearance operations, but the state won't allow anyone to burn wood for energy."

"Here in the Midwest, brush chips are hard to get rid of," Haney stresses. "It's an individual decision. If a tree care company is having trouble getting rid of brush chips, then nine out of ten times a grinder will solve that problem. If you re-chip your chips, it becomes an acceptable landscape product."

Each company has to measure its output and decide how much mulch it wants to produce," Haney recommends. "My expectations are somewhat different from most companies. I'm trying to generate 200 yards of finished product an hour. If an operator is only generating three chipper trucks a day, or 45 yards, he may be perfectly happy taking three hours to grind that with one of the smaller tub grinders. That may make sense for the smaller companies, especially if he has to pay to dump that stuff."

"Conditions differ around the country, but I would say if people aren't having a tough time disposing of their brush chips, then by all means keep giving them away. Even after I process the chips, I'm still only getting six dollars a yard for them. After I pay for the grinder, storage, processing, loader, opened-topped delivery truck and support equipment that goes with it, I'm not getting much," Haney concludes.

Larger chippers can expand an operator's business and reduce the number of logs that must be hauled to a grinding service. In addition, some labor costs can be lowered and larger trees chipped on-site. However, as these professionals demonstrate, there are limits that even large chippers have, and there are circumstances that make a tub grinder the profitable choice.

Mark Garvin is editor of TCI.
The Disc’s 45° angle feed enhances chipping power of the Model 280XP, while The Model 1890’s drum has less of a dead spot. Both units have the proven, efficient Bandit two wheel hydraulic feed system and large chipper openings. Each produces uniform, dimensional chips and virtually eliminates the need to trim. Whether you need a disc or whether you need a drum Bandit has the machine that will take the cost and work out of disposing of tree removals and waste.

At Bandit we are constantly striving to improve existing models and to bring new innovations to life in an effort to better meet your needs.
In 1970, I was working for a tree company in Berkshire County, Massachusetts. Back then in New England, elm was the flavor of the day and we had one monster on our hands. The company owner did not believe in equipment, so we took it down and loaded it out the hard way—all 36 truck loads. Fortunately, we were about a mile from the dump. Do you remember dumps? That was the magical, mystical place that no longer exists. Today, we have laws that prohibit burning and burying our tree removal debris. So what do we do? Chippers, chippers, chippers.

Of course, there are different grades of chips and different markets for chips, but that is not always enough to dispose of all the wood waste generated by commercial tree care operations. You can only sell so many chips, and you can only pile up so many chips. So what else can you do? Well, how about firewood?

One of the best things about firewood is that it grows on trees. Bad joke, I'm sorry, I couldn't resist the opportunity.

Firewood is a livelihood for many people and a by-product for other people. If you are in the tree care business, firewood could be a by-product for you.

Take a minute and analyze the situation. Your job frequently requires that you cut down trees and remove them from a customer's property. This means you have the raw material required for firewood. You also have the equipment needed to haul away trees. So in reality, you have the equipment needed to deliver firewood. What other reasons are there for you to look into the firewood business?

Like any business that involves the sale of a product, you have to look at the initial cost of the raw material. Being in the tree business gives you a leg up in this area. Generally, you get paid to remove the raw material from the customer's yard. In some respects, you could go out on a limb and say that you are getting your raw material for free. This certainly plays a role in setting your price for your finished product.

Let me say that, while some of my statements may seem overly optimistic, you must remember we are talking about wood. When I say log-length wood is well suited to a firewood processor I mean well suited to a processor compared to a truckload of 1 foot to 8 foot pieces of wood that range from 4 inches to 4 feet in diameter.

As a commercial tree care company, you may get the wood to your yard at nearly no cost to you, which is a good reason to look at the firewood market. When you are out in the field, try to cut your pieces into a usable length or multiples of a usable length. When I talk about a usable length, I am talking about a standard firewood or stove-wood length of 16 inches.
When it comes to insurance, CNA looks at businesses from all perspectives. In fact, CNA has been designing customized programs for more than 25 years. We even have one that's pruned to the exact needs of the tree care industry. It's more than basic property protection; it offers coverages for underground storage tank pollution, transportation of designated pollutants, other limited pollution and pesticide/herbicide applicator.

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to 18 inches. Once you get back into your yard the wood is partially processed. With a good splitter you can turn chunk wood into a finished product.

You have probably thought about the firewood business before, but you are wondering what you should do if you want to pursue the firewood business actively. The firewood business is like any other business: it requires time. How much time, you ask?

The more you put into it the more you will get out of it. Like any business you will need customers, advertising and product. The customers that you already have will be likely prospects for your new venture. Advertising is the next step. Start with your regular tree care customers and always include firewood for sale in any advertisement you produce.

**What equipment & personnel will I need?**

Most operators start with a splitter. A hydraulic splitter is the only way to break down the types and sizes of the material most tree care companies create.

There are flywheel splitters on the market that do an excellent job in re-splitting, or reducing, the size of the pieces you get off the hydraulic splitter. Many firewood markets today require smaller pieces of wood in the range of 4 inches x 4 inches. For the packaged and kindling wood people want, splitters do an excellent job in this area. The size of their wedge and pushplate limits their effectiveness on knotty, twisted wood over 12 inches in diameter.

The type of hydraulic splitters you need will depend on the diameters and
lengths of the wood. If all of your material now comes into your yard at under 6 feet in length, you may want to make an effort to cut everything to 16 inches on the job. This would allow you to purchase a good hydraulic splitter.

The diameter range of your logs determines the size of the splitter. A good commercial splitter with a four- or six-way wedge that stands 18 inches above the cradle will handle wood up to 24 inches in diameter. What is a cradle you ask? Any good splitter will have a cradle that supports wood in front of the wedge so the operator does not have to hold each piece. This is much safer and a big time-saver.

Engine pump and cylinder sizes also vary. I like a 4 1/2-inch box cylinder and a 28 gpm, 2-stage pump. This provides good power and speed. A unit like this can cost $5,000 to $7,000.

There are a lot of different opinions on hydraulic wedges and log lifts. I have mixed feelings on both. I think the log lift mechanism gets in the way. If you process larger wood material than you can lift comfortably, you need to mechanize. Wood that cannot be lifted should be split first on a four-way wedge and then re-split to a marketable size on a smaller, faster splitter.

This four-way splitter should be large, with a wedge 24 inches to 36 inches tall, and with at least a 6-inch box cylinder. Of course, a heavy splitter is a serious investment, costing over $10,000 and weighing in at two tons. To operate, you will need to set up a platform, so that the large pieces can be loaded onto the platform and then slid onto the beam.

The only other option is to load each piece with a loader. You can have a large splitter built with a small log loader attached. Handling is the operative word here. Production and operating costs vary. One person with a good commercial splitter working with manageable pieces that are in close proximity to the splitter can split over a cord an hour. These higher production rates are possible when the wood is only split once and a conveyor is used to take the wood away.

Conveyors are another variable that generate even more differing opinions. Belt conveyors are plentiful and inexpensive, but they slip. Belt conveyors should be driven off the top—just ask any engineer. Bottom-drive belts slip, especially in cold, wet weather. If you plan on running a steep angle on a belt conveyor ... don’t. Belt conveyors should only work at a shallow angle.

Prices start at just over $4,000. If you plan on working through the winter months, buy a chain conveyor. Here you have a choice between a single chain or double chain. Single chain conveyors are better, because the small pieces of wood cause a double chain to allow one side to get ahead of the other so that the paddles are diagonal as they travel upwards.

Small wood chips get under the chain and make it jump on the sprockets. Chain conveyors in the 30-foot range start at $6,000, but they are the least expensive laborer you will ever hire.

You may wonder about the dollars and “sense” of buying a processor. If your

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Dick Miller’s years as a tree man have taught him a lot about trees and how to help you help them.
Cover Story

Wood comes in from the field over 6 feet in length and under 24 inches in diameter, then think about a wood processor, which starts at around $14,000. They can load themselves or be loaded by machine, which has a bearing on productivity. One man alone can produce four full cords a day with an inexpensive processor and the right kind of wood.

Examine your circumstances. What is your dumping cost of your tree removal material? Price your local firewood market. How much is wood selling for wholesale? Are there half a dozen competitors advertising in your local paper?

Only when you know your costs—all of them, from processors and loaders to a larger storage yard and increased labor costs—can you decide which route to follow. If your dumping and trucking fees are extremely high, then firewood might make sense. If the average wood dealer in your area is paying $40-$60 per cord to get wood brought into his yard, you start with this margin to work with.

If you own a large tree business that produces a lot of wood, then a big splitter with an 8-foot stroke will allow you to reduce butt logs to the size that a processor can handle, or you may want to investigate purchasing a tub grinder. Large splitters can sell for well over $30,000, but they allow you to handle your wood plus other people's wood. Smaller operators may settle for a 2-foot stroke heavy splitter and commercial splitter.

