When you buy Altec, you're buying more than just rugged, reliable equipment. You're buying the expertise, enthusiasm and dedication of more than 1,500 Altec people. People who care about how well your fleet is running. People who have the knowledge to keep it running long after the sale has gone through. It's this kind of commitment to customer service that's made Altec the best-known name in the industry.

It's also a commitment to put every resource at your disposal—all of our people, our financial strength, more than sixty years of experience, and the largest manufacturing and service facilities in the business.

At Altec, we know that customer service is an attitude, not just a job. Now, that's a powerful statement. But nothing less than you'd expect from the leader in the industry.

See us at TCI Expo

For information about Altec's complete line of reliable aerial devices, digger derricks, reel lifters, bodies and accessories, call 1-800-232-7373.

Please circle 2 on the Reader Service Card
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COVER PHOTO:
Early fall beautifies the arborist's workplace.
"It’s not a great year, but everybody goes home with a paycheck every week. We are paying our bills and we are in the black! But.......we are working a lot harder to be where we are. We watch our expenses very closely and we look for every opportunity to improve our service and reduce our costs.”

That’s what I hear when I talk to most tree company owners around the country. There are some places where business is excellent and other places where the tree business is terrible, where it’s tough to sell a job, for any price. As a result, tree people are really picking up on the old adage, “It’s better to work smarter than harder.” There is little margin for error these days, and anything something can be done smarter or more economically is the way to go.

Many people tell me that is why they are coming to TCI EXPO in Baltimore this year. They want to see the tools, materials and equipment that will make their operations more efficient. They want to attend the seminars and view the demonstrations that will make their operations run better. They know they can find it all at TCI EXPO ’92.

Baltimore is easy to get to. Accommodations are inexpensive and registration fees are very reasonable.

Make an investment in your future. Come to TCI EXPO ’92 in Baltimore. Find out what’s new, more efficient, more cost-effective. Find out what your peers are doing around the country.

This is not the time for fun and games in resorts. That can wait. This is the time for serious business. This is the time to get the most out of opportunities. TCI EXPO ’92 is one of those opportunities.

Robert Felix, Publisher
Disc or Drum? Now There's a Better Choice!

Morbark's New E-Z Chipper

Why Buy an E-Z?

Nearly two years of research and testing have been devoted to the development of Morbark's new E-Z Chippers. The result? The safest, most productive, most economical hand-fed brush chippers you can buy. In fact, this principle works so well, we're offering a full line of E-Z chippers from small drop feed units to large whole-tree chippers. Because the E-Z chippers are so superior in every way to conventional drum chippers and disc chippers, we are pleased to announce we will discontinue production of our own popular hand-fed, disc-style chippers. But don't just take our word for it. The only way to really appreciate these chippers is to see them run. We urge you to call today for a free video demonstration and for the name of your local Morbark dealer, who will be happy to arrange a live demonstration. Once you see an E-Z operate, we're convinced it will be your next chipper!

MORBARK
P.O. Box 1000  Winn, MI 48896  (800) 233-6065

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Morbark's E-Z Secret

The patented E-Z chipping principle is a revolutionary concept in brush chipping. Illustrated by the patent drawing above, the E-Z drum works much like a circular saw blade. Chips are held in the deep chip pocket until discharged by centrifugal force. This allows chipping with less horsepower and chipper wear than ever before.
Dielectric Testing

By Peter Gerstenberger

If your company has insulated bucket trucks designed to protect the operator from electrical hazards, be aware that the protection is not infallible. Annual or semi-annual dielectric testing by a reputable company helps ensure that the protection built into such units is there when you need it.

The American National Standard for vehicle-mounted elevating and rotating aerial devices, A92.2-1990, outlines test procedures. Bucket truck manufacturers have their own test procedures, while manufacturers of testing equipment outline specific procedures for testing different makes of lifts.

ANSI requires that the testing be done periodically. For the tree industry, the understanding is that dielectric testing should be performed every six months to one year. Electric utilities usually test their vehicles quarterly. While each industry has its own rules, none can be less stringent than the ANSI or manufacturer's requirements.

Test procedures should meet or exceed ANSI A92.2-1990. The previous revision, ANSI A92.2-1979, rated insulated aerial lifts at 69 kV and required lift parts to be tested at 40 kV for one minute. Maximum permissible leakage was 40 microamperes—that's forty-millionths of an amp. The new standard rates units at 46 kV and requires testing at 100 kV for three minutes.

Sub-part F of the Occupational Safety and Health Standard covering vehicle-mounted lifts still enforces the 1969 revision of A92.2, which also specified a three-minute test with 100 kV and one milliamp permissible leakage.

How testing is done

Dielectric testing can be done quickly and simply, and normally does not require that the equipment be disassembled. Most testing firms test lifts with alternating current because this is what operators likely would face when working around overhead conductors.

Main tests are the upper boom, the lower boom isolator and both booms together. If testing measures leakage above five milliamps, test technicians know there is a problem.

Testing the upper boom consists of hooking a high-voltage lead to the platform end of the upper boom and a ground wire to the lower boom above the isolator. The technician tests the isolator by placing the high voltage above the isolator and the ground on the truck chassis. After making the hookups, the technician turns on the tester and increases the voltage slowly. He reads the current flow through the unit, or leakage, from an ammeter.

Who does the testing?

ANSI specifies that dielectric testing be done by a qualified company. Normally, testing is best handled by the lift's manu-
There are firms, however, that do nothing but dielectric testing, and many can bring the testing equipment to your place of business. If you use an independent lab, make sure they adhere to manufacturer’s guidelines for testing. You should probably look for a firm that tests with AC equipment.

In general, our advice to bucket owners is to find a testing service that follows manufacturer’s guidelines and strict test procedures. If you change to another testing service, expect different test results.

Brian DePiero, of Aerial Lift, Inc., of Milford, Connecticut, cautions against testing companies that place more emphasis on short-term profits than on safe test procedures that yield reliable results. He also warns that improper testing could damage a vehicle.

As for DC testing, DePiero says that it is more likely to burn the isolator, creating an unseen electrical hazard as well as the need for costly repairs and more downtime.

Before hooking up the testing equipment, Aerial Lift technicians visually inspect and thoroughly clean the vehicle.

Aerial Lift has developed a list of conditions that could make a vehicle fail its dielectric test. When for some reason the insulating ability of the boom has been completely destroyed, the testing equipment will register a flashover, another name for a direct short circuit. The voltage goes directly from the basket to the ground through some conductor, and the machine automatically shuts itself off.

Consolidated Equipment Repair Service (CERS) tests vehicles at its shop in Amherst, New Hampshire, and at the client’s business, using a mobile testing unit. The testing takes an hour and a half.

Bill Dowd, of CERS, feels that consistent testing procedures under controlled conditions is critical to getting reliable results. CERS technicians go as far as recording the temperature, barometric pressure and humidity on the report form.

While each aerial lift manufacturer publishes guidelines for dielectric testing, CERS follows the guidelines from the manufacturer of the testing equipment to get consistent results.

Regardless of where the testing is done, CERS tests equipment in the condition it arrives from the field. Thus, the report will reflect the actual risk, if any, to the lift operator.

CERS can eliminate most leaks with pressure washing. However, the technician must carefully watch the gauges and look for other signs of a short circuit while gradually increasing the voltage. A sudden increase could burn an isolator or damage hoses.

The only exception CERS makes to “as is” testing is if the technician spots wire-braid hydraulic hose or something else that is likely to cause flashover.

When CERS finds a piece of equipment that cannot pass the dielectric test, the company sends a registered letter to the owner outlining the problems that have been uncovered.

The testing equipment used at both companies is expensive to purchase and maintain, so technicians must treat it carefully and have it calibrated annually.

According to Dowd, most tree companies request a surface test of the basket or basket liner. In such cases, the technician attaches electrodes to the outside of the top and bottom of the basket to measure surface conductivity of the basket.

Another method is the submersion test, where the basket liner is placed in a water tank. The submersion test measures leaks through the wall of the liner.

Keeping records

No matter who does your dielectric testing, it is important that you keep documentation of test results. This will help protect your firm from possible citations from the Occupational Safety and Health Administration to shift some of the liability for equipment failure off your company.

CERS also keeps its own records with a computer program that will pull up the customer whose truck was last tested five months ago. The customer gets a postcard, similar to the reminder your dentist or doctor might send. If the customer has not responded after six months, he gets a phone call and a formal letter shortly after
that. After 18 months, CERS sends a registered letter to try to determine if the customer still owns the equipment. If the owner sold the equipment, CERS attempts to find out who bought it and if it is in service.

To the manufacturer, dealer and owner, the legal liability of equipment testing is inescapable. To Dowd, the most frightening aspect of dielectric testing is dealing with owner/operators who buy second-hand equipment.

Old insulated units, unless properly maintained, are much less likely to provide adequate protection. Manufacturers now build lifts to be more durable. Fiberglass parts are coated inside and out to resist penetration of contaminants.

According to A92.2-1990, when a used bucket truck changes ownership, the seller must provide the manufacturer’s manual(s) to the purchaser. The new owner must notify the manufacturer of the unit model and serial number and the new owner’s name and address within 60 days of the sale.

Testing your aerial lift for its insulating ability is every bit as important as inspecting it for serviceability and road-worthiness. When you test your vehicle, you want consistent test procedures conducted by a reputable company following manufacturer’s guidelines for testing.

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**Common Causes of Dielectric Failure**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Description</th>
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<tbody>
<tr>
<td>Wire braid hydraulic hose installed in boom—usually, wire braid hose is black while non-conductive hose is orange or blue</td>
<td></td>
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<tr>
<td>Incorrect or contaminated hydraulic fluid</td>
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<tr>
<td>Electric cord for light or other equipment installed in boom</td>
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<tr>
<td>Other wire running up through boom</td>
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<tr>
<td>Birds’ nests</td>
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<tr>
<td>Defective lower boom inserts on old units</td>
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<tr>
<td>De-lamination of fiberglass parts—usually they must be replaced</td>
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</tr>
<tr>
<td>Dirt line on underside of upper boom—usually can be washed off, may have to be sanded down and re-coated</td>
<td></td>
</tr>
<tr>
<td>Surface dirt, oil, or moisture</td>
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<tr>
<td>Tracking—years of grease and dirt actually penetrate the core of the fiberglass—replace the defective part</td>
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THE VO-50 SAVES ON COSTLY SETUP TIME!

