Bridging the Gap
Training tomorrow’s tree workers
When it comes to cutting operating costs, nothing beats an International® truck. The fully electronic DT engines are not only engineered for maximum reliability, they’re designed to have some of the longest service intervals in the industry. So you’re practically guaranteed lower operating costs and less downtime.

For trucks that work overtime and pay over time, see your local dealer or call 1 (800) 962-0119, ext. 304.

www.navistar.com
Cummins Power
for the Tree Care Industry

THE BEST JUST GOT BETTER
Ask Us About Our “New 4-Cylinder Power Units”
for the Brush Chipper Application

(248) 478-9700
Please circle 17 on Reader Service Card
Careers In Arboriculture

Several weeks ago, I was looking through the NAA archives, reading past articles and editorials from our publications, the Reporter and TCI magazine. As I paged through article after article and editorial after editorial, the thought occurred to me that the problems the arborist industry faces really haven’t changed all that much over the years. Sure, technology improves, training gets better, and government’s regulatory reach stretches even further into our business, but many of the fundamental issues facing us have remained about the same.

One example: In my research in our library, I found many references decrying the huge problem the industry faces in finding qualified and motivated people interested in pursuing careers in arboriculture. This problem is the focus of this month’s cover story, but the authors who are addressing the issue in this publication might just as well have back-dated their articles ten or 15 years ago and they would be just as relevant.

The problem is probably even more acute today. While the strong economy has certainly been good for the tree care business, it has also created millions of new job openings that compete with employment opportunities in our industry. Unfortunately, this problem will likely increase, for demographic projections show that the number of 18-year-olds entering the workforce will decrease during the next decade. And many young adults today don’t seem interested in, or even aware of, potential careers in arboriculture.

What can be done about this predicament? First, the industry needs to be certain that its pay scales and benefits packages are sufficient to measure up against those offered by the competition. We need to address the concern voiced by one company owner recently when he stated that “We can’t always compete with Burger King.”

We also need to do a much better job of informing students about the exciting career potential within our industry. We need to develop much closer ties with the educational community, whether it be at the vocational school level, at colleges and universities, or even in our grade schools. As leaders in our profession, it is incumbent upon us to generate interest in our younger about the environment and careers in fields, such as ours, which interact directly with nature. We need to educate the public and enhance public perceptions of our industry. There needs to be a better understanding of how important this work is, and how so many entrepreneurs and families have made the business of arboriculture a successful business endeavor.

This is a major challenge for the NAA and the industry as a whole. It is a challenge we must meet. The future success and growth of the profession depends on it.

Barry M. Cullen
Executive Director
National Arborist Association

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.

Copyright 1998 by the National Arborist Association. All rights reserved. Reproduction in whole or in part without written permission is prohibited. The National Arborist Association is dedicated to the advancement of commercial tree care businesses. Reference to commercial products or brand names in editorial does not constitute an endorsement by Tree Care Industry magazine or the National Arborist Association. Tree Care Industry (ISSN 1059-0528) is published monthly by the National Arborist Association, P.O. Box 1094, Amherst, NH 03031-1094. Subscriptions $30 per year (Canadian/International orders $45 per year, U.S. funds) $2.50 per single copy). Periodicals postage paid at Amherst, NH and additional mailing offices. POSTMASTER: Send address changes to TCI, P.O. Box 1094, Amherst, NH 03031-1094.
Terex Telelect Hi-Rangers are simple to use, readily available when you need them and especially cost effective for tree care operations.

Incorporating input from leading arborists around the country, Hi-Ranger XT-5 Series aerial devices optimize performance and value. The XT-52 has a working height of 57 ft., the XT-55, a working height of 60 ft. Both provide 42.2 ft. of side reach in the work zone. Impressive lower and upper boom rotation ranges add to access capabilities.

For more information on Terex Telelect Hi-Rangers, see your Terex Telelect distributor or call (605) 882-4000, FAX (605) 882-1842.

*Terex Telelect is ISO 9001 certified.*
Bridging the Gap
By Robert Rouse
As an industry, we have to improve our communication with today's young people. They need to know exactly what career opportunities are available in the tree care industry.

Computers, the Web and Your Business
By Suretta Williams
Are you technologically proficient? There's money to be made and time to be saved—if you have the right software and knowledge.

Cabling to Prevent Storm Damage
By Douglas N. Johnson and Nancy Gaudle Johnson
A cost-effective way to preserve and protect some of nature's oldest and most loved specimens.
To reach the top in this business... you need the right tools.

The Arborist's ladder of success can have rotten cores, gnarly bark, and falling branches. And it's climbed every day, under every imaginable condition. That's why New England Ropes is committed to making the best Arborist ropes and accessories in the world.

Our Climbing Ropes, Bull Ropes, Safety Lanyards, and Accessory Cords are preferred worldwide for their high-quality construction and durability. Why? Because we know that Arborists need strength, safety, and performance on the job. Anything less is unacceptable.

From our Braided Safety Blue, an industry standard, to our Sta-Set, every rope, lanyard, and accessory cord has met our rigid quality control specifications and will perform admirably under the pressure of any job.

So, before you even think about climbing to the top, make sure you have the right tools in hand; New England Ropes.

For the name of the dealer nearest you, please call or write us:

NEW ENGLAND ROPES
New England Ropes • 848 Airport Road • Fall River, MA 02720
Tel: 508.678.8200 Fax: 508.679.2363

Please circle 48 on Reader Service Card
Where will your next employee come from? Should you rely on the shrinking pool of immigrant labor from Latin America? Will there be enough teens graduating from high school in the next decade? Unfortunately, both these groups of potential employees are expected to decline in the foreseeable future.

More restrictive immigration laws have limited the number of unskilled laborers searching for work in the United States. Recent national news stories on this subject have underscored the problem. One story featured a farmer from California standing in a field of rotted cabbage. He simply couldn't find enough farm workers to pick his crop.

For those who seek domestic unskilled labor, the outlook is equally gloomy. The number of high school graduates entering the work force is expected to decline in the next decade. Many green industries have turned to today's students in the hope of encouraging young people to pursue careers in their respective fields. The tree care profession can't afford to miss the boat. We must enlighten students about the rewarding opportunities in the field of arboriculture.

Companies hiring college graduates in addition to entry-level workers have also reported difficulty in filling skilled positions. When asking college students how they came to choose a career in arboriculture, the most common response starts with, "I never realized I could get a job working with trees, until ..." As an industry, we have to improve our communication with today's young people. They need to know exactly what career opportunities are available in the tree care industry rather stumbling into arboriculture in their second year of college.

National Arborist Association Student Membership

The NAA recently started a student membership outreach program. Tom Golon, owner of Wonderland Tree Care, Inc. in Oyster Bay, N.Y., and chairman of the NAA's membership committee, explains why the new program was started, "The main reason is to create more awareness of the NAA and the opportunities available to students in arboriculture."

This new pilot program is available to students in urban forestry and arboriculture. Career advisors in these departments can register students for a free student membership. The students will receive monthly copies of Tree Care Industry magazine, as well as the Reporter and The Treeworker monthly newsletters. They also receive a student membership card granting them additional benefits. For more information about student membership call the NAA at 800-733-2622.
Career Day at TCI EXPO '97

There are many opportunities available to bridge the gap between students and the tree care profession. One is Career Day at TCI EXPO. Students in arboriculture, urban forestry and horticulture are invited to attend EXPO and the Career Day events, including the Career Day Jobs Fair.

Howard L. Eyre, assistant professor at Delaware Valley College in Doylestown, Penn., brought a number of his students to the most recent show in Columbus, Ohio. When asked to describe his students’ impressions of TCI EXPO, Howard explains, “One of them has attended three EXPOS, and when he walks in, he feels right at home. He’s starting to feel he can be part of this industry, which is good. They have always been warmly received, unlike other industry trade shows. Everyone wants to talk and interact with them. First-time attendees walk around with their jaws hanging open, because they don’t realize the extent of the industry. It makes them think about their career opportunities.”

Besides an introduction to the field for newcomers, Howard notes ways his students benefitted from visiting TCI EXPO. “They interacted with suppliers, so they could ask questions about how various equipment is used. What it does for those who haven’t had experience is to trigger an interest in how they can fit into the industry. The demonstrations are really helpful because they can watch and then discuss them later in the day, in class, or with others. They are being taught in ways that can’t be done in the classroom.”

As a teacher who prepares students for careers in the green industry, Howard has some advice for tree care company owners in search of new employees. “Most companies are looking for graduating seniors, but that’s too late. The industry needs to look at sophomores and juniors by creating internships, so they can “try-on” the industry. There needs to be a more creative way to get people into internships.”

Tom Golon, president of Wonderland Tree Service in Oyster Bay, N.Y., and member of the National Arborist Association’s board of directors, started an internship program at his company last year. If you are considering starting an internship at your company, he recommends you speak with the student advisor first.

“Learn what abilities the students have,” Golon advises. “Is it climbing, or plant diagnostics? By talking to the advisor you can find out where the school is putting the most effort.”

Golon cautions company owners not to regard interns as a quick fix to fill an need for skilled labor. Realize that interns are new to the field and “might have very little experience.”

He is quick to note, however, that an internship offers a set amount of time to evaluate potential employees. “After a couple of months, you can look at them and ask yourself if they are going to fit the bill or not. We had two interns last summer, and they worked out very well. Actually, one of those interns is the gentleman we just hired!”

Amy Sanders, student services coordinator at Clemson University’s School of Natural Resources in Clemson, S.C., has some additional advice. “First of all, recruit early so they can start making plans,” she advises. “If the smaller companies can’t afford housing for students, recruit early enough to give students an opportunity to get a place to live around the area where you are going to offer the program. The main thing to stress: start early!”

Sanders suggests companies offer some type of temporary housing.  

Representatives from The Care of Trees discuss the services they offer to students attending TCI EXPO.

The Davey Tree Expert Company had a lively and informative presentation for students.
"Maybe someone in the company has a garage that's set up for housing. Remember, students have limited pocketbooks."

If you want to recruit directly from a university, Sanders recommends you establish a relationship with a person at the school that you can call upon. University personnel "can help get the word out that you'll be on campus or you have a job. You can use someone to help advertise. That's the most important thing—getting the word out," she says.

**Starting younger**

Vocational high schools are another source of potential employees. Traditionally, rural areas had vocational schools that stressed agricultural subjects, such as animal husbandry and agronomy. Vocational trade schools closer to metropolitan areas generally offer programs such as auto mechanics, carpentry and plumbing. In recent years, many vocational schools have started new programs for the green industry. Many now offer courses of study in landscape maintenance and construction, nursery management and floriculture. Some rare schools offer programs in arboriculture.

Melissa Castonguay is an arboriculture instructor at Bristol County Agricultural High School in Dighton, Mass. The arboriculture program at this high school is indeed comprehensive. "We have an exploratory program in the first year," says Castonguay. Freshmen coming in will go to all the different majors. In their first year in arboriculture, students learn basic knot tying and
Introducing the 335XPT arborist saw, built for life in the trees. It’s light and balanced, and features our exclusive ArborGrip™ a textured handle with thumb and throttle finger supports to give you a stronger grip for better control. Plus, its snag-free shape and built-in rope ring make it a cinch to haul up. Now nobody is more committed to the arborist than Husqvarna. We offer a full line of specially designed safety gear, and are proud to sponsor ArborMaster training programs. To find your nearest Husqvarna Power Retailer, just call 1-800-HUSKY 62. For information about ArborMaster, call 770-934-4745.

Husqvarna
Over 308 Years of Superior Value

Use of chain saws in trees should only be done by professionals with specific training.

©1997 Husqvarna
Student Society of Arboriculture

Although most of the exhibitors at TCI-EXPO Career Day were commercial tree care companies, a few colleges and the Student Society of Arboriculture (SSA) also exhibited.

"It was the second time SSA had been involved with TCI EXPO, and the first time we had been recruiting," relates Tim Walsh, president of SSA. "We had student and faculty advisors stopping by to find out more about us, because that was their first exposure to the SSA. We also had a lot of the companies that were also at Career Day asking us about the SSA. EXPO offered lots of exposure."

The Student Society of Arboriculture is one of five professional affiliations of the International Society of Arboriculture. Membership in SSA costs $25.

What is Walsh’s advice for commercial tree care companies looking to hire college students? "One main way that they could contact students is by attending our second annual SSA Conference and Jobs Fair, held in Steven’s Point, Wisc., from April 2-5. Companies from around the world are coming and recruiting students for summer and full-time positions."

Plans are in place to integrate hands-on training with increased interaction between conference participants and presenters. This year’s presenters feature a full day of climbing techniques, and there will be a concurrent Job Fair for permanent and seasonal employment. The ArborMaster Inc. trainers have been invited to present ArborMaster training, a program of advanced climbing techniques.

The second day will feature Swedish tree biologist, Claus Vollbrecht, presenting Practical Tree Biology (ISA Continuing Education credits available). The conference is open to any students of urban forestry, arboriculture, horticulture, landscape architecture, forestry, and other related fields. Proof of enrollment is necessary to attend.

The conference is being held on the campus of UWSP and at the Central Wisconsin Environmental Station (CWES). CWES is a beautiful area nestled among the pines and hardwoods on the shores of Sunset Lake, which is about 12 miles east of the UW-Stevens Point campus. The fee is $105, and includes the conference sessions, three nights lodging, meals, and limited shuttle service, if needed.

The application deadline is March 1, 1998. Penalty for late registration. Contact Tim Walsh for further information at 715-346-4211; Fax: 715-346-3624; E-mail: twalsh@uwsp.edu.
Run With The Leader
Or Settle For A View From The Back Of The Pack!

For More Information Call
The Dealer Nearest You or (800) 362-9010
www.morbark.com • e-mail: morbark@worldnet.att.net

Please circle 41 on Reader Service Card
Looking for Trained Tree Workers?

Uncle Sam can help

By Lynn Kindsvatter & Richard E. Abbott

The Job Training Partnership Act (JTPA) is a federally funded program administered by states to train unemployed or underemployed individuals to go to work. For example, in states where a shortage of trained tree care personnel exists, which is just about everywhere, federal funds may be used to train new employees for your tree care company.

Working in conjunction with employment training programs, the act provides a viable option to attract, train and place entry-level workers. One outstanding benefit of this training is that it can be customized to your exact requirements, so people are ready to work as soon as they are completely trained. Another benefit is that their training requirements are satisfied by government-funded training.

To initiate a partnership, you must first identify and promote the need for trained, entry-level tree trimmers in your area of the country or state. Then, determine the need in a certain geographic location, approach the Private Industry Council (PIC) which serves that area, and work through their application process for the training funds. If the application is approved, a joint effort is undertaken by the PIC, you as a business owner, and a provider of services to train and employ clients.

The PIC screens clients for eligibility for receipt of funds under the act, you screen for suitability of the work you have available, and the service provider screens for potential ability to train. All three members of the partnership are involved from beginning to end.

ACRT of Cuyahoga Falls, Ohio provides on-site training at a location in the PIC's service delivery area. Instructors, training manuals, audio-visuals, tools, equipment and materials are provided, and potential employers frequently loan heavy equipment for the training.

ACRT has provided training in a variety of locations for many companies, including Pacific Gas & Electric in northern California. The utility faced a state-mandated tree-to-wire clearance requirement under CAL-OSHA. The state has a similar requirement for trees on public and private property. There was a tree-trimming crisis and the utility's contractors just didn't have enough qualified people available to provide line clearance tree trimming. Asplundh Tree Expert Company was keeping lines clear by bringing in contract crews from across the country, but this was just a temporary solution.

The only long-term solution was to increase the contractor line clearance work force to comply with state-mandated regulations. The work force had to be trained and line clearance qualified. All of the line clearing contractors were trying to hire
140 SPECIALIZED TRUCKS IN STOCK!

1982 GMC Topkick; 3116 CAT; 6 Spd.; 14-Ton RO Crane; 73 Hook Height $54,500
(3) Other Diesel Crane Trucks Just In - 11 to 15-Ton

1985 Ditch Witch 4010; Diesel; 4x4; 5' Wheel Steer; Backhoe & Trencher; Backfill Blade $11,900

1984 GMC; 8.2 Diesel; Auto.; A/B; w/ 52' HiRanger... $29,500

1987-1988 Ford F-600's; 6.6 Diesel; Auto.; 22,000 GVW; Under 100,000 Miles; 32' Telecopic Stico $22,000 to $26,000

1983 GMC 7000; 3208 CAT; Auto.; A/B; 95,000 Miles; 12' Utility w/Diesel Air Comp... $12,900
(3) Other Utility Body Trucks In Stock

1984 Int'l. 1954; 466; Auto.; A/B; 33 GVW; 22,800# GVW-Under CDL, 35 Telescopic Drill $29,500

1988-89 Ford Super Duty & F350's With IMT 6006 Cranes; Call For Specs & Price

1984 Int'l. 1954; DT466; 13 Spd. w/ Mobile B40L Drill... $29,500

1987 Ford F800; 7.8; Auto.; 12 Utility; Liftgate; NICE! $18,900

(4) Mack & Int'l Grapple Trucks - Pieluma & Hawk With Diesel Pony Motors To Run Units $7,500-$19,500

(10) Material Handling Buckets in Stock; HIAB; IMTC; National; Etc; Call for List

(15) Material Handling Buckets in Stock; 41, 42, 43, 50 & 56; Holan Asplundh; Telelect; Taco; Etc...

(10) Single Axle Knuckleboom Trucks - Ford, GMC, Internationals Call For List & Prices

(10) Other Knucklebooms Unmounted Or Mounted Ford, GMC, Internationals Call For List & Prices

(10) 32' to 42' Bucket Trucks, Gas & Diesel Call For Sale Price

(10) Chip Body Dumps in Stock; Call For Prices & Descriptions

Opdyke's
Truck & Equipment Sales
3123 Bethlehem Pike • Hatfield, PA (Philadelphia Area) 19440
(215) 721-4444

Please circle 51 on Reader Service Card
more employees, but there just weren't additional trained workers available.

At the time, ACRT was operating a six-week JTPA utility tree trimmer training program at the Motherload Job Training Group in Sonora, Calif., and a similar program was established with the Fresno PIC. In six-weeks, the first 13 new tree trimmers were trained and ready to go to work.

