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March 25-27, 2004
Sacramento, California
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- **80 Years of Experience**
- **Convenient, Safe Packaging, Knives Are Individually Wrapped**

## Vermeer

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Part No.</th>
<th>Knife Description &amp; Size</th>
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<tbody>
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<td>BC1220-BC1250</td>
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## Morbark

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<td>Model 90XP, 280XP</td>
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## Asplundh

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<tr>
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<td>Single Edge 12&quot; x 3&quot; x 3/8&quot;</td>
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</tr>
<tr>
<td>16&quot; Drum</td>
<td>KCH30002</td>
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## Mitts & Merrill

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<td>$9.20</td>
</tr>
</tbody>
</table>

*To receive this special pricing, you must use this code: 3394
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Offer ends April 30, 2004

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The Lesser Pain of Lessons Learned from Others……

When I was little, I used to come home from school every day, do my homework at the kitchen table, and spend a lot of time talking with my Mom. We were the old-fashioned family - you know, the kind that looked forward to the Dad coming home from work; sitting down together to do one of the most sacred things that communities can do together - eat and talk. It was during those times together that I listened to my Dad talk about what was going on at the church or at the State Mental Health Hospital. Dad was a two-career kind of guy; one who spent his entire life giving and serving others. Both of my parents are well-educated, graduate school leaders. While my Mom worked as a Christian educator and later at a not-for-profit; she chose to spend most of her adult life while I was a kid as a teacher - teaching me every day.

So what does my family background have to do with being out in the trees every day and running a tree care company? Well, you see during story time every evening - not that we called it that - but that's what it was; I had the chance to listen to stories of my grandparents; great-grandparents; of daily life in the work place; of community; of activities in a city; of trying to help other people. I learned vicariously. I had no idea that that was what I was doing; but it was. Every day, I learned how other people tried out different things in their lives and whether or not they had worked. What is the advantage of that? By learning from others' experiences, I didn't have to make the same mistakes. I'm not saying I wasn't silly enough to make some of the same ones - but the key is that - I didn't HAVE to.

Coming into February 2004, the papers and news broadcasts have been telling a story - a story of disaster; a story of repetitive mistakes; a story of poor management; a story of lack of caring - real caring about the people they worked with; a story of hubris; a story of mediocrity. I'm talking about the loss of our space shuttle a year ago.

I learned that only 4 days after our fellow Americans blew up, 15 minutes away from touching the ground and being reunited with their families, that the Columbia's former pilot, Col. Richard Searfoss, left NASA. Here is why he left a career that he loved and the kind of professional achievement that takes a commitment few of us ever give. I quote from the New Hampshire Sunday News, Feb 1, 2004: "Coming up as a pilot, you learn very early on in your career - quite often it's by seeing one of your buddies die - that complacency kills."

Let me repeat that: "seeing one of your buddies die - that complacency kills."

When I read that, sadly, I thought of us. We can put out all of the videos that we want; certify and accredit 'till we've run out of gold seals; hold seminars and work with OSHA every day of the year.

In the end, you're the person that matters. The day that you walk onto a job and you don't think that your actions could kill yourself or your buddy THAT DAY - that this could be YOUR LAST DAY….It just very well may be. "Complacency kills."

And the thing that kills me ….THAT is a pain we CAN prevent by lessons learned from others.

We DON'T have to have any more people die if we choose not to.

The catch is, we ALL have to make that choice EVERY DAY.

Let's learn vicariously - stop dying senselessly.

Cynthia Mills, CAE
Publisher

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March

Features

8 Managing Major Storms
By Michael Roche

26 Pricing Fertilization, Insect and Weed Control Work
By Jim Huston

40 Setting Up a Prescription-Based Fertilization Program
By Michael Roche

50 Rope Splicing
By Michael Roche

56 Arborists Should Be Par on Any Golf Course
By Don Dale

64 How the Great Blackout Led to a Greener Business
By Rick Howland

82 Maryland Tree Expert Licensing Law & Regulations
By Michael R. Galvin

100 Are Biostimulants the Next Generation of Fertilizers?
By Glynn C. Percival

Departments

2 Outlook
By Cynthia Mills, CAE
The lesser pain of lessons learned from others.

16 Washington in Review
By Peter Gerstenberger
Current regulatory activity could impact the EPA’s ability to register pesticides.
(Continued on page 6)

TCI's mission is to engage and enlighten readers with the latest industry news and information on regulations, standards, practices, safety, innovations, products and equipment. We strive to serve as the definitive resource for commercial, residential, municipal and utility arborists, as well as for others involved in the care and maintenance of trees. The official publication of the non-profit Tree Care Industry Association, we vow to sustain the same uncompromising standards of excellence as our members in the field, who adhere to the highest professional practices worldwide.
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- An optional skidder winch is available.
- The C87FM reduces trees and underbrush to mulch.

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March

Branch Office
By Mark E. Battersby
Avoiding payroll tax pitfalls

Industry Almanac
Important regional and national meetings and activities.

Cutting Edge
New products and news in the tree care industry.

TCI EXPO Spring Outdoor Demo Day
For the first time, TCI EXPO Spring in Sacramento will include a one-day outdoor demonstration day where exhibitors will put products through their paces and attendees will have the opportunity to try much of the equipment.

The Business of Tree Care
By Jeff D. Stokes
How to get top dollar for every job.

TCI EXPO Spring Exhibitor Listing
A complete list of who is displaying what March 25-27 at TCI EXPO Spring in Sacramento.

TCI EXPO Spring Brochure Pull-out
Everything you need to know about TCI EXPO Spring.

Safety
By Peter Gerstenberger
Chippers: Can safety be engineered?

Marketing Mix
By Bill Lynott
How to fire up your yellow page ads – and save money while you're doing it.

Council Corner
By J.B. Ingram
The Council of Tree and Landscape Appraisers aims to reduce fractured use of its Guide for Plant Appraisal.

Letters to the Editor

Community Service
The Freeman Parr Awards and TCIA Safety Awards were presented at February’s Winter Management Conference in St. Thomas, and the winners are…

Management Exchange
By Ted Tate
Managing for success.

Classified Advertising

TCIA Reporter
Safety and training products, news, commentary and benefits of membership with the Tree Care Industry Association.

Tree News
The Morton Arboretum’s Plant Health Care Report, a weekly bulletin published April through September, offers seasonal news on pests and diseases that may be threatening trees.

Advertiser Listing

From the Field
By Eric L. Graefen
Lessons learned from years in the business.
ISC Spring Lock Aluminum Blocks
Spring lock blocks are popular among riggers for their high strength-to-weight ratio and quick-twist rope access. Solid aluminum-alloy cheek plates, bushing, and sheave are supported by stainless-steel axles. These blocks were designed by Denny M. Moorehouse of Wales, founder of the popular work, rock, and rescue tool manufacturer DMM. Denny is often referred to as "The Wizard of Iron" and is well-known for his attention to quality and toughness. For those concerned about aluminum not withstanding the punishment of steel, we have no record of a fracture complaint in 3 years of production. Spring lock blocks have broad cheek plates to protect running lines, and large sheaves to minimize bend in rigging lines (providing 4:1 up to 9:1 ratios).

**Whoopie! Sling**
This old-fashioned choker sling can be adjusted from short to long in just seconds for use in anchoring a block or friction device to a tree or pole. Like an eye sling, the Whoopie allows you to mount hardware snug to the base, minimizing slack in the rigging system, whereas an eye-and-eye or round sling has no adjustment, resulting in unwanted play. Each Whoopie sling is handcrafted by professional rope splicers for lasting quality and maximum strength.

**EYE SLINGS**
The eye sling is perhaps the most versatile and heavy-duty sling to use. Eye slings have the ability to quickly change the angle of a load. There is no adjusting its length, so it is easier to use and tie. They are made with Tenex, a durable material that can handle heavy loads.

**The Port-A-Wrap III**
The Port-A-Wrap is a portable, lightweight friction device designed for lowering wood with ropes. This simple tool works much like the common Figure 8, but can handle substantially heavier loads, with less chance of damaging the wood. The Port-A-Wrap requires only 2 to 3 wraps to bring even the heaviest loads softly to the ground and has a pin through the end for creating a load. The two steel Port-A-Wraps are plated for maximum resistance to rust and wear. The small Port-A-Wrap takes ropes up to 1/2" diameter, while the larger unit accommodates up to 3/4". With little difference in weight, and the fact that the bigger tube creates less bend to your line, while providing more surface to dissipate friction, we strongly recommend the larger unit for lines exceeding 1/2".

**Shev Line Max WLL WT Color Code Price**

<table>
<thead>
<tr>
<th>SHEV</th>
<th>LINE MAX</th>
<th>WLL</th>
<th>WT</th>
<th>COLOR</th>
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<td>white</td>
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<td>$109.</td>
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**Manufacturer Supplied Ratings Based on 5:1 Ratio**

**The Port-A-Wrap III**
The Port-A-Wrap is a portable, lightweight friction device designed for lowering wood with ropes. This simple tool works much like the common Figure 8, but can handle substantially heavier loads, with less chance of damaging the wood lines. The Port-A-Wrap requires use of a Whoopie or eye sling to attach it to an anchor point. The tree that is being rigged from, or a nearby one, can be used as an anchoring point in ways that do not harm the living cambium. Even a nearby vehicle can act as an anchor, as long as its attachment point is strong enough to withstand the load at hand.

Redesigned in 1998 by inventors Scott Proffitt and Norm Hall, the new Port-A-Wrap features a solid "ring design" to maximize strength to the brake and better contain a rigger's line. The working part of the Port-A-Wrap requires only 2 to 3 wraps to bring even the heaviest loads softly to the ground and has a pin through the end for creating a load. The two steel Port-A-Wraps are plated for maximum resistance to rust and wear. The small Port-A-Wrap takes ropes up to 1/2" diameter, while the larger unit accommodates up to 3/4". With little difference in weight, the fact that the bigger tube creates less bend to your line while providing more surface to dissipate friction, we strongly recommend the larger unit for lines exceeding 1/2".

**MATERIAL SLING LENGTH WLL POUNDS ITEM CODE PRICE**

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<th>POUNDS</th>
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Managing Major Storms

By Michael Roche

What do you do when a storm so violent strikes that suddenly your company gets 10 times the phone calls seven days a week, and everyone needs you right now? Nothing can make a company totally insulated from a major storm, but there are things you can do both before and during a major weather event to work efficiently and help as many people as possible. No matter what, it’s going to be hard.

“How can you prepare for chaos?” asks Michael Zimmerman of Zimmerman Tree Service in Lake Worth, Fla. “If a hurricane hits, maybe my employees are devastated. Maybe they lost a roof, and they’ve got a family. They’re not coming in.” Zimmerman was describing the total devastation from Hurricane Andrew that hit southern Florida several years ago. The hurricane’s epicenter was 60 miles south of his office, but when he worked in the hardest hit areas he encountered the realities of such a storm.

“Our county doesn’t have enough of anything,” says Zimmerman, “whether it’s tree companies, roofers, gas, electricians, anything. You just can’t prepare for total devastation.”

Zimmerman knew he had long tough days ahead but he also had a plan. “I prioritized based on who I worked for before and based on the severity of the job. During Hurricane Andrew we worked primarily for the South Florida Water Management District and the city of Miami.”

Though Zimmerman hasn’t had a hurricane hit directly into his area he has had many emergencies from what he calls, “No-name storms.” Here again he tries to prioritize existing customers, who are mostly residential, and “I tell people they are responsible for paying for the job and they have to deal with the insurance company.”

Bernie Spigt of Northern Virginia Tree Service says much the same thing. “We’re already booked solid one month, so when a major storm approaches, we just cringe.” After Hurricane Isabel struck in the fall of 2003, says Spigt, “It got to the point where we only handled previous clients. People calling from the Yellow Pages just made us spin our wheels. We usually let them go.”

Keeping customers happy is the hardest part. He tries to perform a tree removal triage over the phone. “The first thing we ask is, ‘Have we worked for you before?’ Then I’ll try to just send someone over with a pick-up and a saw and take the emergency out of the job,” like clearing a driveway. Otherwise, he may send a crew with a crane to take a tree off a house and put it on their lawn.
Zimmerman would agree. “People get pissed off because they think you’re a buzzard ripping them off. They aren’t happy; because at the end of the day it’s money they weren’t planning on spending.”

Because of this Zimmerman and Spigt don’t get real excited about storm damage. They have developed a reliable clientele over many years, and a storm disrupts their routine. They may make a few extra dollars, but in the end their regular customers have been pushed back, sometimes for months.

“For our company, a storm is more problematic than an asset,” says Spigt. “Our backlog is incredible because of it, but I’ve written contracts in November (for regular clients) that I still haven’t even scheduled.”

Zimmerman agrees – “I guess it all depends on your temperament. Some people are into storm chasing, and God bless them.”

Zimmerman and Spigt are located in Florida and Virginia, respectively, but hundreds of miles further north in Massachusetts, Mark Tobin, CEO of Hartney Greymont Inc., says much the same thing.

“We have a policy that when a storm hits we take care of existing clients first,” says Tobin.

This is especially so when a storm first hits and Tobin sends two workers in a pick-up with saws to clear a driveway. The crew may get stuck in traffic from downed power lines, and what should be a 20-minute drive ends up taking an hour and a half each way. So now someone has to pay for three hours of travel time, for 10 minutes to clear a driveway, and it shouldn’t be the tree company. “The regular client will always be great; the new client will think you’re taking advantage of them,” says Tobin.

Tobin has an interesting angle when it comes to storms. Being located in eastern Massachusetts, his company is exposed to both hurricanes and ice storms. Hurricanes arrive during the growing season and are a nuisance. Winter ice storms and windstorms of moderate intensity are viewed differently.

“Our regular clients are usually okay,” says Tobin, because they have taken care of their trees. Instead it becomes an opportunity to pick up new clients. “If you handle it well, a storm can be a great opportunity; if you don’t, you’re sunk,” he says.

“Let me tell you a story. In 1977, I got out of college. I had worked for Hartney Greymont during my vacations and was expected to start on May 20th of that year. On May 9th, one-foot of snow fell while the trees were in full leaf. It damaged every tree, at every house, in every town. By the time I started on the 20th, the company had doubled in size; two weeks later, we were three times the original size. By the end of the fall, we were in serious financial trouble.”

Tobin tells this story to emphasize that storms possess the classic crisis and opportunity situation. If you are prepared and you get paid on time, you can do well. If you handle a storm poorly, taking on lots of new clients and trusting them to pay you in a timely manner, then you can get into serious trouble. As Zimmerman points out, “When the panic is on, price doesn’t matter. But afterwards, people (new customers) are saying you gouged them.”

In other words, one month after you take a tree off someone’s house, they have had time to think about it. Suddenly, your value isn’t so great, and they become reluctant to pay. Better to get paid at the time of service and avoid giving someone the opportunity to rethink your value.

So how do you plan for a major storm event? Well, it’s rather simple, as Chuck Ouellette of Yards Are Us, in Falls Church Va., points out. Ouellette runs two tree crews, one with a crane. Even though he saw the forecasts for a hurricane, “We didn’t do anything different to prepare for the storm. Our modus operandi is the same after the storm as before, because we do this every day. Our saws are sharp every
day. We sharpen our chipper blades every day. Our trucks are gassed every day.” In other words, everything is ready no matter what.

Paul Wolfe of Integrated Plant Care in Rockville, Md., does add two major points. He has worked in a few hurricanes and points out that it’s important to fill several five-gallon jugs with gas because, “Where you’re going probably won’t have power and so the gas stations won’t be working either.” He also says it helps to change the message on your answering machine.

Four months after Hurricane Isabel hit, Ouellette is still buried. Seventy percent of his work is still clean up. “We are just beginning to carve into the work we had on the books before the storm,” this in spite of working 10 hours a day, six days a week.
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Ouellette has a slightly different take on dealing with new customers and storms. He’s willing to take them on but first he screens them to make sure they are serious. Then he takes a pick-up to their house and gets a signed contract. While he is traveling between jobs he schedules his crews by cell phone to take care of the most severe cases first.

A company that works for utilities looks at a major storm very differently than modest sized tree firms that work primarily for residential customers. Jeff Jones is the executive vice president of Nelson Tree Service in Dayton, Ohio. His company covers areas from northern New York to Michigan, through the Midwest and down to Louisiana.

“If you work for residential customers, storms are trouble,” says Jones, “but if you work for utilities, storms are part of the job and you expect it.”

He tries to schedule work so that 60 percent of a contract is finished by 50 percent of the way through the year. That way when a storm hits, they are ready to mobilize crews.

“We can move over 300 crews in less than 24 hours,” says Jones. “In the utilities business it’s important to have a certain critical mass.” It allows them to have a program in place to move efficiently, he says. “We have a system to Pony Express cash, because where we’re going doesn’t have power, so bank cards and gas stations don’t work.” Supervisors scout out towns with power, which become the source for fuel. In the direst situations they fuel up at the utilities’ offices themselves. Those same supervisors also find hotel accommodations for up to 400 personnel.

For a hurricane response, Jones says the process usually goes like this:

1) They get a call of a severe hurricane approaching the coast.

2) They call their current customers to get released.

3) They send a crew to, perhaps, Tennessee to wait until the storm passes, “Because you don’t want your crew on the coast when the hurricane hits.”

4) Coordinate with the utilities on where to prioritize.

5) Get it done.

Crews working for Nelson after storms typically work 15 to 16 hours per day, seven days a week. It is important to note, however, that although 200-350 crews with bucket trucks maybe mobilized, none of them have chippers. The days are long, but they are working two- or three-man crews with one man in the air and the others on the ground. No one is running a chipper or dragging brush 16 hours a day.

Take care of your existing clients first, then prioritize jobs based on 1) trees through the house and the house is leaking, 2) trees across driveways and walks, 3) trees on the house but not through it, and, 4) clean up.

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Jones points out that, as the storm is winding down, “Typically, we’re one of the last released. The utilities tell us our crews were the best. That tells me we are doing something right. We are one of the leaders in storm response. We pride ourselves in responding rapidly on a large scale, working well with utilities, doing quality work, and equipping people with the necessary tools to succeed. And by tools I mean funding, equipment, experience, supervision and communication to get the job done.”

Nelson Tree Service has prearranged contracts that determine how much is charged. When it comes to residential work there are more variables. Typically most companies say 30 percent to 50 percent extra is fair. Anything above that and clients would think they are getting gouged, especially since you could be making multiple trips to their home. Customers have been known to quickly spread the word that someone overcharged in a crisis situation. Most tree companies pointed out that the premium rate should be based on the danger aspect, the amount of machinery needed, the skill level, and whether or not you might lose a present customer because you spent time helping someone else.

In terms of hours worked, Nelson Tree Service expects crews to work super-long days, but, as stated, they rarely do clean-up during storms (though back on their normal line jobs, most trucks travel with chippers). It’s important to note that all those spoken to for this article from residential companies stressed the need to not overwork the crews. Most companies took Sunday off; many took Saturday off, and most tried to stop after nine, perhaps 10 hours a day.

Each company has its own way of organizing but all stressed a few key points:

• Take care of your existing clients first; they are the ones who looked after you before the storm and they are the ones who will look after you years down the road.

• Prioritize based on 1) trees through the house and the house is leaking, 2) trees across driveways and walks, 3) trees on the house but not through it, 4) clean up.

Tobin at Hartney Greymont points out that any of those visits is a great opportunity to pre-sell future work. If a tree split apart during a storm and you left half, point out that winter would be a good time to take down the rest, or if can be saved, to fertilize it in the spring. Look around the property and point out other potential areas of concern.

It’s good to hear stories like these, because sometimes tree care company owners might wonder, “Am I the only company that gets calls from someone with a tree on their house getting five estimates.” Obviously, everyone does and smart companies have figured out how to handle big storms and still get paid in a timely manner.

In the end, when it comes to dealing with storms, perhaps its best to heed the advice of Michael Zimmerman, who says, “How do you deal with a major storm? Well, how do you eat an elephant? – One bite at a time.”