Another thing you need to think about is whether you want to market green wood, dry wood or both. I concentrated on green wood while working to educate my customers to the advantage of burning dry wood. I followed this up by pointing out that if my customers bought their wood a year in advance, then they would save money and be assured the wood was dry.

The upside from a business perspective of selling green wood is you won't have to stockpile hundreds of cords, which requires yard space.

Marketing year-old wood also ties up some money—how much depends on your investment in the raw product and your investment in the processing.

I mention choosing between green and dry wood because your choice can drive your advertising, which should involve a lot more than a classified ad in a local paper. Depending on your desired investment in the business, you can target:

- restaurants
- condo associations
- recreation areas
- supermarkets

Packaged wood is a way to get more mileage (and profit) out of smaller volumes of wood while at the same time keeping employees busy during slow times.

Finding work for semi-idle crews is one of the primary reasons tree care companies investigate firewood as a sideline. It's also one of the main reasons you may want to sell dry wood. If you have an off-season, you may want to keep some of your key people on the payroll. Packaged...
wood, which involves making small pieces out of a few big ones, means handling, handling, handling. This can keep people busy without the need for large quantities of the raw material.

The firewood business like any other business, is not an easy one to succeed in. This business has just as many ins and outs as any other business. Putting a couple of armfuls of wood into a pickup truck and dropping them at your next door neighbor’s house is not really being in the wood business. Try to think of this as more than just firewood. Think about your new venture just as seriously as an emergency take down over power lines on a damp day.

Another type of marketing that few people think about when they embark on this business is how to provide their services. In other words, you must decide on the quantity, quality and timeliness of your delivery. Firewood is one of those commodities that can be hard to measure, so you should give some thought to the unity of measure that you think your customers expect to receive and how you plan to satisfy their expectations.

Quality is another tough area in this business. If you are selling dry wood, make sure it truly is dry. In my book dry wood has a moisture content of under 20 percent. Any questions in this respect can be answered with a moisture meter, which sells for under $150 and is well worth the investment. It may even bring you some pleasure (and word-of-mouth business) if you have the opportunity to show a customer that your competitor’s wood is not really dry. Selling green wood as dry is not a good form of advertising and it is one that will haunt you for a long time.

If you plan to sell green wood, however, you must educate your customers about their purchases. A lady once told me she was surprised to see a leaf in the pile of wood. Well, I was selling green wood. Many times our deliveries were made on the day the trees were cut down. If people are buying green wood, make it clear what that means, what they need to do to have that wood ready to burn next year and how much they have saved by being so farsighted.

In this business, rotted wood is a fact of life. Our customers generally do not want to see it, so take special care to remove it from all deliveries.

Species is another concern for customers and the hard-earned reputation for consistent quality you are attempting to build. In some areas firewood is considered hard wood. When this is the case,
as it is in New England, stay away from gray birch, poplar and sometimes white birch.

While the area that you are in will determine the available species, it is your job to know what your customers expect and see that they get it.

Try to keep one thing in mind as you investigate entering the firewood business. Every machine functions most efficiently when it does what it was designed to do. When you buy machinery, ask yourself this question: Does the salesman know my needs and my business or is he just a salesman? A processor is a waste if it is used as a splitter. Wood processors can be built to handle large logs, but they will not give you a finished product. A re-splitter will take the big wood and reduce it to a saleable size. If you do enter the firewood business, you will find that delivering the right sized wood will help you build a good customer base.

Assuming that your wood is of a manageable size, two people can cut and split four to eight cords in a day with just a splitter. One person with a processor can match or exceed these figures with a high margin of safety. Again, the level of handling is one variable as is the speed of the processor. The ability to process the wood your tree care business generates into firewood gives you another market and more work for your employees in slack periods. It also offers freedom from the uncertainties and costs wood disposal.

Many wood dealers overlook the fact that gas, oil and electricity are competition for firewood. These forms of heating are certainly easier to use, but they are more costly and they are not renewable. Whatever you can do to keep your customers happy and to educate them will benefit the firewood business.

Jeff Weeks is the owner of Valley Processors, Inc. in Amherst, Mass.

### Waste wood generated, recovered, combusted or not usable, and available for recovery in U.S., 1996

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<td><strong>Primary Timber Processing</strong></td>
<td></td>
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<tr>
<td>Bark residues</td>
<td>30.3</td>
<td>27.2</td>
<td>1.6</td>
<td>4</td>
</tr>
<tr>
<td>Wood residues</td>
<td>86.7</td>
<td>77.4</td>
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</tr>
<tr>
<td>Total</td>
<td>117.0</td>
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<td>6.5</td>
<td>17</td>
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<tr>
<td>Total Waste Wood</td>
<td>193.5</td>
<td>150.1</td>
<td>37.4</td>
<td>TCI</td>
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</tbody>
</table>
Inside every container of Alamo® you’ll find a strong, healthy tree. Because Alamo is the only fungicide that’s effective in preventing oak wilt and dutch elm disease. Just call (800) 395-8873 for more details on how it can help preserve a beautiful environment. Which, as you can see, is what we’re really selling.
Most people are aware that society has moved to a place where a blood test should be required before engaging in a romantic encounter... but a blood test for a job interview? Many employers wish they could resort to this simple measure to determine whether or not candidates are infected with HIV, the virus that causes AIDS.

AIDS is becoming an issue in the tree care industry, where climbers are worried about coworkers. Fear and ignorance about AIDS has created low level panic about the possibility of being exposed to HIV during tree trimming operations. Climbers and grounds crew members alike express concern that they might get AIDS through a coworker’s saliva or blood in the event of an emergency.

Some employees have used rumors about a coworker’s HIV status to “blackball” the coworker. It seems that even with all of the information available today about how one does or does not contract AIDS, fear of the disease inspires many tree workers to flat out refuse to work with a person suspected of being HIV positive.

Because mutiny is bad for business, many employers call the National Arborist Association looking for advice on how to handle this issue. Can they ask about HIV status during a job interview? Can they ask an employee directly whether he or she has contracted AIDS virus? Can they demand blood tests to put an end to damaging rumors? No, no, and no.

The Americans With Disabilities Act (ADA) protects the privacy of individuals with HIV. Because the ADA does not allow an employer to consider HIV status when making hiring decisions, the HIV question is on the list of taboo interview questions, along with marital, pregnancy, and back injury status. Once hired, employers may not allow open access to employee medical files, nor may they demand blood tests as negative proof of HIV. Some employers might claim that employees have the right to access medical files on a “need to know” basis, and that employees have a right to know if they have a possibility of being exposed to AIDS on the job. Be forewarned, the courts do not accept this argument. In fact, a Federal appeals court ruled in favor of an HIV-infected surgical technician who cited the ADA when he filed suit against the hospital that dismissed him. The hospital claimed that, as a surgical technician, he was exposed to sharp objects and sometimes worked in patients’ open wounds. Even under these circumstances, the employee was reinstated.

A normal day in tree care does not routinely expose workers to the blood of colleagues. Even when a simple nick or cut produces blood, everyday injuries are usually not severe. This is part of the reason why the tree care industry is not subjected to OSHA’s blood-born pathogen rule.

It is important for everyone, particularly field personnel, to remember there must be direct exposure to the HIV virus in order to contract it. You don’t get AIDS from breathing near an infected person. AIDS has not been proven to be transferrable through saliva. Simple, common sense precautions protect everyone from AIDS, as well as many other diseases that are transmitted through the blood. If you get cut and do not require medical attention, clean and bandage the cut yourself. Properly dispose of bloody tissues, cotton or rags. When the bandage comes off, dispose of it properly, too. If you are helping someone who is bleeding, wear a pair of latex gloves. It’s not just HIV that lives in blood, hepatitis does too—as well as other diseases.

An employer’s best defense from the havoc that can be created by the word “AIDS” is education, as well as intolerance for those who would use the tragedy of AIDS to threaten or intimidate others. The Center for Disease Control has an AIDS resource center which provides free advice and information. If you have legal or medical questions, you can call them at (800) 458-5231. An HIV business specialist will speak with you personally. Free manager’s kits containing AIDS awareness posters, pamphlets, and information books are also available. Write for more information to CDC National AIDS Clearing House, PO Box 6003, Rockville, MD 20849-6003.

Amelia Reinert is deputy executive director of the National Arborist Association.
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Motivating Your Hourly Partners: Strategies Beyond the Wages

By Kevin E. O'Connor

"Cooperation isn't getting people to do what you want them to do. It's getting them to want to do what you want them to do."

