RESULTS START HERE

Trees don’t stop growing and neither does Mauget. An R&D-focused company, we are constantly improving our proprietary formulations to take the lead in new technology development and industry innovation.

Recognize our newest reformulations by their “signature” violet color:

*Imicide®* – a broad-spectrum insecticide with exceptionally long residual and improved water compatibility.

*Mycobot Ultra* – an antibiotic with improved solubility and a superior active ingredient.

Beautiful trees start with good chemistry.

The Right Way To Treat A Tree

Mauget

5435 Peck Rd Arcadia, CA 91006 800-TREES Rx 800-873-3779 www.mauget.com © Copyright J.J. Mauget Co.

Circle 21 on RS Card or visit www.tcia.org
When you go into the woods, you need a machine you can count on. You need a loader-style mulching machine that’s purpose-built from the ground up to be the most productive and reliable on the market today. The C100 is that machine. It’s equipped with a 99.2 hp Kubota engine and RAYCO’s exclusive Super Flow closed loop, hydraulic system, providing 39 gal/minute at 5,500 psi to the Predator mulcher head. To extend service intervals, the C100 features an advanced forestry cooling system which is easy to maintain and will extend service intervals, even when operating in the most extreme conditions. High capacity coolers allow operation in the hottest ambient temperatures. Debris screens filter out most of the contaminants that plug radiators and are easily removed for routine cleaning. So if you are in the business of clearing land, call us at 800.392.2686 or visit our website at www.raycomfg.com to learn more about the only loader-style mulcher that’s purpose-built for your demanding application.
It's hard to believe, but in 2013 the Tree Care Industry Association will celebrate its 75th anniversary. Back in 1938, a very small group of intrepid arborists decided they needed a group separate from but supportive of the National Shade Tree Conference to represent the interest of commercial arborists. The National Arborist Association was born. In 1947, the new association’s articles of incorporation were officially accepted by the State of Ohio. The organization’s Constitution clearly described its mission: “The Association is established for the following purposes: to bring together persons and/or firms engaged in the professional of arboriculture as a livelihood and in which recognized methods of tree surgery, pruning, spraying, fertilizing, transplanting, diagnosis and kindred activities are practiced; to promote good fellowship and understanding; to advance the interests of the shade tree preservation industry; to collect, preserve and disseminate valuable and useful information relating to the business of arboriculture; to encourage sound and useful legislation, and oppose legislation which is harmful or unfair to the arborist’s profession; to foster and promote research for the improvement of arboricultural practices; to maintain good ethics, integrity, good faith, good will and just and equitable principles of business in the industry; and to strive in every practical way to promote the best interests of its members.”

That small group established noble purposes that ring true to this day. Over the decades, the association has grown, changed its bylaws, its governance, its headquarters and even changed its name. But the honorable mission of promoting the care of shade trees and the people who practice the profession of arboriculture remain.

As we look toward the association’s 75th anniversary, the TCIA board, senior staff and a representative group of members will meet in early June to outline its strategic direction. Our upcoming strategic planning retreat will lay the groundwork for the continued prosperity of the association and the world of tree care.

TCIA has a strong history of strategic planning and a well-developed vision, mission and strategy—validated over three-quarters of a century—for advancing tree care businesses. Eight years ago, after a similar strategic planning session, we embarked on a 10-year Transformation of the Industry. That strategic planning effort led to the:

- Launch of our Accreditation program, so consumers would have a means to identify qualified, credentialed tree care companies that followed best business practices;
- Introduction of the Certified Treecare Safety Professional (CTSP) credential, designed to improve safety and lower accident rates;
- Formation of the Voice for Trees political action committee to partner with governments on legislation and regulations, or as the founders might have said, “to encourage sound and useful legislation, and oppose legislation which is harmful or unfair”;
- Restructuring of the association’s media and public relations efforts to position TCIA as the voice of the industry with members, government and consumers;
- Design of the Partners Advancing Commercial Treecare (PACT) program, so vendors and service providers could help build stronger markets between consumers, tree care companies and suppliers.

Before we embark on our next strategic planning meeting, we’d like to hear from the industry at large. What are your priorities as the trustees of this great and noble profession? I look forward to hearing from you as we work together to chart an exciting future for TCIA and professional arboriculture.

Mark Garvin
Publisher
Remember what it was like to see the world from the top of your favorite tree? You grew up in a simpler time, without all of today’s complications. The passion you developed in your youth for trees hasn’t faded and, in fact, has made your company what it is today. But running a business in this complex world has its fair share of challenges. Let TCIA be your partner and help develop your business to meet today’s standards. We’ve been instrumental in supporting the ever-changing landscape of tree care for over 70 years – from the days of simplicity to 2011.

Your TCIA membership gives you:

• Increased profits with marketing programs and resources
• Unlimited access to OSHA and regulatory advisors who can help you navigate the rules
• Assistance with business practices that will distinguish your company from the competition
• Training programs to improve worker safety and increase profits

Plus you get: discounts, giveaways, members-only publications and access to TCIA’s online member resources right away!

For a limited time only we are offering new members 50% OFF of our first-year dues.*

Circle 33 on RS Card or visit www.tcia.org

* New membership rate of $150 is available to first-time, new members only. Please respond by July 15, 2011 or call Brenda or David for details.
JUNE

Features

8
Crane Use for the Climbing Arborist
By Todd Kramer

14
Advanced Climber School Offers Hands-On Training Working With Cranes
By Kimberly Nieves-Sosa

22
Disease Diagnosis and Eco-friendly Management – Part 1
By Sharon M. Douglas

26
Can Compost Teas Improve the Health and Growth of Trees and Shrubs?
By E. Thomas Smiley, Donald C. Booth and Bruce R. Fraedrich

36
Loader Attachments Reduce Labor and Add Versatility
By Rick Howland

Departments

4
Outlook
By Mark Garvin
Charting TCIA’s future while acknowledging the past.

16
Washington in Review
By Peter Gerstenberger
Got cranes? If so, OSHA might be watching...

18
Cutting Edge Products
New products and services for the tree care industry.

20
Industry Almanac
Important regional and national meetings.

21
Arborist Forum
By Tim Gamma, with Randy Owen and Scott Jamieson
ISA and TCIA support each other and the industry.

22
Got rust?

28
Accident Briefs

30
Safety Corner
By Scott Jamieson
Catastrophic accidents: A disturbing trend.

32
Consulting: ANSI Standards
By Gordon Mann
Recognizing trees as community infrastructure using ANSI A300 Part 5.

42
TCIA Accreditation
By Janet Aird
Stowe Tree Experts has passion for trees and Accreditation.

44
Classified Advertising

50
TCIA Reporter
Safety and training products, news, commentary and benefits of membership with TCIA.

52
Tree News Digest

52
Cutting Edge News
Business news in the tree care industry.

53
Advertiser Listing

54
From the Field
By Gary LaChance
Turning honey into wine.
NOTHING BEATS A TRUCK THAT NEVER QUITS.

Your truck should be like the rest of your crew: rugged, dependable and able to maneuver well in difficult situations. The Business Class® M2 has up to a 55-degree wheel cut. The windshield has 32% more usable area than the leading competitor. And it’s designed to provide excellent stability for an aerial device. We can even customize each truck to your specific needs. Combine that with Freightliner’s track record for reliability, and you’ll have a truck that won’t quit until quitting time. Learn more about the M2’s versatility at FreightlinerTrucks.com.
By Todd Kramer

I have been doing full-time tree work since 1989. When I first started, it was extremely traditional work and all we used were ropes and chain saws. In 1992 or 1993 we bought a crane, which was probably a mistake because we had no training and no instruction other than from the dealer who sold us the machine. At that time nobody was using cranes in our area. I knew they were being used all over the place, but we didn’t have any exposure. I spent a long time doing a lot of ducking, not sure where pieces were going to end up.

We eventually did get some training and talked to professional crane operators. We did a little homework and things evolved and smoothed out for us. I am asked quite frequently if I think that removing trees using a crane is the safest method, and I do believe that it is the absolute safest way to do tree removals. I also believe that it is absolutely the most dangerous way.

My point is, when you are out rigging a tree on rope and you are looking at a piece and you want to swing it to the other side of the tree and you are not 100 percent sure whether it might hit the gutter, you probably cut it and swing it and it maybe it hits the gutter a little bit, but maybe it didn’t damage it. This happens all the time. With cranes, if you make a mistake catastrophes can happen. If you flip a crane over and break it in half, somebody will probably get badly hurt or killed, or property will be torn up and a truck destroyed.

We have to be very diligent when working with cranes. Being an operator for many years and a climber for many years I’ve seen both perspectives. It helps to be a little bit of an operator to help the climbers. Your best ground man is a climber and your best operator is a climber as well.

Communication

The biggest thing is to understand the importance of communication with the entire crew. The climber and the operator, in some fashion or other, need to be able to
communicate. How you do that will be up to you and you might have to plan out that you need extra people on the job just to do it.

Some guys use radio communications. In the urban environment where I work, often the operator cannot see the climber. I may put one extra man on the job and place them where they can see the climber. I always preferred to use hand signals. I have used a couple of different radio systems and I, personally, did not have a lot of success with that method of communicating. It seemed hard to get the ball where I wanted it to be when I can’t see the operator. If I can use a hand signal to a guy on the roof, the crane just seems to work much faster and much smoother. This is just my opinion and how I prefer to communicate.

It is very important for everybody on the crew to understand hand signals. Hand signals are universal throughout the country. There are about 15 of them and you are probably only going to use about six: cable up, cable down, boom up, boom down, right and left. Sometimes you do a couple of the signals at the same time. It is good to be very clear on these and every professional operator is going to know these hand signals.

We own two boom trucks and often rent larger cranes. I always took the approach when I rented a crane that the operators were much more skilled than I was. They knew more about the machine and they also had much bigger machines than we have. Our cranes are fairly simple boom trucks. There is a huge difference between a 30-ton boom truck and a 30-ton crane. They are not even close to being the same machine.

I would pry as much information as I could from the operators. I learned from them that tree removal is what they consider demolition work and demolition work is the hardest, most challenging thing for a crane operator and for the crane. That is because you have an unpredictable load with absolutely no defined rigging points. With most crane work your rigging points are clearly defined. If you are going to rig an air conditioner there are rigging points on the air conditioner or on the pallet. Whatever load you are lifting has defined rigging points and you are never completely committed to the pick, in other words, if it seems wrong, you simply put it back on the ground and figure something else out. In demolition or tree work you have 100 percent commitment. When you make that cut the crane has it and if you were wrong there are going to be serious consequences for your errors, which could be in rigging and/or the weight of the piece. This is where these communication skills become really important.

Job briefing

We go through a pretty thorough job briefing. Our guys who work every day together are not quite as diligent, but every time we rent a crane and bring an outside element in we are very diligent about our job briefings. There are obvious things that you want to look at such as any hazards or obstacles. You want to discuss and plan out a crane setup area. I do that as soon as the crane gets there if we are renting a crane, before we have a final job briefing and before we actually get to work. If you do your homework and understand the machine, you should have a good idea where and how to set up the machine. This will give the operator more confidence in your skill set.

I inspect the rigging and the crane during the briefing. Inspecting the rigging is very easy and I use all of my own rigging. I highly recommend doing this and would never use the rigging that comes with a rented crane because you never know what you will get and you don’t know what that rigging has been through and it is probably going to be made out of wire rope, which is very difficult to work with. Inspecting a large, rented crane is something I am not quite qualified to do. Still I do give the machine a “once over.”

I have rented some pretty horrible cranes, with oil leaking all over the place and bent lattice pieces on the jib. These things indicate whether the machine has been maintained. You want to make sure that the crane has an LMI (load moment indicator), which tells the operator what their capacities are at all times and what their load is. You never want to come close to the crane’s maximum capacity.

You want to make sure that the crane has a load moment indicator (LMI), which tells the operator what their capacities are at all times and what their load is. You never want to come close to the crane’s maximum capacity.
the crane was good for it unless he looks it up in the book. Having a more modern crane with an LMI is very valuable once you get to work.

It is very important to discuss the work plan for everybody. I spent a lot of time not doing this and wishing I did. People want to be told what to do and they want to know what is expected of them. During that job briefing everybody knows what to do and they do it. There have been many times when I have been aggravated with the guys on the ground because they are not doing what I wanted, but I have to remind myself that I created my own problem because I didn’t tell them what to do and they cannot read my mind. Sitting down for a few minutes for a job briefing can make this job, which otherwise could be very stressful and dangerous, go very smoothly.

We also document the job briefing whenever possible and keep the operator involved. Some operators don’t want to get out of the machine, but you have to make him get involved with the job because it is all about team work.

Set-up
I always make sure when I rent a crane to ask for large pads. I have had some crane operators show up with no pads, and they just use the aluminum pads that slide onto the end of the hydraulics. It is my life up there, so I like to spread the weight out as much as possible. A couple of sheets of plywood and then large spaced out cribbing and then the actual pad is the way that I like it.

The crane has to be level and there is no getting around that. It is not like a grapple truck or a knuckle boom truck where you can mitigate and not have the truck level. Cranes need to be perfectly level and our cranes have always had a level bubble so there is no guess work. If you don’t get the crane level you are going to side load the boom the whole time.

I get a lot of questions regarding distance away from foundations. I like to stay about eight feet away. There is an actual chart that has ground pressure to the distances of foundations. I have seen some guys roll up in bucket trucks and place their outriggers right on top of the foundation of the house. If the foundation blows out the crane or bucket truck is going over. I try to stay a good distance away.

Riding the crane
In Illinois we ride the crane every single day. The idea of using a crane is to make
our work safer and I don’t want restrictions to make things harder or more dangerous. Fatigue can create a hazard so why not use a crane if you can because that is what it is there for.

You cannot tie into the hook, and you must tie in with an “approved” system. The system I use is basically a large shackle that you can hang on top of the ball. The shackle needs to sit right on top of the ball. In that shackle you have a ring-to-ring friction saver and you can clip a double auto-locking steel carabiner through the pin and then around both legs of the friction saver so it can never come off. Unfortunately, if you have a really big crane or a crane with a multi-part line, then this system is not going to work.

The ANSI Z133.1-2011 safety standard says we can ride the crane. I always bring a copy of the Z133 with me and have a copy in my truck in case the operator tells us that we can’t ride the crane. I just show the operator the standard and then they will let you do it.

One thing that I always bring up is inspecting the ball. When you start renting cranes or if you start using a jib a lot, anytime you are going to pull a swing-out-jib out, the ball is going to be set down and end up in the middle of the street or on the grass somewhere. You definitely want to inspect the ball because it gets rolled around all over the place, especially pulling jibs out.

Utilities
We do a lot of work for the utilities and right now the ANSI standards and OSHA regulations dictate staying 10 feet from 50 kV or less. I get asked a lot if I agree with that...
rule. That is one ANSI/OSHA rule that I don’t agree with. I do believe that, for doing line clearance work and pruning work, that 10 feet is a good rule. For crane work, I think that is way too close. It depends on how much tip height your crane has, but you could be at that 10-foot level with a load on and loads can shift and change, and you can get a 5 mph gust of wind and your 10 feet just turned into two – or contact – and this could happen pretty easily.

