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CONTENTS

Features

4  LAWN CARE  
This service is becoming a popular sideline.

14  TAILORED FOR TREE CARE  
Altec's new facility is producing state-of-the-art aerial lifts.

22  ARBOR DAY

28  WHAT'S THE TRUTH ABOUT RESEARCH?

Departments

2  OUTLOOK

6  INDUSTRY INPUT

10  WASHINGTON IN REVIEW

12  MANAGEMENT EXCHANGE

26  INDUSTRY ALMANAC

31  CUTTING EDGE

35  CLASSIFIED

39  FROM THE FIELD

40  PRACTICAL RIGGING

COVER PHOTO:

Lawn care can be a lucrative crossover business for tree care companies. See story, page 4. Photo courtesy of John Eden, Wilhelm Tree and Lawn Care, Denver.
You have all heard the expression, "Cheap may be good but good isn’t necessarily cheap!" You can apply that statement to the buyer as well as the seller. Your services may have to be competitive sometimes but not necessarily cheap, particularly if you can’t define cheap.

I had a call from an arborist in the Mid-Atlantic states the other day. He was working on a bid for a good size job and he wanted my opinion on his method of determining price. This firm, projects a professional image and enjoys an excellent reputation. The owner has been in the tree care business for many years.

He told me what he would have charged for a day for two men and equipment, on residential work and what he had bid on this project previously. His residential price was substantially more than the bid price. Now he wanted to bid the job for even less.

He knew what he paid his crew but really didn’t know his other costs. His accountant gave him a financial statement with his tax return every spring but he was always too busy to look at it. I asked him how he had arrived at his other prices. He told me that he learned from clients what others were charging and he charged a little less.

He said, “Bob, you have to understand, I’m an arborist. I’m not an accountant. I have work to sell and a crew to keep busy. If I can pay my bills, my family is comfortable and I get to go hunting every fall, I know I’m charging enough.” Then he added, “I really need this bid job to tide me over and keep my crew busy until spring breaks.”

Together we figured out the direct cost of labor, payroll taxes, workers comp and other expenses that would be incurred. We also talked about the fact that he wouldn’t get progress payments and would probably have to wait more than 30 days to get paid.

I asked him if he knew anything about the contractors who had been successful on this job previously. He told me that recently the successful bidder worked on the job himself with two of his sons, a brother-in-law and a nephew. The last he heard, the feds were chasing this guy for unpaid payroll taxes and there was some question as to who on the payroll was covered by workers compensation insurance and who got paid in cash.

After working through the numbers I suggested that it would be best to let his worst competitor get stuck with the bid. In this case, cheap would not be good for the seller and probably not for the buyer either.

The moral is: You can’t get every job, and there is no point in trying to work cheaply to do so. Knowing your costs is most important. It allows you to price your work adequately and know how flexible you can be.
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Lawn Care

More Arborists Are Adding This Valuable Service To Their Businesses

Adding profit centers to your business may enable your company to improve cash flow and provide steadier work for valued employees. One such option is lawn care, which is becoming an increasingly popular sideline for arborists.

According to the Professional Lawn Care Association of America, the industry has grown an average of 7% a year since 1985. Lawn care sales in 1992 were 15% better than those in 1991, and companies project a similar increase this year.

While there can be advantages to expanding with new services, there can also be disadvantages. Companies serious about venturing into lawn care should seek the advice and support of the PLCAA. Only 13 years old, the association offers educational opportunities, business services, insurance and risk management programs, training, quarterly newsletters, consumer literature and information sharing. It also offers its “Checklist For Starting A Lawn Care Business,” which provides information for the start-up company.

There are also firms such as Green Pro Services in Hempstead, New York, that offer training, equipment and support services to start-up lawn care businesses or companies crossing over into lawn care.

Green Pro president Bob Riley points out that there are many positive aspects to lawn care. For instance, many lawn care activities can be done on days when weather conditions are not right for spraying. Also, lawn care extends the season of profitability into December, allowing firms to keep key people employed for more months during the year.

In addition, going into lawn care allows a business to expand without sinking much capital into equipment or marketing as arborists can convert their equipment to lawn care, and current clients will provide much of their work. Thus, lawn care offered by a tree care company protects accounts from being wooed away by lawn care services that also offer tree care. And, for arborists going into IPM or plant health care for trees and shrubbery, organic lawn care is a natural extension of service.

On the down side, lawn care is a different business and might involve a costly learning process before it shows a profit.

Lawns are tattle-tales! Inadequate or slipshod treatments become obvious almost immediately, so be prepared to offer only the best program available along with adequate follow-up and support.

A professional and educational approach is crucial to lawn care. As lawns have been known to turn brown for a variety of reasons, the lawn care provider must educate the client—or lose a customer. And remember: If a tree care account can become a lawn care account, then losing a lawn care customer could also mean losing a tree care client.

Also, arborists must plan for the fact that lawns require more service calls than trees or shrubs. And they must be prepared to shift vacation schedules as August is a prime lawn care service month.

Riley further cautions that complications are likely to arise in relation to the use of chemicals in lawn care. According to a recent report in Landscape Management magazine, chemical applications still account for 71% of lawn care sales. That situation may change as public pressure continues to call for more governmental regulation.
Lawn care is becoming an increasingly popular sideline for arborists. In center photo, a worker from Davey Tree Expert Co. seeds a residential lawn. Photo at top shows worker seeding a park area, while photo at bottom shows a worker mowing. Photos by Albin P. Dearing V, courtesy of Davey Tree Expert Co., Kent, Ohio.
Time to lead

This letter is in response to James Caus-ton’s plea for help to save the madrona tree in Port Angeles. (See January issue.) I talked to James and appreciate his sincere concern. I can empathize with his sense of hopelessness as he sees what has happened to this exceptional specimen tree. I would like to comment on this situation more from a philosophical point of view than from a technical point of view. We can tackle this particular problem with treatments and techniques (e.g., the heroic attempts to save the Treaty Oak in Austin) and perhaps prolong the life of this tree. But the bigger issue here has to do with how to solve these conflicts in the future. What about the next situation where the natural resource (e.g., the tree) and the builder meet?

We in the green industry have polarized ourselves by concentrating on the technicalities of how a tree eats, drinks, sleeps and breathes. We all know how to care for and manage our urban forest ... from the tree’s point of view. But, we have neglected to go outside our profession and work with and educate the many other people who have their jobs to do. We cannot wait for them to come to us—we must go to them. Trees will not get the attention they deserve unless we educate the various publics and disciplines as to the importance of the various parts of the natural resource. We, on the other hand, must learn from these other professions what their goals and objectives are so we can help them build America in an environmentally sound, cost-effective, reasonable manner.