ACRT provided the training personnel, expertise, training materials and curriculum. Asplundh donated the use of a bucket truck and chipper. PG&E assisted with the utility aspect of the training and provided a non-energized conductor around which students could practice, and the City of Jackson provided public trees for the students to work on. Funding was provided through the Fresno PIC.

A total of 24 JTPA Title III customers were enrolled in the first two sessions. Four of the trainees left the program. All 20 of the participants that successfully completed the training were hired by tree companies that have contracts with PG&E. All new hires were at over $8 per hour and many of the trainees were hired at an hourly rate of $9.72. Two of the trainees had been temporary employees of the City of Fresno. When they completed their training, they found work with Trees Inc. as line clearance employees.

As a result of this partnership, unemployed people have been retrained so they could re-enter the taxpaying workforce. Cities have received several thousand dollars worth of free tree pruning, while utilities and contractors expanded their pool of potential employees.

For most, the curriculum includes both classroom training and field experience. Two-thirds of all training is done in the field under the direction of ACRT instructors. The emphasis is on training workers, not technicians. All trainees have entry-level instruction that meet some of the requirements of OSHA 1910.269 and 1910.333. Since regulations vary by state, training can be customized to your exact requirements so that your workers are ready to go to work as soon as they complete the training.

Lynn Kindsvatter is vice president of training and Richard E. Abbott is president and C.E.O. of ACRT, Inc.
**Do It Right From The Start**

The right start can make all the difference. Prepare the soil properly whenever transplanting, doing landscape construction or laying sod. Always start out with an organic soil conditioner and bio-stimulant like Essential®. Protect delicate hair roots from fungal infection and recolonize soils with Companion™, a microbial inoculate and alternative to chemical fungicides.

**COMPANION™**

Growth Products has over 10 different 100% chelated micronutrients packed individually or in blends.

**Essential®**

Arbor Care 15-8-4, Autumn Care 6-12-12 and Triple Ten 10-10-10 are just a few of our specifically formulated liquid fertilizers with Slow Release Nitrogen.

**Follow Through**

Growth Products offers the professional arborist and landscaper a variety of high quality fertilizers, micronutrients and natural organics. It is easy to use the right product, in the right place, for the right season with our professional line. Call for a Growth Products catalog today.

**Toll Free: 800-648-7626**

**Growth Products, Ltd. P.O. Box 1259, White Plains, NY 10602 Toll Free: 800-648-7626 Fax: 914-428-2780**

Please circle 26 on Reader Service Card
When retained to perform an appraisal of trees or landscaping, one of the first questions you should ask is, "What is the purpose of this appraisal?" Your appraisal could wind up being closely scrutinized by another party, such as an attorney, insurance appraiser or another consultant.

Therefore, you must do your homework and perform all of the necessary steps to justify your work project. This may entail all or some of the following:

- interviews of several parties;
- photos taken before and after;
- videos of the scene;
- plans or sketches with measurements;
- reasons for method(s) used for the evaluation;
- retaining other consultants (such as a real estate appraiser);
- filling out appraisal forms (such as The Field Report Guide for Cost of Cure or The Cost of Cure Field Report Form);
- other special considerations the case may warrant.

Let me give you an example of a case I was involved in. I was retained by an insurance company that was defending a policy holder. He was being sued by a neighbor who lived about 150 feet across a lake, for cutting down trees on the neighbor's property. The defendant admitted to cutting down the trees, claiming that he thought he was doing a favor for a Girl Scout camp that he thought owned the property. He was just clearing trees that were over hanging the water. Of course he was wrong, never asked, and was trespassing.

The damaged property was approximately one acre of unimproved land, and the 30-35 destroyed trees were red maples (Acer rubrum) on an embankment going to the water's edge. The owner had an appraisal, using the plant replacement method, for $33,000, which was later re-calculated to $23,000 by using a modified trunk formula method.

I made my site inspection, reviewed the appraisals, interviewed the defendant, measured the damaged area and property, made a map of the area, took photos (some by canoe from the water's edge), requested a professional video tape, and asked for a real estate appraisal of the property. These were provided to me.

There was no loss of cover or view on the property from or toward the water. After deliberating, I decided on a cost of cure method, and because all of the maple stumps were re-generating and had grown to 15-25 feet tall, I proposed a 5-year maintenance program for selective thinning of the sprouts. This would cost $3600, which was my appraisal. I further pointed out that the plants could not be replaced without causing considerable damage to the shoreline.

I then applied a reasonableness test, and showed that based on the plaintiff's appraisal, that one acre of unimproved land would be worth over $200,000! The real estate appraisal I ordered established a value of the entire property at $50,000, and there was no diminution of value to the tree cutting.

This is only a brief description of the case, which did go to trial. Even though we were very well prepared, the plaintiff recovered approximately $12,000. The reasons had little to do with the appraisals, but that just made its case even more interesting.

Lew Bloch is CTLA representative for the Associated Landscape Contractors of America.
Get Ready! Coming Soon!

SPRING 1998
Stump Cutter
- Diesel Power
- 35" Wide
- Hydrostatic Drive
- Self-Propelled

RAYCO®
"The Stump Cutter People"
4255 Lincoln Way East • Wooster, Ohio 44691-9954 • Fax 330-264-3697
PHONE TOLL FREE 1-800-392-2686 NATIONWIDE and CANADA
Internet http://www.raycomfg.com • E-mail: rayco@raycomfg.com
Please circle 58 on Reader Service Card
By Amelia Reinert

It seems strange that an industry that acts as a steward for the environment suddenly finds itself negatively impacted by one of the most powerful environmental groups in the nation. The Sierra Club, and similar environmental groups, have launched an all out attack on light truck emissions and fuel economy. The goal is to substantially increase Corporate Average Fuel Economy (CAFE) standards for light trucks from the current 20.7 miles per gallon to 34 miles per gallon. This increase would likely result in heavy "luxury taxes" on every light truck now sold. Imagine towing your chipper from the back of a Geo Storm.

Last year, the environmental groups that are pushing for increased CAFE standards flagged global warming as the basis for their argument. They have claimed that higher CAFE standards are "the biggest single step we could take to curb global warming;" an arguable statement at best. (Feel free to break out the aerosol cans, and learn to enjoy that smoke stack in the city)
They lobbied for the proposed United Nations climate treaty, which would require drastic energy use reductions in the United States, without similar requirements for the rest of the world. Strong opposition from the Senate was not a sufficient deterrent for the Clinton Administration’s support. There is a good possibility that the Administration will use the new treaty, though still unratified, as appropriate justification for raising CAFE standards.

Before relaxing in the comfort of the legislative process and assuming that a bill concerning increased CAFE standards would never make it through Congress, think about those Bureau of Labor Statistics surveys that employers are burning the midnight oil to complete. These did not come to you through a new law, but rather through a rule-making process. Congress has frozen any increase in CAFE standards through September 30, 1998, but if the freeze is not extended, CAFE standards can be raised through similar rule-making. This does not require congressional, or even presidential, approval.

Unfortunately, environmental lobbying groups have not considered the impact that the proposed standards would have on important industries, and subsequently, on the economy. Aside from the number of American auto workers who would be without jobs if production of these vehicles were stopped, pickup trucks are essential vehicles for arborists, as well as for farmers, ranchers, some construction workers, landscapers, and any other industry that must transport tools and equipment too large to fit in the back-seat of an average four-door vehicle. The alternatives to light truck use appear to be few. Horses provide some good old-fashioned muscle power, but these days they might create traffic problems. Besides, they create a sanitation problem all their own. Mini-vans and sport utility vehicles, also under fire, safely transport families and can be fitted to accommodate wheelchair bound individuals. What is the practical alternative for these functions?

Any new law, rule or regulation that affects the American public must be couched in reason, with due consideration given for the consequences of the change. Can the Sierra Club, the National Resources Defense Group, and similar organizations supporting increases in CAFE state with complete, indefatigable authority that their proposed changes will improve global warming? It is unlikely. Scientists cannot agree on the magnitude of the damage caused by global warming. Some have even suggested that global warming is merely a natural phenomenon of the Earth in its universe. It is an important issue that should be researched until it is fully understood, but let’s not insist that pick-up trucks and sport utility vehicle emissions alone contribute enough to the problem that increasing their standards is the “biggest single step we could take to curb global warming.” We simply do not know this. What we should be thinking about is the benefit to detriment ratio. What are we sacrificing if CAFE standards are increased? Please consider this, and then call or write to your congressman and tell him or her who should be telling you what to drive.

Amelia Reinert is deputy executive director of National Arborist Association.
Scientists can now observe nature up close and personal with Nikon's portable field stereo Naturescoppe 20X, which can be worn carried on a neck strap like binoculars. Users may observe any object inside an 11-mm circle as a bright, high-contrast, crisply focused image. A detachable plate is provided as a stage for specimens. Turn the plate over, and a cup is built into the reverse side. Remove the plate, and the microscope can be used to observe objects without disturbing them. A built-in illumination system can provide bright, even halogen lighting for observation in dimly-lit areas. Weighing under 23 ounces, the unit comes with a neck strap, carrying case and halogen bulb. For more information, call 1-800-52-NIKON, ext. P7096. Visit the Nikon web site at: http://www.nikonusa.com

The Model 1890 Intimidator Brush Bandit Chipper has just been introduced by Bandit Industries. Hydraulically fed, it has a powerful two-wheel horizontal feed system, and boasts a 36-inch diameter drum with a large chipper opening of 20-1/2 inches by 24 inches. Both Intimidator models provide dependable service with minimal maintenance. The standard model is offered with power options up to 130 hp and features a single axle with 1200 x 16.5 tires. The heavy duty version features a single axle with dual 9.50 x 16.5 tires. For more information, call 1-800-952-0178 or fax to 517-561-2273.

Introducing the Model HD46 Stump Grinder from Levco. Completely hydraulic, it fits through standard fence gates, has a very low profile (for stability on slopes), large bearings, a 25 hp Kohler Command engine, and high-flotation tires. This machine features 16 carbide tipped teeth that are all alike (for simplicity), and can be sharpened for longer life. Reversible teeth are also available. The HD46 cuts stumps of any kind, age or diameter from 18 inches above ground to 20 inches below. The ground travel has two speeds - very fast for transporting and slow for cutting. Competitively priced and designed for the professional, it’s one of 10 Levco models available. For more information, contact Levco Manufacturers, Inc., PO Box 1026, Wynne, AR 72396. Phone: 1-800-524-9252; Fax: 870-238-8124.

“Stanley Hydraulic Tools, Handheld Tools Volume 4,” will provide the information you need to make educated, informed decisions about choosing handheld power tools for any job. The 18-page guide contains practical and comparative information regarding Stanley's line of over 120 handheld hydraulic tools. The tools can also be powered from any properly equipped hydraulic sources such as aerial lifts, backhoes and dump trucks. To order your free copy of the booklet, call 503-659-5660.

Avoid harm to children, employees, guests and others with ThorGuard, by Data Transmission Network. ThorGuard predicts lightning before it strikes, it has been offered as an additional service on DTN Weather Devices. While ThorGuard and DTN continually monitor and evaluate electrostatic values in the atmosphere within a 15-mile radius, customers subscribing to the system are notified visually with a color-coded danger screen. Screen categories range from "All Clear" to "Red Alert." The 1996 Olympics in Atlanta and all major PGA Tours and Championships rely on this service. For more information, contact DTN at 1-800-610-0777 or ThorGuard at 1-888-571-1212. Visit the DTN web site at http://www.dtn.com.
A no compromise, high-performance saw for demanding professional cutter, the Jonsered Model 2063 Turbo is a 3.8 cubic inch saw that develops 4.6 hp from a powerhead weight of 12.7 pounds. Fast acceleration and exceptional power at high RPM are the most noticeable characteristics. Features include a compression release, outboard sprocket, steel coil spring anti-vibration system and an inertia chain brake. Every gas-powered saw in the Jonsered line now features Turbo air cleaning. For more information, see your Jonsered dealer or call 1-800-447-1152.

The ChipMaster from Global Development International is provided in two designs. One is for operation on a tractor and the other is for operation on a skid loader. Each comes with a 4-inch and 6-inch capacity and use a feed-roll system for automatic feeding of limbs. The disc-type flywheel works in conjunction with specially designed blades to produce a fingernail size chip that can be used as mulch or cover. For more information, contact Global Development International, 19960 Bluegrass Circle, West Linn, OR 97068. Phone: 503-650-6797; Fax: 503-650-8882; E-mail: burda@teleport.com

Genuine "JD9®." The standard of the industry for over 25 years!

- Highest quality spray gun you can buy—more sold than any other brand!
- Precision machined parts from the highest-grade materials assures long-lasting durability and top performance year after year.
- Ample supply of interchangeable parts available—easy to maintain for a lifetime of quality service.

If it doesn't say, "JD9®," it isn't!

Don't be fooled by imitations!

Imitation (im/i ta/shen), n. 1. a counterfeit; copy. 2. bogus; phony. 3. fraud. 4. artificial; fake; false. 5. impersonation. —adj. 6. designed to imitate a genuine or superior article or thing.

All cars come with four wheels and a motor. But that doesn't mean they're alike. It's the same with spray guns. Before you buy a cheap imitation, ask yourself: How long will it last? Are parts available or interchangeable? Is it precision made? What kind of materials is it really made of? Does it have a warranty? Can I balance low price with performance?

But if low price is what you really want, your best deal is from Green Garde®!

Available only from your Green Garde® distributor. Phone 1-800 745-2392 for the name of one near you.
Officers Elected

At the recent Empire State Tree Conference, Salvatore Pezzino of Artistic Arboriculture in Huntington, N.Y., was elected president of New York State Arborists. Pezzino has been a long-time member of the association, as well as being actively involved with the National Arborist Association and other tree care organizations.

E. Mark Barry of Greenspace Enterprises in LaGrangeville, N.Y., was elected vice-president and Michael Grimm, Michael Grimm Services, Inc., LaFayette, N.Y., was elected secretary-treasurer.

Urban Tree of Year

The Society of Municipal Arborists recently named the swamp white oak (Quercus bicolor) as its 1998 Urban Tree of the Year. The purpose of the designation is to illustrate the importance of selecting the right tree for the planting site. The announcement also serves to highlight seldom-used trees or cultivars of trees which should be planted more in the urban landscape.

The swamp white oak was selected, in part, because of its lack of pest problems. The rapidly growing tree flowers in the spring (beginning at 25 to 30-years-old), and should live at least 100 years, if not much more, in the city. It also requires almost no maintenance and its acorns are eaten by a variety of wildlife.

Conservation Award

The American Forest & Paper Association received the 1997 Business Conservation Leadership Award of the National Association of Conservation Districts for its Sustainable Forestry Initiative. The award is given for organizations that carry out land, water and related resource management practices in cooperation with the conservation district movement in America.

The Sustainable Forestry Initiative is a system of principles, guidelines and performance measures that sustain all forest values, including the conservation of soil, air and water quality, and wildlife and fish habitat.

New Position

Palmer Johnson Distributors, headquartered in Madison, Wis., announces the appointment of James Johanski as regional sales representative. He will be assigned sales responsibilities in Wisconsin and parts of Michigan and Illinois. Palmer Johnson is the largest distributor of powershift transmissions in the United States.

INTRODUCING

THE ALL NEW

2000 SERIES TREE CUTTERS

FROM BROWN MANUFACTURING CORPORATION

WHETHER YOU ARE RE-CLEARING POWER LINE RIGHTS OF WAY, OR JUST CLEARING YOUR LAND OF STUBBORN BRUSH AND SMALL STANDS OF TREES,

THE 2000 SERIES TECHNOLOGY BRINGS YOU THE RIGHT MACHINE FOR THE RIGHT JOB

"NEVER BEFORE HAS SO MUCH SAFETY AND VERSATILITY BEEN DESIGNED INTO ONE MACHINE"

For more information and a FREE brochure on the 2000 series or other Brown products, call
1-800-633-0909

Please circle 12 on Reader Service Card
Day After Day, Year After Year, They Just Keep Working.

Dependable. Easy to maintain. Built to work hard and never take a day off. Altec’s complete line of tree care equipment provides you with superior performance and maximum productivity. Our LR Series and LB Series aerial devices combine smooth, efficient maneuverability with working heights to 60 feet, making them the tree care industry’s preferred choice. Altec’s line of Whisper Chippers are designed with a commitment to excellence and have a proven record of durability and performance. And all Altec equipment is backed by an unsurpassed warranty.

Give us a call for more information. 1-800-958-2555.
A Web Site Can Increase Profits

Tree Care Companies Appeal to Web Savvy Consumers

By Suretta Williams

By now you must be curious about marketing opportunities on the Internet and the Web. You may have e-mailed vendors for information about their products or looked up some Web sites of equipment manufacturers and suppliers. Many of the sites are quite impressive, and you’re wondering if you’ve stumbled upon a goldmine. Even if you’ve never surfed, you have probably read about or considered whether or not your business would benefit from having a Web site. While major manufacturers have decided that having a Web site is good business for them, what about commercial arborists? Is there profit for tree care companies on the Internet? A Web site can:

- add to your existing customer base
- provide an easier and more-efficient way to contact new and prospective customers
- save time and money
- increase your profits

Assume customers are affluent

For Jeff MacNair, owner with Bob Nace of Garden State Tree & Lawn in Pittstown, N.J., a Web site has become an important advertising medium. The agency that handled his newspaper advertising did a market survey and found 50 percent of the households in his area were online. MacNair figured that of those 50 percent, 100 percent were in an upper income bracket, since they are the ones that own computers. Those are his potential customers, so he decided to go where his customers are.

Chances are, when you find a Web site, there will be a hyperlink (button) to click to send E-mail directly to the company or organization. Not everyone will, of course, although MacNair estimates that roughly two or three a week are serious inquiries (bearing in mind that this is off-season in New Jersey). Many of the inquiries have been from out-of-state; he helps where he can, or refers them back to the National Arborist Association to find arborists in their area. He has landed quite a few jobs, however, from contacts and inquiries online.

Stress convenience

Chances are good that potential customers online are not looking for lowest cost tree care services. A majority of those searching the Web for professional services are willing to spend the money; they are just not willing to waste their time. Today’s Web-savvy consumer is spending money to take care of things that will free up their leisure time and make life more comfortable. If you can save them money by answering their e-mail inquiries quickly and efficiently, performing as you promise and being reliable, chances are you will not only keep this new customer, but you will be referred to their other “cyber-buddies” or those they correspond with via e-mail.

