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CONTENTs

Features

4 NO DUMPING
Firms turn to recycling as landfills close and disposal costs rise.

10 DISPOSAL REGULATIONS

11 ECONOMICS AND RECYCLING
An entrepreneur takes his recycling business on the road.

19 TIPS ON MULCHING

22 THE VALUE OF EHAP

Departments

2 OUTLOOK

12 INDUSTRY INPUT

14 MANAGEMENT EXCHANGE

17 WASHINGTON IN REVIEW

21 INDUSTRY ALMANAC

24 CUTTING EDGE

26 CLASSIFIED

32 FROM THE FIELD

COVER PHOTO:
Three photos depict the recycling triangle. The photo at the upper left shows raw material, while the photo at the upper right depicts the recycling process. Photo at bottom shows end product.
OUTLOOK

This issue of Tree Care Industry marks our second anniversary and I want to take this opportunity to thank our readers and our advertisers for their support.

It has been an interesting two years for us, just as it has been for many of you. When your business slows down, your buying slows down. When that happens, your suppliers, our advertisers, cut back on their advertising budgets. Just as you have been working hard to sell half as much, so have we. But we have all survived.

As I talk to arborists across the U.S. and in Canada, I get good reports. There are even areas where business is booming. It may be slow coming your way and it may not come back as much as you would like, but it will be back.

On the subject of advertising and promotion, I would like to pass on to you the same advice that the experts give to advertisers. When business is slow, advertising is more important. You need to protect your market and keep your name in a future buyer's mind. Keep your name in the public eye because you don't know when a potential client is going to make a decision to buy.

One of our major goals with this magazine is to provide everyone in the tree care industry with accurate information that will benefit our readers and improve the industry. News may be fun to read, but if someone is going to take the time to read what you write, you have an obligation to provide something more. We try to provide beneficial editorial content that has substance, not just fluff.

Our editor, Peter Gerstenberger, the TCI staff and our contributing editors have done that. In my opinion, they've done it very well. You can be confident of the quality of the information. Remember, our editorial is written for arborists, by arborists.

Another of our goals is to keep our readers aware of new products and services for the industry. Our advertisers have helped us do that as well.

Now we want to do it better. We have covered many areas that are familiar to most of our readers. Now we are on the hunt. We want to find what is unique in the industry, such as the recycling stories in this issue. We will continue to seek out this kind of information and bring it to you in a usable form. Many of you have interesting, unusual operations and techniques that you may want to share. If so, call Peter on our toll-free number (800-733-2622), and talk to him about it. You don't have to be a novelist. We can take your information, shape it for you and create an article.

If you would like to write a guest editorial about the industry, send it to us and we'll consider it. Your letters are always welcome for our "Industry Input" section.

We look forward to Tree Care Industry growing and better serving its readers and advertisers. Your support has enabled us to get where we are. Together we can go where we want to be. Let's do it!
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For the lowdown on the entire line of high-quality Poulan Pro chain saws, get a closer look and a demo at the Poulan Pro dealer near you.
No Dumping

Firms Turn To Recycling As Landfills Close, Disposal Costs Rise

Recycling is nothing new. Arborists have been doing it since the first customer asked for wood for his fireplace.

Over the years, however, most wood waste was taken to the dump. The advent of the brush chipper meant that brush loads could be reduced, resulting in fewer trips. But before long, arborists recognized that the brush chipper also gave them a marketable product—wood chips.

Today, the recycling business is bigger and more complex. Landfills around the country have been closed and tipping fees—the cost per ton that haulers must pay to dispose of wood debris—have gone from an average of $19 per ton in 1986 to $34 per ton in 1991. These factors have made recycling a cost-effective alternative for some. For others, like B. Haney & Sons, Inc., in Franklin Park, Illinois, recycling has become a profit center.

B. Haney & Sons is a tree company first, but has been profitably recycling since the 1970s. The firm’s success in recycling hasn’t changed its guiding rule: “Do not carry debris off site if you don’t have to.”

Finding markets

For many years, B. Haney & Sons supplied chips to a manufacturer of building products. When that market dried up, the company was forced to look elsewhere and the major market now is the burgeoning commercial/residential landscape industry.

Haney supplies 10 landscape firms with about 600 yards of mulch a day, charging $7 per yard for Grade 3 mulch, including delivery. Shredded bark products cost about $15 per yard. The price difference is mainly due to the appearance of the two products.

John Albanese, a landscape contractor, feels they both weather equally. Albanese admits that his salesmen initially thought the appearance of Haney’s product would make it more difficult to sell, but that hasn’t been the case. And the lower price has allowed Albanese to keep his competitive edge.

“It’s important, especially in these times, for us to find ways to cut costs,” Albanese says. “There are fewer jobs out there, and we must be competitive for what there is.”

Haney experimented in coloring mulch with a russet-colored vegetable dye, treating a yard at a time in a dip tank. Such efforts were abandoned, however, because of the added expense and trouble. Other landscape firms use spray-on coloring to renew the color in weathered mulch beds.

So far Haney has supplied 6000 yards of mulch for landscaping at the new Sears corporate headquarters west of the city, a huge project being handled by an out-of-state contractor. Several thousand high-value trees await planting in holding areas scattered over the site, heeled in with Haney mulch. The landscapers use the mulch again around newly planted trees.

The Waste Recycler takes raw material, shown on left, processes it and spews it out to pile on right. Inset shows a finished product, Grade 3 mulch.
A log produced by the Briquetter.

A Haney driver delivers a 50-yard load of Grade 3 mulch.