Many developers and builders are angry and frustrated with the government. Why? Because we have written laws that tell them not to kill trees, while giving them weak criteria and no implementation guidelines. Therefore, we are legislating without educating. When the developer tries to save the trees and some die, people become angry at him. People also become angry at the local government for not doing anything about it, and all sides are frustrated, mad and polarized.

We in the green industry must go to other professions who are caught between doing their jobs (e.g., building) and adhering to basic environmental laws (e.g., tree preservation), and ask: “What can we do to help you?” We must take responsibility for helping them solve their problems first, then integrate that into our mutual goal of saving the resource. Integrity and respect will come much faster if we put the other professions first and ourselves last. This concept is very disarming and, yet, very right.

Trees are not more important than people. Remember that we are doing our jobs as arborists for the people, ultimately. We the people, through cooperation and communication, are responsible for true stewardship.

Perhaps this particular madrona tree can be saved ... or its life prolonged; perhaps

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Steve Clark, urban forestry consultant
Brentwood, Tennessee

A good article
I just read Don Blair's "Thoughts on Pruning" from the December issue of Tree Care Industry. It is undoubtedly the best article I have read in the magazine. It had a great deal of heart. I especially liked Blair's encouragements to educate clients when they have uneducated or unreasonable demands which would be bad for the trees. The whole article was good!

Miki Brawner
Boulder, Colorado

Letters should be addressed to:
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(2) 1990 GMC; CAT Diesel; Auto.; All-steel 7.5 Ton Crane $12,000 each

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1971 Ford C/O w/WALD Truck-Or-Liner Line Plamer $9,500

1981-82 FORD LT9000; 270 Cummins - 9 Spd. w/National 856 15-Ton Crane; 66' Hook Height $49,500

1973 Ford L8000; CAT Diesel; Auto.; HOLAN 3 Section Digger Derrick; 54' Hook Height $5,800

1981 Vermeer M-475 Trencher; Backhoe; Ford Diesel $13,500

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The Clean Air Act

Emissions From Small Engines Under Close Watch

By Brian Barnard

When President Bush signed the Clean Air Act into law in November 1990, he called it "the most significant air pollution legislation in our nation's history." The law is aimed at reducing air pollution through a variety of motor vehicle and industrial regulations. It also required studies that found that emissions from small engines not used on the road significantly contributed to environmental pollution.

To address the issue, the Environmental Protection Agency (EPA) is discussing approaches to develop air emissions regulations for small engines. EPA's regulations could affect non-road machinery powered by gasoline engines up to 25 horsepower, including chain saws, small brush chippers and small stump grinders currently used by the commercial arborist.

EPA is still gathering technical, economic and political data on small engine emissions. Approaches to small engine emission reductions could include refueling/spillage controls, alternative fuels, engine design changes, in-use controls, electric-powered equipment and market incentives. These approaches are specifically targeted at the commercial user of small engines.

A proposed rule on small engine emission regulations is expected to be published in November, with completion in 1994.

Before putting any regulations into effect, EPA is studying several factors to ease the burden on manufacturers and consumers of these products. EPA officials are expected to analyze emission reduction credits, fees and subsidies, and creation of a market for products that have greater environmental benefits.

According to a report by EPA's Dee North, fees and subsidies produce the most economically efficient method of changing consumer behavior.

Several tree care firms have received an "alert" from the National Institute for Occupational Safety & Health (NIOSH), entitled Request for Assistance in Preventing Falls and Electrocutions During Tree Trimming. The objective of the NIOSH report is to raise the safety consciousness of this industry. However, some points require clarification.

The NIOSH alert references two OSHA Standards with which you may be unfamiliar. These are CFR 29 1926 and 29 CFR 1910.268. The former is OSHA's Construction Industry Safety & Health Standards, intended to apply to construction worksites. The latter is known as the Telecommunications Standard, which applies to the construction and maintenance, including right-of-way maintenance, of C.A.T.V. and phone lines. Line clearance tree workers are specifically exempt from 1910.268. Residential/commercial tree workers are, by definition, not permitted to work near conductors.

In most cases, tree companies seeking regulatory guidance regarding work around overhead electrical conductors should look to OSHA's Electrical Safety-Related Work Practices Standard, sec. 1910.331. This general industry standard applies to tree care employees who work near electrical conductors when providing residential/commercial tree care. Qualified line clearance employees are specifically exempt.

The ANSI Z133 Standard for tree care operations remains the most concise and comprehensive reference source for tree care related work practices. The ANSI Standard is written by a committee of individuals from the tree care industry, and is being revised. Look for the release of the revised ANSI Z133 in the fall.

Have You Received This Alert?

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The Difficulty Of Planning

By Laddie F. Hutar

If you're confused about the future, you're in good company, not only with fellow smaller company leaders but also with the biggest and most widely known names in business. Apple, IBM, GM, Schwinn and Sears—all are facing identity and future planning crises. Industries and the economy are in a state of flux. Top managements are at the crossroads trying to figure out which past approaches and techniques in business to keep and which to revise. They are also trying to figure out what innovations to try and what the direction and focus of their companies should be. The key question each faces is: Where are the best profitable opportunities for our company?

In business, especially in smaller companies, actions that can be put off, such as detailed planning for profitable opportunities, are deferred and deferred—regardless of their importance. This is one of the reasons there is so much erosion in the small company community.

As important as detailed profit planning is, it often does not receive the focus it deserves. The reason is that top management must face other, immediate concerns such as employee problems and requests, problems with suppliers, collections, quality, pricing, customers, machinery breakdowns, cash flow, etc.

These issues are not always deferrable and must be handled immediately—in business it's generally rush, rush—crisis; rush, rush—problem; rush, rush, rush!

Time for "detached" thinking is in short supply, at a premium, and always not an "immediate" that must be satisfied.

Deferrable actions—planning, following up that extra lead, buttoning down that last detail for increased production and sales—generally don't get done.

It's more natural to live, act and be involved in the immediate present, reacting to problems and concerns, than to try to figure out the future.

And that is what planning is: knowing where you want to go, why and how you're going to get there.

Isn't it worth 10% of your time doing detached planning to know where you're going to be going the other 90% of the time?

Planning skills

The companies that have successfully tackled this problem have approached it in a number of ways. Generally, all have introduced a special skill: structuring a detailed profit plan for today's and tomorrow's difficult and confusing business climate. This highly developed skill consists of the following elements:

—being detached from everyday operations;
—possessing a sense of keen observation and analysis;
—understanding today's troubled business conditions;
—and being able to abstract, organize and structure a wide variety of inputs, facts, insight and trends.

This skill is the direct opposite of the skills required for the involved, day-to-day, hands-on top management person. At this point, top management must turn—inherently or to outside sources—to bring new insights, approaches, techniques and motivation to the company. Inbreeding can produce biased, limited and shortsighted views, since all company employees are involved in the prevailing company culture, politics and status quo.