In addition, these customers would rather not be bothered with making phone calls, leaving messages, waiting for return calls, scheduling convenient appointments, etc. It’s often easier to “surf” for tree care while the computer is already online at work. Rather than needing to get the phone book and start making calls, someone proficient on the Web can do two, three or more different things at the same time.

Respect time

Using his principles of marketing and other advertising courses taken years ago while in pursuit of a degree in ornamental horticulture, MacNair has learned that a Web site is an electronic billboard. He stresses, “surfers” are reading things quickly. “If they drive by at 60 miles an hour and can’t read it all, they won’t stop to read it, they’ll just keep right on going.”

This is an extremely important consideration when deciding what type of background and pictures tree care companies use on their sites. The more memory needed or the longer the download time, the more impatient prospective customers become. If it’s going to take extra time, they won’t give it a second thought. This is why, in some cases, you’ll find rather plain graphics or Web sites. While it is very possible to have attractive, yet user-friendly backgrounds, a lot of companies have started with the basics and are currently working on the enhancements.

MacNair recently visited a piece of property he had serviced years ago, when working for someone else. He left his card and the fellow sent him an e-mail the next day, noting he was glad to have been contacted, since he could never reach the other company. They e-mailed back and forth, scheduled an appointment and closed the deal.

Another customer found Garden State Tree through the NAA Web site and then “accidentally” found them online. She chose them because, being a technical person herself, she was more confident with a company that was technically proficient, as well. MacNair says customer perception seems to be that tree care companies with Web sites won’t arrive at the house “with a beat up pickup truck and chain saw that runs on blue smoke.”
The ArborSystems injection system will significantly reduce the amount of time needed to treat trees for insects, diseases and micronutrient deficient symptoms.

Now Available: Insecticides and Micronutrients

- GREYHOUND Insecticide (AVID™): Controls Elm leaf beetles and lacebugs.
- POINTER™ Insecticide (Merit®): Controls aphids, scale insects, leafminers and many others.
- IRON NUTRIBOOSTERS™: Relieves symptoms of iron chlorosis in oaks and maples.
- IRON/MANGANESE NUTRIBOOSTERS™: Relieves symptoms of iron and manganese deficiency in trees.

Come visit us on the web arborsystemsllc.com

Please circle 8 on Reader Service Card
Affect your bottom line

Of course, when considering whether to add a Web site to promote your business, cost and cost-effectiveness are important considerations. The cost of establishing a site is not prohibitive. In fact, MacNair bought his own domain (site name). “That way, if fees or costs for the Web site maintenance by any contractor gets higher, or if our independent contractor decides to unexpectedly retire, we still own that site, the same name,” he notes. “We keep it. Buying the domain cost $300; after that, there are monthly fees that kick in. I don’t have the figure, but I’m pretty sure it’s under $30 per month. Obviously, if you figure advertising to be a percentage of your budget, you just get one $5,000 job, and that covers it.”
MacNair’s package is part of a yearly fee, and he doesn’t pay for changes or updates to the site. A wide variety of packages, companies and offers exist, so it’s important to shop around for the best Internet webmaster services.

Stay up-to-date

Whether you enjoy the Web, as a business owner the advantages of having a Web site far outweigh the costs. You are where your customers are, when your customers are there. You have the capacity to communicate with people you might not otherwise encounter, you have the opportunity to appear technically proficient, and lastly, if you don’t stay up-to-date, someone else will.

Is the Cut Resistance of Your Foot Protection UL Classified?

When you see the UL Classified mark, you can be sure that the foot protection you wear will meet the certification requirements of ASTM F1818® and the OSHA requirements for cut resistance.
OSHA* requires that “... foot protection prevent the chain saw from cutting the employee before the employee is able to react, or before the protective material jams the chain saw. . . .”
The UL Classified mark certifies that SAWJAMMER® products will meet these requirements. In fact, SAWJAMMER®-PRO and SAWJAMMER® Slip-on are the only UL Classified foot protectors.

For more information call 1-800-969-9276, visit our website at www.sawjammer.com, or send an e-mail to trimmer@sawjammer.com

SAWJAMMER COMPANY, LLC
P.O. Box 11395 • Baltimore, Maryland 21239-0395
Tel.: 410-325-6860 • Fax: 410-483-4066 • Toll Free Fax: 1-888-473-8008

SAWJAMMER®-PRO and SAWJAMMER® are registered trademarks of the SAWJAMMER COMPANY, LLC
U.S. Patent Numbers: 5172493, 386972, 5251386, 5272822 • Canadian Patent Number: 2039921 • Other U.S. and foreign Patents Pending

*F1818 requires that a chain saw running at 58 feet per second must be stopped in less than 1.5 seconds. 29CFR1910.266
to use the word processing program, at least well enough for your purposes, and your bookkeeper is learning the accounting software. Now what? You are playing a few games, but you still don’t see what all the fuss is about. You’ve been sending faxes for years, but they still cost money.

**What’s the excitement?**

First-time surfers are often disappointed by what they find. If you are one of those—or if you’ve heard such discouraging words that you’ve never tried—don’t give up. There’s information and potential profit for arborists on the Web.

Many tree care companies have set themselves up with an Internet provider, which offers an e-mail address and “access” to the Web. As a business owner, your main concerns are, most likely, time and money. Coincidentally, those are the same reasons to get on the Web! Using your personal computer to access information means you can access information immediately, rather than waiting for the mail, and lowers vendors’ postage bills, which should lower prices for you.

The significance of an e-mail address for your business is obvious. It provides prospective clients with a postage-free means to send and receive mail. It also provides you with a no-cost means of obtaining specific information from someone else, although it is far less important than your Web access. However, once you are at a Web site, you have the capability to send e-mail to the company and to receive a response back. Many times, just asking if someone can help you or solve your problem can save you money; why spend time and postage to send information to those who can’t affect your profits favorably?

**Why surf?**

The World Wide Web is a vast library of information accessible to everyone who has the technical capacity to retrieve it. Many different people and companies use it, all for different reasons. A few things arborists can find on the Web are: OSHA and ANSI regulations; technical, trade and research journals, updated information on frequently-used sites, resource documents, and vendor specifications and recalls.

Because the frames of reference, expertise and motives for creating Web sites are as varied as those looking for the information contained on them, it is difficult to summarize what you will find. Not all are business related, and not all will fit your needs. The potential is great, however, for finding exactly what you need—and more. Some professionals will publish their research papers (in whole or in part), while others post excerpts with an offer to send more, for a fee. Many universities and cooperative extension branches post their findings, studies, surveys and pest alerts online for the public to read and access. Others have Help Wanted bulletin boards where you can scan resumes of students and recent graduates.

Legal issues and common insurance concerns faced by small businesses are discussed in different areas of the Web. It will take a bit of trial and error if you aren’t used to searching on your own, but chances are, you can find what you are looking for. For example, it is possible to find the exact wordings (and amendments) of many state and federal laws, and any challenges made to those laws. It’s also possible to locate court findings, trade journals, seminar updates, standard revisions, etc.
Getting your feet wet

Chances are, at the beginning, things you would want to look up have been noted for you. For instance, you might read a line in an article that suggests, “Look at our Web site at http://...” or, if you are reading Arbor Net, you’ll note that everyone listed has an http:// (known as a URL address). That is what you type onto the “search” line when you want to find a particular site. For example, you would type http://www.natlarb.com to find the National Arborist Association Web site. Of course, if you typed National Arborist Association Web site, of course, you would also find us.

A unique feature about Web browsing is the capability to search a number of different ways. This is helpful, since you can try a variety of ideas until you find exactly what you are looking for. If you are looking for aerial lifts, for example, you can search by subject, by company, or by URL. In fact, changing the subject from aerial lifts to aerial equipment will further broaden your search. To define your search even more, you can specify areas (or words) to include or omit.

Surfing!

It doesn’t take long to learn to surf and once you do, you’ll love researching information. In addition, surfing can be used as a means to relax after a hard day’s work—just picking a topic and following it along the Web can be rewarding, and less tiring, than anything else you’ve done that day. If it saves you time or money, that’s even better!

From a basic site, you’ll find hyperlinks which are either blue underlined words or fun, elaborate buttons, bars or other pictures that invite you to “point-and-click.” Don’t worry, they are harmless. Clicking will provide even more information about what you are reading. As the pages change, you’ll notice the URL above changes automatically—that’s ok. Everything starts with http://, although not everything ends the same. Some common endings are: .gov (government), .org (organization), .edu (generally notes a school). Some browsers provide the capability to “bookmark” certain sites. This allows you to return to the same site without having to type in the URL every time.

Continuity

One of the most valuable tools of researching on the Web is continuity. For example, if you are researching tree diseases and find a paper written by a noted scientist, you have the capability of hyperlinking (clicking on a given word or subject for more in-depth information) your way to his or her direct Web site or to other information. An hour’s worth of research can yield enough information to save weeks of “manual” reference room searching.

Vendor information

Most manufacturers and suppliers to the tree care industry have Web sites that are fun and educational. Not only do they list products and services, they have photos and pictures to draw your attention to particular areas. For example, some sites have product labels that can be downloaded and read at your convenience. Many have regional distribution sites where you can locate a dealer in your area, while others have “Frequently Asked Questions” sites. Many have customer service pages at which to ask your questions via e-mail for an expert response; others have a place where you can post questions for the general public to answer. To find vendors who are Associate Members of the National Arborist Association, see the Arbor Net listings on page 66.

John Garner of Tree Management Systems, a company that has a Web site and develops arborist-specific software, describes the Internet as “mobile access to computer-necessary files or information. Instead of having to wait for someone to send technical information, we hope to be able to acquire it. Everything can be done on your computer. Before, we would have to send away and wait for a newsletter, or send for a file or disks to come in the mail. In this day of instant information, everyone wants things ‘right now.’ That’s what the Internet can provide for arborists. It allows you to communicate.

“The main thing about the Web is that it is very easy to use, and it provides links to the information that is available. On our site, users of our software can locate an updated copy and download it directly, rather than waiting for us to send out 100 or 200 disks, and hoping they don’t fail. By looking at the “Last Updated” column on the file, users know if they have the latest version ...”
Rigging for Removal

A two-part video and study guide from the National Arborist Association

Features include:
- The on-screen talent of Don Blair, Ken Johnson and Robert Phillips
- Practically oriented “systems” approach to the topic of rigging
- Professionally produced video, a highly effective, versatile, reusable training medium
- State-of-the-art technology, with an emphasis on safety and efficiency
- Guidelines applicable to virtually any rigging challenge
- Accompanying trainer’s workbook with training instructions, illustrations, and reproducible handouts and exams
- High quality production standards of the NAA
- ISA CEU’s applied for

Available soon!

For more details or to place an order, call 1-800-733-2622

Sponsored by Husqvarna
Husqvarna Forest and Garden Co.
Every company is concerned with the cost of doing business. The Polecat is not only affordable but offers numerous features that increase your efficiency therefore increasing profits.

---

So, You Need a Hand-Held Computer in the Field?

Or, at least you know what one looks like and reckon it sounds like a pretty cool idea to take into the field to do estimates and proposals for your customers.

Before rushing out to your nearest electronics or computer shop, it is vital to think about why you need a hand-held computer in the field, how durable and practical it is, and what software is available. It’s far better to know what you need and what the options are that are available to you before you spend any money.

Hand-held computers (also called PDA’s which stands for Personal Digital Assistant) come in many varieties, shapes, capabilities and price tags (not unlike a chain saw or a chipper!). There are basically two varieties of hand-held computers: The Executive “Palm Top,” and the Field Hand-Held Computer.

Executive “Palm Top” computers can:
- act as an electronic Rolodex, storing names and phone numbers of your clients, while providing basic organizer functions to keep track of appoints (US Robotics PalmPilot);
- allow you to run DOS programs and use a full keyboard (HP200);
- allow you to run special programs written in a proprietary operating system, provide stylus operation (handwriting recognition) and some add-on memory (Apple Newton).

These range in price from $100 to $750, plus additional software, which ranges from $500 to $5,000.

The Field Hand-Held computers have the computing power of a PC or laptop. They are found in factories, with large chemical application firms, in the field performing data gathering for geological surveys, on the road with arborist, lawn care and landscape professionals perform-
THE SYMPTOM: Stumbling in the Dark
THE DIAGNOSIS: Info Deficiency
THE CURE: ISA Membership

The International Society of Arboriculture is the largest and most influential arboricultural organization in the world. Today’s ISA is • information • publications • people and • research...the cure for what ails you.

MONTHLY PUBLICATIONS
ISA members are kept abreast of happenings in the tree care industry through two significant publications: Arborist News and the Journal of Arboriculture. Members receive both publications, free of charge, alternating bi-monthly giving information needed for peak performance in the workplace.

Arborist News is ISA’s news magazine—a colorful 64-page publication filled with interesting features and other articles concerning all aspects of the industry, events calendars, details on ISA programs and publications, news from and about chapters and members, and much, much more. Some features are followed by question sets which can qualify readers for Certification Continuing Education Units.

The Journal of Arboriculture contains the latest developments in scientific and educational information. It’s full of papers written by top researchers and articles by leading arborists around the world.

ISA BOOKS AND VIDEOS

ISA ARBORIST CERTIFICATION
Over 9,000 arborists have taken advantage of ISA’s Certification program since 1991. These arborists have found an educationally challenging program designed to upgrade their knowledge and proficiency levels—bringing the opportunity for learning, growth, and advancement which are significant factors in job satisfaction. Perspective employers see certification credentials as assurance that a candidate has qualifications that relate to the position.

CONSUMER INFORMATION SERIES
This program is designed to help consumers get off to the right start with planting considerations, and to heighten awareness that trees don’t necessarily take care of themselves. Currently there are 15 brochures in the series—professionally written, designed, and attractively printed in two colors. Answering a host of often-asked questions in easy-to-read terms without being too technical to understand, these brochures make exceptional public relations tools.

ANNUAL ISA CONFERENCE AND TRADE SHOW
The greatest educational experience of the year—lectures, seminars and meetings, plus interaction with exhibitors provide a feast of information to take back to the workplace and use. International Tree Climber’s Championship and Field Day provide competition between tree climbers and exhibitors alike. Spouse/guest and youth programs allow this conference to be a family affair. It’s not just another meeting—It’s an event that’s informative, entertaining, fulfilling and inspiring.

ISA RESEARCH TRUST
Today’s arborist needs more information in every area, from tree biology to cabling and bracing and all points in between. More knowledge means more research. The Research Trust works closely with professional arborists, foresters and utility companies to fund research that will benefit the industry and help to develop and maintain the urban forest. Funding comes from memberships, grants, donations and special event fundraisers. ISA is opening doors to accessing timely information through research that can promote the success of arborists and the profession as a whole.

Enjoy membership and the rich heritage of the organization committed to your future in the tree care industry!

Join ISA Today!
Call (217) 355-9411 or visit our web site at http://www.ag.uiuc.edu/-isa/

Please circle 32 on Reader Service Card
Shedding New Light on an Old Problem

By Robert A. Christensen

November 5-7, 1998
Baltimore, Maryland

... sooner than you think!!

Norand, Telxon and Fujitsu are some of the more rugged brands available to arborists. The Norand family of hand-held, for example, will operate in extreme temperature ranges from minus 4 degrees Fahrenheit to 122 degrees Fahrenheit. It is will withstand multiple 4-foot drops to concrete. The Norand is very similar to a laptop or personal computer, has handwriting recognition and graphics capability and Bar Code scanning support. It can be mounted in a vehicle or office dock for battery charging, modem communications or connection to a full-size keyboard and printer.

“The arborists that I met with at TCI EXPO in Columbus expressed a strong interest in the Norand and its capabilities,” says Mark Smith of Creative Automation Solutions. “We are currently field testing the units with portions of our ArborWare program and are achieving favorable results. Our plan is to offer this tool to the industry with specialized arborist software that also has handwriting recognition and graphics support.”

Trees play an important part in recreation and both rely heavily on sunlight. When it comes to pools, decks, docks and windows, or maintaining high quality gardens or golf greens, however, there are times when light and trees appear to be incompatible. This is where the professional arborist finds his calling—making trees and people compatible by making maximum use of the sun’s light.

Golf course superintendents have found it difficult to balance light requirements.

It’s coming ...

November 5-7, 1998
Baltimore, Maryland

For more information please call toll free: 1-800-733-2622

Please circle 68 on Reader Service Card
**We Put the Forest Back in the Tree.**


Urban environments can be a “jungle” for new and established trees. Stress, depleted soils and poor availability of water can challenge even the hardiest trees and shrubs, and hasten the decline of aging or damaged trees.

*MycorTree™* Injectable products contain live spores of the endo- and ectomycorrhizal fungi that trees depend on to develop new fine roots used for water and nutrient uptake – while protecting the roots from soil borne diseases and nematodes.

**AVERAGE FINE ROOT DRY WEIGHT (GRAMS PER CUBIC FOOT OF SOIL), SEVEN MONTHS AFTER TREATMENT**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>PECAN</th>
<th>WILLOW OAK</th>
<th>RED OAK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett Boost (28-9-9)</td>
<td>16</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>MycorTree™ Injectable plus Boost</td>
<td>48</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>MycorTree™ Injectable</td>
<td>22</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>Water Control</td>
<td>11</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

*MycorTree™* Injectable produced a significant increase in root growth as compared to the non-treated controls. *Journal of Arboriculture, May 1997*

Order *MycorTree™* Injectable Products, and Receive *BioPak™* Dry-Soluble Biostimulant, **FREE!**

The perfect complement to *MycorTree™* Injectable products, *BioPak™* dry, water-soluble biostimulant energizes tree growth with a combination of growth promoting beneficial bacteria plus humic acids, amino acids, vitamins, sugars and seakelp extracts. Order now, and we’ll include a box of *BioPak™* (10-1/4 lb. open-and-pour bags) with every box of *MycorTree™* Injectable or Pi Injectable.

Call Plant Health Care, Inc. or your PHC Representative Today . . . for the “Forest Resources” Your Trees Have Been Missing.

**1-800-421-9051**

www.planthealthcare.com

©1998 Plant Health Care, Inc. *MycorTree™*, *Bartlett Boost™*, *healthy Start™* are trademarks of Plant Health Care, Inc. Offer good until May 1, 1998. This promotion not valid with any other discounts or current offers.