A front-end loader feeds material from the Waste Recycler into the tub grinder.
WHERE DOES IT GO?

<table>
<thead>
<tr>
<th>Sell Or Give Away As</th>
<th>Mulch Or Firewood</th>
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<tr>
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A 1991 survey of National Arborist Association members showed that they already recycle much of the waste wood they generate.

How it works

Haney’s tree trimming and removal operations contribute a small but constant percentage of the material in the recycling yard. Most of it comes from surrounding towns and local landscape and tree firms.

Haney charges for incoming material at $6 per yard for brush, $7 per yard for brush chips and $8 per yard for logs. Rates for mixed loads vary, depending on the material. Stumps are not accepted because Illinois clay can stick to the stumps for years, hiding granite boulders the size of footballs.

Jack Haney, who oversees the recycling operation, has evaluated each piece of recycling equipment using the following criteria:

1. It must produce a finished product acceptable to the customer or a product the company can make acceptable. For example, Jack Haney doesn’t feel that the tub grinder is efficient for primary reduction of debris, but produces acceptable products when used with the Recycler.

2. It must be easy to maintain in the field and operators must be able to make fast blade changes. The operators can change the 56 knives in the Recycler in less than two hours.

3. Equipment must be portable. All Haney’s equipment has rubber tires so the company can trailer it rather than have to skid it off a trailer.

4. Equipment must be diesel-powered and self-contained. Haney prefers diesels because they require less maintenance and have less downtime. The company replaced a PTO-driven tub grinder with a unit that has a motor largely because of

Recycled Products

What Haney & Sons produces and how consumers use it.

Grade 1—A very large wood chip made with the Haney log grinder; suitable for heavy traffic areas.

Grade 2—Grade 1 chips run through the tub grinder; used in play areas and handicapped-accessible areas.

Grade 3—Brush and logs that are reduced with the Recycler and refined with the tub grinder, using a small screen; the favorite product of the landscape contractors as a replacement for bark mulch.

Grade 4—Similar to Grade 3, only coarser; used as a heeling in mulch.

Grade 5—No longer produced, it was similar to Grades 3 and 4.

Grade 6—Unrefined chips from the smaller chippers; preferred by those who like the straight-from-the-tree look.

Grade 7—Grade 6 chips run through the tub; fine enough for use in flower gardens.

“Morbark” Chips—Uniform, clean and thornless chips from Haney’s whole tree chipper; the best for play areas and the only product accepted by the Chicago Park District.
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concerns about having operators working around a spinning PTO shaft.

Haney crews grapple load much of the material from their jobs back to the recycling yard to make Grade 3 and Grade 4 mulches (see table on page 6). Because brush chips are more difficult to get rid of, the company often does not send chippers on jobs.

Two people usually work in the recycling yard, while a third may operate the grapple loader or front-end loader. The operators are versatile on all the equipment.

Three full-time drivers each deliver three to four loads of mulch a day, and occasionally pick up raw material from jobs. The tub grinder can easily process and load 50 yards of Haney's Grade 3 mulch in 15 minutes or less.

While most clients are cooperative about keeping metal and trash out of incoming material, operators are constantly on the lookout for trees that may contain lag bolts, reinforcing rods, cement or bricks—anything that could result in downtime. Nails or staples go through the recycler.

The company pulls the Recycler and tub grinder to large jobs, such as a recycling station in Lake County and nearby Morton Arboretum.

Haney does not compost material because the process is more highly regulated and can be expensive.

Haney maintains that avoiding problems and fines is a matter of complying with regulations. His orderly and well-kept yard is located in a heavy industrial zone near O'Hare Airport, where operations such as his are permitted.

**Future markets**

Grades 3 and 4 mulches have two drawbacks: They contain a lot of dust and particles are not uniform in size. To address these problems, Haney is building a machine that will separate different size particles.

According to Haney, Grade 3 mulch contains about 20% sawdust-size particles. Extracting those particles will make the product easier to load and handle.

Meanwhile, researchers at the Morton Arboretum are looking at the fine component as a soil amendment comparable to peat moss for use in heavy clay soils.

Haney feels a future challenge will be finding uses for a glut of wood chips. He is looking at a process that combines waste plastic with wood fiber to manufacture products for building materials, parking lot bumpers and other durable objects.

He is also looking at a machine that will make fireplace logs from fine chips. The HG-Briquetter Model 90-1 makes artificial logs that are more dense and burn hotter than most hardwoods.

The Briquetter, which costs about $250,000, produces logs at a rate of 35 to 40 inches a minute. Moisture content of the raw material going in must be 10 to 15%, and the chips must be a uniform size.

Besides selling the manufactured logs, Haney wants to burn wood products to heat his shop and to dry wood waste.

How far a company goes with wood waste recycling depends on the market for recycled products and how easily that market can be reached. If Haney & Sons were able to give away all the chips and wood they generate, they probably would have never made such a sizable investment in recycling.

---

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<table>
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<tr>
<td>1635 ASA Diesel</td>
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<tr>
<td>1635-ASP: 35 H.P.</td>
<td>$11,750</td>
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<tr>
<td>1665-AC: 65 H.P.</td>
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<tr>
<td>1670DC: 80 H.P.</td>
<td>$21,500</td>
</tr>
<tr>
<td>Hydra Stumper: 240 H.P.</td>
<td>$85,000</td>
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| 4 cyl. Ford or Hercules gas w/ 12" cutter head | $10,900 |
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Disposal Regulations

By Brian Barnard

Rising costs and increased regulation have made disposing chipped brush, logs or other wood debris a major concern for tree firms around the country. Large quantities of green wood cannot be dumped in some landfills in any form. Tipping fees, the cost a firm must pay to dump waste at a disposal site, are astronomical in some areas. These factors, combined with the great distances some tree firms must travel to dispose of green wood waste, forces companies to monitor disposal operations and the regulations governing green wood disposal.