Time is money in the tree care business, and the time you save with Versalift puts money in the bank.

Fewer set-ups, more worktime are just two reasons the VERSALIFT VO-50 is the choice of tree care professionals from coast to coast. It's been field proven to be an effective, hardworking, and dependable tool.

The VO-50 gives you reach and movement others can't match, and it's done without troublesome cables or chains, meaning safer, low-maintenance operation.

To see a VO-50 on your work site, call or write today for more information and the name of your nearest VERSALIFT distributor.

VERSALIFT

It's TIME to check out VERSALIFT!

Please circle 41 on the Reader Service Card
Flipline alert

I want to alert you to a defective piece of climbing equipment. I know of one climber personally and have heard of two others who this happened to.

The wire-core flipline, made of synthetic fiber rope with a braided wire core, is a dangerous piece of equipment. The rope is not back-spliced through the ring of the snap, but only the 5/16-inch cable goes around a thimble passing through the ring of the snap.

The cable, after passing around the thimble and through the ring, is clamped back to itself. Right behind this clamp where the cable is exposed is the weak point—it is here where failure occurs.

Because of the bending that occurs when the line is in use, the cable has broken at this point. The repeated flipping of the line up the tree while climbing will slowly wear the strands until a load is put on it and it snaps. Because the end of the rope covers the cable at this point, a climber can be completely unaware of the situation.

This is precisely what happened to a friend of mine while climbing a large eucalyptus in California. He was 30 feet up and leaning back to throw his climbing line over a large branch. The cable could not take the strain of his weight and snapped. Fortunately, he was not hurt.

Rob Ogus
Wells, Vermont

Note: The following response to the letter above was written by Don Blair, owner of Sierra Moreno Mercantile Company, in Big Pool, Maryland, at TCI’s request. Mr. Blair is a distributor of wire-core flip-lines and other types of lanyards.

The synthetic wire-core flip-lines were developed in 1985 to replace the classic 4-strand manila wire-cores that were a standard among West Coast loggers for over 100 years, when the availability and quality of manila declined. Since it has been proven impractical to manufacture a wire-cored synthetic 4-strand that allows for over-braiding the cable with the rope, alternative methods have been developed to allow for the use of a braided synthetic such as Arbor-Plex II.

Whereas the manila jackets wore out long before there was any metal fatigue, the synthetic jackets have extended the service life of the flipline beyond the service life of the cable. When I was climbing on manila, I used to have to replace my flipline three to four times a year. Flip-lines that we have observed with cable fatigue have been several years old and one was used to pull a chipper truck out of the mud! Flip-lines manufactured to the speci-
1985 Ford F700 V8 5x2 sp w/ 4 ton Knuck Boom Crane $17,500. (10 others in stock).

1983 Chev C70 8.2 Diesel 5x2 sp w/ Asplundh LR50 & dump chip box. $29,500.

1983 Ford dsl., 5x2 w/ 8 ton crane, 56' boom. $26,500.

1986 Ford F800 crane & dump. 4 ton crane. $7,900.

1985 Ford F700 V8 5x2 sp w/ 55' Teco Bucket 60'. Manky Height. $19,500.

1979 Ford V/8 5x2 sp w/ 75' Radocy Sign Chanc. $12,500.

1983 Ford c/o Cat Diesel 5x2 sp w/ tool box and chip body. $6,500.

1977 Ford c/o Cat Diesel 5x2 sp w/ winch. $14,500.

1976 Mack 4x4 dsl. service truck, w/ winch. $49,500.

1980 Ford F800 crane & dump. 4 ton crane. $7,900.

1986 Ford w/ Hiab log loader. $7,900.

1983 Mack 4x4 dsl. service truck, w/ winch. $49,500.

1983 Ford dsl., 5x2 w/ 8 ton crane, 56' boom. $26,500.

1976 Int V/8 5x2 sp w/ 75' Radocy Sign Chanc. $12,500.

1986 Chevy w/ Lift All 65' 9400 miles. $48,500.

1979 Ford V/8 5x2 sp w/ 55' Teco Bucket 60'. Manky Height. $19,500.

1980 Ford F800 crane & dump. 4 ton crane. $7,900.

1976 Int V/8 5x2 sp w/ 75' Radocy Sign Chanc. $12,500.
According to the ANSI Z-133 standard: “All equipment, including ropes and lines upon which the worker must rely for his/her safety shall be inspected by the worker each day before use.”

In addition, wherever possible, a tree worker should not rely upon one piece of equipment for his/her safety. An example would be using only a flipline to spur down a tree being blocked down. With or without a wire-core, the climber should pass his/her climbing line around the trunk and secure a taut-line hitch below the lanyard. If the lanyard is cut or the trunk splits, the taut-line hitch is back-up security and can help to keep a splitting trunk from catching a climber in the bight.

I would encourage anyone reading this article to make a special effort to inspect all safety or production equipment immediately.

If anyone has any specific questions about inspection of fliplines, saddles, ropes or production equipment, please feel free to contact me.

Donald F. Blair
Sierra Moreno Mercantile Company
P.O. Box 292
Big Pool, MD 21711
Phone: 301-842-2544
FAX: 301-582-3639

Refreshing to read

Besides being factual and highly informative, your magazine is refreshing to read. I don’t think that you have to look over your shoulder. TCI is setting the pace. You have a fine magazine, and I can only see it getting better. You must feel proud to offer such fine journalism. Keep up the good work.

Michael Simmons
Tree Inject Systems, Ltd.
Jersey Shore, Pennsylvania

Another TCI fan

I receive your TCI magazine every month and find it very interesting and informative. Keep up the good work.

Mark Marriott
Marriott Industries
Australia

Letters should be addressed to:
Tree Care Industry, Editor
P.O. Box 1094
Amherst, NH 03031
States Regain Control

Localities Losing Battle To Enact Pesticide Regulations

By Brian Barnard

As state legislative sessions come to a close this year, 26 states have enacted legislation prohibiting local jurisdictions from regulating pesticides. In five of these states, the issue is addressed by the Attorney General.

In addition, a bill to reauthorize the Federal Insecticide, Fungicide, and Rodenticide Act (H.R. 3742) is aimed at giving pesticide regulation back to state and federal authorities. As of this printing, H.R. 3742 awaits action by the full House Agriculture Committee.

This flurry of legislative action and other lesser-known legal battles resulted from the Supreme Court's decision last year to grant the power to enact pesticide regulations to 83,000 municipalities across the country.

Local regulation presents several problems for the tree care professional. First, many towns proposed bylaws that judge the alleged danger or desirability of certain products, even though they lack the technical expertise to administer pesticide regulation. Such judgment requires specialized training, which is normally found only at the state and federal levels of government. Second, local pesticide regulations end at the town line and may conflict with those enacted in a neighboring town. The result is confusion, particularly since an environmental need for protection would not end at the town's borders.

Also, local regulations mean increased cost for tree care companies that operate in more than one jurisdiction. That expense is ultimately passed onto the consumer.

Local regulatory action is evident in 29 states. If a municipality in your area discusses regulating pesticide use, become involved. Communicate with affiliate local, state and national tree care organiza-
Levco's Model HD47 is a mid-size, towable stump grinder that features a 37 H.P. gasoline engine. The HD47 cuts vertically — with the grain — which is faster and smoother than cutting side to side. The HD47 cuts 44 inches above grade down to 20 inches below. The 25 teeth are carbide tipped, bolted-on, sharp-enable and even reversible! The HD47 is one of ten models available.
"Everybody in our office reads the NAA's monthly newsletter THE REPORTER, and all our field personnel have subscriptions to THE TREEWORDER. These publications keep us in the mainstream of the tree care industry. We use the NAA's HOTLINE frequently. The NAA staff has a depth of expertise and is always able to help us find answers to questions."

The National Arborist Association publications and telephone communications keep management and field personnel fully informed of developments that affect their performance, jobs and even lives. Communications are why so many tree care firms belong to NAA—but that isn't the only reason. There are also comprehensive safety programs, management guidelines, insurance programs, cost effective training programs—a wealth of information that enables an arborist to readily comply with government regulations and other support.

Another benefit is NAA's knowledgeable staff and their toll free HOT LINE - 1-800-733-2622.

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 introductory dues of $175 for the remainder of 1992 and all of 1993. Your annual dues in 1994 will be based on your firm's gross sales for 1993.

☐ YES, I want to belong to NAA and take advantage of this "Special Offer"! Enclosed is my payment of $175 for dues through 1993.

☐ I'm interested. Send me more information.

☐ Send me information on your training programs.

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☐ Check enclosed payable to NAA ☐ Visa ☐ MasterCard
Account # ___________________ Exp. Date __________
Signature __________________________
Referred by (optional): __________________________

The National Arborist Association, P.O. Box 1094, Amherst, NH 03031
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.

Charlie McGinty
McGinty Bros., Inc.
Long Grove, Illinois

"Why did I join The National Arborist Association?
For the wealth of information that NAA provides!"
Happiness And Safety

By Dave deSousa

As social beings, most of us enjoy the company of other people at some time or other. We want and need to belong, to be a part of something, to be included, to feel important, and so on. It is important, therefore, to ask ourselves if we are as happy in our relationships as we could be.

Happiness depends on our ability to add value to the many facets of our society. At home, work, church, school, company, club or whatever, the more that values are added, the more relationships improve and the happier we all will be.

Consider this: When we add value(s) to a relationship, be it with one person or several—a marriage, a family, or a company—we have started a happiness cycle. When we see that relationship reflect that value, (i.e. improve in some way), we have completed the happiness cycle.

For example, let’s say you took a few minutes to visit a sick friend in the hospital. Stopping to visit is the start of a happiness cycle. When you see that smile and hear the words, “I’m really glad to see you,” you have just completed a happiness cycle. Who’s happy? You both are. Your friend feels good about the caring (value) you showed him. You feel good because he feels a little better (improvement) for your having visited him. And, you are happy he is glad to see you.

Think of the opposite a moment. If you took a value away from a relationship, does the relationship improve? If you continue to take and not give, the relationship won’t last. In fact, it would probably get pretty unhappy. (You may end up getting a divorce, getting fired or having a serious accident.)

Here are some graphic examples. How about taxes? When Uncle Sam takes away your money, is he removing a value? Are you happy about that? When your teenager crumples the car fender, are you happy about that?

Here’s another. Let’s say your most experienced crew leader is hospitalized in an auto accident. Would any values be removed from your operation? Would the chances of having an accident go up or down because of his absence?

‘Continuous improvement’

What does all this have to do with safety? A lot! It reaches much farther than just safety, though. Happiness can be achieved in the work environment by adding value not only to safety, but also to quality, production and cost control.

When you come right down to it, happiness is nothing more than the process of “continuous improvement” by the adding of values.

The entire Japanese economic success (happiness) is based on this idea of continuous improvement. Everyone from the top down is continuously trying to help improve the company in some way.

You see, continuous improvement is the secret to a successful (happy) relationship, be it personal, social or business.

If we all strive to continually improve by adding value to the many aspects of our jobs, especially safety, there will be more uninjured, healthy people around adding values. The more people we have adding values, the more improvements we make. The more that improvements are made, the more successful (happy) the unit is.

How do you add value to safety? Anything that you do to improve the safety environment that reduces the risk of an accident or reduces the damage caused by an accident will add value.

Making sure your equipment is in perfect shape, correcting unsafe acts and conditions that you observe, etc., are good examples of reducing risk.

Wearing your personal protective equipment and your seat belt or carrying a charged fire extinguisher and a full first aid kit are examples of reducing the effects of an accident, if one does occur.

Any suggestion or act is great as long as you are continuously trying to improve, not only safety but all areas of your life. Don’t be content with the way things are; you won’t be content for long. I’ll guarantee that you will get bored and unhappiness will set in.

Continuous improvement is how we get promoted, how we reduce accidents, how we boost quality and production and how we reduce costs in the business world.
How to stand up to tough customers.

When you’re working in the treetops, you want some strong support. Here’s where you need a friend, a buddy... a Hi-Ranger Sidekick™ Model SK-451.

The Sidekick’s durable overcenter upper and lower booms get you into position to deal with your toughest customers. With a working height of 56 feet, and 135° lower boom travel, you have the flexibility and solid support you need to get the job done efficiently.

After you’ve cut your tough customers down to size, put the trimmings in Hi-Ranger’s 15-cubic-yard chip box.

Call your local Hi-Ranger dealer and find out how easy it can be to reach new heights without going out on a financial limb. Or call us at 414-547-1000. FAX 414-547-8407.

We’ll send you more information.
A group effort

Some words of caution here. You can’t do this by yourself. When the entire group is continually trying to improve an operation, the results will be far greater than if everyone in that group is just trying to improve himself. Besides our own success, we must have the happiness (success) of the group as our goal. Remember, when the group improves, even slightly, it will never split the kind of logs we get!

Over the long run, if you added up all the little improvements that you can help to make by continuously adding value, you and your relationships will be successful. You’ll be so happy you’ll chuckle all the way to the bank.

So—don’t worry, add values and be happy!

Dave deSousa is an employee of the F.A. Bartlett Tree Co., and a management consultant in Meredith, New Hampshire. He will lead a crew leader training workshop at TCI Expo ’92 in Baltimore, Maryland.
BASIC TRAINING FOR FIELD PERSONNEL

NAA'S Home Study Programs
Make The Difference!

The National Arborist Association's Home Study Programs are easy to use, economical and result in more efficient, productive, profitable field personnel.

1. Field personnel do a much better job more safely if they know why they are doing what they are doing.
2. NAA's programs can be put to use at any time from the first day of employment on.
3. Not everyone is ready for certification or even capable of becoming certified.
4. Everyone is capable of benefitting from NAA's Home Study Programs.
5. The Home Study Programs serve as excellent preparation for those who aspire to become certified arborists in the future.

COURSE OBJECTIVES
Employee development has been one of the greatest problems in the arboriculture industry. It has been estimated that it costs you, the employer, more than $10,000 to replace and properly train a worker. The primary objective of NAA's Home Study Program is to improve staff quality, dedication and professionalism while providing practical study that can be completed within the staff member's own time frame.

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With more than 400 pages, the HSP represents a major work in the field of arboricultural education. Each course consists of eight individual sessions. Students are urged to complete at least one session per month.

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- Soils
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- Pruning of Shade and Ornamental Trees
- Identification and Selection of Trees
- Transplanting Shade and Ornamental Trees
- Diagnosis of Shade and Ornamental Tree Problems
- Non-Parasitic Injuries to Shade and Ornamental Trees
- Insect Problems, Disease Problems
- Pollution Damage, Pest Management
- Fertilization and Watering
- Maintenance and Repair Practices for Shade and Ornamental Trees

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Each section of the program contains an objective multiple choice test. Upon completion of each section, the student submits their test package to the NAA office for scoring. When the results are received, the student may proceed to the next assignment.

Upon successful completion of each Series, students will be awarded a Certificate of Completion.

To Order your HOME STUDY BASIC TRAINING, & SAVE 10%!
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Please circle 24 on the Reader Service Card
Innovations

Arborists are innovative by nature. They appreciate products that show imagination, especially when those products can help trees or make their work easier and safer. The following assortment of new products will be of interest to arborists.

Camb guard—A product that is friendly to trees is the Camb Guard tree support. Developed by John Keslick, a commercial arborist in Pennsylvania, the product is made from recycled truck inner tubes. It provides a broad, flexible support that will not damage the tree while allowing it to sway slightly.

For more information, call 215-696-5353.

Cambium saver—The cambium saver is a simple rawhide leather sheath intended to preserve both rope and tree. It eliminates the bark and cambium damage that can occur when a climbing line or lowering line runs repeatedly through a tree crotch. Because it reduces the friction of a running line, it can also make manual climbing easier.

Developed by Jon Mooring, an arborist in El Cajon, California, the cambium saver comes in several sizes for one-half inch climbing lines and larger work lines. The cambium saver is already available in several arborist supply houses.
New Products Friendly To Arborists & Trees

Bollard friction brake lowering device—This device provides the ground person with a simple and relatively inexpensive lowering tool that provides a constant amount of drag per wrap. A 4-inch bollard is best suited for lowering small limbs, while a 6-inch device handles large limbs and trunk wood.

The bollard device ends rope tangles and wear caused by taking wraps around a tree trunk. The ground person using it can allow a load to run and gradually slow it to a stop without shock loading the lowering line. The ground person may lead the lowering line away from the bollard in any direction without having the line slide off the drum.

Aerial blocks—Lightweight aluminum and stainless steel rope blocks are being used increasingly for climbing and rigging. An aerial block for rigging prevents rope wear and provides the ground person more precise control over the load. Also, using the block in a false crotch with a rope lanyard or webbing sling allows the climber to pick the lowering point rather than having to rely on what is available in the tree.

Aerial blocks used for lowering limbs should be constructed with bushings rather than bearings. When the block catches a falling limb, bearings tend to get flattened, considerably shortening the useful life of the equipment.

Blocks are also important for climbing and aerial rescue.

Work rope—Rounding out the rigger’s equipment list is work rope featuring a technology that is new to the tree care industry—the so-called double braid construction. The ropes featured come from Samson Ocean Systems, the makers of Arbor-Plex. The new construction, consisting of a braided core with a braided rope cover, yields a rope that is 50% stronger than the equivalent size single braid rope.

Though it is initially more expensive than single braid rope, its longer working life can make double braid a better value. Samson’s double braid is available with either a durable fiber finish called Proguard or a polyurethane rope coating. Either will extend the rope’s service life.

Tom Selman of Samson feels the double braid will make an excellent arborist rope. He cautions that working with “a rope within a rope” means that the user has to take extra precautions. The rope core and cover must function as an integrated unit, sharing loads equally. If the core pulls out of the cover or the cover is damaged, then as much as 50% of the rope’s strength is lost.
Climber shield—Probably few arborists who use spurs (also known as hooks, climbers, magic feet) with any regularity have not stuck a sharp gaff through their pants cuff. If they do nothing more than put a hole in a pair of work pants, they should consider themselves lucky. A gaff wound through a boot into the side of one's heel can be painful, messy and inconvenient.

A new device from Buckingham Manufacturing can help prevent these accidents. The climber shield attaches easily to the shank of any spur to reduce the hazard of puncturing the leg or foot with the spur's sharp gaff.

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Back support—Leaning back into your buck strap for long periods can be extremely uncomfortable if your saddle has a narrow waist belt. The add-on back saver tree saddle pad, also from Buckingham Manufacturing, upgrades any saddle with a 3-inch back pad to a full 5-1/2-inch cushioned back support. The back saver pad is lined with leather and has a thick cushion and stiff backer to create a firm, comfortable feel when climbing. The pad attaches easily with four buckles and comes in small, medium and large sizes.

The following people contributed to this story:
Dick Miller
American Arborist Supplies, Inc.
882 S. Matlack St.
West Chester, PA 19382
Jim Pennefeather
Buckingham Mfg. Co. Inc.
Travis Ave., P.O. Box 1690
Binghamton, NY 13902
Jon Mooring
Western Tree Systems
1239 Naranca Ave.
El Cajon, CA 92021.

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New Procedure For Aerial Rescue

The following procedure allows a non-climbing ground person to rescue a climber.

A one-half-inch rope is placed through a suitable tree crotch and a one-half-inch capacity block is secured to one end with a locking carabinier. The climber's line is threaded through the block, the block is pulled up to the tree crotch, and the block line is secured to the tree trunk with two trunk wraps and two half-hitches.

If necessary, the ground crew can quickly lower the climber, provided there is a clear path to ground, by untying the block rope and lowering the block.

The standard measure of a successful aerial rescue is one that is performed in less than four minutes from an average height of 35 feet. A top-notch climber can perform a rescue in just over a minute. Under the right conditions, a ground person can perform the block lowering rescue in a matter of seconds.
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Lloyd Center
Portland, Ore.
Contact: Paul Ries, 503-373-7854

October 8-10
ASCA Annual Conference
Asheville, N.C.
Contact: John Duke, 303-466-2722

October 23-25
New Jersey Tree Expo
Sponsored by New Jersey Shade Tree Federation, New Jersey Chapter ISA and the Arborists Association of New Jersey
Cherry Hill, N.J.
Contact: William Porter, 908-246-3210

October 28-31
ISA/Texas Chapter Meeting
Dallas, Texas
Contact: Len Newsom, 512-454-1411

November 1-5, 11-15
Tree Biology Seminars
Featuring Dr. Alex Shigo
Appalachian State University’s Camp Broadstone
Boone, N.C.
Contact: 704-262-3045

November 8-11
National Institute on Park and Grounds Management, 22nd Annual Educational Conference and Show
Richmond, Va.
Contact: 414-733-2301

November 12-14
Arbor Expo
Orange County Convention Center
Orlando, Fla.
Contact: 818-781-8300

November 16-19
PLCAA Annual Conference & Green Industry Expo
Indianapolis, Ind.
Contact: PGMS, 410-667-1833

November 19-21
TCI Expo ’92
Omni Hotel
Baltimore Convention Center
Baltimore, Md.
Contact: Chris Brown, 800-733-2622

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The Power Pruner

A Good Idea Just Got Better

Technic Tool Corporation, in Lewiston, Idaho, recently introduced an insulated Power Pruner—the Model D—which meets federal standards for non-conducting products as established by the Occupational Health and Safety Administration and the American National Standards Institute.

The new tool, designed to fit the needs and safety concerns of professional arborists, offers safe and effective tree and shrub pruning around high-voltage sources. It is portable and gas-powered and operates on a 7-1/2-foot reinforced fiberglass drive shaft.

The Power Pruner offers operator efficiency, safety and improved trimming productivity. It will virtually eliminate working off ladders, overreaching with a conventional chain saw, or standing under limbs being cut. The Power Pruner is designed to increase the productivity of the non-climbing crew member, and may be used by bucket operators. To expand its capability, it has been designed to accommodate 2-1/2-foot and 5-foot extensions.

The Model D Power Pruner is powered by a 24cc (1.44 cubic inch), two-cycle motor and weighs 15.9 pounds. It is equipped with a conventional 10-inch chain saw bar and chain and an automatic oiling system. It can also be fitted with a circular saw accessory for small limbs.

Technic Tool certifies that the housing and drive shaft of the Model D have been tested as a unit and found to withstand 100,000 volts per foot of length for five minutes. All new tools, as shipped, meet this standard. As long as any Model D Power Pruner is properly maintained and cleaned, it will continue to meet this requirement.
When you climb on our orange ropes, you’re recognized as a professional who’s serious about safety. The instant success of Braided Safety Blue High-Vee demonstrates that clearly identified climbing ropes promote safety in the tree. Now, New England Ropes introduces a high visibility version of our famous Safety Blue three-strand rope and, for those who prefer a 12-strand rope, our completely redesigned TreeLine with a new abrasion resistant finish and optional fleck pattern.

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PLCAA Develops New Brochure for Customers

The Professional Lawn Care Association of America has developed a brochure to help lawn care professionals communicate with their customers and the public. “What You Should Know About Lawn Care Products and Services” provides examples of appropriate answers to the most commonly asked questions by lawn care customers. It covers such topics as pesticide safety, regulation of lawn care products and services, posting and notification, organic products, integrated pest management, and the pesticide registration process.

For a free sample of the brochure and information on ordering bulk quantities for customer distribution, send a self-addressed, stamped envelope to PLCAA, 1000 Johnson Ferry Road, NE, Suite C-135, Marietta, GA 30068-2112.

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Christopher B. Asplundh has been elected president of the Asplundh Tree Expert Co., the Board of Directors announced in late July. He will succeed Edward K. Asplundh, who will continue to serve as an executive vice president and remains on the Board of Directors.

Chris Asplundh assumes his new responsibilities with an in-depth background in managing many aspects of the company’s business. With more than 30 years of company experience, he has worked in a variety of capacities in the field as well as executive-level positions in Asplundh’s headquarters in Willow Grove, Pennsylvania. Before his election to company president, he was responsible for overseeing the operations of 12 field divisions and one corporate department. He will continue to hold some of these field responsibilities in addition to his role as president.

A graduate of the University of Pennsylvania, Chris Asplundh holds a bachelor’s in business. He served in the U.S. Marine Corps before joining the company full time in 1963. He is a member of the International Society of Arboriculture and the National Arborist Association.

With more than 13,000 employees and extensive equipment resources, the Asplundh Tree Expert Co. is the nation’s largest utility line clearance contractor. The company has been headquartered in the Philadelphia area since its origins in 1928. In addition to line clearance tree trimming, Asplundh also provides a variety of services to utilities and municipalities throughout North America and overseas.

CTLA Appraisal Guide Is Now Available

The Council of Tree and Landscape Appraisers (CTLA) recently completed the eighth edition of the “Guide for Plant Appraisal.” The new Guide introduces significant changes in the formula for tree valuation.

Representatives of the American Association of Nurserymen, the Associated Landscape Contractors of America, American Society of Consulting Arborists, the International Society of Arboriculture and the National Arborist Association make up the CTLA.

Members of any of the five organizations can order the Guide through their organizations for $35 per copy. The price for non-members is $70.
Bob Weber, of Pittsburgh, Pennsylvania became the International Society of Arboriculture All-Around Champion Tree Climber at the ISA Annual Conference in Oakland, California. He is shown sporting the Champion's belt buckle.

Weber is one of a select group of arborists to introduce new equipment and climbing techniques that significantly improve safety and productivity.

The publishers of TCI and the staff of TCI Expo '92 are fortunate to have engaged Weber's services for Expo. He will help demonstrate new climbing techniques, rigging techniques, aerial rescue procedures and lightning protection installation daily at a tree set up in the trade show.

Show-goers will also be able to see Baltimore Gas and Electric Company's life-size electrical hazards demonstration each day.

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ROOTSinc., makers of ROOTS concentrate, introduces a new dry formula. Available under the name ROOTS Dry Formula, the new product makes it possible for those who use dry products to get all the organic benefits of ROOTS in the convenient, spreadable dry form. ROOTS Dry encourages fast root regrowth of trees and shrubs after installation. Other benefits include minimized loss and die back caused by rough handling, heat, cold, drought and poor soil conditions. To order, contact your local distributor or call 800-342-6173.

Midland LMR's Model 70-165 (VHF) and 70-265 (UHF) 48 and 99 channel two-way FM portable radios are now available with a function keypad and LCD display as standard equipment. The keypad controls the radios' built-in 40-channel/second channel scan and lets users change the scan list without reprogramming. It also provides controls for optional DTMF (telephone-type) signaling. For more information, contact Midland LMR, Marketing Department, 1690 N. Topping, Kansas City, MO 64120, or call 1-800-MIDLAND, ext. 1690.

The Tree Saver, a new-concept tree stake kit, supports the tree yet allows some movement, thus strengthening the root system and promoting faster growth. The kit also features a ground level stake and elastic supports that unhook and hang on a tree branch while mowing. Safety is assured since there is no stake or wire cables to trip over. It is offered in two sizes for homeowners and multiple sizes for landscapers. Tree Saver is made by Lawson & Lawson, Inc., 479 Gardner Street, P.O. Box 1784, Martinsville, IN 46151. Phone: 317-342-5458.

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Altec Buys Asplundh Mfg.

Altec Industries, Inc., recently acquired the assets of the Manufacturing Division of the Asplundh Tree Expert Company. The transaction was completed on July 31.

What was formerly Asplundh Manufacturing in Creedmoor, North Carolina, is now the Creedmoor Division of Altec Industries.

The agreement includes the purchase of Asplundh’s manufacturing facilities in Creedmoor, North Carolina, and service facility in El Monte, California. In addition, Altec will continue to operate Asplundh’s service facilities in Deposit, New York; Fox Lake, Illinois; and West Palm Beach, Florida.

Altec Industries, Inc., designs, manufactures and markets mobile equipment primarily for the electrical, telephone and related utilities industries. Altec’s product line includes digger derricks, aerial devices, cable handling equipment, and insulated washers as well as the utility bodies used in conjunction with this equipment. Altec is the world’s largest manufacturer of this type of equipment.

Altec has manufacturing and service facilities across the United States, supplemented by 43 mobile service units.

Asplundh’s product line includes aerial devices and chipper units manufactured primarily for the electric utility industry and the tree care industry. Altec plans to retain the complete Asplundh product line and support all existing Asplundh products with parts and service.

Altec service centers will now service Asplundh equipment and Asplundh service centers will service Altec equipment.

“We have a saying at Altec, ‘We will stand by our product until you retire it from your fleet,’” said Howard Marshall, Altec senior vice president/marketing.

How will the acquisition affect the tree care industry? Marshall feels that it will stimulate new sales of Asplundh equipment in the tree care industry. He noted that Asplundh’s market penetration in the past was hampered by the fact that the parent company was a direct competitor in the tree care market.

“We are dedicated to provide a ‘one-stop basis’ for shopping. It’s important to note that in this acquisition, we are receiving well-trained, experienced people from Asplundh—very high-caliber people.”

According to company president Tom Merrill, Altec operates with a highly disciplined planning process and a conservative philosophy about business growth. One of the company’s key objectives is continuous growth of its core business—manufacturing and direct sales of its product line.

Asked if Altec has plans for further expansion, Merrill replied, “Absolutely, yes. We are a very conservative, privately held company. We try to grow when it’s profitable to grow. We believe a major consolidation will be occurring in the electric utility industry and in our industry. We plan to be a purchaser rather than a seller.”

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Altec service centers will now service Asplundh equipment and Asplundh service centers will service Altec equipment.

“We have a saying at Altec, ‘We will stand by our product until you retire it from your fleet,’” said Howard Marshall, Altec senior vice president/marketing.

How will the acquisition affect the tree care industry? Marshall feels that it will stimulate new sales of Asplundh equipment in the tree care industry. He noted that Asplundh’s market penetration in the past was hampered by the fact that the parent company was a direct competitor in the tree care market.

“We are dedicated to provide a ‘one-stop basis’ for shopping. It’s important to note that in this acquisition, we are receiving well-trained, experienced people from Asplundh—very high-caliber people.”

According to company president Tom Merrill, Altec operates with a highly disciplined planning process and a conservative philosophy about business growth. One of the company’s key objectives is continuous growth of its core business—manufacturing and direct sales of its product line.

Asked if Altec has plans for further expansion, Merrill replied, “Absolutely, yes. We are a very conservative, privately held company. We try to grow when it’s profitable to grow. We believe a major consolidation will be occurring in the electric utility industry and in our industry. We plan to be a purchaser rather than a seller.”

Please circle 28 on the Reader Service Card

Peavey Tree Pruning Poles & Supplies

Peavey Manufacturing Company is pleased to offer a complete line of top quality tree pruning poles and equipment for the professional as well as the amateur who wants a quality made tool.

For years we have made a limited line of pruner poles for the large industrial users, and we feel that if we can satisfy these customers on a nationwide basis that we can satisfy anyone else.

We have a variety of poles including white ash in solid lengths; and also six foot sectional poles with lightweight aluminum couplers. There is also available a line of non conductive sectional, or full length fiberglass poles for the electrical contractors. Included you will find a complete price list and order form for all pruner poles and equipment.

Available in threaded or clip type couplers.

See us at TCI Expo

Peavey Manufacturing Co.
P.O. Box 129 East Eddington, Maine 04428
(207) 843-7861 — 843-6778 — FAX (207) 843-5005

S1 Saw Head

PH4R Pruning Heads
YOU HAVE TO SEE IT...
TO BELIEVE IT.
The Brown Brontosaurus
A new concept for cutting and mulching brush and small trees.

Almost 10,000 hours of extensive testing has resulted in the strongest, safest and most versatile brush cutter in existence today. We designed and built the Brown Brontosaurus to handle right-of-way cutting in some of New England's most rugged terrain. We are certain it can handle the job in your area as well.

The mower is excavator mounted providing the operator with a full-view of the cutting head. Precise boom and stick movements allow the operator to selectively cut and shred brush and small trees while leaving desirable species untouched.

The Brown Brontosaurus' patented design grinds trees and bushes into a thin, beneficial covering of fine mulch rather than discharging large, dangerous chunks of debris like most rotary flail mowers.

Road Side Mower Model
(Rail-way mower now available also)

If you are presently cutting brush and are not using a Brown Brontosaurus, you are probably wasting both time and $$$!

To learn more about this dynamic product, call for a free brochure and video tape. We are also willing to arrange a demonstration in your area.

Right-of-Way Tracked Unit

John Brown & Sons, Co.
Sawyer Industrial Park
Weare, New Hampshire 03281
603-529-7974

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HELP WANTED

Manager of Educational Services. Environmental consulting firm seeks administrator/manager for service line that provides training to all facets of the Green Industry. Must have master's or doctorate degree(s) or comparable experience in educational services and/or some facets of the Green Industry (arboriculture, horticulture, utility or urban forestry, line clearing, landscape/grounds management). Service line functions as a profit center in an employee-owned small business that specializes in environmental sciences consulting. Send resume to ACRT, Inc., P.O. Box 219, Kent, Ohio 44240.

We are a full service arboriculture firm with offices in the Midwest and the East Coast. With our continued expansion, we are seeking qualified arborists for production, plant health care and sales positions within our company. We consider safety, quality, production, and communication to be the foundations of proper tree care. If you believe the same and wish to make arboriculture a career, we would like to hear from you. Send your resume with salary history to Carol Nallen, c/o The Care of Trees, Inc., 2371 S. Foster Ave., Wheeling, IL 60090. Phone: 708-394-4220.

Arbor Care/Orlando—Arborist position requires sales & management abilities. Must have strong background in operations with high safety standards, an interest in high quality product and a drive for customer satisfaction. Send resumes to Peter Sortwell, General Manager, Arbor Care, 477 Old Winder Garden Road, Orlando, FL 32811.

Exp. tree climber, owner of own tree co., has own 60’ TECO bucket truck & equip., 10 years exp., w/ref, wants to work, 206-398-2465, Lynden, WA.

See us at TCI Expo
SAFE WASH
CLEAN WATER SYSTEM

NO SPRAY RIG SHOULD BE WITHOUT ONE!

HAVE FRESH WATER AVAILABLE FOR YOUR OPERATORS IN CASE OF CHEMICAL EXPOSURE. SAFE WASH IS A SELF-CONTAINED UNIT WHICH INCLUDES:

- 12 VOLT PUMP 2 - 4 GPM
- 15 OR 25 GALLON POLY TANK
- 30 FEET OF 1/2" HOSE
- INLINE STRAINER
- SPRAY GUN
- TEE JET PESTICIDE SAFETY KIT
- TEEJET CALIBRATION KIT

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Own a Sawmill! Start a Profitable Business!

Save money cutting your own lumber, make money cutting for others.

Six models available

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FOR SALE


New Husqvarna saws—new & used Rayco stump grinders—also, Poulan-Pro. Big arborist discount. Call for bid. Monthly specials: Poulan 250-20", $530, list $710. Tree Barber Supply, 3924 Lake Catherine Dr., Jackson, MS 39212. Phone: 800-448-SAWS

FMC Bean D050, 1000-gal stainless tank, Wisc engine, hose/reel/gun, sump pump, end line, mounted 74 international truck. All excellent condition. $13,500. Phone: 908-356-3336.

Central Pa. tree service. In business 12 years, client base of 3500-plus—$420K sales. Phone: 717-272-1385 or write Aaron Martin Jr., 532 W. Penn Avenue, Cleona, PA 17042.

Looking for a used chipper? Call the Midwest's chipper supermarket. We have Morbark, Bandit, Asplundh, Wayne & Mitschippers. Some in great shape & some not. Alexander Equipment, 708-268-0100 or FAX: 708-268-0114.

Big John 80" tree spade on 75 Chev. C-90, 44,000# rear axle, Detroit 671, 15-speed trans. Both units are painted and ready to work. Reduced for quick sale. $22,500. Phone: 518-377-3452.

Bucket truck—Aerial Lift of Conn. over knuckle 60' working height on 1989 Ford F-600 diesel, 38,000 miles, Southco chip body & tool boxes, like new. $48,000. Phone: 914-265-1060.

Brush chippers, stump grinders, shredders, mulchers, log splitters, new used and reconditioned, small, med., and large capacities, financing avail. Cal-Line Equipment Co., Livermore, CA. Phone: 510-443-6432

Aerial bucket trucks, Hi-Ranger, Asplundh, Sky Worker—most major brands—40' to 95'. Also, brush chipper, stump grinders, tree spades, log loaders and Rayco stump cutters. Parts for aerial buckets. Allied Utility Equipment Inc., W. 204 North 11509 Goldendale Road, Germantown, WI 53022. Phone: 414-255-6161.

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.

Skyworker—Largest new parts inventory, used equipment inventory, major service facility in U.S. Phone: 404-376-3192. FAX: 404-376-1150.

1988 L-800 Ford tandem w/240 hp Ford diesel 16 front, 44 rear, set back front axle. Allison automatic trans., mounted w/Big John AA90 tree spade in excellent condition. $66,000 or B.O. Phone: 407-968-1045.

Truck door decals—Hard hat emblems, equipment identification decals. Write for information or send rough sketch for quote. Woller Decal & Specialty Co., 104 Pine Tree Lane, Tappan, NY 10983. Phone: 914-359-5905.

New Hampshire tree service—18 years in business. Extensive well established customer base for both spray and general tree care. Excellent reputation. With or without equipment. Contact Silver Bear Tree Service, Tom Wilkins, RFD 1, Box 539, Bradford, NH 03221. Phone: 603-938-2300.

1989 Ford F-Super Duty, blue, with Southco forestry body, $13,000; 1990 Vermeer 1250 chipper, blue, with 6-cyl. diesel, block heater, under 1000 hours, $14,000; 1991 Vermeer 206 stump cutter, just over 100 hours, $6000, or with trailer, $7000. Call 215-443-0250.

Established tree & landscape firm for sale in New Jersey. Excellent reputation and clientele. Has work year round. More information available upon request. Serious inquiries please respond to TCI, Box E, P.O. Box 1094, Amherst, NH 03031.

Classified ad rates: $45 per inch (1-inch minimum), payable in advance, due the 20th of the month two months prior to publication. Send ad and payment to: Tree Care Industry P.O. Box 1094 Amherst, NH 03031
Why try and explain something that you can show in a video in less than 20 minutes?

Video programs from the National Arborist Association make it easier to train new employees and refresh the memories of experienced employees. All you have to do is select the subject and turn on the VCR!

This month's feature video is:

**Chipper Use & Safety**

Brush chippers are valuable tools but, just like an automobile, if not properly operated, a chipper can be hazardous. This video provides instruction in the safe and efficient operation of both drum and disc knife chippers. Also included is maintenance information, recommended personnel protective equipment for operators and other relevant information.

NAA/ISA Members - $40 Non-Members - $60

**ORDER NOW AND SAVE 10%**

(Offer expires October 31, 1992)

To order your **Chipper Use & Safety** video program please fill out the order form on page 37 or call The National Arborist Association at **1-800-733-2622**.

Please circle 24 on the Reader Service Card
You may be looking for your first bucket truck and chipper, or maybe you want to expand your fleet with state-of-the-art equipment. In either case, there are some new units on the market that will probably fill the bill. Some feature innovations in design, others have been developed for specialized work conditions, and still others have been designed for economical operation.

To make an informed buying or leasing decision for a new aerial lift or chipper, you must first carefully analyze your company’s needs. Consider what types of trees you will be pruning, and where they are located. Be sure you will be able to sell enough work to keep the unit from sitting idle.

You can learn a lot more about the units by coming to TCI Expo ’92 in Baltimore and talking directly to the manufacturers. See the Expo Registration insert in this issue for more details.

Morbark E-Z Chipper

The most recent notable innovation in chipper design was the disc knife design. Before the disc knife came along, the drum chipper was the industry standard for tree care. Now both will have to make way for the Morbark E-Z Chipper, which promises to be an industry standard.

The Model 20/36, the latest of the series from Morbark Sales in Winn, Michigan, is a hybrid design with a twist. It combines the hydraulic infeed and large rotating mass concepts of the disc chipper with a drum-like design. A single hydraulic feed wheel and large infeed opening handle large material while offering increased operator safety. The 36-inch-diameter rotating drum on the 20/36 rotates at half the speed of the conventional drum chipper, giving better fuel efficiency and quieter operation.

The twist is the use of chip pockets. The E-Z Chipper has positive chipping action across the entire drum, and chips are discharged by centrifugal force. As a result, the machine produces less dust, and virtually eliminates the plugged radiator problems sometimes found with chippers that discharge chips with blown air.

For more information, call 800-233-6065.
The Go Bandit

The Go Bandit, manufactured by Bandit Industries, Inc., is a self-propelled unit for hard-to-reach brush. This 6-inch capacity tree and brush chipper has been designed for off-road chipping, eliminating the need to pull trees and brush to roadside. The unit features a four-wheel hydraulic skid steer drive. The design, which is only 34 inches in width, allows the chipper to be driven through most yard gates. The chipper is equipped with a 360-degree swivel discharge, allowing the chips to be blown in any direction. A bagging attachment for collecting the chips is available. Both gasoline and diesel power units are offered. A specially designed hauling trailer with a ramp is available, allowing for easy on-and-off operation as well as chipping into the towing vehicle. The Go Bandit is ideal for all off-road chipping including backyards, ditches and park paths.

For more information, call 517-561-2270.

The Mighty Bandit II

Bandit Industries, Inc., also has introduced PTO-driven chippers called the Mighty Bandit II series. They can be mounted on trailers or on a tractor three-point hitch, and are ideal for nursery or yard operations.

The disc-style chipper combines a reversible hydraulic feed system with a gravity feed. The smallest of the Mighty Bandit II series handles 5-inch trees and brush. The unit produces a fine chip, ideal for mulch and compost.

The unit features a rear feed with a 360-degree swivel discharge and self-contained hydraulics. It is ideal for tractors with PTO horsepower between 20-HP to 60-HP.

For more information call 517-561-2270.
Vermeer 1220

A heavy-duty, self-feeding brush chipper, capable of handling large diameter tree limbs, brush and construction waste materials, is available from Vermeer Manufacturing Co., Pella, Iowa. The new Vermeer 1220 Brush Chipper, scaled down for economy but big on features, comes with a hydrostatically controlled vertical feed roller system, which makes large, bulky and brushy material easy to process. The feed opening measures 12-inches-by-12-inches (30cm-by-30cm). To reduce engine wear and tear, an optional feed sensor controls the feed to the cutting disc to better manage potential overloading situations. A 37-inch (94cm diameter) disc, with two or four steel-hardened knives, provides the cutting action. For added protection, the discharge chute pivots 270 degrees to prevent the chips from being directed at the operator. The 4480-pound (203kg) self-feeding unit comes with a standard Ford LSG-423 gas engine, or can be equipped with an optional Perkins 4.236 diesel power plant. Additional features include a 30-gallon (114 liter) fuel tank, pusher fan, electric brakes, lockable tool and battery box, and engine hood.

For more information, call 515-628-3141.

Hydro Chipper

How would you like to eliminate the worries and expenses associated with trailering a chipper behind your bucket truck? The Hydro Chipper from Aerial Lift, Inc., of Milford, Connecticut, which combines aerial lift and chipper in an economical, sensible unit, is a 12-inch, hydraulic-powered drum chipper mounted under the chip dump box of the company’s popular tree trimming lifts.

Company research shows that the design can help save $3,000 to $5,000 a year in operating costs by eliminating the fuel, maintenance and registration costs of a conventional chipper. It also eliminates trailer toll charges, insurance costs, backing-up problems and towing hazards.

The unit offers the option of chipping directly into the 10-cubic-yard chip box or discharging chips through a chute at the front of the chip box. The chute discharges chips above people passing by the unit.

When chipping inside, an adjustable diffuser disperses chips evenly through the chip box. The operator can use the side discharge by pulling on a handle mounted on the outside of the chip box.

The unit features a split tailgate design for better access in tight quarters, and fold-down raking doors that make it easier to load logs or rakings into the chip box. The feed table of the chipper meets ANSI requirements, folds up for travel, and is at a comfortable height for chipping brush.

For more information, call 203-878-0694.
Holan service lifts

Holan has recently introduced two new 829 series, heavy-duty service lifts.

Holan’s Model 829-50 is perfect for tree trimming with its 55-foot working height and over-center side-reach of more than 41 feet. Lower boom articulation of 130 degrees provides 40 feet of non-over-center side-reach, as well as ground-level basket entry in either the non-over-center or the over-center position.

The Model 829-45 is an extremely versatile service unit with more than 38 feet of non-over-center side-reach and with all the advantages of an over-center articulating lift. The 829-45 is ideal for both electrical and utility service applications and urban tree trimming.

Call 303-427-3700 for the number of your local distributor.

AmeriQuip’s Eagle 44

The Eagle 44, manufactured by AmeriQuip, is a low-cost tow-behind with grounds maintenance applications. A trailer-mounted, articulated aerial lift with a 25-foot side reach and 44-foot working height, it features positive bucket leveling and 360-degree continuous rotation, and offers outstanding portability for easy access for a variety of maintenance tasks. An electrically operated proportional control valve featuring joystick operation with neutral position interlock allows simultaneous two-function operation and complete feathering capability. Heavy duty, quick adjust outriggers are an integral part of the lift. Ease of operation and portability make the Eagle 44 ideal for most maintenance tasks requiring aerial access.

For more information, call 714-392-2033.
Versalift's telescoping unit

In 1990, Time Manufacturing introduced the Versalift VST Tree Trimming package. This unique telescoping and articulating booms, perfect for street tree pruning in tight quarters, offer the arborist working heights up to 45 feet and 30 feet of side reach at 20 feet off the ground. The lower boom does not extend beyond the side of the chipper body, allowing a narrow work area in alleys or busy streets. The boom design also allows the chip body to dump without moving the aerial. For access to hard-to-reach areas, the operator platform rotates 180 degrees at the end of the upper boom. All Versalift tree trimming packages have full pressure controls. The VST package has an overall height under 12 feet and can be mounted on a medium-duty chassis without outriggers. For low maintenance cost, the VST uses non-lube bearings at all pivot points and has only one grease fitting. The VST tree trimming package mounted on the recommended chassis is available from Versalift distributors nationwide. Total package is priced in the mid-$50,000 range.

For more information, call 817-776-0900.

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To Lease Or Buy

By Dennis Ryan

So, you've decided you need some new equipment. Now, the question is whether to buy it outright, or lease it. Here are some factors you should weigh in order to make the right choice.

**General considerations**

1. Compare the actual out-of-pocket cash flow of purchasing and financing an asset versus the total of the lease payments, plus any buyout provisions at the end of the lease.

2. If the equipment would have significant residual value at the end of the lease or finance period and you'd like to keep it, buying would be preferable and probably cheaper.

3. Leasing often requires less up-front cash because a down payment isn't always required. This is attractive if you have short-term cash flow problems.

4. In difficult economic times, heavy equipment is difficult to sell quickly at a good price if you have to raise cash or cut debt payments. Leasing offers less financial exposure, but there are still contracts that have to be honored.

5. Leases with $1 or bargain price buyouts are treated as purchases.

6. If you are concerned about how your financial statements appear to your banker or other creditor, you may wish to lease. A non-financing lease arrangement doesn't affect a company's balance sheet, just its income statement.

A purchase or a financing lease can affect a company's working capital and other balance sheet ratios because a non-current asset is being acquired. It is being financed with debt, of which at least a portion is considered a current liability.

6. Qualifying for a loan to purchase equipment is sometimes more difficult than getting approval as a lessee.

**Tax considerations**

1. The lease payments in a non-financing lease are all deductible as they are paid or incurred, so cash outlays match expense deductions.

2. If purchased, the equipment is generally depreciated over a 5-year period, regardless of the down payment amount. The conventional depreciation rates for a 5-year asset are:

   - First year: 20%
   - Second year: 32%
   - Third year: 19.2%
   - Fourth year: 11.52%
   - Fifth year: 11.52%
   - Sixth year: 5.76%

3. If purchasing, you are usually allowed to deduct up to $10,000 of the price in the first year. The remainder is depreciated as outlined above. This write-off is popular and helpful in deferring income.

Dennis Ryan is a partner at the accounting firm of Howe, Riley & Howe in Manchester, New Hampshire.
Yesterday we took down another tree. This was a bit more impressive than most, though—a 100-foot tulip with a 5-foot diameter trunk. Several leaders topped two feet in diameter at roof height. Until yesterday, it had stood in front of the town church for some 120 years. Owing to declining health and some decay on one side, its presence became more objectionable than desirable. A few good men and some sharp saws did the rest.

We couldn’t help but think that years ago people would have gone to greater effort to preserve this tree. We envisioned tree surgeons in high-laced boots doing laborious and highly detailed cavity work. On our tree, here and now, no test boring was done to establish the condition of the heartwood, even though only the most nominal fee was quoted for this. Had it proved sound, feeding and other care could have been done for 10 years for the cost of the removal.