Please circle 54 on Reader Service Card
These skilled professionals need trees on the golf greens for depth perception, yet need large, extended amounts of direct sunlight for healthy greens. Many courses are placed in heavily wooded areas and decision-makers want to retain the existing trees while, at the same time, maintaining healthy, vigorous turfgrass.

The challenge, now, is removing only those trees that directly hinder the penetration of light without aesthetically affecting the green or making a major impact on the ability of the golfer to play the course. If we are to prune only those limbs or trees that are blocking the sun, we need to know exactly where the sun is. Though multiple methods have been used with varying degrees of success, ArborCom Technologies of Toronto, Ontario, Canada has developed a program called SunSeeker, that makes this task easier.

To identify the sun’s position at a given time in the day or year, complex algorithms take into consideration the spin of the earth, the rotation of the earth around the sun, and the fact that the earth’s axis is on a 23.5 degree tilt. Complex astronomic algorithms take into consideration all of these factors influencing sun position and can output exact quadrants, which can be translated into a position by a sun location instrument. For example, the sun’s position is lower in the sky in January than it is in June. That is why the days are shorter in the winter and longer in the summer. As an arborist, it is important to take into consideration these seasonal differences in the sun’s positioning when making tree pruning and removal recommendations.

A computer generates the sun’s coordinates in one-minute increments for every day of the year in a given geographic location. The sun location equipment is set up in the shadiest portion of a turf area and coordinates for a chosen time and day are entered which, in turn, indicate the position of the sun. By inputting multiple dates and times, sunlight and shade patterns can then be computed for various time periods throughout the year with equal accuracy.

The important thing, according to Jim Molenhuis, director of turf operations for Club Links Corp., which owns Lake Joseph Golf Club in Ontario, is to preserve the character of the golf course. “It was important to maintain the forested feeling,” Molenhuis says. His 16th green was showing sparse turf growth. It has elevated banks and was getting less than two hours of direct sunlight per day. ArborCom set up sun location equipment, took a reading, and recommended removing only certain trees to allow light penetration from the bottom on one side of the green and higher up on a different side.

This solution brought light to the green without changing the hole’s dramatic aesthetics, which included a backdrop of trees providing golfers with valuable depth perception. From a forestry management perspective, small trees were left to provide sustainability. In all, Molenhuis says the selective tree removal turned one of the course’s poorest developing greens into one of its best.

Normally, tree removal is a final resort. Lake Joseph’s assistant superintendent, Andrew Wright, points out that one of the major goals of the project was to leave the natural surroundings undisturbed with as many trees as possible. “We have two major growing periods per season, early summer and late summer,” Wright explains, “and we have to maximize the amount of light during those time periods. Without this type of technology, we would not have been able to grow the quality turf that we did in such a short time.”

For More Information on Arborist-Specific Software ...

ACRT, Inc. 800-622-2562
ArborCom Technologies 888-786-5628
Arbor Computer Systems 203-226-4335
C&P Press, Inc. 800-544-7377
Creative Automation Solutions 800-49-ARBOR (2-7267)
Davey Resource Group 800-445-TREE (8733)
Environmental Information & Design 803-356-3672
Environmental Consultants 215-322-4040
Natural Resource Technologies, LLC 888-848-2146
Practical Solutions 614-436-9066
Service Communications Software 888-PICK-SCS (742-5727)
Tree Management Systems 800-933-1955
Waterwheel Software 800-962-3329
Commercial arborists, property managers, line clearance supervisors and golf course superintendents all have a need to track conditions, maintenance requirements, treatment histories and costs for the trees and woody plants they maintain. A variety of tree inventory software packages, most devised specifically for the arborist market, allow you to do just that. Among the features and benefits of these programs are:

- Mapping capabilities that accommodate coordinates derived from the Global Positioning System (GPS). Users can create and print property maps to scale, including trees, boundaries, turf beds and landscape. Paper maps of the property can often be scanned right into the computer system—even freehand ones you draw yourself.

- Customer service processing is designed to allow arborists to review the history of the property or the specific work history of any tree. This will allow you or the crew visiting the site to know instantly what types of materials were used in the planting beds, the types and dates used of fertilizers.

- Work orders can be devised and printed out based on the original customer and treatment information. Requests may include work required, person and date job was assigned and date tasks were completed. In addition, you can figure profits and costs per site by calculating the hours spent on each job and the cost per hour.

For commercial arborists, the benefits of tree inventory software are manifest.

All tree information is readily available, from how many elms are on the block to when each tree was last pruned.

Scheduling also becomes more efficient, since response time can be tracked, crew efficiency can be monitored and, most importantly, expenses and profits per client can be calculated.
"It is a marvel that trees should live to become the oldest living things. Fastened in one place, their struggle is incessant and severe. From the instant a tree casts its tiny shadow upon the ground ... it is in ‘danger’. “—Enos A. Mills, naturalist c. 1910

Cabling to Preserve a Unique Landscape

The Vesper Hill Children’s Chapel in Rockport, Maine is dear to our hearts. We, as well as many other couples from around the world, were married there. Built atop a rock ledge overlooking Penobscot Bay, this open-air chapel is constructed of weathered pine and is the centerpiece of a natural sanctuary of flower and herb gardens, stone walls, willows, crab apples, birches, and especially cedars.

Last summer, we were called out to the chapel by the groundskeeper to offer advice on a tree-related problem. While there, we noticed a cedar stem just beginning to separate from a clump—something only the trained eye would notice.

We pointed it out and recommended immediate preventative cabling. Unfortunately, before the chapel committee had time to react, the stem separated from the clump.

Northern white cedars are prominent trees in many notable designed landscapes in Rockport. The most intriguing specimens occur as multi-stemmed clumps, often in mass plantings. Their year-round foliage is a green welcome where deciduous trees are leafless for more than half the year.

These cedars exhibit structural weaknesses typical of multi-stemmed trees. First, foliage weight on each stem is one-sided (on the outside of the clump), and second, the trunk attachment at the base of the clump is a weak point because rot can develop in the seams between stems.

In many of the oldest and finest specimens, the stems incline outward from the center. Intervention is needed if the cedars are to survive the gale force winds and ice storms of coastal Maine.

Crown reduction, including shaping to retain the tree’s natural form, coupled with cable installation—preventative maintenance prior to separation—is advised for preservation of the tree and the unique landscape.

Cabling for Storm Preparation and Preservation

A Northeast Perspective

By Douglas N. Johnson and Nancy Caudle Johnson
A storm is approaching—the NOAA weather radio is broadcasting hurricane warnings and forecasting gale force winds for Maine’s coast. Is the village of Camden prepared for the 100 mph sustained winds bearing down on the coastal community and its trees?

In Maine’s Penobscot Bay region, hurricanes and ice storms are natural forces to be reckoned with. The 1988 Camden Hazard Analysis used for criteria to predict significant hazards—history, vulnerability, maximum threat and probability—reported that a winter storm severe enough to result in power failures for extended periods of time, severe cold and property damage affecting about 75 percent of the population could be expected to occur, on average, once every five years, according to the Town of Camden Comprehensive Emergency Management Plan.

Climatologists report that storms called northeasters are more severe than they used to be, attributed to a “long-term shift” in the predominant winter path of the North American jet stream—the high-altitude, west-to-east river of air in which counterclockwise spinning northeasters are born.” Northeasters, like hurricanes, are classed as cyclones because the winds circulate counterclockwise around the center, but, according to the Bangor Daily News, northeasters “wreak havoc differently” and can ravage a larger area and last for a longer period, often several days.

The punishing winds and crippling ice of severe storms wreak devastation on vast numbers of trees. The resulting costs, in terms of clean up, downed power lines, property damage, injuries, and even loss of life, can be astronomical. [Editor’s Note: This article was written before the northeast’s catastrophic January 1998 ice storm.]

The Rochester ice storm of 1991 is a case in point. The March storm brought the city and 13 surrounding New York counties to a near standstill. Nearly every tree was damaged, 20 percent so severely that they had to be removed. It has taken the area years to recover.

Researchers reported that poor maintenance had contributed to the damage. To mitigate problems from future storms, they recommended a regular schedule of routine maintenance and annual inspections.

Storm preparedness alone offers a compelling argument for cabling trees. Other justifications include safety concerns and preservation of significant trees and landscapes.

Maryland’s Wye Oak offers an historic example of cabling for tree preservation. Information found in the National Register of Big Trees referenced this tree as estimated at more than 450 years old. The magnificent white oak’s beginning predates our nation’s history. In 1953, 1956, and 1984, the champion lost major limbs, the most recent estimated to weigh 35 tons. The great tree (79 feet high and 374 inches in circumference) “now benefits from an incredible one and a half miles of cable to support its massive limbs.”

In contrast to the Wye Oak’s astonishing 7,920 feet of cable, ordinary measures may involve installing a mere five to 20 feet of cable.

Why is cabling necessary?

The primary reason for cabling is to stabilize codominant tops and massive limbs. Following modern arboricultural practice, the educated hand (of the arborist) now uses the razor-sharp turbo tricut handsaw, combined with a knowledge of training pruning, to direct the young sapling toward a structurally sound future, free of codominant tops.

Unfortunately, many older trees have developed without a guiding hand, and frequently an arborist is summoned after a young tree with twin leads has advanced beyond the sapling stage and when removal of one lead can be too severe a procedure.

Candidates for cabling include trees with limbs too massive for their trunks, trees with codominant leads, senescent specimens requiring special support, characteristically weak species, multiple-stemmed clumps, and trees overhanging buildings where people live and work.

How does cabling strengthen and support a tree?

Massive limbs extending out horizontally from the trunk, codominant leads or tops, multi-stemmed clumps—each of these conditions is predictive of the weakened union or crotch.

When winds blow and the tree sways, the parts flex—often in opposing directions, which can result in a splitting stress at the weak crotch. Added weight, too, whether from ice buildup, heavy...
### Size/Strength of Cabling Hardware

<table>
<thead>
<tr>
<th>Diameter (inches)</th>
<th>Published rated breaking strength</th>
<th>Working load</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Common grade 1 X 7 left-hand lay cable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/16</td>
<td>1,150</td>
<td>230</td>
</tr>
<tr>
<td>1/4</td>
<td>1,900</td>
<td>380</td>
</tr>
<tr>
<td>5/16</td>
<td>3,200</td>
<td>640</td>
</tr>
<tr>
<td>3/8</td>
<td>4,250</td>
<td>850</td>
</tr>
<tr>
<td><strong>Extra high strength (EHS) 1 X 7 left-hand lay cables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/16</td>
<td>3,990</td>
<td>798</td>
</tr>
<tr>
<td>1/4</td>
<td>6,650</td>
<td>1,330</td>
</tr>
<tr>
<td>5/16</td>
<td>11,200</td>
<td>2,240</td>
</tr>
<tr>
<td>3/8</td>
<td>15,400</td>
<td>3,080</td>
</tr>
<tr>
<td><strong>Dead-end cable grips</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/16</td>
<td>3,900</td>
<td>798</td>
</tr>
<tr>
<td>1/4</td>
<td>6,650</td>
<td>1,330</td>
</tr>
<tr>
<td>5/16</td>
<td>11,200</td>
<td>2,240</td>
</tr>
<tr>
<td><strong>Drop-forged eyebolts</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/8</td>
<td>7,000</td>
<td>1,400 280 210</td>
</tr>
<tr>
<td>1/2</td>
<td>13,000</td>
<td>2,600 520 390</td>
</tr>
<tr>
<td>5/8</td>
<td>20,000</td>
<td>4,000 800 600</td>
</tr>
</tbody>
</table>

* As the angle of pull deviates from 0 degrees or straight pull, breaking strength of hardware decreases.

---

Cabling limits excessive limb motion and reduces stress on a crotch or branches. It enables the tree to function more as a unit, with limbs, leads and multiple stems supporting, rather than opposing, each other.

As a rule of thumb, cabling is an excellent preventive measure; however, once a tree splits through, simply cabling is usually no longer an option. At that point, additional hardware may be installed. This sort of care often crosses the line and becomes heroic (though, as with the Wye Oak, extraordinary measures have their place).

**What is the inspection procedure?**

If the arborist can’t make a thorough inspection of the weak area of the tree from the ground, then an aerial inspection is called for. An up close and personal exam is needed to determine structural integrity, especially if a tree could in any way be considered hazardous.
Occasionally an aerial inspection will reveal a surprise—a hollow above the point where an immense horizontal limb attaches to the main trunk, or pileated woodpecker holes a foot deep. A handsaw can be used to test the depth of decay in the crotch.

It is always important to inspect existing cables. They may appear adequate from the ground, but a closer look 60 feet up may reveal a slipped thimble and some frayed strands—a cable waiting to pop and drop. Generally, an aerial inspection can be performed in the course of a routine pruning operation.

How is decision made?

After determining that a tree has one or more weak crotches, consider several factors next, including the tree’s overall health and condition, its structure and location.

First, consider the tree’s condition. Signs of weakness—trunk hollows, top dieback, rotten wood—may eliminate cabling as a preservation method. If the wood is unsound and/or the condition of the tree is poor, it is good practice to avoid cabling. The structure of the tree is also important. Remember, the cable is installed to assist the tree in supporting itself, not to hold the tree together. A weak upright rules out cabling in most instances, because the limb, lead or codominant top you plan to join it to will not be sufficiently supported.

The tree’s location, that is its proximity to places where people live, work, and recreate, is the most important consideration. Obviously, a location next to a house or overhanging a yacht or greenhouse beckons the arborist to employ his or her keenest powers of observation.

When evaluating a tree overhanging a home, ask yourself, “If this were my home and it were my child’s bedroom, what choice would I make?” Posing this question will ensure that you carefully evaluate the situation. If in doubt, don’t recommend a cable. Instead, advise your client that the limb or the entire tree be removed.

When should cabling be installed?

Once you have made the recommendation to cable and the client has approved the work, it is your responsibility to address the situation in a timely fashion. Given the vagaries of nature, a tree with a weak connection is a break waiting to happen.

Ideally, deciduous trees should be cabled when the tree is leafless, because there is less weight on the limbs and less stress on the crotches. Cabling when a tree is leafed out works fine, too, but when cabling heavily-leaved canopies (such as Norway maples) combined with long cable runs (greater than 15 feet), care must be taken so the cable isn’t slack after leaf fall. It is prudent, in such cases, to recheck the tree and its cable once the leaves are off.

What about pruning?

Excessive mass will catch more wind, which also stresses weak unions, so pruning goes hand-in-hand with cabling. To reduce weight and promote the general health of the tree, crown cleaning is necessary. Remove dead, broken, diseased, dying, hanging and interfering branches, as well as deadwood. The arborist may also prescribe crown thinning to reduce weight and wind resistance. Crown reduction may also be recommended when working with a weak
species, like willow or silver maple, in order to further reduce weight. Sometimes, standard pruning just isn’t enough.

Remember, according to A300 standards, not more than one-quarter of the foliage on a mature tree should be removed in a single growing season. Through proper pruning, the tree will be healthier overall. The goal of cabling and pruning is to enhance the tree’s health and improve its strength.

Are some species more likely to need cabling?

Red maple, sugar maple, white ash and white pine are more apt than others to develop codominant tops. White and grey birch, red maple and northern white cedar often occur as multi-stemmed clumps.

However, the wary arborist must watch for, and reckon with, the exceptions. Red oaks, for example, which usually have wide-angled branch structures and strong crotches, may occasionally exhibit frames with tight crotches and included bark.

Your experience in your locale will greatly influence your cabling decisions, since certain species will be predictable. Recording the species damaged by storms can be a learning experience. The last wind storm in coastal Maine targeted Norway maples—leaves were down on other species, but the Norways hadn’t dropped yet, and the added weight of the leaves and associated wind resistance spelled disaster for this tree.

Is cabling worth it?

Absolutely. The expense of cabling weighed against the consequences of letting Mother Nature “prune” by force, makes cabling very cost effective.

Failure to scrutinize the need to cable is being penny wise and pound foolish. Many of our oldest trees are irreplaceable. They have a high landscape value, and often a great sentimental one as well. When hap hazard destruction strikes, not only is an old friend destroyed, but adjacent trees and shrubs may be leveled, power lines...
The Three Precepts of Cabling and Bracing

By Jeffrey Lee, Riverside, CA.

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

While cabling and bracing is a fine method of tree preservation and hazard reduction—as opposed to the more drastic alternative of tree removal—it does necessitate a certain degree of consumer education in advance. With new technologies and equipment, cabling and bracing is becoming simpler, safer, faster and more profitable for the practitioner. There are a couple of easy steps arborists must take to protect ourselves as professionals. The focus of this article is to remind arborists briefly of the importance of those steps.

1. Put It In Writing
Cabling and bracing is not 100 percent foolproof. As a responsible arborist, it is up to you to evaluate the situation, the hazards, the targets, etc., and determine whether cabling is a proper method of hazard reduction. For that reason, you should take the time to develop a written disclaimer (to be signed and dated by the consumer), which informs the consumer that cabling and bracing does not transform a hazardous tree into a safe tree. In the haste and confusion of field work, it is easy to overlook this critical point, and years after the fact, the consumer will not recall your verbal presentation.

2. Set Client Expectations
Once the cabling is installed, it must be inspected annually. See that the hardware remains securely anchored. Loose cables may indicate a need for adjustment. As a tree gets larger and taller, new cable may need to be installed higher up in the tree to maintain the strength and integrity of your cabling system. In addition, an annual or biannual tree-thinning program is essential to keep a cabling system safe and reduce the risk of failure.

Start a tickler file so you can call and remind your client of the annual inspection, which also affords a billing opportunity and creates a long-term relationship between you and your client.

3. Expand Resources
ANSI has a uniform standard to which cabling and bracing shall be performed. Every arborist has the capability of installing and maintaining cabling systems. Make it clear to the consumer that he or she may contact another arborist for assistance or other opinions, even if you are unable to perform the work yourself. This can work to your advantage if a subcontracting situation should arise, and you can feel confident that the work will be performed as you would.

In summary, you can save yourself a good deal of aggravation and the specter of litigation by adhering to these three simple precepts. The principles of cabling and bracing afford tree owners the possibility of saving a tree which otherwise might be lost due to branch failure. Strict adherence to these three precepts will allow tree care providers to ply their trade while minimizing their exposure to potential litigation, and positively affect your bottom line.
Cabling Tips

You can install cabling either as a preventative measure or a remedial treatment. If you are replacing an old cable system with a new one, leave the old one in place until the new one is installed. If there's a functioning lightning protection system in the tree, you need to connect all cables to it to ground the cables.

You need to match the strengths of the components of the cable system and make sure they are of sufficient strength for the size of the limb they will support (See Size/Strength of Cabling Hardware chart, page 38).

Assess the soundness of the wood where the anchoring hardware is to be installed prior to selecting your hardware. Through hardware should be used when decay is present or the wood is soft or otherwise unsound. Drill the holes for through hardware 1/16-inch larger than the diameter of the hardware you're installing. Dead-end hardware must only be used in sound wood. Since you must rely of the bite of the threads into wood for holding, drill the hole for dead-end hardware 1/16 to 1/8-inch smaller than the hardware.

J-hooks, the most commonly used cable anchor - should be installed perpendicular to the limb of attachment with the open end of the hook either up or down. Through hardware is a better choice if it is not possible to seat the full length of the threaded shank without digging the short end of the hook into the bark.

Cables need to be installed taut. A slack cable is going to fatigue faster and has a greater potential to fail from shock loading. The ideal installation on a deciduous tree is one in which the cable is just taut with the leaves off. A turnbuckle can be installed to allow tension adjustment.

Cables should be installed at a target point at least two-thirds of the length of the limb or trunk, measured from the trunk or crotch towards the tips.

The correct angle of cable installation is perpendicular to an imaginary line bisecting the angle between the tree parts being cabled.

Good luck and remember, tie high and keep a sharp bit.

Douglas N. Johnson and Nancy Caudle Johnson own Johnson's Arboriculture of Camden, Maine.
To reach the top in this business...

you need the right tools.

The Arborist’s ladder of success can have rotten cores, gnarly bark, and falling branches. And it’s climbed every day, under every imaginable condition. That’s why New England Ropes is committed to making the best Arborist ropes and accessories in the world.

Our Climbing Ropes, Bull Ropes, Safety Lanyards, and Accessory Cords are preferred worldwide for their high-quality construction and durability. Why? Because we know that Arborists need strength, safety, and performance on the job. Anything less is unacceptable.

From our Braided Safety Blue, an industry standard, to our Sta-Set, every rope, lanyard, and accessory cord has met our rigid quality control specifications and will perform admirably under the pressure of any job.

So, before you even think about climbing to the top, make sure you have the right tools in hand; New England Ropes.

For the name of the dealer nearest you, please call or write us:

NEW ENGLAND ROPES

New England Ropes • 848 Airport Road • Fall River, MA 02720
Tel: 508.678.8200 Fax: 508.679.2363
You can achieve optimum strength when all components of the cable system are in alignment. The anchoring hardware loses a significant amount of strength when subjected to side-loading.

Eye splices, dead-end grips, or swages are the industry-accepted cable terminations. Whichever one you use, make sure it’s compatible with the cable it is installed on. If you are going to make eye splices, make sure to use a steel thimble, and wind each strand a minimum of two complete turns around the body of the eye in sequence. Dead-end guy grips must only be used with seven-strand, left hand lay galvanized steel cable. Again, you need to use a thimble.

Only one cable per anchor, please. When multiple cables are installed in a tree or limb, space the anchoring hardware far enough apart to reduce the danger of splitting or internal decay.

The two most common cabling systems are the following: Direct - the installation of a single span of cable between two tree parts, is used primarily as a preventive measure; Triangular - cabling together limbs in combination of threes. The latter provides the maximum support possible.

---

**POLARIS 2000**

"The Next Generation"

**FEATURING...**

- 53 HP GERMAN-ENGINEERED HATZ DIESEL
- 6 CYL PISTON PUMP - UDOR (OR CHOICE)
- PUMP ACHIEVES UP TO 1000 PSI - 53 GPM
- 1100 GALLON TANK CAPACITY
- TWIN HANNAY REELS - 1/2” PLUS 3/4” HIGH PRESSURE HOSE
- FMC/SPRAYING SYSTEMS GRENARDE GUNS
- MAC-ALLOY LOCKING ROLL-UP DOORS
- UNDERBED MOUNTED LOCKING TOOLBOX
- 4 TANK AIR-GAP SYSTEM W/ CONTROL VALVES
- STEEL PLUS BRASS BALL-VALVED MANIFOLD
- CONCEALED TANK DRAIN SYSTEM
- ALL EQUIPMENT FULLY CONCEALED
- H.D. CONTINUOUS WELD STEEL FRAME
- SUPERB DESIGN & CONSTRUCTION
- 50 GAL. CUSTOM MIX TANK OPTION
- TANK WARMING CIRCULATOR OPTION

**WHAT THIS MEANS TO YOU...**

- GREAT CURB APPEAL"FRIENDLY" NON-MENACING LOOK
- SPRAY TO HEIGHTS OF 110 FEET
- GREAT RELIABILITY & LONG SERVICE PROTECTION
- HIGH RESALE VALUE
- PRODUCTION CAPABILITY OF OVER $2000/DAY
- IN SERVICE NOW WITH INDUSTRY GIANTS
- BRING WHAT YOU NEED TO EVERY JOB
- BE THE ENVY OF YOUR ARBORISTS ASSOCIATION
- CUSTOM CONFIGURATIONS AVAILABLE
- AFFORDABLE FINANCING OR BUY OPTIONS

(AS SHOWN: 1998 ISUZU FSR CHASSIS)

**GreenPro**

Sprayers • Organics

**800-645-6464**

Please circle 25 on Reader Service Card

TREE CARE INDUSTRY - MARCH 1998
What’s Your Human Resources Quotient?

The major cause of turnover is attitude—of management, foremen and employees. Change attitudes at your company and you will change the rate of turnover.

By Ward Peterson

We all want a higher level of sales and skilled employees with good attitudes who work hard. Yet, how do we attract and keep those employees? Turnover is a fundamental cost in tree care. If we can reduce it, we can affect our “human quotient.” If we can keep the people we train, we can do more work in a better way at a reduced cost. The major cause of turnover is attitude—of management, supervisors and employees. Change attitudes at your company and you will change the rate of turnover.

What’s ahead

In the future the workforce will be better trained, more diverse, better paid, more productive and less tolerant of poor management. Only the companies with better management, more extensive training and higher salaries will survive.

There will be more emphasis on communication skills. Our clients want to know what’s happening on their properties from someone who can explain it to them clearly. We want potential clients to view us as affordable, but we are not going to do that by finding “cheap” people. We have to achieve that with productivity. How? By finding people who use the information they have and the resources we give them.

Right now, the demand for residential sales is increasing. Studies by the National Arborist Association show an increase of 10 percent each year. Baby boomers are starting to mature and are looking for services that will save them time or make them more comfortable. People are working harder, so they have more money than time. They want to use their money to pay others to take care of things that their parents did for themselves in the past.

There’s no telling where the utility industry will end up. It is grasping for solutions and looking for more production with lower costs. The formula that has been used in the past (hours x material x labor) could be applied to rate increases. Now with deregulation, they are scrambling for short-term solutions. That’s not a good idea, since trees keep growing. They might be able to defer some expenses, but you simply can’t defer forever. As an industry, we’ve been low-balling utilities, and they’ve gotten used to it. Too often, cost-cutting has come at the expense of labor. When we need to reduce costs, we hold the line on wages. That can’t continue.

The business environment is changing, and it’s changing even faster as we go along. There is more chaos, more uncertainty. As managers and owners, we are working in the same environment as our employees. We should expect change in how we work with employees and their skill-sets. We need employees who can adjust to change in the environment.

Turnover affects productivity, because new people aren’t immediately as capable as the people they replaced. It also affects morale, since employees value their co-workers. Part of what people enjoy about their jobs is having good co-workers. As these people leave, we have a compounding problem—we’ve lost people and those who remain are more dissatisfied. All of this increases recruiting and training costs, which are getting higher each year.

Who works in the industry?

The industry’s current turnover rate is about 81 percent (we have to hire 1.8 people for every person that we have on our workforce every year). It’s an exorbitant expense. The national average across all industries is 8 percent to 12 percent.

My company took an in-depth survey, conducted in 1992 by CRA of Valley Forge, Penn., asking why people left; some of their answers were pretty surprising. Normally, you would think people leave because we didn’t pay them enough. We found that was often the reason, but it wasn’t the biggest one. The primary reason related to management.

We took 100 people in the workforce who had been hired within a year. Fifty had
been terminated with no bias, and 50 were still employed. The survey firm called and asked them:

- why they left;
- why they stayed;
- what they had liked about their jobs;
- what they had disliked about their jobs.

In the study, the vast majority of people left within 90 days. We seem to hang on to a core of people, but to keep one we might bring in three or four who last two weeks. That’s the problem we wrestle with in our industry, and we are trying to find out why. What we’ve realized is that we do have answers, but they are not easy.

Here’s what we found: typical field employees were in their 20s, have a high school education, haven’t yet started a family, are in a household with more than one person, and are a significant contributor to the household income. This means their wages are important. They smoke, but don’t drink heavily. They enjoy outdoor activities and, of particular importance, had relatively little experience working in teams. They tended to participate in hunting or fishing activities, but fewer were involved in team sports. In fact, they were unlikely to be “team players.”

These characteristics affected the expectations of their jobs and how they get along with the crew. An interesting finding: one of the greatest correlations regarding whether someone stayed or left was their impression of the foreman. It wasn’t the commute, hard work or anything else that mattered most. If they spoke well of the foreman, they stayed. If they complained, they left. This was a surprising correlation.

Those surveyed also had an equipment focus. If they liked the equipment, they liked the job. The ones who left consistently didn’t like the equipment. There was no difference between the people who stayed or left in terms of age, education, previous experience, etc.

Terminated employees complained about poor working conditions and a lack of stability. Stability came up frequently in our study. The ones who continued on the job talked very positively about their co-workers. They enjoyed working with them and felt a lot of support. They were attracted to the industry more than to an individual company.

Some common factors

All of the people we surveyed expected hard work, and not many complained about the difficulty or the workload. They all had favorable first impressions, which is very important. The first day on the job is something that sticks in your mind. They were all dissatisfied with pay, although most people are. Even those employees who stayed felt benefits weren’t sufficient. This relates to stability. The lack of benefits seems to suggest a lack of stability.

We ran our survey through statistical analysis to see the correlations. Let’s refer to the foreman mentioned earlier. The foreman’s impact was one of the strongest. When we began, we assumed that items such as money and benefits would be the most important, but we didn’t realize how much impact a foreman has. If you think about it, it makes sense. The foreman sets the stage for the operation of the crew when it’s out on the job. If that person is motivating, fair, easy to get along with and concerned with employees, you have people who stay.

For example, you have a good foreman who you use to train new employees. They bring new people along and do a much better job than other crew leaders. When I first started in tree care, there were two
foremen who kept track of who could drive away the most employees. They were rugged, macho, and figured anyone who couldn’t stand up to it, well, they better get out now. One was better at losing employees, although I thought he was a good foreman. He was an MP in the army for eight years, and had a way of communicating that you had to get used to.

That may have been fine in the old days, but you aren’t going to be able to do anything like that in today’s job market. Today’s employees think, “I’m going to go find something else. I don’t have to put up with it. This isn’t fun. Goodbye.”

Our study also found employees who stayed had a commitment to the industry and were looking at tree care and arboriculture as a career. However, and this is important, they didn’t have a commitment to a company. They didn’t plan to stay with the company for 30 years; they didn’t mind going from one company to the next. Co-worker support was very attractive to them and equipment and safety were major concerns.

Why are people interested in tree care?

A friend’s referral was a frequent reason or recruiting source. If you have someone good working for you and they bring in a friend, it usually works out. Some replied that they needed a job—that’s pretty obvious. Others liked working outdoors.

What did they like most about tree care?

1. Co-workers
2. Being outdoors
3. Flex time (having control over when they worked)
4. Pay and benefits (They also complained about the pay and the benefits, but said they liked them. Apparently, even though they wanted more, they liked what they were getting.)
5. Good bosses.

What did they like least?

1. Supervisors
2. Working Conditions
3. Commuting
4. Bad equipment
5. Unstable pay (not knowing from paycheck to paycheck what they were getting)

Why did they leave?

1. Better money
2. Job closer to home
3. Temporary or seasonal work.

Attracting the future

High school kids are skeptical about our industry, and much more interested in computers and high tech. There is a lot of academic and social pressure to enter a high tech field. We have to start working more with the high schools and showing students how valuable and rewarding this career can be. There isn’t much recognition of horticulture or arboriculture. Urban forestry is not seen as a desirable profession. High school and college counselors are telling people not to get into the industry, citing low wages
VERSALIFT®

VO-250/255

- 270° upper boom articulation
- 125° lower boom articulation
- Up to 400 lb. platform capacity
- No chains or cables at the knuckle
- Non-lube bearing at all pivot points

Redefines the Tree Care Aerial!

All new, and ready to go to work! These new VERSALIFTS give you more side reach, more articulation and more platform capacity than ever! From its new 4-plate high strength steel lower boom, through its unique 4-bar linkage at the knuckle to the new, cleaner boom tip, it was totally designed for the tree care professional.

To make money for you, any tool must work and VERSALIFT offers you the most maintenance-free aerial on the market, with expanded inspection intervals, no overhaul requirements and a 10-year structural warranty!

See your VERSALIFT Distributor to set up an on-site demonstration or call:

254-399-2100

P.O. Box 20368 • Waco, TX 76703-0368 • 254-399-2651 (fax)

Please circle 73 on Reader Service Card
Hey, when I'm top side, I want Tools That Work!

The pros have relied on A.M. Leonard since 1885!

For hard working, long lasting and priced right Tools That Work, call A.M. Leonard.

For a FREE catalog call 1-800-543-8955 or mail the request below.

C.A.G. GIVES YOU THE FINANCING POWER!

For Financing or Leasing, C.A.G. Corporation Understands Your Business and its Challenges.

Start Up Companies or Less Than 3 Years In Business.
Past Credit Problem? No Problem!

Call Now For A FREE No Obligation Application!
1-800-932-CASH
Ask for Tony Costalas

A positive relationship with the foreman will determine whether someone stays. Employees need to feel part of the team. They value their co-workers. A friend’s recommendation doesn’t necessarily lead to long-term careers. It is a major source of employees, but not necessarily of ones that stay. And a strong equipment focus contributes to overall satisfaction. If your employees are happy with these items, they will be more satisfied with the job.

Ward Peterson has more than 20 years experience in the tree care industry. He is manager of business development for the Davey Resource Group, a division of the Davey Tree Expert Company. This article was excerpted and adapted from a seminar presented at TCI EXPO '97.

**Snapshot of workforce**

Forty-five percent have some college education, 40 percent are high school educated, and 15 percent are high school dropouts. The image counselors are giving is wrong—we are not an industry of uneducated people. Years ago, it was different—half had not finished high school. This is part of the image we need to change. We need alternatives to college education and ways of training people outside of college. At colleges, we need formal arborist training, more seminars, more on-the-job training, more training tools, more “directly applicable” training such as tree diagnosis and plant pathology.

**What would make it easier to stay?**

We thought the answer would be money. To be honest, that’s a demeaning view of our employees. Think about it. You are not in this industry because of a paycheck. What employees are looking for is better communication. They want to know what is going on, where things are headed. They want to be “in” on things.

Look at that interest as a positive. Having employees who want to know more about what we are doing is beneficial. They want better equipment, which I interpret as wanting to do a better job. They want to do more, do it better and do it easier. They wanted increased benefits and are looking for steady working conditions.

**Conclusions**

A positive relationship with the foreman will determine whether someone stays. Employees need to feel part of the team. They value their co-workers. A friend’s recommendation doesn’t necessarily lead to long-term careers. It is a major source of employees, but not necessarily of ones that stay. And a strong equipment focus contributes to overall satisfaction. If your employees are happy with these items, they will be more satisfied with the job.

Ward Peterson has more than 20 years experience in the tree care industry. He is manager of business development for the Davey Resource Group, a division of the Davey Tree Expert Company. This article was excerpted and adapted from a seminar presented at TCI EXPO '97.
HELP WANTED

Almstead, Inc. - Our continuous expansion leads us in the pursuit of career-oriented professionals in the tree care industry. Supported by a 32-year reputation for total quality, we truly stimulate growth potential in a team atmosphere. The following positions in utility and residential arboriculture are available in the Northeast. All positions offer an excellent compensation package. Sales Representative • Tree Care Foreman • PHC Technician • Utility Supervisor. Forward resume to Human Resources, 58 Beechwood Ave, New Rochelle, NY 10801, or fax to 914-576-5448.

Foreman. Well-established residential and commercial company in Houston is looking for experienced foreman. Arborist certification and good driving record a plus. We are a drug-free company and offer excellent wages. Job stability. Send resume to P.O. Box 38038, Houston, Texas 77238.

Exciting Career Opportunities for Vegetation Managers
Rapidly growing Vegetation Management Company is looking for experienced Division Managers to work out of our regional and branch locations throughout the U.S. Must have a minimum of two (2) years experience in Vegetation Management and/ or a degree in horticulture / arboriculture / urban forestry or related field. Must be self-motivated, decisive, creative and have strong organizational skills. We offer: excellent starting salary, company paid health insurance, excellent working environment, bonuses, vacations, 401(k) program. For career opportunity and confidential consideration, send or fax resume, including geographic preferences and willingness to relocate to: DeAngelo Brothers, Inc., Attention: Paul D. DeAngelo, 100 North Conahan Drive, Hazleton, PA 18201. Phone: 800-360-9333; Fax: 717-459-5500. EOE / AAP M-F.

Operation Managers. A quality utility tree trimming company is looking for self-motivating operations managers throughout the US. Strong leadership skills a must. Ability to work as a team. Good driving record is required. Vacation, 401(k), dental and health insurance. Salary commensurate with experience. Send resume to P.O. Box 38038; Houston, Texas 77238.