The problem

Americans generate 180 million tons of municipal solid waste annually. According to the Environmental Protection Agency (EPA), nearly 18% is yard waste, but that number climbs to 25 to 50% during the summer and fall.

EPA commonly defines yard waste as consisting of grass clippings, leaves, stumps and brush. Debris from commercial arboriculture falls into the yard waste category as defined by EPA. Wood waste, on the other hand, consists of construction material.

The cost of disposing of green wood waste is a major concern. According to a 1991 survey conducted by the National Arborist Association, the average cost to dispose of debris in a landfill was $34 per ton. One company paid $75 per ton! Stumps and rakings were the most common type of material dumped.

Dumping regulations

The federal government has regulated solid waste disposal since 1965. The Resource Conservation and Recovery Act (RCRA), amended twice since 1976, is scheduled for reauthorization this year. One of RCRA’s goals is to promote environmentally sound disposal methods.

In the House, Rep. Al Swift, (D-WA) has introduced the National Waste Reduction, Recycling and Management Act, H.R. 3865, to expand and update RCRA. The bill addresses efforts to promote recycling municipal solid waste and reclaiming organic wastes. The Subcommittee on Transportation and Hazardous Materials unanimously approved H.R. 3865 in March. The subcommittee’s markup included several amendments, one of which would allow local governments, rather than the states, to decide whether to build landfills.

State disposal laws are growing in number and scope. Currently, 13 states ban yard waste from landfills or require source separation of yard waste: Connecticut, Florida, Illinois, Iowa, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, North Carolina, Ohio, Pennsylvania and Wisconsin. Many of the yard waste bans prohibit wood waste disposal as well as the more common ban on grass clippings.

Options

Recycling centers are a common alternative to dumping green wood waste. Fourteen recycling centers accept green wood waste in New Jersey, and the list is updated periodically. One approved New Jersey facility, Advanced Enterprises Recycling, Inc., in Newark, accepts source-separated non-chemically treated wood waste, tree limbs and tree stumps. The material is brought to the recycling center as brush, and the company reduces the green wood waste with tub grinders and other machinery to a usable landscape mulch.

Another possibility for chipped brush disposal is using the material as a bulking agent in sludge composting. A Florida plant treats more than 32 tons of dewatered sludge cake each day. The resulting compost product is used in parks, cemeteries and other public areas.

Future trends

More than 1000 landfills around the country closed last year, and more closings and wood waste bans are inevitable.

State grant and loan programs assist local communities in developing recycling centers. Many of these centers focus on horticultural waste disposal. This eases the burden on landfills and converts wood waste into useful products or energy sources. Tax exemptions and credits are available in some states to encourage recycling operations.

The increased use of machinery to reduce waste also eases the burden on landfills. These machines can reduce stumps and large logs that take up a large area in landfills.

For further information on waste bans, recycling systems or disposal options, contact the following organizations:

Solid Waste Information Clearinghouse (SWICH), P.O. Box 7219, Silver Spring, MD 20910; Hotline 1-800-67-SWICH.

Solid Waste Composting Council (SWCC), 114 South Pitt Street, Alexandria, VA 22314; 703-739-2401.

Cornell Waste Management Institute, Center for Environmental Research, 468 Hollister Hall, Ithaca, NY 14853; 607-255-7535.


State of New Jersey, Dept. of Environmental Protection, CN 414, Trenton, NJ 08625-0414; 609-530-8590.
Recycling & Economics

By Peter Gerstenberger

Barney Zipkin is president of Woodwaste, Inc., in Peekskill, New York, a company that offers a mobile recycling service to municipalities, tree companies and land clearing operations.

The company was started in August 1990, and already is quite successful. But Zipkin had to work for several years to convince local officials of the need for his service.

Several years before Woodwaste, Inc., came into being, Zipkin presented the concept of contract recycling to Westchester County officials. His idea did not get a warm response, but Zipkin met with more success when he presented the plan again in 1989 after several landfills had been closed.

At about that same time, the first recycling contract in a local community went to bid for six figures.

Woodwaste’s capital investment in equipment alone is more than $800,000. The company’s big iron includes a Morbark Waste Recycler, a Morbark Industrial Tub Grinder and a Morbark Stump Splitter. They also run eight and 17-ton excavators with grapple loaders, a Morbark Model 75 Chip Screen, several semitractors, a 40-yard delivery trailer and a fully equipped service vehicle.

In addition to Zipkin, the business employs three equipment operators and a full-time mechanic.

Woodwaste, Inc., offers a mobile recycling service to municipalities, tree companies and land clearing operations.

Woodwaste works exclusively on site, serving clients within a three-hour drive in Massachusetts, Connecticut, New York and New Jersey. Eighty percent of Woodwaste’s clients are cities and towns. Woodwaste works mainly on stockpiled logs and stumps, but they also handle some brush and demolition debris. Some of the company’s work is on long-term contracts, while some is bid by the job and some is done on call.