Earl Nightingale

P - People Attitude
A - Attention
R - Responsive
T - Trust
E - Negotiation
R - Respect
H - Hourly employees can present the greatest of challenges to our management and leadership abilities. They are a critical component of our work force, and yet are not always as motivated as we would like them to be – they don't always want to do what we want them to do. And, in one way or another, they let us know!

You can improve the effectiveness of your leadership and motivate your hourly workers better with some simple common sense management techniques and strategies. Like so much else in life, how we view other people influences how we will deal with them. More importantly, how we treat them is critical to the kind and quality of their motivation, their productivity and our bottom line. Our employees' work is a direct reflection upon us and our companies. In a very real sense, our customers know us best when they know our hourly workers.

Disney World and Disneyland are famous for their extensive training programs. When you rent strollers, purchase gifts or talk to most employees at Disney, you encounter hourly workers. In fact, your whole vacation and lasting impression of the entire Disney operation depends more on their hourly workers (or "cast members," as Disney calls them) than anyone else. Management views them as "on stage" and trains and treats them as such.
Rudolf Dreikers, a Chicago psychiatrist and author, asserts that our job in all partnerships is not to require the other person to cooperate with us, but to “win” their cooperation. When we win them over, we are tapping into real motivation that lasts and is most useful for the accomplishment of our common goal. When we require cooperation, we begin a battle that will rage for years. In short, people function best when viewed as capable partners who want to do what needs to be done.

True, too, of your hourly employees. What would happen if we saw them as hourly “partners” who are just as important to our bottom line as any other who would work with or for us? The task of the leader who truly understands what makes people tick is to extract the best from employees so that they, in turn, can give their best to you and your customers. Your hourly employees are your greatest assets—truly a PARTNER in profit.

People Attitude

Have a people attitude, especially when you are overloaded with work. Few things are as refreshing as a leader who gives a genuine feeling of caring for you personally. Use eye contact, first names, common courtesy and be open to their responses. Also check your expectations—are they clear, achievable, measurable and consistent? Would you want to work for you?

- Practice with retail clerks. Be obviously friendly and note what response it evokes in them.
- Ask a trusted co-worker how you could do one or two things in a more “people oriented” way. Implement their suggestions over the next week and notice what changes take place.
- Each week, secretly select an “employee of the week.” Then, concentrate on being more friendly, pleasant and helpful to that one employee. Notice how they change. (This is especially useful for employees that you cannot stand!)

Attention

People love personal attention but not always in the same ways. One may respond easily to a “job well-done” comment, while another wants to help plan the day’s work with you and would appreciate a five-minute consultation in advance. Doing the work and getting paid for it is rarely a strong enough motivation for workers without special attention.

- Keep an index card on each employee. Record personal data, such as the names and ages of their children, spouse’s name and other anecdotes that you have accumulated about them. Review one or two cards a week and use the data in your “off-hand” conversation.
♦ Begin a recognition program on a company bulletin board. Award a special parking space per month, give a gift certificate or simply post a notice of a job well-done by an individual or team.

♦ Be specific when giving attention to your employees. Just as using their children’s first names is much more powerful than asking about “the kids,” specific comments about the level of work done is more significant than a pat on the back or a “good job.”

**Responsive**
A responsive leader energizes a group. By emphasizing your person-to-person response, you will enhance trust, loyalty and good, old-fashioned hard work: “If I like you, I’ll do anything for you; if I don’t like you, I’ll find any reason I can to do less.”

♦ Be very clear about job expectations, even on a daily and routine basis. Don’t assume things will be done the right way—say precisely what you want before the work begins.

♦ Talk about your customer with admiration and caring. Help your employees feel the importance of the customer.

♦ Use encouragement whenever possible. Speak with positive connotations and give the benefit of the doubt. Treat people the way you expect them to perform and the way you expect them to treat you.

**Trust**
Trust is established with time, communication and by staying in touch with your employees. The basis of any relationship is trust—doing what you say you will do. Consistency, while not an excuse for bad habits, can build a trust factor that’s difficult to duplicate.

Create a “mental policy book” of your own personal guidelines (i.e., how to avoid “blowing up” in front of your team, how to approach an employee who has declining job performance and is going through a personal crisis, etc.) Your “mental policy book” will ensure consistency and therefore, make you more worthy of others’ trust.

**Negotiation**
Negotiation builds responsibility and short-circuits power struggles. As good leadership is not synonymous with autocracy, negotiation is not synonymous with surrender. To negotiate is to collaborate so that each person feels enriched by the process and mutually satisfied with the outcome.

♦ The skilled negotiator is always thinking of the other person, not only in terms of strategy, but more importantly in terms of helping them walk away with a feeling of accomplish-
ment. When you negotiate over money, a day off, or even a routine task, be thinking about how you can both be successful.

- It is easy to see two sides—yours and theirs. However, if you look for a third alternative, then a fourth, fifth, or an infinite series of other solutions may be found to provide a wider possibility for change.

Equality

Workers are motivated best in an atmosphere of social equality, which entitles each member of the group to dignity and mutual respect. As Dreikurs taught, no one can stand to be in a position of inferiority for long.

- One of the most dangerous times in any partnership is when one of the two feels inferior, which creates tension and affects the success of the relationship. Work to alleviate this dynamic and “level” the relationship.

- Use words such as “us” and “our” more than “me” or “my.” Listen to the other person and you will learn valuable information and convey a feeling of importance to them. Be aware of those times that you feel superior to others—they’ll feel talked down to and resentful, which makes you more vulnerable and further out of touch.

Respect

Respect is what you have to have in order to get.” Think about the last time you felt disrespect—at a restaurant, during a business meeting, over the phone. When we are disrespected, we immediately know, or think we know, the intent of the other. If we aren’t careful, it’s possible to take that conclusion as fact and work from this mistaken idea.

- Notice how you perceive others, especially those that you do not know. Is the driver who just cut you off a “dumb jerk” or someone who made an error in judgment?

- How we think of others often dictates our actions toward them. Good leaders know that everyone is sensitive to feeling respected and create a work force that embodies a mutual respect between its members.

Everyone works for recognition of their talents and for the personal satisfaction of a job well-done. Visualizing your hourly employees as “partners in profit” is not only good business, but you’ll have people who will feel well-treated, help you to make more money in less time with increased quality, and will do almost anything for you in return.

Kevin O’Connor, CSP, is a speaker, trainer and corporate consultant who specializes in Person-To-Person skill building. His specialty is Team Building, Communication and Customer Relationships. He is a faculty member of Loyola University in Chicago and is author of 4 books, his most recent being, When All Else Fails: Finding Solutions To Your Most Persistent Management Problems and The Communications Coach.
Security & Theft Prevention
By George Klinger

Equipment theft alert!

There has been a recent rash of arborists' equipment thefts in Florida and surrounding areas. The targeted equipment includes chippers, tractors with buckets, backhoes and Bobcats. Ideally, equipment should not be left overnight or weekends on a job site location.

If the equipment must remain, added security and theft protection should be taken. Notify the local police or sheriff's department and request frequent patrols. Contact neighbors adjoining your job site, as they can be effective watchdogs during evening hours and weekends.

If you incur a loss or discover an attempt, notify the local police department immediately. All claims should be reported promptly to your insurance agent. Authorities in Florida believe these equipment thefts are being committed by an organized group of professional thieves, who quickly move the goods out of state or to foreign countries.

Listed below are additional guidelines on tools and equipment security and theft protection that will help to reduce the chance that thieves will be successful in their attempts to steal your equipment.

Thefts cost arborists in many ways

Out-of-pocket costs include:

- The deductible on your equipment insurance policy as a result of realized claims;
- Replacement of non-insured items not listed on your scheduled equipment and tool policy or your inventory report;
- The difference between the depreciated value of the equipment from its present replacement cost.

Some arborists ignore job site theft or decide not to take action against it. They simply add the price of the stolen property to job costs. These direct costs can be substantial—up to 3-5% of the job cost. But there are also some significant indirect costs from equipment and tool thefts.

- When stolen tools aren't available, delays inevitably occur and productivity drops.
- Arborists sometimes buy cheap tools to reduce the cost of theft losses. These tools may not be worth stealing, but they also negatively affect productivity because they work poorly, wear out quickly or break.
- Employer-tolerated theft hurts employee morale. Honest workers don't like working where theft is ignored. Poor morale leads to poor productivity and friction. Management is seen as weak and ineffective.
- A time lapse in procuring the replacement equipment results in reduced production, job completion, and scheduling of newer assignments.

Even if you are willing to endure the direct costs of theft, you may want to consider a theft protection program to reduce the indirect costs.

Law enforcement help

Before you start a long-term job or move in equipment, meet with police officials or the local law enforcement agency. You may want to give them the details of your project, type of equipment used, work schedule, projected starting time and the expected date of completion. Names and phone numbers of key personnel and contact information during non-working hours are essential.