Another reason that I question that standard is, from an operators standpoint, depending on the orientation of where you are to the wires your distances are very difficult to tell how far away from the wires you really are. When you are climbing in a tree and you see a primary at eye level it is very hard to judge the distance. Imagine trying to make that judgment when you are 75 feet or 100 feet away. I try to stay farther away than just 10 feet.

One very important thing I do when we rent cranes is communicate weights on every cut. If I am with my own guys on my own crew, I don’t necessarily do that. But when I rent a crane and operator, once I get the boom all the way out and get the boom over the center of the tree, I will ask the operator what he is good for and he will tell me. I’ve had my climber ask the operator what he is good for and had the operator tell him 3,600 pounds; meanwhile I’m looking and the LMI actually says 4,800. Operators do that because they know they are doing demolition work and they don’t want to get you close to the maximum of that chart.

You want to train that operator to be looking at his LMI before you make the cut because a lot of the time they don’t and a lot of the time we, as climbers, don’t cut it all the way. Really bad things can happen when you don’t cut it all the way and you tell the operator that you did cut
it and he starts pulling without looking at his LMI.

For doing line clearance work and pruning work, that 10 feet is a good rule. For crane work, I think that is way too close.

When the crane is pulling 1,000 pounds and the load only weighs 500, when it separates it is a really violent situation. What you end up with is a dynamic load on a static machine. You can eliminate that by communicating with every single cut and that way the operator gets used to looking at it and doing whatever he needs to do to have less force so you can finish your cut.

You want to know the configuration of the crane. You want to study the chart and know what the crane is good for before it gets there and this information is usually available online. As cranes get bigger there are more and more charts. The chart tells you at what height and at what distance, which is known as radius, the machine can lift.

Crane operators don’t know the first thing about tree work. They don’t know about fiber and they hate doing demolition work and they might want to be the boss. Communication is key. Try to establish a relationship with that operator. If you know the terms of crane use and you know the terms of the crane industry, they are going to assume that you know what you are doing and they will have confidence in you and let you run the show.

Todd Kramer, CTSP, is director of field operations/education for Kramer Tree Specialists, Inc., an accredited, 23-year TCIA-member company based in West Chicago, Illinois. This article is excerpted from his presentation on the same subject at TCI EXPO 2010 in Pittsburgh.
On the heels of Mark Chisholm’s North American Hands-On Climber/Crane Training in Ipswich, Massachusetts, The Crane Man, Inc. and the Penn State Chester County Cooperative Extension held a three-day Advanced Climber School with a focus on crane take-downs March 31-April 2 at Ridley Creek State Park Mansion House in Chester County, Pennsylvania. A total of 13 students came from Pennsylvania, New Jersey, New Hampshire and Tennessee to participate.

“This type of training is something I’ve been talking about for a couple of years, and when I heard about Mark’s event it gave me the push I needed to get the wheels moving,” says Pete Nieves-Sosa, of The Crane Man, Inc., a TCIA member company in Chalfont, Pennsylvania. “I pitched the idea to Cheryl Bjornson of the Cooperative Extension, and the other instructors involved in the course at the Penn-Del ISA Shade Tree Symposium in February, and everyone jumped right on board.”

The course offered instruction using TCIA’s Best Practices for Crane Use in Arboriculture. It gave students an opportunity to get hands-on training with instructors nearby to assist. The Advanced Climber School included both classroom time and field time.

“The course was a great opportunity to enhance my climbing skills with the crane. I really enjoyed the hands-on aspect of the course,” comments Kyle Walter from Walter Tree Care in Bryn Athyn, Pa. who participated in the class.

In addition to Pete Nieves-Sosa running the crane, other instructors who volunteered their time to help make the course a success included Jim Roach of 23-year TCIA member John B. Ward & Co. in King of Prussia, Pa., and a CTSP candidate; Fraser Lay of The Tree Man in Perkiomenville, Pa.; Gareth Peoples of Penn State; Mike Livingston of 20-year TCIA member Shreiner Tree Care in King of Prussia, Pa.; Gene McMillen, CTSP and production manager at Shreiner Tree and president of Penn-Del ISA; and Mike Teti, CTSP, of 24-year TCIA member Giroud Tree and Lawn Care in Huntingdon Valley, Pa.

“The setup with the instructors was excellent because not only did you have someone in the tree with you at all times, but you also had someone in a bucket truck nearby who was able to offer suggestions or answer a question that you may have had,” says Chris Girard, CTSP, with Girard Tree Service, LLC, in Gilmanton, New Hampshire, a three-year TCIA member. “There were also instructors on the ground with the other participants explaining what they were doing up in the tree – as well as why they were doing it – for each pick. They, too, would take the time to answer any and all questions that we had.”

“One thing that I liked in particular was the way that Pete would take the time after a pick to come out of the cab and explain what he did, and why he did it, and how he was communicating with the climber before and during a pick,” explains Girard. “This was a huge benefit to us, because we climbers don’t always know what a crane operator is thinking. The communication between everyone made for a very safe and efficient job/workshop.”

“The classroom time was also a valuable tool to use for the workshop,” Girard goes on to say, “because it gave everyone a chance to have a ‘round-table’ discussion on how to use a crane to assist in tree removals and what to expect when cutting and working with a crane.”

“I did my first crane job since the class and, wow! What a difference in my confidence level, production and safety,” adds Joe Giansante, CTSP candidate and safety administrator for Quality Tree Surgery, Inc., another 23-year TCIA member company. “The GM of the company was on the job and couldn’t believe how smoothly each pick was coming off – no twisting, shock-loading or tipping, just smooth and quick. It was awesome.”

“As chapter president, I was very happy to participate in this course,” says Gene McMillen. “The students seemed like they got a lot out of it. It’s rewarding as a chapter to hold this at a site that, due to budget concerns, wouldn’t have been able to get the work done. I appreciate all of the donated help of the instructors, and sponsors.”

“We decided to get sponsors for the course to help offset the cost to students, and to help gain more recognition for these kinds of events,” explains Nieves-Sosa. “We had a lot of great sponsors. It was great to have so much support from so many different companies.”

Sponsors included TCIA associate members SherrillTree, American Arborist Supplies, Northeast Stihl, Bishop Company and Bandit Aaron Feathers, a CTSP candidate from Cumberland Valley Tree and Landscape, a TCIA-accredited member company, makes a cut for a pick.
Industries, as well as the Manitowoc Company, Stephenson Equipment Inc., Nelson Wire Rope Corp., Modern Group Ltd. and Liftex. Bandit committed to this and future courses as the official chipper company. Representatives from Bandit, Manitowoc, SherrillTree, Modern Equipment and American Arborist were also on site during the course. In addition to instructors, Shreiner Tree Care donated use of their equipment for all three days of the course.

“This was the real deal with top-flight equipment on-site, from chipper to bucket, crane/rigging gear and saws,” says Bob Andrews of Racks ’N Quacks Wildlife Services.

“Facts, safety, products, log chart formulas, sling usage, a fortune in iron and steel, tricks and humor were all part of the recipe that produced what I considered one of the best instructional courses I have ever attended,” says Richard Falciola, owner of The Timber Tailors, a first-year TCIA member in Stanhope, New Jersey. “These professionals demonstrated, taught and actually walked us through the rigging process repeatedly. In one cut, using either webbed slings, endless loops and shackles or spider leg rigging, we learned how to have the load so statically balanced that it did not move – all three tons of it! Now that is impressive.”

“Even though we were fighting the rain the first two days, all of the students came into the course with enthusiasm and a willingness to learn. I’d like to see more training with crane operators and climbers working together – working on communicating and keeping the job safe for everyone involved,” says Nieves-Sosa. “The class helped the students learn new skills with the crane, and helped Ridley Creek State Park remove some dangerous trees. We’re already planning the next one.”

On Saturday, a crowd of 30-35 spectators gathered to watch the students as each took turns taking picks from a dying oak just over the Mansion House.

Both the ISA and TCIA (CTSP) offered 22 credits to students taking the course.

See photos/videos of the course Facebook at www.facebook.com/pages/The-Crane-Man-Inc/184342661596206.

Kim Nieves-Sosa is the wife of Peter Nieves-Sosa, president of The Crane Man, Inc., a TCIA member company in Chalfont, Pennsylvania.
More importantly, does your organization use cranes to hoist climbers to their work position in the canopy, per ANSI Z133? If you use this practice, especially in a state under federal OSHA jurisdiction, then you may be subject to an OSHA citation.

It is against OSHA regulation to hoist a worker with a crane. Although the industry realizes that this can be the safest way to gain access to a tree and despite the fact that the ANSI Z133 Standard prescribes how to do it, neither this knowledge nor an ANSI Standard carries the weight of OSHA law. OSHA has cited tree care companies for this practice in the past, and with increasing scrutiny being placed on crane operations in general, it stands to reason that the citations/penalties will increase.

At the 2011 Maine Arborist Association (MAA) annual meeting, a high-ranking OSHA official alarmed and angered attendees when he told them that their crane operations were in violation of OSHA standards and that employers could be cited and assessed huge penalties. While he may have exaggerated the amount of the typical OSHA fine, he was technically correct about the violation!

Immediately after the MAA meeting, TCIA staff met with members of that association as well as the OSHA official in question and some of his superiors. We discussed at length both how and why arborists use cranes. The OSHA folks coached us on how an arborist could assert an “affirmative defense” to a citation; i.e. by asserting that hoisting a climber constituted the safest or only feasible way to perform the work.

We are sure that you have considered the magnitude of risk that must be addressed with a crane operation. Consider also how well you advertise your presence when placing a 130-foot crane boom in the air! Even with this risk and this visibility, there is a way to keep your crane operating safely and to avoid citation, and that is by going through a decision-making process to assure that using the crane is indeed the safest way to do the job, and by doing this, being able to assert the aforementioned affirmative defense.

We would be remiss not to make this point of fact: Subjecting tree workers to tie-in points on hazardous trees has resulted in numerous fatalities and serious injuries in our industry. OSHA fatality data as well as information from our members clearly demonstrate this. Conversely, this same body of information demonstrates that in all of the thousands and thousands of hazardous tree removal jobs in which arborists have used cranes, not one climber in our industry has been killed or even seriously injured when following Z133-compliant crane practices.

TCIA’s safety & compliance staff sat down with representatives of the MAA and developed a document to assist arborists with this decision-making, and this “Crane Use Protocol” was provided to all members of the respective organizations in Maine.

Additionally, TCIA members that use cranes may obtain a copy of this guidance document by contacting the TCIA office. We encourage our members to call for guidance or answers if faced with these types of situations.

The author would like to take this opportunity to thank TCIA’s members for the support that makes this sort of initiative possible.

Peter Gerstenberger is senior advisor for safety, compliance & standards for the Tree Care Industry Association.
Every other year, TCIA members descend on Washington, D.C., for our joint Legislative Conference with the Professional Landcare Network (PLANET), an intensive program that provides participants an inside look at the political process. This event is taking place next month, July 24-26, 2011, and you really need to be there.

Why you should attend
Beginning with briefings on the latest green industry issues pending in Congress, you will visit with your Representatives and Senators on Capitol Hill to educate and lobby them on issues important to your business. Anyone interested in walking the halls of Capitol Hill and learning firsthand how laws are made should be there.

You will learn about issues in Congress that affect the profession of arboriculture and then educate your elected officials on Capitol Hill. TCIA will schedule and coordinate all meetings with your Senators and Representatives. In addition, conference veterans and TCIA staff will brief participants before visits, accompany you to all meetings and provide “leave behind” materials.

What to expect
The first day (Sunday afternoon, July 24) is an optional day for first-time lobbyists or those who want to hone their skills. Two sessions – Advocacy Communication and How to Lobby on Capitol Hill – will walk you through how to deal with elected officials to overcome local issues, how to use local media to convey your message, and what to say and do to help put you at ease during your Capitol Hill appointments. An Opening Reception overlooking the Potomac River finishes off the day.

On the second day (Monday, July 25), PLANET members head over to Arlington National Cemetery for a morning of landscape beautification. TCIA members will have a free morning to visit the sights of Washington. For those who choose to arrive on Monday, the conference program kicks into high gear at 3 p.m. with keynote speaker Jonathan Karl, senior congressional correspondent for ABC News, who will give attendees a look at current affairs and politics. Briefings will follow on key industry issues that will prepare you for your meetings with Representatives and Senators in the morning. A Monday evening Reception and Dinner will energize everyone for a day of lobbying ahead.

On the third day (Tuesday, July 26), we will start at 7:30 a.m. with breakfast on the Hill, then fan out to visit with our legislators. You will be part of a larger group on Tuesday for your visits – unless you want to detour on your own to stop in on your representative.

Members of Congress and their staff are hungry for accurate information and advice that will help the environment, boost small business and create jobs. They truly appreciate visits from tree care professionals who manage the trees in their communities.

Where can you find more information?
Circle the dates and make plans to join us in Washington. If you have any questions or require more information, go to www.tcia.org/public/meetings_legislativeconference.htm.

We expect hotel rooms to sell out quickly. If you haven’t booked yours, please do so.

Rooms are reserved at the Key Bridge Marriott, 1401 Lee Highway, Arlington, VA 22209. Reservations can be made by calling 1-800-266-9432 on or before July 1, 2011. Ask for the PLANET rate of $129, plus tax. No hotel shuttle service is available.
**Timberwolf dual-purpose skid steer splitter**

Timberwolf Manufacturing’s new dual purpose skid steer splitter will operate as a normal PTO driven splitter attached to the front of a skid steer, and with a patent pending design, flip over, so that the skid steer operator can pick up large chunks of wood and split them over a wood pile without getting out of the cab. The TW-3SSR is built to the same commercial grade as their larger splitters and can use the same optional 4-way wedges and table grates that the company pioneered in the industry. The TW-3SSR has a unique change over system that makes switching from upright to inverted operation quick and easy – even in cold weather.

Circle 190 on RS Card or visit www.tcia.org

---

**All Gear Double-Braid Adjustable Lanyard**

All Gear’s new double-braid adjustable lanyards are firmly braided to avoid snagging and abrasion. They have a “husky” coating that helps hold the Prusik knot and increase the abrasion resistance of the rope. The double-locking steel snap hooks are dichromated for rust resistance and meet or exceed ANSI regulations. All Gear’s durable lanyards do not hockle, a must for rope durability and safety. Sizes include 3-foot to 6-foot, and 4-foot to 8-foot.

Circle 191 on RS Card or visit www.tcia.org

---

**Youngstown Anti-Vibe XT glove**

Youngstown Glove Company’s new Anti-Vibe XT glove was designed for those who experience constant vibration or repetitive motions, such as those who use hedge trimmers and chain saws. Key to its anti-vibration design is strategically placed 5.0 mm memory foam. Along with its lightweight properties, memory foam has advantages over other materials such as gels, which tend to move and get displaced when in use. In addition to dampening vibration and absorbing shock so your hands and arms don’t have to, the foam allows for a streamlined and non-cumbersome design. A 360-degree wrist wrap completely encircles the wrist, lending support and relieving tension throughout the forearm, elbow and shoulder. The design has also been proven to protect against carpal tunnel syndrome and gives the wearer reinforced strength throughout the work day. The Anti-Vibe XT has raised double knuckle protection on the top of the hand to defend against nicks and scrapes. Washable and soft directional performance fabrics wick heat and sweat away. It has a one-piece saddle made of non-slip reinforcement, and additional non-slip reinforcement in critical wear areas extend the life of the glove and provide a tighter grip. Its synthetic suede base layer is both water and oil resistant. A double-stitched bonded nylon thread sewn throughout the glove gives it greater durability.