Zipkin charges $750 a day for splitting and cleaning stumps, with one operator, one excavator and the splitter; $3000-$3500 a day to shred debris with the Recycler, one excavator and two operators; and $2000-$2500 a day to create mulch with the Tub Grinder, an excavator with a 1-yard bucket and one operator. Rates are higher for processing materials that cause more machine wear, such as metal-laden demolition debris.

What does a client get at these prices? Zipkin estimates the stump splitter will process 300-400 yards a day. The Waste Recycler will reduce 500 yards of clean logs, 400 yards of clean stumps, or a similar amount of demolition debris in a day. The Tub Grinder will handle 1000 yards of wood chips or new leaves, and 500-600 yards of old leaves a day.

Woodwaste reprocesses most green wood waste, shredding it twice with the Tub Grinder, using a 2-inch, then a 1-1/2-inch screen. The company sells mulch to local landscaping businesses and large estates for $12-$16 a yard.

Zipkin estimates that his company reprocesses and sells 20% of all the material it handles. If Woodwaste has to haul recycled material away from the site, Zipkin charges $1 to $4 per yard, but often clients keep it for their own use.
Looking for new books

Why in the world can’t we find up-to-date tree care books, written within the last five to 10 years, on and for the tree care industry?

The latest book that we can find anywhere has a published date of approximately 1975. This is absolutely too long ago in the age of technology for tree care industry people to survive. We need up-to-date, factual, practical knowledge, instead of having illustrations, wording and methods that were in use 20 to 30 years ago.

I have looked Tree Care Industry magazine over, forward and back and have yet to find an advertisement for an up-to-date tree care manual.

Jack Moreland Jr.
Clarksdale, Miss.

Remember our own past

(The following letter was written in response to previous letters that criticized the practice of students working in the field before completing their training.)

I assume Porter Tree Service and PlantLife Landscape & Landscape Maintenance are experts. But let’s not forget our first days, or did these company men get a gold platter passed down?

Of course, the instructor will recommend his student. It’s called pride! I’m sure he had enough training that insurance is a must in the future; but this is America, home of the free and brave.

Whom did Henry Ford and Alexander Bell and Ben Franklin work for? The list goes on. Insurance is a policy not a law.

Ralph R. Sheen Jr.
Ralph’s Shrub & Tree Service
New Castle, Pa.

Letters should be addressed to:
Tree Care Industry, Editor
P.O. Box 1094
Amherst, NH 03031
Using Report Cards

By Donald F. Blair

Back in April, Randy Finch of Finch Tree Surgery, in San Gabriel, California, asked me to go to his company and provide upgrade training in climbing, rigging and aerial rescue.

Randy’s father, Fred, started with Keith Davey in 1946 and eventually served as the District Representative for Los Angeles and Orange County until 1968, when he started his own business.

Randy graduated from the United States Naval Academy in 1971 and resigned his commission in 1980 after nine years in the nuclear submarine force. He joined the family business in 1981, and he and his father have since seen the firm grow into a well-equipped service employing an average of 25 people.

Besides contracting for training, Randy provided me with a “Report Card” to use in evaluating his company.

With Randy’s permission, I have taken the important features of his evaluation and expanded them with some line items of my own that I would recommend looking for in an assessment. (Table 1)

Randy asked for a critical report card grade in several areas to compare his company with the rest of the professional industry. He also asked for comments.

Using the guidelines, you will have to fill in what you consider minimum requirements within a category for your company and its policies.

In taking this outline and expanding it into a judging sheet for a critical analysis of your business, you will achieve several benefits:

1. Expanding the production-related topics into specifics will pretty well outline a company training program.
2. Carefully examining the program, sales and management-related topics will pretty well draft a long-range plan and blueprint for action and direction for your company.

Making a checklist
To get an idea of how to expand a topic into an evaluation criteria, I’ll take a portion of production skills as an example.

First, determine the production skills necessary to accomplish the tree maintenance services that you provide. Common services might be pruning; removal; cabling, bracing and guy ing; fertilization and soil manipulation; root pruning; and lightning protection.

Second, break a production skill such as pruning into component form.

Third, transfer sections and subsections to a simple checklist form that will enable you to perform a self-assessment. (Table 2)

As much work as it may appear, the only way to make the assessment simple is to look at each component of a given skill.

For instance, a single grade on a topic as broad as climbing skills won’t be as helpful or revealing as a more detailed look at the individual skills that comprise climbing. These skills might be listed as body thrust, footlock, use of throw line and shot pouch, skill in throwing climbing line, three point contact rule, free climbing, proper use of climbers (spurs), ladder types, use and safety, and transfer from aerial lift to tree and return.

Each of these individual skills can be broken down into the component forms of technique, execution and safety.

The big picture
The take-home message is simple. Running a successful residential/commercial tree maintenance firm is complicated in the extreme, but so is driving a car. Think back to the first time you tried to learn how to drive and let’s make it even more difficult by taking the lesson on a manual shift transmission.

Broken down into component form, there are dozens of strange and unfamiliar things to do and remember, seemingly all at the same time. The very real threat of getting killed if you make a mistake or are inattentive to any one of the dozens of things you are trying to do all at once hangs over your head like fuzzy dice from the rear-view mirror.

Eventually, the strange and unfamiliar becomes a little more routine and driving becomes more reflexive.

Take the time to give your business a thorough check-up of all of its operational parts just as you would take your aerial lift in for a major certification. Look carefully at all aspects of what you’re doing and only fix what’s broken and only add what’s missing.

Once you’ve identified and examined the components of your operation, you can deal with the daily big picture and the important small details will become more reflexive than burdensome—just like mastering the skill of driving. A thorough check-up of business health, safety and production is much more valuable as an ongoing systems check than an after-the-fact autopsy to determine the cause of business death.

