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COVER PHOTO:
TCI EXPO '93 offers great seminars for management and field people, a dozen different free demonstrations, unparalleled comparison shopping and buying opportunities, and much more. See the special insert in this issue.
One of these days, if not by the time you read this editorial, the administration in Washington is going to really begin focusing on environmental issues. We all want to be identified in the process as being a key part of environmental preservation. After all, isn’t the environment like motherhood, apple pie and the American flag? We certainly don’t want to project an image of being anti-environment.

Doing nothing with regard to any issue is often as bad as opposing it. Until recently, this industry for the most part has done nothing to improve its image as a positive influence on the environment. Tree companies get some positive press here and some recognition there, but in the overall scheme of things the industry gets just as much negative press.

It doesn’t have to be that way. There are four “P’s” that can be applied to any positive effort related to the environment: protect, preserve, perpetuate and publicize.

The National Arborist Association has started the ball rolling with its “Gift to the American People” at Arlington National Cemetery. More than 50 tree service firms and 200-plus tree workers participated in that event. Industry suppliers provided support for the project. Hundreds of trees were cared for and representatives of the administration, the Congress and the press were on hand. (Details will be reported in the November issue of TCL.) Thousands of citizens visited the cemetery that day, and as many as possible were given brochures describing what was taking place and how efforts to protect these trees contribute to their preservation and their perpetuation. Let’s hope that the industry receives plenty of good publicity from this effort.

Meanwhile, you have to do your part. You can’t depend on a trade association to do it alone and you can’t expect other tree service companies to continue to volunteer to project your image. You can connect if you are a member or participate in the next national project. That will help, but you have to project your own image locally to your clients and your marketplace. That doesn’t mean putting an ad somewhere or making a contribution to something. It means getting involved; doing something that contributes to the protection, preservation and perpetuation of the environment and seeing to it that you get appropriate publicity.

Where are you on the four P’s? You can’t say it often enough or project it far enough. You are an environmentalist and everybody needs to know it! That’s where the future is.

Robert Felix, Publisher
Carlton introduces the new Model 2000-4. This model couples Carlton's legendary quality and cutting ability with the added stability of four wheels. The new Model 2000-4 uses hydraulic steering—gone is the hassle and frustration of manual steering. The ground speed has been increased on the new Model 2000-4—getting you to the stump faster. Carlton Model 2000-4, another leading product from the manufacturers of Professional Stump Grinders.

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Lightning Protection Systems

Striking Profits

By Robert Cripe

When lightning strikes an unprotected tree, there are four probable results.

1. The tree is zapped into a million splinters and completely destroyed. Result: Tree has to be removed.
2. The tree experiences surface damage resulting in future decay and/or insect infiltration. Result: Yearly attention and treatment with the possibility of future removal.
3. Little visible lightning damage but side flash damage to a better ground in a nearby building. Result: Tree is spared but lightning damage could occur within the building.
4. No tree damage from lightning but secondary lightning surge damage to appliances, computer, TV and stereo, etc., in nearby home. Result: Damaged appliances must be repaired or replaced.

These scenarios can be avoided. Lightning protection systems in trees are more than 99% efficient and effective in preventing any type of lightning loss during a thunderstorm. This efficiency is confirmed from records of the Underwriters Laboratories and the Lightning Protection Institute.

There are many reasons why tree expert and arboriculture firms are adding lightning protection for trees as an additional service.

1. As an arboricultural professional, you plant, move, prune, feed and brace your customer’s trees. Why not protect them from future lightning damage?
2. Your customer will have more respect for your advice and concern for his trees than that of a regular lightning protection installation firm.
3. The cost of lightning protection for important trees is small compared to the historic and aesthetic value of the trees.
4. Many owners will not live to see new young trees grow to their lofty beauty. Lightning protection will save many fine trees for future generations.
5. It may cost more to remove a tree struck by lightning than to install lightning protection.
6. This additional specialized service of lightning protection can be a door opener and sales closer for you and your sales representatives.
7. The investment is small in relation to your sales volume - you already have the trucks, men and equipment. After that, the cost of adding lightning protection inventory and specialized installation tools is relatively small.
8. Many successful tree expert firms have provided lightning protection tree service to their customers for many years.
9. Profits - extra profits. We have saved this for last as an incentive for you to add lightning protection to your present tree business as a profit center.

Who provides this service?

Paul Mulkey, owner of the Tree Clinic in Charleston, South Carolina, recently added lightning protection for trees as a service. He is most enthusiastic about the potential and reports: “With a small amount of advertising, which was free because the media was so very interested in lightning protection, we received over 30 inquiries. As a result, we protected over 10 large live oaks (average age of 200 years). Additionally, because we offered something no one else was offering in tree care (lightning protection), we made contacts for jobs that I feel we would not have made otherwise. We can see an entirely new department within our company developing. Tree lightning protection has made me a believer and the bottom line is that we have increased our production.”

Says Douglas R. Hunt of Tamke Tree Experts, Liberty Corner, New Jersey: “We keep a full inventory of all copper lightning system materials so that we can install large systems at a moment’s notice. Providing top-of-the-line material gives us the ability to charge a substantial markup, making the job highly profitable.

“Since we are the installers, we also inherit all the after-care considerations for these valuable trees. Pruning and feeding these trees along with system inspections and extensions are also high-profit contracts.”

Donald O. Neff, owner of Neff’s Tree Service of Shelby, North Carolina, has increased his lightning protection business to include lightning protection for buildings and he has established another company, Southern Lightning Protection Company. “Lightning protection is a product as well as a service to sell - the increase in profit can be substantial,” he says. “Also, lightning protection can, in many cases, be installed during routine tree trimming procedures, labor cost can be lower and the potential for fees resulting from consultations can help increase profit.”

Jerry Robertson, an ISA certified arborist and owner of the Tree Feller, Lake Charles, Louisiana, adds: “Lake Charles is in a high strike zone area and lightning protection adds a new dimension to our services. Here are some of the benefits: It safeguards the trees from a premature unnecessary death; it saves the client hard cash for expensive removal (as most trees in which we install lightning protection have reached maturity); it protects a
client’s home when the tree is in close proximity; it provides us with additional revenues; it demonstrates the level of professionalism as a caring tree service (where we safeguard trees for the next generation); and it offers a solution to the public because hundreds of trees are destroyed by lightning each year in our area.”

Determining price
Since trees differ in species, height, canopy size, trunk diameter, etc., there is no standard material list or kit available from a distributor or manufacturer. That’s why my company, Independent Protection Company, of Goshen, Indiana, developed a computer program for drawing up an itemized bill of materials for each tree. Needed is the following information:

- Species of tree
- Height of tree from grade to the top
- Spread of tree or diameter of canopy from drip line to drip line
- Outside trunk diameter at grade
- If brace or cabling wires, number in tree
- If the tree is close to a building, indicate distance apart

Just recently, Fred Hensley, owner of Hensley Valley Tree Service, Cincinnati, Ohio, had a customer who was interested in lightning protection on four oak trees of varying dimensions. Their height ranged from 100 to 125 feet, spread varied from 54 feet to 86 feet, and trunk diameters at base went from under three feet to one tree over three feet. Plus, all of the trees had several brace cabling wires. Information was faxed to Independent’s office and within a few minutes the computer provided an itemized printout of the equipment for each tree. Determining the installed price to a customer varies with each company as local labor rates, overhead factors, burden ratios and desired percentage of profit are factors. As a rule of thumb, to provide a guideline, some companies are using this simple formula - one-third for materials, one-third for labor and one-third for miscellaneous operating expenses and profits. On a tree requiring $300 worth of tree equipment, the installed price would be in the neighborhood of $900.

Lightning protection for trees is just another part of total tree care, says Tom Golon, owner of Wonderland Tree Care in Oyster Bay, New York. “We practice plant health care, and offering this service as an added benefit for our clients and their trees is certainly worthwhile,” he says.

Barry L. Smith, of Arborguard Tree Specialists, Avondale Estates, Georgia, notes: “At Arborguard, we don’t look at lightning protection as a profit center but rather as a service which is done by professionals, using a quality product. Lightning protection is another tool which is used to care for our client. Quality service, materials and a fair price gain client trust and earn repeat business.” Repeat business translates into more profits for your company.

Large firms install systems
Several large tree care firms, including the F.A. Bartlett Tree Expert Company and the Davey Tree Expert Company, have included lightning protection among their services for many years.