Keep the police posted on such things as unusual job site activities that might require their special attention. Tell the police how your equipment is specially marked for identification. Ask the local law enforcement agency to conduct a crime prevention survey of your site. If you are going to use security or traffic control personnel, it is good public relations to hire off-duty law enforcement personnel.

Employee support for theft prevention program

Employees can play a vital part in reducing losses of small tools and equipment by constant surveillance of the job site. In preventing vandalism and theft, they can work with you as well as work for you.

Many small day-to-day losses must be paid from profits. Don’t be afraid to let your workers know that they could be fired if they are caught stealing. Most labor contracts contain a clause listing dishonesty as one of the just causes for which you may fire an employee. Ask employees to report theft to management via a phone number that they can use after hours and on weekends.

Many potential thieves will be deterred by the knowledge that someone can turn them in anonymously. But before acting on anonymous tips, discuss the case with your local police department officials. Explain your security and theft prevention program to new employees and at a tailgate safety session.

Involve neighbors in watching your job site

Neighbors and their children can become efficient watchdogs of your project during evening hours and on weekends if you solicit their help in a friendly way.

Contact neighbors in the immediate area around your job site. Don’t overemphasize your concern about stopping crimes stress the ways you are promoting safety so their children won’t be tempted to play on the equipment and get hurt. While they are sympathetic to your security problems, your neighbors are also interested in your efforts to ensure their family’s safety.

Mark equipment

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the model and serial number. Even if you are absolutely certain the machine is yours, positive proof is a legal requirement to reclaim it.

Use a hardened steel punch or etching tool to duplicate the serial numbers in at least two places—one obvious and one hidden. Record the locations and the numbers. (Post warning notices on machines advising that all VIN's have been recorded.) If your equipment is stolen and recovered in another town, state, or country, police can trace ownership back to you and you can make positive identification.

- Keep written records of all equipment identification numbers.
- Keep a color photo of each unit.
- Maintain an accurate inventory record of all tools.
- Consider painting equipment a different color to aid in identification.
- Mark the tops of truck cabs to aid in aerial identification.

Secure tools & equipment

Keep doors on all vehicles locked and remove ignition keys when not in use. Use metal shields on equipment windows where practical, and install locking oil and gas tank caps. Most losses are directly traced to carelessness by employees.

Tools and small equipment should be secured in locked truck-mounted tool boxes overnight, whenever a vehicle is unattended, or during lunch/coffee breaks. Chain saws and more valuable equipment should be removed from the truck or job site overnight or weekends and stored inside at home or your main location.

Ignition and toolbox keys should be under the control of the supervisor or foreman and not given to other employees.

- Immobilize equipment by removing the rotor, battery cable or main electrical fuse, particularly when equipment is not used daily or stored overnight.
- Install anti-theft devices such as fuel cutoffs, hydraulic bypasses, and case-hardened locks.
- Disable machines with hidden ignition or other electrical cutout switches.
- Remove a chipper or trailer wheel to make equipment less mobile.
- Chain and lock equipment to a pole or tree at the job site location.

Report theft & vandalism promptly

No matter how small the loss from theft or vandalism, report all incidents to local police department or law enforcement officials. The information you supply to them promptly may save your job from a repeat visit or discourage the vandals or thieves from striking other projects.

Accurate information will accelerate the possible recovery of your equipment or apprehension of thieves. Make sure your company has an effective incident report form and a complete record of model and serial numbers of all equipment assigned to your project. Also, keep in mind that accurate and timely notification of loss must be made to your insurance company's claims department.

Police advice

Law enforcement officials have identified the following common characteristics in equipment theft:

- A buyer for the stolen equipment and...
tools is usually identified before the theft is perpetrated. Therefore, the thief sets out to steal a specific piece of equipment or tools that have immediate cash value.

Thieves will case a job site three or four times, at different hours of the day, before the theft is carried out. This allows them to determine the arborists’ routine and to identify the security measures at the job site location.

Most thefts occur in the evenings (usually within 30-45 minutes after work) or on weekends.

Many thieves will not attempt an equipment or vehicle theft if they cannot enter the job site, load equipment or drive away a stolen vehicle within five to ten minutes from start to finish.

Establish and enforce stringent company rules for employees who steal. Dealing consistently with employee theft will discourage further theft. Make employees accountable for their assigned tools and equipment.

Mark all equipment with an identification number and your company name and logo. Without identification, police cannot prove it is stolen property and cannot prosecute suspects.

Use case-hardened, industrial grade locks on tool boxes and trailers. Don’t use stock padlocks with a widely duplicated key series.

To prevent unauthorized duplication, "plug" keys with a rivet through the bow as a means of preventing alignment needed for machined duplication.

Assign the responsibility for key control security to a foreman or a reliable employee. Identify and establish a secure place for key storage during non-use periods and at the end of the workday.

Guidelines of a security & theft prevention program

In summary, the following items should be implemented for accomplishing an effective theft prevention program.

- Establish a company theft prevention policy
- Equipment identification and inventory list
- Job site protection and police notification
- Involve neighbors in watching your job site
- Key control security
- Secure tools and immobilize equipment
- Report theft and vandalism promptly

Your insurance and risk management program should include a specialty insurance agency with an experienced arborist consultant on staff. This consultant will assist you with developing a loss prevention and security program customized to your needs which will reduce costly injuries and losses.

George J. Klinger is the Director of Loss Prevention with National Insurance Programs. He is an active member on the NAA Safety Committee and has served on the ANSI Z-133.1 Tree Care Safety Standards Committee since 1981. National Insurance Programs (NIP) of Woodbridge, N.J., is an associate member of NAA and other tree care organizations.

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Ways to Prepare for Retirement

Financial security doesn’t happen by chance, it takes planning, commitment and money. You can’t retire into the type of lifestyle you envision unless you prepare for it. That means making a careful examination of your current and future financial needs and beginning to take action. It may seem incredible, but surveys have shown that less than half of Americans have put aside money specifically for retirement. There’s no excuse for you being one of them. Putting away money for retirement, which defers taxes and allows your saving to grow at a faster rate, is like giving yourself a raise. The average American spends 18 years in retirement: you’ll need to start saving now to live comfortably for almost two decades without earned income. The U.S. Department of Labor offers the following tips:

Know your retirement needs. Retirement is expensive. Experts estimate that you’ll need about 70 percent of your pre-retirement income—lower earners will need 90 percent or more—to maintain your standard of living when you stop working.

Find out about your Social Security benefits. Social Security pays the average retiree about 40 percent of pre-retirement earnings. Call the Social Security Administration at 1-800-772-1213 for a free Personal Earnings and Benefit Estimate Statement (PEBES).

Contribute to a tax-sheltered savings plan. If you have established a tax-sheltered savings plan, such as a 401(k), contribute all you can. Your taxes will be lower and automatic deductions make it easy. Over time, deferral of taxes and compounding of interest make a big difference in the amount of money you will accumulate.

Start a plan. If you don’t offer a retirement plan, start one. Simplified plans can be set up by certain employers. For information on simplified employee pensions, order IRS Publication 590 by calling 1-800-829-3676.

Put money into an Individual Retirement Account. You can put $2,000 a year into an Individual Retirement Account (IRA) and delay paying taxes on investment amongst until retirement age. If you don’t have a retirement plan (or are in a plan and earn less than a certain amount), you can also take a tax deduction for your IRA contributions. IRS Publication 590 contains information about IRAs.

Don't touch your savings. Don't dip into your retirement savings. You’ll lose principal and interest, and you may lose tax benefits. If you change jobs, roll over your savings directly into an IRA or your new employer’s retirement plan.

Start now and set goals. Start early. The sooner you start saving, the more time your money has to grow. Put time on your side. Make retirement saving a high priority. Devise a plan, stick to it and set goals for yourself. Remember, it’s never too late to start. Start saving now, whatever your age.

Consider basic investment principles. How you save can be as important as how much you save. Inflation and the type of investments you make play important roles in how much you’ll have saved at retirement. Know how your pension or savings plan is invested. Financial security and knowledge go hand in hand.

Ask questions. These tips should point you in the right direction, but you’ll need more information. Talk to your banker, accountant or a financial advisor. Ask questions and make sure the answers make sense to you. Get practical advice and act now.