Circle 192 on RS Card or visit www.tcia.org

---

**JD PowerTech 13.5L engine emission certification**

John Deere Power Systems’ PowerTech PSX 13.5L diesel engine has been certified as compliant with EPA Interim Tier 4, European Union (EU) Stage III B and California Air Resources Board (CARB) emissions regulations. The PowerTech 13.5L is used by manufacturers such as Vermeer, Bandit and Morbark in some tree care equipment, including chippers and grinders. The certification means that the complete lineup of JDPS engines above 130 kW (174 hp) has achieved regulatory approval. Interim Tier 4/Stage III B emissions regulations began January 1, 2011, for 130 kW (174 hp) and above engines and require a 90 percent reduction in diesel particulate matter and a 50 percent reduction in nitrogen oxide (NOx) from previous Tier 3/Stage III A requirements. John Deere met the standard by using cooled exhaust gas recirculation (EGR) for NOx control and adding an exhaust filter for reducing particulate matter. The PSX 13.5L engine will feature full-authority electronic controls, a 4-valve cylinder head, a high-pressure fuel system, series turbocharging and an air-to-air aftercooling system. Deere’s cooled EGR and exhaust filter approach provides OEMs and end users a proven solution with the best total fluid economy. The single-fluid approach of cooled EGR means owners won’t have to incur the cost of diesel fuel plus the additional cost for diesel exhaust fluid (DEF) required by SCR systems.

Circle 193 on RS Card or visit www.tcia.org

---

For more information on products featured here, circle the number on the Reader Service Card, or visit www.tcia.org/Publications.

Send Cutting Edge Product information to: editor@tcia.org
You work hard. Your insurance should work hard for you.

ArborMAX supports the tree care industry through competitive pricing and by contributing to industry safety and loss control programs. ArborMAX is the only insurance program endorsed by TCIA.

Coverages Available:
- Commercial General Liability
- Commercial Automobile
- Inland Marine
- Crime
- Property
- Umbrella
- Workers’ Compensation
TCIA Accredited companies and companies that have a full-time CTSP are eligible for consideration.

Tree Care Specific Coverages:
- Arborist & Landscape Professional Services (Errors & Omissions)
- Pesticide & Herbicide Applicator
- Tools & Equipment
- Per Project Aggregate
- Blanket Additional Insureds (including Primary Wording)
- Plus numerous additional customized products

Call today and start saving! 1-877-602-7267

Insurance program brought to you by General Agency Services, Inc., endorsed by Tree Care Industry Association

tcia.org

Circle 7 on RS Card or visit www.tcia.org
Events & Seminars

June 8-9, 2011
Oak Wilt Workshop
Austin, TX
Contact: www.isatexas.com

June 12-14, 2011*
Trees Florida 2011
Wynward Jacksonville Riverwalk, Jacksonville, FL
Contact: (941) 342-0153; www.treesflorida.com

July 8-9, 2011
L1 Precision Felling & Chain Saw Handling hands-on training
Haddam, CT
www.ArborMaster.com or call (860) 429-5028

July 11-13, 2011
L1 Tree Climbing Methods & Work Positioning hands-on training
Haddam, CT
www.ArborMaster.com or call (860) 429-5028

July 14-15, 2011
L1 Arborist Rigging Applications hands-on training
Haddam, CT
www.ArborMaster.com or call (860) 429-5028

June 17, 2011
Aerial Rescue Workshop
White Lake, MI
Arboriculture Society of MI (810) 338-6531

July 21, 2011
ISA Certified Arborist Examinations
San Antonio, TX
Contact: www.isa-arbor.com/certification/tests

July 24-26, 2011*
TCIA/PLANET Legislative Day on the Hill
Washington, D.C.
Contact: cyr@tcia.org; 1-800-733-2622; www.tcia.org

August 9, 2011
Hazard Tree Workshop
Duluth, MN
Contact: www.safetrees.com/workshop-2011.html

August 9-10, 2011
L1 Precision Felling & Chain Saw Handling hands-on training
Attleboro, MA
www.ArborMaster.com or call (860) 429-5028

August 12, 2011
SHADE: Southwest Horticulture Annual Day of Education
Renaissance Glendale in Glendale, Arizona
Contact: Arizona Nursery Association www.azna.org

August 17-18, 2011
Certified Treecare Safety Professional (CTSP) Workshop
Target Specialty Products, San Jose, CA
Contact: 1-800-733-2622; ctsp@tcia.org; www.tcia.org

August 18-19, 2011
Certified Treecare Safety Professional (CTSP) Workshop
Potter Park Zoo, Lansing, MI
Contact: 1-800-733-2622; ctsp@tcia.org; www.tcia.org

August 25, 2011
ISA Certified Arborist Examinations
Round Rock, TX
Contact: www.isa-arbor.com/certification/tests

September 29-30, 2011
ISA-Rocky Mountain Chapter 2011 Annual Conference
Marriott Denver South/Park Meadows, Littleton, CO
Contact: (303) 756-1815; www.isarmc.org

October 1, 2011
2011 ISA-RMC Tree Climbing Championship
Denver, CO
Contact: (303) 756-1815; www.isarmc.org

October 5-7, 2011
2011 Texas Tree Conference & Trade Show
Waco Convention Center, Waco, TX
Contact: www.isatexas.com

October 7, 2011
ISA Certified Arborist Examinations
Waco, TX
Contact: www.isa-arbor.com/certification/tests

October 21-22, 2011
NJ Shade Tree Federation 86th Annual Meeting
Crowne Plaza, Cherry Hill, NJ
Contact: Donna Massa (732) 246-3210; njshade-treefederation@att.net; www.njstf.org

October 25-26, 2011*
Illinois Arborist Assoc. Annual Conference & Trade Show
Holiday Inn Select, Tinley Park, IL
Contact: www.illinoisarborist.org

November 1-2, 2011*
Certified Treecare Safety Professional (CTSP) Workshop
In conjunction with TCI EXPO, Hartford, CT
Contact: 1-800-733-2622; ctsp@tcia.org; www.tcia.org

November 3-5, 2011*
TCI EXPO 2011
Preconference workshops Nov. 1-2
Hartford, CT
Contact: cyr@tcia.org; 1-800-733-2622; www.tcia.org

December 5-6, 2011
Certified Arborist Seminars and Exam
Fort Harrison NR Education Center, Indianapolis, IN
Contact: Lindsey Purcell www.indiana-arborist.org

January 24-26, 2012
2012 Annual Indiana Arborist Association Conf.
Marriott Inn, Indianapolis, IN
Contact: Lindsey Purcell www.indiana-arborist.org

February 12-16, 2012*
Winter Management Conference 2012
Curacao
Contact: cyr@tcia.org; 1-800-733-2622; www.tcia.org

* Indicates that TCIA staff will be in attendance
s arborists we are very fortunate to have two very strong and long-standing organizations dedicated to uphold, sustain and proliferate the industry. Two organizations, one profession. Each with its own unique and significant role.

The International Society of Arboriculture, or ISA, was established in 1924. A group of arborists created the National Shade Tree Conference to forge an organization of scientists and arborists. The tree men needed sound information to improve work and the scientists needed support beyond government grants. The name later changed to International Shade Tree Conference. The organization that began as a conference in 1924 became the International Society of Arboriculture in 1975.

The National Arborist Association, NAA, was established in 1938 when a group of ISA members wanted to form a professional organization confined to the private commercial arborist. The NAA was re-branded as Tree Care Industry Association, TCIA, in 2003.

The two organizations that sprang from the original seed have flourished into dynamic entities with tremendous impact on the industry.

The ISA has focused on the need of the individual arborist and educational opportunities to enhance members’ knowledge of trees, most notably through the certification program.

The TCIA mission is to advance tree care businesses. TCIA’s focus is to help member companies improve all aspects of their business, from safety to profitability, most notably through the company Accreditation process and the Certified Treecare Safety Professional (CTSP) credential.

One mission complements the other to continue raising the level of professionalism within companies and in the eyes of the public.

A significant overlap exists between the member companies and individuals who reside within those companies. In light of this, most of the decision makers who hold membership in TCIA are also members of ISA.

The success of ISA and TCIA is dependent upon their members. Most of the funding is acquired through the same base of members. In light of this, Randy Owen, past TCIA chair, and I began a process to ensure that both organizations work to foster and improve communication and cooperation. We want to eliminate any perceived conflict.

We want the arborist profession to obtain the optimum benefit of our collective programs, trade shows, conferences and consumer education with finite dollars available in tough economic times – finite dollars coming from the same sources. Over the years, cooperative efforts have been made to produce educational programs, industry standards, careers in arboriculture resources, etc. Even closer cooperation could maximize the results with limited resources and make greater progress in the foreseeable future.

A memorandum of understanding is in place between the two organizations. It provides a framework of cooperation and collaboration. Scott Jamieson, newly installed TCIA chair, suggests the best way to expedite a more meaningful strategy is to allow our respective staffs to determine long- and short-term items to address. The newly completed ISA strategic plan specifically amplifies this spirit of cooperation to promote the profession and increase public awareness about the importance of trees and proper tree care. Other areas we can address include:

- Promotion and proliferation of existing programs, i.e. the ISA Certified Arborist and the TCIA Accreditation program
- Expand the use of the A300 pruning standard and the Z133 safety standard
- Co-branding opportunities
- Improve safety in the industry through expanded use of training and education such as CTSP

Our industry has come a long way since 1924, and we are the leading, most influential organizations to continue to elevate our industry through technology, safety, ethics, research and business development. This effort is by no means a prelude to a merger. We are two great organizations, each with a talented staff and each with a distinct role in leading the profession forward.

ISA and TCIA do work together today, but we must be more strategic and purposeful. Enhancing how we work together will allow us to accomplish much more in a shorter period of time. The results will benefit all members of TCIA and ISA as well as the profession as a whole through cost savings, expansion of programs and raising professionalism. It can only be a win/win outcome.

The chart below shows a history of how intertwined the ISA and the TCIA have been through their leadership.

<table>
<thead>
<tr>
<th>Year</th>
<th>Past President/Chair</th>
<th>NAA/TCIA</th>
<th>Year</th>
<th>Year/ISA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1938</td>
<td>H. M. VanWormer</td>
<td>1972</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1939</td>
<td>Norman Armstrong</td>
<td>1949</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944</td>
<td>Edward Higgins</td>
<td>1951</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1948</td>
<td>A. W. Meserve</td>
<td>1954</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>H. C. Wilson</td>
<td>1962</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1958</td>
<td>Ray Gustin Jr.</td>
<td>1970</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>Freeman Parr</td>
<td>1968</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1962</td>
<td>F. L. Dinsmore</td>
<td>1974</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1963</td>
<td>John Z. Duling</td>
<td>1975</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1963</td>
<td>John Hendricksen</td>
<td>2001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>Lauren Lanphear</td>
<td>2007-2009</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This represents almost 20 percent of the leadership since 1938.

Tim Gamma is ISA president and president of Gamma Tree Experts in Saint Louis, Missouri, a TCIA accredited company and a TCIA member company since 1963.
Disease Diagnosis and Eco-friendly Management - Part I

By Sharon M. Douglas

This article is intended to provide the tools that will allow you to recognize, understand and responsibly manage most of the diseases that you are going to encounter on shade and ornamental trees in the landscape. We’ll start with some basics.

Disease can be simply defined as any condition that interferes with normal tree growth and development. Disease is not static; it is a continuous interaction between the tree host and the pathogen causing the disease. This is a dynamic, continuous process that occurs over a period of time.

Understanding disease as an interaction helps to distinguish it from injury. An injury is a one-time occurrence; something that happens to the tree, such as frost damage or a lightning strike. There is no ongoing interaction between the tree and frost, nor is there an interaction between the tree and lightning. This discussion is going to focus on diseases rather than injuries.

Disease can be pictured as a triangle, with three essential components. The disease triangle emphasizes factors needed for disease to develop. These include:

- susceptible host plant;
- causal agent (or pathogen); and
- favorable environment in which the host and causal agent interact.

When all three conditions are met, disease occurs.

Scab of crabapple is a familiar example of a disease. The host plant is a susceptible cultivar of crabapple; the causal agent is the fungus Venturia inaequalis; the favorable environment is relatively cool, wet weather in spring as the leaves are emerging. When all these components occur, scab will develop on the crabapple.

In keeping with the triangle concept, what happens if we select a cultivar of crabapple with genetic resistance, such as ‘Red Jewel.’ By selecting a resistant or tolerant cultivar, the host component of the triangle drops out. Although the fungus is present and the environment is conducive for disease development, a minimal amount of scab will develop when compared with what would have developed with a highly susceptible cultivar.

We’ll come back to the concept of genetic resistance later in this discussion.

Tree health problems can be divided into two main categories: abiotic and biotic. Abiotic problems are associated with non-living factors and can be attributed to cultural or environmental causes. These are usually issues that impact a tree over a period of time. In contrast, biotic problems are associated with living factors and are what most people associate with diseases: fungi, fungus-like organisms, bacteria, phytoplasmas, nematodes and viruses.

Trees in landscapes are commonly affected by both abiotic and biotic problems. Often it is the “chicken and the egg” scenario – which came first, did the abiotic problem weaken the tree and make it more vulnerable to the biotic problem, or vice versa? It is well documented that abiotic problems frequently weaken trees and make them more vulnerable to biotic problems. A good example is stress from drought. Many areas in the Northeast had extensive drought in 2010, which will likely result in an increase of biotic problems during the next few years.

This discussion will focus on strategies for disease prevention and management of biotic diseases. Fundamental to these is the need to
accurately diagnose the disease and then to develop an appropriate program for tree health management that is based on the disease diagnosis. For many, disease diagnosis can be quite a daunting task. However, if we break it down into individual steps, it can be much easier to understand.

Steps in disease diagnosis

Step one is to properly identify the tree. In most cases, this means you need to identify the tree to genus. However, there are situations where it is necessary to identify the tree to species or to cultivar in order to know the botanical or horticultural characteristics of the tree. For example, is the tree supposed to have a variegated leaf or is this an abnormality associated with phytotoxicity or a nutritional deficiency? You need to be familiar with the normal attributes of the tree in order to decide if it is normal or abnormal. It is helpful to ask yourself what the tree should look like at this time of year or at this particular stage of growth – does it appear normal?

If the tree doesn’t appear normal, then what is abnormal about it? For step two, this can be assessed by looking for signs and symptoms in order to diagnose the disease. In many cases, once you have identified the tree, there might be a number of diseases that are common to that particular tree. Also, by looking at signs and symptoms you can hone in or make a short list of the potential problems that you might be dealing with.