According to Walter E. Dages, public relations director, Bartlett has been installing lightning protection systems in shade and ornamental trees for over 60 years. “Our representatives have seen hundreds of examples of trees with protection systems that have been struck by lightning,” he says. “I know of no instance where the tree was killed or seriously damaged in a tree in which the protection system was properly inspected and maintained.”

“The utilization of lightning protection services has added value to our Plant Health Care customer base. Our ability to promote this service sector within our Plant Health Care program has given us a valuable and profitable tool to protect both our clients’ trees and their properties. Lightning protection services are a must for the Plant Health Care oriented company,” says Dr. Bruce Fraedrich, of the Bartlett Tree Research Laboratories.

Davey regional manager, Richard M. Foote, notes that his company has installed thousands of lightning protection systems all over the country. “As professional arborists, we are experts and we are called upon to care for many large old beautiful ‘specimen’ trees,” he says. “Our clients want to protect their trees from premature death due to insects, disease...
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and other elements. We diagnose problems, address abiotic disorders, prune, cable, fertilize and treat for pests. We would be remiss if, after doing all that, we neglected to point out to the customer that a lightning strike can destroy their specimen tree in an instant.

Workshops and seminars
A number of ISA Chapters and other organizations have been conducting one-day workshops consisting of several hours of classroom instruction, followed by moving outside and installing lightning protection in a nearby tree.

Each tree equipped with a lightning protection system becomes a tree safe from one of nature's most destructive forces and, at the same time, puts money in your pocket.

Robert E. Cripe, president of the Independent Protection Company, of Goshen, Indiana, serves as guest lecturer and instructor for seminars and is available for specialized lightning protection training.

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Clarification
I enjoyed the article in July’s edition by Sal Leonardi about heavy-duty stump grinder teeth. I thought it important to clarify some points that generalized heavy-duty teeth but are not applicable to the CEI 800 series tooth. Mr. Leonardi states that heavy-duty teeth solve bending and breaking problems, but will not extend the life of the carbide tip. This is incorrect when referencing the CEI 800 series. CEI uses a patented process of bending each tooth on the head, not the shank, which allows the carbide to strike the wood at an angle. Standard teeth have the carbide striking the wood flush causing a pounding action whereas the CEI tooth slices the wood like a knife edge. This process provides the benefits of a smoother cut and extended edge life for the carbide tip.

Mr. Leonardi goes on to claim that the carbide tips are the same for standard and heavy-duty teeth. This is not entirely true. The 800 series tooth has a larger carbide than any standard or heavy-duty tooth. Finally, after a general overview of the manufacturing process for carbides, he claims that the grade of carbide is the same regardless of whether the tooth is heavy-duty or not. Please note that CEI is the only company in the industry that offers three grades of carbide to choose from so that arborists can match their teeth to their grinding conditions.

Not all heavy-duty stump cutter teeth are the same. CEI was the first to introduce the heavy-duty style tooth and are staying ahead of imitations with improvements every year. We value your magazine as an informative guide to help keep current on a changing industry.

Derek Mosolf, customer relations, CEI Osseo, Minn.

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States Enact Pesticide Laws

By Brian Barnard

To date, 37 states have laws or opinions from the Attorney General that prohibit local regulations for pesticide use. These state regulations allow the certified applicator to apply pesticides without having to comply with several different sets of regulations.

The issue of taking the authority to regulate pesticides away from local jurisdictions first came into focus in 1991 when the Supreme Court ruled that the existing laws at the time would have allowed 83,000 governing bodies across the country to develop independent pesticide regulations (see TCI August 1991, September 1992). Since the ruling, several states have taken steps to pass laws that would place the regulation at the state level.

On the federal level, pesticide application concerns center on food safety issues. However, legislation requiring advance notice of pesticide applications in urban areas may be added to food safety legislation this fall. Similar advance posting legislation was introduced in the spring of 1991.

The Environmental Protection Agency (EPA) has worked with groups representing environmental, industry and consumer concerns to establish uniformity among the regulations of pesticide use. EPA formed a Lawn Care Pesticide Advisory Committee to gather information on attitudes and perceptions of pesticide use. Earlier this year the National Arborist Association participated in a Lawn Care Benefits Workshop to analyze existing information on pesticide use and to develop recommendations on how to improve the distribution of that information.

EPA is expected to release a guidance document this winter summarizing the results of the Lawn Care Pesticide Advisory Committee. This will not be a regulation, but will provide direction to those drafting pesticide use recommendations and consistency to any resulting document.

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Terminal Mistakes

Watch For Pitfalls When You Let People Go

By Phillip M. Perry

Your business is more likely than ever to be sued by discharged employees. Because of new wrinkles in employment law and the increasing pace of litigation, you are at risk even if your business is not unionized and you do not have workers on contract.

Most observers feel the situation will get worse. "There is going to be an increasing flood of wrongful discharge litigation based on all kinds of theories," says Herbert L. Segal, chairman of the labor and employment law section of the American Bar Association. For example, some discharged workers are now suing their employers on the grounds of emotional stress caused by harassment in the workplace.

Even if your case is among the 80 to 90% of such lawsuits that are settled before they go to court, the threat of a jury trial is enough to leverage a plaintiff's position and increase the amount for which you will likely settle.

What can you do to avoid getting into trouble? Make sure your supervisors follow strict guidelines when they assess employee performance and discharge personnel.

Here are the most common errors committed by employers. Keep them in mind when you develop termination policies. Don't learn the hard way.

1. Failure to put honest evaluations in writing.

"You should establish good policies and procedures for reviewing the performance of employees and maintain records of such reviews," says Charles G. Bakaly Jr., a labor and employment lawyer with the New York firm of O'Melveny & Myers.

Consider the case of the company in Rhode Island. The legality of its termination of an employee was upheld, even though that employee had a contract. The reason was that the employer had kept careful records of the worker's failure to appear for some important appointments, improper behavior at company functions, and commission of errors which cost the business money.

Try to get several written evaluations filed away to the effect that a worker has not been meeting standards. Without such a background file, a worker has a leg up in a lawsuit if he or she tries to claim the dismissal was for other - illegal - reasons.

2. Including dangerous wording in employee handbooks.

Prior to the 1980s, courts held that employee handbooks had nothing to do with legal rights and remedies of workers. Employers could change their policies at will. That has all changed.

Many employers have lost big money in court because of wording in employee handbooks which states that employees will only be fired "for cause." The damages vary by state. In some states the judge considers any handbook a contract; in others it is considered a matter that only a jury can decide.

Other troublesome phrases can crop up in an employee handbook. You don't want to call employees "permanent," for example, because it implies that employees will only be fired for cause. "Regular" is a much better word.

Again, you don't want to say that once new employees finish a probationary period they are "permanent employees."

Suppose you already have an employee handbook or information sheet distributed, and it contains some dangerous language.

Many attorneys advise their clients against revising the handbooks. While they incur the risk of lawsuit, they avoid incurring a serious loss of morale by the work force.

Don't try to go it alone on this issue. Says Bakaly: "These manuals really should be reviewed by a labor attorney."

3. Making informal oral contracts.

"Come with us, Joe, and you'll have a job for life." At one time, courts considered that statement an expression of present intent. It held no power as a binding contract.

Not so today. Oral contracts are enforceable!

In a recent case in New York, an oral promise of lifetime employment, to the effect that the employee would only be terminated for "just cause" was enforceable. And many other court cases in other states have reached the same conclusion.

And who is to prove that an oral statement was made? "If someone else is in the room when the statement is made, or if the employee is smart enough to send a letter with the rules as he understands them, this can lead to evidence," says Segal.

The fact that an employee has worked for your company for many years and that he states he had always understood that he would be terminated only for just cause, can also represent evidence.

A fine point about the term "just cause." Although it usually refers to improper conduct on the part of the employee, in the area of termination policy it can also
refer to a financial downturn. Thus, an employer is usually in the clear if an employee has been terminated because a downturn in business has caused genuine financial stress at the company.

4. Firing for bogus reasons just prior to pension vesting.
A large number of wrongful discharge court cases revolve around the employees’ pension vesting period. When they’re caught, some employers try to cover their tracks.

The employer is under a particularly heavy burden to prove his innocence in these cases. After all, nearly all such cases involve workers who have been employed for many years - a fact that many courts seem to regard as evidence of work well done. As mentioned earlier, a well-planned and operated performance evaluation program can help the employer in such cases.