Web sites especially helpful to owners and managers in tree care industry:
American National Standards Institute
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Occupational Safety & Health Admin.
www.osha.gov
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95-3029 1989 GMC 7000 diesel, manual 5/2, AB, with an Altec AA650 (0984-J0920) 60' working height aerial lift, single, one man platform, dump body. PTBD

95-2205 1989 Ford diesel chassis, 5/2, AB, with a matching Hi Ranger 6H-55PB1 (098916636) 60' working height, two man platform, upper tool outlets, lower boom isolator, full line body. Aerial has been refurbished and is RTW status. $47,000.00

95-3108 Timberjack diesel skidder with a 1990 Altec LB650 (029050572), 55' working height, overcenter operation, lower boom insert, rear hydraulic winch. In process. PTBD

95-2177 1982 Ford gas, 5-speed, hydraulic brakes, with an Asplundh LR50 (820789) 55' working height behind cab aerial lift, dump body, with single platform PTBD

95-3261 1992 Ford diesel, 5/2, AB, with an Altec LB650 (029250844) 55' working height overcenter aerial lift, full dump body, lower boom isolator. Unit in process of refurbishment. PTBD

95-3168 Timberjack diesel skidder with a 1990 Altec LB650 (029050672), 55' working height, overcenter operation, lower boom insert, rear hydraulic winch. In process. PTBD

95-2144 1990 Ford F800 diesel, 5-speed, hydraulic brakes, with an Asplundh LR50 (900490), 55' working height, behind the cab mount, single platform, flat bed body. $46,500.00

95-3002 1985 Ford F700 diesel, manual 5/2, hydraulic brakes, with a Hi-Ranger 5FI-48PBI (118412727), 53' working height aerial lift, two man platform, behind the cab mount, dump body $39,000.00

95-3187 1991 Ford F700 diesel, 5/2, with an Asplundh LR50 (900705), 55' working height, dump body. $52,500.00

95-2076 1991 Ford F800 chassis, Ford diesel engine, 5/2, with an Asplundh LR50 (900705) 55' working height, overcenter operation, lower boom insert, mounted behind the cab, full line body. $52,500.00

95-3002 1985 Ford F700 diesel, manual 5/2, hydraulic brakes, with a Hi-Ranger 5FI-48PBI (118412727), 53' working height aerial lift, two man platform, behind the cab mount, dump body $39,000.00

95-3187 1991 Ford F700 diesel, 5/2, with an Asplundh LR50 (900705), 55' working height, dump body. $52,500.00
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• Caterpillar 3116 or Ford FD 1060 210 hp diesel
• All have automatic transmissions (either MD3060 or MT653)
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• Block heater
• All are Michigan Frost Law legal

Five (5) 1994 Altec AM900
Brief specifications are as follows:
• 71' working height non-compensated aerial lift
• Single, two (2) man platform with tilt option and liner
• Single handle control
• Lower boom isolator
• Tool circuit located at the boom tip
• Two sets of A frame outriggers
• Control station located on the rear, driver side of body (stand up)
• Aluminum flat bed body
• 1994 GMC Topkick chassis (several 1994 Ford chassis) 33,000GVW
• Caterpillar 3116 210 hp diesel engine
• All have automatic transmissions (either MD3060 or MT653)
• No-spin rear end
• Air Brakes
• Power steering
• Block heater
• All are Michigan Frost Law legal

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TREEx CARE INDUSTRY - JUNE 1998
This column generally features an innovative technique developed by arborists to make field work safer or more efficient. But once in a while a new marketing technique draws so much notice it's innovative arrival must be applauded.

Such is the case with a new idea from Broccolo Tree and Lawn Care in Rochester, N.Y., which has a bug that weighs a ton. With its bright red body and detailed black spots, this bug resembles an enormous ladybug, but is most closely related to a beetle; a Volkswagen Beetle to be precise.

In its enthusiasm to educate the public on the benefits of Integrated Pest Management, Broccolo has acquired the 1998 VW Beetle and designed it to highlight the necessity of beneficial insects, like the ladybug for example, in the environment. The Good Bug is the new mascot and can be seen around town during general customer service calls and project estimates.

"The Good Bug is another way for us to emphasize our commitment to Integrated Pest Management," says Broccolo's president, Laurie Broccolo. "We encourage natural pest control on properties with beneficial insects by not applying blanket-treatment pesticides. By monitoring the property and spot-treating with pesticides only when necessary, we minimize their use."

The Good Bug is part of a comprehensive public awareness program sponsored by Broccolo. Other education initiatives include a traveling puppet show for schoolchildren, GardenScape seminars and an annual Field Day.
While the competition has been developing complicated excuses and even more complicated inefficient drive systems, Carlton has developed the most powerful cutting portable available. Carlton’s exclusive turn table design provides huge cutting dimensions while allowing the use of highly efficient two stage cutterwheel drive system. This patented arrangement gives the Carlton 4400-4 the ability to out cut all other portable machines.

For more information call 800-243-9335
The new innovative Porta-Wrap II friction brake from Buckingham Mfg. Co., Inc. is unlike any other on the market today. With the addition of a second eye, the user can attach a block and tackle, using an ascender to his rigging line and hoist up a limb, preventing it from coming in contact with a house or power line. For added safety, a formed rope retention bar has been added to eliminate the possibility of losing a wrap, even if your rigging line slacks. Available in two different sizes in either nickel-plated or black painted finish. For more information, call Customer Service at 1-800-937-2825.

The BP 6200 Professional Series of Bypass Hand Pruners from Corona Clipper is available in three models. The new cutting head reduces stress, absorbs shock, provides superior stability and dramatically reduce force-to-cut and hand fatigue. Also featured are forged, slant-ground, narrow profile hooks; Radial Arc blades that are replaceable and easily sharpened; internal grease relief; a self-aligning pivot bolt with a patented, hi-torque all-steel locking nut; a wire-cutting notch; a new, low profile thumb lock and an angle-mounted stainless steel return spring with integrated shock absorbing bumper. For more information, call Corona Clipper at 909-737-6515 or visit their website at http://www.coronaclipper.com.

STIHL's HT 75 pole pruner is designed for professional landscapers, arborists, farmers and professional loggers. The adjustable shaft telescopes to 11.5 feet, eliminating the need to use a ladder. This pole pruner is equipped with STIHL's exclusive Easy Start™ system with ElastoStart shock absorbing handle and a fuel pump primer for easier starting. The HT 75 is equipped with a 12 inch STIHL Picco® Micro Narrow bar and saw chain combination. For more information or for the name of your closest STIHL retailer, call Toll Free: 1-800-GO-STIHL (1-800-467-8445) or visit their web site at http://www.stihlusa.com.

Porter-Ferguson Division of Lowell Corporation brings high pruning jobs within easy reach. Featuring dual cutting blades, poles not only cut quicker and easier, but also protect cambium and bark from damage and promote quick, clean healing from both sides of the branch. Type OP Short Arm Pruner is designed for use in confined areas for cutting thick, damaged or diseased growth. For jobs that require extra leverage, the Type RP Long Arm Pole Pruner offers the same features and benefits, as well as identical lengths and weights. Replacement poles are also available. For more information or a catalog, call 800-456-9355 or 508-835-2900.

Mobile Tool's 10/33 Insulated towable aerial lift has dual, full-pressure controls, a single lever controller at the bucket for one-handed operation, automatic leveling, 33-foot working height, engine start and stop at the bucket, and a hydraulic tool circuit. An 8 horsepower gas engine and/or a 12V deep cell battery system allows it to work indoors or outdoors. Lockouts on each outrigger ensure a proper set-up and a five-degree tilt alarm is standard. Tested in accordance with ANSI A-92.2 for 46KV and below or CSA 225W-88 for below 69KV. For more information, call Mobile Tool International at 301-620-7242.

With over 50 years of experience, Triumph Leasing has grown to be one of the largest, privately-owned trailer rental and leasing companies in New England. As a full service company, they offer a complete range of leasing products, including: full service leasing; daily, weekly or monthly rentals; pickup and delivery locations throughout the northeast; emergency road service 24-hours a day, anywhere in the USA; expert, on-site maintenance; storage, cartage and road trailers; contract maintenance; ground level storage containers; and office trailers. For more information call 800-444-9676 or 508-486-0120.

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Cleary Chemical has received EPA approval of the newest Protect T/O product labeling amendments. Protect T/O is a micro ground, 80% mancozeb fungicide formulated specifically for the turf and ornamental industry. This label improvement program includes the addition of a 1-to-2 pound per 100 gallon use range to increase user flexibility in disease situations and residue management; an expanded disease list that now includes over 70 pathogen species; an expanded host list including over 155 host plants or plant groups. For further information contact Cleary Chemical Corporation, Sales/Distribution Center Toll-Free at 800-524-1662 or locally at 732-329-8399; Fax: (732) 274-0894.

Weaver Leather adjustable chain saw straps attach the ring to a snap on a saddle or work belt! A half twist in the loop helps keep equipment hanging straight. Available in a 49" length with a ring and a boat snap or two rings. Heat sealed ends help prevent fraying and double box-stitching adds strength. Ring and snap style is available in orange; two ring style is available in yellow. For a Free Weaver Leather Arborist Supply Catalog, or for a distributor near you, call Toll Free in the U.S. and Canada at 800-932-8371 or locally and internationally at 330-674-1782.