In preparing this article, I used several resources that you might find helpful in drafting your assessment. I referred to NAA and Western Chapter ISA Pruning Standards while we work out the details of ANSI A-300. I took the Knowledge of Pruning from the objectives of the ISA Certification Manual.
Breaking safety down into component form is easy using either the ANSI Z-133.1988 (also in revision and due out in 1993) or the NAA Tailgate Safety Program, which has broken down Z-133 for you.

Become an involved member of the International Society of Arboriculture and the National Arborist Association and join the mainstream of modern arboriculture. These organizations provide the resources, training and innovative thinking that have contributed to the explosive growth of arboriculture as a profession in the past two decades. Although the publications that these organizations produce are excellent, the rest of the story comes from the members that you meet when you attend a regional meeting, an ISA Chapter Meeting, the ISA Annual Meeting, the NAA Annual Meeting or TCI Expo. By the way, I met Randy Finch in Columbus at TCI Expo. I hope to meet you either in August at the Oakland, ISA Annual Meeting or in Baltimore at TCI Expo, or somewhere else along the way.

Donald F. Blair, arborist, author and lecturer, owns and operates Sierra Moreno Mercantile in Big Pool, Maryland.

Table 1

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<td>Climbing equipment: selection, use and care</td>
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<td>Entry methods into the tree</td>
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Table 2

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<td>Knowledge of standards and pruning classifications. Note: Although efforts are under way to draft a new pruning standard under ANSI guidelines, this A-300 Standard will not be available for distribution until the fall of 1993. Currently, you would refer to the NAA Pruning Standard or perhaps a regional standard such as the Western Chapter ISA Pruning Standard.</td>
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1. Pruning knowledge
A. Why, when and how a tree should be pruned
B. Tree response to pruning
C. Understand the relationship of the branch collar to decay and wound closure
D. Describe the procedures and techniques used in pruning; become familiar with terms used to describe pruning techniques
E. Understand how wound dressings have not been proven effective in preventing decay in trees

2. Production pruning
A. Selection and care of pruning tools
1. Hand saw
2. Chain saw
3. Pole pruner
4. Pole saw
5. Hand pruner
6. Lopping shear
7. Specialty pruning tools, i.e., hedge shear

B. Method of access
1. Climbing safety
2. Ladder safety
3. Correct positioning of aerial lift
4. Efficient pruning from the ground

C. Execution
1. Work quality and consistency
2. Ability to match job specifications and time allotments
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This month’s feature video is:

Principles of Shade & Ornamental Tree Pruning and Pruning Standards for Shade Trees.

Every year you invest thousands in the maintenance of equipment and in the purchase of new tools. But even the most technologically advanced pruning equipment depends upon the skill and knowledge of its operator to function correctly.

Principles of Pruning covers the methods, equipment and reasons for pruning.

Pruning Practices and Standards covers the limits and criteria for arboricultural work. This tape reviews the four classes of pruning:
• Class I - Fine Pruning
• Class II - Standard Pruning
• Class III - Hazard Pruning
• Class IV - Crown Reduction Pruning

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DON’T MISS OUR SPECIAL OFFER—ORDER NOW AND SAVE 10%!

Please circle 21 on the Reader Service Card.
Vehicle Rule Delayed

Publication of the Occupational Health and Safety Administration’s Vehicle Safety Rule is likely to be delayed again. Originally proposed in July 1990, the rule was scheduled to be published in the Federal Register next month. However, changes in leadership at OSHA and the Department of Labor have resulted in repeated delays.

The pending standard instructs employers to require safety belt use and driver training for workers. In addition, the rule would require employers to have a written safety belt policy and a plan for monitoring employee compliance.

Agency officials have said that mandatory safety belt use is included in the final rule, but exemptions may be allowed for low-speed vehicles such as lawn tractors. The National Arborist Association submitted comments on the rule because of concern over driver training requirements and how mandatory safety belt use would affect street tree maintenance and utility line clearance operations.

OSHA completed the rule in March. The rule is now being reviewed by the Labor Department’s solicitors and Policy Review board as well as the Office of Management and Budget. While a July publication had originally been anticipated, the rule’s future remains in question. President Bush’s 90-day moratorium on new regulations was not intended to affect safety and health issues, but delays may result from this year’s election activity.

Chuck Hurley, of the Insurance Institute for Highway Safety, has said: “I know they’re saying it won’t be covered under the moratorium, but it is an election year. I would be relatively optimistic that it will come out in the summer. Realistically, I’d say we’d see it after the election.”

The proposed rule would affect 5.4 million workplaces, making this one of OSHA’s most far-reaching regulations.

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The National Arborist Association is dedicated to training. That's why NAA offers a two-part home-study course in arboriculture as a basic education program for field personnel and a Crewleader home-study program which teaches basic job management and other skills needed by crew leaders as well as video and safety training programs. These programs are available at substantial price discounts for NAA members.

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

Special Offer: Join now for the introductory dues of $175 and receive a complimentary copy of NAA's CHAIN SAW USE AND SAFETY video. Your annual dues in 1993 will be based on your firm's gross sales for 1992.

□ YES, I want to belong to NAA and take advantage of this “Special Offer”!
Enclosed is my payment of $175 for dues through 1992.

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The photo on the left shows the correct way to use mulch in a landscape. Note the uniform size of the product, applied in a 2-to-3-inch layer. The photo on the right, showing unreduced brush chips stacked 12 inches deep, is an example of what should never be done.

By Peter Gerstenberger

Here is some useful information on mulching with wood products that you may want to pass along to your customers.

What makes a good mulch?
These are the characteristics of a good mulch:
—It reduces soil water loss from evaporation. Coarser, thicker mulches are the most effective.
—It suppresses weed growth.
—It insulates the soil from temperature extremes.
—It increases water infiltration into the soil. When water hits bare soil, it compresses and cakes the soil surface, making it more difficult for water to penetrate.

Mulch breaks the force of falling droplets.
—It increases oxygen exchange in the soil.

In addition to these benefits, wood product mulches provide organic matter to the top few inches of soil. Organic matter acts as the glue for soil, forming soil aggregates and improving the overall soil structure. Using a geotextile or black plastic under soil prevents the mulch from building soil organic matter.

How to apply mulch
Most experts recommend an application of two to three inches of wood product or bark mulch out to at least the dripline, but preferably one and one-half times that distance.

Over-mulching can be detrimental to the plant. A thick mulch layer reduces oxygen exchange in the root zone. With a thick layer, there may be anaerobic decomposition of the bottom of the mulch layer. This can adversely affect soil pH.

Additionally, thick mulch may increase trunk cankering because the plant’s base remains moist. This is a problem particularly with thin-bark, susceptible species.

Using wood chips as mulch
The main disadvantage in using wood chips is aesthetic—they lack uniformity in color and texture and they tend to grey with age. Spraying with a vegetable dye product can turn the mulch a desirable color again.

Additional processing can enhance the usefulness of wood chips.
Storage

When mulch is piled too high and left unturned, anaerobic decomposition takes place in the center of the pile. A pungent odor is the sign of a sour mulch, usually with pH of 3.5 or less. There will be a film of material, barely visible, on the surface of the anaerobic mulch.

Acid or sour mulch can cause leaf margins to blacken and die, or it can kill the plant outright. There will also be toxins like methane gas and volatile organics. Taken up by plant roots, these toxins can damage or kill plants. Low pH greatly alters nutrient availability, especially for young or shallow-rooted plants.

Aerobically decomposing mulch pH will vary depending on what the mulch consists of, but will usually be over 4.0.

Fix an anaerobic mulch by spreading it thinly, adding lime and possibly irrigating to leach out contaminants. Sour mulch should be treated for at least three months and mixed with aerobically decomposed mulch before use.

Monthly turning is usually adequate to keep mulch from turning sour. Windrows less than 12 feet high and eight feet wide are ideal.
INDUSTRY ALMANAC

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“Systems Approach to Practical Tree Care”
Dr. Alex Shigo
Columbus, Ohio
Contact: Lana Ahlum, 614-876-3694

June 18
Tree Pruning Seminar
University of California
Riverside, Calif.
Contact: Hartley Bennett, 602-684-7308

June 26-27
Hazardous Tree Seminar and Jamboree
ISA/Illinois Chapter
Lisle, Ill.
Contact: John Richards, 815-965-5757

July 10-11
ISA/Ohio Chapter Meeting
Columbus, Ohio
Contact: Lana Ahlum, 614-876-3694

July 10-11
13th Annual Arborist Jamboree
Columbus, Ohio
Contact: Lana Ahlum, 614-876-3694

August 9-12
ISA Annual Conference & Trade Show
Oakland, Calif.
Contact: ISA, 217-328-2032

August 13
Field Diagnosis: Insects and Diseases of Trees and Shrubs
New York State Arborists
Cornell University
Ithaca, N.Y.
Contact: Tom Mullarney, 315-469-8456

September 20-25
National Urban Forestry School
Session I
Nebraska City, Neb.
Contact: National Arbor Day Foundation, 402-474-5655

November 19-21
TCI Expo ‘92
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TREE CARE INDUSTRY - JUNE 1992
The Value of EHAP

By Doug Hunt

The National Arborist Association's Electrical Hazard Awareness program (EHAP), started in 1984, became the light at the end of the tunnel for our company. As a very safety-conscious company, we had been implementing many safety programs for years. Still, we felt our training was inadequate in making our climbers and ground crew aware of electrical hazards.

Over the years, we have heard of several tragic electrocutions of tree men. These accidents were usually the result of lack of training and lack of respect for electrical conductors. The EHAP program gave us a great foundation on which to build and solve our problem.

A yearly event

At Tamke Tree Experts, we have made EHAP a voluntary winter program for all climbers and crew leaders. We also require EHAP certification as a prerequisite for promotion. Here is how it works.

We use the forms and guidelines outlined in the EHAP manual; our supervisors administer the program.

We provide the EHAP Home Study Program Book for each employee who wants to take the course for self-improvement and to qualify for promotion. The company pays for this book for first-year candidates as well as for renewal candidates.

The employee takes the study book home and takes the four tests at his leisure over the next month.

On a designated Saturday, usually in November or December, the climbers and supervisors run an aerial rescue exercise event. Each climber must demonstrate that he can safely rescue another climber at 35 feet in the tree and get him to the ground in four minutes. The company provides lunch, and we take group and event pictures that we hang in our conference room. This is a voluntary event and the men are not on the payroll.

On a bad weather day and on their own time in November or December, the candidates watch the three NAA slide/cassette programs on electrical hazards* and a supervisor records credit for their participation. (We have videotaped the slide/cassette programs so we can use the TV and VCR. We can use this VCR tape as a part of our “pre-work orientation” program for our newly hired employees.)

Completing the program

The last step is the first aid requirement. We pay for and coordinate a voluntary evening in-house program with a local Red Cross organization that administers the course and provides credit for each participant. The company provides pizza and soda for participants after work, and we start the program at 6 p.m. The program is available to sales personnel and staff as long as we have room. We have averaged more than 20 people each year in the course.

After going through all of these steps, the employee has completed the program. The supervisors collect the tests, fill out the EHAP forms, validate completion of the aerial rescue, first aid and slide cassette program, and send this material to the NAA office. NAA staff scores the tests and issues Certificates of Completion.

First-time EHAP candidates who pass all four steps receive recognition and a bonus. Candidates taking the renewal program after the first year receive a smaller bonus and recognition. We are very proud of our production crews; we frame and display their certificates in our conference room.

Benefits for the company

Some people have said that this is a complicated and expensive program. It really isn't. The EHAP book provides step-by-step instruction that is really easy to follow. The four steps required are challenging yet doable. The aerial rescue has almost become a competitive event and the climbers have fun performing the test.

The company benefits significantly from this program. Not only do we have safer production personnel, but we can prove that we provide a “planned, documented, safety program.” In the event of an inspection by a representative of the Occupational Safety and Health Administration, this proof could be invaluable.

We have improved our marketability to insurance companies when they see the quality of our safety programs. Telling a climber to “be careful around the wires” is not a defined safety program.

The EHAP reinforces the company’s position concerning safety and our determination to reduce and control our workers compensation liability. We not only talk safety, we put our money where our mouth is.

Additionally, we have coordinated and participated in programs with local electrical utility companies. This has improved coordination with the utilities and helps to develop mutual respect. Jersey Central Power & Light Company has been very cooperative in clearing or disconnecting wires when requested.

The most important benefit from the EHAP program is the knowledge and awareness that our climbers gain. Protecting their well-being is our moral, not to mention legal, obligation. Doing anything less would be simply unacceptable. The EHAP program has been a great help to our company and we are anxiously awaiting the recently released new version.

Doug Hunt is general manager with Tamke Tree Experts, Liberty Corner, New Jersey.

* The NAA now provides up-to-date video programs on electrical hazards and aerial rescue.
IS THERE AN ELECTRICAL HAZARD IN YOUR FUTURE?

PROBABLY!! Tree workers are frequently exposed to electrical hazards even when they aren’t doing line-clearance tree trimming. Electrical conductors often pass through trees on residential and commercial properties. Therefore, every tree worker should be trained to work safely around electrical conductors for humanistic reasons—worker safety, and for legal reasons—to comply with OSHA.

The National Arborist Association has created an ELECTRICAL HAZARDS AWARENESS PROGRAM—EHAP which has been revised in 1992. It is available in both English and Spanish. The EHAP program includes:

1. A "How to" describing, in detail, how to administer this program and how to work with utilities so as to maintain the safest possible working conditions.

2. A hard-cover, 4 lesson Home Study Program: each lesson with a test. The lessons cover the following subjects:
   - Electrical Hazards and Trees
   - Tree Care Practices Around Electrical Conductors
   - Aerial Rescue
   - Safety Requirements for Pruning, Maintaining and Removing Trees: ANSI-Z133.

Upon completion of all of the requirements, NAA issues a Certificate of Completion, a hard hat decal and a wallet-sized EHAP completion card valid for one year. NAA also provides for annual updating of the training.

To order your EHAP program please complete the order form and mail to: The National Arborist Association, P.O. Box 1094, Amherst, NH 03031-1094. Or, call toll free: 1-800-733-2622.

PLEASE SEND ME THE ELECTRICAL HAZARDS AWARENESS PROGRAM

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Please circle 20 on the Reader Service Card
ISA Research Trust Announces Grants

Hyland Johns, chairman of the International Society of Arboriculture (ISA) Memorial Research Trust, has announced nine research projects that will receive grants this year through the Trust’s Annual Competitive Grant Competition. The nine were chosen from among 42 applicants.

The following researchers and institutions will receive grants:

Ansel E. Miller, Clemson University, “Changes in tree root-zone aeration after paving over the soil surface: effects of aeration systems.”

Bonnie L. Appleton, VA Polytechnic Institute, “Tree trunk wraps and protective devices—Part II—A further investigation of temperature modification.”

Philip A. Barker, U.S. Department of Agriculture, California, “Post transplant inhibition of shallow tree roots.”

Nina L. Bassuk, Cornell University, “Improving the success rate of fall transplanted trees.”

Alan R. Biggs, W. Virginia University, “Stimulating resistance to canker pathogens with applications of calcium and other biochemicals.”

Chris A. Martin, Arizona State University, “Mycorrhizae and water relations of trees transplanted into dry urban landscapes.”

Donald A. Rakow, Cornell University, “A survey and evaluation of mulching practices by arborists in the United States and Canada.”

Bruce R. Roberts, Ohio Wesleyan University, “Determining the water use efficiency of urban trees.”

Daniel K. Struve, Ohio State University, “Physiology and establishment of under-utilized drought resistant species in urban areas.”

The mission of the ISA Research Trust is to promote and fund research and educational projects on the planting, care and preservation of trees. “The research projects receiving the grants this year I believe exemplify the mission of the Trust and address many of the needs of practicing arborists who have so faithfully supported the Trust through their charitable donations,” Johns said.
The new Echo hand-held leaf shredder, the Shred ‘N’ Vac, is designed to vacuum leaves off lawns and pavement while simultaneously shredding the debris and blowing it into an attached large-capacity bag. After the debris passes through the intake tube, it is funneled to a four-blade shredder device (patent pending). The material is then reduced to as little as 1/12 its original volume. This ground-up waste can be used as garden mulch or compost material. The unit is available September 1 at authorized Echo dealers.