5. Termination for refusing to take a polygraph test.
Congress passed a statute a couple of years ago which generally forbids the use of polygraph tests unless there is a clear justification for one - for example, something was stolen in a department where a certain employee works. And about half the states now forbid the use of polygraphs without the consent of the employee.

If you terminate a worker for refusing to take a polygraph test, you are often subject to a lawsuit.

6. Forcing a resignation by making working conditions unreasonable.
Some employers try to avoid the penalties of wrongful discharge by demoting an employee into a position that is so much lower as to be humiliating. Or, they make working conditions so miserable through harassment that the employee must resign.

Courts have in many cases deemed these events to be “constructive discharge.” In other words, the employer has made life so unpleasant for the employee that any reasonable person would consider the situation intolerable.

7. Terminating an employee for refusing to commit an unlawful act, violate public policy or for additional improper reasons.
You cannot fire someone if doing so would bring you into violation with the Employee Retirement Income Security Act (ERISA). Take the case of an employee in Missouri. Even though the man had been employed by the company for 18 years and had always received competent or better job reviews as well as salary increases, his boss fired him when he disclosed that he had contracted multiple sclerosis. A court decided this violated ERISA.

Also, you can’t terminate because an employee’s salary is subject to garnishment to pay a debt.

And you can’t terminate someone based on race, sex or religion. You can also get into trouble if your work place is a scene of harassment because of race, sex or religion.

Says Henry Knight Jr., an employment specialist at Nelson, Mullins, Riley & Scarborough, Columbia, South Carolina. “Look at your procedures from the point of view of an outside observer. Do what you have to do to make them fair.”

Phillip M. Perry is a New York-based freelance writer specializing in business management.

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Making Rain

Installing and maintaining landscape irrigation systems can be lucrative

By Peter Gerstenberger

Why would a successful tree care firm want to offer its clients a landscape irrigation installation and maintenance service? There are several valid answers that go beyond potential profitability.

For the service provider, diversifying means a wider market base - more customers and more diverse customers. Thus, even if a new service isn’t profitable at first, it gives the company entree to sell other more profitable services.

Adding a sideline like irrigation installation helps the company manager offer valuable employees steadier work, smooths out cash flow and keeps equipment busy. Irrigation maintenance puts your company on the client’s property two or more times a year.

Finally, installing simple residential landscape irrigation systems requires a relatively small initial investment of time and capital.

The basic system

The diagram at right shows the components of a basic residential automatic irrigation system. In most systems, water is supplied by a city water main (6) or a well. In a city, water flows through a water meter (5). The service line brings the water into the house. A sub-main for the irrigation branches off the service line and goes to a backflow preventer (3). Backflow preventers are required by law to protect the drinking water. From the backflow preventer, water flows through various sub-main pipes to electric, remote-control valves (2) located around the property. Valves control the flow of water to zones on the property. Usually, the valves are installed below ground in valve boxes. Often, there is a master valve installed just after the backflow preventer so the entire system can be shut down in the event of a leak or faulty valve. In an automatic system, the valves are controlled automatically by a controller (4) which is also called a timer or clock. The controller is programmed to open the valves for a specified number of minutes on certain days of the week. Specially insulated field wires run from the controller to each of the valves and are buried underground. There is a variety of sprinkler heads (1) that can be used with a system. These include spray heads, rotating heads, pop-up heads, bubblers, drip emitters, and low-volume sprayers. Most of the components are PVC or polyethylene plastic and are relatively simple to work with.

System maintenance

Most automatic irrigation systems require regular inspection and maintenance to ensure trouble-free operation. Maintenance consists of periodically flushing the system, checking for leaks, testing valve operation and looking for stressed plants or pools of standing water. A stressed plant may indicate that part of the system isn’t working correctly. In most areas, you will also have to drain it for winter and open it for the growing season.

The maintenance needs for different systems will vary, but generally you should check new installations frequently and older installations every one to four months.

If the person making these inspection and maintenance visits is a trained arborist, then the visits can be used to monitor plants and prescribe treatment. Customers will appreciate the extra attention to their landscapes, and your business will generate extra work.

Getting started

Companies venturing into irrigation should be reasonably prepared for its requirements. The Irrigation Association is

A basic residential automatic irrigation system consists of water main (6), water meter (5), backflow preventer (3), control valves (2), controller (4), and sprinkler heads (1). Diagram from the Video Campus Training Series workbook, courtesy of Rain Bird Sales.
a good place to start. The association sells an extensive list of publications on all aspects of irrigation. Additionally, membership is available to the individual or company and provides the opportunity to network and learn from others in the same business. This year the group will hold its annual meeting in San Diego at the end of this month. The association also offers a certification program that helps the service provider establish credibility in the marketplace while learning about the profession. For more information contact the Irrigation Association, Suite 120, 8260 Willow Oaks Corp. Drive, Fairfax, VA 22031. The phone number is 703-573-3551.

The skills to install and maintain irrigation systems often can be obtained through courses at a technical college or through workshops or videos produced by irrigation system suppliers.

There are many good irrigation vendors to work with. Here is a glimpse at what two of those companies can offer.

Rain Bird
First-time irrigation system installers will want a supplier company that is willing to help them through the process. Rain Bird produces popular low-volume irrigation components and backs up its products with more than 300 Rain Bird distributors across the U.S.

Rain Bird can teach complete system design and installation with its Video Campus Training Series. The training is intended for people who need basic training in landscape irrigation design and irrigation equipment. In particular, the series is designed for people who are new to the irrigation industry or who need a
"Why did we join the National Arborist Association?"

To learn to run my business better.
Randy Owen, R.J. Owen Tree Service, Luml, Michigan

One of the many reasons is NAA’s Safety Programs.
Mark Tobin, President, Greymont Tree Specialists, Inc., Needham, MA

For the wealth of information that NAA provides!

Because of all the benefits that I couldn’t buy for 10 times the dues.
Paul Wolfe II, Integrated Plant Care, Rockville, MD

To get their cost-effective training programs.
Bill Kucharski, Trees Are Us Professional Tree Service, Milford, NH

To make my company more efficient.
Chuck Edmondson, President, Alfred’s Superior Tree Service, Wichita, Kansas

To learn from other industry professionals.
Tom Golon, Wonderland Tree Care, Inc., Oyster Bay, NY

There are many other benefits of membership that are also invaluable; the ability to network with other members, the free management guidelines and all of the other training programs that are available at substantial discounts to NAA members. In addition there are insurance programs, the annual management conference, marketing support and the NAA staff. You can call the NAA HOTLINE (1-800-733-2622) and ask any question about the tree care industry that you want. If the staff doesn’t have the answer, they know where to find it for you.

If your firm is not an NAA member, why not JOIN TODAY—and start enjoying all of the benefits of membership.

SPECIAL OFFER: Join now for the NEW introductory dues of $150. Your annual dues in 1994 will be based on your firm’s gross sales for 1993.

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Phone 1(800)733-2622 Fax (603)672-2613

Membership starts when you submit certificates of insurance.
Membership is available to commercial tree service firms only.
quick refresher in basic irrigation terms and concepts.

The workbook, entitled Low Volume Irrigation (Xerigation®), contains seven training modules and a video tape. The training course takes about five hours and covers Basic Irrigation, How a System is Designed, Low Volume Irrigation, Low Volume Design Overview, Xerigation Products - Features and Benefits, Applications - Specifying and Laying Out Emission Devices, and Installation and Maintenance.

As landscape irrigation systems become more sophisticated and the need to conserve water becomes greater, computer programs help the installer design and control the system efficiently. RainCAD, IRRICALC and XERICALC are computer software packages created by Irrigation Technologies, Inc., and marketed exclusively through Rain Bird Sales.

RainCAD is computer-aided irrigation design software that includes a full-function CAD package. It provides system specifications, materials lists and other pertinent data. It can also be used in landscape and drainage system design.

IRRICALC produces watering schedules that allow the installer or the homeowner to program the system controller for efficient irrigation. IRRICALC uses variables like evapotranspiration rates, precipitation rates, soil types, root depths and topography to make calculations. Rain Bird claims that using this software can cut water usage by 50%.

The brand new XERICALC program is geared exclusively to low-volume systems. It aids in design, calculates material requirements and produces watering schedules.

To obtain more information on the Rain Bird product line and video training as well as the name of the distributor nearest you, contact Rain Bird Sales, Inc., 155 N. Grand Ave., Glendora, CA 91740.

