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Are You Winning or Losing?

How do you measure your company's performance? The current bottom line, cash on hand, age of receivables, age of payables and the ratio of debt to equity all contribute to the measurement. In some cases, winning is making this week's payroll and having enough work to keep the crew busy for a while. In some cases, owners of tree service firms are highly successful business people. In other cases, owners are really working crew leaders at financial risk for the loans on their equipment.

There is nothing wrong with being a working member of the crew during the day, a sales representative evenings and weekends and the bookkeeper, office clerk and mechanic after dinner. That's how most tree service companies start. But... if you are going to grow, succeed and have a family life, you can't work that way forever.

We regularly receive calls from young owners who tell us how they are struggling, working long hours, not seeing their family and not seeing any light at the end of the tunnel. They climb or run a spray rig or stump grinder all day. Then, they sell at night, send invoices after dinner and fix equipment on weekends. They believe that no one can do the work as well as they can. Even though that may be true to some extent, there comes a point when it's time to move ahead, leave the climbing to other people and grow their business. That's the advice that we offer.

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If you aren't always reaching for the next plateau, you are not winning. You may be breaking even, but time is not on your side. That next plateau can be scary—and reaching for it can be expensive—but once you are safely over the first crest, the next plateau is not so hard to reach.

Not everyone wants to run a big business, and that's not what I am proposing. What I am suggesting is that if you are going to be in business, putting yourself, your assets and even your family at risk, then you owe it to yourself to derive the benefits from your time and investment. It's easy to be a loser. Don't do anything. Don't take any chances. It's more difficult to be a winner, but it sure is more fun.

Robert Felix, Publisher

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Please circle 63 on Reader Service Card
Tree Fertilization

By Dr. Elton Smith

The concept of tree fertilization hasn’t really changed much over the years. Know the basics and ensure healthy trees.

Computers in Tree Care

By Les Kozaczek

An overview of software features that can make a tree service more productive.

Urban Tree Problems: A Clear-Cut Solution

By Steve Sandfort, Steve Brash and Julie Rimer

Planting the right trees in the right places solves a host of problems for homeowners, a city and a utility company.
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During the past 50 years, we have made refinements and updates certain techniques in tree fertilization. Yet the concept of tree fertilization hasn’t really changed that much. Basically, we still draw on methods in use decades ago.

We are still concerned with arriving at the proper formula and specific amount; we still use the two main application methods that were around 50 years ago, plus tree injection; we are still concerned with pH, soil aeration and mulching.

A large contingent of people outside of our profession do not believe that fertilizer is important. Arborists know better. In urban situations, we must be concerned with what has happened to a tree’s root zone. As professional arborists, we can help trees that are growing in urban situations in less-than-ideal conditions.

Why Fertilize?

There are many important reasons for fertilizing—above and beyond making a profit or improving the income level of your firm. For example, some would argue that there is no need to promote the growth of a tree that has reached its mature size, but any number of factors could negatively impact mature trees that appear healthy.

For one thing, the site might negatively impact the tree. How many people walk in the vicinity of the tree? What about sidewalks? What does this mean for a tree? Urban situations create compacted soils, and every time we have compacted soils, we will find that fertilization is a valuable additive. Soil aeration should also be considered in many cases—not that liquid fertilization wouldn’t work well—but it may not open up the soil and allow oxygen to penetrate the root zone as well.
In urban settings, we are asked to care for mature shade trees and flowering trees growing in space-restricted areas. These trees require more attention than the trees in back yards. Pay particular attention to where the roots are likely to be and keep the moisture level adequate. At the same time—because we are watering a very small area—we need to be cognizant of the fact that continual irrigation will leach fertilizer salts away. As a result, more frequent (although not necessarily more complete) fertilization is needed.

Landscape architects love to design mounds and plant trees on them. The design has merit, because creating a barrier separates a street from a commercial building or housing development. But raised plants dry out more quickly. Once the roots of a tree are raised above grade to any appreciable degree, more frequent irrigation is necessary. And they should always be mulched.

The important point is that since raised trees need to be irrigated more often, fertilizer salts leach from the soil faster. Planters of all sizes and shapes, as well as raised beds, require closer monitoring. If we do not fertilize, or skip a year, the plant may respond in a negative way. Typically, chlorosis is the result.

We cannot always tell what is causing chlorosis by looking at the plant, since a deficient amount of several different mineral elements will lead to this particular problem.

We have conducted experiments with growers who never fertilized with nitrogen in the year that they planted, because they wanted the trees to develop roots rather than tops. This is an often-heard theory that I’m not really sure that has been proven.

Iron deficiency typically seen in early to mid-summer on magnolia stellata and other species. Note the interveinal chlorosis on older growth and necrosis on youngest growth.

With the grower’s permission, we applied fertilizer on a small number of plants. Growers couldn’t believe the difference. They had a whole lot more top growth, and when a tree has good strong leaves developing, it will also have good root development.

The Importance of Minerals

Sufficient amounts of mineral elements are necessary for tree growth. Of course, an adequate

Chlorotic pin oak. It could take several years with iron and soil treatments to return this tree to its original condition. Annual maintenance is needed to prevent future chlorosis.
complement of minerals is just one tool in the production of plants, along with insect control, disease control, watering, etc. Fertilizer is just one tool, as well, but you need to know as much about it as you possibly can.

We ran another study in which the amounts of nitrogen were varied in trees that were not in production but in a more typical landscape situation. The study encompassed several acres and several species.

Some of these trees had severe vertical trunk splits. This is quite common on the southwest side of thin-barked trees, especially in areas with low winter temperatures. But on trees that were adequately fertilized with nitrogen, there was almost no splitting. By withholding nitrogen on some of these trees, we created a stress. Lots of factors create stress, but in this case insufficient nitrogen was the cause, and the plants split at a very high rate.

We have seen small oaks die because they were totally neglected, grown in alkaline soils without added iron. Iron is not mobile in the plant, which means it does not move from the older leaves to the new leaves. Nitrogen, on the other hand, is mobile. All of the leaves on a tree that are deficient in nitrogen will be about the same color and size. But that does not occur with iron or manganese. Therefore, the newest growth shows the greatest amount of chlorosis or necrosis.

It is critical to treat this right away because it will only get worse. Many more trees are deficient in iron than once thought. For that reason, we need to make certain that the pH of the soil is in the proper range.

One common problem for anyone who has worked with Taxus spp., which have become very common in landscaping, is that these plants cannot tolerate high moisture levels or standing water for very long. Wet soils will tie up the iron, making it unavailable to the plant material, so chlorosis appears. Clearly, environmental conditions influence availability of mineral elements.

Manganese is a serious problem in certain soils for certain species—red maple and cherry among them. Know the conditions that bring this about: alkaline soils and poor drainage.

These conditions can be corrected, although it may be better not to use those species in areas where you can predict problems might occur. One way to distinguish between iron deficiency and manganese deficiency is the brown necrosis on the tips of the leaves and inter-veinally with manganese.

Many types of deficiencies may occur, but for trees, nitrogen is the major one. Potassium is the second most common, because that is used in much higher amounts. Iron and manganese follow in degree of frequency.

**Soil Conditions**

It is important to understand the three basic types of soils: sandy, silt and clay-loams. The conditions in sand are very different from those found in clay. In general, sandy soil is acidic.
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Under these conditions, adding compost to the backfill or into the plant beds can help bring pH into line, since most composts are alkaline.

Whereas sand doesn’t hold enough moisture, clay/loam soils hold way too much. We add water-holding composts to sand. If we did the same thing to clay/loam, it would increase pH and the water-holding capacity of this soil. So don’t add compost to clay/loam soil unless you find that the soil is acidic, which it usually isn’t.

Instead, add something that is acidic. Historically, arborists have used peat moss to correct the pH of alkaline soils. Unfortunately, peat moss absorbs a high amount of water, which is not what is needed in a clay/loam soil. The best amendment available is potting-grade pine bark—not mulch pine bark, but material that passes through a 1/2 inch screen. It comes, for the most part, from the South, but it is becoming more available nationwide. There is nothing better, because it does not hold moisture, and it is acidic. Add that material to either silt or clay/loam soil for improved drainage. It will open up larger pores in a finely textured material and does not decompose in six months.

**Soil Testing**

Arborists have traditionally done soil testing, but not faithfully. Soil conditions vary, not just within parts of the country but within towns.

There are two reasons why you should be sampling the soil.

1. To monitor your fertilizer application. If you are responsible for maintaining anyone’s property on a regular basis, you ought to know how effective your fertilizer program is. The only way to do that is through monitoring. A good visual check of the plant should be combined with soil tests. Nurserymen do it all the time, but arborists don’t do enough of it.

2. To diagnose suspected disorders. Many arborists see a tree with a problem and decide to do a soil test to help discover the cause. If this is a tree under your care, however, you never should have let the tree get to this point. Periodic soil analysis will reveal mineral imbalances and allow you to correct deficiencies before a tree is adversely affected.

**pH**

Most mineral elements are available in a pH range of six to seven. That is why we have historically adjusted the soil pH to get it into this range. But certain plants will do better at a level of between five and six. The nursery industry learned this long ago, and they have adjusted their soils in the fields and containers to create the ideal pH. Again,
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matching plants with the proper soil pH is always recommended prior to planting.

**Organic Matter**

A soil test will also provide information on organic matter. Recently, some have questioned the importance of organic matter. I believe we ought to have as much organic matter in soil as possible. It does increase or decrease moisture-holding capacity, and depending on the soil, increase or decrease pH, and supply minor elements. There are so many benefits to using our waste products, and that includes yard waste and the municipal sludge that many cities are making available now. We like to see 4 percent to 6 percent organic content in a soil, but that seldom happens. We have looked at thousands of soil tests in the past 30 years and it has been rare, in the field, to see 4 percent. Normal readings are around two.

If you have an opportunity to adjust that level early on, either through vertical mulching or incorporating it into backfill at the time of planting, get it up to 4 to 6 percent. Container plants usually have 20 percent or more.

**Cation Exchange Capacity (CEC)**

This is simply a measure of the soil's ability to retain mineral elements. The higher the number, the greater the capacity of the soil to retain mineral elements.

Why is this important? If the soil is sandy, the reading...
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might be between two and five. This low number means that the fertilizer applied will not be retained very long in that soil. For that reason, fertilization must be more frequent, because it will leach through. On the other hand, with a clay soil the reading might be 25 to 30, so one application will remain effective for a while. Obviously, this depends on the type of fertilizer, but the higher the CEC number the better. Soil tests can tell you the CEC number.

Soluble Salts

This is not common with all standard tests, so it may need to be requested.

One quick look at that figure will tell you whether you need to fertilize or not. More importantly, on a residential property where the homeowner fertilizes, they often have no idea about proper rates. Often, they will be throwing

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The square-shouldered, right-threaded pivot bolt that enables quick blade change is positioned so that the hook and blade open wide with a minimum of handle movement — in other words, with less effort. And the same coating that makes cutting so easy also self-lubricates the pivot action.

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Cover Story

fertilizer on like you wouldn’t believe—maybe because they didn’t want to store the bag in the garage anymore. In any case, these values can be sky high. The sandier the soil, the more likely the damage or injury to tree roots from over-application.

Soluble salts are particularly important in containers, plants beds, raised planters and areas where frequent fertilization is likely.

Recommended Mineral Element Levels

Here are the proper amounts for acceptable tree growth and development:
- Phosphorous: 100 pounds to the acre.
- Potassium: 400 pounds to the acre.
- Magnesium: 250 pounds to the acre
- Calcium: at least 1,000 pounds to the acre.

Foliar Analysis

As a complement to soil analysis, it tells what has actually been uptaken in the plant. The reasons for sampling are the same with soil analysis: to monitor fertilizer levels and diagnose plant health problems.

Samples should be taken in the summer by testing mature leaves. Take the most recently matured leaves. This method is particularly important for minor element diagnosis.

Fertilizers: Rates and Ratios

We know what is needed by plants in general. We use four times as much nitrogen as phosphorous and twice as much potassium as phosphorous. Typically, we are looking at fertilizer ratios of 3:1:2, 4:1:2 or 3:1:1 or 4:1:1. Ratios vary around the country because the availability of potassium varies more than phosphorous. Remember, the goal is healthy trees. We are not trying to grow the fastest plant we possibly can.

There may be times when rapid growth is preferred, but generally we are attempting to maintain growing, healthy trees. To do that, we recommend three pounds of nitrogen per 1,000 square feet every year for deciduous trees and shrubs. The same is true for narrow-leaf evergreens. For broad-leaf evergreens, about half the rate is appropriate. These are general guidelines, depending on specific conditions. The rate could be double that in a production situation when the goal is the most rapid possible growth.

By Roger Mellick

There is much controversy and concern over the issue of soil-applied nitrogen. The purpose of mineral fertilization is to maximize the effectiveness of the applications while, at the same time, minimizing or eliminating environmental stresses.

There is no question that the most limiting nutrient factor for tree care is nitrogen. Required by trees in large quantities, it is the most elusive and rapidly moving of the macro-nutrients. All nitrogen, whether from residual sources in the soil or from applied sources like fertilizer, moves through various phases as it is used by the tree and soil organisms. This dynamic process is known as the nitrogen cycle. Nitrogen cycling is important in tree nutrition because:

1) nitrogen from organic residues is a substantial portion of total plant nitrogen uptake;
2) it helps to explain where applied nitrogen goes.

Although nitrogen in residues and other organic forms is the largest fraction of soil nitrogen, most is not available to the tree or shrub. The active component can contribute 30 percent of all mineralized nitrogen while comprising only 4 percent of the total nitrogen pool. The remaining inactive portion represents stored nitrogen that may not be available for a long time.

Trees cannot use organic nitrogen in significant quantities, so it must be converted to inorganic forms. This conversion is called mineralization. Nitrogen bound in organic residues is released when soil organisms digest the residues. The first product of mineralization is the ammonium (NH₄⁺) ion. Once NH₄⁺ is released, it can be oxidized to nitrate (NO₃⁻). The oxidation of NH₄⁺ to NO₃⁻ is called nitrification. How does this directly apply to a nutrient program?

Most of the trees and shrubs that professional arborists come into contact with do not have the advantage of naturally existing organic sources of nitrogen, since most landscapes are swept clean of the kind of litter that transforms into decaying and digestible forms of nitrogen. Therefore, nitrogen must be applied in a form that most closely mimics the slow-release properties in the forest floor. Otherwise, much of the applied nitrogen can be lost to leaching if precipitation or irrigation is heavy enough to move water downward.

One inch of water on silt or clay loam can move nitrates down four to six inches. Because infiltration and percolation are very rapid on sandy soils, an inch of water can move nitrates up to one foot. Less movement of ammonium will be observed, but on soils with a low cation exchange capacity, even the ammonium ion can be washed downward.

Non-leaching forms of soil-applied nitrogen are the preferred remedy. These come in the form of long-chain molecule ureas, which break down in a period of nine to 12 months. These areas are solid, powder-sized particles that will not leach or dissolve with water but will break down into available forms of nitrogen when digested by soil microbes. This action occurs when soil tem-
Timing

Thinking has changed over the years on this. July was once the recommended month, now conifers and single-flush plants should be fertilized in the fall. In this way, the fertilizer breaks down, is taken in by the roots and is in the plant ready to go when that flush of growth occurs.

Most plants will have more than one flush per year. I recommend the first fertilization in autumn, the second in early spring—before growth starts—and the third in very early summer.

The florist industry fertilizes every time they water. Obviously, arborists cannot do that. However, you should be selling multiple fertilizations for multiple-flush plants.

Methods

The industry generally uses liquid or soluble fertilizer applications, but you can surface apply fertilizer. The key is to apply fertilizer on soil or plant beds, but not on turf.

I am still an advocate of using the drill hole, specifically where the need for aeration is indicated. These aeration holes can be filled with an inorganic product to hold the conformity of that drill hole for several years. The aeration can then dry out that heavy, clay/loam soil. For lighter soils, an organic material works just as well.

Summary

A wealth of information is readily available on when, how and how much to fertilize. Much of the advice is not new, but the industry has evolved over time and continues to change. The whole objective here is to grow a healthy tree profitably. These trees are under your care. Their long-term health is up to you.

Dr. Elton Smith has more than 25 years of experience as an extension specialist in landscape horticulture at Ohio State University. He is a horticultural consultant and wholesale nursery owner.

on Nitrogen

Temperatures and moisture are most conducive to bacterial and microbial action, which happens in the warmer growing season. During cooler temperatures, the action suspends and the urea particles remain immobile in the soil. These forms of nitrogen, by nature, are extremely low in salt and very safe to apply.

Keep in mind that all landscape trees and shrubs are actually forest plants moved to a less-than-ideal soil environment. Therefore, to find the answer to the desired annual nitrogen requirement, look to the forest floor. In a healthy forest floor, a continuous level of 2.5 to 3.5 pounds of actual nitrogen per thousand square feet per annum is normal. This can be easily mimicked in the landscape with very reasonable amounts of slow-release nitrogen, as well as specific nutrient manipulations like iron supplements or soil conditioners.

Other factors also affect nitrogen use in the soil. When soil organisms use nitrogen and fertilizer to grow, it is no longer available to the tree. This process of nitrogen tie-up is called immobilization, and is higher for ammonium nitrogen than for nitrate nitrogen. This loss of nitrogen is very temporary because, as the soil organisms die, the nitrogen held in their cells is released for use by the tree and other soil organisms.