The new Linde-Baker “Gentle Giants” Diesel H100-H160 Series counterbalance forklift trucks are gentle, on nature and the driver. “Human” engineering is a design feature, since the truck must be easy to handle. The operator must be able to perform in a safe, fatigue-free environment to ensure efficient and economical operation. Standard features include: Cab/heater; three wiper/washer system; integral side-shift and fork positioning; three load centers; ten models; multi-function hydraulic control handle; full capacity on all models to 241” of lift. For more information, contact Mark Rossler at Baker Material Handling Corporation, 2450 W. 5th North Street, Summerville, SC 29483. Phone: 803-875-8319.

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Mike Burke Joins Wood/Chuck

Mike Burke has been named National Sales Manager for the Wood/Chuck Chipper Corporation of Shelby, N.C. He comes to Wood/Chuck with 20 years experience in the chipper industry as marketing manager for the Asplundh Manufacturing Division and most recently as Northeast regional sales manager for Bandit Industries.

Burke began his career in the chipper industry at the Asplundh Manufacturing Division in Chalfont, Penn. Building chippers by day and attending Temple University at night, he was soon promoted to product manager and later to marketing manager.

Burke then struck out on his own as President of Burke Power Lines, a tree care equipment dealership based in the Philadelphia area where he sold both the Asplundh and Bandit chippers.

Prior to joining Wood/Chuck, Burke developed a dealer network for Bandit Industries as the Northeast Regional Sales Manager.

Foremen Attend Bartlett Training Class

Employees from across the United States and England attended the second, semi-annual, week-long, Foreman Training Class recently at Bartlett Tree Research Labs in Charlotte, NC.

The class consisted of field sessions on tree biology, pruning, climbing, rigging, cabling and bracing, lightning protection, hazardous tree detection and evaluation, fertilization and pest management.

Instructors for the class were Dr. Bruce Fraedrich, Dr. Tom Smiley, Dr. Don Booth, Tom Martin, all of the Bartlett Tree Research Labs, and Safety and Training Coordinators Dave Anderson, Joe Bones, Pat Flynn, Richard Herfurth and Robert Blake. Each instructor presented topics in his area of expertise during the indoor lecture and in the outdoor hands-on practice sessions. In addition to technical tree care there were sessions on equipment maintenance conducted by corporate equipment manager Peter Jeskey and professional development conducted by Vice President-Human Resources Vic Fleck.

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Principles of Management

By Jeffrey Lee, Riverside, California
(909) 319-7003

Sponsored by The Bishop Company for the advancement of our industry.

The shrill cries of the widow Carter splintered the morning air as Max Bunyan, Big Al Fontaine's number one climber, completed a face cut on the ancient oak tree located in the widow's backyard. That irreplaceable old specimen had shaded her precious fern garden for as long as anyone could remember.

"I wanted the acorn tree cut down!" the widow screamed, as Max shut down the engine of his chain saw. "What's an Acorn tree?" asked Max.

"Lemon trees drop lemons, apple trees drop apples, orange trees drop oranges, and acorn trees drop acorns."

Max remarked smugly, "Acorn trees don't drop acorns! Oak trees drop acorns. This tree is not dropping acorns, but it is an oak tree."

With an expression of disgust, she returned to the sanctity of her cottage. Visions of litigation danced through her cranium as she urgently phoned Big Al Fontaine, who was sitting in his office with both feet kicked up on the desk when the phone rang.

"Don't worry about it, ma'am, we know what we're doing. We're the professionals."

After he had replaced the phone in its cradle, it took several minutes for the icy hand of doubt to creep its way up Al's spine. Maybe it took several minutes for the icy hand of doubt to creep its way up Al's spine. Maybe

Over the years, the tree care industry has suffered many hard blows. While we once believed that every able-bodied soul wielding a chain saw could run a tree company, that concept is slowly fading away as the industry rises to a new level of responsibility and professionalism.

As a professional, Big Al could have clarified his work order by simply using the botanical name of the tree to be removed, or a common name that is normally used within the industry to communicate the client's desires.

1. Represent the industry as a professional

2. Support the Field

Max was understandably confused about what was expected. It is management's responsibility to ensure successful communication with the client before any irreversible damage is done. In this example, Big Al could have demonstrated support for the field by performing a simple walk-through beforehand.

3. Communicate with the Client

Put things in writing. Do a walk-through before starting the job and after completion to determine the level of client satisfaction. Management isn't just in supervision. It's in how you conduct business as a whole. And remember, the client is ultimately the boss. We have to satisfy the widow Carvers of the world in order to ensure the survival of the tree care profession.
Tanaka Meets CARB
Tier II Standards

Tanaka Power Equipment has become the first two-cycle engine manufacturer to comply with the California Air Resources Board's (C.A.R.B.) Tier II emission standards and has received the official C.A.R.B. certification.

While nearly all major manufacturers testified that the Tier II standard was technically impossible to meet, Tanaka was able to implement the design changes with minor inconvenience and minimal cost. The engine will be available for production almost immediately.

A trimmer / brushcutter powered by the 40cc PureFire engine was demonstrated for C.A.R.B. members and is targeted for initial production in late summer or early fall. Tanaka is also working on a 26cc PureFire engine for use on a variety of other product applications, such as grass trimmers, hedge trimmers, portable edgers and pole saws.

New Children's
Book From ISA

The Talking Tree, distributed by the International Society of Arboriculture (ISA), is a new children’s book on the importance of trees. Written and created by arborists with the help of children's education experts, The Talking Tree tackles a number of tree topics and answers the question: If trees could talk, what would they say?

"The book is an excellent tool for teaching children about trees," says Al Cherry, ISA president and book creator. "I have used it in school programs many times, and have been delighted by the response from the children."

Written for 7- to 9-year-olds, it includes important information on the difference between city trees and those that grow in the forest. The book also emphasizes the importance of caring for trees. The Talking Tree retails for $8.95, $6.95 for ISA members, and $4.95 each for orders of 10 or more. Credit Card orders (Visa or MasterCard) can be placed via fax at 217-355-9516. The book also may be ordered by phone through the new ISA publication hotline at 1-888-ISA-TREE (orders only please).
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Safety & Training Director. One of the Northeast's most dynamic tree, lawn and shrub care companies is seeking an individual to manage all aspects of training and safety program. Successful candidate will be an accomplished climber, knowledgeable in plant health care, have a B.S. in Plant Science, Forestry or Horticulture, high level of computer literacy, and working knowledge of ANSI, EHAP, CPR, CPA, DOT & OSHA. Some travel necessary. Effective communication skills required, and ISA Certified Arborist status is preferred. Salary & bonus depending on experience, benefits package, 401(k) retirement plan and vehicle. Send resume: SavATree, 205 Adams St., Bedford Hills, NY 10507, Attn: Recruiting, or fax (914) 666-5843.

Operations Manager. One of the Northeast's most dynamic tree, lawn and shrub care companies is seeking an Operations Manager for the Union, New Jersey Branch Office to manage all aspects of field operations and customer service. The successful candidate will be an accomplished climber with knowledge of plant health care and IPM. B.S. in Forestry, Plant Science or Horticulture, and ISA Certified Arborist status not required but desirable. Salary and bonus depending on experience, benefits package, 401(k) retirement plan and vehicle plan. Send resume: SavATree, 205 Adams St., Bedford Hills, NY 10507, Attn: Recruiting, fax (914) 666-5843.

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Continued on next page
August 17-20, 1998
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Contact: Rob Emmet 314-301-1500.

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All of the elms in this Minneapolis neighborhood have been treated with Thiabendazole for over 20 years. No elms out of 41 trees have been lost to Dutch elm disease. Two were heavily damaged in a storm and were removed. Surrounding elms have had losses of over 55 percent.

One Company’s Success Against Dutch Elm Disease

By Tom Prosser

Dutch elm disease ranks amongst the most devastating diseases of trees in North American history. While this may be old news, technology and chemicals used to protect elms from Dutch elm disease are not. With dozens of “cures” or protective formulations for this disease proposed in the past 50 years, there has been a lot to choose from and a lot of information to wade through. Dutch elm disease is difficult to control, and unfortunately, most proposed “cures” don’t work.

My job as president of Rainbow Treecare in Minneapolis, Minn., is to keep 5,500 elms disease free. We guarantee these trees will remain disease free or we refund our client’s money. This is a big promise. However, we lose less than 1 percent of our treated trees over a 3-year period. In the past 22 years, our company has treated more than 25,000 elms. Some of the earlier methods and chemicals we used gave much worse results then we get today. Disease mortality in Minneapolis/St. Paul and its surrounding suburbs ranges from approximately 7 percent to over 30 percent, during a normal 3-year period, depending on the suburb. The intensity of the Dutch elm disease sanitation program is directly related to the percentages of trees lost.