Aquapore

Environmental concerns and an increased awareness of the need to conserve water have had an effect on the types of irrigation products now being designed. Aquapore Moisture Systems claims that its Moisture Master Soaker Hose is inexpensive, easy to use and significantly conserves water. The same material sold in bulk for commercial applications is called Porous Pipe. Aquapore also provides drip irrigation systems as well as a wide range of accessories and easy-to-use fittings that let users customize the watering system to the needs of the landscape.

Soaker Hose, which is made of 65% recycled rubber from tires, has advantages over conventional low-volume systems in certain applications. It works best in narrow strips along houses, walks and driveways, but isn’t as practical as overhead irrigation for wide expanses.

There is less chance for foliage disease on susceptible plants because water doesn’t spray on the leaves. There is less chance of runoff and evaporation. The manufacturer claims that it can cut water consumption by up to 70% while delivering water more evenly in the landscape.

Soaker Hose can be installed on the surface, under a mulch layer or buried in the ground. It can be a stand-alone system, or the installer can tie it into existing irrigation systems.

For more information, contact Aquapore Moisture Systems, Professional Irrigation Division, 610 S. 80th Ave., Phoenix, AZ 85043, or call 800-635-8379.
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Contact: Jeff Lefton, 317-846-7020

December 5-7
Trees & Utilities National Conference
Nebraska City, Neb.
Contact: National Arbor Day Foundation, 402-474-5655

January 15-16
Modern Arboriculture
Featuring Dr. Alex Shigo
Fort Lauderdale, Fla.
Contact: Anita Ayhens, 305-473-2955

January 20-22
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TREE CARE INDUSTRY - OCTOBER 1993
Hodges Mfg. Co. introduces its new hydraulic stump router. Its patent pending design features wheels that extend hydraulically to 52 inches for safe operation and towing, and move in to 35 inches for going through narrow gates. It takes stumps out from 30 inches above ground to 16 inches below ground, is self-propelled, both wheels drive and operates hooked or unhooked from the tow vehicle (no trailer needed). Hodges Mfg. Co., Inc., Rte. 4, Box 328B, Mountain Home, AR 72653. Phone: 800-525-6312

Webster Corporation will soon begin deliveries of the new patented Deep Root Tree Fertilizing Tool. The machine is designed to automate tree fertilization by tree maintenance professionals as well as the do-it-yourselfer. The machine features a Tecumseh TC-300 two-cycle 49cc, 1.2 hp gasoline engine and Lundee heavy duty transmission with centrifugal clutch reduction ratio 8:1 - auger speed 750 rpm. Webster Corporation, 8681 73rd Ave. No, Suite 12, Brooklyn Park, MN 55428. Phone: 612-533-7676.

Workforce Products offers the XLB-4232 towable boom personnel lift with a maximum working height of 42 feet, a capacity of 300 pounds, a 32-foot side reach and 360-degree continuous rotation. Standard features include a steel 1-man cage, surge brakes, master slave leveling, outrigger safety switches, lower and upper controls and a 110V outlet to the platform. Full body harness and lanyard included. Workforce Products also offers a gas-powered model. Workforce Products, Inc., P.O. Box 234, 125 Taylor Parkway, Archbold, OH 43502. Phone: 419-445-9675.
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We've advertised twice and found two good men to add to our team, so here we go again. Fast growing full service quality tree care company looking for ambitious, highly motivated arborist. Must be experienced in all aspects of the tree care industry. Preferably have a degree in horticulture/arboriculture and be a personable type. Responsibilities will include sales and supervision of work force. Please send resume with work and sales history to Empire Tree Service, RR1-Box 523, Pine Plains, NY 12567. Phone: 518-398-5210.

Prominent tree firm in Princeton, N.J., seeking an IPM technician for our Plant Health Care program. Excellent wages and working conditions. Employee benefits second to none. We're only 1 hr. from New York City, Philadelphia and the Atlantic! Please send resume to: Woodwinds Associates, Inc., 4492 U.S. Route 27, Princeton, NJ 08540. Attn: Tina deTuro

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Sales rep, gen. mgr. established tree care landscaping co., L.I., NY, Hamptons area. Experienced in all phases of tree care, landscaping. Motivated, qualified individuals only. Certified arborist pref. for sales, draw against commission. Good potential, health plan, auto, opportunity. FAX resume: 516-283-6436 or call 516-283-1195.


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Arborists/field representatives: Ira Wickes Arborists, one of the oldest and most respected companies in the business, is looking for high quality people to help us continue to grow. Excellent compensation, benefits, incentives. Please send resume or contact us at Ira Wickes Arborists, 11 McNamara Road, Spring Valley, NY 10977. Phone: 914-354-3400.

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TREE CARE INDUSTRY - OCTOBER 1993
VIDEO TRAINING TAPES

V-1 Professional Tree Care Safety
General Requirements - Familiarizes tree workers with common terms used in tree care.
Personal Protection - Provides tree workers with the requirements for protecting themselves including how to wear protective gear and places around equipment.
Equipment Procedures - Details steps for safely using aerial lifts, chipper, dump truck, and power hand tools.
Operational Practices - Teaches good habits by demonstrating the safest ways to carry out common tree care procedures.

V-2 Chain Saw Selection & Maintenance
Operational Practices - Teaches good habits by demonstrating on selecting and sharpening saw chain.
Chain Saw Selection & Maintenance - Helps you match the saws horsepower, weight and bar length to specific arborist tasks. The maintenance portion includes information using a chain saw while climbing, working from an aerial lift, and setup.

V-3 Electrical Hazards & Trees and Aerial Rescue
Electrical Hazards and Trees - Reviews the proper tools, techniques and equipment necessary to work safely in proximity to electrical hazards.
Aerial Rescue - Demonstrates procedures for rescuing a victim in a tree or bucket truck.

V-4 Back Injury Prevention
* Covers hazards, recognition, stretching and lifting techniques.
* Also includes a "how-to" containing quiz questions and documentation forms, as well as wall posters and decals.

V-5 Shade and Ornamental Tree Pruning
Pruning Standards - This tape reviews the four NAA classes of pruning:
Principles of Pruning - Methods, equipment and reasons for pruning.

V-6 Chipper Use & Safety
Chipper Use & Safety - Covers drum and disc chippers. Topics include operation, maintenance, personal protection, towing and setup.

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TREE CARE INDUSTRY - OCTOBER 1993
Each one of the climbers who participated in this year's ISA Jamboree is a Champion in his own right. Tree Care Industry Magazine salutes them all.

What does it take to be a Champion? Find out from Ken Palmer, this year's Jamboree Champion, and Bob Weber, last year's Champion, at TCI Expo '93. Ken and Bob will hold special demonstrations of Climbing, Rigging and Aerial Rescue during the three-day Trade Show. See the enclosed TCI Expo '93 Registration Form for the details. See You at Expo!
Hidden Dangers

By William Friedmann

It was another beautiful California day. We had a work order written by a certified arborist with more than 15 years of experience. The crew, with a combined 35 years of experience, consisted of a foreman, a lead climber and a ground man. The supervisor also had stopped by the job site. Of the four men present, three were certified tree workers.

The work order called for pruning a large valley oak and the reduction of end weights and the removal of a dead lower limb which had rotted out except for a band of wood one inch thick. It was held in place by a rotted wooden post that was about six feet out on this 30-foot limb.

The lead climber went up the tree to start pruning while the foreman and the supervisor decided to tackle the limb removal by first cutting the post. A rope manned by the ground man and the foreman was placed out on the limb for directional support. The supervisor started his cut, but the saw stopped when it became pinched in the post. He then realized that the rotted post was the only thing keeping the decayed limb in place and he shouted to his men to be ready. He cleared the saw and began to cut from the other side. Again the saw became pinched and stopped. This time the supervisor couldn’t free the saw, so he and the foreman secured a second rope around the post to pull it out.

On cue, the crew pulled on the rope, splitting the post and the 100+ year-old Quercus lobata weighing more than 10 tons fell to the ground. Four men were suddenly scrambling for their lives. Fortunately, all were able to escape injury.

Our company is committed to safety and holds weekly classes on tree care. The previous day’s class was on tree hazard identification and failure patterns.

A house had been built over one-third of this tree’s root system and a patio was built within inches of the trunk. Eventually the tree decayed from within.