Complete Tree Service For Sale in Oregon. Trees for Less, Inc. Established in 1990. It is a complete tree service performing tree and shrub trimming, chipping and stump grinding. The business covers Salem, Albany, Corvallis, Dallas, Independence, Monmouth, and Portland areas. The business is for sale and includes all inventory and customer base. Owner is available for training if needed. For a more complete package, please contact Jerry Blackburn at FIRESIDE REALTY, 503-391-9989 or 888-591-9989. Fax: 503-391-7842.

ACCOUNT MANAGER

Arbor Care, a division of Environmental Care, Inc., is seeking a qualified Arborist to manage field operations out of our San Jose, California office. Ideal candidates will possess excellent arboricultural, supervisory and interpersonal skills as well as proven competence in basic administration, writing reports, and communicating with clientele. Excellent benefits package includes 401K, health, dental, holidays, vacation, company vehicle, and salary. EOE M/F.

Candidates interested in joining our San Jose team should call Craig Lingquist @ Arbor Care (408) 453-5922, fax resume to (408) 437-1817 or apply online at www.envcare.com

Winner of 4 Excellence in Arboriculture Awards!

SCHODORF
885 Harmon Avenue, Columbus, OH 43223
Call Tom Siefert at: 1-800-288-0992

Please circle 6 on Reader Service Card

Forestry Body Builders Since 1944

Capacity From 12 3/4 to 35 Cubic Yards!

STANDARD FEATURES:
60" in Height
Double Panel Tailgate
3 Die Formed Corrugations in Front & Side Panels
All Galvanneal Construction
40% More Welding for Added Strength
Quality Sherwin Williams Acrylic Finish
High Security Lock Rods on Tool Box Doors
Chassis Available . . . And More!

OPTIONS:
Removable Aluminum Roof • Dump-Thru Lift Gate
Customized Heights • Extra Tool Boxes

Please circle 63 on Reader Service Card

Experienced foreman/climber needed for growing northern Virginia tree service. Great pay and benefits for qualified people. Call VTM Arborists at 703-818-9484 or fax resume to 703-818-3110.

Climber/Foreman wanted by established (20yr) Seattle area tree service. Excellent compensation (DOE) and benefits for organized, reliable, and productive individual. Year-round work with overtime and personal recognition. Heavy into removals with better-than-average equipment. Good driving record required. Drug-free workplace. EOE Pacific Tree Service. Phone: 425-485-6535.

Safety Coordinator/Residential Manager position available for an established northern New York utility company that continues to grow. Salary and benefits negotiable. Call 315-386-8273 or fax 315-386-8331. Send resume to: Tamarack, PO Box 769, Canton, NY 13619.

Experienced, self-motivated tree climbers wanted by suburban Boston, MA tree & landscape company. Arborist certification, CDL and pesticide license preferred but not required. Company-sponsored training and education programs, health insurance and paid holiday/vacation days available to career-minded, quality-oriented workers. Relocation assistance available. Fax your resume to 617-630-5273 or call Mon-Fri 7a.m.-4 p.m. 617-965-8820 for an application.

Experienced Tree Care Specialists-Chicago North Shore. Full service tree care and landscape firm serving exclusive, residential clients has various positions in management & production. Superior compensation & benefits package. Contact Robert Kinnucan at: 28877 Nagel Court, Lake Bluff, IL 60044. Tel: (847)234-5327; Fax: (847)234-3260.

FLORAPERSONNEL INC. In our second decade of performing confidential key employee searches for the landscape/tree industry and allied trades worldwide. Retained basis only. Candidate contact welcome, confidential, and always free. 1740 Lake Markham Rd., Sanford FL 32771. Phone (407)320-8177. Fax (407)320-8083.

Utility Vegetation Managers & Arborists for Western U.S. & Pacific Rim assignments. Implement electric utility veg. mgt. programs. Min 5 yrs. experience. Certified Arborists, electrical utility experience & arboriculture or forestry degrees preferred. 7+yr. directly related experience in lieu of degree. US Citizenship may not be required. Fax/E-Mail resume to: 808-523-3435 Att: Shawn Scribner (shawn@prostaffing.com). Mail to: ProStaffing, Inc., 841 Bishop St., #420, Honolulu, HI 96815 and visit us @www.prostaffing.com

Come grow with us. We are a full service tree care company that is willing to train individuals in general tree care. We have openings for general tree care, climbing, PHC, and sales positions throughout the metro areas of Chicago, Connecticut, New York, New Jersey, Virginia, Maryland, and Washington, D.C. We offer training and advancement potential for individuals that are willing to put forth extra effort to help themselves and the company succeed. Our company offers excellent benefits and competitive wages. Please call or send your resume to: Beverly Strom, The Care of Trees, 2371 S. Foster Avenue, Wheeling, IL 60090. Phone: (847)394-1596. EOE

1998 This year, Fred Marvin introduces its own line of fiberglass poles and pole extension couplings. The craftsmanship of these new products is second to none. Like Marvin pruners and saw heads, Fred Marvin Associates stands 100% behind its product.

330-784-9211
Call for A Brochure
Please circle 37 on Reader Service Card

Are You A Natural?
Then consider joining our winning team!
We have positions available for:
Branch Managers
Operations Managers
Sales Representatives
Plant Health Care Specialists
General Tree Care Specialists
Lawn Care Managers/Specialists

We have branch offices located in
NY (Westchester County & Long Island)
MA (Cape Cod & Suffolk County)
NJ (North, Central & South)
CT (Fairfield County)

with expansion plans throughout the northeast & beyond!
We offer excellent salary compensation and benefits package. Please send/fax resume to:
SavATree
Attn: Human Resources
265 Adams Street
Bedford Hills, NY 10507
FAX (914) 666-5843
Phone 1-800-666-4873

SavATree
Spray, Trim & Shed Care, Naturally

Please circle 61 on Reader Service Card
Altec Industries, Inc. Used Equipment Center offers Quality Pre-Owned Aerial Lifts for the Tree Care Industry

Did You Know?
Altec Industries, Inc. has over 350 used pieces of utility equipment located throughout the United States. Although many aerial lifts look the same, they can be very different in operation, utilization, and price. Altec used equipment associates are trained to assist you in finding the right piece of equipment for your operation. Altec’s experienced sales associates coupled with 68 Mobile Service Technicians located throughout the United States and over 1,900 associates located across the globe add up to the kind of support your company needs, and deserves.
95-3120 1996 Ford F800, diesel, manual 6-speed, hydraulic brakes, with an Altec LR1155 (03968H1259), 60' working height, single platform, behind cab mount, dump body, overcenter, Unit refurbished RTW. $70,500.00

95-2075 1990 Ford F700, diesel, 5/2 manual, hydraulic brakes, with an Asplundh LR-50 (910071), 55' working height, overcenter, single platform, mounted over rear axle, Unit refurbished RTW. $51,000.00

95-2125 1987 Ford F700, gas, 5/2 manual, hydraulic brakes, with a Teco Saturn (2657A609), 56' working height, one-man platform, behind cab mount with dump body. $26,500.00

95-3002 1985 Ford, diesel, manual 5/2, hydraulic brakes, with a Hi-Ranger 5F1-48PBI (11842727), 53' working height, two-man platform, behind cab mount. $29,000.00

95-3187 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. Unit refurbished RTW. $52,500.00

95-9588 1986 Ford F8000, Cat diesel engine, manual trans., with an Asplundh LR50 (795184), 55' working height, overcenter operation, lower boom insert, multilever controls, chip dump body with saddle boxes. PTBD

95-2180 1988 Navistar 1754 diesel, T-243, air brakes, with an Altec AA600 (0987-J121), 56' working height, over rear axle, two man platform, flat bed body with through box. Unit refurbished RTW. $52,000.00

95-3124 1985 GMC 7000, gas, manual 5/2, hydraulic brakes, with a Hi-Ranger 5F1-52PBI (2851 2886), 57' working height, over the rear axle, two man platform, flat bed body, Unit refurbished RTW. $38,500.00

95-1946 1986 Chevrolet C70, diesel, 5 speed, hydraulic brakes, with a Hi Ranger 5F1-52PBI (3768001), 57' working height, single platform, over the rear axle mount, Unit refurbished RTW. $30,500.00

95-1949 1984 Chevrolet C70 diesel, 5-speed, hydraulic brakes, with an Hi-Ranger 5F1-52PBI (3768245), 57' working height, flat bed body, Unit refurbished RTW. $34,500.00

Why buy from Altec Industries?

In addition to being the largest manufacturer of Utility Equipment in the world, Altec is the only direct manufacturer to offer the market a large selection of Quality, Pre-Owned Aerial lifts across the country with features such as:

- all insulated aerial lifts will have a current dielectric test.
- all operational chassis will have a current DOT (Department of Transportation) performed from an outside source.
- all RTW units will be offered ready to work (RTW) units. Altec offers a 45 day written warranty on the unit supported by Altec Mobile Service Technicians at your location.
- an Altec outside Account Manager will come to your location and perform an In Service (upon request).
- aerial lifts are tested visually and operationally to ensure proper and safe operation.
- units are reviewed for any outstanding updates or Mandatory Action Bulletins (MAB's).
- units undergo standard, formalized, documented check out procedures before delivery.
- advertising is based upon serial and work order number to assure you units are available.
- customized fly-in program to allow you to see and demonstrate the actual unit(s) you need.

Let the professionals at Altec Industries, Inc. assist you in locating your next unit.

Contact us today for a quote that meets your needs

1-800-95-ALTEC
205/620-3500
Se Habla Español
Check out our current inventory at www.altec.com

One Company. One Source. Since 1929

Birmingham, AL • Indianapolis, IN • Plains, PA • Pomona, CA • St. Joseph, MO

Please circle 3 on Reader Service Card
One of Chicagoland's largest and fastest growing tree care companies, located in the western suburbs, is now hiring Field Foreman and Tree Trimmers/Climbers. Experience desired but will train outgoing, career-minded applicants. We offer paid health insurance, paid vacations/holidays, and company-funded profit sharing. Interested candidates should either send resume or call to schedule an interview. Kramer Tree Specialists, Inc., 701 Church Street, West Chicago, IL 60185. Phone: 630-293-5444; Fax: 630-293-7667.

JASO TREE SERVICE, INC. - A long-standing tree company serving the Tri-County area since 1928. A drug-free environment, dedicated to continued education. We are looking for a pesticide applicator/spray department manager. We are a full-service tree company and need someone with a strong will to succeed. Degree helpful but not necessary. Good driving record and CDL a must. We have excellent benefits, paid holidays, vacations, retirement, and health insurance. Wages are open for discussion. Please call 248-391-0030 for an appointment. We are also looking for spray technicians, tree trimmers, and ground persons. Valid driver's license and a good driving record applies to all applicants!

Tree Care Specialist Increase

Your Revenue!

- Hauling Contracts
- Heavy Loading
- Storm Cleanup
- 1 Man Operation
- Dump Body
- Reduces Workers Comp Costs
- $65K Chassis, Loader & Body

Call 1-800-930-Load For more information!

Petersen's "Lightning Loader"

Call 1-800-930-Load For more information!
Carlton Model 3500-4
Self-Propelled, 35 Horsepower, 4-Cylinder Wisconsin Engine

Completely New

Your Toughest Stumps Just Got Easier

From the same company that brought you Suspension, Remote Control, and Hydraulic-Controlled Self-Propelled Stump Cutters comes the new standard in self-propelled Stump Cutters. The all new Model 3500-4* combines the portability of backyard machines with the power of tow-behinds to create an extremely productive stump cutter.

* Patents Pending

For more information call 800-243-9335

121 John Dodd Road • Spartanburg, South Carolina 29303
800-243-9335 / 864-578-9335 • FAX 864-578-0210

Please circle 15 on Reader Service Card
Salesman/Foreman for fertilizer and spray accounts. Small company, large customer base—3,000 to 4,000 to be marketed. For more information, contact Holbrook Tree Service, 252 Union Street, Yarmouthport, MA 02675. Phone: 508-362-8058.

Climber/Foreman Wanted in Stowe, Vt. Seasonal position. Ski the rest. Must be able to perform all aspects of tree care. Landscaping skills a plus. Pay is above average for a ski town. No traffic, no crime, lots of mountains. Send resume to: Stowe Tree & Landscape Service, Inc., P.O. Box 1557, Stowe, VT 05672.

Sales Representative
New Orleans-based company is seeking a quality minded Sales Representative with experience in the Arboricultural field to service our residential clientele. We are looking for a self-directed, motivated individual who enjoys working in a professional team environment. Our firm is locally owned and has been in operation for more than 40 years providing the highest quality services and products to the community. Our company is growing, expanding and diversifying into new areas of the green industry. Come grow with us, real advancement opportunity awaits the individual who is serious minded. We are offering a solid salary and benefits package for this position. Your first benefit is obvious, come and live in one of the greatest cities in the world - New Orleans, Louisiana! Please submit your resume for consideration. You may fax it to us at 504-488-9177 or mail to: Human Resource Director, 3518 Broadway St., New Orleans, LA 70125.

Guardian Tree Experts, Inc. seeks a motivated tree care professional to work year-round, 7:30 - 5:00, Monday-Friday as a Tree Trimmer in our Northern Virginia or Rockville, Maryland office. We have served the D.C. Metropolitan area since 1961. Excellent pay and benefits package, including a 401(k) retirement program, paid holidays, sick leave and vacation, bonuses, group health and disability insurance plan. Applicant should be willing to work towards becoming ISA certified tree climber or certified arborist, a CDL holder and CPR-First Aid certified. To join our team of safe-working professionals, please call 703-256-3291.
PLANT HEALTH CARE SPECIALIST - Growing company with over 20 years impeccable service in affluent Fairfield County, CT seeks self-directed, motivated individual to coordinate and administer established PHC Program. Must have pesticide experience and license, degree a plus. Salary and % negotiable. Benefits package (medical & dental) and pension plan. We offer a drug-free environment. Please contact O'Neill's Tree Care, PO Box 2387, Darien, CT, 06820, 203-655-7865 or fax resume to 203-327-5455.

COME TO OREGON and join a quality company and a winning team. Morton Tree, Inc., based in Portland, is currently hiring for the following position(s): climber, crew leader, sales estimator & field foreman. We have excellent wages and benefits with opportunities for advancement. We are a drug-free workplace. Interested? If so, give us a call at 503-636-7902.

POSITION WANTED  Certified arborist, established and experienced, desires long-term salaried position in sales, management, production or combination. Prefers Mid-Atlantic area; will consider relocation. Information: (301) 961-4608.

FOR SALE  Replacement Fiberglass Booms, Buckets and Accessories and Polyethylene Bucket Liners for most brands of bucket trucks-repairs too. Each boom, bucket and liner is dielectrically tested. Bucket inserts are imbedded in the fiberglass-not bonded on. Every boom-not the first one or a sample-is structurally tested. For best price, quality in workmanship, and fast delivery, call Plastic Composites Corp., Fort Wayne, IN (800) 747-9339, FAX (219) 483-2532.


RO Crane 8 ton 57 feet of boom plus 15 foot jib on 73 IH gas job. Very low hours, $15,000. J.D. 450B Track Loader w/JRB coupler, 4-in-1 bucket, log forks, w/clamp. Trades considered. Call 203-268-8994.

Take the risk out of used equipment purchases with our MONEY BACK SATISFACTION GUARANTEE! Excellent selection of 6-inch to 17-inch capacity hydraulic feed drum & disc chippers, rotary drum chippers and all sizes of stump grinders! Nearly every make and model available with competitive financing to qualified applicants. Alexander Equipment Co., 1054 N. DuPage Ave., Lombard, IL 60148. Call us at 630-268-0100 or visit our web site at www.alexequip.com to view our complete inventory list.


Before you buy any firewood equipment, call the people with real experience—in the woods and in the shop. Valley Processors, Inc. (413) 253-4887 days, (413) 253-2091 evenings. Ask for Jeff.

Can your stump cutter operate for $3 an hour and go anywhere? Ours can. The Alpine Magnum weighs just 88 lbs., can operate near fences, walkways, buildings, and sidehills. It can clear brush, dig shallow trenches and maneuver over soft ground without making tire tracks. Call or write: Alpine Machine, 7910 Thornbury St. S.W., Olympia, WA 98512-2368. (360) 357-5116.

Ropes, Ropes, Ropes
All types and brands of professional climbing and lowering arborist ropes at warehouse prices. Call for current price list. Free shipping. Visa, MC, A. Small Ad - Big Savings 1-800-873-3203.


FOR SALE: Stump cutter, 1990 Rayco 1675 DXH, Duetz diesel, 10.00-20.00 tires, many spare parts and teeth. Excellent condition. Call 216-447-3454; Fax 216-447-9821.

1988 ALTEC LINEBACKER MODEL LB650 - 55 ft mounted on a 1988 GMC F700 bucket truck with chip dump - $25,000. For info., contact Ajax Tree (MA) at 508-629-5110.
USED EQUIPMENT
Model 100 Ford 6-cyl. engine; Model 100 gas engine; Model 65 Wisconsin 30-hp engine w/2-inch ball hitch, painted yellow, hour meter, engine cover, hyd. lockable filter cap, auto feed speed; Model 90W Cummins 4.3L, GMC 483.9, 76-hp engine w/45-inch wide infeed chute; 1995 Model 200+ 4.3L, GMC 120-hp engine w/surge brakes, hyd. lift cylinder, hyd. winch, auto feed, steel tool & battery box, heavy duty tailgates, cone holders, chock holders; 1995 Model 250 Cummins 116-hp engine w/turbo II pre-cleaner, hyd lift cylinder, hyd. jack stand; Model 280 Cummins 48TA3.9 engine painted yellow w/pintle hitch, 30" folding infeed, live hydraulics, hyd. lift cylinder, hyd. swivel discharge, lockable filter caps, auto feed speed; Model 280 Cummins engine w/pintle hitch, breakaway brake actuator, 9000# torflex axle, auto feed speed, 60 gallon fuel tank, hyd. lift cylinder, hyd. pressure check kit, twin disc clutch, castor wheel, hyd. swivel discharge, 1000 watt engine block heater, cone holder, power band belts, mud flaps, radiator guard; 1991 Model 1250 Cummins 200-hp engine painted yellow w/hyd. lift cylinder, auto feed speed governor; 1992 Model 1254 Cummins 200-hp engine w/pintle hitch, painted std. yellow, Turbo II pre-cleaners, knife clamping system, special discharge - 1/4-inch thick higher radius, hyd. lift cylinder, electric brakes; Model 1254 200-hp engine w/hydraulic lift cylinder, painted green, lockable instrument panel, auto feed speed governor, lockable fuel & hyd. tank; 1994 Model 1250 Cummins 200-hp engine w/hyd. swivel discharge, rear jack stand, amber warning light, 60 gallon fuel tank, fuel & hyd. sight gauges, 110-volt, 12" enclosed discharge; Model 1250/14 Cummins 200-hp engine w/400-gallon fuel tank; Drum Bandit w/Torflex axle; 1990 Model 1400 Cummins 200-hp engine w/knife clamping system, hyd. front stabilizer; Model 1400 Cummins 200-hp engine w/pintle hitch, painted yellow, knife clamping system, Rotobec continuous rotation, hyd. powered winch, chrome rims, hyd. tongue jack; Model 1900 Cat 3406TA 400-hp diesel engine w/joystick controls, 3 knife disc, Rotobec 360-degree rotation grapple, Sy-Klone pre-cleaner, hyd. joystick controls; Eeger Beever Cummins 483.9 engine; 1985 Morbark Eeger Beever Wisconsin, gas, 65-hp engine w/curb feed; 1987 Super Beever Model 16 Cat 250-hp engine; 1969 Asplundh Ford 4-cylinder engine; 1974 Asplundh 12-inch drum Ford 6-cylinder engine w/Chipmore; 1979 Wayne 16-inch Chrysler 8-cylinder engine; (2) Wayne drums; (13) Mitts & Merrill 6-cylinder, gas, torque engine; Mitts & Merrill torque engine; (6) Mitts & Merrill 6-cylinder, gas, engine w/torque converter; (13) Mitts & Merrill 6-cylinder gas engine; 1981 Chipmore Drum; (2) 1982 Chipmore Drums.

For further information, please contact Bandit Industries, Inc., 6750 Millbrook Road, Remus, Michigan 49340. Phone: 800-952-0178; Fax: 517-561-2273.

FMC Rotomist 100K - 300 gal. tank, 20 G.P.M. pump. Excellent condition. Only 250 hours - $12,500. FMC-660D - 60 G.P.M. - 1000 gal. tank. 37 hp Wisconsin. Very low hours, great shape - $12,000. Call O'Neil's Tree Care, Darien, CT., 203-655-7865.

Hardware and software by an arborist for the arborist. For more information about the industry's best selling package, call or write Arbor Computer Systems, 117 Weston Road, Westport, CT 06880. Phone: 203-226-4335.

The new Valley Top Roll (patent pending) feed system makes all other processors obsolete. Faster and easier to operate. Valley Processors Inc., 413-253-4867.

Providing you with:
• Fast Reliable Service
• The Right Tools for the Job
• Expert Advice
• A Great (Free!) Catalog
• Professional Tools for the Tree-Care Industry: Hand Tools to Climbing Gear, Pruning Supplies to the Latest Diagnostic Equipment.

Call Now! 800-441-8381
or fax: 888-441-8382

AMERICAN ARBORIST SUPPLIES, INC.

He works hard so your hard work pays off.

Dick Miller reviews all the latest product information, stocking his warehouse with only the best tree care supplies for you.

Please circle 4 on Reader Service Card

**ZENITH BRUSH CHIPPER KNIVES**

**Highest Quality**
**Guaranteed Lowest Price**

Move up to Zenith Cutter industrial quality brush chipper knives and save money. Guaranteed.

- Guaranteed same-day shipment.
- Guaranteed selection. Available and in stock now.
- Guaranteed industrial quality.
- Guaranteed durability. Made from the best raw materials.
- Guaranteed lowest price. Call now for all the facts about our lowest price guarantee.

We've been making the highest quality industrial cutting tools for more than 70 years. Call for a price on your chipper knives.

1-800-223-5202
Zenith Cutter
5200 Zenith Parkway
P.O. Box 2252
Rockford, IL 61131-0252

Please circle 79 on Reader Service Card
Forestry Equipment of Shelby, Inc.

COME TO THE SOURCE OF THE LARGEST INVENTORY FOR FORESTRY EQUIPMENT - SHELBY, NORTH CAROLINA. CALL US FIRST FOR COMPETITIVE PRICING!


55 ft.W.H. 50 ft. Working Height 1997 international 4700, DT466 Diesel, 6+ Trans.


55 ft. W.H. 50 ft. LR Asplundh 1984 - 1990 in stock. GMC & Ford with Pony Engine. MANY TO CHOOSE FROM

Several new and good used chassis with NEW 10-foot to 16-foot forestry bodies, including “L” tool boxes. Call now to reserve yours. Contact Tom at Schodorf Truck Body 800-288-0992. Thank you.


Hi-Ranger, 75 foot, 1984 International DT466 diesel, 5 speed, 2 speed rear, white, flat bed with pole saw box, new rubber, w/ model 6TD Hi-Ranger, 2-man bucket. All repair records kept, excellent condition, ready to work, $45K. Call 914-967-5892.

Aerial Equipment Inc. Used Equipment and Arborist Supply Specialists in the Midwest. Buy Now and Save - two 1993 Vermeer 665 Bs - diesel powered - 3 used disc chippers starting at $8,300. Call Ron or Joel for details: (847)398-0620. Wheeling, IL 60090.

Rayco 1997 Super Cutter 120 DXH (300 hours); 1995 106 DXH Stump Cutter (1300 hours); 1995 Hodges 25 hp Stump Router (75 hours), $3,800. New power pruners, list $695, sale $550 (4 only). New Echo 3400 saw, $225; 3450 Echo, $250; All Poulan and Echo products on sale. The Tree Barber. Phone: (601) 371-8733. (Wayne). Matthew 16:26.

CHLOROSIS TREE MEDICINE, GUARANTEED. Oaks and most deciduous trees. 10 minute application. Full color change in 19 days. $29/qt. postpaid. Treats 16 trees. Pin Oak Specialist, Omaha, NE 68112. 402-455-9384.

Announcing

Southern Chapter ISA and Utility Arborist Association's

Joint Conference & Trade Show

April 19-21, 1998

Trade Winds Resort
St. Petersburg, FL

Call Southern Chapter ISA for registration information at (910) 789-4747

Please circle 9 on Reader Service Card

Please circle 33 on Reader Service Card

Please circle 22 on Reader Service Card

60
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.

STRAIGHT ANSWERS ON ANSI A300

RETAIL: $90.00; NAA & ISA MEMBER DISCOUNT PRICE: $60.00
Shipping and handling: $6.50 in the U.S., $20.00 outside the U.S.
Send me ___ Pruning Videos, at $ _________ each.
Enclosed is $ ___________ or please bill my □ Mastercard □ Visa
Number: ____________________ Expiration Date: __________
Company Name: _____________________________________________
Contact/Credit Card Holder Name: ________________________________
Address: _____________________________________________________
City: ____________________ State: ___ Zip: __________
Phone: ____________________

Please mail this coupon with payment, or fax with credit card information to:
The National Arborist Association, P.O. Box 1094, Amherst, NH 03031-1094 · Phone: 1-800-733-2622; OR The International Society of Arboriculture, P.O. Box GG, Savoy, IL 61874-9902 · Phone: 1-217-355-9411; FAX: 1-217-355-9516.
BUSINESSES FOR SALE

Atlanta, Georgia established and profitable tree service for sale as a package. Several trucks, log loader, new tractor, large chipper, saws. Commercial office and lot also available. Owners are starting new business in a different line of work and need to sell soon. Willing to negotiate. This is a very profitable location and a fantastic deal. Call 770-518-0533

Established tree care business for 33 years on Maryland’s Eastern Shore. Long-term contracts and good work force in place. Year-round work with good growth opportunity. Box PL, TCI, PO Box 1094, Amherst, NH 03031.

East TN Area, 30-year-old, fully equipped, working tree service and snow removal service. $85,000. Call 423-878-5541 eves.


Drug Free Workplace?? FDA approved employer drug test kits. Use on the job for pre-employment, post-accident testing. Test for Marijuana, Cocaine, Opiates, PCP’s and AMP’s. Results in 3-5 minutes. Laboratory accurate. Low cost. To order, call toll-free 1-888-797-6800. Visit http://www.rapiddrug.com

Increase your sales and profit growth, gain better control of your business, manage unlimited customer transactions, PHC, IPM, routing and inventories, while staying ahead of your competition by using ArborWare, the business software solution for Arborist, Landscape and Lawn Professionals. Call 1-800-49-ARBOR.

NAA MEMBERS. Boost your company’s credibility. Enroll your employees in the NAA’s Tree Care Specialist Program. First five employees registered are free. Training consultation over the phone. Allows employers to certify employees. 1-800-733-2622.

Classified ad rates: $50 per inch ($45 NAA members) 1-inch minimum. Payable in advance, due the 20th of the month two months prior to publication. Send ad and payment to: TCI, PO Box 1094, Amherst, NH 03031.
It is common sense that electric wires can be hazardous to anyone doing tree work. OSHA Standard 1910.331 states that only qualified employees can come within ten feet of an overhead energized electrical conductor. Plus, OSHA Standard 1910.269 clearly defines who is legally permitted to work within the ten foot boundary. Finally, ANSI Z133.1 dictates very specific training and operational requirements that all tree care personnel need to follow for safety's sake.

NAA Training Makes Sense. The National Arborist Association has exactly the training you need, whether you are a residential/commercial arborist or municipal arborist. It's our Electrical Hazards Awareness Program. EHAP offers a simple, economical and practical way to provide training needed by your employees. This program creates awareness of electrical hazards, which is absolutely essential for all tree workers. Plus, EHAP can be used by line clearance tree workers to supplement mandatory training requirements specified in 1910.269.

Like all NAA training materials, EHAP is easy to use and easy to apply. The program is self-paced, to put your employees in control of meeting their goals, and presented by you, to keep you in control of your business. For more information about EHAP, or any NAA program, or to order, call our toll-free hotline, or send/fax the coupon below.

National Arborist Association
PO. Box 1094, Amherst, NH 03031-1094
Fax: (603) 672-2613

☐ YES I'm ready to provide my personnel with training in Electrical Hazards Awareness.
☐ I'M interested in the EHAP program. Please send additional information.

Send Me EHAP Programs for ____ enrollees, at $______ each*. Enclosed is $______
Bill my □ Mastercard □ Visa Number: __________________________ Exp. Date: ______
Contact/Credit Card Holder Name: ____________________________________________
Company Name: ____________________________________________________________
Address: _________________________________________________________________
City: __________________________ State: ______ Zip: _________________________
☐ Please send me membership information.

*RETAIL: $135.00 per enrollee; MEMBER DISCOUNT PRICE: $85.00 per enrollee. If ordering, please include a list of enrollees.

Please circle 44 on Reader Service Card
32nd National Arboriculture Conference, Technical Seminar and Trade Exhibition

"Sustainable Tree Care: The Value of a Growing Asset"

The United Kingdom’s Arboricultural Association will hold its 1998 Conference at the University of Stirling in central Scotland from Sept. 7 to 9, 1998. The annual event attracts delegates from around the world and the AA hopes that by holding its 1998 Conference in Scotland it will not only appeal to its members in the north of Britain, but also attract a larger audience from other regions and nations. The Scottish and Northern Branches of AA are among its most active, and the enthusiasm of organizers augurs well for the Conference.

A wide-ranging program is being developed that will appeal to all sectors of the arboricultural profession, and will include ample time for networking.

The program will also include an outside visit to Scone Palace, which was home to the Stone of Scone or Destiny for nearly 500 years and was the crowning place of 40 Kings of Scotland. At present the seat of the Earl of Mansfield, the medieval palace holds many treasures. The biggest treasure for arborists will be the woodland garden and pinetum planted since 1852. This was the garden where David Douglas worked as a boy, and seeds from the original Douglas firs in Oregon were sent back by him to be planted here.

Stirling itself is situated within easy reach of both Glasgow and Edinburgh Airports, close to the Trossachs, where the West Highlands meet the Lowlands. An ideal venue to combine attendance at the conference with a tour of Scotland. Those with additional time on their hands should venture further north of Scone to Meiklour, where the world’s largest beech hedge is found. It was planted in 1745, is nearly one-half mile long and over 100 feet high. It was clipped in 1989 at a cost of £16,000!

To register, call 011 44 17 94 36 87 17; fax: 011 44 17 94 36 89 76; E-mail: treehouse@dial.pipex.com.
April 18-21, 1998
ISA, Southern Chapter/
Utility Arborist Association
Joint Annual Conference & Tradeshow
St. Pete Beach, Florida
Contact: ISA at 910-789-4747, or
UAA at 217-355-9411

May 4-14, 1998
Committee for Advancement of Arboriculture
Two Week Basic Tree Climbing Course
Freehold, NJ
Contact: Dave Shaw at 732-431-7903

May 8, 1998
N.J. Society of Certified Tree Experts
Seminar and Prep Course for Tree Expert Exam
Contact: Gary Lovallo: 888-TREE-034

May 18-20, 1998
National Arbor Day Foundation
"Storms Over the Urban Forest"
National Conference on Disaster Mgmt.
Lied Conference Center
Nebraska, NE 68501-1415
Contact:NADF at (402) 474-5655

June 6, 1998
New Jersey Society of Certified Tree Experts
Seminar and Prep Course for Tree Expert Exam
Contact: Gary Lovallo at 888-TREE-034

August 17-21, 1998
ISAA '98
Fifth International Symposium on Adjuvants for Agrochemicals
There is also a Call for Papers
Memphis, TN
Contact: Allan Underwood, 901-537-7260

September 7-8, 1998
32nd National Arboriculture Conference
Technical Seminar and Trade Exhibition
University of Stirling, Scotland
Contact: 011 44 794 368717;
Fax: 011 44 794 368978;
E-mail: Treehouse@dial.pipex.com

October 7-10, 1998
American Society of Consulting Arborists
31st Annual Conference
Embassy Suites Hotel
Napa Valley, CA
Contact: ASCA at 301-947-0483

November 5-7, 1998
TCI EXPO '98
National Arborist Association
Baltimore Convention Center
Baltimore, MD
Contact: 800-733-2622

January 16-21, 1999
Winter Management Conference
National Arborist Association
Caesar Park Cancun Golf & Beach Resort
Cancun, Mexico
Contact: 800-733-2622

Send information on your event to:
Tree Care Industry, PO Box 1094,
Amherst, NH 03031.

MILLER MACHINE WORKS
POWERFUL PROVEN PATENTED PERFORMERS

PTO STUMP GRINDERS

Phone
765-659-1524

M25E M50E/M75E
30 to 90 HP

Please circle 40 on Reader Service Card

TREEX SERVICE TRUCKS
LR-50 Asphundhs
Men-Cab Units
(10) 1987-90 Ford/GMC 7000, V8 gas chip
dumps, pony Motors, new cables, etc.
All ready to go! Priced from $26,000

190 GMC Top Kick w/ Split Dump
EFIV8, 5-speed (Also: 86-89 models)

ANDY'S TRUCK CENTER
Phone: (561) 965-6666 Fax: (561) 965-6844

High Quality Equipment, As Always
Buy with Confidence!
Our 35th Year

Huge Inventory!

Delivery Available

Please circle 5 on Reader Service Card
Green Industry Associations

American Horticultural Society
E-mail: garde@ahs.com
http://email.com

American Forests
http://www.amfor.org/

American Phytopathological Society
http://www.scisoc.org/

American Society of Landscape Architects
E-mail: landnet@asla.org
http://www.asla.org/asla/

International Society of Arboriculture
E-mail: isa-arbor.com
http://www.ag.uiuc.edu/~isa/

National Arborist Association
E-Mail: 76142.463@compuserve.com
http://www.natlarb.com

National Gardening Association
E-Mail: nga@together.org
or: 76711.417compuserve.com

R.I.S.E. (Responsible Industry for a Sound Environment)
E-Mail: lawder@acpa.org

USGA (Audborn Cooperative Sanctuary Program)
http://www.usga.org/green/f2.html

USDA Nematology Lab
http://www.ars-grin.gov/ars/Beltsville/barc/psi/neml/home-pg.html

When you are through reading this month’s article on cabling, sign online and visit the Preformed Line Products (abbreviated at their site as PLP) website at http://www.preformed.com. Not only will you see interesting and eye-catching graphics, you’ll find everything you need to know about their full line of products, including links to “Product Overview,” “Power Industry,” “Communications Industry,” “Special Industries,” and “International.” Find trade show information, a list of world headquarters, U.S. manufacturing centers and international subsidiaries. Their newsletter, “Connections” is scheduled to be online soon. Allow yourself additional time to check out the many links available—it’s a site to visit that will educate and excite even the most experienced arborist and web “surfer.” There is nothing on this site to confuse or scare a novice: it’s all clear, concise and relevant information.

A brief note for those who have a bit of difficulty finding the site; we started our search for “http://www.preformed.com” and ended up at an advertising agency in Denmark. To avoid frustration, type in http://www.mckinley.com on your search line. This will bring you to the Magellan search engine, where you can type PLP Home or http://www.preformed.com on the appropriate search line. Even then, it might not be the first listing. Believe us, though, it’s worth the effort!

www.preformed.com

Vendors

ACRT, Inc.
E-Mail: askacrt@acrtinc.com
http://www.acrtinc.com

Aerial Lift, Inc.
E-Mail: aerialinfo@aol.com
http://www.aeriallift.com

Altec Industries, Inc.
http://www.alttec.com

Arbormaster Training, Inc.
E-Mail: arbormastr@aol.com
http://www.fore斯塔ps.com

Arbortech
http://www.aip.com/arbortech

Bailey’s, Western Division
E-Mail: baileys@bballeys.com
http://www.bballeys.com

Bandit Industries, Inc.
E-Mail: brushbandit@worldnet.att.net
http://www.banditchippers.com

John Bean Sprayers
E-Mail: JohnBean@durandwayland.com

Ben Meadows Company, Inc.
E-Mail: Mail@benmeadows.com
http://www.benmeadows.com

J.P. Carlton Company
http://www.stumpcutters.com

Corona Clipper
E-Mail: sales@coronaclipper.com
http://www.coronaclipper.com

Creative Automation Solutions
E-Mail: 71222.45@compuserv.com
http://www.creativeautomation.net

Cummins Engine Company, Inc.
http://www.cummins.com

CUES, Inc.
http://www.cuesnet.com

Doskocil Industries, Inc.
http://www.doskocil.com

DowElanco
http://www.dowelanco.com
(Industrial Vegetation Management)
http://www.dowelanco.com/ivm

Forest Applications Training, Inc.
E-Mail: info@fore斯塔ps.com
http://www.fore斯塔ps.com

66 TREE CARE INDUSTRY - MARCH 1998
For your prescription:
Call 1-800-221-5452
For your prescription.

Are Your Knives Making You Sick?