Lutz Corporation has released a new brochure, "Symptoms and Treatments of Common Palm Tree Deficiencies." This 4-color brochure contains detailed information with photographs and descriptions of symptoms to look for to diagnose manganese, magnesium and potassium deficiencies. Recommended treatments for each deficiency, which includes the normal response times after treatment, is also included. For a free brochure, contact the Lutz Corporation, 501 Ford Street, Oregon, IL 61062. Phone: 815-732-2383.

Allegro Industries, Inc., has introduced a new line of back, wrist, elbow and knee support equipment. Designed to relieve and contribute to the prevention of work-related injury, the products offer a full range of safety features for many industrial and office occupations. The new line is marketed under the name "Allegro-Nomics" to reflect each product’s unique design and rigorous testing. The products are easy to use and care for. For more information call 800-622-3530 outside California, or 213-633-4861 in state.
FOR SALE

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

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

Tree service for sale—10-year business in N. MI resort area. 8-month season, $160,000, gross. Call 616-347-6851.

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

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


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The hundreds of tree-care professionals who have attended TCI EXPO's in the past have come away filled with fresh information about the industry. They saw demonstrations of the latest products and techniques, attended seminars that made them wiser and more productive... and... they networked with their peers from all over the country. They know more than they did before and that's what it's all about.

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Watch for more announcements in TREE CARE INDUSTRY. Or, if you can't wait, call toll free at 1(800)733-2622.

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Complete tree company looking for tree climbers—best working conditions—good pay—year round work—management opportunity for aggressive self-starter—hard workers. Bob’s Nursery. NAA member. Call Bob or Frank, 318-232-TREE.

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LIST OF ADVERTISERS

Reader Service Number*   Page No.   Reader Service Number*   Page No.
1 American Arborist Supplies, Inc...............................20   18 National Arborist Association.................................18
2 Bartlett Manufacturing Co.........................................24   19 NAA Crew Leader Program.......................................8
3 Bishop Co....................................................................12   20 NAA EHAP Program................................................23
4 CEI ...........................................................................26   21 NAA Video Training................................................16
5 Creative Sales..............................................................21   22 Opdyke, Inc.............................................................9
6 Fanno Saw Works.........................................................17   23 Poulan/Weed Eater....................................................3
7 Fox Manufacturing.........................................................20   24 Professional Tree & Turf Equipment.........................26
8 GFX Corp.................................................................28   25 Rayco Manufacturing, Inc....................................12, 25
9 Hi-Ranger.................................................................31   26 Sharp Tool Co.........................................................21
10 International Knife & Saw.................................13   27 Shindaiwa, Inc......................................................Inside Back Cover
11 International Society of Arboriculture.......................13   28 Southco Industries, Inc.........................................30
12 Kemp West, Inc.......................................................12, 24   29 Tamarack Clearing...............................................20
13 Kinetic Stump Cutter Inc............................................28   30 TCI Expo.................................................................27
14 Leonardi Manufacturing, Inc.................................24   31 Time Manufacturing Co.........................................7
15 Leveo Manufacturers, Inc........................................17   32 Vermeer Mfg. Co..................................................Back Cover
16 J.J. Mauget Company...............................................29   33 Western Tree & Landscape Supply.........................32
17 Morbark.................................................................Inside Front Cover

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It's A Man’s World—

Or Is It?

By Susan Bieler

I have been in the tree care industry for 17 years. Working in what traditionally has been a man’s field, I have had very little trouble fitting in. Aside from the occasional customer who wants “a man” to do the work, I am usually allowed to prove my ability to get the job done.

Of course, every year there is a different situation to deal with. In the past I either have had to work twice as hard as the guys, or have been told to do nothing while they “took care of it.” I usually managed to get them to see that if we all work together at a steady pace, the work gets done just the same.

I have been at the same place a long time now, and I am very lucky that my company will back me all the way. When one customer ordered me off the property and told me to send back a man, she got a call from my boss. She was informed that I was the person who does that work, and in fact had the most experience. The customer allowed me back in the yard and I have been working at her place ever since. Three cheers to my company who took the chance of losing an account on my behalf.

Now I have regular customers who look forward to seeing me every year. They like the fact that I am familiar with their yards, ask about the kids, and remember the dog’s name. I have a soft spot for dogs, and always carry milk bones for my regulars. They come running for their treat whenever I show up. Once one of my favorite Dobermans had another Doberman with him. Neither one of us were sure about the other at first. So I rolled down the window of my truck and threw out a handful of milk bones. That did the trick and we have been good friends ever since.

Still, I imagine I will spend the rest of my life proving that I have a place in this industry. My husband and I attended TCI Expo in Columbus and I was pleased to see a number of women there. However, at most of the booths my husband was the one who was addressed. He explained he was there only as my “taxi” for the day, but even then some still made all their comments directly to him. Even though we were both registered for the show, the follow-up leads have come to my office for Kenneth, not Susan.

I am not discouraged as I do not take it personally. I love trees and taking care of them. I look forward every spring to seeing “my” trees again. I celebrate when they improve and cry if they don’t make it. I hope to spend the next 17 years working in one way or another making this a greener world.

Susan Bieler is an arborist with Forrest Lytle & Sons, Cincinnati, Ohio.

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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