After such a close call, we decided to implement a new policy requiring a root collar excavation and examination on any large native tree that has been impacted by development before performing any remedial service. I hope my story will cause you to look more closely for the hidden dangers.
WARNING:
NEW
AMERICAN
ARBORIST
SUPPLIES
CATALOG
MAY LEAD TO
AGGRESSIVE
BEHAVIOR.

If you haven't received your own copy of the brand new, 136 page American Arborist Supplies catalog (chock full of new products & photos of thousands of great products), don't start trouble. Call us. We'll be glad to send you a copy for just $4, refundable with your first order.

Practical Rigging

An American Arborist Supplies sponsored article

By: Randy Longrich

INSPECTION OF ARBORIST ROPES

Climbing and bull ropes are an essential part of many aspects of arborist operations. As with any other critical tool or piece of equipment, a thorough visual inspection procedure should be performed for all ropes prior to each use. Routine inspection of the entire length of each rope can improve safety on the job site and may help to extend the life of the rope. If damage is found, there are several possible steps that may be taken:

1. Discard the rope.
2. Remove the damaged section.
3. Use the rope for less critical jobs.
4. Use the rope in such a way as to minimize or eliminate load on the damaged section.

NOTE: If a damaged rope is kept in service, it should be clearly and permanently marked to avoid accidental use in a critical application.

Although in most cases, rope damage is clearly visible, there are several instances where it might not be so obvious. Specific types of damage that should be investigated include:

A. Abrasion: Light, uniform surface abrasion is normal, especially when the rope is first used. Extensive abrasion damage causes a reduction in the rope's strength that is directly related to the amount of fiber damaged or lost. Areas of localized or severe damage will produce a substantial drop in strength.

B. Burns: Burns or melted fiber can range from a not-too-serious light surface glazing to an extensive fused and glassy area. When substantial melting occurs, the affected area may become very stiff or brittle causing a substantial loss of strength.

C. Cuts: Small surface nicks and very shallow cuts are fairly common in arborist operations, and are not generally serious enough to warrant corrective action, although there is some strength loss. However, deeper cuts that affect more than one strand on the rope's surface can produce a substantial strength loss. Deep cuts that extend for several inches along the length of the rope have probably damaged all of the strands.

D. Hockling: Three-stranded ropes can hockle or kink if handled improperly or if released too quickly with a heavy load. Hockles can be worked out of the rope if the kinked area is not permanently deformed. Hockles should be removed by manipulating the strands by hand while the rope is slack. Attempting to pull the kink out by placing the rope under a load will cause permanent deformation, resulting in irreparable damage and extensive strength loss.

E. Shock Loads: Shock loading occurs when a heavy load is applied very rapidly to a rope. Even though the rope may not break immediately, it may weaken to such an extent that it will then break under rather low load conditions. Shock loading cannot be identified visually, but in many instances, a rope that has been shock loaded will stiffen up or lose flexibility. If a section of rope appears to be somewhat more stiff than normal and no other evidence of damage is visible, then shock loading should be suspected.

F. Contamination: Dirt, abrasive particles or foreign objects, such as splinters, can have long-term adverse effects on rope performance. When possible, any foreign matter should be removed before using the rope. If necessary, ropes can be hand-washed and air-dried to remove contaminants.

G. Chemical Exposure: Most of the synthetic fibers used in arborist ropes are relatively resistant to dilute solutions of some chemicals and petroleum products. However, many chemical compounds, such as those used in insect sprays and other arborist operations, have not been tested. If chemical exposure is suspected, especially if the rope shows signs of discoloration after the possible exposure, damage to the rope should be assumed.

H. Pulls: Pulled filaments and/or strands can produce loops on the rope's surface. These loops can catch on a projection, creating a potentially dangerous situation. In many cases, these loops can be worked back into the body of the rope. If necessary, an isolated loop can be cut, and the free ends pushed into the rope.

By implementing these procedures, you will be in compliance with A.N.S.I. Standard no. Z133.1, Section no. 3.1.4. Call American Arborist Supplies for further information on caring for, or ordering new ropes.
1975 Ford LT900; V8; 5+4; w/R.O. TC120 10 Ton Crane; 60' Boom + 14' Jib = 74' Hook Height .................................. $22,500

1989 Mack DM890S; 300 H.P.; 6 Spd.; w/R.O. 175-73 Crane; 16 Ton Cap.; 85"+37" Jib = 122" Hook Height .................................. $99,500

1985 Ford F600; 8.2 Diesel; Auto.; 28,000 Miles; 22 G.V.W. .......................................................... $9,500
We Buy Crew Cab Trucks; 14,000 G.V.W & Up; Diesel; 2 Wheel or 4 Wheel.

1986 GMC; V8; 5x2; w/R.O. 5502 5 Ton Crane; 36" Hook Height .................................................. $16,500

1980 Ford F600; 4 Spd.; w/Versalift 28' Bucket; 9' Utility Body; Onan 2 Cyl. Generator; $7,500 Es. ........................................... $23,000 to $28,000

1985 Int'l F2554; DT466; 13 Spd.; w/R.O. 150-2 15 Ton Crane; 80' Boom +23' Jib = 103' Hook Height.

1979 Mack M685 w/Prentice HTBR Sheet Rock Loader .................................................. $18,500

1988 Mack DM688S; 350 H.P.; 8LL Trans.; 20 Frt.; 44 Rears; Air Tag; 22' Bed; w/Cormack 22 Ton at 7' Knuckleboom Crane; 5,500# At 42' ............. $84,500

Rayco Hydra Stumper (New); 175 H.P. CAT; Undercarriage For The Big Land Clearing or Stump Removal Jobs; w/AC .................................................. $121,900;
No Air ........................................................................ $118,000;
1993 Rental Return; 250 Hrs. .................................. $107,000

Altec 12" Whisper Chippers; 4CY Ford Gas $12,900; (5) Used Chippers in Stock; Asplundh, Etc.

1982-84 Chevrolet Or TMC Chip Body Dump; V6; 4 Spd.; SEVERAL AVAILABLE; CALL FOR PRICES

OPdYKE INC.
(215) 721-4444
Truck & Equipment Sales
3123 Bethlehem Pike
Hatfield, PA 19440
(Phila. Area)

See us at TCI Expo

Please circle 23 on the Reader Service Card
The last resort to root control is losing the tree. As tree roots begin to spread into unwanted areas, you'd like to avoid trimming the roots or, worse yet, having to destroy the tree altogether.

And that's why there's Biobarrier®, the root control system that stops roots and controls their route. Biobarrier is a fabric that has controlled-release nodules containing trifluralin, a non-systemic active ingredient with a successful track record spanning over 30 years. Plus, Biobarrier is made with Typar®, a rugged polypropylene geotextile that allows air and water to flow through while holding the nodules in place.

Biobarrier's guarantee is as impressive as its performance. When used in a vertical application around tree roots and stumps, Biobarrier will provide effective root control for over 15 years. Plus, its flexibility allows it to be cut, shaped or formed to virtually any configuration your site requires.

So when you're choosing a root control system, there's no reason to get stumped. Just choose Biobarrier. It's something your trees can definitely live with. For more information on Biobarrier, call 1-800-25-ROOTS.

See us at TCI Expo
THE OPPORTUNITIES ARE ENDLESS

The National Arborist Association
&
The International Society of Arboriculture

present

4th ANNUAL TREE CARE INDUSTRY TRADE SHOW & SEMINARS
November 18-20, 1993
Cleveland, Ohio — Cleveland Convention Center
This year's TCI EXPO is the most opportunity-filled trade show yet! Everyone in the tree care industry benefits from attending TCI EXPO '93. Here are just a few of the opportunities:

- Educational opportunities for field personnel and supervisors through informative demonstrations and seminars.
- Educational opportunities for management through five invaluable management track seminars.
- Buying and information-gathering opportunities from over 110 manufacturers and distributors exhibiting at TCI EXPO '93.
- Networking opportunities with fellow arborists from around the country!

**World's Largest Tree Care Trade Show!**

TCI EXPO '93 truly is the world's largest trade show for the tree care industry. In response to demands from attendees and exhibitors, this year's trade show has been expanded to three days. You'll see the latest in equipment, meet personally with factory representatives, and pick up information to help you make smart buying decisions. There is NO CHARGE for admission to the trade show.