Dutch elm disease is a fungus which grows in the vascular system of elms. The disease is spread in two ways: insect transfer and root-graft transfer. Approximately 90 percent of new infections are transferred by the elm bark beetle, which lay their eggs in dying or recently dead elms with the bark still attached. The newly emerged adults then fly to nearby elms and feed on elm tissue in the crotches of two to four year old branches. These beetles can fly for many miles. If the beetle hatched in a diseased elm, the beetle will carry spores of the disease to another tree and infect the tree as it feeds. The major reason this disease is so serious is the ease with which it can move from elm to elm on the beetle. One diseased elm can produce thousands of disease-carrying beetles, all looking for a tree to feed on. It is a wonder that all the elms in North America have not died. Unfortunately, in many places, they all have.

The second way this disease spreads is through root grafts. While only about 10 percent of all Dutch elm disease is spread this way, it is very important to be aware of grafting, because current chemical injections will not stop this. Every tree injection chemical I have used or tested has not stopped or prevented root-graft infection with Dutch elm disease. The only way to stop root-graft infections from occurring is to physically or chemically sever the roots between the diseased tree and the healthy tree. Root grafts must be taken into account when saving elms and be either physically broken, the neighboring tree removed, or uninfected root-grafted trees must be treated as well. If the elms are being monitored two or more times a season, the root-graft issue can be dealt with after a neighboring tree becomes diseased. There must be a genetic similarity in the two elms for root grafts to exist.
Dutch elm disease only grows in the current year's xylem (water conducting vessels) of an elm. This is because elms only use the current year’s xylem for transport and they plug last year’s xylem with tyloses. This also means that any chemical injected into an elm will only move in the current year’s xylem.

The purpose of an injection is to evenly and completely cover the entire crown of the tree with enough chemical, so if a disease carrying beetle happens to feed on that tree, the chemical will either kill the disease spores or not allow the spore to germinate. Thorough distribution of a chemical in the vascular system of a tree is not easy to do and requires the excavation of the root flares. This gives a larger surface area in which to put the injection tees. Because this tissue is physiologically different from the trunk tissue, the chemical spreads out laterally and moves up the tree more uniformly than with trunk injection.

As a rule, install 1.5 to 2 injection tees per diameter inch. Never drill deeper than 1 inch, as this causes unnecessary wounding. For exact specifications on injecting elms, a good reference is the pamphlet How to Inject Elms with Systemic Fungicides, available from the University of Minnesota.

How the chemical acts is the key

It is important to note that the EPA, which gives a company the label and the legal right to sell a chemical, does not require that the chemical show efficacy for the uses listed on the label. As many people already know, it is a “buyer beware” market. Our company has found many chemicals ineffective in treating diseases listed on their product labels. I have found this to be especially so with chemicals claiming to prevent or cure Dutch elm disease. For a chemical to be effective at protecting an elm from Dutch elm disease, it must possess all the following properties and capabilities:

1. Stay actively fungicidal or fungistatic inside the tree’s vascular tissue for an extended period of time.
2. Be able to move in the xylem and distribute itself throughout the crown, especially in the 2- to 4-year old branches where the beetle feeds.
3. The chemical must stay in the vascular tissue of the tree, and not move into the leaves in large quantities.
4. Be able to move into newly formed wood in large enough quantities to give multiple years of protection.
5. Not harm the tree by being toxic or excessively low in pH.

I have worked with a number of chemicals that have been proposed for DED treatment since 1976, with varying results. Many chemicals have shown at least one of these properties; I have found only one material that possesses all of these properties.

Thiabendazole (Arbotect 20-S & Elmsafe) has been around for almost 20 years.
years. Research done at the University of Minnesota in the late 1970’s, supervised by Dr. David French, showed that there was efficacy if the original label rate was multiplied by 12. They built upon an earlier discovery that below ground, root-flare injection could give virtually 100 percent distribution of the chemical in the tree. Additionally, Thiabendazole remains chemically stable (does not degrade) and is biologically mobile (moves into new sapwood), which allows for multiple years of protection. Thiabendazole is the only chemical I have used has given predictable and outstanding results. We retreat trees every 3 years because we want to keep injection wounding to a minimum. However, we inspect all trees late in the third season because 80 percent of our losses become infected at this time.

We have numerous examples of estates, golf courses and neigh-

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**Save Infected Elms With Tracing**

Tracing Dutch elm disease-infected tissue using a chain saw can easily save many elms that are infected well into the trunk. However it can be tricky and the arborist performing the tracing must have a basic understanding of how Dutch elm disease grows in the tree as well an elm’s vascular physiology. If the disease has entered the root system, this process will not work and the tree needs to be removed.

**Goal of tracing**

This process will only work if *all* the disease fungus is isolated from the rest of the tree, which sounds much harder than it actually is. With a little practice, you will be able to predict where the disease is growing inside the tree and put walls between it and the healthy portion the tree. Every year our company saves many of these trees. The process and the result is so predictable that we seldom lose any trees when we are sure we have isolated all the disease.

**Basic information**

Dutch elm disease is a fungus that usually enters an elm through a 2- to 4-year-old twig on the back of the smaller European elm bark beetle. Once inside the tree, the disease starts to grow downward at a rate anywhere between 1 inch to 1 foot per day. It is important to note that Dutch elm fungus moves downward much, much faster than it spreads laterally. In addition, it only grows in the current year’s water-conducting tissue—never deeper. The disease causes the tree to produce a dark brown stain in the xylem. These brownish “tyloses” are not the disease, but the tree’s reactions to the disease, which are what the arborist will use to follow the disease.

The architecture of a branch/trunk junction only allows the disease to grow down, because the vascular tissue connection is only at the bottom of a branch. This is different than a co-dominant stem junction where the vascular tissue is connected on all sides. The reason you need to know this is that when tracing an infected branch, the disease will only grow out the bottom of the branch into the trunk or stem. Thus, it is often unnecessary to remove that whole limb, as the disease is often isolated to growing below that branch.

Once this information is clearly understood, the tracing process should be within reach of most anyone who has the patience and care to finish the process thoroughly.

The tools needed for tracing are a chain saw, hammer, sharp chisel and sharp, pointed pick.

1. The first step is to pick your candidate wisely. Since the symptoms of this disease are often behind the growth of the fungus, symptoms alone cannot be your guide. To determine if a tree can be saved, “exploratory surgery” must be done. This involves finding the point of infection and then opening small windows progressively down the tree looking for the characteristic brown staining. While you work your way down, notice how the width of the fungus growth gets narrower the further down you go. For a tree to be saved, the disease discoloration must end at least 10 feet above the root system. One exception to this scenario exists: If the disease has grown into the center of a co-dominant stem, it may quickly grow upward into the rest of the tree and the tree may not be savable. Note: In some cases,
There are multiple disease infection sites, so each one needs to be traced.

2. Once the tree has been determined to be a viable candidate, the tracing process can begin. The first step is to remove the infected branch or branches that are less than 6 inches in diameter. Once you reach infected limbs over this size and the disease stain comprises less than one-third of the circumference of the branch, you can begin the tracing process. If the disease comprises more than one-third of the branch circumference, it is advisable to remove this limb back to the collar.

3. Begin tracing at the point where the diseased branch was removed. The first step is to cut a window to get an idea of the spread of the disease and the direction it is growing. Using a chain saw, cut a 1- to 1.5-inch deep groove 1 to 2 inches on each side of your estimated disease stain. Since the bark is in the way, you will need to interpolate the path the fungus is growing. This first section should go 6 inches down. Then cut across and connect the two cuts. Take the hammer and pound on the bark. It should pop off, revealing the disease stain and its direction. If the disease stain is wider than estimated, be sure to increase the width of the isolated area. Also be sure you create a buffer zone of clear unstained wood of 1 to 2 inches to the outside of the growing disease.

4. Repeat this process all the way down the limb and into the trunk. This will take practice and patience at first, but as you get experience, you will be able to go much faster. In many cases the disease will not spread exactly straight, but will follow the twists and turns of the xylem. The pattern of the bark can be a useful tool to help predict these turns. However, the staining must be your guide.

5. Eventually the disease stain will become very thin and then disappear. Because the tyloses stain is a symptomatic reaction to the disease, the tracing must continue for a minimum of 10 and a maximum of 15 additional feet to insure all the disease is compartmentalized. This is the trickiest part of the process, but by using a sharp pick or nail you will be able to "light up" the xylem and continue tracing. At this point, stick the pick into the xylem—you will notice that the xylem in both directions will turn a lighter color. This will be your guide to making sure you are isolating the infected xylem and not heading off course. Once you have gone at least 10 to 15 feet past the last visible stain, you are finished. If you have isolated all the disease from the rest of the tree, it will be saved.