What are signs and symptoms? Symptoms are attributes of the tree and describe the way the tree reacts, either externally or internally, to the presence of the pathogen. Examples include wilt, canker and leaf spot. In contrast, signs are attributes of the pathogen – visible evidence of the pathogen or its products on the tree. Examples include bacterial ooze on a crabapple with fire blight, pin-point fruiting structures of the causal fungus visible in a canker, or a conk or a bracket fungus fruiting on the side of a tree with wood rot. Signs, combined with symptoms, will frequently give us a good idea of what the causal agent might be.

It is also helpful to look at the pattern and distribution of the abnormal trees. How many trees are affected? Do they include different species of trees? If the trees are all ash, it might implicate one causal agent; however if the affected trees are ash, elm and maple, a different causal agent or even an environmental factor may be more likely. Where are the trees located? Is there any pattern to the trees that are symptomatic?

This leads to step three – obtaining a thorough background and history on the tree. This means asking your client many questions, especially for new properties. For example, it might be important to know the weather patterns – has there been an extended period of drought in that region or, alternatively, excessive rainfall. Has the tree been subjected to prevailing winds or exposed to frosts?

Other information that is important to gather about the tree would be site and soil characteristics. It is helpful to have a good understanding of the soil composition, such as pH, and macro and micro nutrient levels in the soil. What are the soil texture and the bulk density? Are you dealing with a compaction issue? Is the tree in a soil volume that is way too small for the size of the tree?

Look at the air and drainage patterns on the site. What is the history of watering, fertilizing and pesticide use? When was the tree planted? Was it a balled-and-burlapped, container-grown, or a boxed tree that was held for a long period of time? What were the planting practices used?

Clients will occasionally neglect to say that there was construction in the past that cut half of the root system. What are the foot traffic patterns around the base of the tree? Were there under-plantings where root damage may have occurred and now a pathogen has entered the tree through the roots? Where was the tree originally grown? Was it a southern tree brought up north rather than selecting a tree from the local provenance? Are there issues with air pollution?

Getting a thorough background history on the tree can go a long way, especially when trying to diagnose problems caused by both biotic and abiotic issues.

The next step is trying to identify the causal agent. This can be done with experience or, you can collect samples to submit to a specialist for identification. I can’t over-emphasize the importance of accurate diagnosis. If you are trying to control the wrong disease, none of your management strategies are going to work because you have the wrong target.

Accurate diagnosis serves two chief functions: deciding if there is a need to do anything and, if so, the type of control or management program you would initiate. If you need help, contact your local diagnostic laboratory. In 2002, all of the diagnostic laboratories affiliated with public agricultural institutions in the U.S. were linked to create the National Plant Diagnostic Network (http://www.npdn.org/). Experts in these laboratories can help you with diagnosis, especially with identifying biotic pathogens. This can involve microscopy, culturing on artificial media, and serological or molecular testing of your sample.

When discussing disease management, rather than focus on disease, I prefer to take a more positive stance and focus on managing tree health, which leads to developing an integrated tree health management program. It is important to emphasize tree health because healthy trees usually have the ability to withstand the challenges of disease or other stresses more so than trees that are already stressed. This is where the eco-friendly component of this discussion comes in. If we consider the disease triangle again--susceptible host/causal agent/favorable environment – any efforts to reduce or modify these components have a direct impact on
disease and are important to your tree health management program.

We can start by focusing on the pathogen component of the disease triangle. We reduce pathogen populations by using sanitation – cutting off limbs with cankers or raking infected leaves away from the tree. We also use fungicides to reduce pathogen populations and to protect the tree from infection.

The host plant component can be addressed by using resistant or tolerant varieties or species, which applies the idea of genetic resistance. This also includes using sound cultural practices to optimize tree health, because vigorous trees are able to withstand disease better than stressed trees.

When addressing the environmental component of the triangle, we recognize that we cannot change the weather – but we can do things to manipulate the micro-environment of the tree. We can start by selecting an appropriate site for the tree. Then, if we have recurring problems, with foliar diseases for example, we can prune to change the air flow in the tree canopy to increase leaf drying. We can also use biological pesticides to create hostile micro-environments on the leaf surfaces.

By assembling three components, we have the basics of our tree health management program.

It is helpful to remember that the goal for successful disease management is not to completely eliminate diseases – that just isn’t possible, realistic or necessary. We just want to keep them at manageable levels. It is also important to recognize that some diseases affect the aesthetics of the tree, while others have more serious consequences that result in safety hazards and tree death. Our efforts need to take these differences into account and focus on disease prevention, since we all know it is easier to prevent a problem from developing than to stop a full blown disease epidemic on a tree or a number of trees.

Tree health strategies

A comprehensive tree health management program starts with cultural methods to maintain vigor, because healthy trees have the ability to compartmentalize and wall off the ingress of pathogens. While this begins with tree and site selection, planting practices and spacing are also very important, as are nutrient and water management. Organic mulches help with soil moisture retention, soil temperature moderation, and disease control by keeping up the general vigor of the tree. They also help with remediation of soil compaction. Control weeds, especially with newly planted trees, as you don’t want the tree competing with weeds for available nutrients and water. These are all focused on maintaining a healthy tree.

Scouting – most people don’t think of scouting for disease. We usually hear about scouting for insects and mites, but scouting is just as important for diseases. It allows you to identify, monitor or predict potential outbreaks. This is where we have a job ahead of us to educate the clients. They need to understand that your tree health management program may involve regularly scheduled visits to a property to monitor the trees. If you are at a property and not applying fertilizer or a fungicide spray, the client might feel that they are not getting their “money’s worth.” It is up to us to educate those people about the importance of scouting for tree health.

This leads to sanitation, which starts with selecting and planting pathogen-free stock, or certainly healthy trees that don’t have major injuries, cracks or other defects. There might also be cases when it is necessary to remove heavily infected trees, especially if there are other potential hosts in the area. Likewise, pruning infected branches or limbs that have cankers using clean equipment is very important to stopping the spread of disease to the main trunk.

Genetic resistance is another important tool in our tree health management tool box. This involves using resistant or tolerant species or cultivars; it is especially important for key, recurring diseases. This is a very effective tool in terms of the disease triangle, since it significantly reduces or eliminates the host component’s contribution to disease. However, because it is a genetic trait, it is not something that you can confer to trees that are already in the landscape. If you have the opportunity to work with your clients and you know that you have recurring diseases, such as rust or fire blight on crabapple, you might want to suggest selecting varieties that have resistance or tolerance to those diseases.

In the 1980s, many flowering dogwoods along the eastern seaboard died from an outbreak of anthracnose. Breeding programs responded by developing cultivars and crosses of dogwood with resistance. Similarly, many other breeding projects have yielded resistant or tolerant trees with excellent horticultural characteristics to a range of diseases. For example, there are several cultivars of elm with tolerance to Dutch elm disease as well as having superior horticultural characteristics.

Biopesticides

Biopesticides include biological controls, which are living organisms or their products (secretions or extractions) used to control plant pathogenic organisms – very simply, the good guys versus the bad guys. Although they have worked well in greenhouses and nurseries, their use for managing tree diseases has been limited. However, I’m hopeful more effective products will become available for the tree care industry in the near future.

These products have two key modes of action. Some directly impact the pathogen by parasitizing, competing with or antagonizing it; others have indirect affects, and increase the resistance or enhance growth of the tree so it is better able to respond to the pathogen. Many people don’t realize that biological controls are classified as pesticides because they have EPA numbers, just like a traditional pesticide. Examples include the fungus Trichoderma harzianum and the bacterium Bacillus subtilis, which can be helpful for diseases such as leaf spots and powdery mildews. Another example is an isolate of the fungus Verticillium albo-atrum from potatoes that is injected into elms to protect trees from Dutch elm disease.
Chemical control

You are probably wondering why I am including a section on chemical controls in a presentation on eco-friendly management strategies. However, the products that I am including are those used with organic land care or with sustainable programs. They fall into three main categories: biological, biorational and “traditional” products.

Regardless of what category of pesticide you use, there are two important factors to consider: what and when.

When to treat – most of the fungicides that are available, especially the biopesticides, are protectants in their mode of action. Therefore, they need to be applied to the tissue before the infection occurs. Once you see symptoms on the needles or on leaves, it is usually too late for the application to be effective. It is necessary to treat on a preventative basis, so for most foliar pathogens, that means when the leaves or needles are emerging in spring, before you see symptoms.

What to use – this goes back to the importance of accurate diagnosis; knowing the target pathogen that you are trying to control. This is critical for selecting the most efficacious product, especially when using these soft pesticides, as opposed to the more traditional products.

Biorational pesticides are considered to be reduced-risk, environmentally-friendly products because they have a minimal impact on non-target organisms and the environment. They are also considered to be more user-friendly and often have very high LD50s (the amount of toxic agent needed before it is problematic). They are safer for you, the applicator, to use, and many homeowners are happier to have these products used on their property. Many of the biorational pesticides are OMRI-approved (Organic Materials Review Institute) and many are acceptable for organic land care. Unfortunately, most of the biorational pesticides have limited efficacy and are primarily used to manage foliar diseases. Examples are potassium bicarbonate, horticultural oils, neem oils and some of the soaps.

“Traditional” or chemical pesticides comprise our final tools for managing diseases. These are products with traditional modes of action, although some are acceptable for organic land care. Many of these products were the first fungicides that were developed, and include copper and sulfur products.

Conclusion

The primary objectives of many tree care professionals are to maintain healthy, attractive trees and a healthy environment. These are best achieved by accurately identifying disease and developing eco-friendly programs for managing tree health. This discussion has reviewed many of the steps necessary to accomplish these goals. In Part 2 of this article, we hope to look at the different types of disease, their causes and symptoms, the factors that favor disease development, and management options.

Sharon M. Douglas is a plant pathologist specializing in diagnosis and management of disease in the Department of Plant Pathology and Ecology at The Connecticut Agricultural Experiment Station, New Haven, Connecticut. This article was excerpted from her presentation on the same subject at TCI EXPO 2010 in Pittsburgh. She will be speaking on “Key Diseases of Conifers” at TCI EXPO 2011 in Hartford this November.
The use of compost tea has been promoted to reduce the population of pests that attack trees and shrubs and to promote tree health and growth. The goals of compost tea application are twofold: 1) to inoculate microorganisms into the soil or onto the foliage of plants, and 2) to add soluble nutrients to the foliage or soil to fertilize the microorganisms and the plant.

Compost tea is produced by placing a small amount of compost (decomposed plant or animal waste) in a mesh bag in a large container of water. A moderate amount of a sugar product, usually molasses, is added to the water. Fertilizer products (i.e., liquid fish) or other ingredients (i.e., kelp extract, humate) are typically added to the solution at the beginning of the “brewing” process. To “brew” the tea air is injected into the brewing container and the chlorine-free water is vigorously agitated and aerated for a period of one or two days.

The brewing is intended to extract fungi, bacteria and nematodes from the compost and provide a favorable environment for these microorganisms to reproduce. The sugar acts as a food source for the microorganisms. The resulting brew should have high levels of the microorganisms that were extracted from the compost. The tea is then either sprayed or drenched on plants at full strength or, more typically, it is diluted to a ratio of 10 parts water and 1 part compost tea.

Compost tea proponents make no claims that compost tea provides significant amounts of organic matter or plant available nutrients (fertilizers). Indeed, the amount of organic matter in the tea solution is minute. However, depending on the additives included in the compost tea, there may be significant levels of fertilizer.

Proponents of compost tea recommend application any time that “microorganisms in the soil or on the plants are not at optimum levels.” They claim that “chemical-based pesticides and some synthetic fertilizers kill a range of the beneficial microorganisms that encourage plant growth, while compost teas improve the life in the soil and on plant surfaces,” with the implication that compost tea application will improve plant growth and make them more resistant to insect and disease attack.

At the Bartlett Tree Research Laboratories we have been studying the effects of compost tea on tree and shrub growth and as a treatment for insects and diseases for several years. Our intent was to incorporate these materials into our production services if we could prove that they provide a benefit to plants. We tested both prepackaged compost teas and freshly produced products.

In repeated greenhouse and field trials we found no improvement in tree or shrub growth or health with compost tea products as compared to application of fertilizer or the components of the tea (minus the compost and brewing). In one greenhouse trial that compared a complex compost tea against a formulation of the same components except for the compost extract and brewing, we found more growth with the components, less with the compost tea. Apparently brewing with compost inactivated some of the beneficial effects of the other components.

When soil respiration (an indication of soil microorganism activity) was measured after application of several prepackaged compost teas and bio-stimulant products, no increase in soil microorganisms were detected. (See Fig.1) This experiment was repeated with fresh compost tea. We found that the only treatment that significantly increased soil respiration was one that included a high level of sugar. Apparently the most effective means of producing an increase in soil microbial activity is providing the energy source (sugar) to the preexisting soil microorganisms, not adding more microorganisms from compost tea.

In repeated field experiments comparing the level of insect and disease attack on trees repeatedly sprayed with full-strength,
Conclusions from our research and from a review of the scientific literature are that compost tea products provide no significant protections against most common landscape insects and diseases. They provide no significant level of organic matter to the soil. The microorganisms that they contain do not make a measurable difference in soil microbial activity or in tree survival or health. However, with some compost tea blends, soil nutrient levels can be increased to a level that produces a plant response.

When treating trees or shrubs that are in poor health, the first step is to accurately diagnose the problem. This may require soil nutrient analyses, analysis of soil physical properties or diagnosis of insect or disease problems.

If nutrients are deficient, the plant can be treated with a fertilizer at prescribed levels to overcome the deficiency without applying unnecessary elements. This is called prescription fertilization. It can be done with either natural/organic products or conventional fertilizers. Most commonly used tree and shrub fertilizers require microorganisms to release the essential elements; they do not kill microorganisms.

If soil organic matter is lacking, compost and/or mulch can be added to the soil. Applying wood chip mulches is one of the easiest and most beneficial treatments for incorporating organic matter and promoting plant health.

If pests are attacking a plant, integrated pest management (IPM) is the best approach to treatment. IPM is the process of identifying the pest and treating it with the safest material/method available. The treatment may be the release of a predatory insect, the application of a natural product or a conventional material depending on the goals of the client.

In conclusion, compost teas have been sold as a cure-all for many landscape problems; however they provide few if any benefits for trees or shrubs. When plants have problems, the process of identifying the problem and applying targeted treatments has been proven to be effective. Both natural and conventional treatments are available for many problems.

E. Thomas Smiley, Ph.D., is a soil scientist at the Bartlett Tree Research Laboratories in Charlotte, North Carolina. This article was part of his presentation, “Fertilization, Compost Tea & Other Magical Elixirs,” at TCI EXPO 2010 in Pittsburgh.

Donald C. Booth and Bruce R. Fraedrich are also researchers at the Bartlett Tree Research Laboratories in Charlotte.
Man injured by felled tree
A 72-year-old man using a chain saw to cut down a tree April 8, 2011, in Estacada, Oregon, suffered a head injury when the tree fell on to him. A LifeFlight helicopter rushed him to a hospital.

The man was trying to cut down a tree that was 12 inches in diameter when it fell on to him. He managed to crawl to his tractor and drive back to his home, where his wife called 911. The severity of the man’s injuries was not immediately known, according to KPTV Fox 12.

Man killed by felled tree
Christian J. Bargetzi, 75, died April 8, 2011, in Highland, Illinois, from injuries he suffered when a tree he and another man were cutting down fell on him and pinned him against a tractor.

The men were cutting a tree using a tractor to support the tree while they were cutting it down. Bargetzi was on the tractor while the other man cut the tree. The tree fell on Bargetzi and pinned him to the tractor.

A Madison County Sheriff’s deputy and emergency personnel were able to remove the tree from the victim and he was taken to St. Joseph’s Hospital in Highland, where he died from his injuries, according to the Belleville News-Democrat.

Firefighters rescue trimmer from collapsed palm fronds
A man attempting to trim an 80-foot-tall palm April 9, 2011, in Visalia, California, was rescued by firefighters after collapsing palm fronds trapped him about 50 feet up. The man was transported to Kaweah Delta Medical Center with undisclosed injuries.

Witnesses said the man was hanging upside down and could not breathe under the weight of the fronds. Some of the fronds slightly damaged the home under them. A man identifying himself as the brother of the stranded tree-trimmer said that windy conditions contributed to the incident, according to the Visalia Times-Delta report.

Tree trimmer killed when saw hits line
A western Pennsylvania tree trimmer died April 11, 2011, after his pole saw cut into a high-voltage power line in Chartiers Township.

Dale Delozier, 46, who operated a local tree service, was hired to trim a tree and was in a bucket truck when his pole saw hit the power line. A local coroner was quoted as saying the victim might not have even realized the power line went through the tree.

A neighbor saw what happened and alerted another worker who lowered the bucket Delozier was in to the ground. The victim was pronounced dead less than an hour later at Canonsburg General Hospital, according to a www.abc27.com report.

Submitted by Roxane Stewart of TCIA-member Carlson Tree & Landscape in McKeesport, Pennsylvania.

Tree worker killed by rolling truck
A Platte County, Missouri, employee doing tree-trimming work was killed April 11, 2011, when an unoccupied vehicle rolled downhill and struck the victim before hitting a second vehicle. Justin R. Hartman, 30, of Dearborn, Mo., was pronounced dead at the scene. He was an employee of the Platte County Public Works Department, according to the www.fox4kc.com report.

Two injured in tree cutting accident
Two men were injured when they were hit by a felled tree near Cataract, Wisconsin, April 12, 2011. Alan McCoy, 70, of Sparta, suffered a broken femur and leg injuries. He was taken from the scene by Medlink Air to a La Crosse hospital. Jeff Hansen, 37, also of Sparta, received head injuries. Rescuers had to use an ATV to help bring him out of the woods to a waiting ambulance. He was taken to a Sparta hospital.

None of the injuries were considered life threatening, according to a WXOW Channel 19 report.

Tree fells man bringing it down
A tree care company employee was injured April 16, 2011, in Lakewood, Colorado, after a 30-inch-diameter tree he was taking down fell the wrong way, injuring him and damaging a house. Calvin Ryberg, 51, suffered a fractured pelvis and both his ankles were broken.

Ryberg had put a notch on the street side of the large tree so that when it fell it would go away from him. But rot on the opposite
side of the tree weakened the tree and caused it to topple on top of him. His torso and thighs were pinned beneath the tree. Neighbors used equipment to try to lift the tree off of him, but were unable to do so. When firefighters arrived, they gave Ryberg medications. He was still conscious and spoke to firefighters.

The firefighters cut parts of the tree before jamming air bags, which are normally used to lift vehicles, beneath the tree and lifted it up enough to pull him out.

Within days of the incident, Ryberg had already undergone extensive surgery and it appeared he was going to have more, according to a report in The Denver Post.

Man dies after 10-foot fall from ladder
Ronald Tolliver, 70, of Lily, Kentucky, was injured April 19, 2011, after falling from a tree in London, Ky.

Tolliver was in the process of trimming a large tree with a small chain saw when one of the branches split, striking Tolliver, knocking him off his supporting ladder. He fell approximately 10 feet to the ground.

Tolliver was given CPR by emergency personnel, then taken to a local hospital and later flown to University of Kentucky Medical Center. Tolliver died the next day from blunt force injuries due to his fall, according to a report in The Sentinel Echo.

Man electrocuted, killed trimming tree
A man using a chain saw to trim the tree in a neighbor’s front yard was electrocuted and killed April 19, 2011, in Monrovia, California, after coming into contact with a power line. Roque Valdez, 47, of Monrovia, died while cutting branches off the tree. Differing accounts emerged from officials as to how Valdez was killed. One deputy said the chain saw made contact with the power line, while another said the power line was struck by a tree branch.

Valdez was still in the tree, hanging upside down 30 feet in the air, when rescuers arrived, according to City News Service. Power had to be cut to the area in order to retrieve his body, according to a Monrovia Patch report.

Climber electrocuted, injured
A 26-year-old father of two was hospitalized in serious condition after being shocked by a power line and falling from a tree April 21, 2011, in Pearland, California.

Brandon Kuhner-Barsnik, who was working for a tree care company as part of a crew trimming trees at the time of the incident, was about 30-35 feet up in a tree adjacent to a power line. He released his slip line, or lanyard, to negotiate an obstacle, and the slip line made contact with the power line, jolting Kuhner-Barsnik out of the tree and causing him to fall to the ground.

Kuhner-Barsnik was complaining of a lack of sensation in his legs, after the incident and was transported via ambulance to a highway where he was then air-lifted by helicopter to the medical center.

The father of two young children had back surgery the next day, but his prognosis was not immediately known. Members of the tree service’s crew were establishing a fund to help out with his expenses, according to a report in The Union.

(Continued on page 53)
There is a disturbing trend we are observing in the tree care industry as well as in other industries focused on safety: While smaller, recordable accidents and injuries are on the decline, fatalities and catastrophic accidents are on the increase. How can this be?

As our industry has worked hard on safety we have seen a reduction in smaller accidents and injuries. We see companies heralding their improvements in their frequency rates. This, of course, is reason to celebrate and it shows a direct correlation between a company’s efforts around safety and safety results. What we are not seeing, however, is a corresponding impact on severe accidents and fatalities. As the frequency of recordable accidents is lowered, one would expect to see a similar reduction in severe and fatal accidents. What is going on?

One recent and very public incident might illustrate the problem well.

Although the investigation into the Deep Water Horizon oil well explosion is far from complete, some interesting details are starting to emerge. The day before the catastrophic explosion that killed several workers and dumped millions of gallons of oil into the Gulf, company executives were onboard that same platform handing out safety awards. Months after the explosion and spill, executives from the company that owned the platform operations were interviewed with several large companies such as EXXON, Shell, Potash, ADM, AP Moeller and Cargill to research this safety issue.

Behavior Science Technologies (BST) is one of the premier safety training organizations in the world and has for years been focused on applying their research to improving safety. BST is leading new research into attempting to answer the question of why catastrophic accidents are on the rise while the frequency of smaller accidents are on the decline. BST has partnered with several large companies such as EXXON, Shell, Potash, ADM, AP Moeller and Cargill to research this safety issue.

What BST is finding in the early results of their work is that all accidents and incidents in the lower portion of the safety pyramid are not equal. Although the pyramid is still valid, the research is finding that among the small accidents and near misses at the bottom, there are certain ones that had the potential to be serious or even fatal. It is this potential that needs to be explored. There are specific events that occur lower in the pyramid that are the precursors to serious or fatal accidents. Not all small accidents or near misses are the same nor should they be treated the same just because they did not result in an accident.

Think about the incident, not the accident. For example, consider a near-miss incident where a large limb crashes to the ground during tree care operations and just misses the groundperson who is cleaning up. There is nothing broken, no injury and nothing to report unless you are one of those sharp companies who talk and analyze their near misses. Most crews would not even report such a pulse-increasing event. This sort of near miss might get pushed off as nothing to really talk about – no harm, no foul. Yet, if that groundperson had been just a few steps one way or the other he or she would be dead and the near miss is now a fatality. Not all near misses are created equal. It isn’t the near-miss that really matters, it is the catastrophic potential in that near-miss that does.

I was able to interact recently with a number of national safety leaders who had gathered to look deeper into this issue. One company, the highly respected Chicago firm Kenny Construction, had an interesting approach to the issue. Kenny mentioned that although they look at near misses, they have taken it further and review every procedure – looking for processes, actions and behaviors that can kill people. They believe the biggest threats are from those things they have done for years without hurting people. They engage in regular observational analysis to focus on those high exposure areas. Kenny also uses a “Take 5” process that calls a timeout when a job situation changes and that allows everyone to talk about the situation from a safety perspective. Over the years, I had implemented a similar process called “Take 3,” which allowed anyone on the crew to call a timeout to discuss a changing situation; and as we all know, tree work situations change quite frequently.

Kenny found a strong correlation between the quality of a job-site safety review/pre-job plan and serious accidents. Most safety-focused companies complete
these, but to what level of quality and detail?
The early research by BST is finding that, on average, 71 percent of serious/fatal accidents are related to violations of “safety absolutes.” These safety absolutes would be considered those top safety rules in a company or, in the case of the tree care industry, violations of the ANSI Z133 standards. The research is also showing that 21 percent of the smaller injuries or near misses that occur have high potential to be serious or fatal. When injuries are related to high-risk activities (such as working at heights), 90 percent of the injuries were serious or fatal. This has serious implications for our industry since much of what we do is being conducted at some level off the ground.

Serious/fatal accidents have unique precursors – unmitigated high-risk conditions – that will result in an accident if allowed to continue. In other words, there are different events, actions and behaviors that seem to lead up to the catastrophic events that are not seen with the smaller, less consequential accidents. These precursors are often invisible until something happens and people go back and analyze the accident. There appears to be a blind spot created in many companies when they pay more attention to the causes of smaller injuries rather than the causes of severe accidents. Has the focus on reducing frequencies created a blind spot to the precursors that cause the catastrophic accidents? This is what needs to be looked at more closely. The smaller the facility or company the larger the blind spot because serious accidents are very rare. When something happens very infrequently, the causes leading up to that event are that much more difficult to see. The causes were there all the time; we just couldn’t see them because we were numbed to their potential to cause great harm.

A different strategy is needed for reducing serious/fatal injuries than is needed for other accidents. The trick is in identifying these invisible precursors. Here are a few actions to be considered right now as we look to reduce fatalities and catastrophic accidents in our industry:

► Track smaller injuries and near misses that could have resulted in serious accidents. Elevate them to the same level of importance as if they had resulted in a serious accident.

► If financial reward programs are put in place for safety, the question must be asked and answered, “Is the money motivating the right behaviors for the right results?” Give thought to what behaviors the money is motivating. This is not a simple question to answer. Spend time with it.

► The quality of leadership impacts the behavior of the team. Visible safety leadership at the highest level in the organization is the best way to show a company is serious about safety.

► Lead crew-level discussions about “What could kill us today on this job?” Call out that question and get people thinking about the hazards that may be hiding in the routine.

► Develop your leaders. Invest in your people at all levels of the company and make safety leadership as important as sales, client focus and fiscal responsibility.

► Create a culture to eliminate “at risk behavior.” If the safety culture is merely focused on lowering the incident rate, that is what you will get and the risk of large, severe accidents will be unchanged – and may even increase.

Scott Jamieson is vice president of corporate partnerships & national recruiting with Bartlett Tree Experts in Northbrook, Illinois, as well as chair of the Board of Directors for the Tree Care Industry Association.
Why are trees important? My simple definition of urban forestry is, “The management of trees for their benefits to people.”

The list of benefits can be very long, and I don’t want to confuse the importance of this simple definition in debate over which benefit may be more important. Some parts of the country receive air quality and energy conservation; other parts may receive storm-water interception; another part may receive stress reduction, natural element and enhanced aesthetics; and another area may receive heat island reduction, carbon sequestration and property value enhancements, any combination of the above, or others not listed. Urban trees are important and effective because of the benefits received from their leaves or canopy.

We can’t equivalently replace a large tree with a small one. The width, breadth and depth of leaf canopy will not be equivalent. Even 50 small trees may not equal the canopy of one large tree. So, how can we assist property owners, developers and community development officials in recognizing the urban tree resources in their community and making better decisions in care and retention of large trees?

The simple answer is to incorporate industry standards into their management approach. Simple is not easy! The challenge is that most arborists don’t realize we have national tree management standards. If the arborists don’t know, how many other people also don’t know? So, how can we assist property owners, developers and community development officials in recognizing the urban tree resources in their community and making better decisions in care and retention of large trees?

The simple answer is to incorporate industry standards into their management approach. Simple is not easy! The challenge is that most arborists don’t realize we have national tree management standards. If the arborists don’t know, how many other people also don’t know? So, how can we expand this awareness to the greater community? After reading this article, you will, hopefully, be better informed about the American National Standards Institute (ANSI) A300 Tree Management Standards.

ANSI A300 Part 5 says the property needs to be surveyed to understand the tree resources prior to designing the site. How many of us have been called in to triage a site after the design is complete, the demolition has occurred and the construction has begun? No thought was apparently given to the trees on the site until the point we are called out – usually too late to protect, and maybe too late to mitigate.

If cities and developers were aware of Part 5 and included the pre-design tree survey in their process, they would learn – before they started to dissect the property and design their buildings – which trees have value and could provide meaningful benefits to the site. Then, they could make a more intelligent decision about which trees if any are going to be retained, properly design to include or design around those trees, or require equitable mitigation for the community’s loss of canopy and benefits.

As arborists, we should be aware of the ANSI A300 standards and how they can support our work. Most cities have a zoning ordinance that controls what can be built on a property; a uniform building code to direct how the building will be constructed; and...
engineering standards for how the site improvements will be constructed. The ANSI A300 standards provide the same framework for the community’s trees.

We should assist the community’s staff in recognizing and utilizing the A300 standards in their community to protect the large beneficial trees growing in the community. What are some of the challenges? The city budget for staff may or may not include a trained tree care professional. If there is a tree care professional, they may be too low in the organizational chart to influence the policies the community follows. Our community businessperson relationships with developers, elected officials, appointed commissioners and influential leaders from community organizations can be the turning point where a community learns there are ANSI standards for the tree care industry and how those standards will benefit their community.

The protocols of Part 5 that affect how trees are included in the development process are slightly different from A300 standards providing guidelines for management practices. Part 5 protocols affect how other disciplines need to include trees in the design process. The arborist is part of the team and a development resource. The five steps the arborist provides as part of the team are:

- **Planning:** Site Survey and Tree Resource Evaluation – Initial Stage: Learn the tree resources on the site before placing buildings and parking lots. The design team will learn if there are any trees that are very valuable, which have reasonable useful life, and where they are on the property.
- **Design:** Tree Management Report and Site Design – Identify the worthwhile trees to determine which trees will be included in the design phase, including landscaping. Too frequently the landscaping design and construction phases do not consider or recognize existing trees, resulting in trees being damaged after successful construction protection has been performed.
- **Pre-Construction:** Provide a Tree Conservation Plan and Construction Recommendations – Measures are specified and in place before demolition or construction starts on the site, increasing the success rate of preserving trees that have been selected for retention.
- **Construction:** Monitor Tree Health and Protection Zone Barriers – Verify the protection is followed and if changes are needed in the construction operations that trees are protected from damage and abuse. Any penalties are specified beforehand.
- **Post Construction:** Monitor Tree Health and Mitigation Steps – Specify the monitoring frequency and care for the trees after the site is developed.

Compare the above A300 approach with what is, unfortunately, often the common practice:

- **A plot of land is selected for development.**
- **Design takes place for the maximum use of the site, and trees are not considered.** The full design is drawn, plans developed, specifications written and construction bids received.
- **Construction is started – someone protests that trees are being cut down, or someone does a site visit and realizes trees are on the site that weren’t included or properly located on the plans, or the construction process is damaging trees. Quick, call an arborist to fix things and save the trees.**
- **The arborist is called to assist the project... they become the “bad cop” by trying to protect the trees from further construction damage. Or they have to appraise the trees after damage to formulate a mitigation requirement.**

Which scenario offers the best proactive participation for the arborist?

This level of change will not happen on its own. When people become aware of a set of standards, expectations are changed. Once the expectation is set, new procedures can be implemented. We, as the owners of the standards, have to be the ones to communicate their existence. (An opportunity to improve and promote the ANSI A300 Part 5 standard is available now as the latest revision draft will be available late summer 2011.) Sharing the revision as the most current standard will help communicate the latest information to
the community decision makers. Supporting the use of the standards at public meetings helps educate the public that the standards exist. The public is the end consumer of both publicly-owned and privately-owned trees. Their desires and tolerances help set public policy.

As an example, consider the ISA’s Certified Arborist designation. Who from ISA came to your community and made sure the requirement for a Certified Arborist was in your city’s rules or policies? The ISA members went forth and promoted the use of Certified Arborists to give our industry some credibility. Now we have another resource to promote our credibility – the ANSI A300 standards. And TCIA-accredited companies can promote that they are required to follow ANSI A300 standards and specification-writing guidelines.

“This all sounds great, but what do I say?” you might ask. “How do I help the standards move forward?”

I’m glad you asked! The first step is to gain an understanding of what the different parts of the standards offer, and what they don’t do. Let me help here...

What the standards can do – The ANSI A300 Standards provide the framework or envelope for performing the tree management practices relevant to the eight different parts. The standards cover a broad range of conditions, practices and methodology for working on trees, characteristics and measurements that cannot be easily duplicated, manufactured or tested for uniformity. The ranges in the standards are different from the ranges in manufacturing measurements and specifications. Therefore, the standards are not specifications. The standards provide the parameters for writing performance specifications.

The standards cover a broad range of possibilities in tree management, and not all of those possibilities are necessary in every situation. We can use the overarching general parameters in the standards as a framework to formulate our specifications and we need to add the specific methodologies that are applicable to the individual situations specific to our task, project or assignment.

For Part 5, the standard highlights the need to inventory the trees on the site prior to making any development decisions. Not from the perspective that no trees can be removed from this site. Rather from the perspective that, once we know which trees are worth saving and are providing benefits to the site and community, we can determine if the plan for the site can be built with retaining all or some of those trees. If we find that none of the trees are really worth retaining, that makes the site work much more flexible. However, if the intent is to remove a lot of trees and then replant a lot of new trees, perhaps exploring a way to retain some of the existing established trees can reduce both the removal and replanting and establishment costs.

The tree preservation and protection plans can be set and the project can strategically proceed around the retention trees. The success rate of this type of approach is far greater than when the arborist is called in after the project is in full swing and the trees may have little chance of long-term survival, yet the arborist is tasked with helping save them.

The challenge/hoop to jump through is providing the credibility for the proactive type of approach. That is where the ANSI A300 standards can provide some support. Having industry standards as the method to follow when making decisions or performing tasks has credibility that carries weight. It bridges the emotions and feelings that often accompany saving trees such as, “it is a nice thing to do,” or “trees are living things and should be retained.”

Once the trees on the site are determined to be retained, the preservation methods and
specifications are incorporated into the plans and specifications as the next step in following the standards. The more communities can point to the standards as the reason for including the tree resource steps early in the development process, the less emotion or tree-hugger complaints can be argued as the reason for the policy. Standards provide an objectivity, and the specifications developed from the standards provide a yes-no criteria comparison for either meeting the specifications, or not.

Anyone who has participated in tree or other environmental discussions should recall the emotion that often disputes facts and criteria. Well-intentioned individuals strive to make a statement, often without valid facts. Sometimes the ability to gather facts are gone if trees are removed or site conditions are altered. If the facts are gathered before the decisions are made, much more credence is provided to the quality of the decision. While anyone can complain or challenge a decision, the policy structure of having the information in hand before the design decisions are made provides better support for the decisions. The information is available at any point in the project to validate the decisions made. If a project requires the removal of all the trees on the site, better mitigation decisions can be based on the actual tree sizes and condition present based on the Tree Resource Evaluation.

In summary, the ANSI A300 Standards provide a working framework for performing the arborists’ tasks covered in the eight parts. Part 5 supports the inclusion of the arborist during development and construction team formation, design and construction. Encouraging our communities to incorporate the A300 standards into their community practices and protocols raises the expectation that people performing tree care will work in accordance with the industry standards and to specifications based on the parameters set in the standards. The result will be a higher level of tree care in the community, on both publicly and privately owned trees.

Contact TCIA for the most recent version of the standards, or visit www.tcia.org/standards/a300.htm. To navigate the TCIA website, visit www.tcia.org > government > A300 Tree Care Standards.

Gordon Mann is a consulting arborist and urban forester, and general manager with Mann Made Resources, Consulting Arborists in Auburn, California. This article was excerpted from his presentation, “Trees and Construction Mgt: A Wake-up Call,” at TCI EXPO 2010 in Pittsburgh.
By Rick Howland

“As I see it, attachments provide the opportunity, especially in tree care, to utilize existing equipment to do more, using attachments ranging from grapples to stump grinders to forestry cutters,” says Josh Hegle, national accounts manager at Bobcat.

It seems that there is a loader attachment for virtually every application you can imagine, and there are new ones being developed and modified all the time. For some businesses, attachments can not only eliminate the need for specialized equipment, they also can mean putting more tools in the hands of more crews at a fraction of the cost.

Have you considered “accessorizing” your skid steer or mini loader with job-specific attachments? It could save you time and on labor costs. Doing so can also open up your tree care business to new possibilities in agriculture, construction, demolition, landscaping, land clearing, snow removal and other industries to keep your machines working year-round.

With the right attachments, you can haul log-size material from a tight suburban or urban back yard without the use of a crane, drive a stump cutter, then use a rake and clam shell-type bucket to do the heavy, back-breaking work of cleaning up the smaller debris, all in less time and with fewer workers? And all this from the same tool carrier, exchanging attachments in a matter of minutes.

“Swap-overs are easier than ever and many can be made right in the machine without having to get out of the vehicle,”
says Hegle. “The worst case swap-over is about 3 minutes to undo hoses and electric/electronic plugs. The spot where issues arise that make it difficult to go back and forth has to do with equipment with advances in electronic-over-hydraulic controls. Bobcat, for example, provides a 7-pin control interface, while most in the industry has 14. Some are easier to convert than others.”

“We are definitely seeing people buy more attachments. In the skid steer business purchase activity is picking up in the rental market because, I think, people in general still are reluctant to pull the trigger on larger purchases,” says Hegle. “Looking right now on tree care side, my biggest account (for standard skid steers) recently purchased a few new forestry cutters and grapple buckets, with stump grinders to follow. We also offer tree spades, which have seen some modifications that have been accepted well in the industry largely due to in-cab fingertip controls and new electronics.”

A standard skid steer alone may set you back some $35,000 or more. But a mini with a host of attachments that can do many (but not all!) of the same jobs will run about the same. Or, if you have or need a traditional loader and need to find ways to keep it producing more, attachments will multiply its capabilities and perhaps find you new centers of profit.

The return on investment grows greater as you realize that attachments are, generally, interchangeable, meaning they will work on a multitude of tool carriers regardless of maker. So, if you choose to upgrade or modernize your skid steer, your attachments can still be used on the new carrier. (Keep in mind that while attachments are generally interchangeable among loader classes, attachments made for skid steers typically will not function on the minis and vice versa.)

As another example of how the industry is evolving to increase and improve interchangeability among tool carriers, Worksaver, Inc. recently announced a new adapter designed to allow skid steer-type attachments to be used on loaders equipped with the John Deere 400/500 Series quick-attach system. According to the company, the interfacing adapter allows for easy switching of attachments between a skid steer loader and a tractor loader.

Vermeer makes four models of the mini skid steer, from 23 to 35 horsepower (tracked and wheeled), according to John Kuyers, product manager for utility products. Even such compact units provide broad versatility that might be of use to arborists, including backhoes, trenchers, mulchers, material handling grapples, augers and auger drives, digger derricks, snow removal blowers, plows and buckets, rakes, sweepers and vac systems.

Kuyers says, “Vermeer mini attachments will interface with most other manufacturers’ minis like Toro, Ditch Witch and others – and vice versa. The only unique one (proprietary attachment interface) is Bobcat, but even for that adapter plates are available to mount on other equipment.

“The log grapple attachment is most popular right now, the reason being is that if you have to grab logs or move large quantities of brush, the grapple limits hours of labor tremendously. In an industry where back injuries are commonplace, the mini loader machine and attachment does the lifting and hauling.”

“Consider that the economy of a mini
loader, which can range from $20,000 to $28,500 depending on equipment and a standard mini bucket, which can start around $600, with some grapples at about $3,000,” Kuyers notes. “Then consider that the key thing is to be able to get material in and out, especially in tight spaces, with a small enough machine yet with enough lifting capacity to get the job done.” That’s one reason he says Vermeer added extra heft capacity to its S800TX and also added a dual auxiliary outlet (one, for example to assist with grapple operation) with the arborist in mind.

“We continue to address demands for special functions that have and will continue to spawn hundreds of tools that will do a job economically,” Kuyers says.

Then there is the perspective of the purely attachment makers, such as Branch Manager Attachments, distributed solely by Top Notch Equipment, which grew out of a tree service.

“Our attachments came out of a need for tools for minis dating back to 2001,” says Dave Nordgaard, Branch Manager/Top Notch president. “From experience, I found we needed something with which to skid trees lengthwise using a mini skid grapple.” Nordgaard says this method grabs trees and large pieces at one end, allowing the mini to easily maneuver out of areas like back yards. “For residential work, this is much more efficient than the bucket style.”

“Initially we started with light-duty attachments for mini skid steers and have applied our attachments to large, standard skid steers,” he explains, “to include attachments like rakes and stump grinders.” Right now the lineup includes a mini grapple plus 50- and 60-inch grapples, mulch bucket, mower, auger, beam, rake, broom, scoop, excavator, winch and 2,000- or 7,000-pound ramps, sufficient to get a mini into a standard-bed pickup truck.

“Attachments are clearly the way to get big equipment versatility out of small machines,” Nordgaard says.

The Branch Manager stump grinder attachment is an interesting exercise in developing a solution to a problem.

“I had tried small hydraulically driven stump attachments, but they did not perform well for the professional. I really wanted an engine-driven cutting wheel and
none like that were made in North America,” explains Nordgaard. So, I started on a quest to design, build and test one, and now we have one for minis or for skid steers, a 38-horsepower, gas-driven attachment (from a dedicated engine separate from the machine hydraulics) with full power to the cutting wheel.

Another innovative attachment is the 6-foot-wide spring steel rake. Nordgaard says, “Every tree guy hates raking, especially if you drop a big tree and it explodes, leaving small branches all around. A grapple can’t do the job, so you have to use a rake. My steel-tine broom does get the bulk of the material and saves about three-quarters of the time on big messes.” It’s also said to be useful in pushing snow, cleaning slash and leveling mulch and gravel.

Sometimes, “necessity being the mother of invention” can go the other way. Take for example the Big Beaver ReTREEver, which needed a tool carrier for a specialty head.

Ed Coulbourn, Jr., Big Beaver president, at one time ran his own tree service and discovered a gaping hole for a specialty tool needed in tree removal and said he decided to “go the attachment route.” After failing to find a tool carrier that could do what he wanted, he found the French-built Manitou and developed a proprietary attachment that could grasp a tree, saw 16-foot-long sections, then – using the continuous rotation platform and telescoping knuckle boom – carefully bring the previously grasped sections to earth.

“What we are finding is that tree care pros are locating used Manitou platforms who want us to put our attachment on to save money,” Coulbourn says. A complete, new carrier with the cutting head costs about $350,000. A used one with the new Big Beaver ReTREEver head runs about $180,000. The head alone is about $60,000, and keep in mind it is designed to run only on the Manitou.

“At this time we offer only one head, which can cut a tree from 3 to 36 inches in diameter. The importance of being able to

---

**What could you do with these attachments?**

<table>
<thead>
<tr>
<th>Augers</th>
<th>Fencing installers, post drivers and pullers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backhoes</td>
<td>Forestry mulchers</td>
</tr>
<tr>
<td>Bale handlers and spears</td>
<td>Forks</td>
</tr>
<tr>
<td>Blades</td>
<td>Graders</td>
</tr>
<tr>
<td>Booms</td>
<td>Grapples</td>
</tr>
<tr>
<td>Box graders</td>
<td>Hitches</td>
</tr>
<tr>
<td>Breakers (jackhammers)</td>
<td>Landplanes (levelers)</td>
</tr>
<tr>
<td>Brooms</td>
<td>Landscape rakes</td>
</tr>
<tr>
<td>Brush mowers and rakes</td>
<td>Log splitters</td>
</tr>
<tr>
<td>Buckets (we found more than 50 specialized types)</td>
<td>Material spreaders</td>
</tr>
<tr>
<td>Cement mixers</td>
<td>Pallet forks</td>
</tr>
<tr>
<td>Chippers</td>
<td>Rakes</td>
</tr>
<tr>
<td>Compactors</td>
<td>Rock crushers</td>
</tr>
<tr>
<td>Concrete claws, crushers and dispensers</td>
<td>Rock saws</td>
</tr>
<tr>
<td>Demolition shears</td>
<td>Rollers/vibratory rollers</td>
</tr>
<tr>
<td>Dozer blades</td>
<td>Tillers</td>
</tr>
<tr>
<td>Dump Boxes</td>
<td>Salt spreaders</td>
</tr>
<tr>
<td></td>
<td>Sand baggers</td>
</tr>
<tr>
<td></td>
<td>Saws</td>
</tr>
<tr>
<td></td>
<td>Scrap metal magnets</td>
</tr>
</tbody>
</table>

---

**With over 5,000 Forestry Mulchers in the Woods...**

...We Are Your Experts

Bull Hog® Mulchers for 7-45 Metric Ton Excavators

Bull Hog® Mulchers for your High Flow Skid Steer

Bull Hog® compatible with many Forestry Carriers

Purpose built Tracked Carriers 97 - 600 Horsepower

Plus a line of Forestry Attachments!

800.528.3113 • www.fecon.com • sales@fecon.com

Circle 14 on RS Card or visit www.tcia.org
safely take down a 16-foot section is that the length is sufficient to sell take-down for lumber purposes,” he says, adding that the saw head, unlike a shear, is easier on the entire unit and does far less damage to the cut, resalable material.

Fecon is a maker of a half dozen skid steer-class, tracked tool carriers in the high-power, compact FTX line, and the popular Bull Hog mulching head for its own tool carrier and other skid steers. There are Bull Hogs for PTO applications, loaders, excavators and high flow skid steers. Plus, the company makes a host of other attachments, such as stump grinders, shears and grapples, many compatible with other tool carrier brands. Bull Hogs for the smaller 100 and 148 hp track carriers are interchangeable with most skid steers. For the larger FTX, the Fecon heads are build only for those machines.

Mark Ferguson is Fecon regional manager for the Southwest U.S. and South America and product manager for excavator or mulching attachments and power packs. He took us in a bit of a different direction from skid steers to excavator attachments stating that, “One of our biggest pushes lately is Fecon attachments for excavators, particularly the compact excavator mulcher CEM36. In the past the Fecon was usable on...
excavators down to about a 12-metric-ton machine. With the CEM36, we can now get down to a 7.5-metric-ton machine with amulching head. So, with a Bobcat KX080, Terex TC75, or CAT308, for example, you now you have ability to mulch effectively,” Ferguson says.

“A lot of guys with excavators use them to dig dirt. Because there are fewermulching contractors, there is a rising demand for mulching. Now, a guy with an 8-metric-ton excavator can get into the business, maybe mulching in the morning and digging in the afternoon,” Ferguson says. “In certain applications, the excavator may be easier on the ground, since it remains parked as the unit reaches out and around rather than running a skid steer back and forth,” he adds.

Regardless of what you run for a tool carrier, and what the job may be or where your business might be headed, there is an attachment to do the job and add to your bottom line by making or saving you money.

Fecon’s new CEM36 compact excavator mulcher can effectively work on smaller excavators, such as a Bobcat KX080, Terex TC75 or CAT308.
In Stowe, Vermont, you often can’t see the forest – or the mountains or the streams – for the trees. A large part of the business of Stowe Tree Experts, Inc. in Waterbury Center is pruning and removing them to open up views to the magnificent landscape.

“We live in a very forested state. Vermont nets positive every single year in tree growth,” says Michael Roche, owner and president of Stowe Tree Experts. “So taking down some trees here isn’t a big issue.”

When Roche was 12 or 13 years old, he wanted to be a forester. And when he was studying forestry in university and discovered that there was a field of arboriculture, he zeroed in on that. He’s never looked back. “The work we do is physically demanding and dangerous, and there isn’t necessarily enough financial reward for what you put into it,” he says. “You have to make sure you have a passion for it. After 25 years, I still have a passion for it.”

He’s been a partner or sole owner of the company since 1987 and is an ISA-certified arborist, a credentialed climber and a machinery operator. And although he runs the office, he’s still out in the field every day, talking to clients, operating the machinery and driving the trucks.

“In more metropolitan areas, people want to see a chain of command,” he says, “but in rural areas like Stowe, they want to see the owner doing everything, from talking about trees to pruning to removing them.”

The company has four men in the field in the summer and two in the winter as well as a part-time office manager. “We really love what we do,” Roche says. “We have a good team environment, we’re very productive and we’re very good at what we do.”

About 70 percent of their customers are residential, 25 percent commercial and five percent municipal. Seventy percent of all their customers are repeat customers and referrals. Current customers are the best customers, he says. They focus on them and any additional services they might need. They find new customers through advertising in the phone book, on the Web, in newspapers and at trade shows.

Pruning and removals make up close to 90 percent of all their work. Tree health care accounts for 10 percent.

“A large part of what we do becomes property beautification,” he says. “You have to create a canvas, a beautiful picture. One of the great joys I get is when people say to me, ‘You aren’t just a tree cutter – you’re an artist.’ They know I want to keep their place looking beautiful when I’m done.”

Their tree health care, or THC, program includes overall tree care, fertilizing and spraying. When a tree is struggling and has no visible damage, they analyze the soil for nutrient deficiencies as well as observe the tree itself. They treat a large number of trees simply by clearing soil away from the roots with a pneumatic air tool, filling the exposed area with a layer of aged wood chips and manure, and covering it with a light layer of mulch. This allows naturally growing organics in the soil to establish themselves and turn the tree around.

“I try to replicate as best as possible a naturally growing forest, with bacteria, nematodes and other organisms growing in the soil,” Roche says. “Those organics break down fertilizer so the tree can use it.”

To control pests, they first spray with a combination of organic oils and biologics. If those aren’t effective, they use pyrethrums, the next safest. As a last resort, they use chemical insecticides or fungicides, especially on non-native pests.

“I’m out there spraying chemicals all the time. I know which ones are the most effective and, at the same time, the safest for people and animals,” he says.

His philosophy for work is the same as his philosophy for life. “Do the right thing every day. I want the people in my company to have the same philosophy. The ones who don’t, don’t last.”

Stowe Tree Experts became accredited in February 2009. “Here’s the thing about Accreditation,” Roche says. “One of the keys is to look at yourself as a business person, and look at others who are the best in the industry. How are they being the best, and being successful financially? What are they doing that’s different? I
started seeing that the companies that were accredited were the companies I wanted to be most like.”

The company didn’t have any problems before it became accredited. It was already fiscally sound and had a good safety program and safety record. The hardest and most time-consuming part of the Accreditation process was getting the forms done, which Lynn Espey, the office manager, handled. The process took about a year.

“With Accreditation, everything in the company changed by improving by a small percentage,” he says. “You can never feel you’ve done everything, though. I’m always trying to improve.”

He recommends Accreditation to every owner of a tree care business.

“If you want to be a great arborist and a great business person, Accreditation will get you going in that direction. It holds you accountable to having the highest standards – for safety, for pruning cuts and for financial stability. It gives you a road map to follow what the most successful people in the industry have done.”

Having high standards includes understanding the value of their work and not compromising on price, even though the tree care business is very competitive in the Stowe area.

“I’m always trying to improve the professionalism of the industry,” Roche says. “You need to do that not just by having great safety practices. You need to be charging enough for your services to be able to provide for yourself and your family. Very often we race each other to the bottom of the barrel to make less money. You want to be part of the rising tide, not the sinking ship. It may take a while, but people looking for the best arborist in the area will find you, and the price will take care of itself.”

Accreditation from TCIA, the tree care industry’s highest credential.

Accreditation sets the standard for making tree care businesses nationwide more professional, efficient and profitable.

Set your company apart. Get Accredited!

- Compete among the most professional companies in the field
- Attract career-driven, loyal employees who take pride in their work
- Increase profits, lower insurance rates

Call Bob Rouse today for your free consultation and to see what Accreditation can do for your business.

TREE CARE INDUSTRY ASSOCIATION
1-800-733-2622 ▶️ www.tcia.org ▶️ Advancing Tree Care Businesses Since 1938

Circle 31 on RS Card or visit www.tcia.org

TREE CARE INDUSTRY – JUNE 2011
HELP WANTED

Camelot Tree & Shrub, Grosse Pointe MI

Immediate Positions Available!
Come join our growing year-round residential Tree Care Company. Currently interviewing for reliable, hard-working and career-seeking individuals to join our team of arborists! Pruning Dept. Manager/Sales (Min 5 yrs’ exp, ISA preferred); Crew Leader/Climber (Min 5 yrs’ exp, CDL); Climber (Min 3 yrs’, CDL); Ground person. Call (313) 884-1699 or send resumes to Camelot@camelottree.com.

Bartlett Tree Experts

Bartlett continues to grow in the North, South, Mid Atlantic, Midwest & West with openings for experienced Sales Arborist Representatives, Foremen, IPM Techs & tree climbers. We have locations in Massachusetts, Connecticut, New Hampshire, Vermont, New York, New Jersey, Maryland, Pennsylvania, Virginia, North Carolina, South Carolina, Georgia, Florida, Tennessee, Texas, Illinois, Michigan, Minnesota, California, Washington, Arizona, Canada, UK & Ireland. Benefits include paid vacation, holidays, medical, dental, 401(k) training & continued education. Must be reliable, customer service & career oriented. CDL/ISA Cert/Pesticide license a plus. Email your resume to ndubak@bartlett.com; www.bartlett.com; fax (203) 323-3631. EOE

ArbJobs.com

Your jobs notice board. Climbers, ground staff, team leaders, surveyors, consultants & managers. Just some of the international jobs available at arbjobs.com. We are not an agency, we are a jobs notice board. Need staff? Visit www.arbjobs.com and post your advert online today for as little as $80.

Alaska!

Gage Tree Service is seeking experienced climbers and groundsmen! Must have a min 2 years’ tree service experience, and be able to prove it. Must supply references, AND we check them. We’ve got the best equipment in town, including a 38-ton crane and bucket truck. Year-round work, which includes Christmas lights and snow removal. Also willing to hire seasonal climbers with strong pruning skills! We demand your best, and if you are not willing to provide it, don’t apply! Must have clean, neat appearance, driver’s license (CDL a plus) and NO drug and alcohol problems. Opportunity for advancement! Paid sick days and vacation, climbing foreman can earn 60K or more. Email resume to customerservice@gagetreeservice.com or call (907) 345-8733.

At Arborwell, we believe that happy employees make happy customers.

We are looking for Estimators, Groundspeople, Climbers, and Foremen to join our team of ISA Certified Arborists in California.

Contact us at 888.969.8733 or email us at hr@arborwell.com.

Hablamos español.


Arborist/Manager

Energetic, fast-paced environment where your opinions & suggestions are valued. Self Motivated, (ISA Preferred). Hard working, career minded, 3+ yrs in Green Industry w/mgmt experience. Good leadership & customer service w/proven sales record. Year-round work, salary, paid vacation & holidays. Job estimating, oversee crews & equipment, safety management, bilingual & CDL a+. Serious inquiries. Salary requirements, cover letter, resume & references to kuhnstreeservice@gmail.com.

Take Your Career a Mile High

With roots proudly planted in Colorado’s soil since 1947, we’ve grown into one of America’s most respected landscape care services. We’re searching for a Trim Field Supervisor to join our more than 200 passionate green-industry professionals in Denver. Position requires the following experience:

- 2-5 yrs’ climbing & pruning
- Supervising 5-15 treecare employees
- CDL (or ability to obtain in 90 days)
- ISA Certification, Degree & CTSP preferred

Swingle offers year-round employment in the sunny Colorado outdoors, plus top industry wages and benefits. If you are a results-oriented, motivated individual looking for a growing company recognized for safety and legendary service — we need to talk to you. Visit our website at www.myswingle.com to learn more or to apply online. Or call Dave Vine at (303) 337-6200 or email dvine@swingletree.com. When it comes to your career…choose Swingle.
Foreman/Climber/Crane Operator/PHC Tech, Indianapolis IN

Experienced in residential & commercial tree care w/large trees. Trained in the art of crown reductions (not topping); thinning, pruning, working w/cranes, & technical rigging skills for all facets of tree trimming & removal. Must possess company mindset. Lic. drivers only. Ping’s Tree Service has impeccable service records & 38 yrs in area. (317) 298-8482; www.pingstreeservice.com; email troy@pingstreeservice.com. Top wages great benefits!

National Plant Health Care (PHC) Business Director

ValleyCrest Tree Care seeks PHC director resp for developing and implementing integrated pest management programs for all branches. This is a senior level position with potential for personal and professional growth. Required qualifications: ISA Cert Arborist, min 10 yrs’ tree experience, computer skills, leadership & P&L experience, college degree or equivalent experience preferred. Send resume to General Mgr at vbernardini@valleycrest.com. We are a drug free & EOE by choice. Medical, dental, vision & 401(k) benefits.

Virginia Branch Manager

DeAngelo Brothers, Inc., one of the nation’s leading Vegetation Management Companies, is seeking a Branch Manager in the state of Virginia. The qualified candidate would be responsible for coordinating sales & customer service, contract management, budgets, job costs, and provide overall supervisory responsibilities in a team building atmosphere. Candidate should possess experience in these areas of management. Greens industry experience preferred. We offer a competitive salary and benefits package along with the opportunity to be a part of a growth oriented organization. For confidential consideration, fax or email resume to: FAX: (570) 459-5363; hr@dbiservices.com. EOE/AAP M-F-D-DV

Tree Climber, Seacoast, NH

Entry level, must have knowledge of climbing position for pruning, removal & proper use of equipment. Cert arborist a plus. Y/R, competitive salary, benefits. Email resume w/3 professional references: dm@seacoasttreecare.com.
Climber/Arborist

Our 63-yr-old company has expanded into the upper part of SC. This office has exceeded growth projections each year and is in need of ambitious, experienced arborists. Applicants should have no less than two years’ climbing experience, driver’s license, drug free, desire to advance & a genuine passion for trees. Compensation package: holidays, vacation health/dental insurance, bonuses and education reimbursements. If this is you, contact chris@soxandfreeman.com or (803) 446-6185.

Hendron Tree Care, Inc., Newport News, VA

Great company looking for great partners to help us care for trees in our region. Looking for climbers passionate about their craft and fully capable of leading work crews toward safe and professional standards of excellence. We value our workers and partner with them to create atmosphere of success. Located between Busch Gardens, Williamsburg and Virginia Beach. This is a terrific area to bring your family. Send resume to chris@soxandfreeman.com or (803) 446-6185.

Immediate Openings for Sales Arborists, Climbers, Foreman, Plant Health Care Technicians

In an unstable economy and environment, RTEC is one of the few that is advancing and growing. RTEC is a leader in Tree Care, Plant Health Care and Environmental Solutions in the Washington D.C. area (VA, MD, DC). RTEC serves thousands of high-end residential properties as well as federal and local governments. RTEC received numerous awards for tree preservation and was awarded the Small Business of the Year by the Department of Homeland Security. RTEC is a drug-free, safety conscious and technologically driven organization. RTEC is seeking experienced, knowledgeable and professional people. RTEC offers a safe, drug-free environment, competitive benefits package, relocation and temporary housing placement. RTEC encourages and promotes career advancement and continuing education. Email resume to: jobs@rtectreecare.com or (703) 573-7475.

Mercier’s Right-of-Way Maintenance

In this unstable economy we continue to grow larger & stronger everyday. Seeking good, strong, dependable, energetic candidates to apply for our current job openings in MD & OH locations. Candidates must have tree knowledge & min 2 yrs’ exp with current valid CDL A Dr Lic & clean dr record. Must pass background check & pre-employment testing. Excavation candidates must have min 3 yrs’ site grading. Current positions avail: (MD Area) Heavy EQ Oper w/CDL A, Truck Dr/Groundsman w/CDL A, Climbers, Bucket Oper/Foreman, Laborers. Send resume to terry@merciers.com or fax (410) 590-4184 (OH Area) Hi-Rail Oper w/CDL A Lic, Exp ROW workers, Climbers, Groundsman, Applicators, Heavy EQ Oper w/CDL A Lic including skidder w/boom saw exp. Must be willing to travel. Send resume to sshephard@merciers.com Excl benefits including 401(k), Medical, Dental, Vision plans, Vacation, Pd Holidays, On-the-job training & job related Continuing Ed courses. EOE
Arborist/Crew Leader Burlington, Wisconsin

Looking for: lead climber to supervise and manage tree care crew while performing all aspects of tree care service. Knowledge of how all tree care equipment is used efficiently and safely. Able to delegate tasks and ensure work is performed in accordance with industry safety standards and to the satisfaction of customers. (Min 5 yrs’ exp, ISA preferred) Must have or able to obtain CDL license, knowledge in identifying trees and shrubs. Ability to keep crew on daily production tasks and goals, able to communicate with property owners in a respectful and knowledgeable manner. Wages based on experience, benefits package. Fax resume to: (262) 763-5090. E-mail: arborimagesinc@sbcglobal.net.

Join Our Dynamic Team – Beautiful No. CA

Professional, expanding co. seeking cert arborist, excellent climbing, foreman & client-relation skills. Must be team player looking for ownership opportunity. Resume: info@capitalarborists.com fax (916) 400-4770.

Crane-assisted Tree Removal, Southern NH

Climber, log truck operator, & ground positions. Must have 3-5 yrs’ exp. CDL & arborist cert. a plus. Comp. wages & profit sharing. Email info@mcguinnesstree.com for info.

Lake Tahoe Opportunity

Seeking Certified Arborist/Tree Worker for climbing position. Contact Jeremiah’s Tree Service (530) 581-1945 Fax (530) 581-1933 or email resume to jeremiah.tahoe.arborist@gmail.com.
EQUIPMENT FOR SALE

Opdyke Inc.

Ropes, Ropes, Ropes
All types and brands of professional arborist climbing, lowering and rope accessories at warehouse prices. Call for current price list. Visa, MC, AX. Small Ad – Big Savings, since 1958. 1-800-873-3203.

PRODUCTS & SERVICES

Hardware and software by an arborist for the arborist
For more information about the industry’s best-selling package, call or write Arbor Computer Systems, PO Box 548, Westport, CT 06881-0548. Phone: (203) 226-4335; website: www.arborcomputer.com; email: phannan@arborcomputer.com.

ArborGold Software
Complete job management! Tree Management Systems, Inc. delivers cutting edge software specifically designed to help tree care companies close more sales, create repeat business, reduce cost and monitor crew productivity, works with QuickBooks. Visit our website www.ArborGold.com for a FREE in-depth video demo or call 1-800-933-1955 today for more information.

MyFleetDept.com
The only Fleet Management, Consulting and Project Management service with extensive tree industry experience. Knowing your business makes all the difference. Visit us at www.MyFleetDept.com to see our full line of services. (585) 374.8827.

BUSINESS FOR SALE

New Jersey Tree Service
25+-Year-old tree service for sale Monmouth County, New Jersey. Extensive equipment list. Land also available with site plan approvals. Call agent for owner at (732) 895-4584.

Tree Business in Scotch Plains, NJ
Gross over $1M per year, turnkey operation, 56-year tradition. Owner retiring, available immediately. For sale: property, name, clientele and equipment. For info call (908) 482-8855.

Advertise equipment in the July issue of TCI Buyers’ Guide
1-800-733-2622
mohan@tcia.org

For even more up to date Help Wanted ads, check out TCI’s Web classifieds at www.tcia.org

EQUIPMENT FOR SALE

Grapple Truck

AlturnaMATS, Inc.
Your Single Source for Ground Protection! Mats are available 2’x4’ up to 4’x8’ and feature a Limited Lifetime Warranty! Built Tough Guaranteed! 1-888-544-6287; sales@alturnamats.com; www.alturnamats.com.

Used Mini Crawler Lifts for Sale starting at $49,000
Pre-owned 2006-2010 mini lifts completely reconditioned, includes 90-day warranty. 15GT 50 ft, 23GT 76 ft, 30T 100 ft and 40GT 132 ft. Rentals also available. Visit www.extremelifts.com or call 1-800-944-5898.

BTS Equipment
2001 INT 4700 Forestry Unit, DT 466 Engine, 7-speed, Double-over center Hi-Ranger XT-55 boom 60’ w/h, HYD brakes, 11’ chip body. $39,500. Call (586) 752-7480 or Chris (586) 630-2629.

Brush Bandit 250 XP Chipper
Excellent Condition, 800 hrs. 125hp John Deere. Auto feed, fully adjustable discharge chute, hydraulic lift cylinder, adjustable tongue, color/orange. Saint Louis, MO $17,300. Call John (314) 578-0155 or aztree@sbcglobal.net.

Rapco Industries, Inc.
CARBIDE SAW CHAIN
Solutions for your customers most difficult cutting applications!
Manufactured in nearly all pitches and gauges to fit most chainsaws and customized to your customers specific cutting requirements.

COST EFFECTIVE APPLICATIONS USING RAPCO CARBIDE CHAIN:
- Fallen Trees
- Plastic & Fiber
- Stump Removal
- Soft: Rock
- Abrasive Wood
- Demolition
- Pond & Deck Saws
- Railroad Ties

Phone: 800-959-6130
WE ACCEPT VISA, MASTERCARD & AMERICAN EXPRESS

www.rapcoindustries.com
Email: rick@rapcoindustries.com

Circle 24 on RS Card or visit www.tcia.org

48 TREE CARE INDUSTRY – JUNE 2011
60’ & 90’ KNUCKLED TRACKED LIFTS

76’, 88’, 102’ & 121’ TELESCOPIC TRACKED LIFTS

70’, 82’ & 95’ TRAILER LIFTS

Non-computerized, simple live hydraulic and electric-over-hydraulic operating system. Honda gas or Hybrid diesel/24V power. Extremely low ground pressure. Units 31” & 44” wide. 40% slope driving and deployment ability.

GO ANYWHERE, SET UP ANYWHERE. ALL UNITS TOWABLE BEHIND PICK-UP TRUCKS

Circle 34 on RS Card or visit www.tcia.org
Four tree care companies, including three TCIA members, volunteered their services on Arbor Day, April 29, to clean, prune and fertilize the trees of Langdon Park in Portsmouth, New Hampshire. SunTree, a division of Piscataqua Landscaping Co. Inc. of Eliot, Maine; Northeast Shade Tree and Cornerstone Tree Care, both of Portsmouth, all TCIA members, were joined by prospective member The Organic Arborist. The cleanup is an annual event for the four companies, most of whose employees have worked with or for each other at one time or another, according to Jeff Ott of Northeast Shade Tree.

“We’re always excited to give back by volunteering our time and expertise to our community in a way that benefits a common space,” says Cornerstone’s Micum Davis.

Benson Park in Hudson

Across the state, staff from McGuinness Tree Care of Nashua, New Hampshire, spent Arbor Day volunteering to help clean up the former Benson’s Wild Animal Farm, now Benson Park, in Hudson, N.H. They employed their new Grove crane, a mini lift, log loader, two chip trucks and more in taking down several hazard trees and clearing out dead limbs.

“Our goal is to remove as many eyesores and problem trees in a day as we can,” said Jim McGuinness. “We have the equipment, ability and insurance to do things above and beyond the landscaping committee’s reach. We hope
to be able to come back to the park a few times a year as an ongoing project to address its ongoing needs.” Benson’s was a long-running private zoo and amusement park. It closed in 1987, after having been renamed New England Playworld for its final year. The state acquired the property in 1989, and transferred it to the town in 2009. It is being developed as a public park and nature area. Watch a video of McGuinness’ Arbor Day work at YouTube.com/treecareindustry.
USFS releases updated i-Tree

The U.S. Forest Service and its partners in March released the newest version of their free i-Tree software suite, designed to quantify the benefits of trees and assist communities in gaining support and fund- ing for the trees in their parks, schoolyards and neighborhoods. i-Tree v.4, made possible by a public-private partnership, provides urban planners, forest managers, environmental advocates and students a free tool to measure the ecological and economic value of the trees in their neighborhoods and cities.

The Forest Service partnered on the project with TCIA member The Davey Tree Expert Company, the National Arbor Day Foundation, the Society of Municipal Arborists, the ISA and Casey Trees. The Forest Service and its partners will offer free and easily accessible technical support for the i-Tree suite.

“Urban trees are the hardest working trees in America,” said Forest Service Chief Tom Tidwell. “Urban trees’ roots are paved over, and they are assaulted by pollution and exhaust, but they keep working for us.”

Urban trees provide temperature control, clean water, clean air and mitigate climate change by sequestering tons of carbon, said Tidwell.

The i-Tree suite of tools has helped communities of all sizes gain funding for urban forest management and programs by quantifying the value of their trees and the environmental services trees provide.

One recent i-Tree study found that street trees in Minneapolis provided $25 million in benefits ranging from energy savings to increased property values. Urban planners in Chattanooga, Tenn., were able to show that for every dollar invested in their urban forests, the city received $12.18 in benefits. New York City used i-Tree to justify $220 million for planting trees during the next decade.

Since the initial release of the i-Tree tools in August 2006, more than 100 communities, non-profit organizations, consultants and schools have used i-Tree to report on individual trees, parcels, neighborhoods, cities, and even entire states.

The most important improvements in i-Tree v.4 include:

- i-Tree will reach a broader audience in educating people on the value of trees. i-Tree Design is designed to be easily used by homeowners, garden centers and in school classrooms. People can use i-Tree Design and its link to Google maps to see the impact of the trees in their yard, neighborhood and classrooms, and what benefits they can see by adding new trees. i-Tree Canopy and VUE with their links to Google maps now also make it much easier and less expensive for communities and managers to analyze the extent and values of their tree canopy, analyses that up to this point have been prohibitively expensive for many communities.

With each new release of i-Tree, the tools become easier to use and more relevant to the users. i-Tree developers are continually addressing feedback from users and adjusting and improving the tools so that they are easier to use by a much broader audience. This will only help to increase its use and impact not only in the United States but around the world.

Vermeer launches e-newsletter for tree care

“Branching Out,” launched in May, is being promoted as a fresh approach to a newsletter from Vermeer and its industry partners, designed to provide tree care professionals with relevant information about the tree care industry that will help company owners grow their business. “However, ‘Branching Out’ is no ordinary newsletter,” the company says.

In addition to up-to-date industry news, Branching Out also features video clips and links within the e-newsletter that provide additional information on key industry topics – allowing readers to delve deeper into an issue. Take a look at the latest industry tips, trends and exclusive offers in “Branching Out” at www.treecarenews.com.

Arborjet gets EPA approval of expanded TREE-äge label

Arborjet’s TREE-äge insecticide in April received expanded label approval from the EPA to control several invasive species such as Western pine beetle, mountain pine beetle and other associated engraver beetles. For a full list of insect species covered and states where TREE-äge is registered, visit www.arborjet.com.

“The expanded label for TREE-äge will change forest management practices forever,” said Russ Davis, president and chief operating officer of Arborjet.

TREE-äge is applied through the Arborjet injection system where the formulation is sealed inside the tree. TREE-äge provides up to two years of control for insects such as emerald ash borer and mountain pine beetle.

Fecon hires technical service advisor

Fecon Inc. has hired Mike Karre to its Product Support team. Mike’s responsibilities will include traveling within Fecon’s dealer network to provide technical support, assist with new machine deliveries and start-ups.

Karre joins Fecon with 10- plus years of service experience; most recently for a Komatsu dealer as a field service technician completing full machine repairs on construction equipment plus maintenance on forestry grinders and coloring machines.

Send member news to editor@tcia.org.
A road crew worker was killed April 27, 2011, in Yazoo County, Mississippi, while he removing a tree from a roadway after storms moved through the area. Charles “Harold” Coker, 48, of Yazoo City died as he was cutting a large limb off a tree. The tree’s weight shifted and a portion separated from the tree, striking Coker in the head and killing him, according to The Clarion Ledger.

A tree worker clearing power lines along a road in Weare, New Hampshire, April 29, 2011, was thrown to the ground after the bucket truck he was working from tipped over. The side of the road appeared to give way under the outrigger, causing the truck to tilt. The bucket holding the worker fell, dropping the man about 60 feet.

The worker was conscious and alert, and though he appeared to have several broken bones, his injuries did not appear to be too serious, according to an investigator.

The accident cut power to more than 2,000 customers in the area. A man in another bucket was trapped in the bucket for a short time by the downed power lines, according to a WMUR Channel 9 report.

See more April accidents on this page in our digital version of TCI at www.tcia.org, under the Publications tab.

Send local accident reports to editor@tcia.org.
By Gary LaChance

It was an early morning in fall. We were doing a selective clear and clearing for a pool. As we cut 80- to 90-foot pines, we just wanted marketable wood. So we cut off the bottoms and crotches and left them back in the woods.

As we bucked this one tree, about 30 inches in diameter, we realized it had a butt that was rotten, so we took six inches off, rolling the log as we did to see if it was solid. Well, to our surprise, it was full of honey bees.

They were dormant, as the morning was brisk. We found the inlet (knot hole) approximately 20 feet up, so we bucked it four more feet up. The hollow was about 22 inches in diameter.

Now what do we do, with only a few hours before they warm up?

Being the boss, I had to make a decision. Coincidentally, one of the long-time employees, who owns 40 acres of land, had some bee hives he wanted to use for honey. So we called his dad to come down with a flatbed pickup truck.

It did not take his dad long to get there. Being an avid skidder operator, and in backyard rough terrain, I choked back 4 inches on the log and very slowly hoisted it up to the arch rollers to get the log off the ground. I put the skidder (John Deere 440) in low, low gear and crept out.

Well, the impact woke them up, and as it was getting warmer, they started to move. They were not swarming too bad, so I set the log down softly on the truck and went back for the smaller hive (6 footer).

The bees made it to their new home at the 40 acres; they settled happily into the hives. The honey was good, and they also pollinated their fruit trees, which are used for fruit wine.

Gary LaChance is owner of Alpine Tree Service in Manchester, New Hampshire.
AERIAL CHIP DUMP

- 57' to 75' Working Height
- Chip Bodies or Flatbeds
- Front Mounts or Rear Mounts
- Under CDL Options
- Hybrid Options

CHIPPERS

- 6" to 18" Capacity
- Patented Panic Bar
- Disc or Drum
- Horsepower Options Vary

GROUND UNITS

- 12' and 14' Lengths
- 60" and 72" Heights
- Integrated Security System

AERIAL OFF ROAD

- 39' Working Height
- Fits Through 36" Gate
- Tracks or Wheels
- 1000 lb Cargo Area
- Walk Behind Remote Controls

CRANES

- 18 to 38 Ton Capacity
- Riding Seat, Behind the Cab, or Rear Mount
- Length and Platform Options
- Open Air or Enclosed Tilt Cab
- Track Option
- Optional Tree Guards

ALTEC ALSO OFFERS RENTALS, LEASING, IMMEDIATE DELIVERY STOCK OPTIONS, SERVICE, USED EQUIPMENT AND ACCEPTS TRADE-INS.
TRANSTECT®

Rapid Response insecticide that kills bugs FAST and lasts the entire growing season!

GO online to get YOUR FREE HAT
www.gotranstect.com

FREE

WHILE SUPPLIES LAST

HURRY!

Summer Insect Solution

BUY Transtect®
Get Stuff FREE

www.gotranstect.com
Get the Info & a Free Hat

Your Choice

When YOU buy ONE canister of Transtect you GET either a 2-pack of Transtect or one pack of Lepitec FREE

HURRY!
OFFER EXPIRES
July 29th, 2011

877-272-6747
www.treecarescience.com

Circle 23 on RS Card or visit www.tcia.org