**Live Demonstration Opportunities!**

See new climbing techniques, rigging and aerial rescue demonstrations, and a lightning protection installation in the trade show area. All tree demonstrations will be conducted by ISA Jamboree champions Ken Palmer and Butch Weber. Cincinnati Gas and Electric Company will also put on their life-size electrical hazards and trees demonstration each day. Leading tree and soil-injection companies will also demonstrate proper injection techniques in a separate area. There is NO CHARGE for attending these demonstrations.
IN NOVEMBER!

Shrub Pruning Opportunities!
Be sure to see the separate display of before-and-after examples of shrub pruning on the trade show floor.

Twin Track Seminar Program Opportunities!
To provide your field personnel and managers with the latest tree care technology AND management information available, we have structured an expanded seminar program. All speakers are professionals and/or well-known experts from the tree care industry, presenting a variety of topics relevant in today’s market. Managers are encouraged to bring key employees to take advantage of this unique opportunity. Please refer to the TCI EXPO '93 Schedule of Events for more details.

ISA Certification & Recertification Opportunities!
Many of the seminars provide valuable preparation material for the ISA Certification Test to be given on Saturday, November 20. A special Certification Preparation Session will be held for those who have pre-registered to take the exam. Several seminars also provide ISA recertification credits. To pre-register, you must write or call:
International Society of Arboriculture
P.O. Box GG, Savoy, IL 61874-9902
(217) 355-9411

Pesticide Applicator Recertification Credit Opportunities!
Several programs will provide pesticide applicator recertification credits for arborists in selected states. Two of these seminars are FREE.

Group Discount Opportunities!
Share the wealth of information by bringing one or more employees with you. You’ll earn a $6.00 discount per person per session. If we receive your registration before October 14, 1993, we’ll take an additional $3.00 off each session you attend! See page 6 for details.

Unlimited Access Opportunities!
Instead of limiting yourself to individual meetings, you can gain access to everything TCI EXPO ’93 has to offer by purchasing a TCI GOLD CARD. You must register before October 14, 1993, to purchase the Gold Card — the most economical way to attend the full complement of seminars. No additional discounts are available with this package, but if you are bringing employees who are not purchasing Gold Cards, they are entitled to the same group discounts as general attendees.

EXPONDING ON EXPO

Comments From Last Year’s Attendees:

“I enjoyed TCI EXPO ’92 because of the opportunity to learn from the experiences of other tree care professionals. It often takes just a brief conversation with a colleague to confirm an idea you may already have or set off a light bulb for a new way to provide a valuable service to a client. TCI EXPO provides that opportunity.” — Kevin P. Carr, Guardian Tree Experts, Inc., Rockville, Maryland

“Although health and safety has been legislated for most of us, we welcome and appreciate any input from the NAA regarding the sector-specific accreditation training process. TCI EXPO helps to deliver programs which satisfy some of our training needs. We will be back.” — Arthur Marlow, Complete Tree Service Co., Carlisle, Ontario, Canada

“TCI EXPO is a great learning experience. The equipment seminars, and especially the climbing and aerial rescue demonstrations were all terrific.” — Paul Portsmore, Sequoia Tree Service, Wyckoff, New Jersey

“We had six of our staff at the seminars. They all brought back ideas to improve our company. The large trade show had many new products and good buys. The demonstration area attracted many viewers to watch proper techniques for tree work. The TCI EXPO gave our company the team effort boost, from office staff to field personnel.” — Randy Owen, Owen Tree Service, Inc., Attica, Michigan
Who Will Be Exhibiting At TCI EXPO '93?

Over 110 companies will have their wares on display at TCI EXPO '93! Admission to the tree care industry's largest trade show is FREE, but you must have an official TCI EXPO '93 badge. Mail your Registration Form early so we can make up a badge for you.

Once inside the exhibit hall, you'll be overwhelmed by the more than 90,000 square feet of exhibits covering all aspects of the industry — exhibits to help you make informed buying decisions that will increase the productivity, performance, and profitability of your firm. Whether you are looking for trucks, aerial lifts, chippers, stump grinders, climbing rope, chain saws, or other arborist equipment and supplies, TCI EXPO '93 is your opportunity to find it all in one place!

Some Of This Year's Exhibitors:

A.G. Edwards & Sons, Inc.  J.J. Maugel Company
ACRT, Inc.  J.P. Carlton Co., Div. DAF, Inc.
Aerial Lift Inc.  Jameson Corporation
Agape Design  Karl Kuenmerling, Inc.
Albeiz Insurance Agency  Lake County Nursery, Inc.
Alliance Equipment Co., Inc. Lanphear Supply
Altec Industries  Leonardi Mfg. Co., Inc.
American Arborist Supplies  Levco Manufacturers, Inc.
American Intertool, Inc.  McCulloch Chain Saw /
American Safety Utility Corp.  Central Power Systems
AmeriQuip  Morbark Sales Corporation
Arbor Care Equipment  Museum of Arboriculture
Arboritech, A Stahl Subsidiary  National Arborist Association
Artistic Arborist Inc.  Nation Wide Ladder & Equipment Co., Inc.
Asplundh Tree Expert Co.  New England Ropes
Bandit Industries  Northeastern Associates
Barlett Manufacturing Co.  Norwalk Power Equipment Co.
Bishop Company  Ohio Arbor Corp.
Blackhorse Services Co.  Olathe Manufacturing, Inc.
Brown Manufacturing Corp.  Opdyke, Inc.
Bryan Equipment Supply  Oral Ivy Inc.
Buckingham Mfg., Inc.  The Peavey Manufacturing Co.
Cba-Geigy Corporation  PeteCo Inc.
Corona Clipper Co.  Plastic Composites Corp.
Creative Sales, Inc.  Poulan/Weed Eater
The Davey Tree Expert Co.  Practical Solutions
Detroit Diesel Corporation  Rayco Manufacturing, Inc.
Deutz Corporation  Reemay Corporation
The Doggett Corporation  Roots Inc./Div. of LISA Products Corp.
DSR/Kan-Du Stumper  Samson Ocean Systems Inc.
East Hill Manufacturing Corp.  Schoders Truck Body & Equip. Co.
Engine Center, Inc.  The Sharp Tool Company
Engine Distributors Inc.  Shawtown Industries
Ergodyne Corporation  Sherill Arborist Supply
Fanno Saw Works  Shindaiwa, Inc.
FMC Corp.-Machinery Group  Sierra Moreno Mercantile
FMC Corp.-AG Specialty Products  Simonds Industries
Forestry Suppliers, Inc.  Source Technology Biologicals, Inc.
Fox Manufacturing, Inc.  Southco Industries, Inc.
Grace-Sierra Horticultural Products  Steiner Turf Equipment Inc.
Grass Roots Nature's Way Inc./Green Pro Services  TECO Inc.
Green's Manufacturing  Tetlon Equipment Company
Grow Gun Corporation  Time Manufacturing Co.
Growtech, Inc.  TrafFix Devices Inc.
Hall's Safety Equip. Corp.  Tree Technology Systems, Inc.
Haybuster Manufacturing Inc.  Vermeer Manufacturing
Hercules Engine Company  Wall Industries
Hodges Mfg. Co., Inc.  Wis-Con Total Power Corp.
Holten Mfg./General Cable Co.  Wood/Chuck Chipper Corp.
Husqvarna Forest & Garden Co.  Your Source Teperc, Inc.
Independent Protection Co.  Zenith Cotton
Inter. Society of Arboriculture

SCHEDULE OF

THURSDAY, NOVEMBER 18, 1993

7:30 AM:  REGISTRATION OPENS

7:30 AM-10:15 AM:  COFFEE BREAK - Registration Area

8:30 AM-9:55 AM:  Seminar 1 - AERIAL RESCUE AVOIDANCE

Mr. Donald Blair, M.F. Blair Institute of Arboriculture

The tree care industry places a great deal of emphasis upon aerial rescue as important. As prudent and necessary as it is, Donald Blair would prefer to work for a company with a pro-active aerial rescue avoidance program than for one with a non-existent accident prevention policy but great aerial rescue training.

His message is that aerial rescue avoidance is an ongoing commitment by all concerned with the process of tree care: the employer, supervisor, crew leader, climber, groundworker and equipment operator, and you!

Donald F. Blair is a skilled arborist and communicator. He serves on the ANSI Z-133 Committee representing the California Arborist Association. He served on an advisory committee to Cal-OSHA from 1979 to 1984 and consulted on the National Arborist Association's Aerial Rescue video training program. He owns Sierra Moreno Mercantile, and is an innovator of equipment for safety and increased productivity.