6. The final step is optional: Inject Thiabendizole (Arbotect 20-S) using the University of Minnesota technique and dosage. While this will not cure infected tissue that may have been missed, it will very effectively protect the tree from future infections for up to 3 years.

Important notes:

- Since this tracing process leaves a wound on the tree, it is important not to cut too deep. Deeper than 1 inch below the bark and 2 inches outside the stain is usually unnecessary.
- Early season disease signs often reflect an infection from the year before. In these cases, the symptoms can be very far behind the disease and some disease will be located in last year's xylem hidden underneath this year's tissue. A chisel can be used to scrape away this year's xylem to make sure the disease is not in last year's vessels.
- Wet springs often result in larger xylem tubes and a faster moving disease. Conversely a dry spring will result in smaller tubes and a slower moving disease.
- Because there is an element of risk, other elms within root graft distance need to have these grafts physically or chemically disrupted in case the procedure fails.
ally never saved a tree by injection alone. I have caused the symptoms to disappear for as long as 2 years with Thiabendazolc, but in every case, the disease came back. I have found a method of saving elms that works—even if the trunk is infected—but only as long as the infection has not moved into the roots. (I describe this process using a unique method of pruning, called chain saw tracing, on page 62.)

**Propiconizole** (Alamo) was introduced in the early 1990’s and has shown promise as a material that is easy to inject and profitable to use. The recommended dose was 5 ml per inch diameter in 1993. In 1995, they raised the dose to 10 ml per inch diameter; now I have heard that the label rate may be increased to 20 ml per inch diameter. Currently, research is being done on this higher rate in hopes that it works better than the 5 ml or 10 ml rates. We treated over 400 elms with the 10 ml rate in 1995. Our losses were zero in the first year. In the second and third year, our results were not very good, as the number of trees lost was nearly equal to the surrounding community losses. I am not sure this material has the capability of moving into new wood. We will wait to see the results of the newest research.

**Copper Sulfate** (Phyton 27) is widely used as a flower preservative. My experience has shown that the material is not water-soluble and is very hard to inject. The manufacturer recommends trunk injection, claims it can save trees up to 30 percent diseased, and promotes it for many other tree diseases. We used this material on about 60 trees in 1986 as an informal test in a high disease area. There was little or no reduction in disease compared to surrounding trees at any point after treatment.

**Lignasan** is still used in parts of Canada and the East Coast. I used it for 3 years in the late 1970’s. My experience was that it gave 1 year of protection. The chemical is very mobile and moves easily into the leaves.

saving Diseased Elms

In my experience, none of these chemicals are useful for saving diseased elms. However, we get predictably good results by using an innovative technique that removes the disease through mechanical means. [See related article “Save Infected Elms With Tracing.”] When we know we have gotten all of the disease, we rarely lose a tree.

This chain saw procedure is not that difficult to learn, leaves shallow wounds on the tree (1 to 2 inches deep) and could save thousands of large valuable elms that are removed unnecessarily each year. However, if the disease has already grown into the root system, I know of nothing that works.

There are complications in using this procedure when dealing with disease that has grown into a co-dominant stem of the elm. A co-dominant branch connection is different from a normal branch in that the vascular tissue is connected both at the top and the bottom. In a normal branch, the vascular tissue is only connected to the trunk at the bottom. Thus, if the disease grows directly into a co-dominant stem, it will move into the other co-dominant stem and grow back up the tree. When this situation happens, the disease can move fast and be very difficult to track down if not caught in time.

Elm injection is a valuable tool for the arborist. However, its use should be limited to high value, irreplaceable elms. The most important aspect of Dutch elm disease control is the removal and disposal of diseased elms. Without sanitation, this disease can spread a very rapid path of destruction for elm trees.

Tom Prosser is a consulting arborist and the president of Rainbow Treecare in Minneapolis. Rainbow Treecare treats more than 5,500 elms in a 3-year period. They claim a consistent loss rate of less than 1 percent over a 3-year period. Rainbow Tree Company of Minneapolis, Minn., sells ElmSafe.
The new ANSI A300 Pruning Standard is **THE** tool to help us communicate more clearly with our customers, our employees, and each other. You’ll want to incorporate this standard, created by arborists for arborists, into your daily activities.

And now, we can help you do that – quickly and easily – with the new video, Pruning Standards and Techniques for the 21st Century, produced jointly by the NAA and the ISA.

This comprehensive video is the ideal complement to ISA’s *Tree Pruning Guidelines*. It will help you accelerate right through the learning curve with the plain language answers you need to make ANSI A300 work for you!

Call, fax, or mail your order today. The 21st Century of Tree Care is just around the bend.
A number of tree care companies participated in ALCA’s (Associated Landscape Contractors of America) Student Career Days, held this past March at North Carolina State University, Raleigh, NC. The event was actually a combination of the traditional “Job Fair” combined with an exciting team competition. Four NAA tree care companies—The Care of Trees, Arbor Care, Davey Tree Experts, and SavATree—exhibited and interviewed at the Job Fair which was held at the spacious Raleigh Convention Center.

The real fun, however, began just as the Job Fair was ending. Student teams from all over the country began to organize for the Student Career Days’ competition. Teams from 40 schools participated in hotly contested events such as patio building, skid steer operations, landscape design, sales calls and yes, arboriculture techniques!

Each competitive event was sponsored and/or co-sponsored by participating companies. Arbor Care sponsored this year’s Arboriculture Techniques competition. Davey Tree Experts and SavATree pitched in to help as co-sponsors.

The first leg of the Arboriculture Techniques event was a written test. Next, the student competitors were given a chance to show their technical skills in a work climb and throw-line competition. Work climb competitors were scored based on their technical skills, such as body thrusting, limb walking, pole saw use, and descent, as well as their technique and safety.

This year the NAA is organizing a Student Career Days event of its own at TCI EXPO ’98 in Baltimore. The NAA wants to promote careers in arboriculture by hosting exciting competitions for students of arboriculture, urban forestry, and horticulture. In addition to promoting careers in arboriculture to our young people, tree care companies will have an opportunity to meet potential employees at the Student Career Days’ Job and Internship Fair.

If your company would like more information on how to exhibit at the Jobs and Internship Fair, how to become an arboriculture competition sponsor or both, call Bob Rouse at the NAA, 1-800-733-2622, ext. 117.
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PH4R Pruning Heads

S1 Saw Head

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TREE CARE INDUSTRY - JUNE 1998

67
Half-inch insurance: That's how one of my employees refers to a tagline or lowering line, and after nearly 30 years of climbing and bucket truck experience, it is a policy I should have taken out on this particular day.

May 1997 in Massachusetts seemed an especially windy month: We were constantly removing winter-damaged pine trees, as the lollipop form of forest-grown Pinus Strobus catches every bit of the springtime gusts.

On this particular job, the wind was 20 to 30 mph out of the south, and I was able to use it to my advantage when butt-hitching the tops of the dozen or so tall pines around the property. I didn't need a 1/2-inch pull line in the last one (so I thought) to pull the top off, since the wind would push it.

I made my notch to clear the corner of the house, rigged the butt-hitch with a bull rope, made the back cut and left about two or more inches for the top to hinge on. I shut off the saw, rotated the fully extended bucket about 10 feet away from the tree, and watched as the back cut would open and close with the wind. Suddenly, as the top set back on the cut, the wind shifted to out of the west with a strong gust. I heard the hinge snap, looked up, saw 30 feet of 12-inch diameter pine top heading towards me from 10 feet away. I quickly did the math, held on, and decided, "This is really gonna bite."

As I braced myself, the log portion of the top caught me square on the head, knocked the helmet off, and tried to push me and the straight-stick boom to the ground 50-feet below.

After several feet, the butt hitch began to tighten and the top started to roll off the bucket back towards the tree with my head nicely secured between the log and a large, live limb. This limb raked up and over the left side of my face (no damage possible here) and released the boom, which somehow did not snap.

The bucket checked out O.K., although the helmet (and my ego) suffered some damage. More importantly to both Oak and Euc men, we finished the job. I cursed the wind many times that day, but the incident could have been avoided with that "1/2-inch insurance."

The moral of the story, especially to up-and-coming arborists: Take the time. There are no second chances in the tree removal industry, and the injuries you sustain in your youth become great areas for complications to develop as you age.

Sign me,
"Worn Out But Still Loving It"

Joe Regan is the owner of Joe Regan Tree Work, Inc. in Hopkinton, Mass. TCI
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