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* EDP is defined by CARB as “Emissions Durability Period.” EPA uses the term “useful life,” which is defined as “…when engine performance deteriorates to the point where usefulness and/or reliability is impacted to a degree sufficient to necessitate overhaul or replacement…” (U.S. Government, Code of Federal Regulations, Vol. 40, Chapter 1, Sec. 90.105, par. 5, ii).
Attention Pesticide Users

Current regulatory activity could impact the EPA’s ability to register pesticides

If your business uses any pesticide product, then it could be in your best interest to read on. Current regulatory activity could profoundly impact the Environmental Protection Agency’s ability to register pesticides. At stake is a potential “fix” to a 30-year-old problem that has already impacted many pesticide manufacturers as well as a handful of products used in lawn care, landscape and tree care operations.

The U.S. Department of the Interior, Fish and Wildlife Service and the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, after coordination with the EPA, are proposing joint “counterpart regulations” that are intended to provide flexibility in the ways that a federal agency may meet its obligations under the Endangered Species Act (ESA).

Here is the issue in a nutshell: Enacted in 1973, ESA set up specific consultation processes for EPA to follow, during the registration process, in evaluating the impact of pesticide products upon threatened and endangered species. Incidentally, “pesticide product” is defined very broadly under ESA. The intent of the consultation requirements in the ESA legislation – getting federal agencies to share their expertise and data – was laudable. However, EPA found the details impossible to comply with, and so it simply chose not to comply. An environmental group learned of EPA’s non-compliance, filed suit, and won an injunction that prohibited the use of certain products in buffer zones around an endangered species’ habitat. Since the so-called “Washington Toxics” case, there have been a string of me-too lawsuits, and there is no end in sight. That is, until now.

By creating counterpart regulations – alternative procedures to the existing consultation process described in ESA – the efficiency and effectiveness of the consultation process will be enhanced and interagency cooperation will be encouraged. The habitats of endangered and threatened species will be carefully protected – label restrictions will be backed up by better science and more data. At the same time, the interests of pesticide manufacturers and users will be more carefully protected.

Comments or materials concerning the proposed rule should be sent to the Assistant Director for Endangered Species, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 420, Arlington, Virginia 22203. You may also comment via the Internet to: PesticideESARegulations@fws.gov.

Please submit Internet comments as an ASCII file avoiding the use of special characters and any form of encryption. Please also include “Attn: 1018-A195” and your name and return address in your Internet message. Alternately, you may go to: http://www.pestfacts.org/esa.html and follow the instructions to craft your own letter or e-mail in support of the ESA Counterpart Regulations. Please do so immediately – the comment deadline is March 30.

Peter Gerstenberger is TCIA’s senior advisor for safety, compliance & standards.

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6252
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6262
94 FORD LNT8000: 8.3L, Cummins, 275 hp, 8 spd +lo, 56,000 lb GVW, with 15 ton TEREX TC3067 crane, 117 ft hook ht, cap alert / shutdown, 20 ft steel flatbed. $49,500.

6156
2000 VOLVO WG64: Cummins ISM-305Y, 305hp, engine brake, 10 spd auto shift, 52’250 lb GVW, 20 ft wood flatbed w/18” steel sides. $39,500.

6219
92 MACK RB690S: EM7-300, 300 hp, 6 speed +lo with 8 ton NATIONAL N-95 knuckleboom, picks 1,850 lb at 39 ft max reach, 20 ft wood flatbed. $39,500.

6039
97 FORD LNT9000: Cummins 8.3L, 275 hp, 6 spd +lo, 58,000 lb GVW, with 22 ton MANITEX 2284 crane, capacity alert, 119 ft hook ht, 20 ft steel flatbed. $39,500.

6094
97 FORD LT9000: CAT 3306, 300 hp, 5 spd +lo, 58,000 lb GVW, 27’+lo PIONEER 4000 crane, 148 ft hook ht, 360° full cap operation, roofers pkg, 18 ft wood flatbed. $39,500.

6150
97 PETERBILT 330: 8.3L Cummins, 275 hp, 16 spd, with 14 ton MANITEX 1461 crane, 111 ft hook ht, 16 ft wood flatbed. $64,500.

6045
92 MACK DM690SX: EM7-300, 300 hp, 7 spd, 7,328 lb GVW, with 6 ton PALFINGER PK14080 knuckleboom, 27’+lo max reach, radio ctrls, 16 ft dump body w/24” sides. $39,500.

5699
97 FORD LT8000: 8.3L Cummins, 275 hp, 8 speed +lo, 58,000 lb GVW, with PIONEER 2000 crane, 124 ft total hook ht. $79,500.

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97 FORD LNT8000: 8.3L, Cummins, 275 hp, 8 spd +lo, 56,000 lb GVW, with 15 ton TEREX TC3067 crane, 117 ft hook ht, cap alert / shutdown, 20 ft steel flatbed. $49,500.

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94 GMC TOPKICK: CAT 3116, 215 hp, Allison 5 spd auto, 31,000 lb GVW, 50 ft ALTEC AM900 bucket, joystick controls, 14 ft flatbed. $29,500.

6177
87 FORD F8000: 429 gas engine, 5 speed + 2 speed rear, 31,000 lb GVW, 66 ft ALTEC AM900 bucket, joystick controls, 14 ft steel flatbed. $29,500.

6188
98 INT 4700: T444E, 210 hp, 6 speed+Ho, 33,000 lb GVW, with 14 ton USTC 1700 JBT crane, 120 ft hook ht, 20 ft wood flat. $69,500.

6155
94 GMC TOPKICK: CAT 3126, 215 hp, Allison 5 spd auto, 33,000 lb GVW, with 20 ft ALTEC LRIII-50 bucket, joystick controls, 14 ft utility body. $29,500.

6118
88 INT 1954: DT466, 210 hp, 5 spd + 2 spd rear, 33,000 lb GVW, with 5 ton INT 6425 crane, picks 2,200 lb at 25’8” max reach, remote ctrls, 16 ft steel flatbed. $14,500.

6018
99 FORD F800: Cummins 5.9L, 215 hp, 6 spd, 33,000 lb GVW, with 7 ft ALTEC AM900 bucket, 2 man bucket, 16 ft steel flatbed, 27K miles. $69,500.

5775
93 INT 4900: DTA466, 230 hp, 8 speed +lo, 32,800 lb GVW, with 4 ton PALFINGER PK8000A knuckleboom, 23’6” max reach, 18 ft steel flatbed with fold down steel sides. $27,500.

5818
99 FORD F800: Cummins 5.9L, diesel, 215 hp, 6 spd, 33,000 lb GVW, 55 ft TECO VSA-55IP-2TFE2 BUCKET, 2 man and hung basket, 14 ft utility body, 25K miles. $44,500.

5769
98 FORD FT9000: 8.3L Cummins, 225 hp, 8 speed +lo, 56,000 lb GVW, with 18 ton MANITEX 1870 CRANE, 80 ft hook height, 20 ft steel flatbed. $69,500.

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The White House has proposed, Congress argued about and now the U.S. Department of Labor plans to issue new rules about who is and who isn’t eligible for overtime payments. In fact, the new rules, issued by Executive Order, are expected to define just when and under what circumstances overtime payments are required. In the meantime, every tree care and landscape maintenance professional will continue to wrestle with the little-understood withholding tax rules.

Surprisingly, many of the withholding rules that every employer must comply with are contained in old statutes – at least old by tax standards. In recent years, a few of the relevant Internal Revenue Service forms have been revised, but not much has changed at the conceptual level. Do you understand the withholding issues as they apply to your tree care business?

Withholding taxes on wages

At its most basic, as an employer, every tree care and landscape maintenance business must withhold income taxes and other amounts from the “wages” of workers each time that worker is paid. According to the tax rules, “wages” includes all remuneration for services performed by an employee for an employer – including the cash value of all remuneration (including benefits) paid in any medium other than cash. Salaries, fees, bonuses, commissions on sales or on insurance premiums, taxable fringe benefits, pensions and retirement pay are, if paid as compensation for services, subject to withholding.

Naturally, the term “employee” must be distinguished from an “independent contractor” for purposes of employment tax obligations. An employer is not required to withhold taxes on payments made to independent contractors. A common law definition of “employee” focuses on the control that is or isn’t exercised over what is done and how it is done. The Internal Revenue Service also uses a 20-factor test to assist in making the determination of whether a worker is an employee or an independent contractor.

Withholding FICA

Under the Federal Insurance Contributions Act, an employer is required to withhold social security taxes, including hospital insurance tax, from the wages paid to an employee during the year. What’s more, the tree care operation must also match the amount withheld from the employee’s wages. In 2003, the combined tax rate was 7.65 percent, consisting of a 6.2 percent payment compound for old-age, survivors and disability insurance (OASDI) and a 1.45 percent component for hospital insurance (Medicare).

The OASDI rate applies only to wages paid within an OASDI wage base ($87,000 in 2003 and $87,900 in 2004). There is no cap on wages subject to the Medicare tax.

FUTA tax rates

Another law, the Federal Unemployment Tax Act, imposes a tax on employers who employed one or more persons in “covered” employment. In this case, “employer” is defined as a tree care and landscape maintenance operation that had workers who were employed at least one day in each of 20 weeks during the current or preceding calendar year, or who paid wages (in covered employment) of at least $1,500 in a calendar quarter in either the current or preceding calendar year.

The FUTA unemployment tax is based on the first $7,000 of wages paid during the calendar year to each employee. The full rate of the tax is 6.2 percent, but the employer is usually allowed a partial credit against this tax based on its state
unemployment insurance tax liability.

**Forms and filing**

Not only must every tree care business withhold income taxes, social security and unemployment taxes from the wages and salaries paid to workers and match the social security amounts withheld, they must also report these amounts to the government – plus pay over the withheld amounts, of course.

A tree care business/employer subject to either income tax withholding or social security taxes, or both, must file Form 941, “Employer’s Quarterly Federal Tax Return.” That return combines the reporting of income and FICA taxes withheld.

Form 941 is due on or before the last day of the month following the quarter involved. However, an extension of time for filing is automatically granted to the 10th day of the second month following the close of the calendar quarter if the return is accompanied by depository receipts showing timely deposits in full payment of taxes due for the period.

Forms W-2, 1099-R and transmittal Form W-3 must be filed with the Social Security Administration by the last day of February following the year included in the return. The SSA transmits the income tax information on the return to the IRS.

**Depositing legitimately**

Generally, an employer must deposit the income tax withheld and the FICA taxes with an authorized commercial bank depository. Most tree care operations are classified as either monthly or semiweekly depositors. An employer’s status for a given calendar year is determined annually, based on the employer’s employment tax reporting history during a 12-month look-back period ending on June 30 of the preceding year. The IRS will inform employers by November of each year which schedule they are to follow for the upcoming year.

Generally, an employer must deposit employment taxes on a monthly basis during 2004, if, during the lookback period from July 1, 2002 through June 30, 2003, the amount of the aggregate employment taxes reported was $50,000 or less. Monthly depositors are required to deposit each month’s taxes on or before the 15th day of the following month.

An employer that reported more than $50,000 in aggregate employment taxes during the 2002-2003 lookback period will be a semiweekly depositor in 2004. Semiweekly depositors are generally required to deposit their taxes by the Wednesday after payday, if payday falls on a Wednesday, Thursday or Friday. For all other paydays, the deposit is due by the Friday following payday.

According to the IRS, both monthly and semiweekly depositors will always have at least three banking days after the payday to make the deposit. Remember, however, only an original Form 8109 (Federal Tax Deposit Coupons) may be used to make deposits of withheld amounts. Under the IRS’s AUTOGEN program, taxpayers automatically receive a new FTD coupon book as they are needed.

**Electronic fund transfers**

Many tree care businesses are required to make their deposits using the IRS’s Electronic Fund Transfer system. Any tree care business that exceeds threshold aggregate amounts of employment and other taxes must deposit by EFT.

Under the rules, a tree care and landscape maintenance business is required to make deposits using EFT in 2004 if (1) the total deposits of all depository taxes (such as employment taxes, excise taxes and corporate income tax) in 2003 was more than $200,000, or (2) the business was required to use EFT in 2003.

Once a taxpayer is required to make EFT deposits, all future deposits must be made via EFT, regardless of whether the amount is reached in each calendar year thereafter. If a taxpayer is required to to use EFT and fails to do so, a 10 percent penalty may be imposed. Any tree care operation not required to use EFT may, of course, voluntarily participate in the payment system.

**The downside penalties**

Not only is the tree care business responsible for withholding and paying over payroll taxes, any “responsible person” – typically an officer or employee of the tree care operation – who willfully fails to withhold, account for or pay over withholding tax to the government is subject to a penalty equal to 100 percent of such taxes. This penalty is a collection device, usually assessed only when the tax cannot be collected from the employer. It does, however, result in a personal liability not dischargeable by bankruptcy.

In general, a four-tier graduated penalty applies to failures to make timely deposits of tax – unless the failure is due to reasonable cause and not willful neglect. The penalty amount varies with the length of time within which the taxpayer corrects the failure to make the required deposit.

The penalty is assessed as follows: (1) 2 percent of the amount of the underpayment if the failure is for no more than five days; (2) 5 percent of the amount of the underpayment if the failure is for more than five days but for no more than 15 days; and (3) 10 percent of the amount of the underpayment if the failure is for more than 15 days.

A rate of 15 percent applies if a required tax deposit is not made on or before the day that is 10 days after the date of the first delinquency notice to the taxpayer – or, if earlier, on or before the day on which notice and demand for immediate payment of tax is given in cases of jeopardy.

Whether the tree care business has one employee or one hundred, understanding and complying with the basic rules can go a long way toward avoiding – or even eliminating – unpleasant confrontations. IRS examiners are well aware of the confusion that exists – and the mistakes that are made – by many tree care and landscape maintenance professionals when it comes to payroll withholding.
Events & Seminars

March 2-5, 2004
Work Truck Show 2004 & 40th Annual NTEA Convention
Baltimore Convention Center, Baltimore, Md.
Contact: Kristen Simpson, (330) 666-3450, ksimpson@urdacompany.com

March 3-5, 2004
Michigan Green Industry Association Annual Trade Show & Conference
Novi Expo Center
Novi, Mich.
Contact: www.landscape.org

March 5-6, 2004
Missouri Community Forestry Council Annual Conference
Columbia, Mo.
Contact: Justine Gartner, (573) 522-4115, Ext. 3116, Justine.Gartner@mdc.mo.gov or www.mocommunitytrees.com

March 11, 2004
Building with Trees Seminar
National Arbor Day Foundation
Denver, Colo.
Contact: 1-888-448-7337; fax (402) 474-0820; arborday.org/phcseminar

March 19, 2004
Pesticide Applications Techniques Workshop
Connecticut Tree Protective Association
Connecticut Agricultural Experiment Stations
New Haven, Conn.
Contact: CTPA 1-888-919-2872 or (203) 484-2512; www.ctpa.org

March 25-27, 2004
TCIA Expo Spring
Tree Care Industry Association
Sacramento, Calif.
Contact: Carol Crossland, 1-800-733-2622; crossland@treecareindustry.org or www.treecareindustry.org

April 22, 2004
Building with Trees Seminar/Nat. Arbor Day Foundation
St. Paul, Minn.
Contact: (888) 448-7337; fax (402) 474-0820; arborday.org/phcseminar

April 23-24, 2004
Climbing Workshop/Texas Tree Climbing Championship
Bobo Woods, Fort Worth, Texas
Contact: Mike Walterscheidt (512) 281-4833

May 3-14, 2004
Arboriculture I - "Basic Tree Climbing Course" Committee for the Advancement of Arboriculture
Jackson, N.J.
Contact: John Perry (732) 833-0500

May 9-12, 2004
ISA Western Chapter Annual Meeting
Konocti Harbor, Clear Lake, Calif.
Contact: (530) 892-1118, www.wcisa.net

May 20, 2004
Oklahoma State Univ. Nursery and Turfgrass Field Day
Stillwater, Okla.
Mike Schnelle, (405) 744-7361 or mas@okstate.edu

May 25, 2004
IPM for Landscape Professionals OSU Campus, Stillwater, Okla.
Mike Schnelle, (405) 744-7361 or mas@okstate.edu

May 27-28, 2004
Oak Wilt Workshop
Austin, Texas
Contact: Gene Gehring (817) 307-0967 or ggehring@mailcity.com

June 26-29, 2004
North American Commercial Real Estate Congress and The Office Building Show
Royal York Hotel and the Metro Toronto Conv. Ctr.
Toronto, Ontario, Canada
Contact: www.boma.org

July 16, 2004
2004 Conference on Woody Plants
The Scott Arboretum, Swarthmore College
Swarthmore, Pa.
Contact: Kelly Ronafalvy (610) 328-8025
Brochure: (610) 388-1000 Ext. 507

August 7-11, 2004
ISA Annual Conference & Trade Show
Pittsburgh, Pa.
Contact: Jessica Marx, (217) 355-9411, ext.24 jmarx@isa-arbor.com, www.isa-arbor.com

Sept. 15-17, 2004
Texans for Trees
ISAT/TUFC Annual Convention
Round Rock, Texas
Contact: Mike Walterscheidt (512) 281-4833

September 22-23, 2004
Multi-State Plant Materials Conference
Stillwater, Okla.
Contact Mike Schnelle, (405) 744-7361 or mas@okstate.edu

October 8-9, 2004
Nursery/Greenhouse Trade Show and Convention
Cox Convention Center, Oklahoma City, Okla.
Contact Mike Schnelle, (405) 744-7361 or mas@okstate.edu

October 20-21, 2004
Garden Expo
Canada’s Fall Buying Show for the Green Industry
Toronto Congress Centre, Toronto, Canada
Contact: Landscape Ontario Horticultural Trade Assoc., (905) 875-1805; fax: (905) 875-3942; showinfo@landscapeontario.com

October 28-30, 2004
TCI EXPO 2004
Tree Care Industry Association
COBO Conference/Exhibition Center
Detroit, Mich.
Contact: Carol Crossland, 1-800-733-2622, Ext. 106; crossland@treecareindustry.org or www.treecareindustry.org

November 3, 2004
Tree Care Issues Workshop
Stillwater, Okla.
Contact Mike Schnelle, (405) 744-7361 or mas@okstate.edu

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2. Fort Collins, CO - June 23, 24, 2004
   1st day - $199 - 2 days $299

3. Santa Monica, CA - June 25-26, 2004
   1st day - $199 - 2 days $299

4. Seattle, WA - June 28-29, 2004
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   - Short introduction to current state of VTA
   - New research on root mechanics
   - Are there two root plates?
   - Wet soil, trees at slopes & dikes, good & bad stones regarding tree stability
   - A new way to increase tree stability at roof top gardens or other narrow or shallow places
   - Tree engineering
   - Simple ways to assess root forces in pipes & buildings
   - Shear stress bombs at tree base & in forks
   - Remarks on wind load assessment and other diagnosis methods
   - Cabling from static and dynamic point of view
   - The body language of fungi fruit bodies and forensic mycology
   - Decay diagnosis in wooden playground structures

Topics (Second Day)
Half day Outdoor exercise - Have a small group opportunity with Claus to examine and assess trees! VTA - Visual Tree Assessment. Limited space available! Don’t wait! Register now! Spaces a being filled quickly! (Only available for 50 people!)
Note: The Outdoor seminar (2nd day) can only be attended if 1st day registration is completed!

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Mini skids are the latest labor-saving machine in the industry. Save the backbreaking labor! Top Notch Equipment’s grapple will haul, load even feed your chipper, saving time and labor costs. Top Notch has developed these attachments and has worked with them in the field for several years. A universal mounting plate fits Thomas, Dingo, Finn, Ramrod, Multi-Trac and Bobcat mini-skid loaders, and custom mounts are available. Contact Top Notch Equipment by phone at (763) 253-0027; fax (763) 253-2273 or via www.topnotchequipment.com.

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GB CN40 Titanium Pro Bar

Griffiths & Beerens has developed a new guide bar that combines advanced materials with a special hardening process to achieve greater durability and service life. The CN40 Titanium Pro Bar’s titanium-alloy harvester-bar steel has proved its strength and resilience in the demanding world of mechanical harvesting and processing. GB cuts the CN40 Titanium Pro Bar’s profile, slot and holes on super-precise, computer-controlled laser cutters. GB uses precision grinders on the titanium-alloy to form the groove in the bar, creating a rounded gullet that adds even more strength to the rails.

The CN40 bar features a self-clearing, directional, oil injection hole, and the new bar is fitted with GB’s three-rivet, Pro-Top replaceable nose assembly, which is also made of titanium alloy steel. The .404-inch pitch nose uses a special, larger radius, 11-tooth sprocket that was originally developed for GB harvester bars. This sprocket is thicker at the bottom of the gullet than ordinary sprockets, so there is much less chance of breakage. CN40 bars are currently available in Husqvarna and Stihl mounts only. Lengths range from 20 to 42 inches, in both standard 3/8-inch and .404-inch pitches. For more information, contact GB American Inc. at 1-800-765-9357 or gba@gbbars.biz.

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Terex Linesman Series

One of Terex Telelect’s latest introductions is the Hi-Ranger Linesman Series Non-Overcenter, material handling aerial device. This machine was first displayed in September at the 2003 ICUEE Expo and is targeted for the transmission industry. The non-overcenter Linesman Series has a working height of 105 feet and side reach of 51 feet. The total capacity is up to 2,100 pounds combined platform and material handling. The platform and optional jib, with up to 1,500 pounds capacity, is leveled with a hydraulic platform leveling system. The jib will level with the platform and rotate as the platform rotates but also be positioned manually relative to the platform. This unit features a pilot-operated boom control system and offers continuous, unrestricted rotation. Other features include a 4-function, one-hand, single stick control, hydraulic platform tilt at the upper and lower controls, variable volume hydraulic pumps, dual lower and upper boom cylinders, and a closed-center, load sensing hydraulic system. Options for the Linesman include radio or fiber-optic upper controls, single and multiple phase lifters, removable jib and winch, mechanical or hydraulic jib extension, hydraulic tools at the platform, engine stop/start at platform, and many more. Contact Terex at (605) 882-4000 or via www.telelect.com.

New walk-on, drive-on VersaMats

AltunaMats, developer of the original, black ground-protection mats, has come out with a new mat design created for pedestrian and vehicular traffic. Identified as VersaMats, the mats feature a new flat, slip-resistant finish called AltumaGrip, which lends itself to foot traffic on one side and vehicle traffic on the reverse side. VersaMats are ideal for applications found in work environments relating to municipalities, cemeteries, tree care, landscaping, golf courses, general construction and many other uses. The mats are warranted for a full three years and are made of half-inch thick polyethylene and are available in sizes ranging from 4-by-8 feet to 3-by-8 feet. The mats have been field tested in record heat and cold. They are flexible, conforming to ground variations and they eliminate the need for plywood, which splinters and warps. Predrilled holes are designed to accept AltumaMats’ new, flat Tum-A-Links, which lock the mats together to form a continuous walkway or roadway. For further information, call 1-888-544-6287 or e-mail sales@alturnamats.com.

Cole Hersee circuit breaker blocks with grounding plates

Cole Hersee Company, a manufacturer of electrical and electronic products for the vehicle industry, has introduced new circuit breaker/fuse blocks with grounding plates. The circuit breaker/fuse blocks with grounding plates provide a cost-effective solution that protects wiring, equipment and subsystems. They are designed for use for marine, trucking, off-road, transit, agricultural, forestry, mining and many other applications. The user can choose between three items: a 6-gang (46379-6), 8-gang (46379-8), or 10-gang (46379-10). They accept plug-in fuses (ATC and ATO) and other circuit breakers. The circuit breaker/fuse blocks are protected by recessed fuse contacts. The units are also available without a grounding plate. Available for 12V or 24V DC applications, the blocks have plated steel blade terminals and 10 to 32 stud terminals. Contact Cole Hersee Company at 20 Old Colony Avenue, Boston, MA, 02127-2467; (617) 268-2100, Ext. 329; or via www.colehersee.com.
Bartlett Tree Experts Appoints Key Managers

The F. A. Bartlett Tree Expert Company, one of the largest tree care firms in the world, has announced the following appointments.

At their last quarterly meeting, Jack Bedosky was elected to the company’s board of directors. Bedosky joined Bartlett 30 years ago and has held several financial posts there. He has been in his current position, senior vice president for field operations, since 1986. His responsibilities include overseeing the financial performance of the firm’s domestic and international sales force.

David G. Marren, esquire, was promoted to vice president of safety and regulatory affairs. Marren is responsible for ensuring compliance with all safety, transportation and pesticide laws, rules, regulations and policies for the company’s domestic and international operations. Marren has conducted significant legal work on, and contributed to the development of, many laws affecting the tree care industry. In addition, he has testified before the United States Congress’ Committee on Government Reform, on behalf of the Tree Care Industry Association’s membership, regarding how the government regulates the industry.

Peter M. Andreucci is now serving as vice president and Western Division manager. Andreucci is directly responsible for the company’s sales and service operations in their six California and two Arizona locations: San Rafael, Sonoma, San Francisco, Pleasant Hill, San Jose, Santa Barbara, Phoenix and Tucson.

Matthew Farin was appointed to director of contracts. Farin has been with the corporation since graduating from the University of Connecticut more than 10 years ago with a bachelor’s degree in economics. He began his career with Bartlett in their Purchasing Department and has served as their internal auditor since 1996.

Bartlett Tree Experts was founded in 1907 by Francis A. Bartlett and is the world’s leading scientific tree and shrub care company. The organization’s current chairman, Robert A. Bartlett Jr. represents the third generation of Bartlett family management. Bartlett has offices in 27 states, Canada, Ireland and Great Britain. Services include pruning, integrated pest and disease management, soil analysis and management, cabling and bracing, tree lightning protection systems and tree/stump removal. Its corporate offices are located in Stamford, Conn.

Stihl Promotes Promotional Communications Manager

Stihl Inc., of Virginia Beach, Va., recently promoted Roger Phelps from sales promotion specialist to promotional communications manager. In his new position, Phelps will oversee all event marketing, corporate partnerships, public relations programs and collateral development for the company.

Phelps, who has served as Stihl’s sales promotion specialist for two years, will also continue to create and manage Stihl’s national sales promotions and sports marketing programs, and relationships, including the Stihl Timbersports Series, Cabela’s National Walleye Tournament and ESPN’s Great Outdoor Games as well as the Stihl Outfitters merchandising program. Phelps has more than 15 years of project management experience working within the special events area. Prior to his association with Stihl, he was the coordinator for the Virginia International Tattoo, the assistant managing director for OpSail 2000 Virginia and the operations manager for the Norfolk Department of Civic Facilities.

Roger Phelps

Stihl Inc. is a manufacturer of chain saws and outdoor power equipment. This year marks the 30th anniversary of Stihl Inc., the U.S. subsidiary and one of four manufacturing facilities of the German-based Stihl Group organization.

Bartlett Manufacturing Changes Company Name

John Nelson, president of Bartlett Manufacturing Company, announced that, to better identify the company, the name has been changed to Bartlett Arborist Supply and Manufacturing Company now has an online store at www.bartlettman.com.

Bartlett Arborist Supply and Manufacturing Company is not a division of Bartlett Tree Expert Company.

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Introducing Onyx™ Insecticide. Tough protection against tough tree pests.

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Onyx insecticide is formulated with the proven capabilities of its active ingredient bifenthrin. This, combined with a patented, proprietary carrier that optimizes trunk spray applications, allows for low use rates and high-performance effectiveness. It is particularly effective when used as a preventive treatment, prior to the adult flight of selected pests.

And unlike other pyrethroids, Onyx has no alpha-cyano group in its chemical structure, which means it’s tough on pests, but easy on you.

So start protecting precious trees with Onyx insecticide. For more information, contact our Customer Satisfaction Center at 1-800-321-1FMC, or visit us at www.pestsolutions.fmc.com.
A large number of contractors apply chemicals in the form of lawn fertilization and/or insect and weed control. This work can be very lucrative. However, many applicators do not know how profitable it is or what their break-even point is regarding specific products or applications.

The following scenarios will help address these issues.

1. A high-end residential installation and maintenance contractor on the East Coast does work in a very upscale area. He’d like to know his costs and break-even point for applying a fertilizer, weed-control mixture on his clients’ lawns. The average lawn is approximately .75 acres. This contractor believes his crew can do an average of 10 to 12 lawns per day. He’d like to know the following:

   How much should he bill per day, per 1,000 square feet, 10,000 square feet and per acre for this type of work?

   What is his BEP (break even point) per day, per 1,000 square feet, 10,000 square feet and per acre for this type of work?

   Additional scenario information:
   - Crews will work and get paid for 10 hours per day, 50 hours per week.
   - The equipment cost per hour is as indicated on the figures.
   - The overtime factor, risk factor, sales tax, etc. are also as indicated on the figures.
   - The owner desires to obtain a minimum of 25 percent net profit margin for this work.

2. A commercial maintenance contractor in the western states is bidding on a 40-acre
site. He needs to know his costs and break-even point for applying fertilizer on this site. The specifications call for three pounds of fertilizer per 1,000 square feet. A 50-pound bag of fertilizer will cost him $13. He believes his two-man crew can apply five bags of fertilizer per man-hour using a utility cart with a spreader. The second man on the crew will help load the bags of fertilizer and blow off sidewalks with a backpack blower. The contractor would like to know the following:

How much should he charge per acre for this type of work?
What’s his break-even point per acre for this type of work?

Additional scenario information:
Crews will work and get paid for 10 hours per day, 50 hours per week.
The equipment cost per hour is as indicated on the figures.
The overtime factor, risk factor, sales tax, etc. are also as indicated on the figures.
The owner desires to obtain a minimum of 15 percent net profit margin for this work.

3. A residential lawn maintenance contractor in the mid-Atlantic states does work in middle- to upper-middle-class neighborhoods. He’d like to know his costs and break-even point for applying a fertilizer, weed-control mixture on his clients’ lawns. The average lawn is from 5,000 to 10,000 square feet. This contractor believes his one-man crew can average 100,000 square feet of lawns per day. He’d like to know the following:

What should be his minimum charge for a lawn up to 5,000 square feet?
How and what should he charge for lawns over 5,000 square feet?

Additional scenario information:

Large residential estate lawn fertilization with a two-man crew

Figure 27.1 outlines this scenario. Note that each member of the crew works eight hours on site per day. Two hours per day are allotted to general condition drive time, load time, etc. An extra two labor hours, one crew truck and one utility cart hour are included for call backs. The spray rig, which has a cost per hour of $10, is running approximately six hours per day.
To achieve the desired 25 percent net profit margin, this two-man crew has to bill over $1,700 per day. This will cover all costs, both direct and indirect. The price per 1,000 square feet is $5.35 and the price per 10,000 square feet is $53.49. The per acre price calculates out to be $233.01.

The prices calculated with a 25 percent net profit margin (NPM) are a little light. This contractor thinks he can charge up to a 45 percent NPM and still get plenty of work.

**Large commercial lawn fertilization with a two-man crew**

Figure 27.2 outlines our commercial scenario. The crew works eight hours on site per day. Two hours per day are allotted to general condition drive time, load time, etc. An extra four labor hours, two crew truck and two utility cart hours are included for call backs. The spray rig, which has a cost per hour of $10, is running approximately six hours per day.

To achieve the desired 15 percent net profit margin, the crew has to bill a little over $79 per acre. This will cover all costs, both direct and indirect. The break-even point per acre calculates out to be just over $67.

**Small to mid-size residential lawn fertilization with a one-man crew**

Figure 27.3 outlines this scenario. Note that the technician works seven hours on site per day. Three hours per day are allotted to general condition drive time, load time, etc. An extra labor hour, crew truck hour and utility cart hour are included for call backs. The spreader, which has a cost per hour of $3, is running approximately six hours per day.

To achieve the desired 25 percent net profit margin, the technician has to bill $840 per day. This will cover all costs, both direct and indirect. The price per 5,000 square feet works out to be just over $42. However, after considering the small size...
Evaluate your lawn fertilization and/or insect and weed control work and determine break-even points, gross profit margins and daily revenue goals.

of the job and market conditions, the contractor decides to charge $55 for a 5,000 square foot job and $8.50 per additional 1,000 square feet up to 10,000 square feet. Lawns with at least 10,000 square feet of turf are charged a minimum of $85 and $7.50 per additional 1,000 square feet over 10,000.

Summary

These contractors now have the basic information they need to price lawn fertilization and insect control work. They were aware that this type of work was very profitable, but now know exactly what their costs and break-even points are. They can now adjust their margins and prices according to market expectations.

*They were aware that this type of work was very profitable, but now know exactly what their costs and break-even points are. Evaluate your lawn fertilization and/or insect and weed control work and determine break-even points, gross profit margins and daily revenue goals.

Note:

The costs used in our scenarios are for illustration purposes only. Your costs will vary from the ones used in these examples. The key is for you to build a typical one-day scenario for the different crew, materials and equipment mixes you use.

Round up these rates as appropriate. If your costing structure is accurate, the rates you calculate should be very close to your current ones and to those generally seen in your market.

This article was adapted from James Huston’s new book and audio book, How to Price Landscape & Irrigation Projects, released in July 2003. The author is president of J.R. Huston Enterprises Inc., which specializes in construction and services management consulting to the Green Industry. Mr. Huston is a member of the American Society of Professional Estimators and he is one of...

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Come on out for the first ever outdoor “Demo Day” at TCI EXPO Spring Saturday, March 27!

“It’s the first time we’ve ever done it,” says Carol Crossland, vice president of membership, meetings & expositions for TCIA.

The Outdoor Product Demonstrations and Educational Exhibits will be held on the CalExpo fairgrounds, home of the California State Fair and the CalExpo Speedway and Rodeo Arena.

So, what is the value of an outdoor Demo Day?

“What’s the value of test driving a car versus seeing it in the showroom?” poses Peter Gerstenberger, TCIA’s senior advisor for safety, compliance & standards. “That’s the basic difference – it’s experiential.”

For those who may not be able to attend other aspects of the EXPO due to time constraints, Demo Day on Saturday will be well worth their time – and it will be fun as well, says Gerstenberger. There will be chain saw skills demonstrations, best practices and techniques demonstrations, and a free, catered barbecue lunch for all Saturday attendees.

“It’s going to be a real carnival-like atmosphere,” says Gerstenberger. “You’ll be walking around to different shows.”

Because of the variety of exhibitors taking part in Demo Day, it is feasible that you will see saws lopping limbs off a tree or cutting up logs, chippers turning the brush and logs into mulch, then perhaps Rotochopper putting the mulch through its grinder to refine and color it.

Often at expos, attendees may be interested in products they see, but are not buying right away because they want to see the product or equipment work, says Sachin Mohan, vice president of corporate relations and marketing for TCIA. “This is an opportunity for you to see the equipment on the floor, and the next day you see it running.”

At most shows, the manufacturers collect leads then go back home and make phone calls to arrange equipment demonstrations. It could take weeks or months for someone to see the equipment in action and make a buying decision. The Demo Day allows that process to happen the same day.

An attendee may be in a hurry to make a purchase, but is looking at a company that offers 15 different chain saws. Here you get to try them and see which one feels best and works best for you, and you buy it. “So there is more opportunity to close deals right away. You can put your order in right there,” says Mohan.

“It’s a great opportunity to come have fun, network with your peers, get some safety tips for you and your crew and see some of the finest equipment in the industry in action,” says Mohan. “And always a big thing – free food!”

Exhibitors taking part in the outdoor Demo Day include:
- Altec Industries: Aerial lift trucks
- Bishop Company: Arborist supplies
- Cal-Line Equipment Inc.: Bandit chippers, J.P. Carlton stump grinders
- FAE-USA: Skid steer attachments and land clearing equipment
- J. P. Carlton Co.: Stump grinders
- Loftness/U.S. Attachments: Land clearing equipment, skid steer attachments, brush mowers, shredders
- MAT-3 Inc.: Aerial lift trucks
- Morbark Inc.: Chippers, tub grinders/wood processing equipment, forestry products
- Stihl: Chain saws
- Rayco Manufacturing Inc.: Log splitters, stump grinders, land clearing equipment
- Redmax-Komatsu Zenoh America: Chain saws, pole saws
- Rotochopper: Tub grinders/wood processing equipment
- Superior Helicopter LLC: Aerial saw
- Vermeer Manufacturing Company: Chippers, stump and tub grinders/wood processing equipment
- Wood/Chuck Chipper Corporation: Log chippers, truck bodies

Superior Helicopter LLC will debut its new 50-foot-long Aussie Sky Saw, its first U.S. exhibition, at TCI EXPO Spring. Shown here with the Sky Saw is Superior’s Peter Crumblin. The saw extends vertically down from a helicopter for use in vegetation management along rights of way.

Live product demonstrations will rule the day on Saturday, March 27, at TCI EXPO Spring.
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How to Get Top Dollar for Every Job

By Jeff D. Stokes

Some owners of tree care companies don’t submit bids. Their phone rings, they service a property, get paid, and stay very busy. That’s great as long as they like working out of the back of their pickup trucks. If your schedule is completely filled and you can’t take on any more work, then your prices are probably too low.

The price for your work must be based on an accurate accounting of costs, factoring in the level of quality and service you plan to provide on that job. Everybody makes the claim that they have better quality and service than the next guy. The key to getting top dollar for every job is knowing when the customer is willing to pay for the best. Then, of course, you have to back up your claims.

In an analytical way, you need to figure out what your customers want and what they are willing to pay – whether you are selling pruning, removals, property maintenance, stump grinding or spraying. Sometimes people shop at Wal-Mart and sometimes they shop at Neiman Marcus. Customers are willing to pay a premium for some of your services, but not all of them. The goal is to determine the top dollar for each customer for each service you offer.

POP QUIZ

How many of your overhead activities are related to job size?

1. List your overhead activities that increase proportionally with job size (e.g. project management).
2. List your overhead activities that do not increase proportionally with job size (e.g. advertising).
3. What percentage of your overhead expenses fall into the second category?

Over the next several pages we will explore two overhead activities that often should be allocated on a different basis than job size: (1) sales and marketing and (2) operations support. We are going to show you why expensing your sales and operations support expenses to specific projects is in your best interest.

Figure 1

Figure 2 is a very important graph. In order to get top dollar you must analyze your finances in this way. You will know when you are getting enough for your work when you start to win or lose bids. You must put a chart like this together by job size with direct costs, total sales, total bids, total wins, win percentage, average price per job and gross margin or mark up on those jobs.

There is something tremendously wrong with this data. There are too many small jobs. There are 234 jobs in the zero to $1,000 range. How many bids did they have to do to get that? 312. How much margin did 234 jobs bring them? $134,000, which translates into approximately $575. How much did the 11 jobs at the bottom that got them $90,000 leave them with? I am not saying not to do small jobs. What I am saying is that in many cases you have just as much ability to do the $30,000 jobs as you do to do the $2,000 jobs. The reason that you are doing the $2,000 jobs is what? Because you have $60,000 in yellow page advertisements and your phone is ringing off the hook and you’re too busy to do anything differently.
I was a contractor myself for 12 years. I took over the family business from my father. He was from the old school. His accountant told him that his overhead was 21 percent, so if his direct cost was $3,000, he put 21 percent on top of it for overhead. If the direct cost was $100,000, then he put 21 percent on top of that. When I took over and started to analyze the bids, I couldn’t understand why I got all of the small jobs and none of the big ones.

Effective pricing is based on two critical components:

1. A strong history of understanding your bid prices;

2. Understanding and allocating overhead.

Don’t add the same percentage of overhead for each job. Figure out how much overhead to charge for each job. What gen-

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### ALLOCATING SALES OVERHEAD

Your sales staff has a limited number of hours to measure sites, read plans, create proposals, visit with clients and leads, and follow up with customers after their project has been completed.

These time demands are not only related to job size.

The combination of required selling efforts and bid winning percentages is more of a driver of sales department size than is project price.

Sales and marketing overhead should be allocated as an indirect job cost that accounts for the sales effort and advertising required to land the job. This includes burdening winning bids with the cost of unsuccessful bids in that market and price range.

### SALES EXPENSE ALLOCATION

1. Average number of bids to win job: 3
2. Budgeted Sales Expense: $150,000*
3. Planned number of jobs: 150
4. Planned number of bids: 450
5. Expense per bid: $333

*Includes sales support, salaries, commission, etc.

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**Figure 3**

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erally happens is that most contractors will say that if the direct cost is $2,000, and my accountant told me to add 10 percent for overhead, plus a profit of 10 percent, I should price the job at $2,400. Sound familiar?

Let’s say you want to sell $1 million in work for the year. If the average price of a successful bid is $1,000, you need to win 1,000 bids to reach $1 million. If you only win 33 percent of the jobs you bid, you need to make 3,000 sales calls to reach $1 million. That’s 10 bids a day, six days a week, 50 weeks a year.

The problem with the fixed percentage of overhead approach is that you will always under price your small jobs and over price your large jobs. You can challenge me on that, but I guarantee you that if you send me your company data I can prove it.

Some overhead items, such as project management, increase proportionally with job size. If a project is more complicated, it will take longer to sell. Other overhead items, such as advertising, do not increase proportionally. In order to get top dollar for the job, determine your exact cost, which will allow you to determine the correct markup.

For example, consider sales and marketing overhead. How many small tree companies have true sales people? How many have sales support people that type up contracts, etc? If the majority of their time is spent typing up contracts, there is a cost involved in that and it should be allocated directly to the jobs. Sales and marketing overhead generally includes the sales force, selling expenses, printing and mailing expenses and advertising expenses.

I had a contractor in Kansas City call me one day to ask for help because he was doing $4 million worth of business, but not making any money. I sat down with him and the first question I asked him was what type of marketing he did. He proudly reached for the yellow pages and told me he spent $60,000 a year. Generally, the yellow pages only attract one type of customer – a cheap one-time customer. When you don’t have an ongoing relationship with a customer, you can never charge more. He had $60,000 in advertising expenses and three people in the front office answering the phones for all of these yellow pages calls. He was working harder and harder and never getting anywhere. He made his best money on commercial work, but he didn’t have time to cultivate that side of his business because the phone kept ringing for cheap, yellow pages residential work.

Allocating expenses

Your sales staff has a limited number of hours to pursue sales, measure sites, read plans, create proposals, visit with clients, etc. When I was a contractor, there were criteria that we employed to determine whether the customer fit our sales funnel or not. If we decided they didn’t fit, we would politely call the customer back and decline an appointment. I know some of you will disagree with me on this point, but I guarantee there are some customers that your company should not be serving. The companies that make money have the discipline to know who those customers are, and they do not service them.

Let’s assume a company has $150,000 of sales expenses that include salaries or commissions, sales support people, cars, cell phones, etc. To land 150 jobs, you have to bid 450 jobs. Therefore, the expense per bid is $333. In other words, it may not be worth your time to bid very small jobs if you realize that just bidding it will cost $333. Add in direct costs of $300, and your total cost for even the smallest job is now $633. Before profit.

As they grow, some company owners don’t realize that even though they are getting a lot of jobs, they are getting the small to mid-range jobs and losing out on the top jobs. One reason is they are still using a fixed overhead strategy.

Hourly sales estimates may be determined by estimating the time available, dividing it into the amount of money spent annually, and reviewing the previous year’s bid success. Crucial to this process is determining the total effort required to
In order to determine sales expenses effectively, you have to start calculating the number of hours it takes. For a commercial client, for example, determine how many hours you would spend on estimating a job. Then determine how much time your supervisors spend on project management. These two numbers – sales and project management costs – will be added to direct costs – plant, materials, labor and equipment.

Once these numbers are added up, you will find that large jobs are more efficient to land than smaller projects.

Let’s create a tree care company with six crews. Two crews handle removals, one grinds stumps, one trims trees and two handle IPM. Each crew receives a different mix of equipment to perform its service. If the owner were to allocate all equipment costs to overhead (a common practice), the stump removal and trimming work would be over priced and the tree removal would be under priced.

Now let’s examine allocation of operations overhead – equipment, site management and project managers. Some tree care companies have on site supervisors. If that supervisor has to be on certain types of jobs, then that cost should be factored in. If the supervisor roams around to all the jobs equally, then allocating a straight percentage of operations overhead will work. My experience tells me this is rarely the case. Job costing will help estimators know how much to add for project management on a project with $10,000 of direct costs.

Miscellaneous operations expenses should be lumped together with general overhead and profit to form a single factor. Overhead items like accounting, payroll, etc. can be allocated per dollar of revenue on all projects until annual overhead has been covered.

Most tree care companies have lost out on a nice project when a competitor came in 30 or 40 percent less. You scratch your head trying to figure out how that company can make money. The reason this happens is really simple. I was just working with a large company and they set a budget for the year of $8 million. By October they had done $10 million. I told the sales staff not to add any more profit to the jobs. The owner thought I was insane, but I told him to trust me. I told them to add their allocation for overhead onto future bids, but no more profit. Why?

Since that company had already exceeded its sales budget for the year, they had also already met their overhead number for the year. Therefore, the overhead they had built into previous bids would become profit on future bids. Once a contractor has met overhead allocation for the year, every other dollar above direct cost becomes pure profit.

Now do you understand why the big can destroy the little. Now do you understand why the little guys can’t go play in the big guy’s back yard.

To continue our example, take a direct cost of a job – labor, equipment and material expense of $10,000. You add a sales expense of $150 and you have an indirect operations overhead expense of $300. Your total direct cost on that job is $10,450. Your G&A expense is $800, making your break even price $11,250.

This article is about getting top dollar. This is where the market comes in. Now you have to determine how much above $11,250 can you get. As a salesperson, I always want to get paid off of gross margin. Any salesperson who wants to get paid by salary only really doesn’t want to be a salesperson. Ultimately, great salespeople know that as long as they have a company that can produce the product and as long as you give them the system to determine the direct costs, they’ll make money. If the breakeven price is $11,250, and the salesman thinks his customer will spend $17,000, that’s what he’ll get! If he thinks he can only get $13,000 then that’s what he’ll try for. My point is that, as owners, if you want to grow then you have to get your
system down to this level. When you do, you can hire people who will know the numbers and know what to do.

Sometimes you need to perform a job at direct cost to secure a new client or maintain a valuable one. That is controversial but I advised a two-year-old company to set their prices at close to cost. Their only goal in year one would be to “buy the market.” They were a division of another company. I told them that if they really wanted to own this town they were going to have to buy it. You should have heard the competitors all year wondering how the new company could do what they were doing. It’s a strategy. By year two we raised prices a bit and by year three we had taken the company from zero to $2.2 million. We knew our bottom-line, direct cost – anything above that was profit.

Under-pricing work is the most common error made by contractors because they don’t always know these calculations. Get paid what you are worth! Guidelines for accepting projects are as follows:

1. Estimate the direct cost;
2. Predict the price the client will pay and compare the two;
3. Decide whether the difference sufficiently contributes to overhead or not to make the job worthwhile.

Ultimately the market does determine the price to some degree. If you determine your direct cost and it is already higher than what you think the market will buy, what will you do?

If your costs are $11,250 and you think the market is $9,800, you are probably inefficient. It may mean your crews are not able to do that particular job efficiently. The way to make money is to figure out what you are most efficient at doing. Once you estimate direct cost and estimate a sale price, if the marginal profit is only $200 is the job worth taking? Maybe or maybe not, it all depends on whether or not you have met your overhead for the year and if that includes your sales and overhead expenses.

With my approach you track your numbers every day and the most important chart in your office will be the contribution to overhead and profit (OH&P). Every day. Measuring contribution to overhead and profit every day tells you that when you meet a certain level, you’ll meet your overhead and profit number for the year. After that point you can alter your prices to attract long-term business for future years.

Below are some clues that will tell you whether or not a customer will buy at higher prices:

- Wealth
- The “Just come do it” attitude
- The entertainer (function or party coming up)
- They say, “Get me on the list right away”
- Referral from another customer
- When they say “Price doesn’t matter”
- Already a good customer
- Rely on a professional

Your clients need to know the best and long-term solution, price vs. serviceability trade-offs, and the processes you use. In your marketing, stop telling them that your company is ABC Tree Company and then underneath say, “We trim trees and take out stumps.” They already know this. Tell them how fast your response time is or how many hours of training your crew has or your safety record.

Monitor customer pricing by following up with each client on each lost bid. As painful as it is, call them up and find out why you lost it. Compare the field crews that won the bid to your own. I used to take my crews out and let them look around. There are all kinds of ways to determine what the competition’s overhead is. Go by and look at their building. Gather the information that will give you a competitive advantage. If you can estimate what their overhead is, you can figure out where you can be competitive and where you can’t.
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By Michael Roche

Changing a fertilization program from one that is broad-based and general to one that is based on the needs of individual trees is a big leap for most tree care companies.

Sometimes, it’s easier to continue with what you’ve always done, but change is good and scientific improvements are ongoing. Arborists now have more information and better products that make it easier to inject the exact nutrients into a tree that it needs, as opposed to adding a broad-based fertilizer and hoping something works.

The first step is a soil analysis. It’s a “prerequisite in a fertilization program but hardly anyone does it,” says Don Marx, a scientist for Plant Health Care, a Pennsylvania-based biotechnology company specializing in the development of plant health care products. “It’s like a doctor prescribing vitamins when he has no evidence you have a vitamin deficiency.”

However, a soil analysis tends to be a big leap for many companies. After all, it’s easier to look at a tree that is struggling and simply stick a feeding needle in the ground with fertilizer. But that isn’t necessarily what is best for the tree. Once ground has been disturbed during construction, chemical imbalances can occur. Adding a balanced fertilizer can change the deficiency, but will not change the chemical imbalance.

We need to decide, “What is the purpose of amending the soil,” stresses Lee Gilman, director of products and services for the Tree Care Industry Association. Gilman comes to TCIA after 15 years running a division for a large tree care company. His
Another important reason for doing a soil analysis is that municipalities are beginning to regulate fertilizers in a manner similar to pesticides. We can justify our fertilization program if we can show that the soil is deficient in some chemicals. A good soil analysis can show nutrient retention capacity or cation exchange capacity. You don’t have to know what a cation is to realize that both methods measure the soil’s ability to buffer, capture and release nutrients. The nutrients then become available to plants and are not leached. Nitrogen is the most leached nutrient, and therefore the most regulated. The soil analysis should give the necessary information for a correct amount of nitrogen to be added and retained in the soil.

The soil analysis can also steer you in the right direction when you decide how to mix your fertilizer. If, for instance, you see intravenous chlorosis on a birch or sweetgum (and you didn’t do a soil analysis), you might assume iron deficiency. But if it turned out to be manganese deficiency (also a sign of intravenous chlorosis), and you applied a balanced fertilizer, you wouldn’t help the tree. According to Gilman, if you added chelated iron, you would make the problem worse. Soil analysis would give you the right information so you could add manganese to your fertilizer and solve the imbalance.

Manganese is a micro-nutrient. Getting a soil test with micros is vital because micros are just as important for plant health as macronutrients. A good soil analysis therefore should give you levels of the macro-nutrients – nitrogen, phosphorus and potassium; micro-nutrients – calcium, sulfur, manganese, magnesium, iron, zinc and copper. It should also give you estimated nitrogen release, soil pH, organic matter content and nutrient retention capacity.

Knowing your micro-nutrient levels is...
important to improve deficiencies, but Gilman points out that they can also overdose a plant. He has seen copper toxicity on foundation plants below copper roofs and gutters, and zinc toxicity below galvanized roofs and gutters. He has also seen salt toxicity on plants near roads that get a lot of spray or run off from salt applied to roads in the winter. Salt damages plants because it causes spaces in the soil to compact and the aggregates become harder. This gives a compacted soil effect without anyone driving on the ground.

If you are going to check for salt toxicity you need to check it in the spring as salt can leach out of the soil by fall, even though it damaged a plant earlier in the growing season. If you do have salt damage, gypsum can be added to the grass and watered in heavily once a week for three weeks.

Another advantage of soil analysis is that low soil pH is one of the most difficult problems to correct after trees have been planted. Calcium is used to raise pH but does not move well through the soil. If you do a soil analysis prior to planting, you can correct the problem by mixing calcium to the soil of each dug hole.

There are several ways to get a soil analysis, but the best way is to send your soil to a national lab where you get the most reliable results. Purchasing a test kit to carry in your truck is by far the quickest way to check the soil, but you need to be exact in how you use the re-agents, and you have to make sure you don’t use a re-agent past its shelf-life. Local universities with an extension service are also good, but often they are staffed with graduate students who are not as knowledgeable as a national lab.

Setting up a prescription fertilization program

Decide with the customer what the goals are for the tree. Is it stressed from construction damage and you want to try to save it? Is it a mature tree that needs to be maintained? Do you have 100 newly planted trees that need a jump start? There are
many situations and you need a predetermined goal.

Take a soil sample from several places under a tree canopy and send it to a lab. Diagnose the results. Do you have imbalances or is the soil deficient in most chemicals? How is the soil pH? Every situation is different, and setting up a prescription fertilization program requires that you are prepared to tailor your program to each site’s needs.

Talk to the lab and find out how to change the analysis from parts-per-million (ppm) or pounds per acre (ppa) into pounds of active ingredient per 100 gallons. (One of the more uncoordinated parts of a fertilization program that uses soil analysis is that the scientists at the labs like using ppm or ppa, when their customers are mixing fertilizer in pounds per 100 gallons. It makes a program more difficult and adds another hoop we have to go through, but for now you’ll have to get out your calculator.)

Fertilize to recommendations, making sure the soil can utilize the amount of soil applied. Have an arsenal of nutrients in supply. It’s important to have balanced fertilizer in stock, but you should also have supplies of the individual micro- and macro-nutrients. If you don’t then it’s easy to just say, “I don’t have any manganese,” when there is a manganese deficiency and apply a typical balanced fertilizer. Supplies of micro-nutrients are especially inexpensive so it’s not hard to carry the inventory.

What else?

Go the next step. Bill Urbanowicz of Spectrum Analytic, an Ohio-based laboratory, recommends a leaf analysis as well. “A soil test is the starting point for a fertilization program and gives information of what is available to a plant; a leaf analysis tells what the tree actually has.”

To do a leaf analysis, wait till the newest leaves are developed and pull off several leaves that when compressed make the size of a golf ball. Use the leaves at the end of the twig. Send these leaves off to a lab that does leaf analysis and they will analyze them with a full report.

If a tree has been on a regular nutrient program, the macro-nutrients are probably fine, but the micros may be off. The leaf analysis will give that information. A leaf analysis therefore becomes another arrow in the quiver for a good arborist.

When does low mean low?

The question then becomes who decides what is a low pH or nutrient deficiency. Everyone interviewed for this article struggled with that issue, because what might be sufficient for a seedling in a greenhouse where a study is performed is not necessarily adequate for an over-mature tree in an urban environment. Urbanowicz points out that studies have been done by universities, arboretums, botanical gardens and labs; from those everyone tries to make his or her best judgments.

In the end, it does come down to the experience of the arborist. You set goals for the program, you study the plant, you give yourself the most information possible with a soil and leaf analysis, and from that you give it your best effort.

“Arborists in a particular area know more about trees and what works than any scientist in a lab,” insists Marx from Plant Health Care. There are just too many variables. What may work on a sugar maple in its native environment may not be the same thing as one that has been transplanted to someone’s yard in Las Vegas. He recommends looking at the foliage, getting a soil sample, and then using your knowledge and instinct.

“If we can get arborists to recognize what a normal canopy looks like, we can understand fertilization needs better,” says Marx. “How do we recognize normal if we don’t know what normal is? So much comes down to an arborist knowing what a healthy tree looks like.”

Sometimes it’s something as simple as getting out a shovel and digging around to find out what’s been damaged.

Fortunately, setting up a prescription fertilization program is one aspect of tree care that doesn’t require a big investment up front, if you already have a fertilization program. The client pays for the soil or leaf analysis and you only have to stock a small amount of nutrients on top of your balanced fertilizer. Good chemical suppliers that sell fertilizer frequently sell the individual nutrients plus blends of micros. After trying it on a few trees, the improved results will probably encourage you to expand the program.
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Rope Splicing

By Michael Roche

A good splice, just like a good rope, is an essential piece of equipment that all arborists must have. The important thing to consider is should you splice your own rope?

You can buy it spliced from distributors for a minimal amount more, and then you know it is done correctly. Perhaps there are some occasions that warrant splicing your own rope. For instance, you nicked your rope with your chainsaw and you had to cut off the bad end, removing the splice. You live too far from a rope distributor and you’re climbing tomorrow, so you look up splicing on the Web and figure you’ll give it a try. Perhaps you could justify this circumstance. But to be honest, unless you’ve been trained in rope splicing, you would be better off going with the old style of tying into a clip and using a taut line hitch. Winging it isn’t worth it.

“We recommend people buy from a distributor who splices,” says Steve Parola, New England Ropes customer and technical service manager. “We don’t certify individual splicers, the idea being we only want to certify people who do it all the time and they are the distributors. If someone wants to save some money, it’s better to learn knots than learn how to splice.”

These words are echoed by Melvin Fast, a Samson Rope research and development technician, who says, “Don’t take a chance, have a pro do it.”

Fast points out that rope manufacturers have equipment that periodically tests splices for minimum breaking strength, and they give pass or fail reports based on those tests. “I want to stress using a particular manufacturer’s guidelines,” he says, “because they have done the legwork, the testing, and made sure everything works.”

Fast goes further by cautioning against books that include directions for splicing, because unless the writer has equipment for testing splices, he or she can’t be as certain as buying a line spliced by a distributor. If you do splice your own rope based on the directions from a book, then you should have it checked by a certified rope specialist.

Which brings us to the whole certification process. It always seems that if something is in need of certification, and there’s money to be made from it, there is always some organization that will try to establish themselves as the official governing body. Rope splicing, however, is too small an industry for an outside organization to create a certification process. As a consequence, the rope manufacturers do it themselves, with each one writing strict guidelines for splicing. Perhaps as the business increases, splicing will have an independent group keep tabs on it, but for now, arborists must rely on the rope manufacturers to oversee the certification. It is probably better that way, as each company can research and test what works best for its rope and can be confident in what they approve. They then certify distributors or an independent rope specialist.

And where would you find an independent rope specialist? Well, there aren’t many of them out there. It’s a niche business and the volume of work doesn’t sustain a nationwide network.

One of the few people in the country that you could call a certified rope specialist is Stanley Longstaff, who owns RopeWorks in Eliot, Maine (stanley@ropeworks.com). Longstaff learned his trade over many
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years involved with ropes. He was a climber for 13 years, and then became a tugboat captain on a major river in Maine. While on boats he would work with ropes up to 9 inches in circumference and splice everything from three-strand rope to 16-strand braided rope. About this time – the mid-1990s – George Mellick of Shelter Tree, a Massachusetts based arborist supply distributor, was seeing an increase in demand for split tails. He approached Longstaff to fill the niche. Longstaff knew he had found a good business when he went to TCI EXPO in 1995. At that show, he says, “Split tails were new on the floor and they all sold out fast. You couldn’t find one for the rest of the show.” That proved to Longstaff that there was a market for a qualified person to establish his own rope splicing business.

Now Longstaff goes to arborist supply distributors like Sherrill and Buckingham and trains their employees on splicing. Every couple of years, he flies to Germany to train employees of German rope manufacturers. He is also a Samson rope distributor, buying rope in bulk, splicing it and selling that rope to distributors.

Longstaff has found a nice niche in this business because, “Climbers come to me all the time with new ideas. These climbers can’t go to rope companies because those companies have huge responsibilities to other customers and distributors.” He can work with those climbers on their specialty order and satisfy their particular needs.

This brings up the point of why splice in the first place?

“A splice is more efficient than any knot for retaining strength; a knot is just a series of bends and a bend is a weak point,” says Fast at Samson.

New England Rope’s Perola adds, “Splicing is great. It makes it easier. You can use a split tail and burn up the split tail but not the rope. You also don’t have to teach a beginner another knot. Mostly, it’s a convenience thing.”

“A split tail makes a climbing line become a long adjustable lanyard,” says Longstaff. “It’s easier to re-crotch.”

For those of you who don’t understand what a split tail is; it is a short piece of rope about four to six feet long with an eye splice at the end. The eye splice attaches to a carabiner, which then attaches to your saddle. The tail is then used to tie a taut line hitch to your climbing line. If you want to re-crotch in a tree, first you put on your safety line. Then all you have to do is unhook the carabiner to get your rope around a crotch or to affix to a new crotch. Without a split tail you still have to set your safety line, then untie your knot, move your rope, then re-tie the knot.

There are a few other key points that these rope specialists wanted to stress.

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involving ropes:

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• Never lower a piece of wood with your climbing line. You can damage it and the damage may be internal. You should inspect your rope every time you use it and don’t share it.

• If you do retire a climbing line, it’s a good idea to put some spray paint on it, so no one else uses it.

If you do all these things, and buy quality ropes that a certified distributor splices, then you should be able to move safely and efficiently through the trees for years.

Michael Roche is a certified arborist and the owner of Stowe Tree & Landscape in Stowe, Vt.
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It seems that arborists who familiarize themselves with the game of golf are more likely to get more work caring for trees on golf courses than those who don’t.

At one upscale country club, Robert Wallace, a consulting arborist at several Southern California golf courses over the years, once trimmed a large lateral eucalyptus limb that hung out over the fairway.

“It turned out that that limb was a key play,” Wallace recalls. He heard a lot of angry comments from staff and golfers over that mistake, though he was doing what was right for safety reasons. “The arborist has to be aware of some of those things.”

And golf courses can be a huge market for arborists. At Woodland Hills Country Club in Southern California, which has a course known for its trees, Steve Sinclair, superintendent, has used at least three arborists in the last year.

“What we have used arborists for mostly this year is preservation of our oak trees,” says Sinclair, who has a consulting arborist, a regular arborist who does a variety of jobs, and a company that recently moved a large oak to a better spot on the course. He has also used arborists to help him compile an oak management program for the course, an undertaking that is ongoing.

There is hardly a course in North America that doesn’t have trees, and those trees are not just for aesthetics and shade. Trees are integral to playability in the game of golf, and a golf course construction superintendent often requires technical advice prior to planting or moving trees.

Once the course is built, maintenance is ongoing and sometimes hectic.

Some courses use their own maintenance staff for some or all of the pruning, nutrition and general tree maintenance, but many hire arborists and tree care companies to do even that work. For example, Robert Wallace, a consulting arborist at Woodland Hills, is “buried in work” from golf courses, and one of the most important services he provides is to check trees for potential problems before they become issues for the superintendent or golfers.

“So soon the need for an arborist becomes real to them,” says Wallace, because they understand how tree health will affect them. Take collar disease, for example. Wallace says that Woodland Hills’ Sinclair has taken his advice to keep turf well away from the trunks of trees so that irrigation water does not splash on them and lead to...
Hazard assessment is certainly a big part of the value of an arborist to golf course management, and he can point out upcoming agronomic or injury problems as well. Wallace takes a golf cart and rides around the course at least quarterly, looking at trees that could become a problem in the future. Those are billable hours.

When caught early enough, damaged trees are not nearly as much of a problem. For example, hard-hit golf balls can damage the cambium layer of trees, and a superintendent can protect them if alerted. Or, replacement trees can be planted while damaged trees are still in place. Wallace has started a program at Woodland Hills that calls for planting replacement trees on either side of a doomed old-timer. By the time it dies or is removed five years later, new trees will be growing nearby.

“‘We have six golf courses under contracts around here now,’ reports Les Fritz, CEO of Fritz Brothers Tree Service in Shalimar, Fla. Golf has become a big part of his business, utilizing approximately half of his 20-plus staff at any one time. But he works hard to keep that business.

“Superintendents are busy. They have so many responsibilities,” Fritz points out, and they want a tree service that will not only be there for them, but one that will also take some of the management load off. That’s what Fritz prides himself on, and when they ask him to jump, he jumps “higher than they say.”

The winter is when most of his contract work is done on the top-end private and semi-private courses he caters to (those include a Fred Couples course and a Greg Norman course). Pruning of the courses’ live oaks, pines, magnolias and hickories is done then. During that four-month period he also fertilizes the trees.

But it isn’t just pruning and fertilizing. The contracts call for pruning and fertilizing to ANSI A300 standards, which include specific elements, such as pruning to raise the canopy and to allow sunlight in, and fertilizing to exacting standards. Fritz makes sure this is done whether the superintendent is on the course at the time or not, and ANSI compliance standards actually make this easier for him.

“We’re sending the same guys back each year” to each course, Fritz notes, for several reasons. For one, his workers get to know the course and are able to do a better job more efficiently. Two, the superintendent and other golf course workers get to know and feel comfortable with his employees.

“To be able to manage that continuity we’ve got to manage our workload,” he adds. The rest of the year, his contracts call for him to be on standby for calls from the course. He will drop whatever job he’s doing to go out and remove a lightning-struck tree or spruce up a course for a special event, for example. It’s a light load in the summer, but it’s a bit of a burden to him because he may have to reschedule other work.

For that reason, Fritz has to be quick on his feet. He uses wireless e-mail and mobile phone service to communicate from the field. He retains his golf course business by being able to do exacting work and respond quickly to any and all requests.
Fritz’ company, which won an Excellence in Arboriculture Award from the Tree Care Industry Association for golf course work, says that you get golf course work by proving yourself in the rest of the community. You keep it by dedicating the number of staff necessary to get the job done, then doing good work. “Servicing the customer,” that’s the key, Fritz says. Keeping prices competitive also helps.

Blair Veitch with the Davey Tree Expert Company in Vancouver, British Columbia, services eight to 10 courses at any one time. Jim McGarvey, superintendent at Seymour Golf & Country Club in North Vancouver, says that Veitch caters to their need for the grounds to be safe. “Guys like Jim McGarvey really want to make sure the trees are safe,” Veitch says.

Because of a death on an area golf course due to a falling tree several years ago, the Worker’s Compensation Board in Canada requires a high degree of compliance. Davey Tree markets to that need.

“We do a fair amount of golf courses,” Veitch says, estimating that since he got his first golf course job 12 years ago it has come to comprise about 15 percent of his work.

He says that it is a give-and-take relationship with superintendents. They ask him to cruise their courses once a year to look at tree safety concerns in the areas trafficked by golfers and course staff. “We make a decision on what to do with those trees,” Veitch says, and who should do the work. Sometimes he does it; sometimes some of the less arduous work, such as clean-up and brush removal, may be done by golf course staff. “That’s probably been the number one reason I’ve been able to stay on golf courses,” he says, though on some courses Davey does all the tree work.

None of his work on golf courses is contracted, Veitch says. It is all “site specific,” and most of it is in the removal of hazardous trees or the pruning of limbs that might be dangerous. Some of the Douglas fir and cedar trees in this area reach 150 feet high, but it is usually hemlocks that cause the most hazards.

Although Davey Tree doesn’t have specific advertising aimed at golf course clientele in Vancouver, Veitch goes to golf course conferences about once every two years and sets up a booth. Most of his work from superintendents, however, comes from word-of-mouth – which is why it is essential to do quality work every time. Some of his clients are upscale private clubs that demand the very best work, but all courses hold aesthetics as a top priority.

“We definitely make sure the guys that are out there are capable of doing a good
job,” he says, noting that Davey’s head office in Kent, Ohio, is so focused on golf business that it has a special golf course division.

Gary Mullane, of Mullane Associates in Hilton Head, S.C., gets a lot of golf course business by specializing in an area that is highly interesting and valuable to them – tree management plans. “One of my best customers is a golf course,” says Mullane, who after 38 years in the tree industry has become more of a consultant.

Having a good, cost-effective tree management plan gives a golf course superintendent security and a way to schedule pruning and safety compliance. Mullane gets together with a super or a greens committee chairman and draws up a set of priorities. That plan is going to assist the superintendent – and create more work for arborists later.

That planning and collaboration ability brings us back to what Sinclair, the superintendent at Woodland Hills Country Club, says he looks for in an arborist. They should know something about the agronomics of turf and how trees affect sun shading and air movement. But they should also understand how trees affect the playability of the game. “It helps if they understand the game of golf,” Sinclair says.

Sounds like an invitation to play a few rounds – as research for work, of course – doesn’t it?

Don Dale is a freelance writer in North Hollywood, Calif.
When is it Time to Say Goodbye to a Tree?

By Lew Bloch

When is it time to say goodbye to a tree that has been a good friend for many years? Is death with dignity really appropriate for trees? Should euthanasia be appropriate for our leafy friends as well as our furry friends?

These questions have been in my mind for many years but really hit me recently when I was driving through a local community and noticed many of the pitiful street trees. This is a very prestigious area of homes worth a million dollars – or more – and composed of numerous movers and shakers in the Washington, D.C., community. I took the accompanying montage of photos without really spending a lot of time looking for the most extreme examples. There are several hundred of these Yoshina cherry trees (the same species as around the Tidal Basin) lining these streets, and there are many that are similar, and worse, in the community. I ask myself, when should they be cut down and replaced?

This community has numerous “tree huggers” who will not allow any live tree to be removed. As long as it has leaves on it, it must be alive and cannot be removed, they say. Actually, most of the suffering trees could be considered healthy, but they...
‘Most of us have seen trees that we think are ready to fall last many years, as well as seen trees fail that we thought were relatively safe.’

are certainly structurally unsound – a huge difference, as we know. I consider myself to be a tree lover, but not a tree hugger. In other words, not all trees are worthy of being saved and, while some trees are assets, others are liabilities.

Most of us, whether contractors or consultants, have had clients with mature trees much larger than those in my photos suffering serious health or structural problems, who want to know how long the tree will last. It is a no-brainer to tell the client that their tree will definitely fail, but

Whereas some trees are safer than others, and some trees can be made safer, there is no such thing as a safe tree.

Not all trees are worthy of being saved and, while some trees are assets, others are liabilities.
the really difficult questions are when and if damage or personal injury might occur. Even with the most sophisticated diagnostic equipment available, no one can predict exactly when the tree will fail.

Let’s say, for example, that with all of our years of experience along with our testing, we predict that the tree has three to five years left before it fails. Can we be certain that – with weather-related events, further insect/disease infestations, extreme soil saturation, drought or root problems, etc. – the tree will not fail in the first or second year? Of course not, and we better realize this. Most of us have seen trees that we think are ready to fall last many years, as well as seen trees fail that we thought were relatively safe. Even if we know the characteristics of a certain species, a tree species’ ability to survive varies depending on the micro-site in which it is located, and conditions must be monitored regularly as they change.

So who is responsible for the decision as to when to remove a tree? It should always be the client who decides just how much risk he or she is willing to take. We do have several formulas and a great book to guide us on risk assessment. The most prominent book is *Evaluations of Hazard Trees in Urban Areas*, by Nelda P. Matheny and James R. Clark. They also have a sophisticated rating form in which they suggest we rate a tree’s failure potential, the size of the tree part and the target in making these assessments. This article is not meant to be about hazard tree evaluation, but if a large unstable tree threatens the children’s bedroom, this should be a warning that it might be time to say goodbye to the tree instead of hoping for another year or two. Actually, the Yoshina Cherry Trees in my photos are not real large, but they could pose a danger to school children as well as other pedestrians and motorists.

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Quite often a savvy client will ask what we, as arborists, would do if it were our tree. A good question! I guess it depends on the particular experiences of the arborist involved, but I have seen a lot of cases involving fatalities and severe personal injuries from tree failures as well as large property damage cases that certainly affect my decision making. As an aside, whether you a tree contractor or a consultant, you should always provide a written disclaimer to the client. This should be done even if you don’t become involved in a tree contract. Whereas some trees are safer than others, and some trees can be made safer, there is no such thing as a safe tree.

We all know that many people get quite emotional about their trees and, as stated earlier, some of them cannot grasp that a tree full of leaves might be a danger. Sometimes a heavily foliaged tree is even more dangerous than a sparse tree during a wind or saturated soil event. Hurricane Isabel and other severe storms have uprooted a lot of very healthy trees and sometimes left the sickly ones standing. The public is eager for tree information, and we need to educate them about trees and tree management. Of course we also know that some trees are over-managed and some are neglected. Many years ago I read an article entitled “The Worst Enemy of the Garden: The Gardener.” The same can be said for some arborists.

Speaking of educating the public, wouldn’t it be nice if more people called us for advice, opinions and/or estimates before there is a tree problem, instead of calling and pleading, “Come save my poor old tree.” The message needs to be that they should be more pro-active, not always just re-active. Listen up, green industry associations; help educate the tree parents of America!

Lew Bloch, Bloch Consulting Group, is a registered consulting arborist/landscape architect and author of Tree Law Cases in the USA.

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The message needs to be that tree owners should be more proactive, not always just reactive when a tree fails.
How the Great Blackout Led to a Greener Business

By Rick Howland

It all began August 14, 2003. Reports said overgrown tree branches shorted out three major electrical distribution lines in the Akron, Ohio, area. In a matter of moments, a combination of human and mechanical failures plunged 100 power plants and 50 million people in the Northeast and Canada into the dark for up to four days.

Although more widespread, the incident was reminiscent of the 1996 West Coast blackout triggered when power arced to a close-growing tree on a main transmission line.

While blame for the August outage can’t be laid solely on line-clearance issues, U.S. Energy Secretary Spencer Abraham said at the time, “The blackout was initiated when three high-voltage transmission lines operated by FirstEnergy short-circuited and went out of service when they came in contact with trees that were too close to the lines.” Given that fact alone, and despite monitoring and software problems, he concluded that, “This blackout was largely preventable.”

In the wake of the blackout, the issue of vegetation management along power transmission and distribution lines, gas lines, railroads, highways and every other utility has taken center stage. And the utilities are responding. In October, Xcel Energy in the Minneapolis-St. Paul area told state public utilities commissioners that they will spend $19.2 million more than budgeted over the next two years to trim trees and replace underground cables. The company’s own figures show more than 16 million minutes of customer outages due solely to the overgrowth of trees.

While those kinds of steps may help prevent looming outages, they do not address a broader maintenance problem with the nation’s utility grid. But there are plans afoot to address that issue that would have a direct and positive bearing on tree care businesses and employees.

Here’s the situation, as boiled down by Ohio’s public utility organization. State law doesn’t require utilities to keep trees any specified distance from lines. Additionally, investor-owned utilities, such as the ones to which the blackout was traced, need only establish and file a vegetation control plan with the state. The criteria are simply to do what the utility thinks best to establish and ensure safe, reliable service.

For example, Florida Power proudly...
tells customers that its tree-trimming contractors follow standards and practices approved by the American National Standards Institute (ANSI). However, policies and standards remain a cumbersome patchwork, many outdated in the wake of utility deregulation. The National Electric Code does chip in by saying that the extent of trimming should be based on tree growth, weather, voltage and line sag, especially at high temperatures. Beyond that, true vegetation standards do not exist.

The U.S. Department of Energy has only just begun to investigate the potential for solutions with a series of national public meetings to discuss the Nov. 19, 2003, official report on the cause of the blackout, and to solicit public opinion as to how to prevent similar events. Tom Welch of the energy department’s communications staff says that because the process is in its infancy, any solutions would seem premature, but vegetation management would certainly seem to be an item of interest.

However, behind the scenes and long before the lights went out, a special ANSI A300 subcommittee had been meeting to discuss the issue and to develop national, workable standards that will benefit the utility, improve the value of the arborist and ultimately deliver improved electrical reliability – at least as far as it’s impacted by vegetation management.

Matt Simmons works as a regional forester for Conectiv Power Delivery, a four-state, mid-Atlantic regional utility headquartered in southern New Jersey. As a member (and a past president) of the Utility Arborist Association, he is also a delegate to the ANSI Accredited Standards Committee (ASC) A300, which saw this problem coming. They’ve been working on the issue for nearly two years. (The UAA represents several thousand utility foresters, arborists, contractors and vendors around the country, is a member of the ASC A300, and volunteered to take the lead on developing new standards.)

The UAA executive board asked the A300 delegates to propose an integrated vegetation management plan as an additional ANSI A300 standard. “In April of 2002,” Simmons says, “we proposed to a review committee made up of multiple disciplines in the arbor care industry that we develop standards around integrated vegetation management. Our job is to help develop and codify the best methods of controlling vegetation, especially in achieving electric utility objectives.”

Those standards will not include only trimming and removing growth. The objective is a more planned approach, one that takes into consideration the plant community and species selection (i.e. lower-growing, stable trees, shrubs and other vegetation), as well as soil erosion, wildlife preservation and community aesthetics.

“We are looking at a number of control methods, too – from chemical to manual to mechanical – to achieve the best combination of efforts to achieve an integrated vegetation management program,” Simmons notes.

It’s a progressive move, because the standards don’t generate one set of hard-and-fast rules. Instead, they help the
arborist/vegetation manager decide which combination is best given circumstances and region of the country.

Simmons says that the committee is in the very early stages of development and nowhere near ready for public comment. “We put together a subcommittee to help write and edit proposed new standards. By next spring (2005), we should have our next draft to review and present to the ANSI committee for comment, followed by a public review period.”

What will the new standards mean to members of the line-clearance industry?

“The standards will be a tool they can use in their businesses,” says Simmons.

Working together with utility managers and others responsible for maintenance activities, the standards can be used to develop and implement a workable program of preferred standard procedures. Not only will vegetation management standards help with the contract and bid end of the business by essentially blue-printing exact methodologies, they also will help the arborist, utility manager and community leader to monitor work being performed, according to Simmons. His take was that the utilities will know what has to be done and when, opening up business opportunities for tree care companies wanting to work with compliance-oriented utilities as standards eliminates procedural debate.

For the line-clearance company willing to learn the procedures and properly train staffers, standards will open up a new clientele eager to execute a workable plan in language they can relate to.

“To tree workers, new standards also mean increased safety,” Simmons adds.

“The standards are as much about establishing the right method and procedures and the environment as they are about results.”

Simmons concluded by saying, “The standards represent an economic opportunity to develop a level of expertise required to implement new strategies. That will require someone (a professional arborist) knowledgeable in those strategies who can implement them in the field.”

With a similar view is the Edison Electric Institute, the trade association representing shareholder-owned utilities, which also has a positive take on the new standards.

Rick Loughery, EEI director of environmental activities, works as staff liaison on the EEI environmental management task force. “We’re the folks responsible for programs. Some are solely electrical transmission, some distribution, some both,” says Loughery. “The big issues with past blackouts over the last seven to eight years (relate to) lines contacting trees. But let’s not forget the forest fire issue – access, or lack of access, to federal lands in the West, where it’s difficult to do adequate vegetation management to protect lines from fire.”

It’s addressing these kinds of regional issues that Loughery expects will put as much sense as it does teeth into the standards. “Out West, it’s forest fires and access to federal lands. On the East Coast, it’s blackouts with vegetation management,” Rouse explains. “This levels the playing field for the tree care professional. Communication between the tree care professionals and utilities will be far better. Furthermore, it will be easier to meet expectations if everyone is working within those new industry standards.”

Although ANSI standards adherence is voluntary, most are universally recognized as the authority in any dispute resolution.

“The prime benefit is to ensure that the job will be done right from both the client side as well as the tree care professional,” Rouse stresses.

Earliest new vegetation standards review will be 2005

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the issue is more (downed lines from) storm damage,” he explains, pointing out that 87 percent of power outages from Hurricane Isabel in the Washington, D.C., area were due to tree damage.

“Vegetation management is quickly emerging as a high profile issue for the utilities,” he concurs. “In terms of standards,” Loughery cautions, “we will be watchful to make sure not to get knee-jerk reactions, especially in light of the last blackout. One size does not fit all throughout the country. Managing vegetation in Massachusetts is far different than Florida, Arizona and the Pacific Northwest.”

The new standards will agree with an initiative EEI embraces called “the right tree in the right place.” Loughery says, “That involves arborists knowing to plant correct species near lines and roadways.”

He says that an example of how a lack of prior planning over time leads to trouble can be seen in the Washington, D.C., area, with its older neighborhoods, many built in the immediate post-World War II era. “These developments now have trees 50 years old, and it’s not just branches but whole trees taking down lines in the new urban/suburban forest. What was compatible when the neighborhoods were built doesn’t look compatible with the area — nor is it especially compatible with overhead electrical systems — now. That’s why it’s so crucial for utilities and arborists to get the right species in the right place from now on.”

That philosophy, together with the new standards, according to Loughery’s way of thinking, means that “the arborist must be part of the equation.”

“Commercial companies will be able to approach and work with the utility more easily if arborists are properly trained,” he says. Training and preparation will work hand-in-hand with the new standards. “We need to be careful with any new standards that we include the utility, homeowner, landowner and the arborist. We’re all affected by these standards.”

Loughery says one issue emerges regularly that frustrates utility companies even after lines are knocked down. That is how the public sometimes block arborists from doing adequate tree trimming by raising issues of ownership of land and neighborhood lines. Even with law on the utilities’ side, it’s not uncommon for locals to slam an injunction on utility arborists claiming inadequate warning or complaining of damage to privately owned trees.

“While a lot of the problem seems to be PR, it usually turns out to be the wrong tree in the first place,” Loughery says, supporting the notion of an integrated approach to managing vegetation.

“The main thing we’re looking to develop is a national standard on vegetation along power lines,” explains Derek Vannice, executive director of the Utility Arborist Association. “There’s never been one. Standards are the key. We need to understand how vegetation grows and how to use plantings, herbicides and hand tools to ensure proper maintenance.

“Deregulation had a big impact on contracting.” Vannice notes, agreeing that in an age of cost cutting, vegetation management often got left behind. “Vegetation management has historically been contracted out. I see that continuing and I see more emphasis on regular maintenance in the wake of the recent blackout, specifically more periodicity [regular, frequent maintenance].”

“Standards may not require work every three to five years, but may have a periodic cycle and inspection that varies by location. One cycle in the Northeast will differ from Florida, for example. There will be interpretation of standards and with that, in turn, a level of professionalism and understanding of growth.”

“It will be incumbent on the utility arborist to educate the utility manager to understand the language and importance of vegetation management and the cost of not properly maintaining power lines,” Vannice says. “I see this as an opportunity for a professional utility arborist to profit by helping to get the message out about putting off maintenance costs. Utilities are managed by engineers, and the standards speak to them in their language – in their terms. Accountants will be able to understand that if you don’t maintain the line, it’ll cost you in the long run,” he says.
The short answer to the question our title poses is a qualified, “Yes.”

There are a few, fairly simple principles that need to be explained. A “hazard,” we probably all know, is something with the potential to cause harm. Hazards are created by conditions and by actions.

Just as there are two broad causes of hazards, there are two ways to reduce hazard. An engineering control modifies a condition to reduce the hazard. An administrative control is something that changes behavior, and therefore reduces the hazard in an action.

In a perfect world, safety would be completely engineered. There would be nothing to think about, and no chance of making a mistake and causing an accident.

But of course our world, and especially our work environment, is far from perfect. As someone responsible for the safety of yourself and others, you need to be aware of every safety opportunity out there.

Brush chippers provide the perfect example of these principles. They are a vital part of the arborist’s world. Their very purpose – reducing large tree limbs to small chips – points to the most significant hazard condition they create. The best way to mitigate the hazard is with awareness, attitude, training, specific procedures for operation, and appropriate supervision. All of these things are considered administrative controls. These are the areas in which you should concentrate your efforts if you want to have accident-free chipper operations.

But our title talks about engineering, and we started by saying that to some extent, safety can be engineered into chippers. There is no engineering standard for brush chippers, nor does the ANSI Z133 Standard get into considerable detail on chipper design, preferring to concentrate on chipper operator procedures.

All major manufacturers adhere to three specifications that Z133 does make: 1) Chippers not equipped with a mechanical infeed must be equipped with an infeed hopper not less than 85 inches, from the blades or knives to ground level over the centerline of the hopper; 2) chippers without mechanical infeed also need to have a flexible anti-kickback device installed in the infeed hopper to reduce the risk of injury from flying chips and debris; and, 3) chippers equipped with mechanical infeed need to have a quick stop and reversing device located across the top, along each side of, and close to, the feed end of the infeed hopper.

Another feature that is generic to most manufacturers (but not necessarily all models!) is some sort of feed sensor system. These systems enhance performance, but they also reduce the risk of injury. A feed sensor reduces the likelihood of engine stall and plugging. Because it reduces plugging,
The Future of Arboriculture
depends on
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We are sponsoring 49 ongoing university-level research projects and 22 independent field trials
EDUCATION
We are sponsoring 18 educational seminars by researchers, professors, and industry experts
EFFECTIVE TOOLS
Our scientifically proven products, field-tested protocols, and innovative application systems deliver predictable results

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Commitment to Support – We understand the tree health problems of our industry, and we can help you integrate solutions into your business. We do this by providing on-call technical support, instructional videos, application guides, and field training. We also provide sales brochures, promotional tools, and marketing support. It is our commitment to provide you with the tools and training needed for success. When you purchase products from Rainbow Treecare Scientific Advancements you are investing in the future of Arboriculture.

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it reduces the need for the operator to unplug the machine, reducing exposure to the feed wheel and chipper knives.

The absence of any comprehensive standard left manufacturers free to analyze the risks associated with chipper operation and maintenance, and to engineer their own solutions. The remainder of this article is an overview of some of the newer, and more innovative, safety features from some of the leading U.S. chipper manufacturers.

**Wood/Chuck**

Some of the engineered safety features available on Wood/Chuck chippers include:

- **Panic Bar:** The Panic Bar is an innovative safety device intended to provide a dedicated, durable mechanism to stop the controlled feed system, and to lock the system out, in an emergency situation. In an effort to reduce accidents that may be caused by inattention to the surroundings, improper feeding techniques, improper material preparation, or ingestion of non-wood material, Wood/Chuck developed the patent pending “Panic Bar.” The name derives from the fact that even in a “panic” situation all the operator must do is grab the bar. It does not employ any electrical components, and when activated daily as directed by Wood/Chuck, requires very little maintenance. Also, the panic bar is activated outside of the feed chute, preventing the suggestion that it is acceptable to place any part of the body into the feed chute.

  The Panic Bar feature is unique in the following respects: It can be activated from almost any location around the feed area, even from the front of the chipper; it operates independently from the ANSI Z133-mandated feed system control bar; it is powder-coated a distinctive color to differentiate it from the control bar; and unlike some devices, it must be reset before the chipper will commence feeding.

- **Discharge deflector/chute adjustment bar:** This device allows the operator to adjust the chip deflector and the discharge chute position without climbing on the chipper. This will reduce the opportunity for an operator to fall during adjustment or be hit by discharged chips, while facilitating proper chute and deflector placement.

- **Chipper hood safety latch:** Wood/Chuck’s system reduces the chances of opening the hood while the disc is still rotating, and prevents starting the unit with the disc hood open.

**Bandit**

Some of the engineered safety features available from Bandit include:

- **Last chance pull cable:** Located in the infeed hopper, these cables actuate the system that reverses the infeed rollers, giving the operator a “last chance” to extricate themselves from the chipper. Bandit makes this device available to other manufacturers to retrofit their machines.

- **Disc hood pin with keypad lock:** The keypad lock prevents unauthorized persons from accessing the disc.

- **Hood pin electronic limit switch:** This device positively prevents the engine from being started without the hood pin in place, so someone turning the ignition key cannot inadvertently set the disc in motion.
• Fold down feed tray cushion spring: The spring reduces the effort needed to raise and lower the fold-up infeed chute, a nice back-saving feature that is standard on some of Bandit’s heavier models.

• Wooden push paddle: This is a simple, expendable tool to help the operator resist the temptation of reaching into the infeed chute to push small pieces.

• Mechanical spring lock pin: With this device, the disc’s hood cannot open until the disc has come to a complete stop.

Vermeer

Vermeer has been a leader in brush chipper safety innovation since the mid 1980’s, starting with long feed tables with upward sloping sides that help keep operators from reaching and touching the feed rollers from anywhere around the in-feed table. To reduce the risk of injury for maintenance and service personnel, Vermeer designed the access time to the cutting mechanism to be longer than the coast down time of the disc/drum when using the prescribed shutdown procedure. This ensures that the sharp knives and the rotating disc/drum have stopped before the system is exposed.

Vermeer’s latest technological advancement to improve brush chipper operator safety, include:

• Bottom Feed Stop Bar: Mounted on the leading edge of the feed table, this patent-applied-for system makes it possible for the operator’s leg to strike the bar and shut off the feed either intentionally or automatically in an emergency situation. Vermeer feels this will provide a distinct advantage over comparative systems that require the operator to react, pull, or push something in order to stop the infeed mechanism. The new Vermeer system offers two settings for sensitivity to assist in difficult chipping conditions. The “Default” mode is most sensitive and requires the “Bottom Bar” to be depressed a shorter distance before activating the stop switch that controls the rotation of the feed rollers. The less sensitive setting requires the bar to be depressed further before triggering the switch to stop the feed rollers.

• Upper Feed Control Bar: Combined with the “Bottom Feed Stop Bar” is a four-position upper feed control bar with dual stop positions as well as forward/reverse feed positions. Mounted over the feed table, this control bar provides a means for the operator to stop the feed rollers as well as selecting forward or reverse feed operations.

• Reset/Hold-to-Run Button: Dual reset/hold-to-run buttons allow the operator to readily reset a trip to the “Bottom Feed Stop Bar” or the upper feed control bar and to temporarily override either bar. By holding the reset button, a limb with wide branches will continue feeding even if it moves either bar to a stop posi-
tion. When the limb is finished feeding, the upper bar can be easily returned to the forward feed position to continue normal chipping.

**Morbark**

Morbark’s safety features include:

- **Safety switches:** Standard on all models are safety switches on the chipper hoods that will shut down the chipper if the pin that secures the chipper hood is removed during operation. Also, this switch will not allow the engine to start until the hood pin has been installed.

- **Clearance:** Adapting the Z133 requirement for drum-style chippers, all models’ infeed chutes provide at least 85 inches of clearance between the pinch point of the feed wheels and the operator’s feet.

- **Lock pins:** All chippers have a lock pin to be installed to lock the chipper drum or disc when changing knives, and when raising the top feed wheel for maintenance.

- **Safety cords:** All hydraulic fed chip- pers have two safety cords that hang down in the infeed that an operator can pull on to reverse the feed wheels if he or she is being pulled into the chipper.

- **Non-slick pads:** Chippers have non-slick pads on all fenders to prevent the operator from slipping when climbing onto the chipper during maintenance.

A hydraulic feed wheel lift is a feature on many chippers, but with Woodsman, the feed wheel can be raised from either side of the machine. Also, with its single feed-wheel design, firewood length material is much easier to feed. With less effort required to feed short pieces, there is less risk of the operator reaching into the feed system.

**Conclusion**

The “take-away” from this article is that, to some extent anyway, safety is engineered into brush chippers. Safety features should be an important consideration in your next chipper purchase. And because these features vary considerably from manufacturer to manufacturer, it is left to you to evaluate which feature or collection of features will provide your crews with an optimal safe work environment.

Keep in mind that the most important “device” we can use to stay safe in the face of workplace hazards is the one housed between our ears. Therefore, make your hiring decisions as carefully as you make your purchasing decisions. Invest in employee training and education, and provide appropriate supervision. These actions will reward you over time.

Peter Gerstenberger is senior advisor for safety, compliance & standards at TCIA.
When it comes to buying a hand-fed wood chipper you have two options: a disc-style or a drum-style. Which do you choose? Which is right for you? Consider the following characteristics of each before you decide.

**Disc-Style Chippers**
- Better all-around machines
- Chips easier because of their fixed 45° angle feed
- Requires less energy
- Uses less fuel
- Chips with less vibration
- Throws chips farther
- Produces a uniform chip
- Increased longevity
- High resale value
- Available in 6”, 9”, 12”, 14” and 18” diameter capacities

**Drum-Style Chippers**
- An excellent alternative
- A Brush Bandit™ chips easier than the competition because of its oversized drum
- Larger opening
- Collapse limbs easier
- Chip more material at one time, but generally not as fast as a disc-style
- Process most fibrous materials common in warmer climates better than a disc
- Available in 12”, 15” and 18” diameter capacities
- The 1290H, our newest hydraulic feed drum style chipper, is a compact, rugged, high capacity 12” chipper

Bandit offers the best of both styles. All our chippers are rugged, tried and true performers that hold up under the toughest conditions and are amply equipped with the power needed to do the job. Our units are easy to feed thanks to powerful feed systems, unique infeed designs and large openings. Operators can expect maximum production with limited trimming.

So, whichever you prefer, Bandit delivers with quality machines and a vast array of options and functions to make your job easier. Still unsure which type is right for you? Contact your nearest Brush Bandit™ Dealer or the factory to speak with a representative who can point you in the right direction.
Most members of the tree care industry work on a tight advertising budget. Unfortunately, many are wasting precious advertising dollars on poorly designed Yellow Page ads.

Yellow Page advertising forms the heart of most tree care professional’s marketing efforts. That makes it especially costly when an owner is stuck with a one-year contract for an ineffective YP ad.

“One of the most common Yellow Pages mistakes is allowing sales reps to make important ad decisions,” says Doug Berdie, Ph.D., author of the highly regarded Yellow Pages Report (www.yellowpages-report.com). “It’s not that they don’t know their business,” he says, “They do. But you should never allow yourself to forget that your YP rep is first a salesperson.”

Yellow Page publishers pay their sales reps on the amount of advertising revenue they generate—period. It doesn’t take much imagination to recognize that it is in a sales rep’s best interest to get you to place the largest ad he or she can sell you.

That would be OK if larger were always better. However, studies such as The Yellow Pages Report have shown that isn’t the case. “One of the most common misconceptions,” says Dr. Berdie, is that bigger ads get disproportionally more response. That is, an ad twice as large as another will get more than twice as many calls. This is simply not true in most cases, despite what some Y.P. reps might claim.”

Dr. Berdie’s research indicates that ads as small as a quarter-page, or even an eighth-page, can be as effective as full-page ads, provided they are skillfully designed.

This is not to suggest that ad size is not important. All things being equal, a big ad will generate more response than a small ad. In the real world, however, all things are seldom, if ever, equal. A well-designed small ad will outperform a poorly designed large ad every time.

You can make your next YP ad more effective by avoiding these common mistakes:

Don’t make your company name the dominant feature of the ad

Seeing your name in headline type spread across the top of your ad may be an ego boost, but experts agree that it’s the wrong thing to do, unless you happen to be the General Motors of the tree care industry in your area.

“What you offer to the potential customer, not who you are, is the point you must make in your Yellow Page ad,” says Dr. Berdie.

Your headline has perhaps one or two seconds to grab your prospects attention—one or two seconds to direct the reader’s attention away from the other ads promoting the services you sell. Your name, no matter how fond of it you are, isn’t going to do the job.

If you offer such services as tree and stump removal, land clearing, insurance work, pruning and shaping, or cabling and bracing service, tell that to your prospective client in the few seconds allotted to you.
Otherwise, your prospect’s eye will move on to the next ad before you can blink yours.

Don’t try to cram too many words into the available space

Advertising pros know that plenty of “white space” around advertising copy can measurably increase the impact of an advertising message. An ad that is “too busy” will cause many people to turn away. Don’t try to be cute or fancy. Tell your prospect why he or she should call or visit you instead of your competitor. Feature your strong points and try to see your ad from the viewpoint of a prospect who needs or wants what you have to offer.

“Question each item in the ad,” says Dr. Berdie. “Ask whether it gives the prospect a specific reason to call you?” If the answer is ‘no,’ either cut out that item and substitute something else that does, or save money by paring down the size of your ad.

Experts know that if your ad is difficult or burdensome to read, prospects won’t bother to read it. Today, most consumers are busy, impatient people. Your ad should take that into consideration.

Don’t rush the design of your ad

The first job of a sales rep is to sell you a bigger ad. Once that’s out of the way, there’s not much motivation to hang around helping you to design an effective ad. Most YP ads are put together quickly on the assumption that the size of the ad is more important than its content.

In truth, content will be critical to the effectiveness of your advertising message. You’re paying big money for your YP space, so you should insist that the publisher of your directory design an ad that justifies the money you’re spending.

Avoid cluttered ads that depend on clum-sy-looking block lettering and out-of-date artwork. Unless you’re satisfied that your ad is the best one under your heading, you should consider the one-time expense of hiring a graphic designer to design it for you. Ads for tree care services can be greatly enhanced by innovative artwork.

When you’re satisfied that your ad is just right, be sure to ask for a proof. Some publishers are reluctant to furnish proofs; it’s an extra expense for them and often results in more work when the advertiser spots something that needs to be changed. But it’s your money. Remember, once your ad is published, you’ll be living with it for a full year.

You need more than just words to capture the reader’s attention

An illustration in perfect sync with the text of your ad can lift it from mediocrity to attention-grabbing stardom. That old chestnut about a picture being worth a thousand words may seem trite, but don’t let that fool you. Many of your competitors’ ads will have illustrations or graphics that are so trite and overused that they detract from the ad’s effectiveness. Time spent finding or creating just the right illustration for your ad will be a wise investment.

Don’t believe that adding color is always worth the extra cost

Modern technology has made it easy to splash your ad with reds, greens, blues, even colors with exotic names. The result may be an ad that looks “pretty,” but that’s not what you’re paying for.

Says Dr. Berdie, “In some settings, color actually detracts from the effectiveness of the ad. This is not to suggest that color has no place in Yellow Page advertising, only that it is an expensive luxury that you should treat with caution. If the use of color under your headings is rampant, a black-and-white ad may prove to be a profitable attention getter.”

So, how can you tell if your YP ad is well designed and effective? Here are a few tips:

• Ask yourself, “Why should a prospect pick out my ad instead of one of the many others on the page?”
"If you can’t come up with a quick answer to that question, you need to take a hard look at the ad’s design. Readers looking under “tree care” headings are looking for something specific. Try to determine what the most important considerations are and make sure that your ad addresses them: experience, reputation, specialties, emergency service. If your ad doesn’t provide the information your prospect is looking for, he or she will move on quickly.

“Most of the time, when people go to the Yellow Pages, they’ve already decided to buy,” says Dr. Berdie. “At that point, they are simply trying to decide from whom to buy. Many advertisers waste lots of space and money on ads designed to convince the reader to buy the product or service, a decision that the reader has already made. Instead,” he says, “your ad should be showing them why they should patronize you and not your competitor.”

- Monitor the results of your ads

There is no way for you to know whether an ad is paying its own way if you don’t keep a close eye on the results. You should ask all new customers and prospects why they selected you. Then, tabulate the results carefully so that you can compare advertising dollars directly against results. Getting this information from people who call takes only a few seconds. You’ll find most people happy to help. And there’s another plus: asking for that information makes a good impression – gives an air of professionalism. Keeping track of why each new customer came to you (YP ads, newspaper, referral by a friend or neighbor, etc.) may provide results that will surprise you. Many advertisers who do a thorough survey of that type over a sufficient period discover that Yellow Pages produce a much smaller share of their new clients than they thought. If they have been in business for a while, most new clients probably come from – you guessed it – referrals. That’s a point you should remember. Every dollar you spend to keep your customers happy is an investment in the world’s most powerful advertising – word-of-mouth.

Finally, you should avoid the temptation to put all of your advertising eggs into the Yellow Pages basket. “Yellow Pages are only one part of the marketing mix,” says Dr. Berdie. “Every advertising dollar should be spent where it will get the most return.”

While Yellow Pages are a necessity for most tree care and landscaping professionals, they are not always the most profitable.

William J. Lynott (www.blynott.com) is a former management consultant and corporate executive who writes on human interest, business and financial topics for a number of consumer and trade publications, and author of Money: How to Make the Most of What You’ve Got.
By J. B. Ingram, CTLA Chair, ASCA Rep.

The Council of Tree and Landscape Appraisers met at the CTLA executive office in Rockville, Md., Jan. 26 to discuss appraisal issues. The meeting primarily focused on the 9th Edition of the Guide for Plant Appraisal and plans for the next edition. Dick Gooding (ANLA), Russ Carlson (ISA), David Hucker (TCIA) and myself agreed that education in the form of seminars and training sessions should be provided to assure proper use of the 9th Edition of the Guide. In the near future, CTLA reps will offer sessions that provide greater guidance for those appraisers with appraisal questions.

We feel there is a need to diminish fractured use of the Guide in appraisals and workshop presentations, which have led to widely varying standards in some circumstances. After the ASCA annual conference at Lake Tahoe in December, CTLA realized that workshop interest is high, as more consulting arborists become aware of the need to improve their understanding of plant appraisal. The book itself provides enough detail to make it easily usable, once the appraisal methodology is understood. We feel that workshops should help appraisers better understand how to research each one of their cases and develop sound, reasonable appraisals. In some cases, misunderstanding the Guide results in using it in a ‘cookbook’ manner. Appraisals are seldom cut and dry. Future workshops will help increase an appraiser’s awareness of appraisal considerations and the proper use and intentions of the Guide.

Aside from discussion of education topics, Russ Carlson offered a new outline for a future 10th Edition of the Guide, derived from industry appraiser feedback and Council feedback over the last four years. We further refined Russ’s outline and assigned work accordingly. All appraisal comments and suggestions are welcome (please contact your organization representative). We discussed other issues that ranged from the wholesale/retail/installed cost factor questions to the location factor in appraisal. Discussion was thoughtful and thought provoking at the same time. We all agreed that appraisals should be more consistent from case to case.

CTLA believes it could be a better service to our respective green industry groups by reviewing the procedures used in appraisal. CTLA has always been more concerned about the procedures than the results – if the procedures are properly applied, the results will follow. Reviews have always been from an advisory standpoint. To this end, CTLA appreciates the verbal and written appraisal feedback and we encourage appraisers to communicate opinion and case study to the Council. I appreciated the attendance by Dick, Russ and David. Eight inches of snow in the Washington, D.C., region made our meeting travel a tad difficult.

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Please circle 54 on Reader Service Card
In response to the January article, “Green roofs and roof gardens” [TCI January 2004] I would like to bring your attention to a few points requiring clarification.

Firstly, the notion that water leakage into a building is ongoing or a “main construction problem” is inaccurate. Various methods of green roof drainage have been extensively researched, developed, and are actively used as a means to prevent standing water and eliminate leakage. Excess water is drained by means of roof outlets, boxes or eaves gutters, and water spouts. These are typical safety precautions, which should be addressed by the green roof designer and incorporated into the original design. The basic functions of a drainage system are: maintenance of the overlying growth media in a drained condition, preventing the drowning of vegetation; acting as the principal mechanism for discharging storm water run-off; the retention of water following irrigation or rainfall for subsequent use by plants; providing an additional layer to prevent roots of unwanted plants from reaching membranes; and physically separating the growing media of membranes, allowing them to drain and dry between storm events.

Secondly, regarding the choice of growing mediums, the assertion that “regular soil” or clay provides a better growing environment for plants than a lightweight mix is debatable. Terry McGlade of Perennial Gardens is an expert in the design, installation and maintenance of green roofs. According to McGlade, clay-based soils have two major drawbacks – weight and moisture retention. Clay tends to bind water to itself and, in a closed system such as a green roof, this prevents the root system from processing the oxygen in water as nourishment. Clay often stops roots from absorbing water, leading to major death.

McGlade has also found that the risk of wind blowing through a lightweight growing medium and causing damage to trees or plants is minimal. As plants grow, their roots become a dense matt completely enveloping the soil and thereby creating their own windbreak. Also, due to the containment of a green roof within multiple layers of membrane usually surrounded by a protective wall, wind damage is more frequently found as a result of wind catching the canopies of large trees (over 30 feet) rather than disrupting the growing medium.

All aspects of green roofing, including growing medium, plant selection, and irrigation concerns, should be considered and discussed with a professional prior to installation. For more information on green roofs, to get in touch with a professional, or to learn about the upcoming international green roof conference, taking place June 2 to 4 in Portland, Ore., visit www.greenroofs.ca.

Finally, I would like to thank Tree Care Industry magazine for profiling green roofs – we look forward to your upcoming issues and learning more about the tree care industry!

Steven Peck
Executive Director
Green Roofs for Healthy Cities
Run Rings Around Your Competitors.

We don’t have to tell you how competitive the tree care business is — YOU live it every day. But did you know that joining the Tree Care Industry Association (TCIA) will give your business a solid competitive advantage?

By joining TCIA you’ll gain immediate access to a team of business management consultants — experts in marketing, finance, sales, estimating, accounting and human resources who are dedicated to your business and only a phone call away. You’ll learn about the latest innovations in tree care safety, equipment, technology and techniques. You’ll also become part of TCIA’s extensive list of new business referrals. And you will also add your voice to the thousands of others seeking fair and beneficial governmental regulations and legislation. Call 1-800-733-2622 or go to the Web at www.treecareindustry.org, today. And start running rings around your competitors tomorrow!
In the tree care profession, just as in any other, there are companies as well as individual practitioners that distinguish themselves by going beyond what is expected. It is a curious phenomenon in this industry: As standards of professional practice grow more accepted and even expected, arborists lose the ability to distinguish themselves by simply “Doing good work.” One of the ways that arborist firms of all sizes can distinguish themselves is by being proactive in their marketing and communication efforts.

The Freeman Parr program recognizes such firms. The program’s entries epitomize marketing and communication excellence for this industry.

More than 20 years old, the program was named for the late Freeman L. Parr. Mr. Parr was a partner in the tree care firm of Parr & Hanson on Long Island and was widely regarded among his peers as an outstanding communicator as well as one of the founders of the modern commercial arboriculture profession in the United States.

Truly international in scope, the program is open to the tree care company members of TCIA. The entries were evaluated on their overall appearance, content quality, and their respective success in achieving the company’s marketing and communications goals.

Winning entries – depicted in this article – were selected in four categories: Brochure, Newsletter, Company Web Site and Special Entry. Within the newsletter category, separate consideration is given to employee newsletters and external publications, i.e. client newsletters. In the Special Entry category, TCIA gave separate consideration to electronic media, print media and “identity products.”

TCIA Recognizes Excellence in Communication

Shown with their Freeman Parr Awards at TCIA’s recent Winter Management Conference are Spence Rosenfeld, Arborguard, and Sandy Burns, The Davey Tree Expert Company.

Freeman Parr Award Winners

Brochure winner: SavATree’s “Climb Higher” recruitment brochure

Client Newsletter winner: SavATree’s “Timely Tips”

Employee Newsletter winner: The Davey Tree Expert Company’s “Davey Bulletin”

Special Entry, Electronic Media winner: Arborguard’s promotional CD
Promoting safety in the field is one of TCIA's core values, because after all, safety is fundamental to success in this industry. The TCIA Safety Committee developed the TCIA Safety Award program. It recognizes two broad areas of outstanding contribution by recognizing companies as well as crews or individuals who have accomplished something positive and noteworthy.

There were three awards last year. Recently, TCIA Safety Committee outgoing Chairman Joseph Tommasi (The Davey Tree Expert Company) was gratified to present six very well deserved awards.

The winners this year were:

• The F.A. Bartlett Tree Expert Company, for its effort to make the company’s extensive safety resources instantly accessible to all employees, on its company intranet site as well as in written form.

• The Davey Tree Expert Company and Davey Tree Surgery, and to special crews in Ohio and California, respectively, for those individuals’ acts of heroism.

• McCullough’s Tree Service of Zanesville, OH, for its overall safety program.

• Owen Tree Service of Attica Michigan for its comprehensive, ongoing effort to control accidents.

• SavATree, for the culmination of a four-year effort to reduce injuries by 50 percent and lost time by 75 percent.

• Vine & Branch Inc of Carmel Indiana, for their client-focused Tree Risk Advisory program.

• Parnell Barner, outstanding employee from Winkler’s Tree Service of Chicago, who for close to 25 years with the company has been setting a standard for tree care safety.

Congratulations to all!
Maryland Tree Expert Licensing Law and Regulations

By Michael F. Galvin

Maryland’s Tree Expert Licensing law was passed in 1943 and enacted in 1945. According to a 1998 report (Galvin, Michael F. and Peter Becker. 1998. A survey of licensed Tree Experts in Maryland. Journal of Arboriculture. 24(1):35-41), Maryland’s tree care industry at that time employed approximately 2,800 people and generated more than $130 million in annual gross revenue.

Why have tree expert licensing? What is the difference between tree expert licensing and arborists’ certification? Having been in place for 60 some odd years, is it worthwhile?

This article will review one state’s licensing program, including the points noted above, the requirements for examinees, the exam itself, and enforcement against violators.

Why have tree expert licensing?

The specific situation that prompted passage of the initial legislation is not known as no one from that time is currently practicing. We do know that in general, the impetus behind passage of the law was consumer protection. Though Maryland’s law predated most other occupational licensing mechanisms in Maryland, some states were even more proactive. Connecticut’s tree expert licensing law was passed in 1919. It is the oldest consumer protection law in Connecticut and the oldest tree care licensing law in the country.

Is tree expert licensing a good idea today? Yes, particularly when you put together the following elements:

The tree care industry had sales of $2.9 billion in 1999; this figure increased steadily to $3.9 billion nationally in 2002 (TCIA Reporter, March 2003, Number 229).


According to the Better Business Bureau’s 2002 report card:

- Tree care was ranked 89th highest in the complaint category, out of a possible 1,103 business categories.

- Disputes were resolved at a D-minus rate of 53.5 percent, with a very high “no response from company rate” of 34.1 percent.

This licensee, a utility tree care contractor, pruned trees on private property adjacent to a state highway for clearance from facilities. The trees were outside of the easement held by the utility. These trees had not been treated for line clearance in 15 years, and the judge found that they were not pruned to industry standards (ANSI A300) or the utility’s own standards. The contractor did not get permission of property owners prior to treating the trees. The licensee was found guilty of negligence or wrongful conduct in the practice of tree care.
cent, which compares unfavorably with an average resolution rate for all businesses of 70.9 percent, and an average “no response from company” rate of 18.1 percent (TCIA Tree Care Manager, Vol. III, Number 5, May 2003).

When you have an industry that has a rapidly expanding customer base, is inherently extremely dangerous compared to other professions, and has a relatively high customer dissatisfaction rate, you have a situation ripe for regulation.

**Why license Tree Experts now that we have arborists’ certification?**

There are a number of reasons for this. The two are apples and oranges: one is a professional business license; the other is a professional credential. It is kind of like being a licensed doctor and being a board certified surgeon – the latter is a worthwhile credential, but it does not give you in itself legal standing to practice in a given state.

The tree expert exam also covers certain areas that are not appropriate for the certified arborist exam, such as state forestry laws and laws regarding issues such as trespass and self-help.

**Applicability of Maryland’s law**

The Maryland Tree Expert law requires that persons engaged in the practice of tree culture or care (pruning, fertilization, cabling & bracing, management of insects or diseases of trees, consulting, etc.) for compensation by making diagnoses, prescribing, and supervising the treatment for trees obtain a tree expert license from Maryland Department of Natural Resources-Forest Service.

The law does not cover tree removal or stump removal. Licensees can remove trees, but a license is not required to perform removal. This is one of the biggest weaknesses in the law, and one of the biggest issues for industry. Industry has worked with the agency in repeated attempts to change the law to address this shortcoming, but efforts to date have been unsuccessful.

The law, regulations, exam application, license renewal application and related information can be viewed or downloaded at www.dnr.state.md.us/forests/programapps/tel.html.

**Qualifications of applicants**

To qualify for the exam, applicants must: Pay the $30 exam fee, be 18 years of age; and have two years of approved college and one year experience working under a licensed Tree Expert, or, for at least 5 years immediately preceding the date of the application been engaged continuously in practice as a tree expert with a licensed tree expert in Maryland or with an acceptable tree expert company in another state.

Upon qualification for the exam, they must take and pass the exam and then post proof of liability and property damage insurance, in the form and amount required by the department at the time it issues the license. The licensee must maintain the insurance protection for the period the license is in effect.

The qualifications for the exam are established in statute. That means that they have been established by the General Assembly rather than by the agency, and cannot be changed without passage of a bill altering the law.

**Tree expert exam**

To coincide with industry recommendations received by way of the Licensed Tree Expert Survey, the Department of Natural Resources re-wrote and re-formatted the licensing exam in 1998.

There are 10 domains to the exam. A 70 percent score is required for each domain, as well as a 70 percent overall score. There
are 14 questions in each domain except Tree Identification, which has 20 questions. The Tree Identification domain is administered in the field looking at whole trees.

According to the Tree Expert law, a candidate who has passed the examination in all but one of the subjects given may be reexamined in that subject only at any subsequent examination held, and if he passes that subject he is considered to have passed the examination. This means that: an examinee that passes all domains passes the exam; examinees that pass nine domains retake only the domain they did not pass; and, all other examinees must retake the entire exam.

**Tree expert exam scores**

The changes in the exam resulted in an initial significant drop in the pass rate. However, examinees are spending more time in preparation as word has spread and the pass rate for domains is on the increase (Fig. 1). It is particularly gratifying to see the change in the pass rate for the Safety domain. When we rewrote the Safety domain to reflect the ANSI Z133, early pass rates were around 40 percent. The pass rate for this domain has risen to almost 80 percent in the current year. This is exactly the type of impact we are hoping to have on the profession.

**Tree expert regulations**

Effective September 2, 2002, Maryland Department of Natural Resources for the first time adopted regulations to the Tree Expert law. A few things to keep in mind during the discussion:

- Regulations and statutes are different; Bills are normally broad, and are passed by a legislative body (Congress, General Assembly, etc.); and, Regulations are specific, and are usually adopted by an agency to lay out the specifics of implementation of a law (statute) that has been passed.

- In Maryland, agencies adopt regulations for laws under their purview via a uniform process during which the proposed regulations are posted in the Maryland Register, allowing the opportunity for public review and comment.

**Tree expert offence enforcement**

Tree expert enforcement comes under two categories: those for licensed practitioners and those for unlicensed practitioners.

If the tree expert in question is unlicensed, penalties apply for: Operating a tree care business without a license; or advertising a tree care business without a license.

We cannot take issue by this mechanism with standards or practice or other issues; only the fact that they were practicing or advertising without a license.

Penalties in this situation are criminal (misdemeanor offences), and are handled through the District Court system. Defendants are served with a citation, or ticket; the process is similar to getting a speeding ticket. You are assigned a court...
date and can plead guilty and pay out prior
to trial or stand trial and be found guilty or
not guilty.

If the tree expert in question is licensed,
penalties apply for: Fraud or deceit in
obtaining the license; negligence or wrong-
ful conduct in the practice of tree culture or
care; or violation of rules of ethics the
department may promulgate.

The penalty in this situation is suspen-
sion or revocation of the license. The
investigation is handled through MD
DNR-FS initially. If no remediation or res-
olution can be reached between the
department and the licensee, the case is
heard by an administrative law judge at
Maryland’s Office of Administrative
Hearings.

Although in Maryland anyone found
 guilty of committing such an administra-
tive violation is also subject to criminal
penalty, DNR has not pursued such crim-
al sanction against any of our
licensees.

Tree expert enforcement history

From July 1, 1995 through November 1,
2003, we handled 366 cases; 57 percent
(192) were against unlicensed practitioners
and 43 percent (144) were against
Licensed Tree Experts.

Of the cases against unlicensed practi-
tioners, 45.8 percent of complaints were
related to practicing tree care without a
license; 9.09 percent were found guilty.
32.7 percent of complaints involved adver-
tising tree care services without a license;
7.27 percent were found guilty.

Of cases against Licensed Tree Experts,
41.1 percent of complaints were for negli-
gence or wrongful conduct in the practice
of tree care and 29.71 percent of those
charged were found guilty.

There are a number of reasons for the
fact that the rate of guilty findings is much
higher for Licensed Tree Experts than for
unlicensed practitioners:

• Most work in Maryland is performed
by Licensed Tree Experts;

• Offending licensees tend to be recidi-
vists, while we do not receive subsequent
complaints against most unlicensed practi-
tioners we enforce against;

• Our initial interaction with an unli-
censed practitioner is a certified letter
advising of the law and exam and the
need to comply, and advising of how to
sit for the exam; licensees already know
the rule; and,

• There are differences between criminal
and administrative procedures. Judges gen-
erally expect someone licensed as an
expert to have a higher level of knowledge
than someone who is not.

Licensed tree expert
enforcement process

A complaint or incident report is brought
to DNR’s attention. We send a certified let-
ter to the licensee and request their side of
story within 30 days of the date of our let-
ter. When we receive the licensee’s
response, we compare the complainant’s
and licensee’s accounts of the events. If
there is cause to proceed, we then perform
a site visit. If there is no cause to proceed at
this point, we send a letter to the licensee
advising that the matter is closed and the departments does not find them guilty of negligence or wrongful conduct in the practice of tree care regarding this matter.

If there is cause to proceed after the site visit, we send the licensee an offer of settlement that includes acknowledging wrongdoing and acceptance of a suspension. We also advise the licensee of his or her right to a hearing, and request that they advise us which way they would like to proceed. If they plead guilty, we execute a document and conclude the matter. If they elect to go to hearing, we try the case before a judge. The judge has 90 days to rule by delivering a written opinion. If the judge’s decision is issued, the licensee is advised of duration and dates of suspension. Very few cases (one to four per year) against licensees go to hearing. We have never lost a case regarding negligence or wrongful conduct in the practice of tree care. We do not go to hearing unless we have a strong case.

What types of actions will get a license suspension?

The types of actions that have historically resulted in suspension of a license to practice include:

- Trespass;
- Property damage during tree care operations;
- Breach of contract;
- Improper crown reduction using topping;
- Improper handling and installation of trees;
- Improper tree fertilization;
- Use of spikes when pruning;
- Improper pruning – cutting to insufficient laterals;
- Failure to obey a court order to reimburse a client for actions taken by the tree expert pursuant to his license;
- Improper pruning – use of heading cuts;
- Removing a tree without the owner’s permission;
- Failure to use ropes to lower a limb when warranted; and,
- Improper installation of tree support system (cabling).

Determination of penalty

Factors that we consider, and which we request that the judge to consider, when assessing penalty include:

- Type of offense;
- Process/failure to cooperate to resolve the issue;
- Past course of dealings with the licensee;
- Past penalties to others for similar conduct;
- Duty to protect the public; and
- Making penalty carry some weight.

Points to take home

If you are the subject of an inquiry or investigation related to tree expert licensing or any similar mechanism, please respect the process and respond to the letter! This will serve you well as proceed through the process. Due process is your right as an American. Please do not be put off by an initial letter – it is simply intended to relate and gain information rather than to assign blame.

Know the rules.
Know and follow ANSI.

Remember, you don’t need to be perfect, but, as an expert, you need to be very good!

Tree expert licensing will not cure all the world’s ills … it does not even address all of the issues in the tree care industry. However, it does provide a mechanism to address public concern and provides a platform for the industry to interact with the agency. We collaborated with industry on the tree expert survey, the exam revisions, and now meet annually to discuss program issues related to law, regulation, education and enforcement. We are very appreciative that TCIA is a participant in these processes.

Respondents to the 1998 tree expert survey advised us that they consider the tree expert credential very worthwhile (mean response=4.33 out of possible 5.0). The standard of the practice of arboriculture in Maryland is, generally, higher than it is in many other places due to the licensing program. This has a number of positive results.

Though they represent the minority view, some in the industry are not happy with the program. One even asserted during an enforcement proceeding that the increase in enforcement and improvements to the exam were an act of collusion by the Maryland Arborist Association and DNR to decrease competition and reduce the number of Tree Experts practicing in Maryland. At the time of the tree expert survey data analysis in fall of 1996, there were 278 firms with licensees practicing in Maryland. Despite a very adverse economy for many years in the interim, as of November 2003, the number of firms practicing with licensees has more than doubled; there are now 599 firms with licensees practicing.

We have always held the position that good practice is good for business, and these numbers bear that out. We look forward to continued partnership with industry to improve customer satisfaction for clients of tree care services, safety for working arborists, and greater economic growth for Maryland’s tree care industry.

Michael F. Galvin is supervisor for Urban & Community Forestry at the Maryland Department of Natural Resources-Forest Service.
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Member '60
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Managing for success

By Ted Tate

The first lesson I learned as a manager, taught to me by my employees, was the old axiom, “Authority is given, respect is earned.” Your employees may obey you because you are their boss, but they will never work very hard nor give you their best efforts unless they respect you. Here are some ideas from my own ‘school of hard knocks’ that, over the years, have helped me manage people to get them to give their best in a very positive working atmosphere.

Don’t mingle

It’s late Friday afternoon after a very difficult week. Your job foreman says, “Hey boss, some of the folks are going to wind down with a brewski at the local watering hole after work. Wanna join us?”

Do you? Now if you are like me, you get to enjoy most of the people working with you. The temptation to join them in a few innocent beers, especially if you also feel the need to unwind, is great. It’s a good idea for everyone except for the boss. For the guy or gal in charge, it’s a bad idea.

For those of you who’ve served in the armed services you may remember that the commissioned officers never “hung out” with the enlisted people. The reasoning, by the armed services, was that in combat you must at times order people into danger and at times certain death, and there can be no hesitation. Other lives may hang in the balance if you hesitate.

But, goes the reasoning, how can you order people you socialize with, perhaps some guy who had you to his house for dinner with his wife and children, into a dangerous but necessary situation? You may or may not be able to do so. Even if you do, your actions and hesitation caused by your personal involvement may create a fatal problem down the line for others.

That’s the extreme version. In the normal scheme of business there will be times when you must deny someone a raise, when you must discipline them, when you must refuse them a favor, or when you must let someone go. We must order them to do unpopular jobs. They can ask for unreasonable favors or create discipline problems on the job and we have to take an unpopular stance. This is where being “buddies” can create resentment and anger towards you, the manager.

Familiarity breeds contempt

Here’s a second issue about socializing with people you manage. The more time you spend with your employees, the more they know about your personal life – warts and all. Your kid is in trouble for delinquency. Your wife’s sister is an alcoholic, your cousin beats his wife, you and your wife are having marriage problems – the list is endless.

None of us are perfect, but if people don’t know all this personal stuff they will assume you don’t have those problems. The minute people find out negative things about you they will start to lose respect. The next time you discipline someone they will direct their anger and resentment at you, “He has a nerve, who is he to discipline me” goes the mantra. The less they know about your personal life and problems outside the job, the more they can only focus on the business aspects of your relationship. If you need friends then find them away from people you supervise.

Keep business problems quiet

Don’t allow business problems to be known by your employees. If you get in an argument with a peer or business partner then do it behind closed doors or go off the premises. If your business has money problems, don’t let people know; deal with it privately. Your best employees are the kind of people who can easily find employment elsewhere and if they believe there is no job security, that one week they may not get paid, they will be the first to go. Deal with all business issues away from prying eyes. Keep confidential records locked up and available only to those with a need to know.

Treat your employees with dignity

While it’s not good to hang out and socialize with employees, it is critical that you never demean or insult people working for you, and that you treat them with respect. There is nothing worse that watching your boss scream at someone over a relatively minor work problem or calling someone a rude name such as “dummy.”

Don’t try management by intimidation, yelling, calling people demeaning names or otherwise insulting their integrity. By simply being their boss you have all the power you need. Acting out and losing your temper just makes people think you are not very stable. You will never create employee loyalty nor even keep anyone but the weakest people around by doing so. People with good skills and abilities don’t usually have a problem finding a job and therefore will not tolerate abuse.

Tell people how they are doing

This doesn’t mean making a big deal and gushing on and on when someone does something right. That’s what they are paid to do. However if someone does something a little above the normal – maybe makes a good decision on their own or gets a positive comment from a customer – then say something. They need to know they are on the right path and that when they do the right thing, you and the business appreciate it.
Lead by example

The best way to train people is to demonstrate with your own behavior. When you speak to customers, do it the way you want them to do it. If you have a problem customer, never make nasty comments after you hang up where employees can hear you. Keep those thoughts to yourself.

Be willing to listen

You may have employees working for you that know more than you do about certain situations; be open to taking advantage of their experience. Remember the old saying: ‘The better those a manager supervises look, the better the manager looks.’

Avoid procrastination

Nothing will make a manager look weaker and more uncertain of his or her authority than failing to address problems and issues promptly. Stalling an unpopular decision or discipline problem only allows the issue to get worse. This does not mean to rush to judgment.

Before you make any decision, make sure you have all the facts, not just one version. Ask yourself if what is going on is the actual problem or is it the symptom of a deeper problem. Get everyone’s version involved in the situation. Try to distinguish between a good employee having a problem or a person who is a problem employee. If you correct a good employee by overreacting you can lose that person’s trust and confidence. There may be a case where an employee just misunderstood what was expected of him or her.

The main goal is always to find a solution to the problem if that’s possible. Once all the facts are in and you feel you understand what is going on, however, then make a decision and get on with it.

Tell employees what you want

But not how to do it. You will find people more responsive and less defensive if you can give them guidance, not instruction. You will also see more initiative, more innovation, and more ownership in them over time.

Don’t do anything

A manager’s job is to “plan, organize, control and direct.” Don’t let yourself waste valuable time by falling back on what you did before you became a manager. You may enjoy it and you are good at it. That’s why you were promoted. Now you need to concentrate your efforts on managing others, not on “doing.”

Keep your time managed – delegate

The things you do everyday are the things to delegate. For instance, I know a guy who, after 20 years in business, still fills out the bank deposits and then walks to the bank every day! He refuses to teach someone he supervises how to do the job, afraid they’ll make a mistake. He’s always complaining he never has enough time. Delegating to people under you allows them to grow in addition to freeing you up for the actual job managing. Anytime a manager does the work of those he supervises, the business has no manager.

Learn from the mistakes of others

You can’t live long enough to make them all yourself.

Set S.M.A.R.T. Goals

Goals you set for yourself, or others, should be Specific, Measurable, Achievable, Realistic and Time-based.

You can’t listen with your mouth open

Your associates, your employees, your suppliers, your customers all have something of value in what they have to say. Listen to the people around you. You will never learn what it is if you drown them out by talking all the time. Remember, the only thing that can come out of your mouth is something you already know. Shut up and learn.

Practice what you preach

To lead, you have to lead by example. Don’t expect your people to work unpaid overtime if you leave early every day. Don’t book yourself into a four star hotel on business trips and expect your employees to stay in the motel off the freeway.

It’s not how hard you work, it’s what you get done.

Anybody can work hard, and most people do. The really successful people focus on accomplishing results not on effort expended. At the end of the day it does not matter how many papers you shuffled, how much you filed or organized. That’s called “busy work” and it gets you no place. What matters is what you actually get accomplished!

Ted Tate is an author and recognized authority on sales and marketing. His website: www.trainingexpert.com offers free success tips on sales, negotiating and time management.
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Are Biostimulants the Next Generation of Fertilizers?

By Dr. Glynn C. Percival

Over the past 10 years, developments in fertilizer technology have led to the formulation of a range of what are termed biostimulants. These biostimulants differ from traditional nitrogen, phosphorous and potassium (NPK) fertilizers in that their active ingredients tend to consist of a range of organic compounds such as humic acids, marine algae extracts, vitamins and other chemicals that can vary according to the producer.

Originally biostimulants were developed and marketed as root growth stimulators primarily for the agricultural sector to increase yields of root and tuberous crops, such as leek, carrots and potatoes, which when tested produced very successful results, i.e. increased root crop yields of 20-30 percent. It is also claimed that benefits of biostimulant application to plants – in addition to improved shoot and root growth – include increased stress tolerance, disease resistance, crop yield and quality.

Uses in urban tree care

Although very little published literature exists to support the manufacturer’s claims of increased stress and disease tolerance, one area of research that has been actively explored is the potential use of biostimulants as a treatment to alleviate transplant shock in urban trees by improving root vigor post-planting. For example, it has long been accepted that drought-related problems are often responsible for poor growth and deaths of newly planted urban trees. As little as 5 percent of a tree’s root system may be moved with a tree following lifting from the nursery bed, significantly reducing the root:shoot ratio and consequently the tree’s ability to uptake sufficient water and nutrients for survival of the newly expanding leaf canopy in spring. Although tree root systems can be manipulated to reduce the effects of transplant shock by increasing the amount of root to be transplanted by, for example, root pruning, wrenching or undercutting in the nursery, the effects of these techniques are still inconsistent and a high proportion of the root system can still be lost in the lifting process. This limited root system post planting leads to water stress, resulting in “transplant shock” that is generally characterized by reduced shoot growth, branch dieback and possibly tree death.

It is now widely recognized, however, that the survival of newly planted trees is largely dependant on rapid extension of roots following transplanting to absorb water, replenish transpirational water loss and reduce drought-related water stress symptoms. If the manufacturers’ claims of enhanced root growth of crop plants can be duplicated with urban trees, then such biostimulants may provide a means of significantly reducing transplant shock after planting.
For this reason, a number of trials have been instigated at the R.A. Bartlett Tree Research Laboratory in the United Kingdom over the past five years to compare the effectiveness of these commercially available biostimulants on reducing tree deaths following transplanting by promoting root vigor.

Small tree experiments

With the wealth of biostimulant products flooding the market, testing them all would have been impossible, however, a rapid and effective system was devised to test as many biostimulants as possible. Basically, initial trials used smaller, 4-year-old transplants that were lifted from the nursery and then containerized. A range of biostimulants were applied both as a foliar spray and root drench, and at week eight after application trees were lifted from the pot, and the root systems gently washed with water. Improvements in root vigor were determined by measuring the root growth potential, or RGP. Simply put, root vigor is composed of increases in the length of existing roots and formation of new roots. Newly formed roots can be easily identified as they are white. The total number of new white roots is known as the RGP. Importantly, an RGP of 5 is associated with survival after transplanting.

Although more than 20 biostimulant products were tested, results for only 10 are presented. Red oak, birch and beech were chosen as experimental species since these trees are known to be transplant sensitive.

Table 1 highlights some of the problems of using biostimulants that are frequently encountered, not just in our trials but elsewhere as well. These are:

1. Many of the products tested do not live up to the root-promoting claims of the manufacturers. Indeed no beneficial effects

<table>
<thead>
<tr>
<th>Biostimulant Product</th>
<th>Red Oak</th>
<th>Birch</th>
<th>Beech</th>
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<tbody>
<tr>
<td>Control</td>
<td>4</td>
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<td>Redicrop 2000</td>
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<td>6</td>
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</tr>
<tr>
<td>Crop Set</td>
<td>9</td>
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<td>Maxicrop</td>
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<tr>
<td>Seamac</td>
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</table>

All values mean of 10 trees

Table 1. The influence of biostimulants on RGP of three urban tree species. An RGP of 5 is associated with survival after transplanting.
were recorded in the 10 products not mentioned!

2. In instances where a root promoting effect is observed, in many cases this was species dependent. For example, both Redicrop 2000 and Crop Set almost doubled the RGP of red oak but had no effect on birch and beech. Contrary to this, Axon proved useful when applied to birch and beech yet had little effect on root vigor of red oak. Such a response is disadvantageous to professionals involved in urban tree care where products with universal applicability for a wide range of species are preferred rather than individual products for specific tree species.

3. Few of the biostimulant products tested worked on all three test species.

This then begs the question as to why do we see these marked differences between species? The answer may lie in the fact that the active ingredient present in each
biostimulant product tends to vary. For example, we know Generate contains a range of zinc complexes combined with acetate. Fulcrum on the other hand is derived from molasses, a sugar based compound while Maxicrop is formulated from seaweed.

In many cases manufacturers are extremely “cagey” about informing exactly what is present in the product using the vague term “natural plant extracts” or “organic molecules” on the product label. Previous research does exist supporting the idea that the effects of biostimulants on plant growth can differ as a result of differing active ingredients, such as auxins, cytokinins, vitamins and salicylic acid present in the product. Likewise, even when the active ingredient is the same, effects on tree vitality can differ from marked increases to no significant effects depending on tree species.

**Larger tree trials**

The next stage was to test these biostimulants using half or full standards where the problems of transplant shock are more critical.

For this reason experiments used larger 2- to 2.3-meter-high stock with girths ranging between 18 to 20 inches. Trees were planted in November 2001 and treated with four biostimulant products applied via soil injection in April 2002. Trees soil-injected with only water acted as controls, and five trees per treatment were used. Root densi-
ty was then measured at month six after application and, as the results of Graph 1 show, only two of the products tested had any beneficial effects on root density.

**The take home message**

Based on results of our work over the past five years, much of which has not been presented here, in combination with work that has been published by other workers we would conclude that:

1. Biostimulants can improve root vigor following transplanting and in turn promote tree vitality; however, selection of an appropriate biostimulant is critical as effects on growth and vitality can vary widely between tree species, possibly as a result of the differing active ingredient used in the formulation of a product.

2. With the influx of biostimulants released into the marketplace, each containing differing active ingredients, evaluating all of them independently may prove difficult. Consequently, where independent scientific data is not available to support the claims of manufacturers, growers and urban tree managers should be aware of the potential disadvantages of using biostimulants highlighted above.

**Useful Further Reading**


**Dr Glynn Percival** is the plant physiologist and technical support specialist for the F.A. Bartlett Tree Expert Company Ltd and head of their research laboratory based at the University of Reading in the UK.
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Accreditation pilot program fills quickly

The TCIA Accreditation program is underway! After a call for companies to take part in a pilot project, more than the anticipated number of companies signed up. Those companies are

C.L. Frank Company
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The forward-thinking companies listed above recognize that the new TCIA Accreditation program:

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- Will give insurance companies a way to identify safer companies.
- Will help TCIA develop a sorely needed coop insurance program for our industry.

We congratulate these pioneers and eagerly anticipate the results of their efforts.
Important announcement for the industry

The TCIA Board and ISA Executive Committee have committed to a meeting together on March 3. The purpose of that meeting is to engage in a process to explore new organizational relationships, which includes the possibility of unification. Today, we cannot answer any of the detailed questions about how, when, or what it means for any of us - because the conversations have not been held; nor have any conclusions been reached.

What we do promise is that as the exploration occurs, we will have a regular communications plan in place to keep our members briefed and that enhancing value for the community of arboriculture will always be at the core of the conversation. Our world is rapidly changing, and we owe it at this time in our history to at least have the conversation about how the community of arboriculture can best be served by associations.

Stay tuned for an update after March 3.
Rusty Girouard, Chair of the Board, called the meeting to order. Those present included Greg Daniels, Tim Harris, Tom Golon, Dan Christie, Jeannie Houser, Mark Shipp, Tom Tolkacz, Scott Jamieson, Stacy Hughes, and Cynthia Mills. Randy Owen and Terrill Collier attended as guests and incoming 2004-05 Board members. Agenda items:

- The Board held a discussion of the feedback from membership on the publication of members’ dues categories in the TCIA Membership Directory. The Board asked the Finance Committee to review membership dues structure options and to bring a recommendation to the Board for consideration.

- The Voice for Trees Political Action Committee established an Award to recognize policy-makers (name to be determined) for their efforts in support of the industry’s agenda.

- The Board held a discussion on the progress to date on one new vision for arboriculture, discussed appropriate communication at the Winter Management Conference, and prepared for upcoming meetings in March.

- Tom Tolkacz provided an update on The TREE Fund.
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Want to know what’s bugging your trees?

The Morton Arboretum in Lisle, Ill., has the answers. During the growing season (April through early September), the Arboretum publishes the Plant Health Care Report, a weekly bulletin with the latest news about pests and diseases that may be threatening your trees. Covering the Chicago region and hardiness zone 5, the first bulletin for 2004 is tentatively scheduled to be available on the first week of April.

Assembled by the Arboretum’s recognized Plant Pathology program, each bulletin includes information on:

- Diseases, insects and other problems plaguing the region’s woody plants;
- How to identify pests, including color photographs;
- Plant Health Care (PHC) strategies, emphasizing non-chemical controls;
- Weather trends and accumulated degree days;
- In-depth articles by Morton Arboretum research and collections and grounds staff;
- Links to valuable references.

Many professional arborists have raved about the report, especially the timeliness of the useful insect and disease information and the terrific photographs. Several companies even use it to train their employees.

The Plant Health Care Report is available free on the Arboretum’s Web site at www.mortonarb.org.

The report is also available in a paper version sent to you via the U.S. mail; subscription cost of this version is $35. To subscribe to the paper version of the Plant Health Care Report, send your address along with a $35 check made out to The Morton Arboretum, c/o Plant Health Care Report, 4100 Illinois Route 53, Lisle, IL 60532. For more information, call Donna Danielson at (630) 719-7945.

Known for its practical scientific work in breeding hardier, more insect and disease-resistant trees and shrubs and determining ways to help woody plants thrive in the challenging northern Illinois environment, the research program at The Morton Arboretum is the largest of its kind at any arboretum in the country. The Morton Arboretum is home to the largest U.S. collections of plants from Russia, China, the Balkans and Northeast Asia. The 1,700-acre arboretum features more than 40,000 labeled plant specimens representing 3,700 different types of plants.

Donna Danielson, M.S., is a plant health care technician at the Morton Arboretum.
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Lessons Learned

By Eric L. Graefen

Arboriculture is one of the most interesting and fascinating careers in the world. Virtually every day contains a new adventure, challenge or experience. At every trade show and seminar the favorite pastime seems to be story swapping. The one common denominator in each story is that there is a lesson to be learned.

Some of these lessons are quite serious, and others are just plain fun. Having just enjoyed my 15th anniversary in the tree care game, I decided to sit down and compile a list of my favorite “lessons.” No doubt everyone reading this could create a list of their own; I’d love to hear from you.

In the meantime, here’s mine:

1. Never let anyone bring beans for lunch.
2. If anyone brings beans for lunch, make them ride back to the shop in the chip box.
3. Always keep a roll of toilet paper in the cab.
4. Never spread wood chips with your bare hands.
5. Squirrels can pee.
6. If you feel rain on your hardhat and it’s not raining, don’t look up.
7. Squirrels can climb pole saws.
8. Squirrels can’t fly.
9. Never swing a log into the chipper before untying the lowering rope.
10. A chipper can suck up a lowering rope in about 5 seconds.
11. Lowering ropes are expensive to replace.
12. Never throw a log into a drum chipper.
13. Drum chippers can spit a log a long way.
14. Logs spit out by a drum chipper can break safety glasses.
15. Know how to identify poison ivy.
16. If you can’t identify poison ivy, and you’re working in the woods, make-doubly certain you follow lesson No. 3.
17. Poison ivy rashes are really itchy, in some places more than others.
18. Trees sometimes fall the wrong direction.
19. When felling a tree, make sure your truck is parked farther away than the height of the tree.
20. Trees can crush a truck when they fall.
21. Trucks are also expensive to replace.
22. Every time a customer doesn’t pay on time, it’s somehow your fault.
23. Every dent, crack and ding on your customer’s property must have been caused by your crew, because the customer “never noticed it before.”
24. Sometimes people don’t tell the truth.
25. Always tie a knot in the end of your climbing line.
26. Fifteen feet really is a long way to drop to the ground.
27. Mulch beds don’t provide much cushion when you drop the last 15 feet out of a tree.
28. Sprained ankles hurt.
29. Foremen are not fond of working late because someone did something stupid.
30. Wet trees are slippery.
31. Rubber boots are especially bad to climb in when trees are wet.
32. When you slip off a limb while climbing, you should point your feet at the trunk.
33. Tree stubs are quite painful when you swing into them with your back.
34. Always check for dogs before you go into someone’s backyard.
35. Dogs can run really fast.
36. Dogs have sharp teeth.
37. All trucks should have a first aid kit.
38. Stitches are no fun.
39. Beehives and wasp nests should not be knocked down with a pole saw; nor should they be snipped with a pole pruner and allowed to drop.
40. Wasps and bees get pretty riled up when you knock their houses down.
41. Wasps and bees fly faster than you can run.
42. Chippers can dispose of beehives awfully quickly.
43. When someone on the crew says “Watch this!” become very afraid.
44. Ditto for “Check this out!” and “Do I look like a sissy?”
45. If the log you’re lowering is too heavy, let go of the rope.
46. A heavy log is very effective as an ascender to get someone into a tree.
47. Trees are hard to climb out of without gear.
48. Heavy logs can cause back injuries.
49. Logs are lighter when cut in half.
50. Logs are also easier to pick up with two people lifting.
51. Electrical wires to houses are really strong. When you misjudge a log and it swings into electrical wires, it can rip the whole corner off of a house.
52. Use an experienced spotter to help you back up a truck.
53. Porsches are expensive to repair when you back into them with a bucket truck.

Well, gang, thanks for indulging me. These are just a few of the many lessons I’ve learned. Perhaps after my next 15 years I’ll make another list. Stay tuned.

Eric L. Graefen is a district manager for Winkler’s Tree Service in Naperville, Ill.

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