9:57 AM:  TRADE SHOW OPENS

Opening the show and giving his slightly off-center views on the world of tree care will be "Lorenzo," the wacky European horticulturist known for his slightly loony weekly gardening tips on Cleveland's 1420 WHK radio station. Along with moderator Robert Felix, Lorenzo (actually Lauren Lanphear of Forest City Tree Protection) may touch upon such topics as "Topping Trees For Fun And Profit," "Scale—Nature's Art Form," and "Using Napalm For Pest Control." Then again, he may not.

4:00 PM-5:00 PM:  Seminar 2 - Management Seminar - WHAT MAKES A TOP SALESPERSON

Mr. Hal Becker, The Becker Group

Hal Becker became the Xerox Corporation's top salesperson in a sales force of 11,000 at the age of 22. Six years later, he founded Direct Opinions to help companies in various industries achieve success through telemarketing. The company grew to offices throughout the United States and Canada conducting two million calls annually. In 1990, he sold his company so he could dedicate more time to the many lectures and seminars he conducts around the country. His seminars, geared to both experienced and inexperienced salespersons, incorporate serious selling methods with pure fun.

Seminar 3 - Field Operations Seminar - CREATING WILDLIFE HABITAT

Mr. Fred Clark

Many tree care customers are likely to be receptive - and willing to spend money - to manage their backyard for wildlife. According to this speaker, an opportunity presents itself to the arborist willing to take a broader view of landscape maintenance.

Fred Clark is currently with the Wisconsin Department of Natural Resources, and previously was a foreman, production manager, sales representative, and manager with several prominent tree care companies. His article by the same name appears in the October issue of TCI.

6:00 PM:  RECEPTION FOR ATTENDEES - Marriott Society Center Ballroom

Beers, soft drinks & snacks provided. Cash bar for other beverages.

8:00 PM:  RECEPTION ENDS
FRIDAY, NOVEMBER 19, 1993

7:30 AM:  REGISTRATION OPENS

7:30 AM-8:30 AM:  COFFEE BREAK - Registration Area

8:00 AM:  Seminar 4 - FREE Pesticide Recertification Seminar - INTEGRATED CONTROL OF TOP TREE DISEASE PESTS
Dr. Chuck Powell, Plant Health Advisory Services
A popular presenter two years ago, Dr. Powell will discuss some of the most serious disease complexes in today's urban landscape, together with effective, integrated control measures.
This free seminar carries ISA Arborist recertification credits as well as pesticide applicator recertification credits for most states.

9:00 AM-10:00 AM:  Seminar 5 - Management Seminar - FINDING DIAMONDS IN THE ROUGH
Mr. Spence Rosenfeld, Arborguard, Inc.
Spence Rosenfeld founded Arborguard, Inc., a highly successful medium-sized landscape care business in Atlanta. His management methods are innovative - and extremely effective. Join him as he walks his audience through his company's comprehensive employee development program.

Seminar 6 - Field Operations Seminar - TREE FERTILIZATION & SOIL AMENDMENTS
Mr. Randall MacDonald, Roots, Inc.
Environmental sound programs will be essential for tree care businesses to survive and succeed through the 90s and beyond. Randall MacDonald applies the latest technology and knowledge of tree physiology to create tree treatments that are right for the times. This seminar carries ISA Arborist recertification credits.

10:00 AM-10:15 AM:  COFFEE BREAK - Outside Meeting Rooms

10:15 AM-11:15 AM:  Seminar 7 - Management Seminar - USING YOUR BANKER
Mr. Greg Skoda, Skoda, Minotti, Reeves & Co., Certified Public Accountants
Arborist firms need solid business plans and appropriate financial backing to flourish. Greg Skoda will explain, in non-accountant's language, how to best work with a banker, and much more. His firm, recognized as one of the 50 most distinguished accounting firms in the country, specializes in helping small, privately held companies.

Seminar 8 - Field Operations Seminar - TREE PROTECTION & MANAGEMENT
Dr. Tom Perry, Natural Systems Associations
Construction-related tree damage is a leading cause of tree decline and tree loss. This widely respected speaker will explain and illustrate how the arborist can take steps to mitigate or prevent tree damage, and help the arborist recognize the signs of construction damage and provide remedial care. This seminar carries ISA Arborist recertification credits.

11:15 AM:  TRADE SHOW OPENS

11:30 AM-3:30 PM:  DEMONSTRATIONS - Demonstration Areas

4:00 PM-5:00 PM:  Seminar 9 - Management Seminar - UNDERSTANDING CASH FLOW
Susan Haupt, Lobo Management
Numbers are an Arborist's friend, especially in difficult economic times. Susan Haupt is a numbers specialist who speaks from an Arborist's perspective. She is senior vice president of a well-established and prosperous New England tree care company as well as a business consultant with 35 years tree care management experience.
Cost analysis and management are two of her areas of specialization. She helped to develop a complete job management and accounts receivable computer software system.

Seminar 10 - Field Operations Seminar - ANSI A300: THE NEW STANDARD FOR PRUNING
Mr. Tim Johnson, Artistic Arborist, Inc.
A national consensus standard for tree pruning, when it is released, will provide uniform criteria for tree pruning and thereby improve the quality of tree work across the country.
Tim Johnson, chairman of the committee writing the standard, is also a highly respected commercial Arborist. He will explain the full significance of this new standard. This seminar carries ISA Arborist recertification credits.

5:00 PM:  TRADE SHOW OPENS FOR CLEVELAND GARDEN CENTER ATTENDEES

6:00 PM:  RECEPTION FOR CLEVELAND GARDEN CENTER MEMBERS ONLY

7:00 PM:  TRADE SHOW CLOSES - SPEAKER STARTS

SATURDAY, NOVEMBER 20, 1993

7:30 AM:  REGISTRATION OPENS

7:30 AM-8:30 AM:  COFFEE BREAK - Registration Area

8:00 AM-9:00 AM:  Seminar 11 - FREE Pesticide Recertification Seminar - INSECTS & MITES ASSOCIATED WITH STRESSED TREES
Dr. Dave Shetlar, Ohio State University Extension
Many of the insect and mite pests that attack urban trees are opportunists searching for a stressed and susceptible tree. Dr. Shetlar will discuss some of the most serious tree stress-insect complexes as well as integrated control measures.
This free seminar carries ISA Arborist recertification credits as well as pesticide applicator recertification credits for most states.

9:00 AM-12:00 NOON:  Seminar 12 - CERTIFICATION PREPARATION SESSION
Mrs. Sharon Lilly, Expert Tree Service
This special three-hour preparatory session is open only to those who have pre-registered to take the ISA Arborist Certification exam at EXPO. Sharon Lilly is currently the Certification Liaison for the Ohio Chapter of ISA, and was instrumental in the development of certification exams and test procedures.

9:00 AM-10:00 AM:  Seminar 13 - Management Seminar - FINDING NEW CUSTOMERS
Mr. Richard Proudfoot, Pruett Tree Service, Inc.
Marketing, Advertising, Promotion... Image. Dick Proudfoot has great expertise in each of these areas, owing to his having owned and successfully operated ten different businesses. He is the general manager of Pruett Tree Service in Portland, Oregon, and a sought-after speaker for arboriculture groups around the world.

Seminar 14 - Field Operations Seminar - HANDS-ON SHRUB PRUNING
Dr. H. Dennis P. Ryan, III, University of Massachusetts Stockbridge School of Arboriculture
This hands-on, limited enrollment session will take place in a landscaped section of the trade show floor. Dr. Ryan, Professor at the University of Massachusetts Stockbridge School of Arboriculture, will show students how to head back, rejuvenate and shear deciduous and evergreen shrubs. This seminar carries ISA Arborist recertification credits.

10:00 AM:  TRADE SHOW OPENS

10:30 AM-2:30 PM:  DEMONSTRATIONS - Demonstration Areas

1:30 PM:  ISA CERTIFICATION TEST

3:00 PM:  TRADE SHOW CLOSES
Free Admission

Admission to the trade show is free, but all attendees must be registered and receive a TCI EXPO ‘93 badge in order to gain entrance into the exhibit hall. If you do not pre-register, you must sign in at the Registration Desk upon your arrival.

Seminar Discounts

The basic price per seminar for TCI EXPO ‘93 is $32.00 per session. You can significantly lower your seminar costs in several ways. By registering early (before 10/14/93) you can earn a $3.00 discount off your per session cost. Bringing an additional member of your firm can earn an additional $6.00 off for you and the associate or associates. That is a total of up to $9.00 off the base seminar price for registering early and bringing one or more associates.