Please circle 57 on Reader Service Card

continued on next page
Shindaiwa
http://www.shindaiwa.com

Simonds Industries, Inc.
http://www.simondsind.com

Tanaka
E-Mail: support@tanaka-ism.com
http://www.tanakapowerequipment.com

TECO, Inc.
E-Mail: teco@cioe.net
http://www.tecointl.com

Timberwolf Manufacturing Corp.
E-Mail: twolf@sover.net
http://www.timberwolfcorp.com

Toro Company, The
http://www.toro.com

Tree Management Systems, Inc.
E-Mail: tms@turftree.com
http://www.turftree.com

Vermeer Manufacturing Company
http://www.vermeer.com

Wis-Con Total Power Corporation
http://www.totalpower.com

Wood/Chuck Chipper Corp.
E-Mail: woodchuck@shelby.net
http://www.woodchuckchipper.com

Wood-Mizer Products, Inc.
E-Mail: woodmizer@woodmizer.com
http://www.woodmizer.com

Woodsman Manufacturing, Ltd.
E-Mail: sales@treechip.com
http://www.treechip.com

General Interest

Entrepreneurs on the Web
http://www.sashimi.wwa.com/~notime/eotw/EOTW.html

Environmental Protection Agency
http://www.epa.gov

GardenNet
http://www.olympus.net/gardens/welcome.html

The Horticultural Web
http://hweb.bison.com/

Internet Fraud Watch
E-Mail: nficinternet@mci.com
http://www.fraud.org

IPM for Ornamental & Turf Diseases
http://www.efn.org/~ipmpa/diseases.html

NurseryNet
http://www.nurserynet.com

Ohio Division of Forestry
http://hortww-w.ag.ohio-state.edu/ODNR/Forestry.htm.

Chamber of Commerce
http://www.uschamber.org

Occupational Safety and Health Admin.
http://www.osha.gov/

Department of Transportation
http://www.dot.gov/

General Government

House of Representatives
http://www.house.gov/
You dreamed about running your own business one day. But you probably never imagined the risks you would face. Like the high cost of employee injuries. Fortunately, The Hartford’s Arborist Insurance Program can help you reduce workplace injuries, get your workers back on the job quickly, and control your loss costs. Ask your agent about this program today. So you can keep turning dreams into reality. **Risk. Bring It On.**

Endorsed by: [NATIONAL ARBORIST ASSOCIATION](http://www.thehartford.com/arborists)

**Get details and a free quote: 1-800-533-7824**

Please circle 27 on Reader Service Card
Trust But Verify

In his dealings with the Soviet Union, former President Ronald Reagan often used an old Russian expression, “trust, but verify,” to characterize his views in dealing with America’s Cold War rival. Evidence suggests that attitude might not be a bad one to adopt when screening employees who will be driving your company vehicles.

How detailed is your driver selection process? Do you toss over the keys to the trucks to any new hire with a valid driver’s license? Would it matter to you that the person who now has a valid license has three accidents and two DWI arrests on his record?

You shouldn’t assume that all applicants will tell you the truth about their driving records. Recent crackdowns on drivers with CDLs in a numbers of states have yielded fairly consistent results: somewhere between 4 percent and 6 percent of drivers could be classified as “problem drivers” who you definitely don’t want on the road driving your equipment.

Anyone can have an accident, but problem drivers are a menace to your business. Trust is easy, but so is verification.

Tax Time Again

Hardly a year goes by without Congress tinkering with the nation’s tax code. Last year was no exception, though this time most of the changes were favorable to small businesses. The Taxpayer Relief Act of ’97 enacted important tax changes that affect your family and business. Among the most important for you are:

- the adjusted gross income levels at which the IRA deduction begins to phase out for individuals who participate in an employer retirement plan was raised. The phase-out ranges increase each year until they level out in 2007 for joint filers at $80,000 to $100,000 (up from $40,000 to $50,000);
- a spouse who isn’t a retirement plan participant will be able to make a deductible IRA contribution—even if the other spouse is a retirement plan participant. The new break for spouses phases out for those with adjusted gross income between $150,000 and $160,000;
- The annual exclusion for up-to-$5,250 of employer-provided educational assistance has been extended and will apply to expenses paid for courses beginning before June 1, 2000.
- More of your assets can be passed on free of estate or gift taxes. The exempt amount rises from $600,000 to $625,000 in ’98, $650,000 in ’99, eventually rising to $1 million in 2006.
- If you are self-employed, your “above the line” deduction for health insurance costs (40 percent of eligible expenses for ’97), will increase to 45 percent of eligible costs in ‘98 and ’99, and 50 percent in 2000 and 2001. By 2007, the number reaches 100 percent.
- More individuals will be able to claim home-office deductions on their 1999 taxes. Qualifying home-offices will include those used to conduct administrative or management activities relating to a business if there’s no location outside the home where the taxpayer conducts those activities.

If you think any of the above changes will apply to your situation, check with a tax law professional.

DON’T EVEN THINK OF CIRCLING OUR AD!!

- Unless you’re buried alive in unsplit logs.
- Can’t figure out how anybody makes money with firewood.
- Still think it takes 40 tons of hydraulic power to split a two by four.
- Or...unless you just love a well built machine that’s better than the manufacturer claims.

To find out more—call, write or fax

GFX CORPORATION
200 Recreation Park Drive, Hingham, MA 02043
(617) 740-0350 • Fax (617) 740-0355

Please circle 23 on Reader Service Card
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Altec Industries, Inc. - Used Equipment</td>
<td>52-53</td>
<td>42. NAA - Membership</td>
<td>57</td>
</tr>
<tr>
<td>4. American Arborist Supplies, Inc.</td>
<td>59</td>
<td>43. NAA - A300 Pruning Standards</td>
<td>61</td>
</tr>
<tr>
<td>5. Andy's Truck Center, Inc.</td>
<td>65</td>
<td>44. NAA - EHAP</td>
<td>63</td>
</tr>
<tr>
<td>6. Arbor Care</td>
<td>50</td>
<td>45. NAA - Rigging for Removal</td>
<td>29</td>
</tr>
<tr>
<td>7. ArborCom Technologies</td>
<td>28</td>
<td>46. Natural Resource Technologies LLC</td>
<td>35</td>
</tr>
<tr>
<td>8. Arbor Systems LLC</td>
<td>25</td>
<td>47. Navistar International</td>
<td>Inside Front Cover</td>
</tr>
<tr>
<td>11. Border City Tool &amp; Manufacturing Co.</td>
<td>46</td>
<td>50. Omega Pacific Inc.</td>
<td>62</td>
</tr>
<tr>
<td>13. Brute Manufacturing Corporation</td>
<td>46</td>
<td>52. Peavey Manufacturing Company, Inc.</td>
<td>72</td>
</tr>
<tr>
<td>14. CAG, Inc.</td>
<td>48</td>
<td>53. Petersen Industries Inc.</td>
<td>54</td>
</tr>
<tr>
<td>17. Cummins Michigan</td>
<td>1</td>
<td>56. Preformed Line Products</td>
<td>40</td>
</tr>
<tr>
<td>18. Cutter's Choice</td>
<td>30</td>
<td>57. Rapco Industries Inc.</td>
<td>67</td>
</tr>
<tr>
<td>19. Doskoci Industries, Inc.</td>
<td>27</td>
<td>58. Rayco Manufacturing, Inc.</td>
<td>17</td>
</tr>
<tr>
<td>20. Fanno Saw Works</td>
<td>54</td>
<td>59. Royal Truck &amp; Equipment Inc.</td>
<td>8</td>
</tr>
<tr>
<td>21. First Sierra Financial, Inc.</td>
<td>Back Cover</td>
<td>60. Safety Test and Equipment Co.</td>
<td>56</td>
</tr>
<tr>
<td>22. Forestry Equipment of Shelby, Inc.</td>
<td>60</td>
<td>61. SavATree</td>
<td>51</td>
</tr>
<tr>
<td>23. GFX Corporation</td>
<td>70</td>
<td>62. SawJammer Company</td>
<td>26</td>
</tr>
<tr>
<td>25. Green Pro Services</td>
<td>43</td>
<td>64. Sharp Tool Company</td>
<td>67</td>
</tr>
<tr>
<td>26. Growth Products, Ltd.</td>
<td>15</td>
<td>65. Sherrill, Inc.</td>
<td>68</td>
</tr>
<tr>
<td>27. The Hartford</td>
<td>69</td>
<td>66. Southco Industries, Inc.</td>
<td>58</td>
</tr>
<tr>
<td>29. IML - Instrument Mechanic Labor, Inc.</td>
<td>39</td>
<td>68. TCI EXPO '98</td>
<td>32</td>
</tr>
<tr>
<td>30. IpleMax Equipment Co., Inc.</td>
<td>62</td>
<td>69. Tamarack Clearing, Inc.</td>
<td>19</td>
</tr>
<tr>
<td>31. Independent Protection Company, Inc.</td>
<td>42</td>
<td>70. Tanaka</td>
<td>35</td>
</tr>
<tr>
<td>32. International Society of Arboriculture</td>
<td>31</td>
<td>71. Terex Telelect, Inc.</td>
<td>3</td>
</tr>
<tr>
<td>33. ISA-Southern Chapter</td>
<td>60</td>
<td>72. Timberwolf Manufacturing Corporation</td>
<td>16</td>
</tr>
<tr>
<td>34. A.M. Leonard</td>
<td>48</td>
<td>73. Time Manufacturing Company</td>
<td>47</td>
</tr>
<tr>
<td>35. Leonard Teeth/Simonds Industries</td>
<td>68</td>
<td>74. Tree Management Systems Inc.</td>
<td>34</td>
</tr>
<tr>
<td>36. Lewis Utility Truck Sales, Inc.</td>
<td>45</td>
<td>75. Western Tree &amp; Landscape Supply</td>
<td>45</td>
</tr>
<tr>
<td>37. Fred Marvin Associations</td>
<td>51</td>
<td>76. Westheffer Company, Inc.</td>
<td>39</td>
</tr>
<tr>
<td>38. Pete Mainka Enterprises, Inc.</td>
<td>42</td>
<td>77. Woodsman</td>
<td>18</td>
</tr>
<tr>
<td>39. J.J. Mauget Company</td>
<td>Inside Back Cover</td>
<td>78. Yale Cordage Inc.</td>
<td>8</td>
</tr>
</tbody>
</table>

* Please circle this number on the Reader Service Card for more information.
ne extremely warm, mid-summer day, my father took me to work. My brother and I were the ground men, responsible for clean up and, of course, pleasing our customer. The day seemed long and tiresome; our bodies ached as we hauled gigantic piles of tree limbs, logs and brush. Our bottles of water acted as our life support, while we strenuously proceeded to do our part.

My father ordered the rest of his crew into the air. The full-timers put on their saddles and took hold of an arbor line. They were the climbers; their expertise enabled them to work in the trees.

"I have to go do an estimate right now, son. Keep an eye on the guys, and be sure to wear your hard hat until the job is totally done. In fact, put it on right now," my dad yelled to me from the client’s driveway.

I put my hard hat on, and told my brother to do the same. Later on, though, the scorching weather and physical activity finally caught up with me. Sweat was pouring down my forehead into my eyes, so I took off my hard hat and brushed my hair back with my hands. Then I took some water and poured it over my head. It felt great!

We finished the most difficult part of the job in five hours. I knew we had less than an hour left. When we finished raking, I grabbed as many tools as possible, and heaved them onto the bucket truck. The rakes and saws went in easily, but not the shovel. The shovel’s handle was sticking out of the dump body to a great extent. I had to push it back, so it would not fly off while we were driving, but I needed something to step on to reach it. I looked around and noticed the tongue of the chipper. This appeared to be a rather simple task, I thought to myself. I reached up and took hold of the fully stretched bungee cord that had been placed on the chipper to stabilize the chute. Without it, the chute would have a mind of its own and move when the truck was in motion. Regardless, I needed some leverage. As I stepped on the tongue and pulled myself up, the cord snapped and violently struck me on the top of my head. I went down in an instant. I felt dizzy, hurt, and extremely light-headed; I nearly blacked out. I sat up, but did not stand. I put my hand on the top of my head to feel a bump. Everything was out of focus, and I was bleeding profusely. I called for my brother and he came running; he yelled for my father. My father ran over to me, grabbed my arms and lifted me up. I could just barely see and I thought I was going to die. He helped me into his pickup truck and raced me to the emergency center.

The doctor sewed six stitches on the top of my skull. As we left the emergency room, I knew what my father was going to say. "I can’t believe the cord went right through your hard hat, son," he said sarcastically.

"Sorry, Dad. I made a stupid mistake. It was just so hot outside," I answered with a feeling of guilt. "Pete, I make the rules because I care about my crew, not because I want to be a difficult boss. You went against the rules, and you almost paid severely for it. Don’t ever do it again," he warned.

I still work with my father during the weekends and school vacations. It has been about five years since I had the accident, and I always wear my hard hat and follow the rules. My injury literally ‘knocked some sense’ into me. Arboriculture is physically demanding. Every arborist must pay close attention at all times—especially when the day is almost over.

Peter A. Kucharski works for William J. Kucharski tree service in Milford, N.H.
Spring is one of the best times to effectively treat many tree problems. MAUGET offers a "pharmacy" of plant health care products for its time proven closed micro-injection system. In minutes following application, MAUGET active ingredients become part of the tree's natural transport system. That's one reason MAUGET products have been the choice micro-injection system for tree care professionals for over 40 years. MAUGET continues to be the standard for micro-injection tree care.

**SPRING TREATMENTS THAT PROVIDE YEAR LONG BENEFITS INCLUDE:**

Insecticides, such as IMICIDE, containing Imidacloprid, the active ingredient found in MERIT® and ABACIDE, containing abamectin, provide full season control for a broad spectrum of insects including Bronze Birch Borer and Mites.

Fungicides, include FUNGISOL & CARBOJECT, which will control or suppress over 31 diseases. Fertilizers and Micro-Nutrients correct nutritional deficiencies & stimulate crown development. IMISOL and ABASOL, two powerful new products. In one single application they control a variety of insects, including Bronze Birch Borer and Mites and over 31 tree diseases. IMICIDE and ABACIDE, have each been formulated with FUNGISOL. These two unique combination products are only available in the MAUGET micro-injection system.

MYCOJECT, containing oxytetracycline, suppress bacterial diseases such as Ash Yellows, Leaf Scorchers of Oak & Elm and Fire Blight.

This spring take a new look at tree health care and think differently.
"I wanted once-a-year payments and got them!"

Call today to apply or for complete information
1-800-537-9108
Fax: 1-800-344-7712

"What I like about ArborCard" is that our customers can walk in and say, "I have the ArborCard"! They just pick out what they want and that's that. It all happens very quickly. And ArborCard's rates are very competitive."
Bill Mitchell, Aerial Lift Inc.
Milford, Connecticut

APPLY TODAY FOR YOUR ARBORCARD™
Accepted at dealers nationwide
Approvals up to $150,000 total
$75,000 max. per transaction
Fast application and approval by phone
No financial statements under $150,000
Flexible or seasonal plans for arborists
You choose the new or used equipment, dealer, and plan you want

Mike Whitsell, Two W Tree Service
Rochester, New York

"My business has a municipal contract that pays me once a year. When I went to Aerial Lift of Connecticut, they recommended financing from Corporate Capital Leasing Group. I picked out a new ALC6050 Aerial Lift mounted on an International 4900 DT466E truck. Corporate Capital helped me set up four annual payments that coincide with my contract payments. All it took was a few phone calls!"
Call 1-800-ARBORS-1 and find out how to cut your insurance costs without cutting your insurance coverage.

Our tree-insurance pros will tailor your coverage to your precise needs – and save you as much as 30% off what you're paying now!

Even if the forecast is for sunny blue skies, call Albiez today. Because it doesn't have to rain for you to get soaked on your insurance.

Call 1-800-272-6771

Albiez Insurance Agency

Arborists Insurance Specialists

Worker's Comp  General Liability  Business Auto
THE HEIGHT OF SUCCESS IS
AERIAL LIFT INC.
of Milford, Connecticut
WE WILL NOT LET YOU DOWN

Visit our Web site to link to company and product information, including our "Online Showroom"!
E-Mail: aerialinfo@aol.com
Company Website: http://www.aeriallift.com

Aerial Lift Models available from 38' to 75'

The rear mount is so compact, this vehicle can maneuver with ease through tight spaces and give additional working height.

All parts on an Aerial Lift are available for overnight delivery.

From trimming to removals, you gain the extra height by working over the rear of the truck, enabling you to set up in smaller and tighter areas.

These 55', 58' and 60 foot working height vehicles are the most compact and maneuverable for doing (GTW) General Tree Work. The overall length of the unit is approximately 26 feet.

Please circle 3 on Reader Service Card

MINI-FOOT REAR MOUNTS

AERIAL LIFT, INC.
P.O. Box 66 • 571 Plains Road • Milford, Connecticut 06460-0066
PHONE USA: 1-800-446-5438, In CT: 1-800-245-5438 • Phone: (203) 878-0694 • FAX: (203) 878-2549
E-Mail: aerialinfo@aol.com • Company Website: http://www.aeriallift.com

Aerial Lift Inc. is an authorized dealer and distributor of Greenlee Fairmont Textron® Fairmont "Limb-Lopper™" tools. For tools, parts or service call us on our 800 numbers.

The staff of Aerial Lift has extensive experience since 1958 in research, engineering and design of aerial devices. We have an engineering staff member on the ANSI/SIA A92-2, subcommittee to insure the reliability, quality and safety of all aerial lifts, that a common goal of safer, more efficient aerial devices is upheld. Aerial Lift is constantly striving to provide our customers with the latest in aerial devices and the best service in the industry. It is our relentless effort in pursuit of these goals that assures our customers maximized operating economies.

MADE IN U.S.A.