Another means of nitrogen loss is through ammonia volatilization, which is the loss of nitrogen as ammonia (NH₃) gas into the atmosphere. Under certain circumstances, urea can be converted to NH₃ nitrogen. If this occurs at or near the surface, nitrogen will be lost to the atmosphere. Subsurface injection of nitrogen not only eliminates volatilization, but also gets the applied nitrogen directly to the root zone.

It is important that arborists understand the most effective use of the varied products available to them under the broad label of fertilizer. All trees need nitrogen and essential minerals to grow and remain healthy. When applied properly, mineral fertilization provides these minerals in amounts that will produce visible growth in landscape trees. Organic fertilizers, such as manures, mulches and various mixes of plant and animal matter, can provide useful organic matter to the soil. These fertilizers, however, are quite low in mineral content and should not be substituted for regular applications of mineral fertilizers.

In summary, arborists should use mineral fertilizers with slow-release nitrogen designed for trees and for placement into the fibrous root area of the soil, and they should use true organics to improve the organic content in the soils. In the ideal world, we would have large beds of decomposing mulch extending well beyond the dripline under all landscape trees and shrubs, allowing continual, natural nutrient recycling. However, in the urban landscape, people prefer areas of fine turf and ornamental ground covers. Nevertheless, it is gratifying to know that we can safely and effectively apply the necessary nutrients to keep these trees and shrubs in top health and vigor.

Roger Mellick is vice president of The Doggett Corporation.
Congress Giveth ... and Taketh Away

On July 9, the Senate passed a package of tax breaks for small business as part of legislation that would hike the minimum wage. The overall bill is similar to a version that cleared the House in May. A conference committee must meet to agree on the final provisions before either the wage hike or the tax breaks take effect.

While the two versions differ, the House and Senate agreed on several items:
- The minimum wage would rise from $4.25 per hour to $5.15.
- The increase will take effect in two steps during the next year. The first 50 cent increase would probably take effect 30 days after the president signs the bill.
- A new, lower “training wage” of $4.25 per hour for teenagers would be created for the first 90 days of employment.

To help offset the added costs to small business, several different tax breaks were added to the bills. In general, the Senate version is more generous, offering approximately $19.2 billion in tax cuts over 10 years versus about $14 billion in the House version, according to the Joint Committee on Taxation.

The provisions of interest to tree care firms include:

Increase in Expenses for Small Businesses
Present law allows small businesses to deduct up to $17,500 annually of the cost of qualifying property. The bill would gradually increase the amount allowed in annual steps to $25,000 by 2003 and thereafter.

Work Opportunity Tax Credit
The Targeted Jobs Tax Credit (TJTC) would be replaced with a new Work Opportunity Tax Credit (WOTC). Employers would be eligible to claim a 35 percent credit on the first $6,000 of first-year wages paid to a qualifying individual (for a maximum credit of $2,100). In the case of certain summer youth, employers could claim a 35 percent credit on $3,000 of wages (for a maximum credit of $1,050). Certain certification requirements and restrictions on the minimum number of hours worked apply. Generally, qualifying individuals would include: long-term Aid to Families with Dependent Children (AFDC) recipients (and their family members); certain veterans and disabled workers; economically-disadvantaged ex-felons; and high-risk youth. (The Senate version includes certain qualified food stamp recipients.) The WOTC program would terminate after June 30, 1997.

Educational Assistance
The bill would modify the rules regarding S corporations. It would increase to 75 (from 35) the number of shareholders an S corporation may have and permit S corporations to hold wholly-owned subsidiaries. Other reforms would make it easier to comply with S corporation rules.

Subchapter S Corporations Reform
The bill would simplify and strengthen the retirement plan provisions of the Tax Code, and encourage the establishment of new plans and the continuation of existing retirement plans. The provision would also establish Savings Incentive Match Plans for Employees of small businesses.

Dues Paid to Agricultural or Horticultural Organizations
If an agricultural or horticultural organization requires annual dues not exceeding $100, the dues are not subject to the unrelated business income tax (UBIT) by reason of any benefits or privileges to which members of such organization are entitled. The provision would apply to taxable years beginning after December 31, 1994.

Employer’s Note
The combination of a teenage sub-minimum wage and a Work Opportunity Tax Credit for qualifying disadvantaged workers could provide a ready source of trainees for the future. Bear in mind, however, that federal regulations and state child labor laws place severe limits on the work minors may perform and on the types of equipment they may use. Check with your state’s Department of Labor for rules and restrictions.

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Effective Use of Computers in Tree Care

By Les Kozaczek

These days, if you mention the word "chip" to an arborist, don't be surprised if he asks "wood or computer?"

Few industries are riding today's wave of computer and technological advancement as high and as fast as is the tree care industry.

From the largest tree care companies, with their sophisticated satellite inventorying and mapping systems, to the one-man tree care operation, with its store-bought accounting software, tree care practitioners are saving time and money by tapping the souped-up memory, record-keeping and processing power of PCs and Macs. These home or office computers perform repetitive, mundane and sometimes technical and complicated tasks that are vital to the successful operation of any business, but that eat up valuable marketing and customer contact time.

There are thousands of different types of software programs available for small-business owners. Indeed, according to a survey printed in USA Today on software use among small businesses, 94 percent of small businesses use software for word-processing, 75 percent for maintaining spreadsheets, 67 percent for database management, 67 percent for financial analysis and forecast and 51 percent for desktop publishing. Yet, even with this heavy demand for small-business management software, most of what's mass produced tries to satisfy too broad a market to be of much use to those in the tree care industry.

There are, however, companies out there selling software customized for the tree care company owner. Some of this software is very specific—assisting with inventorying and IPM schedules, for instance. And some—including those sold by the companies in this article—encompass an entire tree care operation by assisting the company owner in all of his daily duties, including creating advertisements, estimating, selling and scheduling, invoicing and billing, cutting salary and commissions checks, and automatically producing customer follow-up letters.
Investing in the right software, then—and learning to use it effectively—can sometimes make the difference between a company that simply plods along, taking life as it comes, and a company that is better able to take charge of its own destiny and develop and execute a dynamic business plan.

The amount and type of software individual tree care companies need varies from company to company, says Peter Hannan, owner of Arbor Computer Systems, Inc., which offers customized software packages to tree care companies nationwide.

“You can get software that will do pretty much all you need to do except drive the truck and prune trees,” Hannan notes. “There’s just so much new technology out there these days that can be useful to the owners of tree care companies. For instance, we offer a system that allows the on-site worker to videotape a property. Later, the tape can be played and we can freeze the frames on the computer screen, and make estimates for jobs without going to the property,” Hannan says. The video images can then be “mixed” in the computer to create the optimal result of proposed tree work, such as pruning, before it’s performed, Hannan adds. These mixed images can then become the basis for estimates.

The technical possibilities seem endless. The trick to making the most of this huge choice in software is to do some research, so that you can install the system—hardware and software—that works best for you without loading yourself down with features you don’t need, Hannan explains.

But don’t you have to be a “techie” to run a computer?

Dealing with screens, keyboards, monitors, memory and the like, sounds like a simple day’s work for the average computer whizz. But what about the potential arborist software user who thinks a Gigabyte is something you should rub Calamine lotion on? No problems here, according to admittedly computer shy Judith P. Collins, co-owner of Collins Tree Service Inc., based in Hopkinton, NH.

“I’ve been using arborist software since 1984 and it’s improved our business immensely,” Collins effuses. Collins upgraded—got a more recent and powerful version of—her software from Hannan’s Arbor Computer Systems in 1990, so she can now operate it in her preferred word processing format, WordPerfect.

“I don’t use nearly all the features that the upgrade has. I only use it for invoicing, billing, mass mailings and a few other things,” Collins explains. But even this fairly limited use helps improve the company’s bottom line.

Collins estimates that her computer system saves Collins Tree Service around $25,000 each year. “If I didn’t have this software, I’d have to hire someone to work here. We also save money by following up on receivables that we might previously have overlooked or just let go,” Collins adds.

If and how much a company saves by computerizing its operations will vary widely from company to company, depending on the type and degree of computerization adopted.

Along with the money savings, Collins says she feels more organized dealing with the company’s accounts. It used to be she’d have to dig through mountains of papers to track down individual bills or folders, often while a customer was on hold on the phone. But now, all those records are in one place—in the computer—and are immediately retrievable at the stroke or two of a key, she says. “Now, I can tell you exactly when a job was done, who worked on it, the cost, if we got paid and a lot of other important things just by calling up the customer’s record.”

Some software, such as that offered by Practical Solutions, Inc., based in Worthington, OH will even track employee production statistics. This allows the employer to develop a profile of each worker’s strengths and rates of production and to modify work orders accordingly. It also helps break down per-unit job costs.

This customization of an arborist software package to suit a user was a major selling point for Collins, particularly when she made comparisons with store-bought, generic management software packages. “I’ve tried using software off of the store shelf, but it was very frustrating,” Collins says. “I found that I was trying to change my business, so that it would fit what the software could do. Now, I’ve learned that you need to change the software to suit your business, not the other way around” she adds.

Red tape and paperwork

Keeping good records of exactly the information you need is essential for making quarterly and yearly comparisons in accounting, inventory, material use and other relevant areas. That’s just one way computerization adopted.

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Judith Collins of Collins Tree Service, Inc., appreciates having every customer record she needs at her fingertips. Collins says using customized arborist software for mainly accounting and record-keeping tasks saves her about $25,000 yearly in labor costs.

Software Solutions

of the reasons that Susan K. Phillips, owner of Poinsettia Software in Caledonia, WI, offers the TreePRO software package that includes, along with many other features, a function that allows users to invoice directly from work orders. This document includes vital information, such as payment schedules and calculations for sales commissions and customer discounts.

"The single most important thing your business management software can do for you is provide accurate reports that tell you what you need to know," Phillips says in her advertising literature. But those records are of little value if you can't get them out of the computer and onto the page in a form you and others can understand, Phillips adds. Fortunately, she and other software providers are able to customize printing and other functions to suit specific systems needs.

Poinsettia, for instance, will set up templates for customer reports that the user can use time and time again. The convenient collection of other, more technical types of information is also crucial, says Donna Garner, sales and marketing director for Tree Management Systems, Inc, which sells ArborGold Software for the Newton Hand-Held computer.

ArborGold is one of the software packages that allows the estimator, among other functions, to draw a site layout of the property, automatically number images of trees and label and include other information about the tree, including the price of particular jobs. "All handwriting is translated to print in seconds. The estimator may print a proposal on-site using a portable compact printer," Garner explains. At the end of the day, the estimator transfers the information gathered during that day onto a main computer at the office.

Collins says her company collects and accesses customer and other information in the field, but she uses a laptop or portable—rather than a smaller hand-held—computer. "We load information onto the laptop at the start of the week or the day, whatever makes sense. Then we can easily call that up as we need to on-site," Collins says.

Company workers and customers aren't the only ones who need to access records: the U.S. Department of Transportation and other official entities need to be able to quickly determine if a tree care company is following rules and regulations.

A software program such as ArborWare, sold by Creative Automation Solutions, based in Woodstock, MD, includes in its vast toolbox useful features to help satisfy federal and other record-keeping requirements. "A vehicle inventory, maintenance and use log is

"nice splice"

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included with every ArborWare installation,” notes Mark Smith, owner of Creative Automation Solutions.

ArborWare will even provide site visitation and detail records for all spray or chemical application work to produce Department of Agriculture reports on chemical use.

So how much will this cost me?

Before deciding whether or not to computerize, or to add to or customize existing software, the tree care company owner should take some time out to explore several options.

Obviously, cost is very important. Those who don’t already own a computer can expect to pay at least $1,000 for a computer set up that includes the computer, printer and screen. Realistically, you can expect to pay close to double that amount for a set-up that’s going to work consistently well and be able to keep up with the dizzying array of technological changes that the computer world seems to experience almost daily.

Ultimately, how much you pay for software should be determined by your needs, and not by the number of seductive "gizmos" that take your fancy. For example, the cost of the software packages available from the companies mentioned in this article ranges from a couple hundred dollars for a straight accounting package to $3500 and even higher for a soup-to-nuts package.

HELP!

In costing out the change, be sure to include a budget for technical support and upgrades. Some companies include lifetime, over-the-phone, “routine” support in the cost of the software purchase, while others will charge extra for support. This could be a per-day, per-problem or a contract maintenance fee, under which you pay a regular, pre-set amount and can call on support at any time for no extra charge.

Some companies will offer—sometimes as an add-on cost—a day or more of on-site training, during which they spend time at your office showing the appropriate people how to get the most from their system.

Here’s a list of the companies and contact numbers for the software companies mentioned in this article.

Arbor Computer Systems 203-226-4335
ArborGold, Tree Management Systems 1-800-933-1955
ArborWare, Creative Automation Solutions 800-49-ARBOR
Poinsettia Software Inc. 1-800-707-9837
Practical Solutions Inc., 614-436-9066

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Software Solutions

"You can get software that will do pretty much all you need to do except drive the truck and prune trees. There's just so much new technology out there these days that can be useful to the owners of tree care companies." Peter Hannan

One important note here is that, when it comes to training and instruction, make sure that more than one person is up to speed on how to work the computer. Some small businesses—tree care companies and others—can come to a grinding halt when their "computer person" goes on vacation, gets sick or moves on. Make sure you have at least "backup" person if possible. For a one-person operation, this might even be a spouse.

You also should enquire about and be comfortable with the usual response time between making the request for support and receiving it. This can range from an immediate response to a delay of a few days, depending on the software provider.

The watchword when it comes to technical support is to make sure that you don't end up with a brand new computer system gathering dust in the garage simply because you can't get it to do what it's designed to do.

This is just the problem Collins faced not long after she installed her new system. "I had a problem very early on when I was using my computer. I guess some kind of bug got into it," Collins recalls. "So, I just sent it back to Peter (Hannan) and he fixed it straight away." Remember, any and all software is vulnerable to bugs, power changes, magnetic fields and a host of other predators, so be sure you protect your hardware and software as much as possible. This can be as simple as buying a surge-protector for your electric outlet to entering into a contract maintenance agreement.

LOOK BEFORE YOU LEAP

Most custom software companies will be happy to discuss your needs—including such essentials as methods and schedules for data back-ups, memory upgrades, hardware suitability etc.—before you cut the check. They will help you decide how much computer help is enough for your particular needs. And, since many of those
Software Solutions

writing arborist software are tree care industry “insiders,” they can give you a pretty good idea of relative cost-effectiveness and priority of, say, computerizing your job scheduling versus computerizing your accounts receivable.

This initial discussion with the software provider is also a good time to decide if you can enjoy a long-term relationship with him or her. After all, while computer support is available from all quarters, no one is going to understand your customized arborist software better than the person who wrote or compiled it, and you’ll likely require periodic upgrades, so there’s a good chance you’ll be in fairly regular contact with your vendor.

When all is said and done, the decision whether to computerize your business, and how to go about it, should be based on increasing efficiency. A computer and its software—customized or otherwise—are simply tools, like any other you might use in the field, and need to be learned and maintained in the same way. Computers are supposed to make your life easier. If you don’t believe custom software will help do that, then you should think twice before buying it.

Those who do use custom arborist software to its fullest, however, often find themselves feeling more in control of their business, particularly in the busy times, than they ever thought possible. They also find themselves with more time on their hands than they can remember. And that, as any small-business owner will tell you, isn’t such a bad thing.

Les Kozaczek is a staff writer for TCI

Maris Franke, Mark Smith, Donna Garner and Peter Hannan will present “Effective Use of Computers in Tree Care,” a two-part lecture, at TCI EXPO ’96.
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September 10-12
Georgia Urban Forest Council
Designing Urban Forests for Storm Survival
Albany, GA
Contact: Sharon Dolliver 912-751-3527

September 12-13
Michigan Forestry and Park Association
Educational Summer Conference 1996
Southfield, MI
Contact: 517-482-5530

September 16-18
ISA, Pacific Northwest Chapter
Annual Training Conference
Yakima Convention Center, Yakima, WA
Contact: (206) 784-1945

September 10
National Arbor Day Foundation
Building With Trees Workshop
Newark, NJ
For other cities and dates: 402-474-5655

September 24, 25
Vegetation Management Conference
Southern Illinois University
Carbondale, IL
Contact: 618-536-7751

September 25
Hampton Roads Agricultural Research and Extension Center, Virginia Tech
Annual Field Day
Virginia Beach, VA
Contact: Dr. Bonnie Appleton 804-363-3906

September 26-27
S.C. Urban & Community Forestry Council
Annual Urban Forestry Conference
Holiday Inn, Beaufort, SC
Contact: Joel Felder 803-896-8864

October 8, 9
Annual Vegetation Management for Right-of-Way Workshop
S. Illinois University, Carbondale, IL
Contact: Sandy Rhoads 618-453-5679

October 9-12
American Society of Consulting Arborists
Annual Meeting
Westin Hotel, Seattle, WA
Contact: 301-947-0483

October 20-22
N.E. Chapter, ISA
Annual Meeting
Ramada Inn, Norwich/Mystic, CT
Contact: Bonnie Moran, 203-746-3014
Fax: 203-746-4705

October 27-30
26th Annual Conference
National Institute of Park and Grounds Mgmt., Radisson South, Minneapolis, MN
Contact: 414-733-2301

November 1-3
New Jersey Shade Tree Federation
Annual Meeting and Tree Expo
Sheraton Inn, Cherry Hill, NJ
Contact: Bill Porter 908-246-3210

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Managing With Your Financial Statements

Examining the basic financial aspects of the tree care business

Typical tree care companies don't have a lot of cash at the beginning of the year. In northern states, the work is even more seasonal and the chart would be more extreme. As business builds in the spring and summer, cash starts to accumulate. Charting cash flow helps people on the operational side of the business recognize what is happening within the company.

The tree care and landscaping industries have traditionally been slow to adopt financial controls. We prefer being in trees to stuck inside the office. Nevertheless, it is as essential to plan your finances as it is to coordinate your production schedule.

With degrees in accounting and business administration, my technical background is really in the financial field, although my love has always been tree and plant care. I started working with Lucas Tree Expert Company in Maine as a field employee way back in 1970. Lucas is located in Portland, which is the largest city in a very rural state. In order to keep busy year-round, we offer as many different services as possible. We have a landscaping department, and we do utility line clearance work and grounds maintenance for commercial and residential clients. We have another division strictly for lawn care. Our private tree business is quite small, employing 10-25.

In total, we have about 300 employees at peak season, but each division is run as a separate small company. Each one of our businesses is set up as an individual profit center, which helps us track our financial successes and failures—pointing to the areas on which we can improve.

Some company owners in the tree care industry wonder why they need a finan-
cial statement at all. For one thing, your banker wants you to have one. If you need a line of credit for the slow time of the year, a financial statement is required. Loan officers generally have a checklist that includes a financial statement, personal and corporate tax returns, a one-year budget, cash-flow projection and a long-term, five-year strategic plan.

Bankers want to know about contracts in hand, personal financial statements and a list of fixed assets. They will want your organizational chart and the name of your bookkeeper. They will want to talk about your internal controls and the purpose of the requested funds.

Putting aside the demands of bankers, financial statements are a way to develop control over your business. Be accurate with them. Record your business' financial information on a daily, weekly and monthly basis, so that you can produce meaningful financial statements.

A financial statement must be focused. If you have two or three different types of operations—such as fertilization, planting or removals—you probably should set them up as separate profit centers. If each area of your operation is charted on its own, you can tell where you are making or losing money. Bear in mind that not every facet of your business has to turn a profit. Every business has operations that are marginally profitable, but don't discard them if they enhance the potential for profits by getting you on the property.

Your accountant will produce an annual statement, but you need a monthly one that may be produced internally by your spouse or a part-time bookkeeper. You also should have weekly financial statements, which I call "quick and dirty statements," that don't have to be absolutely exact but should be accurate enough that you can identify trends from them.

In other words, you should have several types of financial statements, from the very formal kind that a banker wants, down to those that are more operationally driven for your use only.

The Balance Sheet

An in-depth financial statement will help you understand and run your business. It shows the financial position of your company on that particular date by listing assets and liabilities, as well as the owner's equity. You should produce one annually. As your business grows, take the time to track your finances on a quarterly and then a monthly basis. My firm produces a quarterly balance sheet and a monthly profit and loss statement.

A financial statement identifies your current liabilities and your long-term liabilities. It becomes important to know the different components of a financial statement, so that later on you can use these components to develop ratios.

Profit and Loss Statement

A profit and loss statement, also known as an income statement, should be produced at least quarterly, if not monthly. This statement has a wealth of important information in addition to the bottom line. It will identify gross profit margins and help spotlight ways for you...
to control your business. The profit and loss statement measures income versus associated expenses. Some businesses by their nature are run to generate a profit every month. Seasonal business, such as tree and landscape operations, tend to operate in the red at the beginning of the year and not show a profit until after the third quarter.

Develop a cash flow analysis from your income statement. It takes a lot of work, and there are a lot of numbers that can be confusing, but this is the lifeblood of the company. You should learn how to use one, because your most critical financial challenge is managing your cash. You have to learn to control your costs once you price a job and get out in the field. A cash flow analysis is one tool to assist you. Remember, simply because your business is profitable doesn’t mean you don’t need to analyze your cash flow. You can have a profitable business and still not be a good cash manager.

The ideal, of course, would be to make so much profit that you don’t have to worry about cash management. But that just doesn’t happen in the tree care business, so you should produce cash flow statements.

**Financial Ratio Analysis**

After you produce a financial statement, start using it. Whether it is your balance sheet, cash flow or profit and loss statement, each number generates a ratio that offers an in-depth look at certain aspects in your business. Compare the ratios your statements generate to general numbers for typical tree care companies. This can give you insight in the areas that you need to improve for a more profitable business.

For example, for your company, current assets divided by current liabilities might yield a ratio of 2:1. Is this within an acceptable range? How do you increase it? Without a statement that yields hard numbers, you are just thrashing in the dark.

Another ratio that can be used with your balance sheet is a debt to equity ratio, which is one way to determine the net worth of the company. If your ratio is too high, that generally means you are trying to accomplish too much with too little capital. This is one of the key ratios banks will consider when you apply for a loan.

A key balance-sheet ratio for tree care firms is the net fixed assets to current assets number. This ratio will tell you whether you have over-invested in fixed assets such as trucks and equipment.

Your working capital turnover ratio is one number over which you probably need more control. Look at how fast cash is turning over. A typical tree care business will turn capital over nine to 12 times per year. If you are turning your working capital over very slowly, then your business is sluggish and you are not using your cash well. On the other hand, if you turn your cash over too fast, you have no cash reserved for unforeseen expenditures.

As I stressed before, financial statements should be produced monthly because of the seasonal nature of our business. Some items should be tracked weekly, such as spray programs and deep-root fertilizations. These weekly...
insurance, and your overhead has exceeded expectations by 3 percent.
Taken separately, these items don’t seem like much, but cumulatively you could find yourself with a short-term cash problem. If you weren’t comparing your actual numbers against budgeted expectations, you would not have noticed a 2 or 3 percent difference in a single item. As a result, you would not be able to make farsighted, intelligent management decisions to avert financial disaster.

Joe Oakman’s Tree Company
Balance Sheet

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities &amp; Owner Equity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>Liabilities:</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>Notes Payable 52,000</td>
</tr>
<tr>
<td>Supplies</td>
<td>Accounts Payable 45,000</td>
</tr>
<tr>
<td>Land</td>
<td>Salaries Payable 3,000</td>
</tr>
<tr>
<td>Building</td>
<td>Total Liabilities 100,000</td>
</tr>
<tr>
<td>Truck</td>
<td>Owner’s Equity 120,000</td>
</tr>
<tr>
<td>Other Equipment</td>
<td>Total Assets 220,000</td>
</tr>
<tr>
<td>Total Assets</td>
<td>Total Liabilities &amp; Owner Equity 220,000</td>
</tr>
</tbody>
</table>

items need not be part of an in-depth statement, but can be produced in quick and dirty statements that allow you to see how those particular programs are faring during the short season you perform these tasks. I recommend that you develop some quick and dirty ratios in order to give you a feel for those parts of your business.

Budgets

Another aspect of financial management is developing budgets. A lot of people in our business say they can’t produce a budget. The work is too unpredictable. Only the big companies can produce a budget. That really is not true. In order to control costs, you need to be budget driven. That means you should produce a budget at the beginning of the year and use it.

At my company, for the first two or three years, we put a lot of effort into the budgets, and we really didn’t utilize them. Now, every time we produce our financial statement, we have the budget right beside it as a comparison. The budget becomes a predictor of where you are headed. Budgets won’t be exact, but comparing actual numbers to projections offers a snapshot of how healthy your business is.

Let me offer an example of why budgeting is so important. Let’s say in your sixth month your gross margin is 5 percent lower than expectations, and your gross sales are off 2 percent. In addition, the state imposed a retroactive 5 percent increase in your workers’ compensation

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One of the little tricks of budgeting that a lot of people recommend is to shorten your budget cycle to six months. The Japanese have been very successful using this method because it allows for mid-course correction, allowing you to react a little bit quicker to large variations in your budget.

Trend Analysis

Other financial information that you should be looking at is generally called trend analysis. Are these seasonal fluctuations really seasonal or not? Is the change in your business happening because you are doing a great job or because of factors beyond your control? You will never know if you never notice.

There are several mitigating factors to consider in looking at trends:

Seasonal Influence

Is there normally a period of change within the time span measured? Does it get busy every spring and then slow down in late summer? Does it always get busy when bonuses are issued by the major employer in town?

Meaningful Data

Is there sufficient data for your numbers to have credibility? For example, when calculating the return per man hour, 1,000 hours will yield a better number than 100 hours.

---

Financial Ratios

<table>
<thead>
<tr>
<th>Ratio name</th>
<th>Recommended Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Current Ratio</td>
<td>1.25 - 2.25</td>
</tr>
<tr>
<td>2. Acid Test</td>
<td>1.00 - 1.75</td>
</tr>
<tr>
<td>3. Debt to Equity</td>
<td>1.00 - 4.50</td>
</tr>
<tr>
<td>4. Net Fixed to Current Assets</td>
<td>.40</td>
</tr>
<tr>
<td>5. Degree of Fixed Asset Newness</td>
<td>.40 - .50</td>
</tr>
<tr>
<td>6. Working Capital Turnover</td>
<td>9 - 12</td>
</tr>
<tr>
<td>7. Net Profit to Working Capital</td>
<td>20% - 40%</td>
</tr>
<tr>
<td>8. Net Profit to Earned Revenue</td>
<td>.5% to infinity</td>
</tr>
<tr>
<td>9. Return on Net Worth</td>
<td>20%</td>
</tr>
<tr>
<td>10. Average Age of Work in Process</td>
<td>10 days</td>
</tr>
<tr>
<td>11. Average Age of Accounts Receivable</td>
<td>45 days</td>
</tr>
<tr>
<td>12. Cash Conversion Cycle</td>
<td>55 days</td>
</tr>
<tr>
<td>13. Average Age of Accounts Payable</td>
<td>45 days</td>
</tr>
<tr>
<td>14. Average Age of Over-Billing</td>
<td>10 days</td>
</tr>
<tr>
<td>15. Cash Demand Cycle</td>
<td>0 days</td>
</tr>
</tbody>
</table>

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Larger Trends

Your data may identify one “thread” but not the “whole rope.” Is your spray volume increasing because more people are spraying or because a major competitor went out of business?

Trend analysis is best done visually. Computer graphics will help you track a trend and identify when it is not just seasonal but is a change in your business.

Summary

Producing these statements at the end of the month is usually a two-day operation. We are all busy, and you might be tempted to skip the paperwork and escape to the field. Don’t make that mistake! If you fail to get a handle on the financial side of your business, you may find that you will be spending a lot of time in the field—as a foreman working for someone else.

Arthur Batson has been involved in the tree care industry for 30 years, the past 13 as president of Lucas Tree Expert Co., in Portland, Maine. He is past president of the National Arborist Association.
How do you handle an inherited problem that has local residents, the electric company and city workers upset and demanding action? When the problem results primarily from the wrong street trees being planted in the wrong places 30 years ago, the best approach might be to take a cue from the pulpwood foresters of the South, who involve landowners in a program to clear-cut the old trees, grub the stumps, then plant the right trees in the right places. Last spring, that is exactly what was done in the Stanberry Park subdivision of Cincinnati, Ohio, through a cooperative effort of the Urban Forest Management Section of the Cincinnati Park Board, the Cincinnati Gas & Electric Company (CG&E), a subsidiary of Cinergy Corporation, and the Mt. Washington Civic Association.

The Stanberry Park subdivision was built in mid-1960s and has more than 300 medium-priced, single-family homes. In front of each home, the developer planted one or two silver maple trees in the six-foot wide, city-owned tree lawn (the grass strip between the curb and public walk).
The whole subdivision was built on a soil type that, according to the Hamilton County Soil Survey, has severe limitations for constructing roads, walks, driveways, patios and houses with basements. This soil shrinks and swells dramatically with varying amounts of soil moisture, then freezes and thaws several times each year. Pavements that are not properly constructed on suitable base material, with drainage and/or reinforced concrete, will sink, heave and move side to side with the soil—even when no trees are present. As early as 1946, model engineering construction standards created by the F.W. Dodge Company clearly show the special construction techniques needed to overcome the limitations of weak soils.

Since normal rather than special construction techniques were used in Stanberry Park, various pavements have been in constant need of repair at homeowners' expense. Of course, the presence of tree roots often compounded the sidewalk problems. And when those trees were silver maples, which have a very prolific root system, the sidewalk problems were sometimes dangerous. The old clay sewer lines also had been leaking from dried out joints or from sections broken by the shrink-swell soils. Shrub and tree roots invaded through those openings and clogged the lines, re-

"All in all, the citizens thought they were getting a good deal. Some had trouble understanding and were disappointed with the fact that we could not plant a new tree every place an old tree had been. I believe the project was a success, because we clearly told the property owners what we wanted to do and why, fairly resolved the few concerns, then went right in and quickly and efficiently did the job. CG&E had the large trees removed in record time with no problems. The longer such a job drags on, the more problems you have."

Larry Parker, urban forestry specialist with the Park Board
sulting in flooded basements. Most of the homeowners blamed the street trees—even though these expensive problems were more related to soil and construction causes. Several times since the early 1980s, homeowners suggested that the city remove all the trees and start over, but the Urban Forestry budget was limited.

Forestry gradually realized that the need to clean debris in the area after each wind or ice storm was becoming more expensive each year. Not only had the wrong tree species been planted 30 years ago, most of the individual trees were genetic misfits with multiple tops, weak branch angles and brittle wood. Even the best silver maple is not usually a desirable street tree, but a whole subdivision full of bad ones is pure trouble. (The city now has a permit system to help eliminate similar problems.) Picking up the pieces was troublesome, but the real concern was on what person, house or car those pieces would fall next. The clear-cutting suggestion was becoming very attractive.

CG&E was also troubled by the rapid growth of those silver maples. Almost immediately after being pruned for line clearance, many of the trees grew right back into the electric wires. This required frequent, expensive “hot spot” pruning.

Late in December 1994, Forestry approached representatives of the Mt. Washington Civic Association, which represents the community containing the subdivision. After learning about all these problems, the Civic Association endorsed the proposed removal of all the old silver maples.

CG&E forester Keith Hoover was shown the area and asked if his company could bear the cost of removing the trees under its wires, grinding the stumps and replacing those trees if Urban Forestry did all of the other work. For years, it had been one of CG&E’s policies to seek permission to remove trees that normally would require frequent pruning for line clearance. However, grinding stumps and planting replacement trees was a new venture.

Hoover obtained a commitment from management to cooperate with the program by removing all of the silver maples—regardless of their proximity to wires. Forestry agreed to grind the maples and plant new trees. The stage had been set to involve the residents of Stanberry Park.

An information letter was sent to each of the 315 property owners on the nine streets involved. Included with the letter was a description of the tree that would be planted. These descriptions were copied from “Street Tree Factsheets,” a loose-leaf binder published by Pennsylvania State University. This full-color depiction of 180 tree species and cultivars won the National Arbor Day Foundation’s 1995 Book Award. The trees chosen included “Macho” amur corktree, “Robinhill” serviceberry, “Autumn Purple” white ash, “Spring Snow” crabapple, Japanese tree lilac, eastern redbud, “Cleveland Select” flowering pear and “Aristocrat” pear. These tree types had CG&E’s approval because they are wire-friendly. For the most part, one type of tree was scheduled for both sides of a street with a different type planned for the next street.
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Two hundred ninety-nine, 2-inch caliper balled and burlapped street trees were planted during this clear-cut and replant project.

All of the cooperating parties agreed that since the old silver maples were not especially dangerous, just troublesome and expensive to maintain, any property owner could leave one tree standing. As a result of the letter, four people asked that the tree in front of their houses not be removed. Before the letter was mailed, one property owner heard of the proposed work and circulated a notice to about 50 of his neighbors suggesting that they call the city to ask that the removal be spread over a few years to lessen the visual impact.

On March 9, 1995, CG&E began removing the silver maples using Asplundh Tree Expert Company as its contractor. All limbs under six inches in diameter were chipped, with the mulch being used for local tree planting projects. Asplundh stacked the logs and smaller wood on the lawn around the stump, where a CG&E crew picked it up and delivered it to a local firewood producer. This phase of the project, which consisted of removing 83 silver maples, was completed by March 21. Asplundh delivered some chip mulch directly to residents who requested it, and some of the firewood disappeared before CG&E could remove it. About a dozen large ash, oak and sweetgum trees were not removed, nor were the four silver maples that residents wanted to save.

On March 6, the Forestry staff began marking planting locations for 311 new street trees. Each house was posted with a door hanger describing the proposed trees and suggesting ways people could help care for them. Locations were marked with a two-inch wide stripe of white paint running from the top of the curb, down the curb and about one foot onto the street. Locations were carefully selected, so that the new trees would not conflict with nearby vegetation, especially existing trees. No trees were within 10 feet of driveways, utility poles, fire hydrants and storm sewer inlets, or within five feet of gas and water valves or 30 feet of street intersections.

Next, Forestry telephoned the Ohio Utility Protection Service (OUPS) to request that all underground utilities near any stump or tree planting be located and painted. It is critical, and legally mandated, that a "digger" knows where underground utilities are before digging. After the OUPS marking was completed, Forestry reinspected and adjusted the locations of a dozen trees.

After all of this, 19 residents called. Thirteen did not want new trees planted. Two wanted different species
and agreed to plant them at their expense after taking out a tree permit. Four wanted more trees than had been planned. All of the requests that were feasible were honored.

The Jeffrey Allen Landscape Corporation was given a work order to supply, plant and guarantee for one year the 299 balled and burlapped trees standing six to eight feet tall. Cobb Stump Removal was given a work order to grind out stumps within the project area. All stumps and associated surface roots were ground out to 12 inches below grade, except where a new tree was to be planted. Those stumps were ground to a depth of 24 inches. The contractor left one of Forestry’s information sheets at each house explaining that a mound of chipping debris would be left in a neat condition. It asked residents not to level the mound but to let it settle naturally, then, in the fall, plant grass or ground cover.

Eighty-nine stumps were removed in five days. In the process, three sidewalks were chipped and two downspout drains were broken, which Cobb repaired. At Forestry’s request, Cobb returned to grind a few stumps deeper to facilitate tree planting. Previous marking by OUPS guaranteed that no gas or water valve boxes were damaged, even though the large root systems of some trees had grown around them. Three callers complained about the massive mound of stump debris left behind from trees whose surface root systems had filled the lawn up to 15 feet on either side of the trunks. The solution was to let the mound settle and plant grass over the entire lawn the next fall.

The only delay in the project was the start of tree planting. There was such a regional demand for nursery stock during 1995 that Jeffrey Allen Landscaping had trouble purchasing many of the trees in sufficient quantities. However, planting began during the first week in May and was virtually finished by the second week in June. It included having the contractor post all houses with the same door hangers Forestry had distributed when marking planting locations in early March.

The approximate contractual costs for this project (not including Forestry or CG&E staff time, fringes, etc.) were as follows:

- Removal of 83 silver maples and wood cleanup = $6,000
- Grinding out 89 stumps = $4,264
- Planting 299 street trees = $41,262

Overall, we feel public sentiment was very positive. In addition to the various calls requesting those specific services discussed earlier, 21 people called and three wrote to Forestry to praise the project and encourage it through to completion. Most of this support resulted from the initial letter Forestry sent to property owners.

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Urban Forestry

The planting of the right trees in the right places should solve a host of problems for homeowners, the city and the utility company.

The three contractors accomplishing the work all reported that most of the comments from residents were very supportive.

The problematic mix of weak soils, standard walk construction, leaking sewers, undesirable trees and overhead wires is not unique to the Stanberry Park subdivision. The success of this first cooperative clear cut and replant project may be just the beginning of similar cooperative projects to improve other neighborhoods while reducing long-term costs and liabilities for cities and utilities. Done properly, it could be a win/win solution.

Steve Sandfort is the supervisor of Urban Forestry for the City of Cincinnati. Steve Brash is manager of external communications for Cinergy Corporation. Julie Rimer is chairman of the Mt. Washington Civic Association Tree Board.

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TREE CARE INDUSTRY - AUGUST 1996
Arbor Day Thanks

Many thanks for the terrific article about the Massachusetts Arborists Association’s Arbor Day celebration at Elm Bank in April. The article was beautifully written and conveyed the true sense of the day. We have always had a hard time getting press coverage for the event, and your piece went a long way toward giving our volunteers the recognition they so richly deserve.

We greatly appreciate your support and look forward to working with you in the future.

Virginia Wood
Executive Director
Massachusetts Arborists Association

Cooperation Needed

I have worked for a commercial tree care firm for two summers and a municipal tree crew for five summers. I will receive my master’s in Urban Forestry next May. Although I am far from an expert in the field of arboriculture, I have noticed an ominous trend in the last few years.

The National Arborist Association (NAA) and International Society of Arboriculture (ISA) thoroughly communicate new technology and scientific research to arborists. Through magazines and educational publications, both organizations have kept arborists enlightened about modern arboriculture.

Unfortunately, it is my experience that related green industries do not heed such information. Although arborists recognize the perils of planting trees and shrubs improperly (for example planting too deep, leaving girdling nylon around the root ball, and not removing guy wires from the trunk), landscape contractors and nurseries regularly violate these guidelines. Many insect and disease problems can be attributed to improperly planted trees.

A second example concerns the article on tree preservation during development by Nelda Matheny and James R. Clark that appeared in the May 1996 issue of TCI. The authors stress that arborists should be consulted during the planning and design phase of a development project to decide which trees to preserve and how to preserve them. After speaking with a local developer, I was dismayed to learn that very few developers recruit a consulting arborist until damage has occurred and clients are complaining about dying trees. Developers often find it more lucrative to clear the trees from the entire site and re-landscape it. We then encounter the planting problems mentioned earlier.

I suggest that, in addition to educating arborists, the NAA and ISA should encourage more communication with related green industry associations, such as the American Association of Nurserymen and the American Society of Landscape Architects. A media campaign to alert homeowners of the proper methods of design and planting would help avoid many problems arborists are called to correct.

When landscape contractors and landscape architects provide customer referrals, arborists are reluctant to blame them for dying trees. For this reason, I think it would be more effective if change came from within those industries. This way, arborists and our related green industries could cooperate for the benefit of trees and customers.

Brian Kane
Garden City, NY

Publisher’s note

Mr. Kane will be pleased to know that NAA and ISA have very close working relationships with not only the American Association of Nurserymen and the American Society of Landscape Architects, but with the Associated Landscape Contractors of America as well. We meet several times each year with those three organizations, as well as with other green industry associations. These consultations began more than a quarter century ago.

At these meetings, we exchange ideas and familiarize each other with industry concerns, projects and other items of interest. This spring, we held two meetings on the very subject that Mr. Kane comments on; consumer information and public relations.

The nurserymen, landscape contractors and landscape architects have the same problems as arborists. Not everyone who claims to be a professional is a professional in practice.
Vermeer introduces the 252 SC User-Friendly Stump Cutter. The most recent addition to Vermeer's line is easy to use and maintain. This was accomplished in part by constructing an uncluttered control panel to help prevent distractions. It features an exclusive Auto Sweep system that makes stump cutting easier by maximizing power, and efficiency and reducing machine stress. It comes with a detachable front-hitch assembly, allowing for crating and front-wheel options. Only 35 inches wide, it fits through most gates. Like all Vermeer stump cutters, the 252 SC is equipped with exclusive Pro Series tungsten carbide-tipped teeth for precision cutting. For further information, please contact: Ken Wagner or Mark Rau, Morbark, 8507 S. Winn Road, Winn, MI 48896. Phone: 800-233-6065, Fax: 517-866-2280.

Morbark's E-Z Recycler Model 4000 produces a consistently sized end product while processing yard waste, leaves, grass clippings, brush, Christmas trees, demolition debris, construction waste, cutoffs, mill waste and pallet material. Compact enough to be transported with a pickup truck, the E-Z Recycler is perfect for commercial volume recycling encountered by contractors, municipalities, landfills and recycling yards. The design lends itself to material containment, making this unit especially effective in tight quarters and populated areas. Flow of material to the patented recycling drum is managed with an in-feed hopper equipped with a live chain bed and large diameter top feed wheel. Material can be hand fed or dumped in with a loader. The E-Z Recycler Model 4000 features a break-away anvil system, heavy duty material sizing grates, a hydraulic folding out-feed conveyor and a remote control panel. For further information, please contact: Ken Wagner or Mark Rau, Morbark, 8507 S. Winn Road, Winn, MI 48896. Phone: 800-233-6065, Fax: 517-866-2280.

The Hoffco PH980 is an earth drill that can be carried, started and operated by one person. The full wrap-around handle helps the operator control the auger action with ease. The "dead man" throttle control and conveniently located kill switch, plus the Comet automatic centrifugal clutch, make it simple and easy to control. Another plus is the Beaver Box, a standard feature that works as a shock-absorbing unit to relieve mechanical stress. The two-cycle Tecumseh engine combines with an 18:1 ratio power train to drive the auger into any type of soil. A variety of standard augers are available in sizes 2 inches to 8 inches in diameter, with Pengo augers in sizes 6 inches to 8 inches in diameter. Add the extension accessory and drill to a depth of 48 inches. Hoffco Outdoor Power Equipment, 358 NW F Street, Richmond, IN 47374-2297. Phone 317-966-8161; Fax 317-935-2346.

For more information, see your Jonsered dealer, or call 800-447-1152.
The newly designed Longwood/Lumber grapple forks from Dymax are designed and built for durability in rough working conditions. The new design allows one attachment to perform many land clearing and tree care operations. When handling logs, the two individual top clamps are mounted to close inside tines, bringing the logs closer to the carriage for greater stability. The non-swinging tines come in three lengths (36, 42 and 48 inches) for handling, stacking and loading after the logs are sawed. The two top clamps open to 42 inches and will not interfere when handling lumber. For more information, contact Dymax, PO Box 297, Wamego, KS 66547. Phone: 913-456-2081; Fax: 913-456-8328.

Ziamatic Corporation produces a full line of wheel chocs and holders for use on chippers and other mobile equipment. The model AC-32 choc and model QCH-32-V vertical holder are ideal for this application. Simply slide the lightweight aluminum choc out of the holder, place the choc firmly against the tire, and your equipment is secured. For more information, contact Ziamatic Corporation, PO Box 337, Yardley, PA 19067-0587. Phone: 215-493-3618 or 800-711-3473; Fax: 215-493-1401.

The Brilliance Wheelbarrow Support Rack cuts down on the significant amount of space wheelbarrows waste when stored on a work truck. The Brilliance support rack provides safe and secure storage in any of these environments. Constructed with 14 gauge, hot dip galvanized steel channel, this rack can be vehicle mounted horizontally or vertically or wall mounted on any flat surface. Simply slide the tray lip of the wheelbarrow into the channel frame, secure with clamp and padlock (sold separately) and your wheelbarrow is safely and securely stored. Rack fits wheelbarrows with tray up to 33 inches wide. For information, contact: Big Business L.P., 316 Herbertsville Rd., Howell, NJ 07731. Phone: 908-458-4371.

Ziamatic Corporation produces a full line of wheel chocs and holders for use on chippers and other mobile equipment. The model AC-32 choc and model QCH-32-V vertical holder are ideal for this application. Simply slide the lightweight aluminum choc out of the holder, place the choc firmly against the tire, and your equipment is secured. For more information, contact Ziamatic Corporation, PO Box 337, Yardley, PA 19067-0587. Phone: 215-493-3618 or 800-711-3473; Fax: 215-493-1401.
Chemical Fears
What the public hears

The public’s lack of scientific knowledge regarding chemicals and pesticides has created certain misconceptions regarding fertilizer and pest-control applications by the green industry. For this reason, Responsible Industry for a Sound Environment (RISE) and the Florida Pest Control Association are co-sponsoring a seminar entitled “Addressing Idiopathic Environmental Intolerances: A Concerned Approach” on August 23, 1996 at Seminole Community College in Sanford, Fla.

The goal of this seminar is to educate specialty pesticide end users of the science and policy implications behind the increasingly controversial and challenging issue of “Idiopathic Environmental Intolerances” (formerly known as “Multiple Chemical Sensitivity”) and to prepare participants to respond to questions from customers, the general public or the media.

Tree care company employees are often asked about the nature and effect of chemicals used in their daily business. This seminar should provide valuable information, as well as assistance in answering questions from customers and the public.

For more information, call Elizabeth Lawder at 202-872-3860.

The acronym E.H.A.P. is now a registered trademark of the National Arborist Association. E.H.A.P., which stands for Electrical Hazards Awareness Program, is a safety program created by the NAA that creates awareness of electrical hazards, which is absolutely essential for all tree workers.

E.H.A.P. is available in English or Spanish versions. For more information, call the NAA at 800-733-2622.

What’s this? A chance for a Wood/Chuck Chipper for only $50? See page 3 for details.
It is common sense that electric wires can be hazardous to anyone doing tree work. OSHA Standard 1910.331 states that only qualified employees can come within ten feet of an overhead energized electrical conductor. Plus, OSHA Standard 1910.269 clearly defines who is legally permitted to work within the ten foot boundary. Finally, ANSI Z133.1 dictates very specific training and operational requirements that all tree care personnel need to follow for safety's sake.

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

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

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

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

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Healthy Options

With the ongoing shortage of reliable, qualified labor in the tree care industry, employers are always looking for low-cost ways to build employee loyalty. Many would like to offer employee benefits but can’t afford to take on the additional cost.

One way to solve this dilemma is by starting a payroll-deduction plan where employees pay for their own benefits. This system, also known as a cafeteria plan, offers lower taxes and cheaper premiums available to groups. Under a cafeteria plan, employees pay for health or dental premiums before taxes are deducted from their paychecks. And employees aren’t the only ones to benefit: Business owners will only owe payroll taxes on the salaries after deductions.

Before you grab a tray and start choosing options, however, be aware that cafeteria plans do entail some costs. Most plans have a start-up fee, and the company you contract with to run your plan will charge $8 to $10 per employee per month in administrative fees. Nevertheless, these costs will be more than offset by lower payroll taxes—not to mention improved morale and employee retention.

If a qualified climber has offers from two companies, one with health insurance and one without, which offer do you think is more likely to be accepted?

Survey Says ...

Almost 20% of injuries in the workplace are back related, costing American businesses about $80 billion per year... Only 20% of workers are employed by businesses with fewer than 11 employees, yet those small businesses account for 33% of all fatalities... Boston drivers and New York cabbies pull over! According to Princeton Survey Research, only 39% of drivers in the West claim they drive at or below the speed limit. The South clocked in at 42%, followed by the East at 43% and those slow (but law-abiding) Midwesterners at 47%... The Bureau of National Affairs Inc. reports that for the third year in a row, absenteeism averaged only 1.7% of scheduled work days in 1995.

Strategy Session

How large does your business have to grow before you need a strategic business plan? The answer may surprise you. There is no minimum size—you need one today.

According to a survey by accounting firm Arthur Andersen and National Small Business United, a trade group, no business is too small, and having a plan helps small businesses grow and become more profitable. The survey, which polled 966 companies with fewer than 500 employees, found that only 28% had written strategic plans—but those companies had profit margins that averaged 100% higher than companies with no plans.

A written strategic plan has several benefits:

- Helps all employees know where the company is headed and what their role is
- Banks are more likely to lend
- Helps companies anticipate and react to change

More than Money

How do you honor an employee with a perfect attendance or safety record? Not in cash if you want to stay on the right side of the IRS. According to the Internal Revenue Code, an award can be tax deductible for your company and tax free for employees—unless it is in the form of cash. A popular substitute? Gift certificates pass IRS review and are just about as good as money.

Slow Down and Save

The longer- and colder-than-normal winter, coupled with an unexpectedly high summer demand, has caused gas prices to shoot up anywhere from 10 to 30 cents per gallon. The American Automobile Association offers the following gas-saving tips that apply to salespersons’ vehicles as well as gas-guzzling trucks:

- Keep tires properly inflated and engines tuned. Under-inflated tires can reduce mileage by 5%, a tune-up can increase mileage by 20%.
- Don’t buy premium gasoline unless you must. AAA says only 5% of cars require premium gas.
- Use the air conditioner sparingly: It reduces mileage by two miles per gallon.
- Higher speeds on the highway waste fuel: Driving 65 miles per hour uses 20% more gas than 55, and cruising at 75 drops mileage another 25%.
HELP WANTED

Golden Bear Arborists, Inc., needs you! If you are an aggressive, hard-charging, motivated, career-minded individual looking to make the big bucks, we are the firm for you. You must be a creative person willing to give 200%. Call Walter at 818-359-6647 for a phone interview.

Experienced climber/foreman needed for established Massachusetts tree service. Self-motivated arborist, certificate a plus, to work in a drug-free environment. Send resume or call Holbrook Tree Service, 252 Union St., Yarmouthport, MA 02675. Phone: 508-362-8085.

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We have just opened our seventh branch office! Our success continues to generate opportunities for career minded professionals. We have immediate openings for: • Plant Health Care Specialists in our NY, NJ, CT and MA locations • Sales Positions in NY—Long Island and Westchester County—and NJ • Operations Manager in Westchester County, NY • Branch Managers in Long Island, NY and Union, NJ. All positions offer excellent salary and benefits. If you share our passion for trees and wish to become a part of a winning team, please forward your resume to SavATree, 360 Adams Street, Bedford Hills, NY 10507 or Fax 914-666-5843, attn: Human Resources. EOE.

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

Experienced tree care professionals. Fast growing, quality-oriented company in the Chicago North Shore looking for top-notch foremen to manage crews, equipment and shop. Ideal candidates will have a minimum of 3 years experience, CDL and strong desire to achieve. Excellent compensation & benefits package. Please send resume and contact the Kinnucan Company, 28877 Nagel Ct., Lake Bluff, IL 60044. Phone: 708-234-5327.

Arborist—Representative: 1 hour from NYC. Sales and service to residential and corporate. Must be fully experienced and knowledgeable of the industry. Competitive package, benefits and growth opportunity. Send resume to: Box CC, TCI, PO Box 1094, Amherst, NH 03031.

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Are you a person willing to put forth extra effort to help yourself and your company succeed? We are seeking motivated individuals to fill positions in general tree care, climbing, PHC and sales for our offices throughout the metro areas of Chicago, Connecticut, New York, New Jersey and Washington, D.C. Our company offers excellent benefits, training and advancement potential. Send resume to Kathy Hendricksen, The Care of Trees, 2371 S. Foster Ave., Wheeling, IL 60090. Phone: 847-394-4220.

Experienced Tree ClimberForeman needed for 35-year-old Tree Care Company. Must have good climbing and leadership skills. Send resume to Hubbard Brothers, Inc., P.O. Box 6678, Newport News, VA 23606, fax to (804) 599-3299 or call (804) 596-8753.

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

Growing Vegetation Mgmt. Co. looking for exp. mgms for our ROW spraying divisions in NE & Midwest. Must be able to make decisions, be creative, self-motivated & have strong organizational skills. Exc. starting salary & co. pd. ben. If you have vegetation mgmt operations/sales exp or a degree in horticulture/arboriculture/urban forestry or a related field, send resume to DeAngelo Brothers, Inc. Attn: Paul D. DeAngelo, 100 N. Conahan Drive, Hazleton, PA 18201. 800-360-9333.

Arbor Care Inc., in Atlanta, GA is now hiring climber trainees and foreman. We offer top pay and benefits. Drug testing required. Send resume or call Arbor Care, Inc. 1965 Davis Lane, Marietta, GA 30062. 770-916-1680 or fax 770-916-1724.

Relocate to Maine. Experienced Arborist needed for 70-year-old company. Year-round work. Full benefits, including 401(k) and Health Plan. Minimum three years experience and CDL required. Send resume to Dennis Anderson, Lucas Tree Experts, P.O. Box 958, Portland, ME 04104.

Growing Northeast Ohio tree service company looking for a motivated individual to run estimates and manage 2-3 crews. Must have a valid drivers license. Excellent pay and benefits for the right applicant. Send resume to Amber Tree Services, Inc. 4315 Hudson Dr., Stow, OH 44224. Or call (330) 945-6660.

Guardian Tree Experts, Inc. seeks a motivated tree care professional to work year-round 7:30-5:00 Monday-Friday as a Tree Trimmer in our Northern Virginia or Rockville, Maryland office. We have served in the D.C. metropolitan area since 1961. Excellent pay and benefits package, including a 401(k) retirement program, paid holidays, sick leave and vacation bonuses, group health and disability insurance plan. Applicant should be willing to work towards becoming an ISA certified arborist, a CDL holder and CPRFirst Aid certified. To join our team of safe-working professionals please call: 703-256-3291.

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Great opportunity! Need experienced, professional climber/foreman for well-established, fast-growing company in Fort Collins, Co. ISA certification and CDL preferred but not required. Send resume to Jordan's Tree Moving & Maintenance, Inc., 1025 Smithfield Dr., Fort Collins, CO 80524. Or fax to: 970-482-6532. We'd be glad to answer any questions at 970-482-6331.

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Building a Better Saw Blade!

By Robert A. Fanno

We at Fanno Saw Works take great pride in our reputation for quality pruning and utility saws. In our 75 year history, we have worked closely with professionals using specialty hand saws and tools to develop a family of products.

The development of the "Fanno" tooth design takes us back to our company's beginnings. My grandfather, A. A. Fanno, applied knowledge from 30 years in shipbuilding, carpentry, logging and millwork to come up with it. The key feature of the design is the strength of the cutting edge. Also, the heel of the tooth forms an open mouth, referred to as the "gullet." These features give the saw a faster cut that doesn't bind in green wood and allows it to stay sharper longer in hardwoods.

The tooth design was not the only innovation. The blade's curved edge enabled the cutting teeth to work at their optimum. The blade's curve allows the user to maximize the cutting effectiveness of the downward stroke, or pull, of the tool. Our first tool, the pole saw, was a product of this design.

In the 1940's, we had requested to develop a saw that could be carried like a pocket knife. Six models of folding specialty saws were designed that found instant acceptance in orchards, vineyards, nurseries, campsites, backyards and parks.

Fanno Saw Works takes pride in being saw specialists. A glance at the number of different blade sizes and handle configurations in our catalog illustrates this. Each saw has different strengths and weaknesses. I believe this is especially true of the Fanno International "Tri-edge" tooth saws and saw blades. Their main strengths are speed and smoothness of cut. To achieve the smoothness of cut, the teeth are ground with an extreme bevel. This knife-like bevel allows for more of a shearing of the material's fibers.

This tooth design affects the saw's durability and ease of maintenance. Resharpening of this type of tooth is difficult. Most users prefer not to maintain their own saw blades, and often they simply purchase replacement blades rather than resharpen them. The higher purchase price, along with the fact that they aren't resharpened, gives this type of tool a high total cost.

Tree care professionals have to evaluate the overall cost-effectiveness, not just the initial price tag, of any purchase. Saws should be selected based on performance, durability, speed of cut and maintenance.

Although the conventional-style tooth and the tri-edge tooth design dominate the pruning saw market, there are various other styles. The Atkins Silver Flash tooth was popularized on curved tree saws for the East Coast in the 1900's. Other tooth configurations include: a long, narrow tooth called the "Peg" and the chain saw style tooth manufactured by Blount, Inc.

Different tooth and blade configurations give the tree care professional a variety of tools from which to select. Just as a golf professional has to select the best club for the shot, a tree care professional has to choose the best saw for the job. At Fanno Saw Works, we have tried to manufacture a variety of saws to give the tree care professional options. Quality of materials, innovation of design, and networking with tree care professionals make the choice of a Fanno saw appropriate. Fanno Saw Works is in a continual mode of research and development. Three additional models will be offered in mid-1996 in response to our customer's requests and comments. We will be awaiting your reactions to these new additions to the Fanno family of saws.

---

**Fanno FI1311 Pruning Saw**

- **Saw only**
  - 10 or more \(12.00\) ea.
  - 6 or more \(11.15\) ea.
- **Saw & Adapter**
  - Tapered of Round Mount
  - 6 or more \(11.10\)

**ASH Aluminum Saw Adapter**

- **10 or more** \(12.00\) ea.
- **6 or more** \(11.10\)

**Fanno’s Tri Edge pruning saw is the only saw in the world that can be used both as a pruning saw and a pole saw blade. Yes, due to innovative thinking, of Robb Fanno you can quickly disassemble the Fanno FI1311 Tri Edge and use the same blade as a pole saw. The extra hole in the blade allows it to be used on most saw head adapters.**

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A Bad Day!

By Simon Jones

All tree care companies have them: a disastrous day! Ours went like this: first thing in the morning Richard (The Boss) had to take his van in for service. He asked Will, the Chargehand, to follow him down to the garage, so he could take him on to the job, where they would meet the rest of the gang with the truck. First mistake: he didn’t tell Will which garage it was!

When Richard pulled out in front of a long line of traffic on the main road, Will had to wait and lost sight of him. The road became dual carriageway, and Richard waited at the second junction for Will to catch up. Meanwhile, Will was waiting at the first junction, thinking Richard would come back to look for him! At around the same time they both gave up on this idea and decided to go look at the other junction, thus passing each other! Frantic hand signals were misunderstood by both of them, and a further five minutes was lost as they waited at the different junctions! Again, they both gave up at the same moment, passing each other a second time amidst a flurry of further hand signals!

After another five-minute wait, Richard drove off in frustration to the garage, forgetting he hadn’t told Will where it was. When Will got to the other junction he found a phone box, and rang Richard’s wife who told him where to go. But by the time he got there, Richard had hired a taxi and gone on to the job site. Next problem: Will got there, Richard had hired a taxi and driven off in frustration to the garage, for the garage, so he could take him on to the right place at half past twelve, four hours later than scheduled.

At the job, things had not gone well. Having only one man on the ground, George had handled a limb he should have roped, and dropped it on the roof of a Victorian house, damaging half a dozen tiles hand-made by an obscure tiling company that went out of business at around the same time as the Charge of the Light Brigade! Over the following days, it took Richard many hours trying to find replacement tiles, eventually tracking some down a hundred miles away in Somerset.

Then things looked up. A resident on the same street offered to take a load of wood for his fire, saving us a longer journey. But when George backed the truck into his driveway, he ran over a cast-iron inspection cover, which immediately shattered! As the rear wheel fell into the newly uncovered cavity, the side of the truck fell to the left into the freshly-painted gatepost, bending it out of true, as well as denting the vehicle bodywork!

Come 5 p.m., due to the late start, the job wasn’t finished, and a return the next day would be necessary, interrupting that day’s schedule. Still, Richard’s van had been serviced, and he picked it up on the way back to the depot. I came across him some three miles short, stopped in the middle of the road in front of a long queue of traffic. The van had lost all drive, but at the same time the ignition key wasn’t working, leaving him unable to switch the engine off. He was under the hood, frantically pulling out handfuls of wires in an attempt to stop it! Once achieved, I towed my now almost suicidal boss back to base.

Murphy’s Law states that if something can go wrong, it will. Murphy’s Second Law states that once one thing has gone wrong, the chances of other things doing so are doubled. We certainly labored under those laws that day!

But out of despair can come triumph. If a disaster is treated objectively and with a positive spirit, it can be the seed of future order and efficiency. A de-briefing session held the next day led to fresh and more detailed company procedures, the introduction of mobile phones and the selling of detailed company procedures, the introduction of mobile phones and the selling of those laws that day!

The changes we made as a result of our bad day served us well and helped us take a big step forward in our operational efficiency. So when you have your bad day (and if you haven’t yet, you can count on it coming), look closely at what went wrong and turn it into an opportunity to improve rather than a day to forget.

Simon Jones was formerly proprietor of Richard Loader Tree Specialists, of Bournemouth, England. He is now an independent arboricultural consultant with offices in Dorset and in Surrey, England.

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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 include the name of a company and a contact person 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.
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Samson has developed the most complete line of climbing ropes in the industry. Lines designed to make this critical part of the job a little easier and more secure. Braided or 3-strand twisted, Samson climbing ropes excel at the worksite. True Blue is our premium all polyester 12-strand braided climbing rope in the distinctive blue color. E-Z See Orange, with its easily identified color pattern and Braided Tree-Master share their 16-strand braided construction of polyester over polypropylene strands with a control core of preshrunk nylon. Arbor-Plex combines polyester and polyolefin fibers in a 12-strand construction. Tree Master is our 4 stage 3-strand all Dacron twisted climbing line. All are designed for maximum wear life, flexibility, abrasion resistance and knot control.

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Built to take the stresses of any job, Samson's bull ropes provide the strength, load control and service life demanded by the professional arborist. Stable Braid, our 100% polyester double braid, is the ultimate bull rope for today's ratchet/ friction bollard rigging systems. Available with our Samthane coating, its strength, durability and abrasion resistance are unmatched in the industry. Arbor-Plex is a high strength, yet lightweight 12-strand bull rope combining polyester and polyolefin fibers for excellent wear and snag resistance. Pro-Master 3-strand combo bull rope is Samson's easy to handle, lightweight, high strength polyester over polyolefin fiber bull rope. For price and performance there isn't a better bull rope available.

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Samson cords handle everything from throwing lines to tie downs and pruner pole cord. This all nylon braided cord is available in sizes from 2mm to 8mm and a wide variety of high visibility colors.

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Welcome to Charlotte and the 7th Annual Tree Care Industry Exposition!

Presented by the National Arborist Association, Inc. and the International Society of Arboriculture

Why should you attend?

THE SKY IS THE LIMIT with what you will learn from this year's exciting and educational program . . .

★ Over 150 exhibitors under one roof, bringing you cutting-edge tree care technology, products and services.

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Thank you to Bartlett Tree Expert Co. for this year's tree donation.

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★ Admission to the trade show is FREE! Registration is required to obtain your admission badge. Be sure to pre-register and avoid long lines at the registration area.

★ Take advantage of the educational seminars! SAVE SAVE SAVE!! Register before the Early Bird deadline of October 10 to receive your discounts. Save, Save, Save . . . Bring additional members from your company and save on each member's registration!!!

"The mission of the National Arborist Association is to support the success of commercial arborists and to promote the importance of tree care. The association will provide a forum for the exchange of information and will encourage professionalism through the collective efforts of the members. The National Arborist Association will act as a resource and a voice for the commercial tree care industry."
Over 150 at this year’s EXPO!!

The products and services you need to achieve success with your tree care company are all under one roof! **Attend TCI EXPO ’96—make the difference!**

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Thursday, November 7, 1996

7:30am REGISTRATION OPENS
Complimentary refreshments available.

8:30 to 9:45am KEYNOTE ADDRESS: TREE CARE IN THE 21ST CENTURY - Dr. Alex Shigo
Complimentary coffee available
Renowned tree biologist Dr. Alex Shigo paints a surprising and thorough portrait of the professional arborist of the next millennium. We'll all need his insight into tree anatomy and physiology to provide proper tree care in the 21st Century... and it won't hurt your business now either!

9:57am TRADE SHOW OPENS
Wear your walking shoes because with over 150 exhibitors there will be a lot of ground to cover! TCI EXPO is the largest tree care trade show in the nation. If it will make your business more efficient, competitive, productive or profitable, you'll find it all right here.

Plus, we've arranged for plenty of exciting demonstrations ranging from climbing and rigging to electrical hazard training. Check your show program for times and locations. To keep up with the industry, you won't want to miss a single demo.

12:00 Noon ARBORBUCKS DRAWING, DEMONSTRATION AREA.
Be sure to fill out your entry form and you could be the winner of $500 in ARBORBUCKS currency. ARBORBUCKS can be used as cash at any of the participating vendor booths. Here's your chance to win the goods and services you need, and the exhibitors pick up the tab!

4 to 5:00pm DEVELOPING TRAINING & EDUCATIONAL TOOLS FOR HISPANIC WORKERS - Tina Terrell
If you have tried recruiting lately, you know how hard it is to find and retain good employees. Yet here's a largely untapped pool of potential recruits just waiting for you. This lecture will give you the inside scoop on how to structure training and plan an employee development process that will open up a new resource for you and your company.

A300: A NEW ERA OF UNDERSTANDING - Tim Johnson
The ANSI A300 Standard is good for you, good for your company and good for your customers. Now, let Tim Johnson, the chair of the committee that wrote the standard, demystify and clarify this important communications tool.

5:00pm TRADE SHOW CLOSES

Friday, November 8, 1996

7:30am REGISTRATION OPENS
Complimentary refreshments available

8 to 9:15am HOW INSECTS KILL TREES - Jim McGraw
Complimentary coffee available
Jim McGraw is an Extension Forestry and Pest Management Specialist with the state of North Carolina. Here, Jim will give you an up close and personal look at common and serious tree insect pests.

8 to 9:15am COMMUNICATING IS JOB #1 - Daniel J. Canary
Complimentary coffee available
Maybe it's not what you say, but how you say it. Clear communication is an absolute necessity for customer satisfaction... and employee productivity, too. Dr. Canary, part of the Communication Research Associates consulting firm, will give you several easy steps to clarify your message.

9:00am TRADE SHOW OPENS
Plan on an information-packed day of demonstrations, browsing the newest equipment, technologies and services, and rubbing shoulders (and exchanging ideas) with your peers. There's no other show like TCI EXPO!

9:15 to 9:30am COFFEE BREAK OUTSIDE MEETING ROOMS

9:30 to 10:30am HOW TO LAND COMMERCIAL CLIENTS - Phil Nilsson
Nilsson takes aim at marketing, estimating, proposals and other skills you need to land big commercial contracts. Nilsson, author and consultant to the green industry, uses his diverse background and experience to show you the way to growth and profits!

9:30 to 10:30am STRATEGIES FOR REDUCING SOIL COMPACTION - Tom Smiley
Take advantage of Tom's experience in applied research at F.A. Bartlett Tree Expert Company to learn more about the effect of soil compaction on trees, and what to do about it. It could be a new profit center for you!

12:00 Noon ARBORBUCKS DRAWING, DEMONSTRATION AREA
It's not too late to enter the drawing! The name they call could be yours!

4 to 5:00pm TREATING THE WHOLE TREE - Bruce Fraedrich
F.A. Bartlett Tree Expert Company knows how to treat the whole tree because of Mr. Fraedrich's applied research in this area. Now you can find out what the "big guys" know about how this wholistic approach can benefit trees and your bottom line.

4 to 5:00pm FLEET SAFETY - Billy Boguski
Did you know vehicular accidents account for the majority of insurance losses in tree care? Now you can find out first hand from this insurance industry expert proven techniques for reducing your risk of accidents. It's a safe bet you'll want to attend this seminar.

5:00pm TRADE SHOW CLOSES
FRED MARVIN ASSOCIATES

For over 50 years, Marvin pruners have become standard equipment for the professional arborist. New to Fred Marvin is our universal pole saw head—designed to accommodate a full assortment of blades. A round or square casting is available for either product. Fred Marvin Associates, 1968 Englewood Avenue, Akron, OH 44312. Phone: 330-784-9211.

VERMEER MANUFACTURING COMPANY

Vermeer stretches the limits of tub grinding with the Brawny TG-400L. Now the toughest and heaviest tub grinder built comes with an even bigger bite—a 27 foot (8.2 m) loader, an enclosed fold-over cab, exclusive HammerTooth™ design with carbide-tipped teeth, 90-degree vertical tub tilt and a standard Falling Object Canopy. Vermeer Manufacturing Company, PO Box 200, New Sharon Road, Pella, IA 50219. Phone: 515-628-3141.

BROWN MANUFACTURING CORP.

The NEW 2600 Series Brown Tree Cutter has a hydraulic folding rear deck for added safety, allowing the operator two distinct types of mowing operations. With the deck folded up, the unit can back into and cut standing trees up to 8 inches in diameter. Positioned down, the unit cuts and grinds material that the tractor has driven over without the discharge problem usually produced by other models. 810 RPM blade bar allows blade contact 54 times per second. Brown Mfg. Corp., Route 3, Box 339, Ozark, AL 36360. Phone: 800-633-8909 or 334-795-6603; Fax: 334-795-3029.

BROWN MANUFACTURING CORP.

Our newest model, the Brown Right-of-Way 9603 9 1/2-foot brush shredder is designed to quickly reclear your right-of-way and is most effective in light to medium growth areas. This shredder is suited for use behind a properly guarded farm series tractor with dual wheels for maximum flotation and traction. Designed for rugged mowing without excessive weight. Light enough to use in rough areas yet heavy enough to mow three- to four-year growth. Brown Mfg. Corp., Route 3, Box 339, Ozark, AL 36360. Phone: 800-633-8909 or 334-795-6603; Fax: 334-795-3029.

TCI PRODUCT DIRECTORY - 27
**RAPCO INDUSTRIES, INC.**

Rapco carbide saw chains are available on Carlton and Oregon chain bodies from .325-inch pitch to 3/4-inch pitch and are available in all gauges. All sales for Rapco’s carbide chain and related products are addressed to: Rapco Marketing, Inc., P.O. Box 5219, Vancouver, WA 98668. For additional information, contact: Ron Blehm. Rapco Industries, Inc., 12130 N E Ainsworth Circle, Suite 240, Portland, OR 97220. Phone: 800-959-6130 or 503-255-6355; Fax: 503-255-4807.

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Birchmeier Backpack sprayers combine professional appearance and professional performance. Sprayers are equipped with a stainless steel base, external piston pump, quick adjust straps, polyethylene tank with UV protectant, brass spray valve and brass wand. Birchmeier maintains a one year warranty against manufacturer defect, and parts availability is guaranteed. Available in 2.5, 3.5, 5 gallon and BCS capacities. Accessories available: extension wand, spray shield, vario gun and spray boom. ITB Co., Inc., PO Box 2505, London, KY 40743. Phone: 800-866-1357.

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**JOHN BEAN SPRAYERS**

Our stainless steel DM20E300SERH is a favorite of serious tree and grounds-care professionals everywhere. In fact, we offer a wide selection of tree sprayers with stainless steel tanks up to 1,500 gallons and pumps up to 60 gpm at 800 psi. Options include a variety of spray guns and hose reels. Manufacturing: 395 Industrial Drive, Hogansville, GA 30230. Phone: 706-637-5251. Sales: PO Box 1404, LaGrange, GA 30241. Phone: 800-241-2308; E-Mail: johnbean@durand-wayland.com

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**KLUSMEIER, INC.**

New and improved, truly the most advanced spraying/seedling machine at an affordable price. The “Porta-Seeder/ Sprayer” is a versatile mixing and spraying machine for applications of insecticides, herbicides, fertilizers, organics and hydroseeding. Excellent for parking lot cleaning, remote watering and even fire fighting. Stainless steel pump and aluminum lightweight construction. Fits into pickup truck bed. Two year warranty. Klusmeier, Inc., 4930 Coconut Blvd., Royal Palm Beach, FL 33411. Phone: 800-659-9967 or 407-798-3892; Fax: 407-798-9245.

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NORTHEASTERN ASSOCIATES

Northeastern Associates provides the arborist industry with the most complete line of arborist tools, supplies and equipment. Rope, slings, saws, lowering devices—tools and supplies used every day. Plus a wide range of sprayers with tank sizes from 30 to 1000 gallons; pump capacities from 3 to 60 gpm. Everything is affordable and dependable while easy to use. Northeastern Associates, 19 H Commerce Road, Fairfield, NJ 07004. Phone: 800-261-SPRAY (7772) or 201-227-0359; Fax: 201-227-0865.

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J.P. CARLTON COMPANY

J.P. Carlton Company manufactures a full line of stump cutters. Carlton machines incorporate many exclusive features. The available wired remote control, which allows the operator to distance himself from the noise and dust, reduces operator fatigue—increasing productivity. The optional torsion flex suspension system reduces wear to both the stump cutter and tow vehicle while enhancing cutting performance. We invite you to compare a Carlton. Phone: 800-243-9335.

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FOX MANUFACTURING, INC.

Fox stump routers feature 30-year proven design, impressive speed and depth capabilities exceeding 12 inches. Chips are retained under machine, great maneuverability, easy load and unloading and quick change cutter head. Kohler engines from 18 to 25 hp. Low cost to purchase and maintenance is primarily sharpening your teeth and many, many happy customers. All this backed by a great warranty. Video on request. Financing available. Fox Manufacturing, Inc., PO Box 6, Lowell, IN 46356. Phone: 219-696-1440; Fax: 219-696-8107.

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HODGES MANUFACTURING CO., INC.

How do you make money? For more information, contact Hodges Manufacturing Company, Inc., 51 Oels Road, Mountain Home, AR 72653. Phone: 800-525-6312; Fax: 501-492-6801.

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MILLER MACHINE WORKS

Stump grinding attachments for use on tractors and skidsteer loaders. Using your tractor or skidsteer as both power source and tool carrier provides the lowest cost per delivered horsepower on the market... by far! When combined with a tractor, front-end loader or skidsteer bucket, then stump removal, backfilling and wood handling becomes a one-man mechanized job. Five models are available from 30 to 150 horsepower. All are professional-grade machines with simplicity, durability and ease of maintenance, as well as low cost. Powerful, proven, patented performers. Miller Machine Works, PO Box 11, Brownsburg, IN 46112. Phone: 317-659-1524.

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RAYCO MANUFACTURING, INC.

Only Rayco makes a complete line of stump cutters from 12 to 175 hp. Worldwide, Rayco stump cutters command amazing popularity for their high profit earning performance and superior value. Either gasoline or diesel powered, each Rayco model (including the RG 106 DXH, shown) has special features that increase productivity while enhancing operator safety at a minimal labor cost. Rayco Manufacturing, Inc., 4255 Lincoln Way East, Wooster, OH 44691. Phone: 800-392-2686 US & CAN, 330-264-8699; Fax: 330-264-3697.

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VERMEER MANUFACTURING COMPANY

Vermeer's new 502 stump cutter is built for performance over the long haul. With a powerful 50 HP (37 kw) diesel engine and extra Pro Series teeth to chew up even the most disagreeable stumps. And a beltless drive system with standard Auto Sweep technology to keep you productive longer. Vermeer Manufacturing Company, PO Box 200, New Sharon Road, Pella, IA 50219. Phone: 515-628-3141.

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INDEPENDENT PROTECTION COMPANY, INC.

Lightning protection systems for trees, golf shelters, restrooms, club houses, maintenance buildings and secondary lightning surge protection for sprinkler systems. Tree lightning protection sales and installation kit available along with VHS, “How to Install Lightning Protection in Trees.” Free computer estimating program provides itemized material list for a specific tree. Independent Protection Company, Inc., PO Box 537, Goshen, IN 46527. Phone: 219-533-4116; Fax: 219-534-3719.

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PREFORMED LINE PRODUCTS

Labor-saving, economical, strong. Those are the benefits you get when you use the TREE-CROTCH™ Grip to reinforce the crotch of a tree, and what you can expect from the TREE-GRIP™ Dead-End for tree cabling installation. Both the TREE-CROTCH™ Grip and the TREE-GRIP™ Dead-End use the proven helical concept to grip strand. The helical method ensures that the Published Rated Breaking Strength of the strand is achieved. Installation time is greatly reduced, saving time and labor cost. Preformed Line Products, PO Box 91129, Cleveland, OH 44101. Phone: 216-461-5200.

AMERICAN TRUCK & TRAILER BODY CO.

American Truck & Trailer Body Company brings together the best in forestry body manufacturing. Heavy-duty steel fabrication of customized arborist trucks: cranes, dump bodies, forestry bodies, hoists, hydraulic tailgates, platform bodies, service bodies, tool boxes, truck bodies and more. For your next tailored need, contact Mike Garner. American Truck & Trailer Body Company, 100 W. Valpico Road, Building D, Tracy, CA 95376. Phone: 800-499-8985 or 209-836-8985; Fax: 209-836-1871.

ARBORTECH

For the professional, Arbortech produces a complete line of forestry bodies: chip bodies, crew cabs, brush bodies, pickup caps, tool boxes. Ready-to-roll, turn-key packages are available with financing. Arbortech, 3203 W. Old Lincoln Way, Wooster, OH 44691-3298. Phone: 800-255-5715 or 330-264-4266; Fax: 330-264-0891.

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O’Connor Truck Sales is a four-franchise truck dealer (Ford, FreightLiner, Isuzu and Crane Carrier) with four locations. Trucks are available with and without forestry and landscape bodies, shipped direct to your location. Special pricing has been established for all NAA Member firms. From 11,000 lb. GVW to 80,000 GCW. Contact Tom Walsh. O’Connor Truck Sales, Inc., H & Hunting Park Ave., Philadelphia, PA 19124. Phone: 800-524-8789.
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NAA-endorse Property and Casualty Insurance Program offering a variety of coverages, including Pesticide and Herbicide Applicator Coverage and Workers' Compensation (in most states). Available through your local agent.

See our ad in the 4-color Product Guide.

(M) ImpleMax Equipment Company, Inc.
PO Box 549
Bozeman, MT 59771-0549
800-587-6656
406-587-2662
Fax: 406-587-2808
Will Callahan

Include Software Corporation offers Lbase, an integrated package including accounting, estimating, routing/scheduling and inventory. IBM-compatible single-user, network and laptop versions are available. Call now for your Lbase demo disk.

(M) Independent Protection Company, Inc.
1603-09 South Main Street, PO Box 537
Goshen, IN 46527
219-533-4116
Fax: 219-534-3719
Robert E. Cripe
Rob Cripe

Lightning protection equipment for trees, golf shelters and buildings related to recreation: to prevent lightning damage and personal injury.

See our ad in the 4-color Product Guide.

(D) Industrial Engine and Equipment Company
313 N Polk Street, PO Box 609
Pineville, NC 28134-0609
800-332-9801
704-889-2107
Fax: 704-889-2014
Don Mecimore
5978 Peachtree Rd
Chamblee, GA 30341
800-332-9802
770-452-7828
Fax: 770-458-1549

Gas and diesel engine and generator distributor serving all industrial markets with associated allied component product lines.

See our ad in the 4-color Product Guide.

(M) JLG Industries, Inc.
One JLG Drive
McConnellsburg, PA 17233-9502
717-485-5161
Fax: 717-485-6461
Web: www.jlg.com

JLG Industries, Inc., is a world leader in the manufacture of telescopic, articulating telescopic and scissor-lift aerial work platforms. JLG also offers a complete range of truck-mounted cranes, boom-type unloaders and aluminum personnel lifts. Principal manufacturing facilities are based in McConnellsburg, Bedford, Ft. Littleton and York, PA, with international sales and support operations located in the United Kingdom and Australia.

M) Jameson Corporation
PO Box 240277
Charlotte, NC 28224-0277
800-346-1956
704-525-5191
Fax: 704-522-6161
Thomas B. Crates

Jameson manufactures and distributes a professional line of fiberglass pruner poles and accessories. High-grade line of boom mount tool holders and aerial bucket hydraulic saw scabbard.

See our ad in the 4-color Product Guide.

(M) Kan-Du Stumpers
512 South Summit
Sioux Falls, SD 57104
800-359-2235
605-334-0775
Fax: 605-334-7534
Donald L. Eilertson

See our ad in the 4-color Product Guide.

(D) Kauai Nursery & Landscaping, Inc.
Box 3013
Lihue, Kauai, HI 96766
808-245-7747
Fax: 808-245-9289
Lelan Nishek

See our ad in the 4-color Product Guide.

(D) Kramer Equipment Company, Inc.
7835 Richmond Highway
Alexandria, VA 22306
703-360-4777
Fax: 703-360-1065
Neal Kramer

Selling professional arborist supplies since 1947. Call us anytime!

(D/M/S) Karl Kueblering, Inc.
129 Edgewater Avenue NW
Massillon, OH 44646
800-338-2266
330-477-3457
Fax: 330-477-8528
Evelyn B. Kueblering
Charles Ritz
Bob Rankl
Dave Ritz
Scott Fellows

Pruning equipment, safety saddles, ropes, uniforms and boots. New and used Mits and Merrill brush chippers, Hodges stump routers and wood splitters.

See our ad in the 4-color Product Guide.
L

(D) Land Products Company
PO Box 5274
Springfield, MA 01101-5274
413-736-2306
Fax: 413-736-2306
Donald D. Moon
Moon's tree and shrub fertilizing tool. See our ad in the 4-color Product Guide.

(D) Landscape Management
7500 Old Oak Boulevard
Cleveland, OH 44130
216-243-8100
Fax: 216-891-2675
75553.502@compuserve.com
Jerry Roche

(D) Lamphere Supply
1884 South Green Road
South Euclid, OH 44121
800-332-TREE (8733)
216-381-1704
Fax: 216-381-5309
Lauren Lamphere

(D) Laser Sales
2008 East 33rd Street, PO Box 10308
Erie, PA 16514
800-824-8521
814-898-1738
Fax: 800-983-PART (7278)
Carl Carpenter

(D) Lawson & Lawson, Inc.
35 Industrial Drive, Box 1784
Martinsville, IN 46151
800-833-5323
Fax: 317-342-9362
Thomas Lawson

(M) Leonardi Manufacturing Company, Inc.
2728 Erie Drive
Weedsport, NY 13166-9505
800-537-2552
315-834-6611
Fax: 315-834-9220 (24 hours)
Ezio Leonardi, Jr.
See our ad in the 4-color Product Guide.

M

(M) MIRK, Inc./Toombs Truck & Equipment Co., Inc.
7629 Chippewa Road
Orrville, OH 44667
330-669-2000
Fax: 330-669-3732
Richard Thut
Dick Williston
Distributor of Holan aerial devices, Manitex truck cranes and complete truck packages with Ford cab and chassis. Nationwide source of rental equipment for the tree care industry.

(M) Fred Marvin Associates
1968 Englewood Avenue
Akron, OH 44312
330-784-9211
Jeff Mussay
Manufacturer of pole pruners and saws since 1943. See our ad in the 4-color Product Guide.

(D) J. L. Matthews Company, Inc.
620 West Felix
Fort Worth, TX 76115
800-421-3360
817-924-3360
Fax: 817-923-0246
Danny R. Matthews

(M) J.J. Mauget Company
2810 North Figueroa Street
Los Angeles, CA 90065
800-TREES-RX (8737)
Fax: 213-225-3810
Dale Dodds
Nate Dodds
See our ad in the 4-color Product Guide.

(M) Miller Machine Works
PO Box 11
Brownsville, IN 46112
317-659-1524
Jeff Craft
Stump grinding attachments for use on tractors and skidsteer loaders. Models available from 25 hp compact tractors to 150 hp land clearing machines. See our ad in the 4-color Product Guide.

(M) Minnesota Wanner Company
5145 Eden Avenue South
Minneapolis, MN 55436
800-247-4998
612-929-1070
Tom Wanner
Bill McCrae
Spraying equipment. Complete sprayers from truck-mounted to hand-held. Pumps, tanks, hose reels, spray guns and repair parts for all of the above.

(M) Monterey Lawn & Garden Products, Inc.
5150 N. 6th St., Ste. 150,
PO Box 5317
Fresno, CA 93755-5317
209-225-4770
Fax: 209-225-1319
W. T. Thomson
Prevent nuisance fruit on your ornamental trees. Control leafy and dwarf mistletoe. Florel Fruit Eliminator does all of this. We formulated Florel Fruit Eliminator for the commercial user and for the homeowner. See our ad in the 4-color Product Guide.

(M) Morbark E-Z Beever Sales Company
8507 South Winn Road,
PO Box 1000
Winn, MI 48896
800-362-9010
517-866-2381
Fax: 517-866-2280
Morbark manufactures 11 models of high quality, technically advanced hand-fed brush chippers to fit every arborist's needs. For over 35 years Morbark has been a leader in wood waste processing, recycling and forestry equipment and will provide you with an extensive background in quality manufactured equipment. See our ad in the 4-color Product Guide.

(M) Moyer & Son, Inc.
113 East Reliance Road
Souderton, PA 18964-0198
800-345-0419
215-723-6000
Fax: 215-721-2800
Mark W. Phipps
Manufacturer of liquid plant food and micronutrients for arborists and landscape contractors.
(M) Multitek, Inc.
700 Main Street, 
PO Box 170 
Prentice, WI 43556-0170 
800-243-5438 
715-428-2000 
Fax: 715-428-2700 
Howard Heikkenen
See our ad in the 4-color Product Guide.

(D) NESCO, Inc.
3112 East State Road 124 
Bluffton, IN 46714 
800-252-0043 
219-824-6340 
Fax: 219-824-6350 
Robert Troxel
Bucket trucks, digger trucks, tonnage cranes, trenchers, chipper trucks, chippers, stump grinders, tension equipment, reel trucks, trailers, cable plows and much more! Rentals/leasing with options to purchase.
See our ad in the 4-color Product Guide.

(D/M) Navistar International
455 North City Front Plaza Drive 
Chicago, IL 60611 
312-836-2680 
Scott Benjamin
Winner of the J.D. Power Service Award for customer satisfaction two years in a row. New electronic diesel engines effectively regulate hydraulic and PTO power.

(M) New England Ropes
848 Airport Road 
Fall River, MA 02720-4735 
800-333-6679 
508-678-8200 
Fax: 508-679-2363 
Peter Hopkins
Rope manufacturer—spliced goods, braided and three-stranded climbing and bull ropes for the professional arborist. See our ad in the 4-color Product Guide.

(D) The Niemeyer Corporation
19 South Newtown Street Rd., PO Box 355 
Newtown Square, PA 19073 
610-356-2672 
Fax: 610-353-7200 
Dean Diehl
Since 1951, offering professional arborist and lawn care supplies directly to the end user. See our ad in the 4-color Product Guide.

(S) Northcoast Capital Leasing Co.
27070 Detroit Road 
Cleveland, OH 44145 
800-366-4228 
216-892-4550 
Fax: 216-892-4677 
Chris Theis
See our ad in the 4-color Product Guide.

(D) Northeast Shade Tree
166 Clinton Street, PO Box 4434 
Portsmouth, NH 03802-4434 
800-841-2498 
603-436-4804 
Fax: 603-436-1493 
Jeffrey W. Ott
Distributor of bio-stimulants, soil amendments and slow release fertilizers including MycorTree and BioPak.

(D) Northeastern Associates
19 'H' Commerce Road 
Fairfield, NJ 07004 
800-261-SPRAY (7772) 
201-227-0359 
Fax: 201-227-0865 
Vince Dujets
We carry a complete line of professional tree and turf equipment such as climbing gear, saws, ropes, safety supplies and brush chippers. Our inventory includes the latest in rigging supports and lowering devices. Northeastern also manufactures custom and standard built tree and turf sprayers designed to suit your company's PHC needs. See our ad in the 4-color Product Guide.

(D) Norwalk Power Equipment Company
12194 East Firestone Boulevard 
Norwalk, CA 90650 
310-868-5615 
Fax: 310-863-1296 
Scott Deeth

(S) Sol J. Oberman
Sol J. Oberman, CPCU 
135 Southside Avenue 
Hastings on Hudson, NY 10706 
800-PCA INSO (722-4676) 
914-478-3127 
Fax: 914-478-3412
Exclusive in the arborists' insurance needs. As your business continues to grow greener, we’ll review and recommend only those services best suited to your needs. Your special concerns remain our number one priority. I represent you—not the insurance company. Call us today.

(M) Omega Pultrusions, Inc.
1331 South Chillicothe 
Aurora, OH 44202 
216-562-5201 
Fax: 216-562-4908 
Ray Centa
Hollow fiberglass tubing for use in pruners, loppers, handles, etc.

(S) Omni Leasing, Inc.
594 South West End Boulevard 
Quakertown, PA 18951 
800-945-OMNI (6664) 
215-538-8800 
Fax: 215-538-8811 
Web: www.omnilnlease.com 
G. Thomas Madonna
Specializes in financing new and used trucks and equipment, servicing the tree care industry for 10 years. Omni offers up to $75,000 credit line based on a one-page application (no financial statements required).
See our ad in the 4-color Product Guide.

(D) O’Connor Truck Sales, Inc.
“H” Street and Hunting Park Avenue 
Philadelphia, PA 19124 
800-524-8789 
215-744-8500 
Fax: 215-288-5430 
Tom Walsh
Distributor of light, medium and heavy duty trucks. See our ad in the 4-color Product Guide.

(S) Ogilvy, Gilbert, Norris & Hill Insurance
418 Chapala St, 
PO Box 929 
Santa Barbara, CA 93102 
805-966-4101 
Fax: 805-966-7810 
Mark Shipp

(D) Opdyke, Inc.
3123 Bethlehem Pike 
Hatfield, PA 19440 
215-721-4444 
Fax: 215-721-43() 
Robert Opdyke
Prevent ivy and oak poisoning! A few drops of Oral Ivy® daily in water or juice stimulates the body's natural defenses. Safe and effective. Cut lost time and reduce compensation claims for just 7 cents a day. Toll-free order line: 800-553-6778.

See our ad in the 4-color Product Guide.

Manufacturers of TREE-GRIP™ dead-ends, TREE-CROTCH™ grips and safety guy wire dispensers.

See our ad in the 4-color Product Guide.

Fertilizers, chemicals, seeds and soil amendments for the arborist, nurseryman, landscaper and turf manager.

Computer systems for lawn and tree care.
R

RSR Capital Corp./AMG Ltd.
425 Broadhollow Rd., Suite 210
Melville, NY 11747
800-394-7771, x 215
516-249-2345, x 215
Judy Gohlesen
National leasing company of specialty equipment and work-oriented vehicles, both new and used. Provides financing solutions for chassis, bodies and add-on components. Specializes in application-only program on trucks to $125,000 and equipment to $75,000.

AMG Ltd.
425 Broadhollow Rd., Suite 210
Melville, NY 11747
800-394-7771, x 215
516-249-2345, x 215
Judy Gohlesen

Judy Gohlesen
National leasing company of specialty equipment and work-oriented vehicles, both new and used. Provides financing solutions for chassis, bodies and add-on components. Specializes in application-only program on trucks to $125,000 and equipment to $75,000.

M)

Rapco Industries, Inc.
12130 Northeast Ainsworth Circle, Suite 240
Portland, OR 97220
800-959-6130
503-255-6355
Fax: 503-255-4807
Ronald F. Blehm
Rapco Industries, Inc., has manufactured carbide tipped saw chain in all sizes for all applications. See our ad in the 4-color Product Guide.

M)

Rayco Manufacturing, Inc.
4255 Lincoln Way East
Wooster, OH 44691
US & CAN: 800-392-2686
330-264-8699
Fax: 330-264-3697
John Bowling
Jake Stout
See our ad in the 4-color Product Guide.

M)

Remke Enterprises, Inc.
PO Box 9357
Downers Grove, IL 60515
708-810-1662
Fax: 708-810-0947
Jim Lutz
See our ad in the 4-color Product Guide.

M)

Rhone-Poulenc Ag., Inc.
#2 T.W. Alexander Drive,
PO Box 12014
Research Triangle, NC 27709
919-549-2395
Jerry D. Miller
John W. Durfee
Jack Boyne
Andrew Seckinger
Tom Davidson

M)

RICK-MARX
775 Eddings Point Road
Frogmore, SC 29920
803-838-8026
Fax: 803-838-7506
Selina Marx

M)

Rockland Corporation
686 Passiac Avenue, PO Box 809
West Caldwell, NJ 07006-0809
201-575-1322
Bob Wittpenn
Full line of insecticides, fungicides and fertilizers for tree and shrub care. New: Mask-It™. Add to spray mix and mask offensive pesticide odors while minimizing odor complaints.

M)

Roots/LISA Products Corporation
3120 Weatherford Road
Independence, MO 64055
800-342-6173
816-254-6000
Fax: 816-254-1408

D/M)

Safety Test & Equipment Company
Highway 150 East,
PO Drawer 400
Shelby, NC 28150
800-438-0671
704-482-7346
Fax: 704-482-7349
Susan Todd
See our ad in the 4-color Product Guide.

M)

Sandoz Agro, Inc.
1300 East Touhy Avenue
Des Plaines, IL 60018
708-390-3705
Fax: 708-390-3940
Ronald P. Fister
4792 Brittany Chase
Kennesaw, GA 30144
404-590-1129
Gary M. Clayton, or
170 Terwilliger Road
Danielson, CT 06239
203-774-1930
Paul G. McDonough, or
3821 East State Street, Box 402
Rockford, IL 61108
715-385-2317
Richard Fields

(M)

Schodorf Truck Body & Equipment Company
885 Harmon Avenue
Columbus, OH 43223
800-288-0992
614-228-6793
Fax: 614-228-6775
Tom Siefert
Paul Schodorf
Schodorf Truck Body manufactures a complete line of forestry truck bodies and distributes cranes, liftgates and complete cab and chassis with body since 1881. See our ad in the 4-color Product Guide.

D)

Shannon Technology Corp.
4350 E. Camelback Road, Suite 240G
Phoenix, AZ 85018
602-840-3570
Fax: 602-840-5750
Douglas R. Shannon
Locate and document decay with our model DDD200 Decay Detecting Drill instrument. A 0.040 inch diameter wire drill penetrates up to eight inches into the tree. The change in density of the wood caused by decay is recorded along with the depth of the pocket below the bark.

M)

The Sharp Tool Company
7 Bonazzoli Avenue
Hudson, MA 01749
800-221-5452
508-568-9292
Fax: 508-568-9497
Cindy Willoughby

M)

Shawtown Industries, Inc.
1320 Flynn Road, Unit F
Camarillo, CA 93012
800-772-7668
805-987-5809
Fax: 805-987-6870
Howard Schau III

D)

Sherrill Arborist Equipment & Supply
3101 Cedar Park Road
Greensboro, NC 27405-9657
800-525-8873
910-378-0487
Fax: 910-378-1096
Tobe Sherrill
The modern arborist's one-stop shop for quality merchandise at discount prices. Call today, 1-800-525-8873! See our ad in the 4-color Product Guide.
(M) Shindaiwa, Inc.
11975 Southwest Herman Road,
PO Box 1090
Tualatin, OR 97062-1090
800-521-7733
503-692-3070
Fax: 503-692-6696
Dave Dahlstrom
A full line of professional outdoor power equipment including our 488 chain saw, EB480 backpack blower and our brand new SP415 backpack sprayer.
See our ad in the 4-color Product Guide.

(D) Sierra Moreno Mercantile
150 East Cumberland Street
Clear Spring, MD 21722
301-842-2544
Fax: 301-582-3639
Donald F. Blair
Patricia T. Blair
P.O. Box 292
Big Pool, MD 21711
1958 Latham Street
Mountain View, CA 94040
415-967-4676
Fax: 415-967-6457
Daniel Held
Truck-mounted Hi-Ranger aerial devices.
See our ad in the 4-color Product Guide.

(M) Simon-Telelect, Inc.
600 Oakwood Road, PO Box 1150
Watertown, SD 57201
605-882-4000
Fax: 605-882-2642
Tommy Nix
Darin Latt
See our ad in the 4-color Product Guide.

(M) Simon-Telelect, Inc.
11975 Southwest Herman Road,
PO Box 1090
Tualatin, OR 97062-1090
800-521-7733
503-692-3070
Fax: 503-692-6696
Dave Dahlstrom
A full line of professional outdoor power equipment including our 488 chain saw, EB480 backpack blower and our brand new SP415 backpack sprayer.
See our ad in the 4-color Product Guide.

(D/M) Source Technology Biologicals, Inc.
3355 Hiawatha Avenue South,
Suite 222
Minneapolis, MN 55406
800-800-ELM-TREE (356-8733)
Fax: 612-724-1477
Will Hartfeldt
See our ad in the 4-color Product Guide.

(M) Southco Industries, Inc.
1840 East Dixon Boulevard
Shelby, NC 28150
800-331-7655
704-482-1477
Fax: 704-482-2015
Richard P. Goforth
The industry's leading forestry truck body manufacturer. Specializing in complete chassis, cab and body packages. Knuckle-boom cranes, liftgates, corner mount cranes, platform, service and landscape bodies.
See our ad in the 4-color Product Guide.

(D) Southeastern Equipment Company
386 Hurricane Shoals Rd.
Lawrenceville, GA 30245
800-487-7089
770-962-6720
Fax: 770-962-7089
Don Fowler
New and used chippers, stump grinders, bucket trucks, chipper trucks, replacement parts and service for above as well.

(M) STIHL Incorporated
536 Viking Drive
Virginia Beach, VA 23450
800-GO-STIHL (467-8445)
804-486-9100
804-486-9158
STIHL quality engineering and innovative technology is built into each of our top-of-the-line power equipment tools, beginning with our world-renowned chain saws and including trimmers/brushcutters, edgers, blowers, cut-off saws, clearing saws, wet/dry vacuums, pressure washers and earth augers. STIHL is dedicated to designing, developing and manufacturing the best power equipment on the market.
See our ad in the 4-color Product Guide.
Jeffrey Tamkin
Tamkin Capital Partners is a private acquisition firm dedicated exclusively to private equity investing. The firm is seeking to make investments in profitable arborist companies. They will work with each company's management to enhance its value through strategic acquisitions, equipment upgrades and enhanced marketing initiatives. The firm is looking for businesses with a strong management team, a proven track record, profitable operations and an established local presence.

(M) Tanaka
22461 72nd Avenue South, Building #3
Kent, WA 98032
206-395-3900
Fax: 206-395-1515
Jim Elmer

(M) TECO, Inc.
9733 Indianapolis Road
Fort Wayne, IN 46809
800-860-0188
219-747-0143
Fax: 219-747-6732
David C. Wick

Southeast Division:
118 Little Valley Court
Birmingham, AL 35244
800-860-0185
205-987-7534
Fax: 205-987-7557
Eric Stippler

Eastern Division:
RD 1, Box 582
Honeybrook, PA 19344
800-860-0186
610-942-2500
Fax: 610-942-9195
Scott Verzinski

TECO is a complete line aerial lift and digger derrick manufacturer. Models heights from 28 to 85 feet. Distributors throughout the U.S. and Canada. See our ad in the 4-color Product Guide.

(D/M) Tilton Equipment Company
Dept. RPM, PO Box 68
Rye, NH 03870-0068
800-447-1152
Fax: 603-964-7102
David Tilton, Jr.

Tilton Equipment Company is an importer/distributor of a variety of power equipment products and related accessories, including Jonsered and Olympik chain saws, safety products and Total-brand saw chain, guide bars, files and accessories. See our ads in the 4-color Product Guide.

(D/M) Time Manufacturing Company
7601 Imperial Drive, PO Box 20368
Waco, TX 76702-0368
817-777-0900
Fax: 817-777-7531
Lee Taylor

Mike Hermansen
Versalift aerial devices with working heights to 65 feet. See our ad in the 4-color Product Guide.

(M) The Toro Company
Recycling Equipment Division
2111 Lyndale Avenue South
Bloomington, MN 55420-1196
800-525-0059
612-888-8801
Fax: 612-887-7211
Mike Hoffman

The Recycling Equipment Division of the Toro Company manufactures a complete line of tub grinders for the recycling industry.
U

(D) Utility Equipment Leasing Corporation
N4 W22610 Bluemond Road,
PO Box 177
Waukesha, WI 53187
800-558-0999
414-547-1600
Fax: 414-544-8546
Web: http://www.uelc.com
E-mail: rent@uelc.com
Judie Taylor
For over 30 years, UELC has rented and leased aerial lift equipment. With a nationwide dealer network, you can rent from wherever you are located. Call today for availability!

V

(V) Van Waters & Rogers
6100 Carillon Point
Kirkland, WA 98033
Mailing address:
PO Box 34325
Seattle, WA 98124-1325
206-889-3466
Fax: 206-889-4133
Jerry Murphy

(M) Vermeer Manufacturing Company
New Sharon Road, PO Box 200
Pella, IA 50219
515-628-3141
Fax: 515-621-7734
Kent Rottert
Denny Vos
Manufacturer of brush chippers, stump cutters, tree spades, log splitters, lawn plows and trenchers.
See our ads in the 4-color Product Guide.

(M) Weaver Leather, Inc.
PO Box 68, 7540 C.R. 201
Mount Hope, OH 44660
800-ZEAVER-1 (932-8371)
330-674-1782
Fax: 800-693-2837
Cheryl A. Schlabach
Weaver Leather, Inc., manufactures a full line of arborist supplies including positioning saddles, climber pads, straps, guards, pruner pouches, sheaths, holsters, scabbards, axe guards, replacement pads and more. Call 1-800-ZEAVER-1 for your FREE 32-page Weaver Arborist Supply catalog.

(M) Weinbrenner Shoe Company, Inc.
108 S. Polk Street
Merrill, WI 54452
800-826-0002
715-536-5521
Fax: 800-569-6817
Wayne Elsey
Shane Boganz

(M) Wellington Leisure Products
PO Box 244
Madison, GA 30650
800-228-6680
706-342-1916
Fax: 706-342-4656
Mark P. Walters
The most comprehensive manufacturer of cordage products, including a full line of arborist ropes. This includes braided and twisted climbing lines, throw bags and accessory cords. Call 800-228-6680 for information.

(D) WesSpur, Inc.
2111 Lincoln Street
Bellingham, WA 98225
800-845-1213
360-734-5242
Fax: 360-733-6311
Mike Kaufman
The number one source for climbing and rigging gear. For your free catalog, call 1-800-845-1213.
See our ad in the 4-color Product Guide.

(D) Western Tree & Landscape Supply
7627 Fair Oaks Boulevard
Carmichael, CA 95608
800-94-ARBOR (2-7267)
916-944-4439
Fax: 916-944-4487
Bernadette McNulty
Dependable and fast service of all quality arborist supplies. All items are fully stocked and ready to ship. Call and ask for our free catalog. 1-800-94-ARBOR (2-7267).
See our ad in the 4-color Product Guide.

(M) Wis-Con Total Power Corporation
3409 Democrat Road
Memphis, TN 38118
800-932-2858
901-365-3600
Fax: 901-369-4050
Fred Vollbach

(M) Wood/Chuck Chipper Corporation
1911 Elizabeth Avenue,
PO Drawer 400
Shelby, NC 28150
800-269-5188
704-482-4356
Fax: 704-482-7349
E-Mail: atwoodchuck@shelby.net
http://www.woodchuckchipper.com
Dennis Beam Jr.
Dennis A. Beam III
Drew Beam
Buddy Hobbs
Manufacturer of Wood/Chuck chippers.
See our ad in the 4-color Product Guide.

(M) Woodwaste, Inc.
1075 Washington Street
Peekskill, NY 10566
914-736-3357
Fax: 914-736-9513
Barney Zipkin

(M) Yale Cordage, Inc.
1075 Washington Street
Peekskill, NY 10566
914-736-3357
Fax: 914-736-9513
Barney Zipkin

TCI PRODUCT DIRECTORY - 50
THE NEW POULAN PRO 190 ARBORIST.
IT PAYS TO HAVE FRIENDS IN HIGH PLACES.

The new Poulan PRO 190 Arborist is our lightest-weight tree saw, with pro features like an inertia chain brake and our DuraChrome® cylinder for longer engine life. It's also our best value. See for yourself why so many people are hanging around the new 190 Arborist.

For the dealer nearest you call 1-800-554-6723; ask for Fred Danielson. For a distributor call 1-800-452-2827, ext. 3600.

Please circle 60 on Reader Service Card
TURN LOST DAYS INTO FOUND MONEY.

Are you watching good money go down the drain?

Call 1-800-ARBORS-1 and find out how to cut your insurance costs without cutting your insurance coverage. Our tree-insurance pros will tailor your coverage to your precise needs – and save you as much as 30% off what you’re paying now!

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

Call 1-800-272-6771

Albiez Insurance Agency

Arborists Insurance Specialists

Please circle 61 on Reader Service Card
5:15 to 6:00pm  LOOK SHARP!!
Ezio Leonardi, Jr. and Ray Eluskie
This evening session is FREE for NAA Members and their invited guests and offers insight into stump tooth/chipper knife care & maintenance.

Saturday, November 9, 1996
7:30am  REGISTRATION OPENS
Complimentary refreshments available
8 to 9:00am  PRESCRIPTIONS FOR TREE HEALTH - Ron Jones
Here's some strong medicine for your business. North Carolina State Plant Pathologist Ron Jones shares his insight and experience in mitigation and control strategies for significant tree diseases.
8 to 9:00am  EFFECTIVE USE OF COMPUTERS IN TREE CARE (PART 1) - Panel: Mari Franke, Practical Solutions, Inc.; Mark Smith, Arbormasters; Donna Garner, Tree Management Systems; and Peter Hannan, Arbor Computer Systems
They're everywhere—in the news, on the rise, and maybe on your competitors' desk! If you're not already computer literate, let us show you how to automate your accounting, whip out your work orders, and jazz up your job costing. This seminar is geared toward the SMART MANAGER, but has plenty to offer the EXPERT PRACTITIONER.

9:00am  TRADE SHOW OPENS
This is your last day to see and learn about everything you need to keep your business moving! Be sure to take advantage of all TCI EXPO '96 has to offer!

9:15 to 10:30am  LOOKING AHEAD: IMPLEMENTING A FIVE YEAR PLAN - Kevin Kehoe
Complimentary coffee available
Is business a game? It is to Kehoe who uses a board game approach to showing you how to build your business. Move ahead three, take a risk card, move back two spaces. Is success a roll of the dice? Not if you attend this exciting seminar. Learn what it takes to move your business ahead successfully and smoothly.

9:15 to 10:30am  EFFECTIVE USE OF COMPUTERS IN TREE CARE (PART II) - Panel: Mari Franke, Practical Solutions, Inc.; Mark Smith, Arbormasters; Donna Garner, Tree Management Systems; and Peter Hannan, Arbor Computer Systems
Complimentary coffee available
There's too much ground to cover in one computer seminar. Don't miss part 2 - this is one sequel that's just as good as the original. You'll get a look at the future of tree care computing with industry-specific functions such as maintaining tree histories, inventories and mapping. Geared toward the EXPERT PRACTITIONER but has plenty to offer the SMART MANAGER.

12:00 Noon  ARBORBUCKS DRAWING, DEMONSTRATION AREA
Last chance to win $500 in products and services. See you in the demo area!

1:pm to 4:30pm  ISA CERTIFICATION EXAM - To pre-register for the exam, you must call Beth Crozier at ISA, at 217-355-9411. All participants must be pre-registered.

3:00pm  TCI EXPO '96 TRADE SHOW CLOSES!!

Back by Popular Demand...

ARBORBUCKS!
Every day at noon on the Trade Show floor, there will be a drawing for $500 in ARBORBUCKS.
ARBORBUCKS can be used the same as cash to make purchases from participating vendors at the show. There is no cost to enter the drawing, and the chances of winning are fantastic! ARBORBUCKS—another way you can profit from attending TCI EXPO '96!

Be sure to look for these ARBORBUCKS PARTICIPANTS:
Aerial Lift of CT, Inc.
Agape Designs
American Arborist Supplies, Inc.
American Safety Utility Corp.
Asplundh Tree Expert Co.
Bandit Industries, Incorporated
Bartlett Manufacturing Company
Buckingham Mfg. Co., Inc.
Built - Rite Mfg. Corp.
Chesapeake Engine Distributors
Gravely International
Green Garde Div./H.D. Hudson Manufacturing Co.
GrowTech, Inc.
Husqvarna Forest & Garden
Industrial Engine and Equipment Company
International Knife & Saw, Inc.
John Bean Sprayers
Karl Kuehmerling, Inc.
Lamphear Supply
Leonardi Mfg. Co., Inc.
The Peavey Manufacturing Co.
PoulanPRO
Practical Solutions, Inc.
Rayco Manufacturing, Inc.
Roots, Inc.
Sierra Moreno Mercantile Company
Simon - Telelect, Inc.
STIHL. Incorporated
Tilton Equipment Company
Tree Line Supply Company
Tree Management Systems
Vermeer Manufacturing Co.
Wellington Commercial Cordage
WesSpur, Inc.

See you next year in Columbus, OH!!
Driving is easy...

FROM I-85:
Driving North from South of Charlotte:
Exit 36 to Brookshire Freeway, Highway 16 South until it turns into I-277 loop. Continue on I-277 loop around city to Exit 1E Stonewall Street.
To the Westin: Turn left on Stonewall and proceed 3 blocks to College Street and turn right. Turn right on 3rd Street and right into the Westin Motor Lobby.
To the Holiday Inn: Turn left on Stonewall and proceed 3 blocks to College Street and turn right. Proceed on College Street for 6 blocks. Turn right into hotel on 6th Street.
Driving South from North of Charlotte:
Exit 36, which is I-77 South, to Exit 1 E, Stonewall Street. Follow from above.
FROM I-77
Driving South from North of Charlotte:
Exit 9 to I-277(also known as Brookshire Freeway) Continue on loop to 1 E, Stonewall Street.
To the Westin: Turn left on Stonewall and proceed 3 blocks to College Street and turn right. Turn right on 3rd Street and right into the Westin Motor Lobby.
To the Holiday Inn: Turn left on Stonewall and proceed 3 blocks to College Street and turn right. Proceed on College Street for 6 blocks. Turn right into hotel on 6th Street.
Driving North from South of Charlotte:
Exit 9 on to I-277 (also known as John Belk Freeway) Continue to Exit 1E, College Street.
To the Westin: Proceed on College Street and turn right onto 3rd Street and right into the Westin Motor Lobby.
To the Holiday Inn: Continue on College Street for 6 blocks. Turn right into the Holiday Inn on 6th Street.
FROM US HIGHWAY 74
Driving West from points East of Charlotte:
Follow signs to I-277 West (John Belk Freeway). Continue to Exit 1 E, Stonewall Street.
To the Westin: Turn left on Stonewall and proceed 3 blocks to College Street and turn right. Turn right on 3rd Street and right into the Westin Motor Lobby.
To the Holiday Inn: Turn left on Stonewall and proceed 3 blocks to College Street and turn right. Proceed on College Street for 6 blocks. Turn right into hotel on 6th Street.
Driving East from points West of Charlotte:
Continue on US 74 until it merges with I-277. Exit 1 E, College Street.
To the Westin: Proceed on College Street and turn right onto 3rd Street and right into the Westin Motor Lobby.
To the Holiday Inn: Continue on College Street for 6 blocks. Turn right into the Holiday Inn on 6th Street.
Limited parking is available at the convention center and at local public parking lots. Daily rates range from $3.75 to $6.00. Limited complimentary parking is available for those guests registered at the Holiday Inn Charlotte. Guests of the Westin Hotel Charlotte will pay a daily rate of $10.00 self-park or $14.00 valet park.

Flying is easy...
Charlotte, NC is a USAir hub and is easily accessible by air from all major cities. USAir is the official airline for TCI EXPO '96 and will offer conference attendees 5% off its lowest published fares to Charlotte and 10% off its unrestricted fares.
For flight information, you may call our travel experts at Brock Travel, 1-800-488-2027, or call USAir direct at 1-800-334-8044. Be sure to reference the TCI EXPO '96 Gold File number 19260023 to receive your discount.

Airport Transportation is easy...
Charlotte/Douglas International Airport is located 15 minutes from Uptown Charlotte. Arrangements have been made with Gray Line transportation to provide service to the Uptown hotels for TCI EXPO attendees. Gray Line pick-up is located just outside the baggage claim area and will offer a discounted rate of $13.00 round trip or $7.00 one way. To receive this discount, look for Gray Line coupons in your registration confirmation packages.

Finding a hotel room is easy...
This year, the host hotel for TCI EXPO '96 is the WESTIN HOTEL CHARLOTTE, located just across the street from the Convention Center at 222 East Third Street. The WESTIN HOTEL was formerly called the OMNI CHARLOTTE. The WESTIN is offering TCI EXPO '96 attendees the rate of $91.00 single/double occupancy. Space is limited so be sure to make your reservations early. This rate will be offered until October 5, 1996. To make your reservation, please call the WESTIN HOTEL direct at 704-377-1500 or call the Westin Central Reservation line at 1-800-228-3000. Be sure to reference the National Arborist Association/TCI EXPO room block on making your reservation.
Alternate accommodations are available at the Holiday Inn located 5 blocks from the Convention Center. The address for the Holiday Inn is 230 North College Street, Charlotte, NC 28202. The Holiday Inn will offer TCI EXPO '96 attendees a rate of $69.00 single/double occupancy with limited complimentary parking. Reservations must be made prior to October 5, 1996 to guarantee this preferred rate. To reserve your room, call the hotel direct at 704-335-5400 and be sure to reference the National Arborist Association/TCI room block.

MAKE YOUR RESERVATIONS EARLY!
The "Uptown Circuit" runs throughout the uptown Charlotte area and can provide shuttle service to the Convention Center from the Holiday Inn. This is a complimentary service provided by the City of Charlotte. The electric shuttle is a 20 passenger bus that runs Monday through Friday from 7:30am to 6:00pm.
Uptown Charlotte offers numerous restaurants, galleries, historical sites and museums, shops and city tours, most within walking distance of the hotels and convention center.
For any questions on the city of Charlotte, dining recommendations, transportation or sightseeing, be sure to visit the Charlotte Welcome and Information Center located next to the registration desk in the College Street Lobby.
**REGISTRATION FORM**

Name ____________________________  NAA Member? [ ] Yes [ ] No
Company ____________________________  Phone ____________________________
Address ____________________________  City ____________________________  State ______  Zip ______
Title: [ ] Owner  [ ] President  [ ] Vice President  [ ] Manager (general)  [ ] Superintendent  [ ] Forester  [ ] Supervisor  [ ] Director  [ ] Purchasing Agent  [ ] Landscaper  [ ] Grounds Manager  [ ] Manager  [ ] Gov't. Agent  [ ] Consultant  [ ] Instructor  [ ] Arborist  [ ] Other ______

Signature ____________________________

**NOTE: Please use separate forms for each attendee. This form may be photocopied.**

**SEMINARS**

Check the box beside each seminar you wish to attend. **Be careful not to pick two seminars that are held 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.

**NOTE: Evening Sessions on Thursday, November 7 and Friday, November 8 are available only to NAA Members and their guests—and they're FREE!!**

<table>
<thead>
<tr>
<th>Date</th>
<th>Seminar Title</th>
<th>Seminar Hours</th>
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<tbody>
<tr>
<td>THURSDAY, NOVEMBER 7</td>
<td>#1 - 8:30 am Tree Care in the 21st Century</td>
<td>1 hour</td>
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<tr>
<td></td>
<td>#2 - 4:00 pm Developing Training and Educational Tools for Hispanic Workers</td>
<td>1 hour</td>
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<td></td>
<td>#3 - 4:00 pm A300: A New Era of Understanding</td>
<td>1 hour</td>
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<td>Evening Session How to Win the Excellence in Arboriculture Award (Open only to NAA Members and their Guests)</td>
<td>0 hour</td>
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<tr>
<td>FRIDAY, NOVEMBER 8</td>
<td>#4 - 8:00 am How Insects Kill Trees</td>
<td>0 hour</td>
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<td>#5 - 8:00 am Communicating is Job #1</td>
<td>1 hour</td>
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<td>#6 - 9:30 am How to Land Commercial Clients</td>
<td>1 hour</td>
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<td></td>
<td>#7 - 9:30 am Strategies for Reducing Soil Compaction</td>
<td>1 hour</td>
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<td>#8 - 4:00 pm Treating the Whole Tree</td>
<td>1 hour</td>
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<td>#9 - 4:00 pm Fleet Safety</td>
<td>1 hour</td>
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<td></td>
<td>Evening Session Stump Tooth/Chipper Knife Care &amp; Maintenance (Open only to NAA Members and their Guests)</td>
<td>0 hour</td>
</tr>
<tr>
<td>SATURDAY, NOVEMBER 9</td>
<td>#10 - 8:00 am Prescriptions for Tree Health</td>
<td>0 hour</td>
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<td></td>
<td>#11 - 8:00 am Effective Use of Computers in Tree Care - Part I</td>
<td>1 hour</td>
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<td>#12 - 9:15 am Looking Ahead: Implementing a Five-Year Plan</td>
<td>1 hour</td>
</tr>
<tr>
<td></td>
<td>#13 - 9:15 am Effective Use of Computers in Tree Care - Part II</td>
<td>1 hour</td>
</tr>
</tbody>
</table>

**TOTAL SEMINAR HOURS**

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**CALCULATE YOUR COST**

**BASIC COSTS:** Multiply your total seminar hours by $38 and enter the amount on the basic cost line.

**DISCOUNTS:** Deduct $3 per seminar hour if you are registering prior to the **Early Bird Deadline, October 10, 1996.** Deduct $6 per seminar hour if you are registering an additional person from your organization. (Discounts available to each registrant.)

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

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**THE GOLD CARD**

If your **Total Cost Line is greater than $170 AND you register prior to the Early Bird Deadline of October 10, then BUY GOLD!**

To purchase the **GOLD CARD** which will give you unrestricted access to all educational sessions, check YES in the box below and enter $170 in the **TOTAL COST LINE** and you're done!

I wish to buy a Gold Card registration: [ ] Yes [ ] No

---

**PAYMENT INFORMATION**

[ ] Check enclosed for $ ____________________________

[ ] Please charge my Visa/MasterCard

Card # ____________________________

Expiration Date ____________________________

Signature ____________________________

**3 EASY WAYS TO REGISTER!!!**

[ ] By Phone: Call 800-733-2622 and have your credit card # ready

[ ] By Fax: Send Completed Registration Form to TCI EXPO '96 at 603-672-2613

[ ] By Mail: Send Completed Registration Form to TCI EXPO '96, P.O. Box 1094, Amherst, NH 03031-1094

**BE SURE TO INCLUDE YOUR PAYMENT INFORMATION.**

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**Do you wish to receive NAA Membership Info?** [ ] Yes [ ] No

**Do you wish to receive a 12 month complimentary subscription to TCI Magazine?** [ ] Yes [ ] No

You must complete all of the information below to receive your subscription:

**Business/Industry:** [ ] Tree Service  [ ] Landscape Contractor  [ ] Governmental Entity  [ ] Property Mgmt.  [ ] Consulting Firm  [ ] Utility  [ ] School/University  [ ] Other: ____________________________

**Purchasing Authority:** [ ] Owner  [ ] President  [ ] Vice President  [ ] Manager (general)  [ ] Superintendent  [ ] Forester  [ ] Supervisor  [ ] Director  [ ] Purchasing Agent  [ ] Landscaper  [ ] Grounds Manager  [ ] Manager  [ ] Gov't. Agent  [ ] Consultant  [ ] Instructor  [ ] Arborist  [ ] Other: ____________________________

Approve [ ]  Recommend [ ]
Arborist of the Future

Your competition is getting younger! Keep up at TCI EXPO '96!

New Features.....

The Doctor is IN
with Dr. Alex Shigo

Dr. Alex Shigo will be on hand during the show to perform an autopsy on your wood sample. The Doctor is available by appointment only, so be sure to schedule your time by calling the NAA office at 1-800-733-2622. Bring your wood sample and a marker to take home your autographed piece.

All proceeds from this event will benefit the National Arborist Foundation!!!

NAA Member Seminars

The benefits of NAA Membership are everywhere. This year, NAA members are invited to attend 2 FREE seminars on Thursday and Friday from 5:15pm to 6:00pm. Bring a co-worker—bring a guest. Hear how the NAA can help you achieve your goals!!

ISA RECERTIFICATION EXAM

The ISA Recertification Exam will be given on Saturday, November 9, 1996 from 1:00 to 4:30pm. You must be pre-registered with ISA to participate. To pre-register for the exam or to obtain additional information, be sure to call ISA at 217-355-9411.

Checklist For Registration Form

- Photocopied the original form to give to additional members of my firm
- Filled out the form completely
- Taken advantage of all entitled discounts
- Double checked all cost calculations
- Photocopied the completed form for my records
- If there are multiple attendees from my company, enclosed a copy of their form(s)
- Enclosed a check or credit card information
- Mailed or faxed registration form before October 10, 1996