You might also elect to purchase a Gold Card. The card allows unlimited access to all seminars for one price. Additional employees who are not getting Gold Cards are entitled to the same discounts as general attendees.

Registering

Begin by photocopying the blank registration form on the facing page. Use these copies to register additional employees from your firm. Next, fill out the top of the registration form and circle the number of each seminar you wish to attend. Count the number of seminar hours indicated next to the seminar titles. Record this number in the space provided and begin your calculations. Once you have determined your final seminar cost, mail the completed form with your check or credit card information to the TCI EXPO office at P.O. Box 1094, Amherst, NH 03031-1094.

Also, make sure you:
- Photocopy the completed registration form for your records—this will serve as a record of the seminars you chose;
- Mail all registration forms together by October 14, 1993 to earn the early registration discount and avoid long registration lines;
- Complete the checklist on the back page.

If you have any questions regarding registration, feel free to call TREE CARE INDUSTRY at 1-800-733-2622 and we will be glad to help.

Hotels

This year’s host hotel is the Marriott Society Center located at 127 Public Square. It is across the street from the Cleveland Convention Center. Rooms have been reserved at the Marriott but space is limited. You must make your reservation before 10/25/93 to receive the preferred rate of $80.00 per night (single or double). Please make your reservations early by calling 1-800-831-4004 and be sure to mention you are attending TCI EXPO ‘93 to receive the preferred rate.

We have also arranged for a special rate at one alternate hotel, a ten minute walk from the Convention Center. The Holiday Inn Lakeside City Center at 1111 Lakeside Avenue is offering a rate of $60.00 per night (single or double) for reservations made before 10/16/93. To make a reservation call 216-241-5100. Please mention you are with TCI EXPO ‘93 when contacting this hotel. Besides the hotels listed above you may wish to look into other available accommodations more distant from the Convention Center.

Airline Information

The official carrier for EXPO ‘93 is United Airlines. The airline is offering EXPO attendees 10% off the unrestricted BUA coach fare or 5% off the lowest applicable fares, including first class. This special offer applies only to attendees of this meeting, and applies to travel on domestic segments of all United Airlines and United Express flights. The same discounts are also available for attendees traveling to or from Canada in conjunction with EXPO ‘93. These fares are available through United’s Meeting Desk for travel between 11/15/93 and 11/23/93.

To obtain the best fares or schedule information, please call United’s Specialized Meeting Reservations Center at 1-800-521-4041. Dedicated reservationists are on duty 7 days a week from 7:00 a.m. to 1:00 a.m. EST. Please be sure to reference the EXPO ‘93 ID number 534 YQ. You or your travel agent should call today as seats may be limited. Tickets will be mailed by United or you can pick them up at your local travel agency or United Airlines ticket office.

As a United meeting attendee you qualify for special discount rates on Hertz rental cars. Mileage Plus members receive full credit for all miles flown for this meeting.
REGISTRATION FORM

Name ____________________________  Phone ____________________________
Title ______________________________  Company _________________________
Address ____________________________  City ____________________________
State ______ Zip _________________

NOTE: Please use a separate form for each attendee.

SEMINARS

Circle the number of each seminar you wish to attend. Be careful not to pick two seminars which occur at the same time. Count the number of seminar hours indicated next to the seminar titles. Record this number in the space below marked total seminar hours.

NOVEMBER 18th
#1 - 8:30 am  Aerial Rescue Avoidance  1 hour
#2 - 4:00 pm  What Makes A Top Salesperson  1 hour
#3 - 4:00 pm  Creating Wildlife Habitat  1 hour

NOVEMBER 19th
#4 - 8:00 am  Integrated Control Of Top Tree Disease Pests - FREE SESSION  0 hour
#5 - 9:00 am  Finding Diamonds In The Rough  1 hour
#6 - 9:00 am  Tree Fertilization & Soil Amendments  1 hour
#7 - 10:15 am Using Your Banker  1 hour
#8 - 10:15 am Tree Protection & Management  1 hour
#9 - 4:00 pm  Understanding Cash Flow  1 hour
#10 - 4:00 pm  ANSI A300: The New Standard For Pruning  1 hour

Special Evening Session For Cleveland Garden Center
7:00 pm Gardening Around Trees Can Be Lethal - Compromise Is Essential  FREE

NOVEMBER 20th
#11 - 8:00 am  Insects & Mites Associated With Stressed Trees - FREE SESSION  0 hour
#12 - 9:00 am  Certification Preparation Session  0 hour
#13 - 9:00 am  Finding New Customers  1 hour
#14 - 9:00 am  Hands-On Shrub Pruning  1 hour

TOTAL SEMINAR HOURS ______________________

CALCULATE YOUR COST

The Gold Card
If you will be attending more than 5 seminars or would like unrestricted access to all seminars, then our Gold Card registration best suits your needs. To purchase a Gold Card registration, you must register before October 14. Check "Yes" in the box below and enter $160 on the TOTAL COST line. You are done!

I wish to buy a Gold Card Registration:
☐ YES  ☐ NO

Regular Registration
Regular Registration is for you if: 1) you will be attending 5 or fewer seminars; 2) you will be attending 6 or fewer seminars and registering an associate from your firm; or 3) you will be attending 7 or fewer seminars, registering an associate and registering before October 14.

Basic Cost
Multiply your total seminar hours by $32 and enter the amount on the Basic Cost line.

Discounts
If you are registering before October 14, 1993 deduct a discount of $3 for each seminar hour you registered to attend. Enter the amount of your discount on the Early Bird line.
If more than one person from your organization is registering for seminars, deduct a discount of $6 for each seminar hour you registered to attend. Enter the discount on the Multiple Attendee line.
Total your discounts by adding the Early Bird and Multiple Attendee amounts together. Enter this figure on the Total Discount line.

Total Cost
Subtract your Total Refund from your Basic Cost line. This figure is what you pay for your registration.

Check enclosed for $ ______________________ Please charge my Visa/MasterCard ____________

Credit Card # ______________________________ Expiration Date ________________

Signature ____________________________

Mail the original form, with your check or credit card information to:
TCI EXPO '93, PO Box 1094, Amherst, NH 03031-1094
If you have any questions, please call TCI at 1-800-733-2622.

NO REFUNDS AFTER NOVEMBER 1, 1993.
A FEW FACTS ABOUT CLEVELAND

Located on the southern shore of Lake Erie, Cleveland is Ohio's largest city, with a metro area population of over 3 million. Founded in 1796, Cleveland is a sophisticated city with a multitude of things for visitors to see and do. Fine dining opportunities abound, such as the Watermark Restaurant, Hyde Park Grille, Li Wah, and Top of the Town, 38 stories high in the Galleria Tower, to name but a few. Exciting nightspots along the lakefront's Flat's area and renovated Warehouse District offer a variety of vibrant blues, jazz, dining, and comedy opportunities. A world-class symphony orchestra adds to the city's cultural life, while major sports teams, such as the NFL Browns and the NBA Cavaliers, provide a different style of entertainment.

CHECKLIST
For Registration Form:

I have:

☐ Made a photocopy of the original form to give to additional members of my firm.

☐ Filled out the form completely.

☐ Taken advantage of all entitled discounts.

☐ Double checked all cost calculations.

☐ Made a photocopy of the completed form for my records.

☐ If there are multiple attendees from my company, enclosed a copy of their form(s).

☐ Enclosed a check or credit card information.

☐ Mailed registration form before October 14, 1993 for discounts.

OTHER TCI EXPO '93 HIGHLIGHTS

Celebration '93
Come help us celebrate the opening day of EXPO. Socialize with exhibitors and fellow arborists at the Marriott Society Center Hotel Ballroom. As our guest, enjoy complimentary beer, soft drinks and a variety of snacks. There will be a cash bar available for other beverages. The celebration is on Thursday evening, November 18th from 6:00 to 8:00 pm.

Coffee Breaks
Complimentary coffee service will be provided during the opening day registration and in the registration area from 7:30-8:30 am thereafter. Coffee will also be served between seminars on Friday morning. There will be concession stands in the Exhibit Area during Trade Show hours for refreshments and snacks.

See you in Cleveland!

TCI EXPO '93
P.O. Box 1094, Amherst, NH 03031-1094
800-733-2622  FAX: 603-672-2613

Write or call for more information: