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“How Are You Doing?”

T

hat just might be a question we all should ask a little more often around the office. According to a recent Harris Interactive poll, our employees aren’t doing so well. Seventy percent of workers said that their colleagues are more stressed out than last year. (Boston Sunday Globe, July 11, 2004, p. G2.) Here is the rather interesting break-out of what is causing the stress:

29 percent – war and terrorism
28 percent – economy
27 percent – their own jobs
10 percent – their families
6 percent – not sure

Thirty-seven percent said that worries about war and terrorism have increased in the last year while 48 percent say their colleagues talk weekly about things on the home front and the world stage.

Frankly, I would have definitely missed the mark if I was asked what I thought was causing my employees the most stress. I would probably have said they have more dreams of services for our members than resources allow for, or too many short deadlines. Forty-nine percent of people surveyed did complain about their workload and 32 percent complained about deadlines.

The next part is scary – 63 percent indicated that job stress has affected their personal lives and 60 percent report physical and emotional health problems. Yikes!!! These numbers made me think immediately about two things:

1. Stress affecting mental acuity and health means more likelihood of accidents in the workplace.
2. We should be focusing on reducing stress in the workplace as a management issue.

I don’t imagine for one minute that any of us can control how each employee internalizes or copes with issues like terrorism and world events. However, talking about what we are thinking and feeling is a known release for stress. Encouraging our employees to be open about what is troubling them can go a long way toward managing these issues.

Communication is a great way to help ease stress. Contrary to the gurus of the world who promote fewer meetings, we are increasing our meetings. As we have more and more to do in less time, we find that it is critical to make sure the messages for our success are distilled throughout the association in a timely fashion. It gives us a chance to regularly measure progress, catch any balls that are trying to slip out of our grasp, and implement new ideas regularly. Communication reduces stress; especially when everyone has the sense that we are all pulling in the same direction. We also take the time out at each retreat to ask how we’re feeling. If for no other purpose, it gives us a chance to verbalize pride, excitement and successes, while promoting the bond that we’re not alone if there are rough things that we’re all wrestling with.

Terrorism may be here to stay with us. How we face it as employers has real implications for our businesses. Interestingly, 42 percent of companies have not done anything to improve their security provisions. That’s not very comforting to employees. Do you have a crisis management plan? Do employees feel safe at work? Do they know where to meet or what to do if something happens during the day?

Whether you are someone who believes there may be looming crises ahead or not, as employers we have an obligation to be prepared; to communicate confidence to our employees; and to help them manage what they may perceive as real fears in their lives. To do nothing doesn’t reduce the stress they may be feeling, and will not help their productivity or their safety practices day to day.

Before you brush this article off, give your employees the courtesy of asking them, “So how do you feel?” You may be surprised to hear the answers.

Cynthia Mills, CAE
Publisher

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September

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“I love the smell of wood chips in the morning.”

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Radial trenching is the excavation of soil in a spoke pattern, with the tree trunk as the hub. Sheet excavating is the removal of all soil in a complete circle around the trunk. Both can be used, as they were with this white pine, to address problems related to compacted soils. All photos courtesy of Peter Felix.

By Peter Felix

Every year, we get calls from potential clients concerned with the health of a tree. Usually, our company receives these types of calls late in the season, and I get to make my consultation just in time to watch the last leaves fall off and land next to their new house or addition. I try to keep a professional approach as I use my penetrometer like a cane to help step over standing water next to the ailing tree. Obviously, the client’s trees have been affected by new construction on the property.

It is at this point that I usually ask myself, “Why don’t more builders consult with arborists to preserve trees?”

Ideally, we should have been called before the construction began. Our tree care company has been involved in many successful preconstruction tree protection endeavors, but let’s face it, construction projects can be completed faster for less money without erecting tree protection zones. As arborists, we need to be equipped to handle post-construction and post-compaction tree care.

Construction activities represent only a handful of the soil compaction problems we find in urban and suburban landscapes. On a regular basis, our PHC technicians and sales people measure compaction from rain, pedestrians, lawn mowers and pets. These perpetrators destruct soil aggregates, diminish available oxygen and water, and senselessly murder soil arthropods and micro-organisms. Depending on species, both acute and chronic compaction symptoms can take years to manifest. We use a tool called a penetrometer to measure compaction and soil density. The tool’s meter indicates at what depth the soil becomes anaerobic and can also serve as a great visual aid to show our clients.

A few years back, a spray rig and fertilizing needle were the tools we used to alleviate compacted soils. We found it to be almost impossible to get the needle into heavily compacted soils. Occasionally, we tried vertical mulching with a drill and auger bit, but this procedure usually caused root damage. Today, we use air tools to alleviate compacted soil. The current technology of these air tools enables us to perform this task without causing damage to roots.

Two years ago, we sold our bucket truck and chipper and bought an air compressor for our air spade. Since that time, we have specialized in “caring for plants from the soil up.” Our new soil remediation program is radial trenching, sheet excavating, and combinations of both with an air spade.
Radial trenching is the excavation of soil in a spoke pattern, with the tree trunk as the hub. Trenches are usually 8 to 10 inches wide and 10 to 14 inches deep. When we get to the drip line, the trenches are far apart; we then connect the spokes with perpendicular trenches. Sheet excavating is the removal of all soil in a complete circle around the trunk. We will usually perform a sheet excavation around the trunk and then make radial trenches out beyond the drip line. The distance of the excavation from the trunk depends on budget, trunk diameter, and other conditions based on a visual examination of soil.

If we have to alleviate compaction around many trees on the same property, we operate two units simultaneously from one compressor. After using the tool for a day, operators quickly learn how to feather the trigger to minimize the amount of soil they bring home on their clothes. We use plywood to protect any fragile obstacles located near trees. Operators wear a hard hat, ear muffs, face shield, goggles and sometimes a Tyvek suit.

It is important to have an available water source to keep exposed roots moist during excavations. Leaving the root system exposed for too long can cause smaller roots to dehydrate. We use compost to backfill the trenches and around the trunk. The high-pressure air also provides an efficient way to mix the compost with the existing soil and to create a smooth grade. We carry compost to these jobs in bags because it is difficult to estimate ahead of time how much will be needed.

After we fill the trenches, we put shredded cedar mulch as far out as the client will allow. Since dry compost and mulch can wick out soil moisture, we irrigate heavily. If the tree is surrounded by turf, we seed the
affected areas. In all cases, we follow up the trenching work with applications of microbial inoculants (beneficial bacteria, fungi, protozoa, nematodes and mycorrhizae), as well as sea kelp extract and liquid humus to help sustain the soil structure and to provide nutrition and protection for roots.

Depending on species, we may also treat trees with Paclobutrazol, a growth regulator and health stimulant that gently slows shoot growth. Paclobutrazol helps stabilize a tree by reallocating energy to form fibrous roots, which enables the root system-to-canopy ratio to achieve balance slowly. Paclobutrazol-treated trees retain more water and become more drought-tolerant.

To be able to save trees after construction, it is important to act as soon as the last construction vehicle drives off the property. Treating compaction in all situations is worthless if the cause is not addressed. Pedestrian paths can be altered, turf under trees can be cut with a lighter lawnmower, mulch can lessen the impact of heavy rain, and pets can be walked under someone else’s trees.

Like other services, it is crucial to price and estimate the time needed to perform soil remediation properly. Soil type, level of compaction and area of the root zone are key factors when pricing radial trenching and/or sheet excavations. Obviously, heavily compacted clay soils will take longer to excavate than sandy loam soils. The penetrometer is a valuable tool for determining the level of compaction; however, a sharp stick can tell you the same thing. Our company is beginning to compile data on the relationship between soil types, compaction levels, and excavation times to help estimate these jobs more accurately in the future.
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Soil moisture at the time of excavation is also an issue. Dry soil will cause dust and can be messy for both the operator and the surrounding property. If the soil is too moist, it tends to clump and is difficult to eject from the trench. Soil remediation should never be done in the rain because soil structure will be further damaged. If conditions are dry, irrigate the soil one day before if possible. If conditions are wet, wait until the soil has less moisture.

An air excavation tool is also handy for root collar excavations, locating girdling roots, diagnostics, and creating moats for basal drench applications of Paclobutrazol. We have used it to make clean pruning cuts to roots in trenches formed between trees and the construction of a few new driveways and tennis courts. We were recently contracted by a New York City agency to help determine whether roots and tree health would be affected by future construction activities.

Providing compaction alleviation is valuable to clients who rely on us to save their trees. It is an easy service to provide to clients. Because of its low-cost, arborists can invest in an air excavation tool itself, then rent an air compressor on a job-by-job basis. Our local tool rental business in New York rents a 185 CFM compressor for $110 per day. Construction is happening everywhere you look. It should not be much trouble to find trees to save. If nothing else, an air excavation tool makes one heck of a leaf blower.

Peter Felix is president of Tree Health Management, Inc./THM Scientific, Inc. in Farmingdale, N.Y.
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Reacting Toward Less-Allergenic Trees

By Janet Aird

There’s more pollen blowing around urban areas in the United States than ever before, and it’s causing an epidemic of allergies and asthma, according to Thomas Ogren, author of the book Allergy-Free Gardening. And, though tree care companies may not be aware of it, more and more cities are taking steps to restrict the planting of allergenic trees.

“There are various communities in the Valley that have ordinances regarding allergenic trees,” says Dennis Peltz, a landscape architect with McCloskey Peltz in Tempe, Ariz. Tempe is one of several cities across the nation that, basically, ban the planting of certain trees.

In the Salt River Valley of central Arizona, the prime culprits are common olive and fruited mulberry trees. Other cities may include species of pine, cottonwood, oaks or pecans in that list – or at least recommend that they not be planted.

Andrew Backhaus, an arborist with TCIA member Artistic Arborist Inc. in Phoenix, notes the ordinances don’t affect his business practices a lot because he already is alert to allergy issues in his plant selection process. He is very aware that the common olive is a popular tree in the desert, but that it is highly allergenic.

“The new plantings that go in have to be fruitless olives,” Backhaus says. As he and Peltz note, pressure from customers as well as local governments make this a growing issue as cities become more congested.

Yet in calls to several commercial tree care companies, landscape contractors and architects, it was obvious that there isn’t a general awareness of allergenic trees, pertinent ordinances, or the types of trees that are recommended for planting that can reduce pollen in the air. Ogren is trying to change that.

Ogren is a San Luis Obispo, Calif., landscape architect with a masters degree in agriculture, with an emphasis on plant flowering systems and the connections between landscape plant materials and allergies. He has taught landscape gardening, co-owned a nursery in the Midwest and is the author of three books. One, Allergy-Free Gardening, details what he calls the Ogren Plant Allergy Scale (OPALS), which ranks more than 5,000 plants according to their ability to make people sensitive to pollen miserable.

Ogren takes 120 factors into consideration for OPALS, including pollen size and weight. Large, heavy pollen is more likely to drop straight to the ground, while small, light pollen is more likely to stay airborne for greater distances and cause the most havoc among people with allergies. The tiniest pollen gets into the lungs and causes asthma.

Ogren also considers how the flowers are pollinated. Monoecious trees, such as honey locust, oak, sweet gum, pine, spruce...
and birch are self-fertile. They have separate male and female flowers on the same plant. They tend to be less allergenic because they are usually pollinated by insects, or, when the male flowers are above, by gravity. If the female flowers are on top, however, they need wind or insects for pollination.

“Perfectly flowered” trees, such as dogwood, crabapple, cherry, citrus, loquats, apricot, plum, apple, redbud, magnolia, flowering pear and hawthorn, have both female and male parts on each flower. Their pollen tends to be heavy and sticky and they are usually pollinated by insects, so they are also good low-allergy choices.

Some plants, such as formal double camellias, are considered “pollen-free.” Usually, for such hybrids bred for their fully doubled flowers, each flower has so many petals that there is no space left for reproductive parts.

On the other hand, dioecious trees, including ash, willow, cedar, juniper, cottonwood, mulberry, box elder, holly, yew and smoke tree, have female and male flowers on separate plants. Homeowners and cities like planting male dioecious trees because they don’t cause messy fruit drop the way females do, but it is the males that cause almost all allergy and asthma problems. Not only do they produce huge amounts of pollen, but their pollen depends on the wind for dispersal. And, the higher the ratio of males that are planted, the fewer females there are to trap the pollen and remove it from the air.

“You can walk down any street in spring and look under a tree and see pollen all over,” Ogren says. “The concentrations are intense. You’re always going to get the largest amount of pollen right under the tree. At 10 feet back it’s diminished; at 20 feet, there’s almost none; and, at 40 feet there’s some, but it’s not in the same ballpark.”

Many cities with tough pollen control ordinances ban very few trees outright. For example, Albuquerque, N.M., has had a pollen control ordinance since 1997. The city prohibits the planting of all cypress, of the genus Cupressus; all mulberry, of the genus Morus; and, all elm, of the genus Ulmus.
The podocarpus gracillior tree has become one of the most common street trees in California – but not the females, as shown here with fruit.

homeowners not to plant them close to air-conditioners, windows, vents or other openings to their homes. Residents don’t seem to mind the restrictions.

“We’ve received very few complaints. If you look at the number of trees we’ve restricted, it’s not that many at all,” says Dan Gates, in the city of Albuquerque’s Air Quality Division. The city is considering loosening the restrictions to allow the planting of hybrid elms (other than Ulmus pumila) and cypress as long as they are labeled as high pollen.

In Phoenix, Backhaus says guidelines in surrounding communities are in the back of his mind, but his plant selections are almost always based on higher priorities, such as shade potential or water use. Olive trees still pose the greatest problem.

“For the horticulture industry, it’s not a major selling point,” Backhaus stresses of non-allergenic trees. But if you are a severe allergy sufferer, it can become a huge issue. Occasionally when fruit-bearing olive trees begin to flower in the spring, he is called on to spray the trees to induce flower drop.

In Tempe, landscape architect Peltz points out that rapid residential growth in the Phoenix area has boosted awareness of allergies and made them more of an issue. “We’re required to follow the ordinances,” he says, but they haven’t reduced his plant palette much.

“We try to use the native varieties,” Peltz explains. That’s a trend in the region, and none of those species are on the restricted list. He points out that common Bermuda grass is highly allergenic but is still used extensively in Arizona.

Ogren’s ideas are catching on. The American Lung Association asked him to oversee its first pollen-free landscape in its regional headquarters in Richmond, Va. A pollen-free landscape is going up in another of its headquarters as well – in Harrisburg, Pa.

In California, the Tulare County Asthma Coalition has begun a project to uproot high-allergy plants at local schools and replace them with pollen-free ones. The first was at The Heritage School in Tulare, where coalition members, parents, teenagers and young children planted 1,000 low-allergy plants.

“It is the exact opposite of what you find in most elementary schools,” says Ogren.

“They usually like dioecious trees because there is less litter. It’s the one locale where allergies can be the worst.”

According to Ogren, some owners of upscale properties are beginning to tell designers and arborists they want all the plants in their yard removed and replaced with low-pollen species. It’s bringing in lots of work that wouldn’t happen otherwise, and everyone benefits – arborists, landscape designers, nurseries and homeowners.

There is a growing awareness among tree care professionals about allergenic species. This could be one of those cutting-edge areas where expertise and preemptive action could give tree care companies a leg up on the competition – and give clients relief from runny noses and itchy eyes.

As Ogren says, “Why not suggest beautiful, functional trees that won’t cause allergies?”

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Samson’s ArborMaster Rope approved for sale in Europe

Samson’s ArborMaster rope has received the CE mark of approval for sale throughout the European Community. Due to a growing demand for a premier climbing line in Europe and abroad, Samson’s ArborMaster has undergone the rigorous testing required that indicates a product is acceptable for use in Europe.

Randy Nulle, general sales manager for Samson’s Arborist division stated, “We are very excited to have earned the CE certification. We have received a great deal of interest from Europe, not only for ArborMaster, but for all the arborist climbing lines we manufacture. Many countries require the CE mark for their retailers to sell our products. Now that we have the validation that the CE mark brings, we plan to aggressively serve the European market, starting with the ISA Europe show in June (2005).”

Swingle is Award Winner at National Decorators Contest

Christmas Décor, a division of Swingle Tree & Lawn Care, won two awards at the 12th Christmas Decorators Conference held in Pittsburgh, Pa., June 3-5. Swingle was one of 25 national winners in a contest that recognized outstanding holiday decorating for business.

The awards were received for the design and installation of two holiday decorating projects in Denver – the first at 475 17th Street, managed by the Jones Realty Group, and the other for Office Plaza One, managed by PM Realty.

Christmas Décor by Swingle Tree & Lawn Care provides a complete range of holiday decorating services, including design, installation, removal and storage, with both lease and purchase options available for businesses as well as residential customers.

Sherrill, adds David Cole as purchasing manager

Sherrill, Incorporated announces the addition of David Cole as manager of purchasing. Cole has more than 20 years of purchasing and inventory control experience.

In managing the purchasing department, Cole’s assignment is to keep inventory levels stable, to ensure that customer demands are met promptly, and prices kept low, to pass on maximum customer savings. Before joining Sherrill, Cole served as director of purchasing for Brown Wooten Mills, where he oversaw all purchases and procurements. A graduate of Appalachian State Univ., Cole was also a member of the Army National Guard.

Bayer Offers Online Formulator Support

A new online formulator support program, including downloadable training materials, customizable ads and marketing tools, was recently implemented by Bayer Environmental Science.

“This Web-based marketing resource is easy to understand and use, even for the novice computer user,” says John Turner, formulator account manager for Bayer. “Formulators can simply visit www.formulatortools.com and follow the easy directions to register for advertising and marketing support.”

UMass has New Endowed Commercial Arboriculture Faculty Position

The University of Massachusetts, Amherst has added Dr. Brian Kane to the faculty as Assistant Professor of Commercial Arboriculture, effective September 2004. This new Assistant Professor of Commercial Arboriculture position addresses a critical need in the Arboriculture/Urban Forestry efforts of the Department of Natural Resources Conservation.

Funding to support this position comes from the Faculty Endowment, created by the Massachusetts Arborist Association (MAA), and supported by many of the arboricultural associations in New England, alumni and commercial arboricultural firms.

By agreement with the MAA, the faculty position will be filled by a certified arborist with a Ph.D. and commercial tree care experience. This guarantees that the person hired will have knowledge of, and experience with, the tree care industry.
Brian Kane received his Ph.D. from UMass-Amherst in 2002. For the past two years, he has worked in the Forestry Department at Virginia Tech University as an assistant professor of Arboriculture and Urban Forestry. He is an ISA Certified Arborist and ISA Certified Tree Worker with 14 years of commercial and municipal tree care experience as a climber, crew leader and arborist. His main research interests are tree risk assessment and tree mechanics. Dr. Kane has published several articles in journals such as the Journal of Arboriculture and Urban Forestry & Urban Greening. He has also published articles in Arborist News and TCI. Asked to speak regularly at conferences, Dr. Kane has traveled around the country presenting research at local and national arboriculture and urban forestry conferences.

Dr. Kane will complement the Stockbridge/UMass Arboriculture & Community Forestry team that consists of Dr. H. Dennis Ryan, who heads up the Stockbridge Arboriculture & Community Forestry program, Dr. David Bloniarz, Urban Forester and head of the USDA Forest Service Northeast Center for Urban and Community Forestry, and the members of the UMass Extension Urban Forestry Diagnostic Lab.

It is the goal of the University of Massachusetts and the Stockbridge School to maintain a nationally recognized program emphasizing commercial arboriculture by working cooperatively with the tree care industry associations.

### Compact Power Subsidiary Acquires Assets of Mertz

Mertz Manufacturing, LLC, a newly formed subsidiary of Compact Power, Inc (CPI), a North Carolina corporation, has announced the acquisition of substantially all the assets of Mertz, Inc. (Mertz), an Oklahoma-based manufacturing and metal working corporation. The operations of Mertz will continue at its Ponca City location and all active employees will be retained. Steve Ballinger has agreed to remain president. In the announcement Ballinger stated, “The operations of Mertz have been expanding and our workforce has been increasing. This new association brings a unique opportunity to combine the manufacturing strengths of Mertz with the marketing strengths of Compact Power.” The acquisition provides domestic manufacturing capacity for CPI’s proprietary brands of compact utility equipment. Specializing in compact utility loaders, skid steer loaders, mini-excavators, attachments and specialty trailers, CPI has become a national provider of compact, labor-saving products up to 5,000 pounds and 50 hp. Formed in late 2003 to gain leadership in the compact utility niche, CPI acquired certain assets of PowerHouse Equipment, Inc. of Fort Mill, S.C., and distribution and manufacturing rights from The Jaden Group of Companies, headquartered in Brisbane, Australia, in December of 2003.

Mertz, established in 1927, has a national reputation in the design, fabrication and manufacture of innovative and high quality equipment. Their wide range of products includes compact utility loaders and attachments, fire fighting equipment, agricultural vehicles and precision parts for large mining and construction equipment. Roger Braswell, Compact Power CEO, said that he expects the existing Mertz team to remain in place and continue to serve its current customers while taking on the manufacturing of additional CPI products in coming years. Much of the current and future manufacturing that will be added will shift from Australia, although some will shift from other U.S. locations.

CPI holds exclusive distribution rights to the PowerHouse, Kanga and Boxer brands of compact equipment. CPI’s products service a broad spectrum of industries including landscape contracting, general construction, irrigation, utilities and rental. The PowerHouse brand is in Home Depot Tool Rental Centers, where the products are available for rental and sale. The Kanga and Boxer brands are distributed through a network of more than 70 independent dealers.

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Events & Seminars

Sept. 15-17, 2004
Texas 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

September 24-26, 2004
International Lawn, Garden & Power Equipment Expo
Louisville, KY
Contact: expo.mow.org

September 25-28, 2004
ISA Pacific Northwest Annual Training Conference
Coeur d’Alene, Idaho
Contact: (503) 874-8263 or www.pnwisa.org

October 19-20, 2004
ISA Illinois Chapter Annual Conference
Holiday Inn
Tinley Park, IL
Contact: (877) 617-8887 or www.illinoisarborist.org

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
Pre-conference workshops Oct. 27; EXPO Oct. 28-30
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

Oct. 29-31, 2004
New Jersey Shade Tree Fed. 79th Annual Meeting
Hilton Philadelphia/Cherry Hill
Cherry Hill, N.J.
Contact: Bill Porter (732) 246-3210,
njshadetreefederation@worldnet.att.net

Oct. 31, 2004
TCIA National Day of Service
Belle Isle, Detroit, MI
Contact: Carol Crossland, 1-800-733-2622;
crossland@treecareindustry.org

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

January 11-13, 2005
Eastern Pennsylvania Turf Conference and Trade Show
Valley Forge Convention Center
King of Prussia, PA
Contact Georgene Thompson: home (717) 243-1349
or georgenethompson@comcast.net

January 19-21, 2005
Kansas Arborists Assoc. 50th Shade Tree Conference
Topeka, Kansas
Contact: Dr. Charles Long
clong@tctelco.net or (785) 499-6670

January 27, 2005
Northeastern Pennsylvania Turf Conf. & Trade Show
The Woodlands Inn & Resort, Wilkes-Barre, PA
Contact Georgene Thompson: home (717) 243-1349
or georgenethompson@comcast.net

February 1-3, 2005
New England Grows 2005 green industry conference &
exposition
Boston Convention & Exhibition Center
Boston, MA
Contact: (508) 653-3009; www.NEGrows.org

February 6-10, 2005
Winter Management Conference
Tree Care Industry Association
Los Cabos, Mexico
Contact: Carol Crossland, 1-800-733-2622, Ext. 106;
crossland@treecareindustry.org or
www.treecareindustry.org

March 10-12, 2005
TCI EXPO Spring
Tree Care Industry Association
EXPO March 10-11; Outdoor Demo Day March 12
Long Beach, CA
Contact: Carol Crossland, 1-800-733-2622, Ext. 106;
crossland@treecareindustry.org
or www.treecareindustry.org

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On July 29, the U.S. Fish and Wildlife Service and NOAA Fisheries finalized new regulations establishing for the first time a more efficient approach to ensure protection of threatened and endangered species as part of the U.S. Environmental Protection Agency’s approval process for pesticides. The Tree Care Industry Association, which submitted formal comments in favor of the rule, feels that the so-called “counterpart rule” will ensure that pesticide user groups have access to products they need. At the same time, the procedures will provide a workable and efficient framework to ensure necessary measures are taken to protect fish and wildlife.

Under the Endangered Species Act, EPA must consult with the USFWS and NOAA to ensure that registration of products is not likely to jeopardize federally listed threatened or endangered species or have any adverse effect on critical habitat.

The two services proposed the regulations in January and received extensive public comment. Here is a short excerpt from TCIA’s comments: “These regulations ensure EPA’s efficient and timely registration and re-registration of safe and effective pesticides that our members need to maintain a high quality operation and remain economically viable. Tree and landscape pests are serious problems in the urban landscape that confront professional pesticide users and tree owners alike. Our members must have all available tools to manage them.”

Because of the complexity of consultations to examine the effects of pesticides, EPA has effectively operated in a vacuum for the past decade. A recent court decision cited the lack of consultations in limiting the use of essential agricultural pest-control products.

Under existing law, EPA routinely evaluates the broad impact of pest-control products on the environment, including the effects on endangered species and other non-target organisms. Before proposing this rule, scientists and regulators within the Fish and Wildlife Service and NOAA Fisheries spent a year conducting an extensive review of EPA’s approach to ecological risk assessment and offered recommendations that EPA has incorporated. They concluded that EPA’s approach to risk assessment will produce determinations that reliably assess the effects of these products on listed species and critical habitat.

As finalized, these counterpart regulations will allow a new risk assessment protocol that should allow EPA, the lead agency, to reach determinations in most cases that are consistent with the requirements of the ESA more quickly and efficiently. The wildlife agencies would perform periodic reviews of the methods that EPA employs to arrive at these determinations. When formal consultation is required, EPA may request direct involvement of representatives of the Services in the effects analysis.

Manufacturers register a wide variety of products, ranging from agricultural pesticides to commonly used household products. As a result of EPA’s ongoing reevaluation of previously registered pest-control products, as well as the recent litigation, the three agencies anticipate a significant increase in the number of future consultations.

Peter Gerstenberger is TCIA’s Senior Advisor for Safety, Compliance & Standards.
Tree care workers regularly face a barrage of bodily dangers – from bee stings and poison ivy to struck-bys and falls. “Tree work is a rigorous, demanding job,” reiterates Peter Gerstenberger, TCIA’s senior advisor for safety, compliance and standards. “Little accidents and cuts happen.”

First and foremost, reducing the need for first aid is the best thing. “Locating the site hazards prior to commencement of work in hopes of preventing the need for first aid” is really the first step, stresses Steve Chisholm Sr., president of Aspen Tree Care and chair of TCIA’s Safety Committee. “There are just so many areas that could cause hazards! Proper training is a key element in keeping people from getting hurt.”

Kathryn Shaw, safety director of McCoy Tree Service in Norman, Okla., and vice chair of TCIA’s Safety Committee, echoes that same sentiment, recognizing that in the line-clearance business, there is little room for error when dealing with high-voltage power lines. “Our job is to avoid electrical lines,” she states, quipping, “and – I’m knocking really hard on wood here – that’s exactly what we do!”

Even with thorough training and in-depth hazard analysis, accidents do happen. As testament to that fact, OSHA requires all workplaces to have first aid protocol in place at every work site in the United States. For tree care companies, this translates into having at least one member of each work crew trained in first aid and CPR (cardiopulmonary resuscitation).

This applies to companies of all sizes – from a one-person show to a nationwide chain. Many tree care companies take it one step further, and make sure that all employees are trained and certified in first aid and CPR.

First aid and CPR training

The Red Cross is probably the most well-known provider of first aid and CPR training. The Red Cross First Aid certificate (which is valid for three years before recertification is required) requires only four course hours. It covers treatment for injuries such as recognizing and caring for bleeding, wounds, sudden illness, as well as how to properly immobilize muscle, bone and joint injuries.

Adult CPR training (valid for one year) handles “recognizing and caring for breathing and cardiac emergencies in adults” and “handling emergency situations until advanced medical help can take over.”

Both certifications are commonly combined into one class, called “Standard First Aid,” which also includes the role of automated external defibrillators (AEDs). AEDs are emerging as life-saving devices that can be used if a victim suffers from sudden cardiac arrest.

AED units can run about $1,200 to $4,500 (depending which extras are purchased along with it), according to Michael Gagnon, who is in charge of Health and Safety Services at the Concord, N.H., chapter of the American Red Cross. The
price of AEDs has dropped over the last five years, Gagnon explains, but it is hard to predict whether they will drop below a thousand dollars anytime soon.

Nevertheless, it is still something tree care companies can start to think about. “We’re going to have our people trained in (AED) next year,” predicts Chisholm. “It’s actually a pretty good program, from what we’ve seen.” Having been advised that the price of AEDs is likely to continue to come down in the next few years, Chisholm sees the life-saving device as a definite option later on down the road.

For those companies seeking to get first aid and CPR training, there are three main ways that the American Red Cross – with chapters all across the country – trains people: through community classes at community locations; on-site at a company’s own facility; or through “authorized providers” who, after special training by the Red Cross, can then train others in first aid and CPR. The second option – training on-site at the company’s office – is the most common option, according to Gagnon.

“We can schedule a class based on a client’s needs,” he says, adding that even third-shift classes are doable if that’s what works for the employees.

First aid kits

The tree care crew’s first aid kit should be as readily available to workers as, say, a gallon of drinking water on a 90-degree day. According to OSHA’s Standard 1910.151(b): “In the absence of an infirmary, clinic or hospital in near proximity to the workplace (that) is used for the treatment of all injured employees, a person or persons shall be adequately trained to render first aid. Adequate first aid supplies shall be readily available.”

OSHA calls upon ANSI Z308.1 to address the details of what a first aid kit should contain, and how it should be properly maintained. Although OSHA has not officially adopted the standard, it states in an April 18, 2002, interpretation that “ANSI Z308.1 provides detailed information regarding the requirements for first aid kits; OSHA has often referred employers to ANSI Z308.1 as a source of guidance for the minimum requirements for first aid kits.”

This ANSI standard includes a list of eight basic items for first aid kits in all industries; outlines how the kits should be constructed and stored (depending on the industry they will be used in); and, perhaps most importantly, emphasizes that all first aid kits must address the needs of the industry they are being used in.

“The required contents and the optional contents (suggested in ANSI Z308.1) …
are a surface scratch of the types of products that are out there, and in order to have a complete and effective kit, you need to do a complete and thorough workplace analysis,” according to Christine Fargo, of the International Safety Equipment Association, the secretariat for the ANSI Z308.1.

The standard, she emphasizes, is a starting point for first aid kits – “to give people a little more of a thinking spur” – and to reiterate the need for a hazard analysis and worksite evaluation.

The standards items recommended in ANSI Z308.1 apply to all industries, and include an absorbent compress, adhesive bandages, adhesive tape, antiseptic, burn treatment, medical exam gloves, sterile pads and triangular bandage. The standard also has a list of recommended items, including an antibiotic treatment, breathing barrier, burn dressing and eye wash.

ANSI Z308.1 also requires proper labeling of products so each item in the kit is easily identifiable.

Although it’s relatively common to remember to include Band-Aids and gauze in your first aid kit, it’s worthwhile to take note of what you might need most as a tree care worker – and make sure those items are always available.

At Lewis Tree Service, common minor ailments from the job include scrapes, poison ivy and minor debris in the eye. Dan Oberlies, vice president for risk management at Lewis, notes that all the company’s trucks have eyewash bottles.

“We have, at times, had to use a first aid kit to come to someone’s aid before medical personnel arrived,” Oberlies adds, “but that is infrequent.”

To deal with the irritating effects of poi-
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son ivy, Shaw (of McCoy Tree Service) swears by Tecnu, a skin cleanser that washes off the urushiol oil from poison ivy leaves. “If you get poison ivy taken care of in advance, then you end up not having to go to a doctor with it,” Shaw emphasizes.

Another thing to consider is first aid requirements for pesticide application. “For pesticide loading and handling crews, we have a good (more than just a basic) eyewash kit,” relates Lauren Lanphear, president and owner of Forest City Tree Protection Co., Inc., in Cleveland, Ohio.

“We have some basic kits for granular or particles that might get in the eye,” he explains, “but if you’re doing something with a lot of dust…” even the best pair of goggles might still let fine particles get in.

Other options that tree workers may find handy are first aid kits that latch onto your climbing saddle and can be used while a climber is in a tree; snake bite kits; and treatments for allergy symptoms — especially bee stings, which can trigger a life-threatening, suffocating allergic reaction.

Maintaining first aid standards

By now you are thinking either, “I’ve got that first aid stuff all in place!” or, “I’ve got to get my first aid supplies together!”
In either case, there’s still one vital point to remember: First aid supplies and training need to be maintained. In the case of first aid and CPR training from the Red Cross, all employees need to keep their certification current in order to be in compliance with OSHA regulations. CPR certification needs to be renewed every year; first aid certification lasts three years.

Kits need to be maintained as well. When something is used from a first aid kit, it needs to be replaced. There are several ways to keep track of kits: you can keep a set of fully stocked kits in the office, and have crews trade in a “used” kit for a fully stocked one when necessary. In this case, someone needs to be responsible for refilling them when they come in.

Another option is to have each truck’s first aid supply refilled directly after it’s been used. Either way, the key is to have what you need available – when you need it! A lacking first aid kit is basically the same as no first aid kit. As Lanphear so eloquently states, “You can buy first aid kits – the challenge is making sure the stuff is in there when you need it!”

Once you have established a method of keeping them stocked, there’s yet another aspect to think about: keeping them current. Even if you don’t use a first aid kit once in an entire year, you still need to review it annually for any expired items or in the chance that anything inside may have gotten damaged. If the kit was knocked down, or if water was able to seep in, then the contents may be of no use. You don’t want to find out after a run-in with poison ivy that your Tecnu leaked out.

Another way of keeping your kits up to date is to hire a professional service to maintain them for you. Some companies treat their first aid kits like a fire extinguisher, and have the pros come in on a regular basis to make sure everything is OSHA-compliant, up-to-date and ready to go.

Professional services, such as Cintas First Aid and Safety, will come to your shop or office and maintain your first aid kits on a regular basis. According to the Cintas Web site (www.cintas-corp.com), “Our ... service representatives will bring their fully stocked van to your location on a regular schedule ... (and will) clean and organize your first aid cabinets/kits and give you an inventory of the items you need to stay stocked.”

Lanphear swears by that kind of professional care: “We have a service that comes and checks the first aid kits to make sure they are properly equipped,” he explains. The cost of the service, he adds, is justified in the safety measures it ensures. “It’s certainly more expensive than going down to the neighborhood drug store and buying them yourself,” he says, but in the end, the cost is certainly justified.

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TREE CARE INDUSTRY – SEPTEMBER 2004 29
First aid makes sense

Even without OSHA requirements for first aid, it’s only logical that first aid protocol be a priority for all tree care companies. A solid, high-quality first aid kit and trained personnel can not only keep your employees safe, but can raise morale and reduce stress on the job. As a bonus, first aid training can also go beyond the workplace. Some of the most memorable moments where first aid training came into play didn’t involve on-site accidents:

Shaw recalls a time when members at McCoy Tree Service who were doing routine tree trimming in a neighborhood stopped to help a boy who had fallen off a bicycle and injured himself. Using the first aid kit that was on the truck, the crew members applied ice packs and bandaged the boy’s knee. The boy’s mother was so pleased that she wrote “Mr. McCoy a letter thanking him for having people trained in this kind of thing,” Shaw recounts.

Lanphear, too, knows of an occasion when an employee who was driving to a job site witnessed a car accident and stopped to help the victim. The employee was able to render first aid until an ambulance arrived.

You can expect “a $4 to $6 return for every dollar invested in health and safety training,” according to an OSHA study. Simply stated, first aid protocol is worthwhile and imperative for the safety of your employees, yourself, and your company. Make sure you treat first aid as the top priority that it is.

Cited Documents
   Description: States the OSHA requirements and suggestions for first aid protocol in the workplace. Also includes links to several important interpretations of the standard.

   International Safety Equipment Association
   Web site: www.safetyequipment.org
   Phone: (703) 525-1695
   Description: Secretariat of the American National Standard – Minimum Requirements for Workplace First Aid Kits

   American Red Cross
   Web site: www.redcross.org
   Phone: (202) 303-4498
   Description: Provides first aid, CPR, AED and other OSHA-compliant safety training nationwide. Training is available on site or at local community classrooms. Also trains “authorized providers” who are then certified to train others. Printed safety material is also available from the Red Cross, in both English and Spanish.

Sources for First Aid Supplies and Information

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Ariana Zora Ziminsky is a freelance writer and former assistant editor of Tree Care Industry magazine.
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"Roll out those lazy, hazy, crazy days of summer; those days of soda, and pretzels and beer!" as Nat King Cole sang way back when. Summer is also the time for other foamy stuff, the kind that has certain insects singing songs of cheer. However, this is not good news for unfortunate older trees that serve as taverns for moths and hornets and other imbibing creatures.

Finding these frenzied congregations on oozing, stinking, discolored areas on the lower trunks of older trees often incites tree owners to call arborists this time of year. But insecticide is not the answer, because the insects are only a sign of trouble underneath the bark. Photos courtesy of Guy Meilleur.

By Guy Meilleur

Finding frenzied congregations of insects on oozing, stinking, discolored areas on the lower trunks of older trees often incites tree owners to call arborists this time of year. But insecticide is not the answer, because the insects are only a sign of trouble underneath the bark. Oozing slime is a symptom of bacterial infection, and “… warm temperatures are favorable for the development of some bacterial diseases …” as John Lloyd notes in Plant Health Care for Woody Ornamentals.

A coating of polysaccharide, which is called a “slime layer” for obvious reasons, surrounds bacterial cells. When the bacteria multiply, they are forced out of the host plant and ooze down the bark. Dividing as fast as once every 20 minutes, they quickly build up their numbers to as high as a billion per milliliter. A cocktail of bacteria – Pseudomonas, Enterobacter, yeasts and other organisms – causes slime flux disease. Whether any of these organisms is particularly pathogenic (or it is simply the physical pressure caused by all of them multiplying) that kills the bark is not clearly understood. Fermentation produces gases, such as methane and carbon dioxide, that increases the pressure that ruptures the bark. Many different microorganisms grow in the flux, producing an indescribably foul or alcoholic odor that is hard to miss.

Different species of trees have different types of slime flux disease. The types found higher up in wounds and crotches of elms and poplars are considered relatively benign. They seldom seem to damage the
bark aggressively. What damage occurs is well above ground level and considered correctable. They are located in Zones 2 and 4 as defined in Dr. Kim Coder’s “Hazard Tree Evaluation” form, published in 1990. On older oaks the disease is quite different; it is typically found between buttress roots. This is Zone 1, where damage and disease are considered critical. Previous physical damage or previous insect injury is seldom noted at infection sites on the trees studied. Similar to included bark in a crotch, the bark between buttresses seems to be squeezed. One theory is that the tree opens itself up to infection by wounding itself when bark is included, and the bacteria enter from the soil. This is addressed by Dr. Alex Shigo in Modern Arboriculture, in which he states that, “Included bark between roots and root stubs are common underground infection courts.”

To act or not to act

The old practice of drilling into the infection and installing a drain pipe to direct the slime flux away from the bark can expand the infection court and worsen the disease. The wet, alkaline conditions at these sites is inhospitable to most decay-causing fungi, so one thought is to leave well enough alone. When armillaria fungus is found along with slime flux, more rhizomorphs are found outside the oozing areas. Only a few stunted “shoestrings” are found in the slime. Many insects that are harmless to the living tree – ants, termites, centipedes and sowbugs, for instance – can be found under the dead bark, but there is no reason to go after them. However, carpenterworms, Prionoxystus sp., are also active in these infection sites. As Warren Johnson and Howard H. Lyon report in Insects that Feed on Trees and Shrubs, “Over a period of time, the activities of the carpenterworm larvae may prove disastrous to the host tree …” The need to expose and treat this pest calls for the removal of dead bark. Bacterial activity and slime flux on older oaks can and does kill cambium, expanding the diseased area every year. So there is also a clear need for noninvasive methods to preserve the tree.

These lesions appear very similar to those caused by infections of fungi, such as Phytophthora sp. Auditory cues are gained by tapping with a rubber or plastic mallet outside these lesions. A solid sound indicates living bark over solid wood. Tapping inside the lesions will produce a hollow sound, indicating dead bark. A stethoscope can be used to hear the sound better, but is often not necessary to detect dead bark. The next step is probing these areas with a blunt instrument, such as a trowel or screwdriver. Remove all discolored bark down to the wood. In some cases this means removing a lot of bark. If the infection encompasses more than half of the trunk and decay is advancing inward, it is doubtful the tree will remain safe for very long. It is probably best to treat these unfortunate trees with a chain saw at ground level.

Bacterial activity and slime flux on older oaks can and does kill cambium, expanding the diseased area every year. So there is also a clear need for noninvasive methods to preserve the tree.

The first job is to find out which portions of the bark are dead. The initial cues are visual – lesions bleeding with blackened sap at the margins of the diseased area.
Cut around the infected trunk or branch until you come close to healthy cambium. Take care not to cut into healthy bark or wood. Excavation of wounds is still viewed with skepticism in some circles precisely because of the fear that careless digging will result in more damage. When most of the dead bark has been removed, a sharper tool will trim the edges of infected material. In “Helping Plants Survive Armillaria Root Rot” (November 2003 issue of Tree Care Industry), author J. Harold Mitchell describes the excavation of tissue infected with the fungus Armillaria. Because bacterial infections seem less virulent and do not cause wood decay like Armillaria does, a more cautious approach to tissue removal seems to be warranted. The goal is to come as close as possible to healthy tissue without cutting into it. A blunt-tipped knife, such as a linoleum knife, can trim the last scraps of diseased bark without scratching the wood. There is no need to trace the wound into an oval, because sap can flow laterally within the cambium. Careful removal of dead bark may reveal the cambial layer, still light in color and adhered to the wood. The more living cambium that is left, the sooner the tree can close its wounds. Rinsing off the last of the debris with a sharp stream of water from the garden hose or better yet a jet of air from a pneumatic tool will finish the excavation work.

Chemical conundrums

Once the infected tissue is removed, the area can dry out, making the environment more inhospitable for the bacteria. Some publications recommend sanitizing the area with a 10 percent bleach solution. Some bactericides listed for other bacterial tree problems contain 9.5 percent propy-
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lene glycol, so they can also do a good job of sanitizing the area. Both these chemicals are very toxic to bacteria, but unfortunately they are also toxic to plants. Applying either to tree wounds is very risky and not recommended for this disease. If holes from wood-boring insects are found, they should be excavated of loose material and probed with a thin tool, such as a coat hanger or a flexible wire. The goal is to either crush the pest, or at least clear a channel for a secondary attack with air, water or pesticide. No sealant or pruning paint is ever recommended for this condition, even after the surface has dried. As has been said for 20 years, any compound that can seal out problems can seal in problems. Light and air will dry out the area over time; invigoration of the root system can speed compartmentalization.

Fertilization of diseased plants has recently become highly controversial. Some large declining oaks that received a “stress treatment” of high-nitrogen fertilizer injected into the soil looked great a year afterward. Soon after, they succumbed to Phytophthora and other decay organisms that thrive on excess nitrogen. As always with any stressed plant, the soil should be tested. Any nutritional deficiencies, if found, should be corrected cautiously. The elements most lacking in many soils are oxygen and organic matter, so aeration of compacted areas and general mulching are often recommended. Inoculation of soil around the trunk with beneficial microorganisms is sometimes done to prevent infection by basal decay organisms, the “butt rotters.” This practice is based on the premise that pathogens will be less able to take hold in the basal area if there is a healthy population of microbes that are symbiotic with the tree. Inoculation is also an intriguing possibility for prevention of bacterial infection. However, some of the same genera of bacteria present in the disease are also present in the inoculant. A better understanding of the disease is needed before these inoculations are made to prevent bacterial disease.

In the course of excavation, any infected sites at ground level will require the removal of earth from the base of the tree. Small roots may be removed in the process, but care should be taken not to nick any woody roots. If fungal pathogens are identified, the surrounding soil can be drenched with a listed fungicide, following label directions. Air and light are the enemies of most fungal and bacterial organisms. Therefore, coarse stone inside a layer of landscape fabric is often used to replace the excavated soil. This prevents mulch and debris from coming into contact with the wound, and makes it easier to inspect the wound on follow-up monitoring visits. Trees are best revisited in early summer, when the slime fluxes again and the need for additional treatment can be determined. According to research cited in “Tree Growth Retardants” in the March 2003 issue of *Tree Care Industry*, growth regulators have demonstrated a fungistatic property due to the inhibition of steroid production. Since steroids are essential constituents of membranes in both fungi and bacteria, application of growth regulators may also be bacteriostatic. They seem to hold great promise for the treatment of bacterial infections.

Survey says …

For the last 15 years we have treated this disease in central North Carolina. Most of the trees involved have been located on residential properties under a variety of conditions. To gain a better understanding of this disease, a site with a variety of mature specimens with a consistent microclimate and maintenance regimen had to be surveyed. The quadrangle at the heart of the University of North Carolina-Chapel Hill campus fit those parameters. School lore has it that Colonel Davie sat under a tuliptree on this site in 1792 and started the first public college in North America. A preliminary survey of the mature trees on this historic site was taken to assess the...
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The extent of this disease. The results follow.

- 6 of 23 *Quercus alba*, white oak, were diseased
- 2 of 8 *Quercus phellos*, willow oak
- 0 of 6 *Quercus rubra*, red oak
- 0 of 2 *Quercus stellata*, post oak
- 0 of 1 *Quercus montana*, chestnut oak
- 0 of 4 *Ulmus americana*, American elm
- 0 of 4 *Prunus subhirtella*, Higan cherry
- 0 of 5 *Liriodendron tulipifera*, tuliptree
- 1 of 1 *Carya tomentosa*, mockernut hickory

The white oaks were by far the worst affected. Willow oaks were affected as frequently – on about a quarter of the trees in this sample. However, their infections were quite small, 2 and 4 inches wide, as was the hickory infection. Carpenterworm larvae were actively feeding under the bark at the two largest white oak infections, 13 and 16 inches wide. Larvae were not found in smaller infections, perhaps due to a sinister symbiosis between these two problems. The adult moth lays its eggs in the same time period that the slime is flowing. They are also known to generally prefer ovipositing in bark crevices, but the larvae can enter infected bark much more easily than healthy bark. They expand the infection as they feed, which attracts more adult moths to lay their eggs there, and around and around the cycle of destruction goes.

The lack of occurrence in the trunks of the elms demonstrates that this disease is very different from what most people call slime flux, or wetwood. “Slime flux” is a poor term, because many conditions involve oozing viscous liquids, such as resin flow from Scleridia canker in Leyland cypress, or from borer galleries in other conifers, oozing gums in Prunus, wetwood from the xylem of elms and poplars, and sap from all manner of wounds.

Whether you call it slime flux, the white oak woes or the bacterial oozing blues, treating this condition in a prompt and persistent manner can prevent fatal damage to magnificent old trees. Then you can relax in a hammock under their shade, safely enjoy a bubbly beverage, and listen to the birds thank you with their songs of cheer.

Guy Meilleur is a consulting arborist with Better Tree Care Associates, a tree preservation company in Apex, N.C.
Because of activists, extremists and misinformed politicians, consumers are questioning whether the products and resources (such as water) used to care for their lawns, landscapes and other green spaces are a waste—or a harm to the environment. Yes, legislation and regulations have been throwing the green industry some rough punches. And we’re about to start fighting back.

Project EverGreen is an alliance of green industry associations, companies and professionals dedicated to educate the public, protect the green industry and grow our business. It was created in response to unfavorable regulations in many parts of the United States and Canada. If the services our industry professionals offer are restricted, regulated or made illegal, everyone will lose revenue and customers.

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Bad inference and info in Understory Trees Article

In reference to the article “Trees – A Threat to Homeland Security?” in the June 2004 issue of TCI, while the right tree/right place message is a good one, the article’s title and premise were hyperbolic, inaccurate and unfortunate.

The article’s assertion that trees were “…blamed for the Aug. 14, 2003, power outage that blackened the world of 50 million people in the northeastern portion of the United States and eastern Canada for up to four days …” is not represented accurately. The Federal Energy Regulatory Commission in fact found that the outage causes came under three causal categories: inadequate situational awareness at the utility, failure to adequately manage tree growth in its transmission rights of way, and failure of the interconnected grid’s reliability organizations to provide effective diagnostic support. The outage was the result of a combination of management, human and system resource failures, not a tree’s fault. Interested parties can view the report at: www.ferc.gov/default.asp.

What received little attention during the same time were findings by researchers at the University of Maryland. According to an article published by NewsWise on June 10, 2004, “Atmospheric measurements taken by the scientists some 24 hours after many power plants had essentially shut down found a 90 percent reduction in sulfur dioxide, a gas that leads to haze and acid rain, and a 50 percent reduction in smog, or ground-level ozone. The Maryland scientists also found that the amount of light-scattering particles in the air dropped by 70 percent and visibility increased by some 20 miles. The clean air benefit [of the blackout] was realized over much of the eastern United States …” One day of non-operation provided more air quality gains than are normally seen over great periods using approved mitigation techniques.

The references to Hurricane Isabel are also interesting. Does the following sequence seem reasonable to you: severe storms happen; take wires and put them on slim poles 25 feet to 100 feet in the air; act surprised when they fail in a hurricane? Nature happens, and while vegetation management is definitely part of the electric reliability solution, the integrity of the system would also benefit from advances in engineering to anticipate certain storms. Storm water facilities are designed for various cyclical anticipated storm impacts (i.e. 5-year, 10-year, 100-year). Utility facilities may benefit from a similar approach.

Clean air and clean water are also vital to national security, as well as to life on earth. To blame trees for the consequences of a lack of adequate management or the results of weather is particularly disappointing when coming from a horticulture program in an institution of higher learning.

Michael F. Galvin
Supervisor, Urban & Community Forestry, Maryland Dept. of Natural Resources - Forest Service

Not Very Sharp Advice on Chipper Maintenance

As a dealer for Brush Bandit tree chippers for 16 years, your June article on chipper maintenance (“What Price Chipper Maintenance?”) was the first thing I turned to. I was disturbed by your photo caption on page 34, “After 100 to 150 hours, knives get dull and slow operations.” Unless you’re chipping watermelon rinds, 100 hours is way over the line for dull.

While there are exceptions to every rule, I don’t know of any knife manufacturer or chipper builder that would recommend running a knife that long under average conditions. Customers today are buying more and more horsepower. That power allows them to run a chipper as a hammer mill long after the knife-edge is gone. The result is increased vibration and shock load on the whole machine. Ask any dealer – the customers who keep their knives sharp (changed) are the ones with the least maintenance problems.

My recommendation to customers is you’d best be giving the knives a hard look at 20 hours, and never go over 40. And don’t forget the anvil (bed knife)!

How about a survey of manufacturers of chippers and knives on what they would recommend for the average 12-inch chipper?

Larry Novak
Regional manager, Vegetation Management Supply Inc., Wichita, Kan.

Editor’s note: Mr. Novak makes an astute observation. An editor erred in transcribing information from the story for use in the caption. The story said, “Woodsman figures a good, diligent owner/operator can get 100 to 150 hours on a cutting edge.” That comment referred to usage before the knife edge should be rotated or replaced – not sharpened.
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I know that this is something special because my peers and I have been chosen to join this program and it’s still being built from the ground up and we have a chance to show people that we can do this and we will be victorious. My name is Dontrell, and I am an arborist intern at Norfolk Botanical Garden.

Last September Norfolk Botanical Garden initiated an innovative training program designed to help at-risk youth find employment in the tree care industry. The participants work with the Garden’s staff arborist and an educator five days a week. They take classes on tree biology and learn how to prune trees properly. They are responsible for maintaining a portion of the Garden’s 155 acres of gardens and forests.

The Arborist Training Program is a 15-week program with three sessions held in a calendar year. Up to four participants may be accepted into each session. Acceptance is based on a job interview, written essay, demonstrated interest in the program and a positive work ethic.

This was the pilot year for the program, with two sessions completed. Of the four students who graduated, one is enrolled now in college, one is employed at the Garden, the third is seeking employment in the tree care industry, and the fourth is working, but not in the industry.
The first step

In June 1997, Norfolk Botanical Garden launched a summer program, the Horticulture Enrichment and Learning Program, or HELP, to serve at-risk youth in Norfolk, Va. The following March the program expanded to a year-round program serving 30 to 44 youths each year. Then, in 2001, funding from the City of Norfolk enabled the Garden to hire three staff people trained as counselors, provide transportation and program supplies, and contract a GED instructor for the program.

HELP is a partnership between the Garden and the Commonwealth of Virginia through the Fourth District Court Service Unit, the City of Norfolk and Norfolk Public Schools. The goals of HELP are to reduce recidivism, provide marketable job skills, develop practical educational goals and establish a connection to the community through volunteerism and community service.

The program targets 16 to 18-year-old youth who have appeared before the court as Children in Need of Services (CHIN cases), or for misdemeanors, non-violent felonies and traffic offenses. Typically, the participants are also two or more years behind in school and represent a minority or underserved population. These youth usually have a history of abuse and neglect with many custody changes; they may have low-level felonies or misdemeanors in their background.

The Garden setting is used as a treatment tool for esteem building, role modeling, intense counseling and behavior modification. Job training and GED classes are an integral part of the program and goals. The purpose of HELP is to provide a safe setting for youth who can benefit from gardening and being in a natural environment, a practice known as horticultural therapy.

The next step

HELP is a 10-week program. Since its inception, HELP staff noticed that the students were reluctant to leave the Garden upon completion of the program. Staff began brainstorming ideas and researching community needs. Local tree care companies indicated that they often face problems simply getting employees to show up for work. Substance and alcohol abuse, transportation issues, and other factors were listed as issues that impacted work performance.

Building on the model of HELP and the needs of local tree care employers, Norfolk Botanical Garden designed the Arborist Training Program to provide specific training in arboriculture practices. Perhaps more importantly, this program provides job-readiness training. Interns are actually hired by the Garden. They are expected to show up for work each day or provide a viable reason for not coming. They take tests. With passing grades, they receive incremental pay increases.

During the 15 weeks, the interns receive:

- Hands-on skill training in arborist methods and practices, including pruning, tree-climbing and safety procedures.
- Classroom instruction following the guidelines established by the Hampton Roads Tree Care Association in order to enable participants to complete a written exam.
- Mentoring provided by staff to help participants develop appropriate job-readiness skills.
- Guidance in finding a job in arboriculture upon completion of the program.
- Counseling to help deal with personal situations.

In addition, we have found that one of the
greatest obstacles facing this population is lack of a valid driver’s license. It is required for any job in the tree care industry, yet virtually unattainable for many at-risk youth. Either they never get a license because they dropped out of school prior to driver’s education training or their license has been suspended for numerous violations and the subsequent fines make it impossible to obtain a new one. So, one major component of this program is that we offer driver education training (provided by a consultant) and we offer each student a $50 bonus for obtaining and/or keeping their license during the course of the program.

Typical participants

There were four students enrolled in Session 2 of the pilot program. When Darrel’s mom went to prison, he and three siblings went into foster care for seven years. Darrel told the counselors that he was born out of a rape situation. Although his mom was released from prison, she has not been able to get off drugs.

Dontrell has been on and off the streets; his mother is homeless due to long-time drug addiction. His mom left him, his sister’s two children with his mother is homeless due to long-time drug addiction. His mom left him, his sister’s two children with

drug addiction. His mom left him, his sister’s two children with his mother is homeless due to long-time drug addiction. His mom left him, his sister’s two children with

Brian has a drug-addicted mother and an abusive white supremacist father. He would have entered seventh grade, for the second time, this past fall. He has a two-page rap sheet listing marijuana possession, petty larceny and breaking and entering. This was his second application for the Arborist Training Program; he failed a drug urine test for Session 1, but has been clean since the start of Session 2 in January.

The fourth student is the son of one of the Garden’s employees. Joe had been living with his mother in another state, got in trouble with the law and moved to Virginia to be with his father. He is working to straighten out his life.

The Arborist Training Program is giving these four young men the chance to break a cycle of drugs, dependence on entitlement programs, and hopelessness.

Day-to-day activities

The day starts at 7 a.m. with classroom and field instruction. Classroom lessons focus on correct tree selection, pruning, and planting. Hands-on work in the Garden follows. From 9 a.m. until 3 p.m. their work includes grounds operations, mulching, pruning, felling trees and their favorite part, climbing. Toward the end of the 15-week session, personal growth, job interviewing techniques and resume writing are all covered in preparation for job placement.

The interns also learn from tree care professionals. B. Scott Beecher, co-owner of Streamline Tree Care, a TCIA member company, has been a tremendous supporter for the program. After hearing about our efforts with these youth, he agreed to bring his equipment to teach climbing. The interns are immediately pulled in by Beecher’s enthusiasm and his love for the trees. He provides a balance for the students, explaining that to become an arborist requires more than playing with a chain saw, and includes having an actual affinity for the trees.

Mentoring

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through the many social ills that plague their growth and ability to succeed. One thing we have learned is that it is very difficult to make school a priority when basic survival needs, such as food and shelter, are not secure.

With parents suffering from drug addictions or serving lengthy prison terms, many are attempting to raise themselves. Many have seen numerous custody changes and have never seen a work ethic demonstrated by parents or other adults.

One student feared for his mother’s life and stayed home to protect her after she had been threatened by the drug dealer. He missed three days of work before staff learned what was happening. With counseling, they were able to encourage him to take control of his own life and become a role model for his family.

Shoot outs in the inner city neighborhood where another student resides kept him from work several days. Exhausted from trying to see that he had any future at all, staff helped him see that tree care could be his “way out” of the neighborhood and the living situations that were at the root of his hopelessness.

Garden staff

The Garden’s staff arborist, Jack Erwin, works with the students every day. The Arborist Program Instructor, Ed Bradley, is a retired probation officer with 30 years experience working with at-risk youth. He also has a master’s degree in horticulture therapy from Virginia Tech.

Our partners

The Arborist Training Program is a grant-funded program. The National Urban and Community Forestry Assistance Council provided start-up funds for the pilot program. We also received support from the Virginia Urban and Community Forestry Assistance Program, Ford Corporation, American Funds, Tidewater Children’s Foundation, Gwathmey Memorial Trust, Stihl, and a private foundation.

A Final Word

The young man quoted at the beginning of this story dropped out of Session 2. His family problems finally overcame his ability to come to work each day. However, staff remains hopeful that he will return to complete his internship.

Mary K. Scott is the horticultural therapy program manager and Ann Parsons is the director of education at Norfolk Botanical Garden in Norfolk, Va.
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If your company has not been audited by the United States Department of Transportation regarding safety regulations for operation of commercial vehicles, it might be soon. And, if it is audited, you need to have effective safety management controls in place.

Those safety management controls should clearly define the entire range of processes affected by DOT regulation and should do so in a way so that it makes clear the processes, sets accountabilities, identifies specifically who is involved and who is responsible for what, and establishes support resources for all of those functions and activities. Everything is defined and, as you go through your program – or someone comes in to go over your program – there should not be any surprises from your prospective.

The DOT audits your carrier operations through a process predominantly referred to as a compliance review, which is the enforcement version of the audit program that DOT has in place. They begin by evaluating your safety management controls and how well you define systems within your company, how well those accountabilities are set, whether those in charge can properly explain and articulate their responsibilities, and whether they understand and follow those responsibilities as defined.

Selections for compliance reviews

There are a variety of things that can trigger a compliance review:

1. A prior review, the results of which were not satisfactory. If DOT does not come out with a satisfactory finding in an audit, they will revisit the issues that were not satisfactory at some capacity.

2. Investigation of complaint. Someone, in most cases an employee or a former employee, will contact DOT and indicate that there is a problem or concern about the company’s operations and how they conduct their safety practices. It may be poorly maintained equipment, an employee being asked to drive poorly maintained equipment, or an employee couldn’t work the number of hours expected and still drive and was fired. These types of situations can trigger a response by DOT, often an audit of a company’s operations.

3. Accidents themselves almost always trigger events of some nature and draw attention to the company on some level. Here we are talking about accidents where somebody gets hurt or a vehicle is damaged and towed, or somebody gets killed. Those types of events already draw some measure of attention, but when there are aggravating factors identified in a post-accident investigation, that clearly will pull that event out front and center and could very well be the prelude to an audit.

4. You may request DOT to conduct an audit, for instance, if you have had occasion to push resources into this area, you have developed programmed responses and you have put people in place that are qualified. You feel your records and systems are all appropriate and working correctly and you know that at some point DOT is going to come walking up to your door wanting to see how well these systems are operating. This comes with its own potential consequences. I have worked with companies that have done this and been in the company the day before and found flaws – delinquent maintenance records and things of that nature – and the company really wasn’t as ready as they thought they were.

5. The single biggest source of selection for auditing is “Safe Stat.” Safe Stat is a process that DOT manages and, as the name suggests, they are tracking safety statistics on your operation. If you are a motor carrier, operate commercial motor vehicles or run interstate in any capacity, you have obtained a U.S. DOT transport or carrier identification number, which is marked inside of your trucks. Anything that happens with that vehicle, from an enforcement or accident sense, will reflect that number and will be given to DOT by the state in terms of the date of the accident or inspection. They maintain a data base of information on your company as it relates to violations, patterns of violations from inspections, accidents and so forth. They have a scoring or statistical process that they plug the data into, which then generates scores for selecting carriers for audits. It is a way of sorting through the data on various carriers across the country. They compare your performance against that of other carriers of similar size and operational scope and then generate the Safe Stat score. The Safe Stat score will then dictate whether or not you are a target for an audit.

These scores are generated approximately monthly. As they see activity come in, they churn it up and generate the scores to look for more opportunities to pull carriers out of the system to hand out to the field investigators to go out and conduct audits with.

This is all public information and you can look up anybody that you want on the Safe Stat Web site (http://search.bts.gov/ntl/query.html?qt=SafeStat), as long as you have the DOT number of who you want to look up. With a credit card and

48 TREE CARE INDUSTRY – SEPTEMBER 2004
$20, I can get a full profile of your company and get all the details of past inspections.

On the Safe Stat Web site, you will see your scores, but not the data itself. If you want to see the data that DOT used, then go to your carrier profile. If you have not obtained this information before, then I highly recommend you do so, because then you can see what DOT has on your company and how that may be driving decisions they make on whether or not to audit your company and to consider your status as a safe carrier.

DOT is under a very active initiative right now to go out and establish an initial rating on every motor carrier in the system. The audit they do for an initial rating is typically going to be an abbreviated audit, usually no more than half the day. It will be used to position you for future action, enforcement response or just future scrutiny. If the initial visit doesn’t go well, there will be a follow-up compliance review – more enforcement oriented and more detailed – shortly thereafter. We are seeing more activity from DOT with respect to auditing in general.

What’s in an audit?

When DOT performs an audit, one objective of the compliance review is to position you for future enforcement. As a result of the compliance review there may be other activities that happen, such as fines and penalties. The ratings can be one of three things: satisfactory, conditional or unsatisfactory.

A carrier with a very high Safe Stat score value, ranging from 300 to 550 points, represents the highest risk category carrier. It means that you have accumulated points based on poor performance or poor results of inspections or frequency of accidents. Your value rises and so does your likelihood for selection of audit.

What DOT evaluates in this rating process are six factors of information.

1. General factor – covers things like your DOT insurance requirement and your accident records. Are your accident records complete, thorough and have you shown adequate response to your accident occurrences as a company?

2. Driver factor – looks at the qualifications of your drivers and how well you have set up processes to screen qualified people. Are you, on an ongoing basis, evaluating their qualifications and ensuring yourself that they are qualified. Certain commercial drivers require that they be involved in – and that the company manage – a DOT-driven program for drug and alcohol testing. The results and effectiveness of that program, and how well it is managed and implemented, is a factor.

3. Operations – the main thing here is hours of service: do you have controls in place that limit driver hours and are there any patterns or evidence that drivers are working beyond the hours established in regulations. Are the records in place that show an adequate pattern of activity for factor three?

4. Vehicle – looks at maintenance programs and processes, the driver inspection reporting standards and driver inspections of equipment.

5. Hazardous materials, or “hazmats” – hazmats may be items such as small fuel containers, diesel containers or aerosols that you may carry in your trucks. Your trucks are in commerce because they are supportive of a business operation and you may have small quantities of hazardous materials on your vehicle. The smaller quantities of materials may be covered by something known as materials of trade. They are hazmats and are regulated, but may not be regulated fully. You should be aware of what the hazmats are in your vehicle, identify them to your driver and have some form of identification on them, and see that they are stored properly.

6. Accident rate – DOT asks how many actual DOT accidents per million fleet miles you have had. If you don’t run a million fleet miles, they have to increase that value to get to a million-mile base. Keep that in mind when they compute an acci-
dent rate for your company.

All of this is done on the basis of findings that are either acute or critical. Acute findings are violation categories where the individual, incident or event is such a serious safety compromise that it will trigger a finding in the audit result circumstance. A critical finding is one that reflects a pattern of violation, typically for record-keeping issues, breakdowns or deficiencies. The actual violation or infraction, in many cases, could be using an unqualified driver, which may be a driver who doesn’t meet the medical criteria, doesn’t have the proper driving experience and/or is not prepared to assume the driving responsibilities in that vehicle. Identifying an unqualified driver is an acute finding. If one is found anywhere in your system, you are going to fail that part of the audit. That is as opposed to having incomplete driver qualification files. Incomplete files is where certain records are missing and they come across patterns of those records missing from those files; that would be a critical finding and would affect the rating in that circumstance.

There are fines and penalties that come out of the whole audit process. Fines can go upwards of $50,000 or $60,000 – even into six figures in some cases – if you had very extensive patterns of non-compliance and an ongoing history, where it can be shown that, through prior contact with DOT or the state, you should have known better and that you either simply refused to or otherwise did not address the problem.

If you go unsatisfactory in an audit, DOT can initiate a 60-day shutdown order for non-hazmat haulers. This means that, with-in that time frame, you have to submit a plan that satisfies DOT’s concerns, addresses the issues identified and gives you a position for moving forward. If they are satisfied with the response, they will place an interim conditional on your company and they will be back in to revisit the programs that you proposed to implement and, if you have addressed the concerns appropriately, then they will levy the conditional rating. If they come back in and evaluate and find that they are not satisfied that you have met your own plan response, then they will find you unsatisfactory and can shut your trucks down. That is one response, but on top of that you can have fines and penalties.

What is a commercial vehicle?

A commercial motor vehicle is the key definition and it refers to self propelled or towed vehicles or a combination of the two that are used on a highway in intrastate commerce to transport passengers or property when any one or more of the following are met. A DOT commercial vehicle is a vehicle combination or a single vehicle that is over 10,000 pounds gross weight, either weighed or by weight rating. This is an intrastate definition and assumes intrastate commerce at this point.

We have two thresholds in the regulations for the CDL commercial definition. First is the over 10,000 pounds threshold, which is the initial or non-CDL vehicle definition. Second is the CDL definition of a commercial vehicle – over 26,000 pounds single vehicle weight rating or a combination weight rating over 26,000 pounds, provided that the trailer weight is singularly over 10,000 pounds weight rating.

Federal Regulations

Section 390 is the general part of the Federal Motor Carrier Safety Regulations, – accidents, tracking accidents, record keeping on accidents. Section 390 also deals with registering as an interstate motor carrier with federal DOT. If you have trucks or combinations that are over 10,000 pounds and you run interstate once a year, you must have a U.S. DOT number, and Sec. 390 talks about how to register with that agency to get that number. The drivers that drive that class of vehicle, non-CDL and CDL, have to be qualified and have a medical card. They have to comply with the rules of the road for a commercial driver status. That is Sec. 392, the rules of the road. Section 395 is hours-of-service records for those who drive commercial trucks. Finally, we have to have maintenance programs and records on those vehicles and combinations.

Why would a small, local tree care company have to maintain hours of service records? I did work for a large lumber store retailer and the only trucks they operate are delivery trucks, from their stores to the customers who shop as contractors and residential customers, and that is their operation. It is a store radius but the regulations are written for all of trucking. You might not think you are a trucking company and that the regulations were written for the operators of big rigs. You are correct and they were written for those companies primarily, but they also apply to anybody operating commercial vehicles that cross a state line even once or twice a year. The whole backdrop as to why we have these regulations and what drives these regulations is accidents. It is all about reducing or preventing accidents involving commercial vehicles. It doesn’t always make sense how service regulations apply to you, but that is the way that it works.

The objective is that, through this process, you develop management controls that are directed at safety issues and you make sure your people are trained and qualified. When they have accidents, you go back and evaluate what happened and begin to determine what the causes were. Was it driver error, a qualification issue or something that you need to respond to or follow-up on as a company?

This information was excerpted from a presentation made at TCI EXPO in Baltimore.
The Best Benefit of TCIA Accreditation

By Jeff Berlin

I don’t know if I’m the ideal candidate for discussing the merits of the new TCIA Accreditation program because I’m biased. I already believe very firmly in quality management systems – not because quality management systems are the next greatest craze, but because I have seen what they can do for an organization.

I have the benefit of not being a “green industry” insider. I am not a second or third generation “tree guy” nor has the bulk of my professional experience been in the tree care field. Right about now several of the people reading this are turning out the “lights” and have already decided that I don’t know what I’m talking about. That’s fine; I’ll continue for those who want a true competitive advantage. Before addressing the actual accreditation program, I would like to take a few minutes to discuss quality management systems and how they can be used to improve the quality of any company.

Working in the automotive industry for a number of years, I was fortunate to see quality management systems in every shape and size of business. And without giving a history lesson on the origins of the modern day quality management system, let’s suffice it to say that after literally billions of dollars in research, implementation and continuous improvement, industries involved in manufacturing or transportation have decided they will stake their futures on the long-term benefits of quality systems. That alone speaks volumes. They recognize that the days of the early industrial revolution are over and consumers have a choice. So why should the green industry think any differently? There are arguments galore from people in certain service sectors (including the green industry) that believe quality management systems are too costly and cumbersome for the average small business to afford or manage. They also argue that there are very few real tangible benefits. I disagree – I believe you can’t afford not to have a system in place if you want to remain competitive.

Although there are several different types of quality management systems currently in use, the names you are most likely to recognize are ISO-9000 and QS-9000. There are several between these two and the other systems available, but they all have one primary goal – quality! Let’s look at this one layer deeper. What is quality? To some, a quality restaurant is one that serves mounds of pretty good food for next to nothing. To others, a quality restaurant is one that costs $200 a plate and has 50 different types of wine on its wine list. And to still others, a quality restaurant is one where all the people smile and your coffee cup stays full. Are any of these assessments wrong? Not necessarily. The point is that quality means different things to different people. As such, quality management systems measure the effectiveness of their quality by how happy the customer is with their product or service.

To further illustrate the point, I have watched our tree crews do some of the most phenomenal work, on very difficult trees, in the harshest of weather. I have walked away from these job sites thinking to myself how wonderful it will be when I read the great things the client says about us when they send in their comment card. Imagine my surprise when I receive a call from one of these customers displeased for something we would consider incredibly trivial. Why was I surprised? My expectation of quality was different than the client’s expectation of quality. Understand that quality is the focus, but customer satisfaction is the yardstick.

Here are some things you need to know about quality systems if you are going to be successful. A system is not a system unless it is documented. This is a very simple thing that often gets overlooked. This does not just refer to the actual procedures – this means everything. Documentation of your system provides three distinct advantages:

1. Training on a system can only be done accurately if the system is written;
2. Documentation provides proof to outside auditors that you have created a system that is in place and effective;
3. Documented systems provide a means of troubleshooting problems that may develop along the way and which otherwise might prevent the company from consistently satisfying customers. This one item alone seems the most daunting to any small business owner that decides to take the company to the next level of professionalism. For most of us it has been quite some time since we were in school and it may seem overwhelming to write all these procedures. But without documentation, your system it is destined to fail.

The first thing to consider is BUY IN! This is emphasized for a reason. If everyone in your organization does not completely buy into the quality management concept, it will not work! That doesn’t mean people can’t be taught to buy in using sound implementation techniques, but it has to be organization-wide. It must start with the uppermost rung on your organization’s ladder. Starting at the top shows a commitment to strategic investment and resources that is absolutely essential for any quality system to be successful. If your company is small enough, the task of developing the quality system may fall into your lap. That makes the initial start-up easier but it will only last a little while before it has to be spread throughout the organization. If this task will be another person’s responsibility, that person must have management buy in because they will need resources. This buy in at the management level communicates to your staff the commitment you expect to see them make during the implementation phase.

The key to developing your quality system is to break down the things you do that contribute to the end product/service into the
sub-components that make sense to your business. Let’s take, as an example, the process of getting tree crews out of the yard in the morning. There are a series of things that need to be done every morning to ensure the day’s production will go smoothly. You can leave this to a random listing that you tell everyone in a meeting and hope they remember, or you could simply write a list like this:

1. Crew foreman – take crew attendance
2. Pre-Op inspection on all equipment
3. Fuel all equipment
4. Get fuel for chain saws
5. Review work orders for the day
6. Request any special equipment needed
7. Inspect climbing equipment
8. Sharpen saws
9. Discuss route to jobsite
10. Depart yard

Once you have gone over this list with everyone and explained what you are expecting, this can serve as a daily checklist that they could turn in before they leave to show evidence that they completed each daily task. Now, the next time they end up on a job site and call you saying they forgot the drill for installing the cable in a tree, you could look at this daily checklist and find out if they completed all the steps in the system. If they did complete all the steps, they probably would not have made the drill (or your system needs to be changed) and you would not be losing the time and money it takes to get the drill delivered to them on the jobsite.

The natural tendency in system development is to now take each of the steps in the above checklist and address all items that are not already completely error-proof (i.e. step 10. Depart Yard) and further define and explain them so there is no misunderstanding. For example: Step 4 – Get fuel for chain saw: a crew member should know where to find the oil, what type of gas can should be used, what type of gasoline should be used, what is the mixing ratio for the saw they are using, does the gas or the oil go in the can first, where should the can be stored on the truck, etc. At first this seems a little overboard but think about this – how many people have you ever hired who didn’t know how to mix gas and 2-cycle oil for a chain saw? How many saws have you lost by under-mixing 2-cycle oil in the gasoline? Following a series of predefined steps each time ensures consistency and therefore predictable results.

A by-product of this “drilling down” process is that you will find out how many different ways things are actually being done in your company. The method or process used for doing something is perfectly clear to you because you established it years ago and have never changed it so it should be exactly the same. Or, you already “fixed that problem years ago” so there shouldn’t be any issues with the way it’s done now. Guess what, you’re wrong. Unless you are the only person in your company, someone is doing something other than the way you set it up. Breaking down the individual steps allows everyone to discuss openly the best way to accomplish each task and weed out the miscommunication that comes naturally to any organization. You will be surprised to see what has or has not been happening right under your nose!

Here’s an important point that most people forget – a quality system must be “living.”
There has to be systems in place for controlling the way things are added to the system, corrected within the system and deleted from the system. As a business or market environment changes, the quality system must be able to adapt and change as well. As long as the changes you are making to the quality system are controlled properly, change is the vehicle that leads to the long-term improvement that you are ultimately striving toward. When you have a system in place and clients are still not happy, look at your system and see what small changes can be made to adjust the output. There are a dozen simple examples: if every time you grilled steaks on your B-B-Q they burned, you would change something until they came out right – the temperature, the meat, open/close the lid, etc. If you constantly hooked your golf ball into the rough, you would change your stance, your club, the ball, your swing, etc. And because it is your quality system you can do most anything you want as long as the objective remains quality – resulting in customer satisfaction.

Now for the hard part – implementation. This is, without a doubt, the hardest phase of any quality system development. Although you should have been communicating with your staff along the way, you will invariably come to that moment where everyone finally believes they will have to change. Up to this point people can usually be cooperative because they haven’t seen the system affect them – now it’s real. The problem with the whole implementation portion is that people don’t really like to change. They get into a comfort zone in which they know what’s expected of them and they basically know how to do it. You are now going to ask that they discard most of the old way and start following a new set of instructions. How would you feel if one day you woke up to find that the United States Department of Transportation now requires all automobiles to drive on the left side of the road instead of the right side of the road? Besides the millions of accidents that would cause, imagine how uncomfortable or unfamiliar that would be. That is what you are asking of your staff.

The real keys to successful implementation are – keep everyone informed, get their input, and take small steps. Understanding the resistance is half the battle.

Last but not least – continuous improvement! Once you have fully developed and implemented your quality system you must provide a cycle for monitoring its effectiveness and making changes where it is deficient.

One of the greatest features of a documented quality system is the ability to troubleshoot a particular situation and find out why the expected results were not achieved. By following the procedure or system from beginning to end we can find out what went wrong and make corrections. Over a period of time, in the right environment, this process of continuous improvement will temper a company into a dominating force in its market.

With all that said, understand that the TCIA Accreditation Program is the method by which our internal quality systems will be verified. The program will measure the effectiveness of the company’s internal systems against a guideline of established “best business practices.” By completing the Accreditation Program you are showing evidence to your clients and prospects that a third party verifies that you conduct business in a manner that is superior to your competition.

The primary weakness with “industry association” membership, from a competitive marketing standpoint, is that all companies, regardless of professionalism or ethics, have access to the same logo/membership by simply paying their annual membership dues. This puts the professional company at a significant disadvantage because we are forced to compete with companies that don’t invest in training for their staff, don’t always carry adequate insurance coverage and a whole host of other “shortcuts” that not only reduce costs but also reduce the level of quality the client is receiving.

The companies that will be interested in the Accreditation Program are those that desire a long-term commitment to their clients, their employees, and their craft. Accreditation and quality systems are not a “quick fix” solution. They are an investment that could take several years to pay off fully. The long-term benefits, however, will continue paying for years and years to come. Just think, for a minute, about the tree care companies you compete with in your market. How many of them have good reputations? How many of them treat trees and clients ethically? How many have good safety records? How many of them have neat, clean equipment and crews? You compete with these companies and you know the difference between their operations and yours. The Accreditation Program provides a way for your client to know there is truly a difference.

Jeff Berlin was general manager of Owen Tree Service, Inc. in Attica, Mich., when the company went through the TCIA Accreditation Program approval process.
Your Blueprint for Success

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Your company should take part in TCIA’s Day of Service, October 31, 2004, and not just because it is Halloween and the day after TCI EXPO closes in Detroit.

On this day, TCIA members as well as friends in the green industry and the Detroit community will deliver a Day of Service to benefit the trees of Belle Isle. This much publicized and very public event will call attention to the importance of professional tree care.

Detroit’s “Showcase Park” is a vital part of the city’s history and culture. In its buildings, its landscape and its trees, the park clearly shows its age but also reveals its beauty. With the help of many, Belle Isle will be an important part of Detroit’s rebirth. It is the perfect venue for arborists to give back to the community and to society in a meaningful way.

Belle Isle was chosen as TCIA’s Day of Service site for several reasons. Without question the trees in the park are in dire need of care, and the city lacks the resources to do all the work required on a timely basis. In 2001 and 2002, local arborists rallied together in an event called the “Tree Hug” to provide care to Belle Isle’s trees. Many trees were so hazardous they had to be removed.

On any given day, weather permitting, Belle Isle is teeming with Detroiter enjoying a haven that seems worlds removed from the streets of the great city. Picnickers, youth groups, senior citizens practicing Tai Chi, runners, bikers, walkers, boaters – it is clear from the populace on the island that the people of Detroit value the island’s natural serenity and beauty. Picnic areas, shelters and play-grounds occupy much of the center of the island.

The island is also home to a rather diverse population of trees. Among them are two relatively rare trees, the pumpkin ash and the Shumard oak.

The island’s popularity has been to some extent the trees’ undoing. The trees in the high traffic areas in and around the picnic tables, playgrounds and shelters show signs of decline, no doubt accelerated by soil compaction. According to Parks & Rec. officials, the inevitable collapse of old drainage systems throughout the park have led to drainage problems, aggravating conditions for tree roots.

Hazard trees are the most significant and immediate concern. Hundreds of trees in high traffic areas urgently need heavy deadwood, hangers and dangerous limbs removed. The trees range in size, with
many mature oaks and other hardwoods dominating the landscape. Many of the trees are bucket-accessible, depending on the amount of recent rain the park has received.

The appearance of many trees – including everything from small ornamentals to massive white oak – suggests that fertilization and other soil treatments should be administered. For example, many oaks display iron chlorosis associated with high soil pH levels.

The park offers large treed areas in which 300-500 arborists could easily work together as they make dramatic improvements. Interspersed in these areas are trees showing symptoms of nutrient deficiency and soil compaction. Nearby there are areas to showcase ancillary services such as stump grinding and wood waste recycling. Throughout the island, there are voids in the landscaped areas where trees have been lost. By the time of the Day of Service, TCIA volunteers will have identified candidate trees to receive cables or other structural support.

From a public relations standpoint, the timing couldn’t be better. Detroit is in the midst of an unprecedented revitalization effort. The Mayor’s office, the Detroit Parks & Recreation department and the Detroit Convention & Visitors Bureau and various citizen groups have thrown their resources solidly behind the Day of Service initiative.

Belle Isle symbolizes the culture, heritage and pride that forward-thinking Detroiter hope to restore as they rebuild their city. Taking part in the Day of Service will help a city to be born again. It is taking part in history as it is being made, and something to remember the rest of one’s life. Finally, the one-of-a-kind setting and the historic aura of Belle Isle will make this an unforgettable life experience and career reward for all who participate.

Call the TCIA office to receive a “Day of Service” form, or for more information. Plan now to attend TCI EXPO 2004 and participate in the TCIA 2004 Day of Service.
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**Mitti & Merrill**  
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**Accidents in Arboriculture:**

**What’s Happening & Why?**

By Dr. John Ball

Why do accidents happen? Accidents, by definition, are unplanned events. No one, including tree workers, plans on having an accident. But accidents do happen in every occupation and, unfortunately, disproportionately in the tree care industry.

No one reading this is shocked to learn that accidents occur in the tree care profession, or even that lots of accidents happen. After all, the aerial work environment naturally provides ample opportunities for mishaps to occur. Almost every tree worker can tell a story about an accident that occurred to them or a co-worker. So last fall it came as a surprise to some when the Bureau of Labor Statistics (BLS) reports came out ranking “the 10 most dangerous jobs,” that tree work was not on the list. Logging, an allied industry, was on the list. In fact, loggers had the unenviable number-one ranking. So, if tree workers were not on the list, it must be a much safer profession, right? No, it just is that tree worker accidents were pooled with other green industry occupations.

The Bureau of Labor Statistics has tree workers in the Industry Group 078 – Landscape and Horticultural Services. For reporting purposes, tree workers fatalities and injuries are pooled together with those of landscape architects, designers, installers and lawn care workers. This is a large group and tree workers are only a small part of it. There are slightly more than one million workers in landscape and horticultural services and collectively the fatality rate is 16.1 per 100,000 workers (the BLS tracks all occupational fatalities per 100,000 workers so comparison can be made among occupations with different number of workers). The pooled fatality rate of 16.1 per 100,000 is still very high. The average for all industries – if you take every worker in America regardless of occupation – it is slightly more than 4 per 100,000. But within their group, tree workers bear a disproportional number of the fatal accidents. If tree workers are separated out from this group, their fatality rate for 2002 becomes 39.5 per 100,000. Taken alone, tree worker would rank number five on the “top 10” list of dangerous occupations, right behind high steel construction workers. Tree work is high risk. But the odds of having a fatal accident are much higher even than many other high risk professions.

Looking at the risk this way, the odds of having a fatal accident in any given year for construction workers is about 1 in 10,000. Police it is about 1 in 8,200, firefighters about 1 in 6,500. How about for tree workers? It is about 1 in 3,000. This makes tree work one of the highest risk occupations in any community and for any city department. Consider this. We spend a
lot of money training firefighters and police officers, and we should because these are high risk professions that demand peak performance from people in high stress situations. How much annual training do we require for tree workers, commercial or municipal? Not a lot, we do work rather than practice it. When was the last time you saw a crew practicing felling or rigging or any other high risk task? This is a pressing need in our profession. While no one plans an accident, you can prepare to avoid them, if you know what to watch out for and practice.

What types of accidents occur in the tree care profession? The government tracks worker fatalities in six major categories, transportation, assaults, contact with an object, falls, exposure to a harmful environment and fire. The greatest two hazards for tree workers are in the categories “contact with an object” and “falls.” Collectively these two categories accounted for more than 2 out of 3 tree worker fatalities during the decade of the 1990s. Most years, and overall, “contact with an object” was the leading category for fatalities, but even then falls were a close second. Transportation and “exposure to a harmful environment” were always in the second tier. There are more fatalities in the category “exposure to a harmful environment” than transportation, but transportation accidents are increasing.

Transportation-related fatalities are common among any profession where workers must drive from site to site or work close to traffic. The age range of tree workers killed in the last decade from transportation accidents was from 21 to 61. While a number of these fatalities occurred while driving to, from or between job sites, a surprising number took place on site. The most common accident in the “contact with an object” category, in fact the vast majority of accidents in this category, is being struck by passing traffic. Anyone who has worked alongside a street knows that drivers seem to aim for the cones, if they see them at all. A recent accident occurred to a tree worker who was fatally struck while standing near a truck parked by the road. The driver of the car that hit the worker said that she didn’t see him because the sun was in her eyes. Frequently the worker is not struck by a passing car but by one of their own vehicles. A common scenario is a worker is touching up or fueling a saw when someone backs the truck over them. The simple practice of walking around a truck before backing or having a spotter would save lives.

We have not had any fatal assaults on arborists, at least not in the last 10 years. But there have been tree workers attacked by dogs, including pit bulls, and one instance where a law enforcement officer was fatally shot when an angry, and armed, person confronted a tree crew while they were working. Tree workers have had some other close calls. A city tree worker had a gun pulled on him by someone who was upset that sawdust drifted down and landed on his car.

Contact with an object is the category with the highest number of fatalities. The age range for fatalities in this category was 12 to 60. It is shocking to see the number of workers under the age of 18 who are killed while working on a tree crew. Who would have a 12- or 13-year-old climbing trees or operating an aerial lift, you might ask – that seems a little dangerous. It would, and they are not climbing or operating big equipment, so how are they killed? Just the same way many workers are killed – being ground workers, just moving brush or raking.

The most common accident in the “contact with an object” category, in fact the vast majority of accidents in this category, is being struck by a falling branch or tree. After that it is the chipper followed by some others, such as chains saws, that are involved in only a few contact-related fatalities.

If a worker is killed by a falling limb, increasingly it is due to a rigging failure. Rigging up to the 1970s was typically performed with a half-inch or three-quarter inch manila lines run over a natural crotch in a tree. Back then, the weakest link in the system was the line. Since that time we have significantly increased the strength of our rigging equipment, lines, blocks, false crotches. The only part of the system we have not strengthened is the tree. The tree is now often the weakest point of the system, and if there is a failure it is not a line that snaps but the limb. Another very common cause for a worker being killed by a falling branch is climbers who cut branches and let them fall without alerting ground workers (and merely shouting “headache” does not count as a valid command and response system) or a dead limb breaking free as the tree is felled.
If the worker is struck by a tree, and this is where the young teenage workers are killed, typically they walked into the path of the falling tree. It is not the worker operating the saw that is killed, it is a ground worker raking leaves or carrying brush. In most of these accidents, the feller remembers shouting out a warning before beginning the back-cut but as with cut branches, did not wait to hear a response that all workers in or near the drop zone had been alerted and moved out of the vicinity of the falling tree’s path. In a recent accident a tree worker was struck and killed by a falling tree because he walked across the path of its fall as he dragged brush to a chipper.

Another cause of workers being struck by a falling tree is having the tree fail due to internal decay while making a felling cut. Assessing the structural integrity of a tree before working in it or removing it is not only a good idea that would save lives, it is a requirement. Unfortunately there are not only a good idea that would save lives, it is a requirement. Unfortunately there are

Each year tree workers have been killed because they were standing in front of a notched tree. Often the feller is discussing where the tree will fall with co-workers when the notched tree fails and falls on them.

Repositioning is one of highest risk activities for climbers, not the ascent into the tree or descent from it. The lanyard or climbing line is severed by the saw and the worker falls. The other common reason is the tree fails when the climber cuts a large some limbs after the tree was notched. The tree falls when the climber cuts a large branch and the sway motion causes the tree to snap at the cut. The climber falls with the tree and is often crushed by the impact.

How about falls? The age range for fatal falls was 17 to 67. Not too surprisingly, most falls occur to climbers, with aerial lift operators a distant second. A few fall fatalities occurred to workers who fell from the trees or even short ladders. Fall fatalities have occurred at less than 10 feet. Tree workers have been killed from 5- and 13-foot falls from a tree when they hit their head on pavement, chippers or other equipment. Obviously there are many more fatalities at greater heights, even up to 100 feet or more. There are also falls from 60- to 70-feet where the worker survived without permanent injuries. But once a worker is above 40 feet and falls, there are more fatalities than injuries.

When a worker falls from an aerial lift, frequently it is because the aerial lift fails. Booms or cables snap, cylinders fail, turret bolts snap or buckets shear away from the boom. Sometimes these failures occur within weeks of the lift being repaired or inspected. Aerial lifts are supposed to be inspected daily by the worker. A worker should never assume someone else did the daily check. The other reason for the fall is the worker was not using a fall-restraint system. A recent accident occurred to an aerial lift operator who had a cut branch slide down the upper boom and hit the controls. The boom swayed and the worker ejected from the bucket striking the street 35 feet below.

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environment,” electric shock is the most frequent reason for a fatality; bee stings are a distant second, but still account for one or two fatalities every year or two. The age range for fatalities in this category was 17 to 55. The worker that most often suffered electric shock was a climber; second and very close in numbers were ground workers.

Most of the time when a climber is electrocuted it is through indirect contact with the energized conductor, not direct contact. Accident investigation reports often include the phrase “the cut branch the worker was holding swung down and contacted the power line.” Another common reason is the conductor was contacted by a pole saw or chain saw. Direct contact is commonly via the back of a shoulder or hand. Why would a worker back into a conductor, grab it or touch it with a saw? Simple, no one knew there was a power line running through the tree. If pre-work inspections involved an evaluation of electrical hazards as well as tree hazards, the fatalities due to electrical shock could be significantly reduced.

Ground workers are the victims in many electrical shock accidents. The majority of these fatalities are through indirect contact. Touching power lines with aluminum ladders or metal pole saws and being electrocuted are far too common accidents. In a recent accident, a tree worker was pruning a tree with a chain saw while standing on an aluminum ladder. The worker was killed when the chain saw contacted the power line. Leaning against an aerial lift or feeding a chipper when it becomes energized are also frequent reasons for ground workers receiving a fatal electric shock. Aerial lift operators, while the less likely tree worker to die from electrical shock, still are at risk. Workers have been killed when they, or a branch or pole saw they were holding, contacted two power lines. They also have been killed in buckets that lost their dielectric properties.

The last category, fire, did not contain a single tree worker during the past decade. One worker had to be rescued by the firefighters, however, when a cut branch struck and severed a power line that started a ground fire beneath the tree.

These have been the fatalities during the past decade in the tree care industry. While these numbers and accidents seem dry reading, remember that each one of these represents a human being, someone who cannot be replaced and who’s lost and will always be remembered by family and friends. The 1990s were a decade when hundreds of tree workers lost their lives, while in the average industry the decade losses were in the tens of workers.

The most important reminder I can give is to be careful out there. Never assume that these accidents occur to the other worker and never expect anyone else to be responsible for your own safety. I doubt if any of the workers in these accidents ever expected it to happen to them – but it did.

Dr. John Ball is a professor of forestry at South Dakota State University in Brookings. He has a Ph.D. in Urban Forestry and a master’s in Forest Entomology, both from Michigan State University, and a bachelor’s in Forest Management from Michigan Technological University. He was previously the landscape and tree care manager for Arrowhead Tree and Landscape in Duluth, Minn., and director of technical services at Carpenter-Costin, a large tree care and landscape planning company north of Boston. He has been widely published, has presented more than 150 papers at regional, national and international conferences, and currently serves on the editorial board for Arborist News. He will present updated information on accidents at TCI EXPO in Detroit in October.
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Writing Effective Ordinances and Specifications

By Gary Lovallo

Ordinance Background

Many communities are slowly swinging back toward recognizing the importance of their tree resource. Whether it is for one tree or many, the need to preserve what remains now has more significance and consideration than ever before. Forested and treed areas once gone cannot be replaced, and with land in high demand for development, the pressure to build sometimes overcomes the most resistant landowner. Heirs, for the most part, do not need to deal with issues of land ownership and the taxes associated with it. Development of the land is often the result. To counter this scenario, municipalities have enacted ordinances attempting to control or steer development without the total and complete destruction of the tree resource.

Most tree removal ordinances are a result of officials responding to public pressure to “Do Something” about development. Volunteers – usually concerned citizens who may be serving on environmental or shade tree commissions – search for other community ordinances and combine what they feel is the best for them. However, noble that cause, that may not be the best way. Defining the objective is the first order of business, keeping in mind that, short of outright purchase of the property, land use is strictly defined by the authority given it by the state in which you reside.

Objectives

The most common objectives of ordinance writing are the preservation of trees and landscape planting requirements. Several target categories or property types are defined: existing residential homes; new residential construction; commercial/industrial; and landfills or mining. Each site will have a slightly different requirement for regulation of tree and shrub removal. Some may choose to allow existing homeowners to remove trees within a certain distance from the house (such as 100 feet), a limited square footage (such as ½ acre or 20,000 square feet), or restrict to a set number of trees (such as 10) permitted for removal in a one-year period. Some ordinances define removal restrictions by species, size, age or location. This is particularly important for areas of special consideration or habitat.

Associated with those parameters are, generally, provisions for replacements. Often called “No Net Loss,” they require that for every tree removed on a particular site a replacement must be planted or a fee is assessed that will be used to plant trees elsewhere.

Sequence of ordinance construction

Intent: This statement provides the definition of what will be protected, such as the indiscriminate removal of trees, creating soil erosion and dust, devalued properties, and rendering land unsuitable for its most appropriate use, thereby affecting the health and welfare of the residents. Trees are an important cultural, ecological, sce-
nic and economic resource. Proper management of this resource will result in greater economic return, cooling streets and homes, cleaning the air, reducing the noise and dust of everyday activities, and providing stress relief.

Definitions: Definitions are as important as the text. Here is where it is important to clarify terms throughout the document, defining such things as what minimum size constitutes a tree, or what is a tree-preservation plan. The responsible officer directed to enforce this code is also defined here. This is a very important definition and should not be taken lightly. More times than not, this section is written by those with a political agenda taking the opportunity to appoint a person of affiliation. If you are not careful, you can lose the war here.

The newest term for this position is “Conservation Officer” and frequently the definitions for this position are limited to, “a person who holds the title.” Not good. The term should be “Forester” or “Certified Tree Expert” and specifically qualified by having a degree in forestry or other closely associated field from an accredited university recognized by Society of American Foresters and who is also a Certified Tree Expert. This puts the professional in charge of issues and events they were trained for and relies on expertise rather than nepotism.

**Ordinance text**

Additional contents of common ordinances are as follows:

- Permit requirements – list procedures, information required, and term
- Restrictions – where and how many trees
- Application procedures
- Pre-inspection requirement – site visit prior to engineering
- Construction requirements – before, during and after
- Tree preservation plan
- Tree protection criteria – fencing type, size, location
- Replacement specs
- One-to-one
- Over a specified size only
- Fee based
- Easements

- Shade tree placement within a designated setback from curb
- Planting specs
- Detailed requirements
- Pre-inspection to purchasing and planting
- Maintenance requirements
- Insect & disease control
- Exemptions
- Fees
- Escrow fund
- Limits on time of permit
- Enforcement
- Violations & Penalties

This black walnut tree, which was preserved throughout construction, was then deliberately removed due to insignificant penalty.
Conclusion

Specifications and ordinance writing need to be field tested and proven applicable to the specific area. In order to improve our writing and effectiveness, you need to get out of the office and do the following:

- Visit your sites, before & after – much after, years after.
- Review new publications and look to other resources for ideas
- Consider underground prior to designing above ground
- Consolidate or unify codes
- Use existing or court-tested ordinances
- Consult with a Certified Tree Expert

Know the community in which you are working, and know the background and political climate. Let’s face reality, our community leaders react to public pressure. Whether it is one loud person or many, the squeaky wheel gets the oil. Talk to each individual to qualify the goals, target what is needed and acceptable, and use an incremental approach. Get it done first, amend later. Do not exceed stated goals nor impose your views; be creative in writing without losing focus. Most of all, solicit supporters.

Tree replacement has been accepted by the courts as an acceptable means of no net loss. Use this as a primary target rather than fees. After all, the goal is to keep and plant trees, not raise money or fund a pet project. Include your most valuable commodity, whether large, old trees or indigenous plants. Specify qualifications of the responsible person to oversee the requirements and do not compromise on this issue. I have seen good laws go bad when not enforced by the right professional.

Gary Lovallo, certified forester and New Jersey Certified Tree Expert, earlier this year presented on the topic of ordinance and specification writing at the New Jersey Chapter of the American Society of Landscape Architects in Atlantic City.

Root and trunk cutting for sidewalks would be prevented by having a certified tree expert or arborist on staff. All photos courtesy of Gary Lovallo.

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The Care of Trees

“Branching Out” Scholarship Fund in Place

Officials with The Care of Trees hope to give aspiring arborists a leg up as they pursue their studies in horticulture. The national arboriculture company recently set up “Branching Out” scholarships, allocating a total of $5,000 this year to several colleges in the Mid-Atlantic Region. The first recipient is from Allegany College of Maryland in Cumberland, Md.

Allegany College of Maryland Forestry student Samuel Helman of Purgitsville, W. Va., received $250 in the spring and will receive another $250 in the fall semester to help complete his studies. Helman, a sophomore who lives with his family in Purgitsville, W. Va., commutes more than two hours each day to attend classes. The company has allocated $500 for another student to receive this fall, bringing the total so far this year to $1,000.

The “Branching Out” scholarship program rewards students who have an interest in forestry and horticulture. The awards are based on both academic and non-academic credentials and a desire to work in the tree care industry. The company is interested in partnering with other schools in the fall to award additional funds. For more information on the scholarship fund, visit www.thecareoftrees.com.

Virginia Tree Is Nation’s Largest White Oak

An 86 foot specimen in Southern Virginia has been recognized as the largest white oak in the United States. The tree in Warfield, Va., takes the place of a 96-foot-tall, 32-foot-wide oak in Wye Mills, Md., that was toppled in June 2002.

The 26-foot wide Virginia winner, thought to be more than 500 years old, beat out trees in Maryland, Virginia, New York, Ohio and the District of Columbia to capture its place in the 2004 National Register of Big Trees. The ranking was published earlier this year by American Forests, a Washington-based nonprofit tree conservation organization.

Maryland nominated 28 trees for inclu-
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sion on the 2004 register, according to an article in The Baltimore Sun, 17 of which made it. They include a 120-foot box elder in Monrovia, Frederick County; a 103-foot slippery elm in Frederick; a 108-foot mockernut hickory in Upper Marlboro; a 90-foot shagbark hickory in Edgewater (co-champion with another tree); and a 100-foot pond cypress in Bowie.

The new list includes champions representing 738 species. The “General Sherman,” a giant Sequoia in California, remains the nation’s largest tree, and the largest tree by – volume – in the world. It is 274 feet high and 36 feet wide.

**Emerald Ash Borer Called Disaster in Michigan**

Michigan Governor Jennifer M. Granholm this summer formally requested that President Bush declare a major disaster for the state of Michigan as a result of the dangers to public safety caused by the severe infestation of the Emerald Ash Borer (EAB) in six southeast Michigan counties. Granholm said this unique disaster is of such severity and magnitude in the affected areas that an effective response is beyond the capabilities of the state and the affected local governments, which is why she is seeking the major disaster declaration from the federal government.

“Because our dead and dying ash trees are in very close proximity to homes, businesses, schools and other facilities, I want to prevent personal injury and property damage by taking proactive action to remove any threat posed by the affected ash trees,” Granholm said. “Federal assistance is necessary to prevent a catastrophic threat to our local communities.”

In her letter, Granholm outlined a request for public assistance grant monies to provide debris removal and disposal assistance to state and affected governments; and, hazard mitigation grant monies to help state and local governments reduce the threat of future infestations and tree damage. Response and mitigation expenditures are expected to exceed $163 million.

Granholm explained that ash trees infested by EAB are either dead or dying and present a significant danger to public safety because of their dry, brittle and deteriorating condition. Unfortunately, these trees are highly vulnerable to partial or complete collapse in the event of high winds, heavy rains or ice accumulation. These dead and dying trees also pose an extreme fire hazard.

While the Michigan Department of Agriculture, and now the United States Department of Agriculture, have initiated a quarantine that remains in effect, the problem continues to escalate, and funding and resources are quickly dwindling. Michigan has received nearly $29 million to date from the federal government.

**Florida Fears Damages from Smuggled Budwood**

The Florida Department of Agriculture & Consumers Services is on high alert because of international citrus budwood smuggling activities. U.S. Department of Homeland Security intercepted two shipments containing 350 cuttings of citrus budwood from Japan at a postal facility in Daly City, Calif. The intercepted boxes were manifested as “candy and chocolates” and “books and chocolates.” One of the budwood cuttings tested positive for citrus canker and was destroyed. The importation of citrus budwood is restricted. All citrus propagation material must enter the U.S. through regulatory channels and certified citrus introduction programs. In addition to the threat of citrus canker, foreign citrus budwood may also harbor injurious plant viruses and citrus greening disease. Anyone with information regarding illegal citrus budwood smuggling is urged to call (888) 397-1517.

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