The challenges are there—they may be ignored, minimized or deferred, but they will not go away. The internal status quo is hard to change from within. Opportunities don't last forever; the graveyards of business are filled with companies that were so busy being busy that they lost their way and were pushed out of business by aggressive competitors who planned and acted.

Other companies never got off the ground and sputtered along for years with a marginal profit because they lacked this specialized planning skill. Procrastination, too much rear-view mirror thinking, lack of concern for planning for the future, stubbornness, and ego are all possible factors when a company does not realize its potential profitability.

Top management's key job today is not only surviving the immediate, but also knowing what lies ahead. Planning must be done for the future. Each journey begins with the first step. Management must make that first step now.

Laddie F. Hutar, CMC, is a certified management consultant and contributing author. In 1967 he founded the Hutar Growth Management Institute, a specialized management consulting firm that has been dedicated to helping smaller companies achieve programmed growth. He is a graduate of Purdue University and received his master's from Harvard Business School. He can be reached at 1701 E. Lake Ave., Ste. 270, Glenview, IL 60025. Phone: 708-724-1910.
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Michael Zimmerman, President
Zimmerman Tree Service
Lake Worth, Florida
Tailored For Tree Care

Shortly after Altec Industries acquired Asplundh Manufacturing last year, TCI visited the company’s plant in Creedmoor, North Carolina, where LRIJ-55 aerial lift units and Whisper Chippers are manufactured. Parts are manufactured, assembled and installed at the facility, which also houses an inventory of components, each destined for an order. A marketing division and an engineering division are also located at the site.

We were given a tour and interviewed key individuals, including Mark R. Mason, vice president and general manager; Richard Germain, director of marketing for Creedmoor products; and John Keck, director of engineering for the Creedmoor Division.

The meeting focused on how the engineering and manufacturing processes contributed to product reliability and safety.

We witnessed design work on a CAD/CAM unit. The CAD system gives designers a full view of how the unit will look when it is finished. Creedmoor Division CAD machines work in 3-D as well as 2-D for applications such as the layout of a bucket or the design of a truck. They can make a scale drawing based upon customer needs.

TCI: Can you tell us a little of the history and philosophy of Altec’s Creedmoor Division?

MASON: I am the former general manager of Prentice, so my background is timber harvesting. From my perspective, the beauty of this marriage between Altec and Asplundh is that Asplundh has a lot of respect in the marketplace by virtue of their success in the tree business. There has been, and will continue to be, ongoing feedback from the Asplundh Tree Expert Company into this facility. Asplundh is Altec’s number one customer. We will continue to serve Asplundh with all of their equipment needs for years to come.

John Keck in Engineering, Rick Germain in Marketing and the balance of our associates aren’t working in a vacuum trying to scheme up what we think serves the tree care industry best. What we do very well is listen very carefully to that customer out there, and translate that into engineering features that best serve that marketplace.

KECK: Historically, we were the customer. Asplundh Tree played a vital part in the development of the machinery. It makes a difference when you’re going to use it yourself. In a sense, we started designing today’s aerial lift back in 1958. It has constantly evolved since then.

MASON: John touched on the philosophy of manufacturing for yourself as a contractor. When you put a truck on the ground, that truck stayed in the field with a minimal amount of maintenance for seven to ten years. Asplundh Tree doesn’t have a lot of shops or garages. Where do you see their trucks parked? Gas stations, parking lots, substations. Furthermore, the units were used in the line care industry, which is high production. In line work, crews are clearing sections of line for the utility from Point A to Point B on the same road. The only time the unit isn’t in use is when the truck moves forward. One person is in the bucket and one is on the chipper through the day. As a contractor, you want good maneuverability of the unit, one with a good service life that is not going to cost a lot of money to maintain, one that is easy to maintain. All these add up to dollars saved, and that’s how you make money in line clearance.

KECK: We rely heavily on field experience as part of our overall testing program. We were developing the machine before standards existed. We developed our own standards and, as a matter of fact, a lot of our own standards ended up as industry standards. It has been our policy for a long time to only build machines with insulation.
MASON: We have the capability to meet with individual customers, find out what their individual needs are, and accomplish individualized customer design. That’s the direction we’re heading.

TCI: Cost is always such an important consideration. Tell us how your procedures affect cost.

GERMAIN: Seventy percent of the cost of the product is determined when we’re designing it. After that prototype is done and we put it out in the plant and say, “Let’s build 300 of these a year,” there’s very little that you can do to control the majority of the cost. You have some influence in terms of how you set up the plant, how you lay out, how you train people, what machine tools you use, what processes you use. But 70% of the cost is determined way back in the engineering stage.

With the advent of computer-aided design and computer-aided manufacturing, we have the ability to say, “What if...?” We can go through dozens and dozens of different design iterations before we build the first prototype. We have become good at simulating what’s going to happen to that unit under load on the computer.

We have a computer design program that permits us, once we get the geometry and basic specs laid out, to see what happens if we make the upper boom two feet longer, extend the side reach and put another 50 pounds in the bucket. We can input the information and the computer gives us what the stress levels are, the stability of the chassis and the load on the outriggers.

The analogy that I like to use is the automobile. All of us buy autos. Very few of us would go into a showroom and say, “I want that one,” sign on it and go. Everybody takes a test drive. For the first time in this industry, we have at our disposal tools that allow us to test-drive that machine very economically on a computer screen, as opposed to investing a whole lot of dollars and time and effort in prototypes. We have enough confidence now in our tools and our lessons learned that we test-drive different models and configurations on the computer. That’s the technology in the LIII-55.

We do our cycle testing after we build the prototype. Of course, that’s the final proof. However, you want to be close to the final design before you build anything.

KECK: We use a lot of tools here from an engineering standpoint, such as stress coding. You apply a hard, brittle shellac to the structure and put that structure under a load. The shellac will crack. We study the propagation of those cracks and the frequency of the cracks, and that determines where we ought to be going with the next step. We might apply strain gauges to get more accurate load information on a “hot spot,” where we have stresses that might begin to approach the yield of the material. We can change the design of that structure so that there is absolutely no cause for concern.
TCI: It is the fiberglass upper boom and lower boom insert which protect the operator from overhead electrical hazards while operating an insulated aerial device. The dielectric integrity of aerial lifts has always been a major issue. Problems can occur if fiberglass parts delaminate. Can you point to any current production techniques that affect delamination?

KECK: Delamination occurs with impact...if you hit a boom with a sledge hammer, you get a white layering, a separation of the layers or fibers within the layering. It’s not likely, but it’s possible.

Our booms are built up with a process that doesn’t allow delamination. The Creedmoor plant makes these insulated components with a fill-and-wind process. The process was originally developed for the aerospace industry. Glass fibers are drawn through a resin bath and continually wound around a mandrel. There are two different winds. The helical wind goes the length of the boom relatively quickly, crossing over itself repeatedly. The level wind is applied like thread on a spool, compressing the helical winds and removing the excess resin in the boom.

The key issue is air voids in the fiberglass. We apply our glass under tension, and the fibers are completely wetted with resin, one thin layer at a time. This eliminates any possibility of a void as everything is totally impregnated with resin.

Even though there is a lot of resin in the process, the ratio of glass to resin varies only a few percentage points, from 78% to 82% glass.

This is another important consideration. The high glass content gives you the high strength-to-weight ratio.

TCI: How long does it take to manufacture that boom?

GERMAIN: Eight to 10 hours. It’s a premium process. It’s not cheap. It’s labor-intensive, using premium materials that give us the attributes we desire. Does the customer see that, looking at Machine A or Machine B? Probably not.

Units are built to meet ANSI standards. Insulated tree trimming units used to be rated at 69kV. Now, because of a change in standard requirements, they are rated at 46kV.

TCI: Most of this facility is devoted to fabrication and assembly. Would you care to comment on this part of the overall process taking place in Creedmoor?

GERMAIN: We’re proud of the design of the product. It speaks for itself by virtue of the 5000-plus units that are with the Asplundh company.

But design is only as good as our production quality. We can say with confidence that in the manufacturing of booms and the welding—ongoing daily processes completely divorced from design—we have very highly skilled associates. They come in at odd hours of the day because it’s similar to a continuous process. You cannot walk away from a winding machine and have a bite to eat.

Welding is all done by certified welders, and not because of the compliance to ANSI, but because it’s the right thing to do. That’s the way we do it, and have done it that way for years, voluntarily, well in advance of any ANSI certification. That, to
me, is the true test of any product. A good design is one issue. The bottom line is how well, how consistently, that design is manufactured on a daily basis.

**TCI:** What are other key considerations for someone who might be shopping for an aerial lift?

**KECK:** One of the key things I would look at when evaluating a machine is the operating system, the hydraulics. Our design had a lot to do with being affiliated with the tree company. The machine had to go out there day in and day out, in Louisiana or South Florida or up in the north country, in Alaska, wherever. And if you can turn the truck engine on, you can operate our hydraulics. That's not true of a lot of designs.

The simplistic design of the hydraulic system is important to the average buyer. He may have a degree in horticulture, or have spent his life in tree care. The more simplistic the design is, the easier it is to maintain, the less trouble that's going to give that buyer through the life cycle.

**GERMAIN:** Another key issue when you look at the Altec product today is what it will cost you over the life cycle of that unit. And every time you look at one of our products, you can say that it's going to be at the top of the list, and you evaluate it, life-cycle costing. How much is it going to cost you—not to buy, but when you’re ready to sell it or trade it in on another one in 10 years?

If you have to replace cylinders and gearboxes or do major rebuilds after three years, that’s $10,000 you might have saved on the initial purchase price right out the window. How many jobs do you lose because the truck stopped working in the middle of the day, or a hydraulic line broke and dumped oil all over a customer’s driveway?

There is a “kick-the-tires” philosophy out there—the consumer looks for smooth operation. A fast, jerky unit tires you, it makes you less effective, it wears out the equipment. We’re really talking about safety; every time the operator moves the control handle, he knows what’s going to happen.

You’re looking at other features. Containment, critical parts protected from the elements, damage, tree limbs, what have you, has always been a trademark of our products.

The hydraulic system of the LRIII-55 is manufactured with 100% O-ring face seals. It illustrates the unit’s basic quality. When somebody buys an aerial device, they don’t ask, “What kind of fittings do you use on your hose?” They say, “I’m buying an aerial device and I kind of want to keep the oil in the machine.” As a manufacturer, we work with experts in fluid transmission and fluid connectors, adapting the technology to the design of our product. The LRIII-55 uses face-sealed fittings. The technology came from the aircraft industry and it’s used by other top-line manufacturers. It has a reason to be there.

We don’t make 65% of the value of our product. We purchase it outside, not unlike you’d see in the truck industry. Therefore, we depend heavily on our suppliers for the design expertise and incoming quality of gearboxes, cylinders, that type...
of thing. We work very closely with our suppliers at an early stage of the product development.

TCI: Now that you are independent of Asplundh, do you see any shift in the way you are manufacturing this unit?

MASON: There's a lot of very good competition out there. We feel that irrespective of the technical feature that Company A has, or the design philosophy they employ, or the design features, etc., the common denominator in the '90s and beyond is going to be how quickly one can get that product to market that meets customer expectations.

As part of Altec, we have tapped into a very sophisticated, professional, top-level marketing, manufacturing and engineering organization. And it's a case where two plus two equals five. For the first time we have at our disposal the full scope of some very talented people and tools that will allow us to bring to market, in a much faster time, products that the tree care industry likes. We are in our infancy at this location, yet there is already constant, ongoing, daily dialogue between the people here and their counterparts in St. Joseph, Missouri. The leverage that we're just beginning to see will ultimately become new products to the tree care industry at a much quicker pace than people were used to seeing in the past.

I say that with confidence because we have all these tools at our disposal. We have the lessons learned from 30 years being associated with Asplundh. We have state-of-the-art tools like CAD/CAM, finite element analysis, stress probing, and a whole host of technical tools that we can use to accelerate product development. We've simulated the use and abuse that unit is going to see for years to come. We have great confidence that when we introduce a new product, or an enhancement of the product, it is what the customer wants. Often, we've beaten the competition to the marketplace.

TCI: Are you going to explore niche marketing of products that would be unique to the tree care industry, as opposed to line clearing?

GERMAIN: You bet.

TCI: Do you have a handle on what the general arborist would want, and how would that differ from what the line clearance contractor would want?

MASON: We're not just talking about the traditional arborist; we are also talking about landscaping people who are breaking into that area, and vice-versa.

GERMAIN: You have to look at the applications. Generally speaking, an aerial device designed for line-clearing application, I feel, would be excellent to use for the horticultural end of it, or for someone breaking into that industry. We're already looking at the next step. We brought out the LR III-55, which is a 55-foot aerial device, after we looked at not only the height to the bottom of the bucket, but the need for side reach for the tree care industry.
When you buy Altec, you're buying more than just rugged, reliable equipment. You're buying the expertise, enthusiasm and dedication of more than 1,500 Altec people. People who care about how well your fleet is running. People who have the knowledge to keep it running long after the sale has gone through. It's this kind of commitment to customer service that's made Altec the best-known name in the industry.

It's also a commitment to put every resource at your disposal—all of our people, our financial strength, more than sixty years of experience, and the largest manufacturing and service facilities in the business.

At Altec, we know that customer service is an attitude, not just a job. Now, that's a powerful statement. But nothing less than you'd expect from the leader in the industry.
TCI: Right now, the Asplundh Tree Expert Company has an inventory of 50 to 60 aerial devices here. Would you care to comment on that?

GERMAIN: You are talking about the world’s largest tree-trimming company and that’s how they ready themselves. When you’re looking at a fleet of 3600 aerial devices, 50 spares is nothing.

TCI: Would they mobilize part of this inventory to respond to a disaster, like the recent hurricane in South Florida?

GERMAIN: Sure. They can say, “Hey, Mr. Florida Power and Light, we’re ready to go. We’ve got the inventory and we can get crews from other areas.”

The small business person may see the same type of opportunity, or is forced to make a quick purchasing decision just to service his good customers. He can’t wait until June while we process an order for an aerial device. If you don’t have it, you’ve missed your opportunity as a manufacturer.

MASON: The challenge for us, in a nutshell, is a total value selling concept through the end consumer. We’re not going to compromise the product. Are we going to take costs down? You bet. We’re always looking for qualified suppliers that can give us the level of quality and service we need. We’re always looking at improving processes and innovative product design.

GERMAIN: Serviceability is a big issue. Ease of service relates to how hard it is to get to the repair. Is the malfunction buried so deeply in the machine that you have to tear half of it apart to fix it? We have to face the fact that the tree crews often have to maintain the equipment, or at least perform minor repairs. They have to change cables, deal with the hydraulic system. And they can do it. It usually doesn’t require special expertise.

Additional side reach increases the operator’s productivity. One of the things that the LRIII-55 gives to the user is the ability to maximize his productive time.

MASON: We paint a pretty picture of Altec and paint a pretty picture of the Creedmoor Division, but we know we aren’t perfect. We’ve got a long journey ahead of us to achieve what we feel to be total quality management. We have an 8:30 production meeting here every morning. The group is made up of people from sales, marketing, engineering and manufacturing.

We’re very proud of this facility and very proud of the associates who work here, and extremely proud of the product we have developed and produced here today. We look at ourselves as the manufacturers everyone can measure themselves against.
In August, NAA members received a FREE BACK INJURY PREVENTION PROGRAM including a video, posters, decals and a training manual for supervisors to implement the program with. This month, the members received a FREE PLANT HEALTH CARE program which included a consumer video, a marketing and operations strategy manual and a compendium of technical resources.

There are many other benefits of NAA membership that are also invaluable: the ability to network with other members, the free management guidelines and all of the other training programs including:

- NAA’s Home Study Program updated in 1991
- The Crewleader Training Program updated in 1992
- The Electrical Hazards Awareness Program updated in 1992
- Video training programs on chainsaws and chipper use and safety, aerial rescue, pruning techniques and pruning standards and others.

These programs are available at substantial discounts to NAA members. In addition there are insurance programs, the annual management conference, marketing support and the NAA staff. You can call the NAA HOTLINE (1-800-733-2622) and ask any question about the tree care industry that you want. If the staff doesn’t have the answer, they know where to find it for you.

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Membership starts when you submit certificates of insurance. Membership is available to commercial tree service firms only.

Please circle 22 on the Reader Service Card
As students, faculty, staff and media look on, a crew from Ted Collins plants an
Arbor Day tree for Hillside Children’s Center.

Abor Day:

Make It Your Major Holiday

By Duane Pancoast

Abor Day should be a major holiday for every arborist. The holiday was initiated
more than a century ago to encourage tree planting on Nebraska’s barren plain.
In the last 120 years, however, we have lost trees instead of gaining them. The
concern over this loss is being expressed at the highest levels of the private and
public sectors.

Marking Arbor Day by planting or caring for community trees will underscore
your dedication to the preservation of our urban forest—if you get credit for your efforts.
A basic definition of public relations is doing good and getting credit for it. Doing
great things on Arbor Day without much publicity not only wastes your time and money, it also does nothing to increase awareness about the need for more urban trees.

Arbor Day promotions can take many forms. They can include tree plantings or
tree prunings. You can do one big promotion or several small ones.

Ted Collins Tree & Landscape, a large arbor care and landscape company headquartered in the Rochester, New York, suburb of Victor, has used many approaches in its 35-year history. In recent years, the company has held a number of small plantings. This tactic helped several community organizations, was good exposure for each of the company sales representatives and resulted in good publicity in each community newspaper. This year, Ted Collins Tree & Landscape tried a different approach. A single, large tree was planted for one of the most visible non-profit organizations in the area.

Imagine how awestruck faculty, staff and students at a new school might be when a Big John Tree Transplanter pulls in and plants a 25-foot-tall, 7-inch caliper red oak (*Quercus Rubra*). That’s exactly what happened at Hillside Children’s Center. The big oak became the first tree installed in the landscape of the center’s new $600,000 Andrew-Trahay School. Hillside is a large, non-profit residence and educational facility for troubled children. Its main campus is perched atop a hill and the new school was built, literally, on the hillside.

Ted Collins Tree & Landscape donated and planted the tree with WHAM radio, a 50,000-watt clear channel talk station. The company had planned to run pre-Arbor Day commercials on the station. The tree planting extended the benefits from the commercials since the station on-air personalities talked about the Hillside planting for several days before Arbor Day. To extend the exposure even more, the radio station kicked off a contest on Arbor Day, inviting listeners to send in their name, address and phone number. A week later, a large tree was awarded to the winner and Ted Collins gift certificates to four runners-up.

The Hillside planting was carried live on WHAM. Photos of the fog-shrouded event were taken and sent, along with a news release, to area newspapers. The photos and releases were sent out from the Hillside public relations office, with input and a quote from Greg Frank, Collins vice president of sales.

If the organization with which you work on an Arbor Day observance is non-profit and has an active public relations department, it will be to your benefit to let them handle the publicity. As non-profit organizations are perceived as neutral with no axe to grind, the media are more apt to cover the event or use the release than if you contacted them.

But be sure you provide input. The organization’s public relations people are not arborists, and they will look to you for input, especially technical input. Insist on providing it to be sure that the release is technically correct and does not reflect badly on you.
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The tree planting coincided with the first day of classes at the school and Hillside’s Director of Education, Richard Schonfeld, summed up the center’s gratitude when he said: “This is really a symbol of this community’s dedication to the education of troubled children. Its growth will parallel the emotional growth of the young people being taught and cared for within the school’s walls.” Schonfeld also appreciated an opportunity to work the Big John controls, guided by the professional operator.

“Small plantings,” says Frank, “resulted in many mentions in community newspapers, but seldom in the major metropolitan media. The television stations and daily papers usually try to appear neutral by covering a planting staged by the local nursery and landscape association. Tying in with a radio station gave us the metropolitan coverage we needed and served as a good bonus for our successful commercial campaign. In fact, the commercials were so effective, we extended the campaign for two weeks beyond Arbor Day. And, we received community newspaper exposure in conjunction with Hillside.”

While you will have to tailor your program to your community, the Ted Collins 1992 Arbor Day program should give you some good ideas for starters. The bottom line, however, is to get involved, do good and get credit. That’s what public relations is all about.

Duane Pancoast, who is accredited in public relations by the Public Relations Society of America, is president of The Pancoast Concern, Ltd., a public relations counseling firm and advertising agency serving green industry companies nationally from its headquarters in Victor, New York. Ted Collins Tree & Landscape has been a client for 22 years.
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Please circle 21 on the Reader Service Card
We should be skeptical of fantastic discoveries and unsubstantiated research reports.

analyze in their natural settings. What may be true of a sapling in the greenhouse may not be true when that sapling is planted in an urban setting and allowed to age.

New findings
During the past several decades numerous horticulture textbooks have been rewritten. As our industry matures, more and more dollars have been acquired by educational institutions for research and development. The results of this research have disproved many of the old horticulture precepts and are giving arborists a truer picture of how they should practice arboriculture. Or maybe not!

Should all research results be accepted as true? People are inclined to believe everything they read; this is human nature. Once people see something in print they tend to believe it. Arborists who do not have an academic background often regard researchers in a demagogic sort of way and would not dare question what they report. Provided that they can interpret the technical information reported in their professional trade journals, arborists readily accept what they read as truth. If researchers would report that tree injection is O.K., then the industry’s work force would more readily incorporate injection into their tree care programs. Painting of tree wounds was a popular practice until a modern day researcher proclaimed that practice a “no-no.” Arborists quickly responded by tossing their paint pots and aerosol cans into the garbage.

In 1980 I had the good fortune to enter into graduate studies at a major accredited university. For two and a half years I was surrounded by other graduate students who worked diligently at their research projects. It was an opportunity for me to learn how to report and interpret technical information. Without this knowledge one would have a difficult time trying to understand what message a research report is attempting to convey. This experience is similar to a layman reading a legal document prepared by attorneys. As I communicated with my fellow students, it became apparent how disappointing it can be when, after three years, an investigator’s research data fails to support his/her hypothesis. Researchers expect the results of their project to be scientifically significant. Human error and careless or improper sampling techniques can easily sway research results. Unethical researchers can cleverly alter their project results in this manner. Perhaps this is why some researchers a few years ago were able to show that plants can speak or why other researchers cannot duplicate another investigator’s results. We should be skeptical of fantastic discoveries and unsubstantiated research reports. Referred reports are scrutinized by other researchers and are generally reliable. Other reports, such as manufacturer’s data, may contain a bias.

Reacting too quickly
My point is that arborists should not be so quick to accept what is reported. Soon after a research specialist crusaded for the elimination of tree paint to saw cuts, other researchers reported that some products make painting saw cuts a beneficial practice. Not too long after research proved that branch collar pruning was the best method, another researcher showed that in some instances flush cutting is preferable. Research reports can be produced which support both “pros” and “cons” regarding injection wounds. After a decade of testing, research still hasn’t proved that one method of tree fertilization is superior to the rest or which formulation of fertilizer is most effective.

This answer lies in the definition of truth. Truth is defined by one prominent
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scientist as an orderly repetition of events which occurs with a high degree of predictability. Each morning the sun arises in the East. We can predict this event to occur approximately every 24 hours. It occurs in an orderly fashion as one of our laws of nature. That the sun will rise in the East is surely a statement of truth. How does this apply to research? When the results of one research project corroborates the results of another research project with a similar hypothesis, then we begin to confirm what is true. For instance, I have knowledge of the results of three experiments, each testing to see if systemic pesticides can kill enough specific seed cone insects to increase the yield of viable seed. One experiment site was in California, another was in Canada and a third was in Pennsylvania. All three projects produced similar results, indicating that certain systemic pesticides were effective tools in increasing the yield of viable seeds on cones. We can see truth in this.

Researchers are people and people make mistakes. A subconscious bias may affect their interpretation of the data. We as readers who are trying to learn should not be so quick to jump on or off the bandwagon. We must continue to ask questions, read frequently, share ideas, then after looking at all angles of the issue, make some judgment. Another modern day research specialist referred to “truth” as a changing phenomenon. Keeping this in mind we learn that change will always occur as research delves deeper and deeper into a topic area. In this way, research will work to our advantage.

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Longwood Gardens Gala To Benefit Scholarship Fund

The Penn-Del Chapter of the International Society of Arboriculture and members of Certified Arborists sponsored Autumnfest—the dinner-dance last fall at Longwood Gardens—to benefit the scholarship fund for arboriculture.

Since 1986 the Certified Arborists of Pennsylvania and Delaware (now ISA Certified Arborists) has offered a scholarship to college students from Pennsylvania or Delaware majoring in arboriculture. This year, a $2000 scholarship will be given to a worthy student majoring in arboriculture at the Pennsylvania School of Technology in Williamsport, Pennsylvania.

The scholarship will be named the Horace M. Thayer Memorial Scholarship in honor of the late Horace Thayer, a longtime member of the International Society of Arboriculture and the treasurer of the Penn-Del Chapter for many years. An arborist for 60 years, Thayer was a strong advocate for education in arboriculture and was one of the founders of the Certified Arborists of Pennsylvania and Delaware. Longwood Gardens, one of the finest conservatories in the country, supports the efforts of the Penn-Del Chapter to promote education through the scholarship program.

Paul McFarland, NAA president, dances with Fran Ward, chairperson of Autumnfest, at the fourth annual dinner dance held at Longwood Gardens to benefit the Penn-Del Chapter, ISA, scholarship fund.
Two Ohio University Students Receive Scholarships

Two Arbortech-National Arborist Foundation (NAF) Scholarships for arboretural studies were recently awarded to students at Ohio State University's Agricultural Technical Institute.

Scholarship winners were Mark Ciesinski, a second-year student in Landscape Construction and Contracting, and Jeffrey Bodnar, a first-year student in Landscape Construction and Contracting.

The Arbortech-NAF Scholarship was started by Arbortech, a forestry and utility truck body manufacturer in Wooster, Ohio. It is funded by Arbortech and the National Arborist Foundation (NAF), which until recently had been known as the Paul Tilford National Arborist Foundation. It was established in memory of Dr. Tilford, who became the first executive secretary for the National Arborist Association in 1947.

Dr. Tilford was a plant pathologist on the staff of the Ohio Agricultural Experiment Station. He also served as the mayor of Wooster and was a charter member of the Wooster Shade Tree Commission.

The NAF funds projects, scholarships and research efforts of direct relevance to the commercial tree care industry. Its aim is to improve the environment through the professional care of trees.

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Circle 51 on the Reader Service Card

A new product is available to combat oak wilt and Dutch elm disease, two of the nation's most deadly tree diseases. Alamo, a systemic fungicide from Ciba-Geigy, recently received federal labeling from the Environmental Protection Agency (EPA) for use throughout the country (excluding California). The product has been used successfully for more than two years in Texas to control oak wilt. University of Minnesota research confirms that Alamo is effective against both oak wilt and Dutch elm disease in cooler climates as well. If applied before symptoms appear, Alamo effectively prevents oak wilt and Dutch elm disease from damaging trees. It may also save some trees with as much as 30% crown loss. Alamo must be injected with special equipment into the tree's root flare, just below the soil surface. For more information, contact Ciba-Geigy's Turf and Ornamental Products group at 919-547-1160.

Circle 53 on the Reader Service Card

Plasticade Products Corporation, formerly Best Barricade, introduces a new line of plastic minicades in bright colors and with several sign legends. The minicades come in orange, yellow and white, with high-intensity or engineer-grade reflective sheeting for high visibility to direct oncoming traffic. These portable minicades can be used for all work zone and construction areas. For further information contact Plasticade Products Corporation, 5005 Newport Drive, Rolling Meadows, IL 60008.

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Goossen Industries introduces a commercial chipper/shredder for landscapers and rental yards. This machine can chip limbs up to 5 inches in diameter and shred leaves or brush into decorative mulch. The CS1000 PTO unit features 540 PTO drive; the CS5000 gas-powered unit features a 13-hp Honda engine. Features include hinged housing for easy access to cutting drum; shredder cover to prevent material kickback; folding safety door on chipper chute; and 3/4-inch machined steel chipper plate. For further information contact Goossen Industries & Construction, 925 West Court St., P.O. Box 705, Beatrice, NE 68310.

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<table>
<thead>
<tr>
<th>Study 1</th>
<th>Study 2</th>
<th>TOTAL AMOUNT ENCLOSED:</th>
</tr>
</thead>
<tbody>
<tr>
<td>(NAA/ISA members) ___ (Quantity)</td>
<td>@ $75 ea.</td>
<td>$ _____</td>
</tr>
<tr>
<td>(Non-Member) ___ (Quantity)</td>
<td>@ $100 ea.</td>
<td>$ _____</td>
</tr>
<tr>
<td>(NAA/ISA members) ___ (Quantity)</td>
<td>@ $75 ea.</td>
<td>$ _____</td>
</tr>
<tr>
<td>(Non-Member) ___ (Quantity)</td>
<td>@ $100 ea.</td>
<td>$ _____</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Reader Service Number*</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Altec Industries</td>
<td>19</td>
</tr>
<tr>
<td>2 American Arborist Supplies</td>
<td>40</td>
</tr>
<tr>
<td>3 Andy's Truck Center</td>
<td>16</td>
</tr>
<tr>
<td>4 Arbortech</td>
<td>6</td>
</tr>
<tr>
<td>5 Bandit Industries</td>
<td>Inside Front Cover</td>
</tr>
<tr>
<td>6 Bowen Stump Grinders</td>
<td>16</td>
</tr>
<tr>
<td>7 Brown Manufacturing Corp</td>
<td>11</td>
</tr>
<tr>
<td>8 J.P. Carlton Co.</td>
<td>24</td>
</tr>
<tr>
<td>9 CEI</td>
<td>8</td>
</tr>
<tr>
<td>10 Creative Sales, Inc.</td>
<td>30</td>
</tr>
<tr>
<td>11 Doggett Corp.</td>
<td>17</td>
</tr>
<tr>
<td>12 DSR, Inc.</td>
<td>38</td>
</tr>
<tr>
<td>13 East Hill Manufacturing Corp</td>
<td>37</td>
</tr>
<tr>
<td>14 Fox Manufacturing, Inc</td>
<td>26</td>
</tr>
<tr>
<td>15 GFX Corp.</td>
<td>32</td>
</tr>
<tr>
<td>16 Green Pro Services</td>
<td>20</td>
</tr>
<tr>
<td>17 Independent Protection Co.</td>
<td>26</td>
</tr>
<tr>
<td>18 Jameson Corp.</td>
<td>32</td>
</tr>
<tr>
<td>19 Karl Kuehmerling, Inc.</td>
<td>26</td>
</tr>
<tr>
<td>20 Lutz Corporation</td>
<td>30</td>
</tr>
<tr>
<td>21 J.J. Maugut Company</td>
<td>27</td>
</tr>
<tr>
<td>22 National Arborist Association</td>
<td>21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reader Service Number*</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 NAA Programs</td>
<td>25, 29</td>
</tr>
<tr>
<td>24 Niemeyer Corp.</td>
<td>26</td>
</tr>
<tr>
<td>25 Novo Nordisk Bioindustrials, Inc.</td>
<td>Inside Back Cover</td>
</tr>
<tr>
<td>26 OpDyle, Inc.</td>
<td>9</td>
</tr>
<tr>
<td>27 Oral Ivy, Inc.</td>
<td>36</td>
</tr>
<tr>
<td>28 Peavey Manufacturing Co.</td>
<td>30</td>
</tr>
<tr>
<td>29 Plastic Composites Corp.</td>
<td>8</td>
</tr>
<tr>
<td>30 Rayco Manufacturing, Inc.</td>
<td>34</td>
</tr>
<tr>
<td>31 Roots, Inc.</td>
<td>13</td>
</tr>
<tr>
<td>32 Schodorf Truck Body &amp; Equip. Co.</td>
<td>33</td>
</tr>
<tr>
<td>33 The Sharp Tool Co.</td>
<td>31</td>
</tr>
<tr>
<td>34 Shawtown Industries</td>
<td>31</td>
</tr>
<tr>
<td>35 Shindaiwa, Inc.</td>
<td>3</td>
</tr>
<tr>
<td>36 Source Technology Biologicals, Inc.</td>
<td>32</td>
</tr>
<tr>
<td>37 Southco Industries, Inc</td>
<td>35</td>
</tr>
<tr>
<td>38 Tamarack Clearing, Inc.</td>
<td>20</td>
</tr>
<tr>
<td>39 Time Manufacturing Co.</td>
<td>7</td>
</tr>
<tr>
<td>40 Uniroyal Chemical Co.</td>
<td>23</td>
</tr>
<tr>
<td>41 Western Tree &amp; Landscape Supply</td>
<td>18</td>
</tr>
<tr>
<td>42 Wood/Chuck Chipper Corp.</td>
<td>Back Cover</td>
</tr>
<tr>
<td>43 Yale Cordage, Inc.</td>
<td>8</td>
</tr>
</tbody>
</table>

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A Day In The Park

By Woody Dukes

After 19 years in the field as a practicing arborist, I look forward to situations that tax the mind and skills of the best of us. Although I know difficult situations are out there, I have yet to find one when I would say: “Let somebody else do it; I won’t.” This is a case in point, which was not necessarily dangerous, but was a challenge.

At the south end of one of our parks, a large native oak tree stood leaning over the fence of neighboring property owners. The property owners were concerned about the possibility that the tree would fall over and damage and/or destroy their landscaping and outbuildings.

The tree’s condition was fair, with some questionable scars and discoloration at the base. It fit one of our criteria as a hazardous tree as it leaned more than 30 degrees. Virtually all of the tree was over the property owners’ yard, but it was our responsibility because it was rooted on the park side of the fence.

There were no other trees on either side of it or even directly behind it, so we had a brainstorm session. This is something we always do in a non-routine situation. We are all professionals, with four men collectively having 80 years of experience. We discuss any and all ideas and work out the details. We look at even the most zany ideas. Who knows? Even if the basic concept won’t work, parts of it might.

A crane is the usual first call in situations like this, but none were available. So we decided to consider other options. About 50 feet behind the oak were two 100-foot tall Douglas firs. One idea was to run a rope up over a higher crotch in a fir and swing from there. The problem was, however, that everything that was cut and roped would smash into the fir tree.

Looking at both firs, we noticed that they had an almost perfect equal angle and distance from the oak. If you looked down on these trees from above, they made a triangle with the oak at the top. Maybe we could swing the oak tree parts between the two firs.

We had some 18-inch long 1-by-4s, twine and a staple gun brought out to us from the shop. We spread the boards out on the ground and stapled two rows of twine to each. We ended up with what looked like two rope ladders.

Both firs had no lower branches for at least 60 feet. We tied a “ladder” around each fir right at the lowest branches. The working ends of two chokers were snugged up around each ladder and a chain was used to take up the difference, tying the two firs together.

We hung a pulley with the lowering line in the middle. The ladders were there to protect the bark of the fir trees from the grinding of the chokers wrapped around them. The twine made it possible to handle all the boards as one unit. The only other choice was to nail or otherwise attach each individual board to each of the firs.

A 4-foot choker tied to the end of the lowering line was tied to each piece to be cut, so that each could be hooked up and released quickly. A control line was attached to the clevis that connected the choker to the lowering line. This rope was then run through a good crotch in the oak within reach of the worker removing the tree parts. As parts were lowered, this line could be used to return the choker to the worker, and to control the rate of swing of each part to reduce the jerking action on the two fir trees.

It’s always a joy to see good rope handling when more than one rope and their handlers are in sync. Each branch landed perfectly, butt first at the chipper, and wood landed so soft that not a mark was left in the grass. Return of the choker was swift, hook-up and cut quick, and unhooking went almost unnoticed. It looked like a perpetual motion machine.

Once we got going, it seemed like only minutes before the tree was down and we were pulling out all of the rigging. Not too much longer and we were out of there. It was eerie to realize that it looked like nothing had happened.

Woody Dukes is an arborist with the tree unit of the Parks Department in Salem, Oregon.
Practical Rigging
An American Arborist Supplies sponsored article
By: Ron Danise

LIVING WITH SPECS AND FORMULAS

The last few trade shows at which I attended, it seemed as though everyone was quoting from this spec. or that formula. While I think it is good to understand the way in which formulas work, it is also important to remember that these are only guidelines. There is no way the manufacturers can foresee every problem in the field and every trap and pitfall we make ourselves. In fact, probably the single most commonly overlooked hazard is ourself...the human factor...

Almost all of the testing done takes place in a lab or on a break-tester. Very few real hard-core field tests are performed because the labs cannot go into the field. It is hard for a manufacturer to duplicate the use of a product in the same manner someone out in the field would use it. For example: a climber would use rope differently than any test in a lab could duplicate.

Since everyone uses rope differently, field tests will always yield different results. Everyone has a different opinion on how the product performed, so getting good test results based on fact and not just opinion is a difficult task in itself.

A few months ago, New England Ropes sent me two lengths of braided Safety Blue for field testing since they have changed cover-yarn type. Even though the rope performed well, I found myself unwilling to view it with an open mind, wondering why they would change cover yarns when what they already had worked so well. I must admit that I am a creature of habit and it is not an easy task for me to keep an open mind when faced with a 'new and improved' product.

I suspect that many new climbers and field crews view new products the same way. Because of this problem, manufacturers may have trouble getting new products into the field. And once they do, many times the new product is treated the same way as the old piece of equipment. Be sure to take the information supplied by the manufacturer, study it, and then use it as a base guide-line for application. It is up to the user to practice with the new piece of equipment and to learn to use it correctly.

Remember, any tool you use in the field is subject to your control; you set the guidelines for it's safe use. Some riggers have trouble with one broken rope after another and have several insurance claims every year, while other riggers go on making a good profit year after year, developing a good reputation and being able to ask for a little more for the work they do. I always find it interesting that these two types of people work out in the same place and under the same conditions. I cannot help thinking that the group making money and growing every year have, in fact, learned how to use the tools as they were intended to be used. They have learned to look at new products and to apply them in their operations so their jobs are a little easier and a little more profitable.

As always, it comes down to common sense; the ability to make good use of what is on hand and to use the right tool for the job. This is very important when considering the dangerous nature of our work and the need for constant safety consciousness.

So when buying a new tool, first see how well it fits into your work style. Do not buy a 5/8" sling and then wonder why it cannot stand up under twice it's load rating.

My advice is to keep your eyes and ears open. More experienced riggers have a wider array of equipment and more tricks with which to work. Keep up with new products being introduced into the market. Before long, someone might need one of the tricks out of your bag.

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Natural Enemies.

The traditional way to stop caterpillars from feeding on shrubs and trees has been chemicals.

Now there's Foray®...a natural bioinsecticide that's safe to humans, as well as fish, mammals, birds, beneficial insects, and other non-targeted organisms. But also very effective at killing foliage-feeding caterpillars such as gypsy moths, loopers, leafrollers, webworms, bagworms, cankerworms, tent caterpillars and others.

Foray B.t. (Bacillus thuringiensis) does not contaminate groundwater. And it is biodegradable, too. No oils. No solvents. Foray is a safe and sound alternative to chemicals for both aquatic and terrestrial environments. More and more arborists are making enemies of caterpillars and friends of the environment by using Foray...naturally.

For more information on Foray, just call our toll-free number below.
ITS ECOLOGICAL

- At the Wood/Chuck Chipper Corporation, we are interested in the future of our environment.
- The Ecochip, Wood/Chuck's latest patented design, processes waste chips into a more desirable consumer product for mulching and/or composting.
- The Ecochip chips, then grinds, creating a smaller, more uniform chip, especially with palm fronds and stringy woods such as elm.

ITS ECONOMICAL

- The Ecochip slashes time, fuel and labor - reduces dumping fees and frequency of trips.
- The Ecochip increases truck capacity up to 50%.
- The Ecochip has the proven design and reliability of the drum style chipper.
- The Ecochip has NO waste product - only PROFIT.

-It Just Makes Dollars & Sense-

CALL TODAY 1-800-438-0671

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