Reasons for takedowns don’t matter much to us. Our good advice aside, people have their own excuses for removing trees: too many leaves; too much shade; too close to the house; too big; wrong for the area.

And one phrase we often hear is: “I like the trees, but...” People always cover themselves in this way. It’s as though they’re afraid that not liking trees, and admitting it, would be as bad as criticizing the flag.

We’ve lost count of the number of trees we’ve removed for no really good reason. A large and historic tree gives us pause, though, especially at such a public place. When the tree was young, a few people probably found it a convenient place to tie their horses. In 1888, when the newer and larger stone church was built, the tree was already above the roof line. Some of the masons probably reclined against its trunk during their noon break from hauling heavy stones all day. And during the sweltering Jersey summers, more than one family has probably appreciated its shade while talking to neighbors after the services. No one may have noticed, but the tree has always been there to give something.

Owing to its size, removal of our tulip took two days. By the end of the first day, we had removed everything except for the main central leader, with a narrow crown of foliage at top, and a secondary upright leader off to one side. For reasons we couldn’t really explain, we took an American flag and flew it from the top of the bare secondary lead. One of the church spotlights on the lawn was turned so the flag would be illuminated at night. Then we loaded up our gear and left for the day.

I went back after dark. The tulip looked much more imposing at night, with the high remaining lead disappearing into the darkness above. All around lay piles of giant limb sections. And flying quietly in the night, bright with light, was our flag.

Maybe this was our way of giving this old tree something it needed during its last hours. At least a few people will have noticed it, and will have thought about it just one more time before it disappeared forever.

Art Braunschweiger is the owner of Aerial Tree Experts, Bound Brook, New Jersey.

Do you have a story for From the Field? TCI will pay $100 for published articles. Submissions become the property of TCI and are subject to editing for grammar, style and length. Entries must bear the name of the worker and his company or they will not be considered for publication. Articles and photos must be received by the first day of the month for the following month’s issue.
WHAT IT TAKES TO MAKE THE
BEST SMALL SAWS IN THE WORLD.

At Shindaiwa, we have a way of making other
saws look wimpy. With a family of small vertical
cylinder saws that boast better power-to-weight,
superior anti-vibe design, longer life, more profes-
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the strongest dealer networks in the country.

For a free demonstration of these, or our other
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You won't find another small saw with the guts to
stand up to a Shindaiwa. Not one.

SHINDAIWA 300S
8.6 lbs., 28.5 cc,
1.8 HP

SHINDAIWA 360
8.8 lbs., 35.2 cc,
2.5 HP

SHINDAIWA 377
8.8 lbs., 37.7 cc,
High Torque 2.5 HP

SHINDAIWA 488
10 lbs., 47.9 cc,
3.5 HP

Please circle 35 on the Reader Service Card
On Some Brush Chippers
Distance To The Feed Rollers Is About The Length of Your Arm!

WARNING!

Due to recent accidents in Michigan (as well as New York, Florida and Chicago) involving non-Vermeer brush chippers, the following safety regulation has been adopted by the Michigan OSHA, and according to the NATIONAL ARBORIST ASSOCIATION, this requirement may soon become effective across the entire U.S.

"The American National Standards Institute (ANSI) has determined that a distance of 85 inches shall be maintained from the blades out the hopper and down to the ground. Our position is that with the addition of infeed devices the hazard is now closer to the operator increasing the probability of serious injury or death which the recent accidents indicate. To reduce this probability we are requiring that 85 inches be the minimum distance from any hazard to the employees whether it is the blades or infeed mechanism with sides having sufficient height to prevent operating personnel from exposure to the hazard during normal operation."

Michigan Dept. of Labor, Bureau of Safety and Regulations, MI-OSHA

All Vermeer Brush Chippers meet or exceed the new MI-OSHA safety regulations.

1220 & 1250 BRUSH CHIPPERS

Longer feed tables on Vermeer 1220 and 1250 Brush Chippers give you roughly twice the distance as some competitive units! More protection for your operators. More leverage when you're feeding heavy limbs. Plus, you can fold it up and lock out the "uninvited" when the machine is idle.

Also, check out the feed rollers. Spring-loaded vertical rollers allow you to get an aggressive bite on material up to 12 inches in diameter and virtually eliminate the wrapping problems which commonly occur when handling viney material with older chipping machines.

See us at TCI Expo

Call today! (800) 829-0051 for details and the name of your Vermeer dealer.

Vermeer
"THE DIGGIN' DUTCHMAN"

Expect the Best

New Sharon Road
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IF YOU DON'T GO...

The Third Annual Trade Show and Seminar Program

Sponsored by
the National Arborist Association
and The International Society of Arboriculture

NOVEMBER 19-21, 1992
THE BALTIMORE CONVENTION CENTER, BALTIMORE, MARYLAND
TCI EXPO’92 is the place to be in November!

Why?

**Huge Trade Show**

TCI EXPO ’92 will be the largest tree care industry trade show under one roof. You will see innovative new equipment, talk directly with factory representatives and obtain information for current or future buying decisions. You will also have the opportunity to meet and network with fellow arborists from all over the country. There is NO CHARGE for admission to the trade show or demonstrations.

**Informative Live Demonstrations**

See new climbing techniques, rigging and aerial rescue demonstrations and a lightning protection installation in the exhibit area. Baltimore Gas and Electric Company will also provide their life size electrical hazards and trees demonstration each day. There is NO CHARGE to attend these demonstrations.

**Twin Track Seminar Program**

We have designed a seminar program that presents the most advanced tree care technology AND management information available. There will be seminars geared for management as well as field level employees. The focus is on topics relevant to today’s marketplace and the speakers reflect this emphasis. All speakers are professionals and/or well known people from the tree care industry. Managers should be sure to bring employees to take advantage of this unique educational opportunity. Please see the TCI Expo ’92 Schedule of Events on page 5 for more details.
ISA Certification and Recertification
Another valuable opportunity at TCI Expo '92 is the ISA Certification test on Saturday. Many of the seminars provide preparation for this exam. You must pre-register for the exam directly with the International Society of Arboriculture. For registration forms write or call ISA at P.O. Box 908, Urbana, IL 61801 or 217-328-2032. Several seminars provide ISA recertification credits.

Pesticide Applicator Recertification Credits
Several programs will provide pesticide applicator recertification credits in select states. Two seminars are FREE.

Discount Opportunities
Bringing several people from your company will earn each of you a 20% discount on registration fees. If the registrations are received before 10/15/92 you will also receive another 10% off.

Gold Card
New for TCI Expo '92! Attendees can now purchase the Gold Card which allows unlimited access to all seminars. Instead of limiting yourself to individual meetings, why not make sure you have access to everything Expo '92 has to offer? The Gold Card is the most economical way to attend the full complement of seminars. You must register before 10/15/92 to purchase the Gold Card. No discounts are available on this package. If you are bringing employees who are not getting Gold Cards they are entitled to the same discounts as general attendees.

R A V E R E V I E W S

What last year's attendees have to say about TCI EXPO:

"I took two of my foremen for the first time. I have noticed a positive change in their attitude, appearance, and punctuality since coming back from TCI. Their positive improvement has already made the entire expense of the show a wise investment."
— Richard H. Woods, Manager
J&S Tree Service, Stow, Ohio

"Thank you for the great TCI meeting. The seminars and trade show were super."
— Terry McLoughlin
McLoughlin Tree Care & Landscaping
St. Charles, Illinois

"TCI Expo supplies us with priceless knowledge that even the casual arborist finds interesting and useful."
— Scott Monroe
Monroe Tree Company, Inc.
Sharon, Connecticut

"Good show—I thoroughly enjoyed TCI '91—can't wait for next year."
— Bob Thibodeaux
Bob's Nursery & Landscaping
Church Point, Louisiana
ADMISSION to the industry's largest trade show is FREE. Simply fill out a Registration Form and send it in early so that there will be a badge waiting for you. You will not be admitted to the exhibits without a TCI Expo '92 badge.

Once inside, you can visit the more than 80,000 square feet of exhibits that will be on display at TCI Expo '92.

Some of the companies who will be on hand are:

- AERIAL LIFT OF CONNECTICUT
- AGAPE DESIGN
- AGROTEC
- ALBIEZ INSURANCE AGENCY
- ALEXANDER & ALEXANDER
- AMERICAN ARBORIST SUPPLIES
- AMERICAN INTERTOOL
- AMERICAN MANUFACTURING
- ARBORLINE
- ARBORTECH
- BANDIT INDUSTRIES
- BARTLETT MANUFACTURING
- D.A. BEAM ENTERPRISES
- BISHOP COMPANY
- BUCKINGHAM MANUFACTURING
- J.P. CARLTON
- CHESAPEAKE OUTDOOR DIST.
- CIBA-GEIGY
- CREATIVE SALES
- DAVEY TREE EXPERT
- DEUTZ CORP.
- DOGGETT CORP.
- ENGINE DISTRIBUTORS
- FANNO SAW
- GRACE-SIERRA
- GROW GUN CORPORATION
- HOLAN/TELSTA
- INDEPENDENT PROTECTION CO.
- KARL KUEMMERLING INC.
- LANPHEAR SUPPLY
- LEONARD SAFETY SUPPLY
- LEONARDI MANUFACTURING
- J.J. MAUGET
- MORBARK SALES CORP.
- NORTHEASTERN ASSOCIATES
- OAKTREE SYSTEMS, INC.
- OPDYKE, INC.
- ORAL IVY, INC.
- PEAVEY MANUF. CO.
- POULAN/WEED EATER
- PRACTICAL SOLUTIONS
- PRO-LAWN PRODUCTS, INC.
- RAYCO MANUFACTURING
- ROCKLAND CORPORATION
- ROOTS, INC.
- SCHODORF TRUCK BODY
- THE SHARP TOOL CO.
- SHERILL, W.T., INC.
- SHINDAIWA
- SOUTHCO INDUSTRIES, INC.
- TECO
- TELEDYNE TOTAL POWER
- TILTON EQUIPMENT
- TIME MFG.
- VERMEER MANUFACTURING
- WESTERN TREE & LANDSCAPING SUPPLY
- YALE CORDAGE

We have also arranged for special rates at two alternative hotels a short walk from the Convention Center. The Holiday Inn at 301 W. Lombard Street is offering a rate of $75.00 per night (single or double) for reservations made before 10/22/92. To make a reservation call 410-685-3500. The Days Inn at 100 Hopkins Place is offering a room rate of $64.00 per night, single or double. The reservation deadline for preferred rates is 10/28/92. The phone number is 410-576-1000. Please mention you are with TCI Expo '92 when contacting these hotels. Besides the hotels listed above you may wish to look into other available accommodations.

The City of Baltimore is in the final stages of a revitalization effort that has transformed its Inner Harbor into a first-rate waterfront playground. The area offers a wide variety of attractions such as the World Trade Center, the National Aquarium and many on-the-water activities. There is also a wide variety of restaurants and night spots set on the water's edge. The Baltimore Convention Center is located in the Inner Harbor, making it convenient for attendees for work and play.

Hotels
This year's host hotel is the Omni Inner Harbor, 101 W. Fayette Street. It is connected by skywalks and complimentary shuttle service to the Convention Center and the Inner Harbor. Rooms have been reserved, but space is limited. You must make your reservation before 10/18/92 to receive the preferred rate of $89.00 per night single or double. Please make your reservations early by calling 1-800-THE-OMNI (1-800-843-6664). Be sure to mention you are attending TCI Expo '92 to receive the preferred rate.

Air Travel
New for Expo '92! We have opted to use an official travel agent for this year's program instead of having an official carrier as we have had in the past. Call our agent Bruni Corinneau at Travel Anywhere (1-800-851-5133 or 1-603-625-2500) to get the best airfare for your travel needs.
7:30 AM: REGISTRATION OPENS

8:00 AM: FREE PESTICIDE RECERTIFICATION SEMINAR - IPM UPDATE
Dr. Mike Raupp, Professor of Entomology, University of Maryland
Learn how you can use the findings of the latest applied research in Integrated Pest Management/Plant Health Care. (ISA Recertification and Pesticide Applicator Recertification credits)

9:00 AM: Management Seminar - SAFETY IS A PROFIT CENTER
Bill Boguski, Loss Control Specialist, The Hartford Specialty Group
Play it safe and save. Learn how implementing a safety program will reduce insurance costs and increase your profits.

Field Operations Seminar - HAZARD TREES
Dr. Tom Smalley, Plant Pathologist/Soil Scientist, The Bartlett Tree Research Laboratories
Is that tree a killer? How do you recognize and deal with hazardous trees? (ISA Recertification credit)

10:00 AM: TRADE SHOW OPENS

11:30 AM-3:30 PM: DEMONSTRATIONS - Hourly on the half hour; Electrical Hazards & Trees, Climbing Techniques, Lightning System Installation, Rigging.

4:00 PM: Management Seminar - AVOIDING A FEEDING FRENZY
Randall Stutman, Management Consultant, Communication Research Associates
Learn strategies for giving and receiving employee feedback.

Field Operations Seminar - FERTILIZER - YES OR NO?
Dr. Elton Smith, Retired, Extension Service Specialist; Ohio State University and Dr. Kevin Smith, Research Plant Physiologist, US Forest Service
By exploring different views on this subject the seminar will help the arborist make informed decisions about tree fertilization. (ISA Recertification credit)

5:00 PM: TRADE SHOW CLOSES

SATURDAY, NOVEMBER 21, 1992

7:30 AM: REGISTRATION OPENS

8:00 AM: FREE PESTICIDE RECERTIFICATION SEMINAR - BIO-RATIONAL PESTICIDES
Dr. Bai Rao, Davey Tree Expert Company
Learn about the latest products, how they can be used, and their effectiveness. (ISA Recertification and Pesticide Applicator Recertification credit)

9:00 AM: Management Seminar - HIGH TECH DIAGNOSTIC TECHNIQUES
Tim Johnson, Consulting Arboretist, Artistic Arboretis, Inc.
Modern tools and technology make the difference between the eyeball guess and the scientific diagnosis. Tim Johnson is a pioneer in the field. (ISA Recertification credit and Pesticide Applicator Recertification credit)

Field Operations Seminar - ROOT CROWNS - THE HIDDEN FACTOR
John Britton, Consulting Arboretist, John Britton Tree Service
For years we have looked at buds, foliage, twig development, the bark and other above ground symptoms. What you can't easily see may be more important. Learn how to examine the root system and evaluate conditions. (ISA Recertification credit)

10:00 AM: TRADE SHOW OPENS

11:30 AM-2:30 PM: DEMONSTRATIONS - Hourly on the half hour; Aerial Rescue, Electrical Hazards & Trees, Climbing Techniques, Rigging.

1:30 PM: ISA CERTIFICATION TEST sponsored by the ISA Mid-Atlantic Chapter

3:30 PM: TRADE SHOW CLOSES

For More Information: 1-800-733-2622
FREE ADMISSION

Admission to the trade show is free but all attendees must be registered and receive a TCI Expo '92 badge in order to gain entrance into the exhibit hall. If you do not pre-register please sign in at the Registration Desk upon your arrival.

SEMINAR DISCOUNTS

The basic price per seminar for TCI Expo '92 is $30.00 per session. You can significantly lower your seminar costs in several ways. By registering early (before 10/15/92) you can earn a 10% discount off your total cost (number of seminars x $30.00). Bringing an associate member of your firm can earn an additional 20% off for you and the associate or associates. That is a total of up to 30% 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. You must purchase the Gold Card before 10/15/92. No discounts are available on this package. 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 TCI Expo, 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 15, 1992 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.

OTHER TCI EXPO '92 HIGHLIGHTS

CELEBRATION '92

Come help us celebrate the opening day of Expo. Socialize with exhibitors and fellow arborists at the Omni Inner Harbor 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 19th 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 Thursday. There will be concession stands in the Exhibit Area during Trade Show hours for refreshments and snacks.

DON'T FORGET YOUR PASSPORT

Each registered attendee will receive a TCI Expo '92 Passport which can be used to win prizes at the end of Expo. Simply stop at every booth and have the company code entered on your passport next to booth number. When the card is completed, fill in your name and address, tear out the card and turn it in to the registration desk. On Saturday, November 21, winners will be drawn from all entries received.
**REGISTRATION FORM**

Name ____________________________________________ Phone ____________________________

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.

<table>
<thead>
<tr>
<th>Date</th>
<th>Seminar Title</th>
<th>Seminar Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOVEMBER 19th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#1 - 8:30 am</td>
<td>Understanding Financial Statements</td>
<td>1 hour</td>
</tr>
<tr>
<td>#2 - 8:30 am</td>
<td>Basic Tree Biology</td>
<td>1 hour</td>
</tr>
<tr>
<td>#3 - 10:30 am</td>
<td>Budgeting and Cash Flow</td>
<td>1 hour</td>
</tr>
<tr>
<td>#4 - 10:30 am</td>
<td>Tree Care Beyond Climbing and Pruning</td>
<td>1 hour</td>
</tr>
<tr>
<td>#5 - 1:30 pm</td>
<td>Strategic Marketing</td>
<td>1 hour</td>
</tr>
<tr>
<td>#6 - 1:30 pm</td>
<td>Crew Leader Responsibilities</td>
<td>1 hour</td>
</tr>
<tr>
<td>#7 - 3:30 pm</td>
<td>Successful Advertising</td>
<td>1 hour</td>
</tr>
<tr>
<td>#8 - 3:30 pm</td>
<td>Training Techniques</td>
<td>1 hour</td>
</tr>
<tr>
<td>NOVEMBER 20th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#9 - 8:00 am</td>
<td>IPM Update (1 hour) - FREE SESSION</td>
<td>0 hour</td>
</tr>
<tr>
<td>#10 - 9:00 am</td>
<td>Safety is a Profit Center</td>
<td>1 hour</td>
</tr>
<tr>
<td>#11 - 9:00 am</td>
<td>Hazard Trees</td>
<td>1 hour</td>
</tr>
<tr>
<td>#12 - 4:00 pm</td>
<td>Avoiding a Feeding Frenzy</td>
<td>1 hour</td>
</tr>
<tr>
<td>#13 - 4:00 pm</td>
<td>Fertilizer - Yes or No?</td>
<td>1 hour</td>
</tr>
<tr>
<td>NOVEMBER 21st</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#14 - 8:00 am</td>
<td>Bio-Rational Pesticides - FREE SESSION</td>
<td>0 hour</td>
</tr>
<tr>
<td>#15 - 9:00 am</td>
<td>High Tech Diagnostic Techniques</td>
<td>1 hour</td>
</tr>
<tr>
<td>#16 - 9:00 am</td>
<td>Root Crowns - The Hidden Factor</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

**TOTAL SEMINAR HOURS**

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**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 15. 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 15.

**Basic Cost**

Multiply your total seminar hours by $30 and enter the amount on the Basic Cost line.

**Discounts**

If you are registering before October 15, 1992 enter 10% of Basic Cost amount on the Early Bird line. If more than one person from your organization is registering for seminars, enter 20% of your Basic Cost amount on the Multiple Attendee line. Total your deductions by adding the Early Bird and Multiple Attendee amounts together. Enter this figure on the Total Discount line.

**Total Cost**

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

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

Visa/MasterCard # ____________ Expiration Date ____________

Signature ____________________________

Mail the original form, with your check or credit card information to:

TCI EXPO '92, PO Box 1094, Amherst, NH 03031

If you have any questions, please call TCI at 1-800-733-2622.

**NO REFUNDS AFTER NOVEMBER 1, 1992.**
CHECKLIST FOR REGISTRATION FORM:

☐ Made a photocopy of the original form to give to additional members of my firm.
☐ Filled out the form completely.
☐ Took 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 check or credit card information.
☐ Mailed registration form before October 15, 1992 for discounts.

See you in Baltimore!

TCI Expo '92
P.O. Box 1094, Amherst, NH 03031-1094
800-733-2622
FAX: 603-672-2613

Write or call for more information: