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Happy Anniversary, TCI!

With this issue of Tree Care Industry, NAA, along with stellar support from our readership and advertisers, is celebrating nine years of service to the industry... Nine years of a monthly publication that communicates the latest in the field to our treasured members and readers... Nine years of trying to stay on the cutting edge of the field and providing an avenue of sharing information with you that will help you do your jobs better... Nine years of an experiment that has proven to be worthwhile to over 27,000 readers who voluntarily maintain their subscriptions with us... Nine years of a top-grade publication that also provides opportunities to develop new services for our membership... Nine years of building on our past, while beginning to visualize a new millennium of arboriculture that is just before us.

What does that mean for our readers as we prepare, over the next few months, to close a decade of publishing a magazine with your best interests at the core? It means that we will continue to look at developing quality content. We serve to not only bring you information, but also to provide you with outlets in order to share your expertise with fellow arborists. We also hope to provide lead-ins to topics that may spur some conversation and dialogue within the industry. We plan to remain on the cutting edge of communication, exploring new delivery mechanisms that meet your needs. Technology is becoming an integral part of our lives, and we need to hear from you about future options regarding how you would wish to receive your magazine. Would you like to have TCI archived on our web site and have the option of downloading your subscription? Would you like to be able to research articles on-line by topic that have been featured in the magazine over the years? How about being able to refer your customers to articles related to a particular issue for which you are giving them advice? The options are endless, so let us hear from you about your dreams for TCI.

It is astonishing to think how our businesses have changed, even in the last five years. Not only do our techniques for safety continue to improve, our professional development criteria continue to be refined, but our customers are changing too. The technology mentioned above is impacting them. Many of you now communicate with me via e-mail; offer your newsletters on-line; and have web sites. Have you gone to e-commerce yet? Do you bill your customers on-line monthly?

Think about the current and future customer. How many of them are already using the yellow pages of their computer to find their service providers instead of the thick book we’ve all wrestled with. Then there are the employees. Think about our employees of the next 5-10 years. They have all been raised in a world where instant availability of information, products and services is the only thing they know. What is that going to do to customer expectations in an industry that thrives on word of mouth and customer service? Technology is changing the very behavioral patterns of the people we serve. Think about the labor shortage we face now. How will we compete against the draw of the computer and the “virtual tree,” as opposed to attracting young people who want to work in the real world.

If TCI were ever a valid source of information and an important link in our communications, it is now. In this changing world we live in, the effects are coming to our businesses too. After nine tried-and-true years of development, we have so many topics to explore in the future together, that we will never be short an article for an issue. If you have specific areas you would like to see us research and produce an article on, don’t be bashful. This magazine is for you.

Here’s to nine years of success and many more of keeping the flow of information, education, communication and visibility for our profession at everybody’s fingertips. Happy Anniversary, TCI!

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JUNE
continued on page 6

Features

8 Stress: From the Branches to the Roots and Back Again
By Dr. Phillip M. Wargo

28 Employee Training: Is It Worth It?
By Robert Ash

36 What Is Pollarding?
By Cass Turnbull

On the Cover

A large oak tree whose roots were buried beneath gravel, concrete and a cobblestone walk which abutted the base of the tree just above the root collar. Stress occurred from damage to the root system (compaction and poor aeration) and pressure from the walk against the butt of the tree. Photo courtesy of Dr. Phillip Wargo.

Departments

2 Outlook
By Cynthia Mills, CAE
TCI magazine celebrates nine years of service to commercial arboriculture.

16 Washington in Review
By Peter Gerstenberger
News from the front lines in Washington.

18 Industry Almanac
Important regional and national meetings and activities

20 Arborist Equipment
By Gregory P. Good
A new lowering device assists arborists in rigging limbs for a controlled fall.
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By Wayne Outlaw
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Pollarding is a form of “pruning art” achieved through species selection, early training and extensive, dedicated annual maintenance. Pollarding is not the same as tree topping, and everyone who aspires to be taken seriously as an arborist needs to be clear on the difference.

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

If you were to ask most arborists to wear a tie, they would begin feeling uncomfortable just thinking about it. The stress would get worse when they put it on, and would become unbearable when the knot is tightened. Some of the same things happen to trees. They experience different levels of stress, and their response will be equal in proportion to the severity of the stress.

When trees respond to stress, the results are usually visible—dieback of crowns, and in response to crown loss, dieback of roots or vice versa. Sometimes it is difficult to determine whether crown or root dieback has occurred first. Of course, dieback can also be caused directly by disease in the crown itself, so arborists must be able to diagnose whether the symptoms are caused by a primary pathogen or in response to stress.

Dr. Paul Manion, in his book on tree diseases, views decline as a death spiral. In the outer part of the spiral are more or less chronic stresses—e.g., urban environment, genetic potential, soil compaction, soil fertility, soil drainage, and low moisture-holding capacity. In the middle of the spiral are what Manion calls “inciting” factors, which are acute stresses, such as drought, defoliation and air pollution. At the inner part of the spiral are the “contributing factors,” such as canker fungi, wood and bark boring insects, Armillaria root rot, viruses, and nematodes. Once a tree enters the spiral, it does not necessarily continue down to death. It can “escape” depending on the health of the tree, severity of the stress, and virulence of secondary organisms or contributing factors.

Stress: From the Branches to the Roots and Back Again

By Dr. Phillip M. Wargo
Dr. David Houston, a retired pathologist from the U.S. Forest Service, has a simpler view of decline disease. Healthy trees are affected by stress over time and become predisposed to disease organisms. In this developing disease condition, interactions between the crown and roots results in a change in disease susceptibility; affected trees are colonized and sometimes killed by secondary pathogenic organisms.

**Transport systems of dieback**

Tree roots and stems are similar in many ways. Tree stems continue outward to smaller branches, ending in fine twigs and leaves at the end. Likewise, non-woody fine roots are the end of the root pipeline. The two systems are connected by pipelines, one to transport nutrients and water (wood), and one to transport food to the roots (bark). When stress affects either transport system, problems can occur.

A major difference between the two systems is the space within which the crown and the roots must grow. The crown’s space is almost unlimited, whereas the roots are limited significantly by the physical properties of the soil, and this environment can become restrictive to root development.

The soil can physically impede root development or it can restrict it “chemically.” Oxygen, for example, is a major limiting factor for roots. The roots cannot grow and occupy as much of the soil as they could, if oxygen is not available in that area. This is important when we look at interactions of roots and crowns—especially when the soil around the root structure is changed. For example, soil compaction or changes in moisture drainage can severely restrict the availability of oxygen to roots resulting in their death and reducing their capacity to transport nutrients and water to the stem.

Larger roots anchor a tree into the soil and give it stability. As the root system develops away from the stem, it branches into smaller (second, third, etc. order roots—the higher the order the smaller the root) woody roots. Finally, at the end of the system are non-woody roots which serve as the tree’s contact to water and soil nutrients. These fine roots move water and nutrients into the pipeline system that carries them to the stem. These
Illustration of the relationship of tree health and stress. Three levels of stress are indicated as S1, S2, and S3. The higher number indicates a more severe stress. The illustration shows that the response of trees to stress, as indicated by the steepness of the downward direction of the “health” line, is dependent on the severity of stress and the health or vitality of the tree at the time of stress—indicated by the tree crown condition of good, fair, or poor. Trees are affected and over time change in vitality to the point they become susceptible to pathogenic organisms. The threshold of susceptibility depends on the vigor of the tree, vigor and abundance of the organisms, and the severity of the stress. The illustration also shows that over time and in the absence of continued stress and more aggressive pathogens, trees can recover.

Fine roots are also producers of hormonal compounds that regulate bud break and stem elongation, and stresses that affect fine roots have a corresponding effect on the development of the twigs and leaves.

The fine root tips may or may not be mycorrhizal (have a fungal partner), and that is important, especially in nutrient-poor soils. The more mycorrhizal tips, the better the trees can take up nutrients and moisture, which results in healthier trees. Mycorrhizae increase the amount of fine root branching and thus increase the surface area of the roots that are in contact with soil particles, or what we call the rhizosphere. Of course, the mycelium of the mycorrhizal fungus grows out away from the root and colonizes even more soil. These mycelial connections significantly increases the amount of soil that is in contact with a root tip.

These root tips at the beginning of the water pipeline and the end of the food pipeline are the most susceptible to damage by stress that affects food production, e.g. defoliation. The same is true for a tree’s crown. The fine twigs and leaves, the beginning of the food pipeline, are at the very end of the water and nutrient transport system, and are most vulnerable to damage when stresses occur. When dieback occurs, it begins at the ends of the pipeline, leaves or fine root tips, and spreads inward to the larger members of the pipe system depending on the severity of the stress.

When we excavate roots of stressed trees, or trees that have dieback, we observe that the root system is much smaller than on healthy trees. There are fewer living fine non-woody roots and often, the smaller higher orders of woody roots are dead. Healthy trees have healthy woody roots that maintain numerous non-woody fine root branches.

When we examine the fine non-woody roots branches, we find that on healthy trees these branches have many root tips, and usually numerous mycorrhizae. Fine non-woody roots on declining trees, however, have fewer branches with fewer root tips, and often many of the tips are dead.

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Graph of the effects of defoliation for 1, 2, or 3 years on the number of leaf clusters remaining on young living white oak trees. The graph illustrates both the effects of timing of defoliation in May, June, July, or August, and the severity of 1 yr (72), 2 yrs (73) and 3 yrs (74) of defoliation on leaf clusters. The data are shown as a percentage of the number of leaf clusters present at the time of the first defoliation in 1971.

root death and crown dieback, and the nature of the stress determines the sequence. If stress begins in the soil, such as a problem with soil compaction or moisture, then the roots would die back followed by the crown when insufficient water was taken up by the roots. If the reverse happened and the crown was stressed, for instance by defoliation which alters food production, then the root systems would die back from insufficient food to maintain existing roots or replace dying roots.

The relationship between root tip death and related die back is observed in the relationship of living mycorrhizal tips and crown dieback. High numbers of mycorrhizal root tips occur on healthy trees with healthy crowns. As the number of mycorrhizal tips decreases, the amount of die back increases. As the root tips die, insufficient water and nutrients are transported to the crown, reduced food production occurs and may result in dieback. Because the crown is not pro-

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is little information about amount of fine root loss before it has consequences, and I am not sure that you can lose 50 percent of the roots and still maintain all of the crown, especially during dry conditions. When a tree loses a large portion of its roots, a judicious removal of some of the crown will probably give the tree a better chance to respond. Dieback is a common, natural response that trees have to "adjust" themselves, but energy is used in the process. They die back, and then re-sprout, unless they are stressed further. Sometimes by cutting back the crown after severe root loss, you allow the tree to recover a little faster.

Illustration of the annual cycle of starch storage and removal in a cross section of a sugar maple root. Starch level is indicated by the shading—darker shading indicates more starch. Levels are low in April, May, June and early July, the time when trees are vulnerable to the effects of stress from defoliation.

Effects of stress on root systems - Armillaria root disease

When trees experience severe defoliation and suffer from reduced photosynthesis and carbohydrate production, the effects move from the stems down to the roots. In response to the stress, the starch content in the root system declines, both from increased use and reduced production, and is proportional to the severity of the stress, for example, progressively less after one, two, or three years of defoliation. These energy reserves are important to survival and replacement of fine roots. The timing of defoliation is also critical. For example, if defoliation occurs in mid-May, the tree has time to grow new leaves and replace its carbohydrates, so by fall, trees have high levels of carbohydrates to maintain them through winter to new bud break. If defoliation occurs in mid-June when most reserve carbohydrates have been used, the tree is highly vulnerable to effects of defoliation stress.

When carbohydrates are depleted, host defense systems weaken, and the roots become susceptible to secondary organisms. The energy levels in the tree at the time of stress are very important in determining if a tree survives.

All sorts of organisms are in the soil waiting to colonize weakened roots. The Armillaria root disease fungus is probably the most important and ubiquitous organism worldwide. It is in almost every forest soil and in a lot of agricultural soils too. It will be present in almost all suburban housing development soils.

There are several species of Armillaria depending on the dominant tree species that is or was in the area. This fungus produces spores in a fruiting body we call a mushroom. The spores are carried by wind and can spread the fungus from area to area. This organism also produces "runners" called rhizomorphs, a word which means "root-like." You are probably familiar with this fungus being called the "shoestring" or "bootlace" fungus. "Shoestring" root rot is a common term for Armillaria because of the appearance of the runners it produces.
The "shoestrings" grow through the soil from tree to tree making contact with roots. The rhizomorphs colonize the surface of the roots waiting for an opportunity to penetrate the living root. Most of the time, the tree keeps the fungus out. The fungus tries to penetrate but the roots contain phenolic compounds that are poisonous to the fungus, or produce enzymes that can dissolve the penetrating tips of the fungus and stop the penetration. When a tree is healthy, it is a stand off. When a tree is stressed and lacks sufficient energy to produce protecting enzymes or phenolic compound, the fungus gains a foothold. It begins to break down the weakened tissues, and becomes much more aggressive in the presence of these new energy sources. When the fungus breaches the bark and gets into the wood, it begins growing very quickly in response to the stress. It can exist in the bark and wood as a decay organism and not cause much damage, but once it gets released into the inner bark and outer wood, it becomes a killer. Growth at the inner bark-outer wood cambial zone is where it is most parasitic. The fungus begins to clog pipes and sever the connections that move sugar down to the smaller roots and move water and nutrients up to the stems and leaves. As the fungus continues to colonize and kill more roots, more of the crown dies. As long as the tree prevents the fungus from colonizing the large main roots, and from girdling the tree, the tree will remain alive. Portions of a root (and portions of the pipes on a root) may die, but if the fungus does not girdle the entire root and prevent all of the pipes from functioning, the tree will survive.

Effects of stress on stems - Two-lined chestnut borer

Not every battle occurs in the roots. Insects, such as the two-lined chestnut borer, can colonize the stem. This borer, a very common colonizer of oak, chestnut and hickory, is attracted to stressed trees.

When trees are affected by drought or defoliation, the water columns in the pipe in the outer wood begin to stretch and become strained to the point where they begin to snap. They actually make a little sound when they break, and there is some evidence that the beetle is attracted to those sounds.

Beetles sense which trees are being stressed and lay their eggs on these trees, making them more likely to be colonized by their larvae. When the larvae hatch, they penetrate the tree and begin feeding, immediately severing pipelines by cutting through the inner bark where the phloem pipes are, and the outer-most wood, where the most critical water pipes are. When these pipes are severed, food is no longer transported to the roots, and water no longer reaches the leaves and they die. As the larvae grow and the cuts they make in the tissue widen, the damage to the pipes increases. The insects eventually move down the tree branches to colonize the main stem, resulting in a complete severing of the tree's transport systems.

Some stresses alone can kill a tree. Severe road salting, bad planting, and construction damage can kill trees without secondary assistance. The moral of the story is we need to worry about both the stems and the roots and remember that they are intimately connected. We need to provide adequate growing space for both. We need to avoid as much competition with roots as possible so that when stresses occur, the roots are in healthy condition to respond and assist the crown in responding. Avoid grass competition, concrete competition, and try to maintain natural safe zones around trees. By maintaining safe zones, you might prevent colonization by those organisms that take advantage of stress interactions between the crown and the roots. Part of your livelihood is removing dead trees, but it is much more profitable to protect trees and provide them with adequate growing space than it is to remove them; after all, a removed tree cannot be a repeat customer.

Dr. Phillip M. Wargo is the leader of the USDA Forest Service Disturbance Stressor Host Pathogen Interaction Work Unit. This article was excerpted and adapted from a lecture at TCI EXPO '98.
Federal OSHA seems determined to forge ahead with a planned Ergonomics Standard that has the potential to cripple the industry—despite strong arguments from industry and medical experts that the proposal is laid upon a very weak foundation. For the third straight year, the incidence of musculo-skeletal injuries has declined without the help of an OSHA regulation. Furthermore, this type of injury accounted for less than four percent of all workplace injuries and illnesses in 1997.

Fast-track promulgation of an Ergonomics Standard is a priority of OSHA Assistant Secretary of Labor Charles Jeffress. OSHA has already published a "working draft" Ergonomics Standard designed to jump start dialogue pending formal start of the standard promulgation process by publication of a proposed ergonomics rule. OSHA's recently published regulatory agenda targets notification by September. A final rule could be published in the year 2000.

The proposed standard would mandate rotation of job functions or place time limits on how long strenuous tasks may be performed. It would effectively force placement of employees on light duty at regular pay if employees claim (and a doctor concurs) that a job caused "repetitive stress." It would also require the employer to continue the employee's full pay and benefits, less any workers' compensation benefits or disability insurance received by the employee, for up to six months of recuperation.

The potential impact is extraordinary: An employee could assert, but not be required to prove, a "back injury" claim was caused by work. This would force, in effect, a paid vacation at employer expense if a doctor, for which the employer pays, agrees with the employee! This is a malingerer's fantasy come true.

The draft proposal requires employers to first determine what is causing job-related, musculo-skeletal injuries and either re-engineer the way the job is done or put in place administrative controls to lessen that hazard. Use of PPE is a temporary fix only. If a job-related musculo-skeletal injury is claimed, the employer must provide medical evaluation, follow the medical recommendations for leave, light duty, etc. and pay the employee full pay and benefits during such recuperation, for up to six months!

Effectively, all commercial arborists are covered. A worker's report of an asserted job-related back injury or significant strain puts the employer "in play" under the draft, if not already put in play by a known problem, such as a previous incidence of back injuries.

If a problem is recurrent in a particular job, the employer has a problem job in the parlance of the draft standard. The occurrence of a covered injury or knowledge of a problem job imposes at least these initial obligations: provide a program point person; train employees in hazard identification/reduction; educate employees in signs and symptoms of covered injuries; encourage employee reporting of such problems; and solicit employee recommendations for hazard reduction.

Once identified, the employer must communicate the cause to employees and implement feasible controls to attempt to deal with the hazard. These controls, in order of preference under the standard, are: re-engineering controls; work practice and administrative controls; and PPE provided at no cost to employees.

When an injury is reported, you must: obtain a written medical evaluation from a health care professional which recommends work restrictions and follow-up care; give a copy of the report to the employee; and follow the medically recommended work restrictions. Most significantly, you must continue the employee's regular pay, benefits, and seniority until the employee is recovered and able to return to job, or controls are implemented which eliminate hazard during recovery period, or there is a final medical determination that the employee is unable to return to the job, or six months have passed.

This pay continuation can be offset by workers' compensation benefits or employer-provided disability insurance the employee receives.

Since the opportunity for hazard reduction by engineering controls is virtually non-existent in the arborist workplace, the draft standard defaults to an "administrative controls/work practices revision" means of hazard minimization. OSHA proposes employee rotation, job task enlargement, adjustment of work pace, redesign of work methods, and/or rest breaks.

When applied in practice to arborists' work, these will require: limiting the time that an employee may use a chainsaw; rotating tree trimmers between trimming and ground work; regulating the pace of work; creating light work opportunities for the injured employee; restricting certain operations to the extent that they cause injuries; assigning more crew members or cutting trees in smaller pieces to lessen weight being lifted; and eliminating production work involving continuous saw use or constant bending.

The opportunities for abuse are obvious, the cost of the medical evaluation is high, and the cost of the paid time off or light duty that might be ordered is a potential death blow to a business. Claims may be repeatedly filed by malingerers. The draft does not contain an opportunity to challenge the medical evaluation. Finally, the whole mess squarely conflicts with the structure and purpose of workers' compensation laws.

The National Arborist Association has written to Congress in support of a legislative blockage of the proposed standard. It has joined a national coalition fighting the issue. It will submit a detailed position statement to OSHA and testify at hearings in Washington prior to the publication of a proposed rule.

You can assist in this effort by letting your Senators and Representatives in Washington know what effect the requirements outlined above would have on your business.

Peter Gerstenberger is director of safety & education for the National Arborist Association.
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#### June 11, 1999
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#### June 13-15, 1999
ISA Florida Chapter
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#### June 25, 1999
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#### July 1-3, 1999
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#### July 13-15, 1999
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Contact: (610) 388-1000

#### July 23 - 25, 1999
ALCA Masters in Management
Hilton Chicago O'Hare Airport
Chicago, IL
Contact: (703) 736-9666

#### August 1-4, 1999
International Society of Arboriculture
75th Annual Conference & Trade Show
Stamford, CT
Contact: Lisa Thompson at (217) 355-9411

#### August 12-15, 1999
1999 STIHL Timbersports Series
Dollywood
Pigeon Forge, TN
Contact: (800) 467-8445

#### August 18, 1999
1999 Michigan Turfgrass Field Day
Hancock Turfgrass Research Center
East Lansing, MI
Contact: Kay Patrick (517) 321-1660

#### August 20, 1999
California Arborists Assn., Inc.
CPR/Aerial Rescue Workshop
Monterey, CA
Contact: (707) 254-8862

#### August 25-28, 1999
American Phytopathological Society
Wilt Diseases of Shade Trees Conference
St. Paul, MN
Contact: Cynthia Ash (651) 454-0766

#### August 27, 1999
California Arborists Assn.
Pruning Concepts Workshop
Santa Rosa, CA
Contact: (707) 254-8862

#### August 27-29, 1999
1999 STIHL Timbersports Series
Ducks Unlimited Outdoor Festival
Oshkosh, WI
Contact: (800) 467-8445

#### August 31-September 3, 1999
National Urban Forest Conference: Building Cities of Green
Seattle, WA
Contact: Cheryl Kollin (202) 955-4500

#### September 1 - 4, 1999
CalScape Expo '99
Seminars & Trade Show
Hotel Queen Mary
Long Beach, CA
Contact: (707) 254-8862

#### September 13-15, 1999
American Society of Landscape Architects
Annual Meeting & Expo
Boston, MA
Contact: (202) 216-2336

#### September 17, 1999
California Arborists Assn.
CPR/Aerial Rescue Workshop
San Mateo, CA
Contact: (707) 254-8862

#### September 20-22, 1999
Pacific Northwest Chapter - ISA
1999 Annual Conference
Contact: (503) 585-4285

#### September 24, 1999
California Arborists Assn.
Climbing Skills Workshop
Davis, CA

#### November 4-6, 1999
TCI EXPO '99
Indiana Convention Center & RCA Dome
Indianapolis, Indiana
Contact: Carol Crossland (800) 733-2622

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**Send information on your event to:**
TREE CARE INDUSTRY, PO Box 1094, Amherst, NH 03031-1094.
Fax: 603-672-2613;
E-mail: Garvin@natlarb.com
1990 Peterbilt 320 - 8.3 Cummins diesel auto with 5-ton Effer Knuckleboom crane. 18' dump body with high sides, liftgate. $39,500

1989 LT8000 Narrow Cab Steel-Hauler. Haul long logs from front to rear. 6 x 6 all-wheel drive. 7-8 diesel. Auto. 37x miles with 6.5 ton IMT Crane. $44,500.

1993 Ford F800, 5.9 diesel 5sp/2sp, 33 GVW. 49,000 miles with 14-ton RO Crane. Model 2863. 73' hook height. $51,900.

1984 GMC 8.2 Diesel, auto/4x4. 18' Bed. Hi-Ranger Bucket. $24,900.

'96 GMC Topkick 3116 CAT 6sp. 33,000 GVW, air brakes with 17-ton Manitex. 116' Hook Height. Super Clean. $78,500

1988 International DT466. 5 sp/2 sp with 18-foot flat dump and Hiab crane. $27,500

1989 Mack R688ST Tandem 300, 9 sp with 1997 Cormach 7-ton knuckleboom. 27-ft. side reach. $49,500. 10 other single & double knucklebooms in stock.

1985 General NTC 300 - 8 sp 20' Steel Flatbed dump. $19,500

1988 GMC, 8.2 diesel; auto; chip body w/Aerial Lift of CT 50' bucket. $37,500

1985 Ford LT9000 Tandem L10-270 hp Cummins, 9 sp. 20' bed w/9-ton CoPMA knuckleboom. 46' side reach. $46,500


1985 General NTC 300 - 8 sp 20' Steel Flatbed dump. $19,500

1989 Ford F800 Crew Cab; 7.8 Del; Auto; 35k miles; Dump Body $19,500

(4) Other Crew Cab Stakes in Stock!

1989 UD-3300. 6 cyliner diesel, 210 hp, 6 speed, A/B 33GVN, 18' steel flatbed w/8-ton National knuckleboom, 29' sidereach $24,500

(5) Fuel Trucks, Steel or Aluminum. Gas or Diesel $4,900 and Up

Prentice 120-yard machine. Diesel Pony engine, on gas Int'l. $12,500

1990 Ford LN8000 4x4, 7.8 dsl. 6 sp. 14' Steel Dump. $19,500

1991 Ford F700 Crew Cab V8, 5sp 2sp, under CDL, 16' Wood flatbed, liftgate. $19,500

(10) Single Axle Knuckleboom Trucks - Ford, GMC, Internationals. Call For List & Prices

1984 GMC 8.2 Diesel, auto/4x4. 18' Bed. Hi-Ranger Bucket. $24,900.

 material Handling Buckets in Stock: 41', 42', 43', 50' & 55'; Holan, Asplundh; Telelect, Teco. Call for List

(10) HiAB; IMTCO; National; Etc. Knucklebooms Unmounted or Mounted $4,500 And Up

(30) 1 Ton Buckets: 28' to 36' in Stock. Call For Price List

(10) Chip Body Dumps in Stock. Call For Prices & Descriptions

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Rigging Takes a Sailing Tack

By Gregory P. Good

Everyone who removes trees for a living faces a new challenge with every job. Arborists are required to perform feats of “instant engineering” involving vector physics on a daily basis. We try to engineer the optimum “controlled fall” of parts of trees being removed in the safest and most efficient way possible.

It has long been clear that to have a system for the groundman to lift a significant load quickly and then lower it safely would make an arborist’s life much easier. Lowering devices with a ratcheting drum have been around for some time, but they require two people to perform any serious lifting or pulling. For our company, Good Tree Care Company, these devices are not practical because we often work with a single ground person.

Sailing experience led us to adapt a yacht winch to tree rigging work. On racing boats, crew members need to handle ropes under great strain with speed and precision. We chose a winch with an internal gear reduction system (44:1) and a self trailer. These two features allow a single person on the ground to generate tremendous pull on the bull rope without the need for a send person to “tail” or hold the tension in the rope as a load is raised. Because there are no knots involved, the person on the ground can quickly disengage the self-trailer by snapping the rope from between the tensioning plates and lower with complete control.

After experiencing the sticker shock of purchasing yachting equipment, we decided to build a mounting system which would allow us to use the winch in as many situations as possible. First, we mounted the winch to a square aluminum base plate of 5/8 inch thickness. Then we built a mount which straps to a tree stem and has a receiver that accepts the plate-mounted winch. We also built a similar receiver that can be mounted easily on any vehicle with a 2-inch square trailer hitch system. In this way, we can still use the winch when it is not safe for the ground person to be under the tree being removed. An unexpected benefit to having a component system is how easy it is to install the device on a tree or truck, because you never handle all of the unit’s weight at one time. Packing the device into the toolbox on our truck is easier too.

For lowering situations where a winch is not needed, we added a rope brake on a base plate, which fits into both the tree and truck receivers. The rope brake saves unnecessary wear on the winch and gives us another option in our toolbox.

Working with the winch in different situations led to the addition of fairleads or rope guides to keep the rope properly positioned on the drum and prevent wraps from crossing over. Hinged side plates and rubber feet on the tree mount evolved to provide adequate traction to keep the unit in place while a heavy load is being dropped.

The greatest benefit of the system is that it gives the grounds person a broader role in the rigging process by providing a work station that helps maintain focus on the task at hand. As a result, the climber knows that when tension in the line is needed, it will be there. Teamwork is enhanced, along with morale.

Gregory P. Good is the owner of Good Tree Care Company in Heartland, Wisc.
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Please circle 72 on Reader Service Card
You are interviewing a person who appears to be the perfect candidate for a key position open in your organization.

He has experience with the “musts,” or the characteristics, attitudes, skills, background or experience you have identified for this position. He even has a number of items you have identified as “preferreds.” He appears to be perfect, but you still have an uncomfortable feeling that you have not uncovered the “real” candidate. You know the future performance of your tree care company may rest on him, and you are asking yourself, “Is this the person I really want in this critical position taking care of my customers, working with employees, and protecting my assets—not just money, but trucks and equipment?”

That feeling is common. Each year, 160 million interviews take place in America. In spite of all that practice, there are still many shortcomings associated with the process. It is very difficult to interview for positions such as technical or sales. While you may know a great deal about being an arborist, you may not know a great deal about computer operations or accounting. Experts universally agree there is a need to increase the effectiveness of interviewing techniques to improve hiring effectiveness.

During an in-depth interview, for example, there is about an hour for you to judge the candidate’s potential and for the candidate to convince you that he or she is best for the job. Both are under extreme pressure in a situation that is not conducive to frank and open discussion.

Today’s real or perceived limitations on checking references mean the information gathered during the interview is even more critical and will be the basis for you to answer these three questions: “Can he do the job?” “Does she want to do the job?” and “Will he or she fit into the organization?” Many of the most effective interviewers appear casual and unstructured, however they are still very proficient at obtaining information to answer these key questions.

As a rule of thumb, the candidate should do 85 percent of the talking. To get the candidate to open up and talk freely, use a conversational tone. Encourage the candidate to respond freely with open-ended questions that require more than just a “Yes” or “No” response. Some examples are:

- Tell me about your last job
- What do you feel are your strengths?
- How would you compare your results with your peers?
- What is the greatest challenge you’ve ever faced?

Open-ended questions allow you to obtain the most information in the shortest period of time. Avoid asking questions which would require the candidate to have specific information about your firm or organization.

Plan the questions you want to ask. Be sure to ask a consistent group of questions of all candidates for the same type position. This gives you an excellent basis to compare one candidate against another or...
against those who have been very successful in the position. Don’t forget to ask questions based on the individual’s specific background and experience. Be sure to ask follow-up questions about any response that is unclear or even hints of a potential problem.

To obtain more in-depth information and uncover the real candidate, use a three level questioning technique. Ask a basic question, such as one of the open-ended questions above. Follow-up by asking for elaboration or additional information. Then ask “Why?” This probes the candidate’s thought processes and reasons for his or her actions and opinions. When “Why?” is asked several times, most candidates’ responses reveal their true opinions and feelings. It is very difficult to fake the answers to third-level questions.

Even the effective use of questioning techniques may not ensure a successful interview. You must avoid some common pitfalls such as the “Halo Effect,” which occurs when the interviewer asks questions to confirm an opinion already formed. It often occurs when interviewing the top salesperson from a competitor. You assume he or she is an excellent candidate and ask only questions to confirm that opinion and not ones to uncover the candidate’s real qualifications.

For your evaluation to be effective, it must be as objective as possible. In other words, any opinions about the candidate formed before the interview should be confirmed again in the personal contact. It is vital that you listen with an open mind.

If you do not understand, ask for clarification. Since the candidate should talk 85 percent of the time, you must keep silent 85 percent of the time.

Effective questioning techniques should focus only on the job and the candidate’s ability to perform the job. Questions involving race and color, religion, national origin, age, sex, marital/family status, or disability must be avoided because they could be considered discriminatory.

Remember, the interview is the most critical step in making an effective hiring decision. Mistakes can still be made regardless of the number of years you or other managers have been making hiring decisions. There are no pat questions that can be put together in advance. It requires increasing your skill in questioning techniques to discover the information that uncovers the “real” candidate.

Wayne Outlaw is author of SMART STAFFING: How to Hire, Reward, and Keep Top Employees for Your Growing Company. In it, he presents solutions to the specific challenges listed above. Outlaw speaks and consults to help organizations increase their results through employee performance. He can be reached at (800) 347-9361 or www.smartstaffing.net.
RF Inter-Science Company announced recently that their web site provides details of all Macroscope portable microphone products and accessories. Available at the web site, www.rfinterscience.com, is detailed pricing and application information, as well as ordering and communications advice. Future plans call for inclusion of advice on the use of the microscopes in specific applications in a variety of fields. In particular, the field of arboriculture, where they are used for insect identification prior to application of pesticide, as part of many IPM programs and many professionals use it as a selling tool. All units are camera adaptable and can be used for record keeping. For more information, call (516) 698-4799.

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Deer-Off, an all-natural deer repellent, has been registered with the EPA as safe when used to protect edible crops and orchards from deer, rabbits and squirrels. In a Rutgers University study, Deer-Off was found to be the best performing and most effective product among 25 substances tested. This EPA designation makes Deer-Off the only deer repellent registered for use on vegetable crops and fruit trees that is not required to include a “WARNING” or “DANGER” signal — the government’s most serious safety designation — on its label. For more information, call 1-800-DEER-OFF.

Please circle 112 on Reader Service Card

TIME Manufacturing Company recently introduced the VERSALIFT VO-350/355-MHI, an overcenter aerial device with material handing capabilities. The new device boasts these specifications: 60-foot working height; 46-feet 11-inch horizontal reach; 400 pound platform capacity; 210 degree upper boom articulation; 100 degree lower boom articulation; fiberglass rod and chain leveling system; 24-inch by 30-inch platforms; material handling capacities up to 2,000 pounds; 10-foot 6-inch stowed height; compartment access from platform; one two-man platform with rotator; 90 degree platform rotators; and “Unitrol” control. These specifications are further enhanced by the following features: best weight to lift ratio in the industry; plenty of payload capacity on a 33,000 GVWR chassis; lightweight 100,000 psi Domex steel construction; hydraulically articulated and extendible fiberglass jib with 180 degrees of articulation and 72-inches of extension; over 2,000 pounds of material handling capacity in the non-overcenter position; side-by-side boom construction; offset mast assembly to keep units on the chassis centerline; no exposed hose bundles at the knuckle or at the platforms; and buckets do not extend out past the body confine. For more information, contact Dana Scudder, National Sales Manager at (254) 399-2100, E-Mail: danas@versalift.com. TIME Manufacturing Co., PO Box 20368, Waco, TX 76702.
Ram Handles is a new product recently introduced by “the Idea Guys Inc.” in Monongahela, Penn. Designed with safety and ergonomics in mind, the curved handle attachment makes for a safer, more user-friendly wheelbarrow for both men and women. The handles ensure a continuous grip while dumping, maximizing control of heavy loads, and therefore reducing risk of injury. They provide ultimate stability and control on hills while reducing wrist, arm, leg and back fatigue. Constructed of heavy-duty steel tubing with powder paint coating for added durability, the three-step installation is quick and easy—and Ram Handles are reusable. Two sizes fit standard wooden handles. For more information, call (724) 258-9670.

Please circle 114 on Reader Service Card

Adopting key design features from the popular Model 1300 Tub Grinder, Morbark recently introduced the most productive 12-foot grinder on the market with its all-new Model 1200XL. Dual tub drive, reversing fan, oil cooler, hard-surfaced dual discharge augers and a beefed up hammermill are among the extra standard features on the 1200 XL. Available with electronic diesel power options up to 750 hp, the 1200 XL grinds organic waste such as stumps, brush, yard trimmings, logs, C & D debris, ties and pallets at production rates up to 300 yards per hour, depending on material. Equipped with such features as full-hydraulic tub tilt, fully break away torque limiter, operator’s cab and knuckle boom at a surprisingly attractive capital cost. For more information, call (517) 866-2381.

Please circle 115 on Reader Service Card

Protect your trees with Best Angle Tree Stakes, the most economical tree training and support system on the market. Clips (shown above), also designed by Best Angle, can be used with the round hole configuration. Constructed of molded plastic, they are flexible and provide top or bottom fastening with wire, string, ag ties or surgical tubing. Developed by the Wentzler Family, who are fruit growers with 40 years of experience growing dwarf trees, the stakes overcome the shortcomings of other systems. Constructed of railroad steel to eliminate splinters, breakage and warping, the stakes have unparalleled strength. The stakes, which come in several sizes (including 8- and 10-foot) feature round and oblong holes to accommodate a variety of tying systems and install easily, even in rocky soil. For more information, contact Best Angle Tree Stakes at (570) 546-5571.

Please circle 116 on Reader Service Card
Skills Training in Canada

ArborMaster Training recently went international, opening a training office in Canada. Any ArborMaster Training program can now be scheduled and organized through the Canadian office. Dwayne Neustaeter joins the instructional team and comes on board as president of ArborMaster Training Canada Inc. He is an arboriculture instructor at Olds College in Alberta and was the top Canadian climber at the 1998 ISA International Tree Climbing Championships. He has worked extensively with cofounders Ken Palmer and Rip Tompkins in training arborists in Canada and the United States. He currently acts as Chapter Certification Liaison for the Prairie Chapter, as well as sits on several international and national boards. The address and phone numbers for the new office are: ArborMaster Training Canada Inc., RR 1, Site 9, Box 4, Olds, AB T4H 1P2, Canada. Phone: 1-877-268-8733; Fax: 403-224-3776; e-mail: neuy@telusplanet.net

Chicago Office for The Care of Trees

The Care of Trees opened a Chicago office this spring to accommodate three crews that work within the city. Previously, the company served Chicago clients from its Park Ridge, Ill. office.
In addition to more than 3,300 residential clients in the city, with heavy concentrations in Lincoln Park and Hyde Park, the company has a variety of institutional clients. They care for trees at The Art Institute of Chicago, University of Chicago and Grant Park. The new office is located at 222 N. Laflin, and may be reached by calling 312-492-7206.

Swingle Honored for Ethics

Swingle Tree Company, headquartered in Denver, Co., has been awarded the Ethics in Business Award, which recognizes business success coupled with a proven record of ethical conduct and socially responsible practice, including community service. The award was created by The Samaritan Institute, Colorado Business Magazine, University of Denver’s Daniels College of Business, and The Rocky Mountain Chapter of The Society of Financial Service Professionals to honor those with exceptional ethical business practices, individuals and companies in Colorado who were “doing the right thing.”

Swingle was recognized for its responsibility to the environment, safety, employee empowerment, value and responsiveness. It pioneered the use of pesticide “injection” methods to minimize accidental spraying. The company emphasizes safety issues and training as well as educational opportunities for its employees. Swingle attempts to maintain optimum health of trees while recognizing the customers’ budgetary limits. It has limited its own growth in favor of providing service to existing customers.

New England Ropes Receives ISO 9001 Certification

New England Ropes of Fall River, Mass., recently received its registration under the ISO (International Organization of Standards) 9001 Quality System Standard. Notification was received from the Barbieri Quality Registrars on Dec. 21, 1998.

To receive the ISO 9001 certification, organizations’ business processes must range from design and development to production, installation. The ISO 9000 certification process defines international guidelines on systems for quality management in every aspect of manufacturing.

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In my opinion, employee training is central to assisting a business in making and retaining profits.

A recent article in *USA Today*, entitled “They Still Cheer at Company Meetings,” talked about employees at Wal-Mart. Sam Walton believed that employee training was the first priority in building a successful business. Do your employees cheer? When they get up on Monday morning, are they enthusiastic about coming to work?

As a manager, it is your responsibility to make sure that employees are having fun—as they do at Wal-Mart.

Wal-Mart employees still cheer, even though they are not paid a lot of money compared to other retailers. These employees are having fun because they are trained

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**Employee Training:**

- Prevents burnout
- Helps retention
- Increases motivation
- Increases productivity
- Helps in planning
- Saves money
- Builds trust & respect
- Establishes authority & responsibility
- Makes employees accountable
- Builds a team

**Is it worth it?**

*Photo courtesy Davey Resource Group*
and they know what they are doing. Management in the stores has been given responsibility—and authority. Wal-Mart empowers its employees, especially its managers, to take responsibility. This is a newer concept in management.

There are two basic approaches to running an organization in the United States:

1. The traditional approach, management by control, has been around for about 275 years. The employer is the "parent," and the employee is the "child." Management will tell employees what to do and how to do it. This method takes a lot of management time and energy. Fifty to 60 years ago, this approach worked in the United States. When my father went to work at Ford Motor Company, management told him what to do, and he would say, "Yes sir."

The traditional approach considers employees as "tools." If a tool breaks or isn’t working the way you want it to, you either fix it or get a new one. This concept is outdated—especially with younger employees.

2. A revolution is taking place, practiced by companies like Wal-Mart, that stresses a behavioristic, humanistic approach to management. Instead of management by control, the new way is management by commitment. In other words, management gains the commitment of employees through various methods, including proper training. Commitment is not gained through managing as parent to child, but adult to adult. If a business owner thinks of employees as children, the business is headed for financial disaster.

Managers must treat employees as equals. A change in focus from viewing employees as tools to regarding them as a valuable resource will help a company make a profit, which is the bottom line in business. If an employee is only a tool, he or she will have no commitment to the success of the business.

1. What are the resources of a business?

All owners, managers and supervisors have five resources they need every day to get their jobs done and make a profit. The formula 4M+T helps me remember my five resources.

- **Materials**
  We manage and safeguard materials through quality and inventory control.

- **Money**
  Money is a resource of business. Managers take care of money in a business with a budget that helps plan for expenditures and through an accounting system.

- **Machines**
  Machines are another resource, especially in tree care. Since arboriculture is a machine-intensive industry, company owners usually pay close attention to this resource by developing a regular maintenance schedule to ensure the machines function at peak performance.

- **Manpower**
  Manpower may be the most important resource, yet many tree care company owners are more concerned with machinery. Companies spend too little on human resources. Wouldn’t it be interesting if companies matched the amount of money spent maintaining machines on employees.

- **Time**
  Company owners say there is not enough time in the day. This is incorrect. Management can take care of that resource by managing time properly.

Absenceism is soaring in today's labor force because employers are asking employees to give 110 percent, which leads to stress on the job. Employees stay home, whether they are sick or not, because of stress.

2. Why have an employee training program?

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and motivation. Compensation—which includes wages, salaries, fringe benefits, services, bonuses, and pensions—is very expensive. Employees are very expensive. A business can retain employees by paying much more than any other tree care company. A better, less expensive way is through training. Employee training increases motivation and helps businesses retain employees.

A. Training prevents burnout. In a series of studies I have been conducting on employee burnout, I have found it is possible to plot the components of burnout. As time goes by, employees become worth more and more to the organization—until they reach a certain point and start to lose their value. Why would an employee lose value? One of the major ingredients is probably a lack of training, job enrichment, rotation or enlargement to keep an employee interested. Employees are bored doing the same thing day in and day out. Another reason could be that the manager isn't expanding responsibilities by allowing employees to make decisions. Instead, the owner tells employees what to do through every phase of the job. Burned out employees have higher levels of absenteeism and turnover. They will leave for a more interesting job or call in sick because they just can't face another boring day doing the same things again.

Burnout affects the owner of the business as well as the employees. The average employee burns out every five years, so does the average small business owner. Are you burned out? If the manager or owner is burned out, it spreads like the flu. You need to turn yourself around.

B. Training helps retention. If employees are not being challenged, they will burn out and leave. Losing well-trained employees is especially critical for commercial tree care companies, since training is extensive and expensive. It would be better (and cheaper) to add to current training programs, so you can challenge your employees, which may help prevent burnout and turnover.

C. Training increases motivation. Frederick Hertzberg developed what he calls the "motivation hygiene theory." He insists that money doesn't motivate, it only keeps people on the job. Use money for two reasons—to attract employees and retain them. You can't use money to motivate them, however. They will be motivated by being challenged on the job by new learning experiences.

D. Training increases productivity. You oil machines, maintain them and add new components to increase their productivity. The same care and attention should be paid to increase employee productivity. Train them in new facets of tree care and refresh their initial training. Just as an engine needs periodic tuning, employees develop bad habits over time.

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E. Training helps in planning.
Planning is a function and a tool of management. A lot of managers say, “I don’t plan, because it is not that important.” American employees don’t plan much either. They get up in the morning, go to work, go home, eat and go to bed. Does that sound like your pattern?

There are three questions you must answer to improve your planning.

1. Where are you in your business today? To answer this question, you need to determine: what kind of training you have; what kind of employees you have; what your strengths and weaknesses are; and what strengths and weaknesses your employees have.

2. Where do you want to be tomorrow? How you are going to achieve the goals you have established.

Training is part of the plan. If you invest money in training employees, you will achieve your goal of earning a profit.

F. Training saves money. Training saves money because it will help you avoid OSHA fines. And training will help you save on your training budget because well-trained, satisfied employees are less likely to leave, so you won’t have to spend more money training new hires. Almost everyone in the tree care industry has spent time and money training employees in CPR or getting them certified—only to have them leave. If training is ongoing and employees are challenged, they will be less likely to leave you in a never-ending training cycle of new recruits.

The motivators of a job are the things that ignite and excite your employees. These are things such as: how employees feel about the job; pride in their job; and pride in being a part of your business. Challenges include opportunities for growth and advancement. Remember, advancement doesn’t necessarily mean higher pay. A five percent raise won’t ignite people to work five percent harder. They will feel good for three days then wonder what they will get next year. Recognition of a job well done is better than a one-time bonus.

G. Training builds trust and respect.
Power, authority, accountability and responsibility are an important part of training. As a matter of a fact, you should be training your employees in these concepts. For instance, what is the difference between power and authority? Do you have all the power in your company? Do your managers have power and authority or do you, as the owner, make all the critical decisions?

A lot of people think power and authority are the same thing. They are not. Power is the capacity to influence another person. Authority is the right to act and make decisions about a job. All employees have to be given authority, but first they have to be trained on what to do with it. Out at a job site with the crew, the supervisor must have the right to make decisions.

H. Training establishes authority and responsibility.
Ken Blanchard, author of The One Minute Manager and The One Minute Manager and Leadership, describes what
he calls situational management or situational leadership. He describes different levels of employee leadership based on their maturity level. How mature are your employees? If you feel you have to stay on top of them all the time, then they aren’t too mature. Are you treating them as children, mere tools, or are you encouraging them to take responsibility? Remember to hold them accountable.

According to Blanchard, maturity means a willingness and the ability to do the job. Blanchard identifies four different degrees of maturity: M1, M2, M3 and M4.

M1 employees are brand-new hires off the street. They probably have low ability, because they have had no training and do not know company policies or goals.

M2 employees have some level of training and commitment, making them more valuable to the company.

M3 employees have even more training. They are the people in whom you have developed a higher level of commitment and responsibility to your business.

M4 employees are superstars with a high degree of willingness and ability. Think of an employee who had right now who could be considered an M4. This is the person that you can turn a job over to and be certain it will be done well. You should be actively moving all of your employees toward this level. How?

Many managers believe new employees need a lot of positive reinforcement. Blanchard disagrees, since they have not earned it. When they progress from M1 to M2, you may offer positive reinforcers, since you are rewarding movement. Blanchard also cautions employers that once employees reach M4 status, they don’t necessarily stay there. You must keep them engaged through training and delegation of responsibility—then hold them accountable. Blanchard also notes that M4 employees who are promoted to manager become M1 workers again in their more demanding jobs. Too many times in our organizations we promote our great employees thinking they will make great managers. If they stumble and fall, the fault is yours because you failed to train them in their new duties. For a more detailed description of this process, I highly recommend Blanchard’s books.

Training makes employees accountable. Training allows you to hold employees accountable for results. If they are trained and given authority, they should be held responsible. If you give employees the right to do the job, as adults not children, you can hold them accountable.

Training builds a team. You will never hire an individual who has the same commitment to the success of the business as the owner. A paid employee simply does not have the same level of commitment.

What an owner can do is build commitment to a team within the business. If a manager allows employees to assist in planning, setting goals and developing objectives, they will develop a commitment to the success of the team. Have you ever heard an employee say “Hey, I am done. Does anyone need help?” That is a team member. A group member would say “It’s not my job. I wasn’t hired to do that.”

There are some very good books available on team building training, which will...
help convert a group of people into a team. I strongly encourage business owners to read them.

3. How do you start?

There are two different resources from which business owners can draw in advancing a training program. One is with internal resources. First and foremost, the business owner should be a trainer. The owner knows the job and what the company's goals are. The owner should share those goals with employees and involve employees in devising the company's budget or writing up their job descriptions.

As the owner, you might think that you don't have the time to train employees, but recall the five resources of management—manpower should not be neglected. Managers and supervisors should also be utilized as internal training resources. If you haven't developed a mentoring program where supervisors take new recruits under their wings (and are made responsible for their success), you should look into starting one.

As for external resources, some Chambers of Commerce offer very effective training, not only of management and supervisors, but employees also. Your local community college is another external resource. I don't know what your community college does, but I'd be willing to bet they have quite a number of classes designed to help small business owners. The college where I teach has a program called Business Seminars. If your local community college has such classes, why not pay employees to take them? Many community colleges will establish classes on specific topics suggested by business people. You probably think this type of training is costly, but you have to weigh costs against potential increases in profits.

An organization like the National Arborist Association is another external resource. Next time you attend a conference such as TCI EXPO, bring three or four employees with you. It may be costly, but it will pay a return. I know of one small business organization that gives employees training tapes to listen to in the car as they drive to work. The Small Business Administration has a lot of training tapes and classes, many of which are free.

No matter the source of training, the focus should be on employees as resources. Spend as much time, energy and money developing employees as the business spends on machinery. If you don't, the chances of success in business are small because employees will help a business earn a profit.

There are a lot of resources in the marketplace that will help a business owner turn a group of individuals into a smoothly functioning team dedicated to advancing the bottom line of the business. Yes, it takes time for the owner to read and become educated, but that process should be part of your training.

Robert Ash is a professor of management and business at San Diego Canyon College in Orange, Calif. He is the principal for Ash and Associates, specializing in employee management and supervision training. This article was excerpted and adapted from a lecture at TCI EXPO '98.
When it comes to insurance, CNA looks at businesses from all perspectives. In fact, CNA has been designing customized programs for more than 25 years. We even have one that's pruned to the exact needs of the tree care industry. It's more than basic property protection, it offers coverages for underground storage tank pollution, transportation of designated pollutants, other limited pollution and pesticide/herbicide applicator.

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Pollarding is a form of “pruning art.” A special ornamental effect is achieved in keeping a big tree small. The large caliper trunk is strongly contrasted by a relatively small, compact crown. Some trees are pollarded to accentuate secondary features, increasing leaf size, or stimulating bright barked water sprouts. Correct pollarding is achieved through species selection, early training and extensive, dedicated annual maintenance. As with most pruning art, pollarded trees are rarely planted as individuals. They are best suited to mass plantings or as part of an overall formal design.

Pollarding versus topping

Pollarding is not the same as tree topping, and everyone who aspires to be taken seriously as an arborist needs to be clear on the difference. Pollarding bears a superficial resemblance to tree topping. But then, surgery looks a lot like a mugging to the untrained eye. In both cases, somebody puts a knife in the subject’s stomach and relieves him of all his money. Pollarding, like topping, eliminates the natural beauty of a tree’s branch structure. It is extremely high maintenance, just like tree topping. Unlike topping, it maintains the long-term health of the tree.

In Europe, pollarded trees have survived 500 years, actually living longer than their natural counterparts. This is not an endorsement of pollarding. No one in this day and age can guarantee consistency in tree care for 500 years. And, like topped trees, pollarded trees become dangerous when they are abandoned. No matter how strong the resolve or good the intentions of a current tree owner or arborist, most of these trees will eventually fall into the hands of those who are unwilling to maintain them, or, worse yet, unwilling to take them out.

How did it start?

Pollarding began in Europe as a practical way to harvest wood fiber without killing the tree. A young deciduous tree would be headed back at a point above the reach of foraging deer and livestock, and then regrown. The resulting water sprouts (also called “suckers” by some) would be cut off every year or two for use as animal fodder, made into baskets and brooms, or bundled together for firewood. Soon the tree would form a callused knob from which the water sprouts...
would regrow. Water sprouts regrow annually from dormant buds on the pollard head and are cut off again and again at their points of origin.

Many forms of pruning art started as agricultural endeavors. Coppicing (cutting a tree or shrub to the ground routinely) was originally invented for the same reasons as pollarding. Espalier (pruning a plant to two dimensions, such as against a wall) was done for efficient fruit production.

People are attracted to natural things that have been highly manipulated. Bonsai combines the appeal of highly manipulated nature with another basic human affinity—miniaturization. One can easily imagine the aristocracy of old Europe seizing upon the notion of a “big tree kept small” and planting miles and miles of them along their narrow boulevards and throughout castle grounds. These endless rows of lollipops were for their pleasure and amusement. Never mind the incredible amounts of repetitive, mindless labor they required. Serf labor was plentiful and cheap.

Photos courtesy of Cass Turnbull
How is it done?

♦ Correct Species
The right species must be used. Traditionally, pollarded species include Plains, Sycamores, Pawlonia, Catalpa, Linden, Ailanthus, and Aesculus.

♦ Essential First Cut
The trunk or branches are headed back to the point where the pollard heads are to be located. Early training is essential. The first training cuts on the tree should be less than one inch in diameter, when the tree is young (Dr. Alex Shigo says a young tree is under 15 years old). Starting with large cuts on an older tree is unacceptable. The pollard head protects the trunk from rot. If the pollard head is removed, the trunk rots out and the pollard is ruined.

PlantAmnesty—an organization based in Seattle, dedicated to proper pruning practices—led a mutilated tree protest in Seattle several years back when a tree service topped eight plane trees on the street right-of-way. The cuts on those trees were up to 12 inches in diameter, and reduced the 55-foot trees to about 15 feet. Late in the game, we discovered that soon after the first tree was topped, a representative from the city arborist's office came out and backed-up the tree service's claim that the trees were being pollarded. A city arborist took the time to drive the shocked homeowner to a row of correctly pollarded Catalpas, asserting that the two cases were the same. That was eight years ago and the surviving plane trees have not been pruned since.

♦ Pollard styles
Usually, trees are trained to a single head or a series of pollarded branches originating from one point. As a simple guideline, one third of the total height of the tree should comprise the crown and two-thirds the trunk. If the pollard heads are located too far out on the branches,
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Context

Pollarding is no longer a utilitarian activity. It is a form of pruning art. As such, it needs to be part of a larger, formal landscape design. There are famous rows of pollarded trees in Golden Gate Park, and the stately rows of pollarded planes at Filoli are quite impressive. Even the individual pollarded trees along the narrow streets of San Francisco look appropriate against the ornate gingerbread buildings. But as one moves out to the more typical American suburbs, pollarding, even done correctly, looks anachronistic at best. It's like keeping an Eiffel Tower in your backyard. It just doesn't work. Pollarded trees look right in formal gardens, especially public gardens where they have half a chance of receiving the needed continuum of care.

To determine whether a tree is pollarded or not, ask the following questions:

1) Is a correct species used?
2) Are all cuts during the life of the tree under 1 inch in diameter?
3) Does it have a pollard head(s)?
4) Are sprouts removed every year?
5) Was it chosen and planted in this spot to be used as a formal pollard? (In other words, is it part of a larger overall formal design like a rose garden, castle grounds or boulevard?)

Objections to real pollarding

One problem with pollarding is that it validates people's desire to make trees
shorter. Ask anyone who runs a tree service and they will tell you that the number one reason people want to top their trees is because “they’re too big.” Once people see pollarded trees, they want to do it. They don’t know or care that it’s not really pollarding, but tree topping, they are doing. It’s the same problem with topiary. If sculpted shrubs were contained to a few, well-done formal gardens, it wouldn’t bother anybody. It’s the fact that millions of innocent shrubs are routinely sheared into empty and meaningless globes and boxes that drives horticulturists crazy.

Trees commonly subjected to ritual mutilations of the quasi-pollarding sort are: hawthorns in Seattle, mulberries in California and crape Myrtles all over the South. The fact that these trees can withstand repeated headings, tippings, toppings, and pollardings, doesn’t make it right. It just means they survive. The “quasi-pollarding” problem is compounded by the fact that horticulturists, who should know better, sometimes recommend these treatments in print. This is one reason pollarding—including how and why to do it—needs to be very clearly defined.

It should be mentioned that many, and perhaps even most, educated tree lovers do not find true pollarding objectionable. Dr. Alex Shigo is one, this author is another.

Wrong reason

The final objection to “real” pollarding is that it’s often done for the wrong reasons. It is increasingly used to mitigate the results of poor design (as advocated in Arnold’s book Trees in Urban Design, a textbook for landscape architects). Specifically, trees are overplanted or situated in areas that cannot accommodate their mature sizes. Instead of removing half the trees, bad planning gets followed up with a lifetime of dubious pruning. It’s true that the owners of mis-sited trees are often adamant that their trees be kept. But to let them dictate the terms of professionalism is a mistake. Once one starts the program, he or she locked in and, by participating, is assumed to be endorsing it. If we are to ever stop common over-planting, someone, somewhere will have to start standing firm.

There’s a time and a place for pollarding. For the most part, the time is the 18th century and the place is Europe. A few rows of trees in formal gardens in the United States should be sufficient for us to marvel at what can be done to trees when resources are unlimited. There is nothing wrong with planting a tree to be pollarded in a formal garden. But first we must be able to identify true pollarding and truly comprehend the work that goes into it.

Cass Turnbull is founder of PlantAmnesty in Seattle, Wash.
It's Not Too Early to Register for TCI EXPO '99

Careful planning is a good way to get what you want, and we know you'll want to attend TCI EXPO '99, Nov. 4-6, 1999 in Indianapolis.

While not all the details of this year's meeting are available yet, some of the important ones are. The dates of the trade show and seminars are Thursday, Nov. 4 through Saturday, Nov. 6. The trade show will be preceded by a day-long manager's workshop on Wednesday, Nov. 3. Career Fair and student competition events will be held concurrent with the trade show and seminars.

The Indianapolis area is well served by a number of airlines. We've selected US Airways as the primary airline, which is offering special discounted fares to TCI EXPO meeting attendees. To make your reservation, call US Airways Meeting and Convention Reservation Center at 1-800-334-8644 and reference the National Arborist Association's Gold File #19611030. Northwest/KLM Airlines has been selected as the alternate air carrier. Special discounts have been arranged on your air transportation. To take advantage of this special offer, please call their Meeting Services Reservation Desk at 1-800-328-1111 and refer to WorldFile # NMNB7. Following these instructions will ensure you receive the best possible price on your ticket.

The host hotel for TCI EXPO '99 is the Omni Severin, which can be reached at 317-634-6664. Accommodations are also available at the Crowne Plaza at 317-631-2221. Both are offering attendees a rate of $90 single/double occupancy. The Omni offers more urban sophistication, while the Crowne Plaza, on the site of a former railroad station, offers a distinctive atmosphere. Both are within easy walking distance of the Convention Center.

Space is limited, so make your reservation early. Be sure to reference the National Arborist Association/TCI EXPO room block when making your reservations.

Information on alternative accommodations is available by calling Carol Crossland at 1-800-733-2622, ext. 106.

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New Video Series in Production

In late April, filming was completed for an upcoming training video program that will help the employer teach fundamental climbing techniques and safety to new climbers.

This program will be the first in a series of cooperative ventures between the NAA and International Society of Arboriculture (ISA). The project was underwritten by Husqvarna.

The talent in this five-part video will be Ken Palmer and Rip Tompkins of ArborMaster Training, Inc., an NAA Associate Member, and Robert Phillips of Pacific Slope Tree Co-Op, Inc., an NAA Active Member. Ken and Rip have participated in many of ISA's recent training videos, and Robert was one of the presenters in NAA's Rigging video series.

The program is scheduled for release this fall, and will be sold by both organizations.
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One of the last great values in America: Trees and all things green add so much to our lives—beauty, serenity, and healthy air to breathe. Professional arborists stand ready to insure that these immeasurably valuable resources remain healthy. These men and women represent one of the best values in America. Perhaps the last best value.

Why? Where else can you find and employ a professional who offers so much value at such a reasonable cost? If you consider the cost of hiring a professional arborist in comparison to the price of other professional services, you will come to appreciate the true bargain that tree care represents. A hair cut and styling, for example, can easily cost $35. Mechanical work on your vehicle or boat will run from $50 per hour and up. Plumbers and electricians will charge as much or more for their services.

Next time you receive a quote from a professional arborist, consider the following:

The insurance industry rates an arborist’s tree climbing activity as hazardous as a mine worker or a high steelworker building a skyscraper. As a result of this rating, the premium costs for workers’ compensation insurance can take five to eight percent of every sales dollar the arborist receives. In some states, the costs are considerably higher. This coverage is meant to protect the working arborist and the homeowner.

A professional arborist will be pleased to provide clients with a copy of the company’s Certificate of Insurance for public liability and property damage. This policy protects property owners in the event of a mishap. Homeowners should never hire a tree care company that is unwilling to produce a Certificate of Liability! Cost of this policy, along with mandatory payroll taxes covering the employer’s Social Security contribution plus state and federal unemployment taxes, will account for another ten to 15 percent of that sales dollar.

Countless property owners have discovered (to their great regret) that the “tree man” they hired to take down a tree overhanging their garage had no insurance. This discovery is usually made after the tree has crashed through the garage and the culprit has disappeared.

If you have been wise enough to employ a professional arborist, you have engaged the services of someone who has met standards of excellence and proficiency in skills such as First Aid; CPR; safe work methods and procedures; how to perform an aerial rescue; and working adjacent to the hazardous energized wires entering your home or building. They must also be aware of and adhere to all Federal OSHA safety requirements. They must pass applicable state criteria and be licensed to transport and apply any materials required in disease and insect control programs.

To be proficient in these areas, they have undertaken extensive training from other professionals, completed required correspondence courses, attended training seminars and passed exams that demonstrate their knowledge in all phases of arboriculture.

And yes, these well-qualified arborists are treated as professionals by their employer. Paid holidays, vacations, contributory pension and hospitalization plans are provided. These costs, along with an individual’s compensation, can total 35 percent to 50 percent of the sales dollar.

Modern equipment and tools used today by an arborist to obtain the greatest efficiency and safety represent a major financial investment by the company you have hired to perform tree work. Hand tools and power saws costing hundreds of dollars only have an effective working life of months before they must be replaced or overhauled. Brush chippers, used to create environmentally favorable wood chips, can cost as much as $25,000. Trucks for
Tips on Becoming an Intelligent Tree Care Consumer

Here are some tips on how to hire good professional help:

- Start with the arborists that are listed in the phone book. Don’t place much emphasis on the size of the yellow pages ad—some of the most reputable firms rely almost entirely on word-of-mouth advertising. Look instead for what the ad tells you about the company: number of years in business, professional affiliations, licences, certification, etc. Avoid companies that advertise topping, an injurious and unacceptable practice.

- Seek recommendations from people who have had professional tree care work done in the past.

- You should be aware that the credentials of someone calling himself an arborist can vary widely. Don’t just hire someone with a chain saw who knocks on your door! Look for the company displaying the credentials of a professional.

- When you meet with the arborist:
  - Ask to see current certificates of liability and workers’ compensation insurance, if applicable.
  - Ask for references, and check on the quality of their work and level of service.
  - Don’t be lured by a bargain, don’t pay in advance, and do get another estimate or opinion of the needed work.
  - Insist on a signed contract as to cost, dates when work is to be performed, and exactly what is to be done.
  - Insist that climbing spikes are used only if the tree is to be cut down; they damage the tree.

An easy way to find a tree care service provider in your area is to use the National Arborist Association’s Locate your local NAA member companies program. You can use this program by calling the NAA at 1-800-733-2622 or by doing a zip code search on their web site, www.natlarb.com. When you hire an NAA-member tree care company, you are assured that the company you are hiring has access to the most recent information on tree care practices, and you are assured that the company you are hiring is insured and/or bonded to protect you and your valuable property.

Howard L. Eckel is a management consultant and owner of Howard L. Eckel & Associates in St. Michaels, Md.
By Reid Golcisborough

As a business with products and services to sell, you might look at the Internet as a dream come true. Just take a look at some of the ads. “Reach Millions for Pennies!” scream the headlines of e-mail messages hawking bulk e-mail services.

Don’t buy it.

If you have Internet access, you’ve probably also received other e-mail advertising. Ever noticed that it’s never from a business you’ve heard of? That’s because bulk e-mail, also called junk e-mail or spam, is regarded by the Internet community as intrusive and unethical, same as unsolicited bulk faxing. Legitimate businesses don’t spam.

But there are still ways to harness the power and reach of the Internet to get your marketing message across to those interested. The key is using the Web, not e-mail.

Unlike unsolicited bulk e-mail, people visit a Web site voluntarily. You can, therefore, promote yourself openly without risking the negative consequences of e-mail advertising.

Still, to make the most of the Web, your site needs to look professional, and most important, be useful. Unlike with traditional advertising, people expect Web sites to serve up more than self-serving messages touting your offerings and expertise.

The worst mistake you can make here is to think of your site as an online ad or brochure. It’s far better to treat it as a newsletter or arcade that provides useful information or compelling entertainment—“content,” to use the vernacular. You could, for instance, provide tips on how homeowners can promote the health of their trees.

You should also provide a way for visitors to your Web site to send you e-mail. On the Internet, interactivity is king, and there’s little more frustrating for Web surfers than finding a cool site and not being able to find out more or leave a message asking you to provide an estimate for trees that need pruning.

Be sure to respect people’s time. Until high-speed Internet access from the cable and telephone companies becomes widespread, don’t bog down your site with overlarge bandwidth-clogging graphics. Confronted with huge images that paint on their screen at glacial speed, many visitors will quickly move on to another site.

Once you’ve created a Web site, you need to let the Internet community know about it, an increasingly difficult task with the millions of Web sites out there. “If you build it, they’re not necessarily going to come,” says Jill Ellsworth, Ph.D., co-author of The New Internet Business Book.
You should first get your site listed at Web directory and search sites such as Yahoo, at http://www.yahoo.com. You can do this manually by visiting individual sites, or you can use a Web-based service to get listed by multiple sites.

Submit It, at http://www.submit-it.com, is one such service. You can use it to automatically submit your site to 10 different search and announcement services for free, or pay to reach hundreds more.

Another common technique is to negotiate a trade with complimentary, noncompetitive sites. If you buy most of your trees from a particular nursery, you might trade links or banner ads with their Web site. If you are a member of the National Arborist Association, you can request a direct link with the association’s site. Sites such as LinkExchange, at http://www.linkexchange.com, can help automate this process.

You can find Web sites with similar demographics and psychographics as your own through affiliate marketing sites. Examples include LinkShare, at http://www.linkshare.com, and Be Free, at http://www.befree.com.

You can also leave messages in relevant discussion groups, such as Usenet newsgroups and mailing lists. “How to Find the Right Place to Post,” at http://www.cs.ruu.nl/wais/html/na-dir/finding-groups/general.html, provides guidance in finding the right Usenet newsgroups. Liszt, at http://www.liszt.com, lets you search for relevant mailing lists and newsgroups.

But don’t just leave a hit-and-run ad—that will get you nowhere. You have to schmooze, says Marcia Yudkin, author of the book Marketing Online: Low Cost, High Yield Strategies for Small Businesses and Professionals.

It’s best to start friendly conversations that give you an opportunity to eventually mention what you’re trying to promote. Be sure to provide useful non-marketing information before pitching. Include the address of your Web site and other contact information in your sig, the short “signature” that many news and e-mail programs let you automatically append to the end of your messages.

Finally, don’t ignore the traditional media. Include your Web and e-mail addresses on your business card and in brochures, print ads and the other promotional materials you create.

Despite the hype, the Internet is no panacea. It won’t automatically help you make money fast. But used intelligently, it can help you connect with people in the market for what you have to offer.


Reid Goldsborough is a syndicated columnist and author of the book Straight Talk About the Information Superhighway. He can be reached at reidgold@netaxs.com or http://members.home.net/reidgold.
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TREE CARE INDUSTRY - JUNE 1999
A sound like thunder splintered the air, rousing the Widow Carter with a start from her morning catnap. She gazed in horror as the top of her Canary Island Pine plummeted to the ground. With the deadly accuracy of an earthbound Polaris missile, it reduced the Widow’s prize-winning herb garden to a mass of green rubble. Raising her withered frame, she screeched at the hapless Max Bunyan (still tied in at the top of the tree). “I’m gonna call your boss!”

Hours later, Big Al Fontaine arrived to survey the wreckage of what could have been a flawless tree removal. The Widow met with Big Al in the driveway as Max cowered nearby. Both men were surprised by what they heard.

“Could you have been prevented? Why weren’t you using the latest rigging equipment? Were you prepared to do this job? Why are we paying you ‘nincompoops’ to destroy my beautiful yard?”

Shamefully, there is no excuse for this befuddled pair. The Widow (like all clients) has a valid point.

1. Game Plan - Unless Max intended to pile-drive the Widow’s yard with wheelbarrow-sized biscuits of wood, there were other methods to accomplish removal of this tree. All jobs require a game plan. Allowing wood and branches to fall uncontrolled to the ground can be a less-than-desirable game plan. Before you begin, review the options with your employer or even with other members of the crew. Usually, someone will have a good option.

2. Equipment - Once the best game plan has been created, the next element in the sequence is “Do we have the right equipment?” And, “Are we using it correctly?” Even the latest and greatest rigging, climbing and safety equipment is not worth putting into your finely tuned game plan if the application of the equipment is wrong. This element is critical to the safety of the crew, the property of the client, and of course, your professional reputation.

3. Training - With the advent of many new items, mastering the technique and use of those items is paramount. There are only two ways to master the use of the “tools of the trade” - training and practice, practice, practice. The equipment does not work on its own; it requires the presence and guidance of a professional.

Once these elements come together on the job site, everyone involved will benefit. Every situation is at least a little different. Understand the application of your equipment, and use it in accordance with specified guidelines.

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"Those who enter to buy, support me. Those who come to flatter, please me. Those who complain, teach me how I may please others so that more will come. Only those who are displeased but do not complain hurt me. They refuse me permission to correct my errors and thus improve my service.”

Marshall Field

By Kevin E. O’Connor, CSP

On a recent flight to Tucson, an American Airlines flight attendant introduced herself with “Hello, my name is Ina, what’s yours?” Twenty of us each gave our name as we settled in. Although she wrote none of them down, Ina soon began to use our names frequently in her dealings with us. “Kevin, would you like a drink?” Or “Tony, can I get you anything else?” or “Mr. Fox, what kind of dressing would you like on your salad?” Every single interaction she had with us included our name.

Ina did her job very well. We were never referred to as sir or ma’am or even 4-B or 5-E. We had come into the world of Ina. And, of course, as we departed the plane, there again was Ina... “Thank you Bob”, “See you soon Mary,” “Have a great evening Mr. Fox.” What could we say? “Thank you, Ina.”

An ordinary day at American Airlines? In some ways, yes, but certainly so with just a little touch of Ina.

What makes for these special touches that we call customer service? Each of us has experienced them, sometimes many in one day—sometimes not nearly enough in a month. When they come, we know them! With so much written on this topic of customer service, I was hesitant to write more. After all, the masters had written books, trained hundreds of thousands, and built entire corporate entities on improving how customers are treated, how customers respond, and how to make that happen every time.

As I thought about the state of customer service, I had some examples in mind that I see over and over again. I think of them first as myths... things we think are true, but aren’t. For example, one common myth is that we should imitate the best practices of others. Wal-Mart has a greeter, so K-Mart should have one. Nordstrom’s has a piano, Marshall Field’s should have one also. The best customer service practices are not goals to strive for—they are a baseline to understand and improve upon so that the customer doesn’t even know that one com-
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petitor walked into another's innovation. Here are some of the myths I have collected. Which ones do you notice?

Myths

1. Customer service is only about the flashy stories. Tales of service from Southwest Airlines are impressive, but they don't mean a thing unless the reservation agent you happen to get is concerned about you. I enjoy the famous Nordstrom stories of service, but frankly I'm more impressed when Darryl takes just a little extra time (that he really didn't have to take) to make sure I'm really happy with my purchase. Great service happens between two people, not between one and a plane load of passengers. When customers experience more intimate service, they feel cared about and they respond with unswerving memories—and unswerving loyalty.

2. Customer service is about rightness, niceness and perfection. It may not even be about excellence all the time. We can strive for that, but in doing so we can miss the boat entirely. Customer service is about a relationship built on respectful service. Ritz Carleton hotels are famous for their motto, “We are ladies and gentlemen, serving ladies and gentlemen.” It is a balanced relationship of equals. When we practice this quality in our customer relationships, there is no hierarchy. It is as if the customer hears “I am here to serve you in the best way I know how. You will get the best from me and my company ... I guarantee it.” More important is that the customer hears it through our actions first, our words and promises later. A Jesuit priest once wrote that the job of the minister was to love people and then, once they had the experience of being loved, he could tell them what they had experienced.

3. Customer service is only about the times customers visit. Texas Nameplate, the smallest company ever to win the Malcolm Baldridge Award, has implemented a program where employees visit customers. They do this not just to “visit,” but for the specific purpose of identifying opportunities to improve the customer’s products. Employees I have interviewed about this task talked about the lasting impact it has had on them and on the customer’s relationship with them. As an employee, especially line employees or customer service reps tied to the phone all day, how can you help but feel appreciated by your employer when you are asked and entrusted to spend time with a customer? If your company isn’t doing this in some form, you are missing a critical opportunity for great customer contact. If you are doing a version of this, think about how you can take it to a new level.

4. Customers will give us useful feedback. We don’t need to ask for it. There is one critical question we can use in seeking feedback from our customers and that will always yield a useful answer. I learned it from a professor at the University of Pittsburgh: “If there were one thing that we could have done to make this a better experience for you, what might that have been?” When you get them to speak, just write their answer word for word and simply say, “Thank you.” Later have a brainstorming session with your staff. When clients ask you to do more, more than you ever thought you could, take it as a challenge. When you begin, commit to doing just a bit more than they might expect. Commit to improving on the idea just a bit more.

5. When the job is done you are finished with clients. Create a feedback loop. Let them “test” your newest service, or ask them who they would recommend to test it. Combine this with your employee visits and you’ll have a dynamic learning community with few surprises and lots of improvements. I recently ran an experiential indoor “ropes” course. A group of eight executives was given a challenging experience where one solution after another failed. Finally, an observer came up with a solution that he knew would work “because I’ve been there before and done this before.” He instructed the group who willingly followed each of his directions to a successful conclusion. Afterward, when we were processing the experience, one of the group members said, “I liked it better working it out even when we were making mistakes than when we were told the answer.” The toughest problems require cooperative answers. How is your company set up to answer these tough questions? Could it be that your customer may have just what you need?

6. New customers are always the ones to pursue. Your current customers are your very best prospects. The best marketing is to do our very best job with these customers in the first place. Become a partner with your customers—use their house and testimonial letters in your advertising and marketing. Celebrate with awards that are mutual. I was with a company last month where a present was given to the employee with the longest term of service (18 years) ... and to the employee with the shortest term (this past Monday)! This was a great way to show the span of service. Bring employees together in small groups or one large one for brainstorming days with an outside facilitator. The more you both know about one another, the greater the value of your partnership. Other companies sponsor customer lunches, days, even multi-day programs combining outside speakers and facilitators along with in-house talent from both companies.

7. Customers are only interested in what you give them, not how it is given. Add the “little extras” that are totally unnecessary but attract attention nonetheless. Personal thank you notes, follow up phone calls, and “If there is one thing you think we could be doing better, what
might that be?" questions are more ways to get closer to this most valued of relationships—the client.

8. Don't mess with things when they are going well. This is a common and disastrous myth. Cross train your staff and rotate them periodically (especially when the tasks can be dull or repetitive). This lets your internal customer know that you're aware of what these tasks can be like. It also keeps employees alert, forces them to communicate with one another, and may give you improved processes, quality, and insurance for the times when your key people are absent. Acquaint your staff with your customers through a customer appreciation day. This can be done weekly, monthly or yearly to celebrate the anniversary of their first order. Invite the customer to come in for a tour, a celebration lunch (at the shop), or a gathering of employees who care for their trees. Even if the customer cannot attend, have the celebration anyway and send pictures and a plaque. Do you know any of your employees who don't like cake and ice cream? One owner of a textile firm in Kansas City considers the pizza he buys (and serves personally) for all three shifts to be the best employee benefit that he invests in every month. No one ever knows just exactly what day it will be, but they know it will be every month. Decorate your office with customer quotes, pictures of the completed project, and pictures of the customer's property.

When your employees are better educated about the customer, they will know more and do more to ensure satisfaction. Oh yes, send a cake to the customer also!

9. Train employees once and they will always understand. Another common myth born of too little training on a consistent basis. The Ritz Carleton hotels conduct mini-training daily in small work groups. Each employee carries a laminated pocket card with the "Ritz Carleton Basics" printed on it. There are 20 of them and each day one is emphasized by the manager who solicits employee ideas and experiences. Not quite a prayer breakfast and more than a pep rally, these shift meetings reinforce the company's most treasured basic—customer care. If you aren't quite sure how this works, treat yourself to a Ritz Carleton lunch someday, or just stroll through their lobby.

10. Customer service is about the things we sell the customer. Great customer service is not based on stuff, it is based on one thing only—respect.

Kevin E. O'Connor, CSP, is a speaker, trainer, and corporate consultant specializing in person-to-person skill building. He is a faculty member of Loyola University in Chicago and the author of four books.
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DeAngelo Brothers, Inc., is a vegetation management company with five (5) regional U.S. offices servicing railroads, utilities, industries and State departments of transportation for the last twenty years. There is an immediate need for the following positions in our Chicago Region:

- Division Manager w/5+ years experience
- Climbers-Class I and II
- Foreman and Bucket Operators
- Tractor Operators

CDL License, experience in arboriculture, urban forestry or related fields a plus. We offer excellent starting wages, company benefits, excellent working conditions and the opportunity for year-round work. For a confidential interview, mail or fax your resume to: DeAngelo Brothers, Inc., 8450 West 191st Street, Mokena, IL 60448. Attn: Bruce Greer. Phone: 815-464-9862; Fax: 815-464-7152.

ACRT is Hiring Instructors. Positions open to teach Urban Forestry to young adults who are enrolled in Job Corps. These are full-time positions in several states. Successful candidates will have excellent work experience as tree trimmer or tree trimming supervisor; training in plant biology and tree identification; and experience working with disadvantaged populations. Supervisory and/or military experience is required. Candidate must be self-starter and must have personal and work references.

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Please contact Lynn Kindsvatter, VP of Training Services, ACRT, Inc., 800-847-3541, ext. 211. Resumes may be sent to PO Box 401, Cuyahoga Falls, OH 44221-0401; Faxed to 330-945-7200; or e-mailed to lynnk@acrtinc.com.

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continued on page 60
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- **95-3187** 1991 Ford F800 diesel chassis, 5/2, with an Asplundh LR50 (900705), 55 ft. working height, line body. Aerial has been refurbished and is RTW status. $52,500.00

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continued on page 64

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continued on page 64

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TREE CARE INDUSTRY - JUNE 1999
Overall Body Dimensions:
Length 138”  Height 60”  Width 92”

Chip Box Material: (galvannealed)
1. Floor .......................... 10 ga. plate
2. Sides (removable) 3'-6” high .(2)pc. design- 12 ga. plate
3. Top: (removable) 8’ long ...... 14 ga. plate
4. HeadBoard (stationary) ....... 12 ga. plate
5. Tailgate (270° swing) ........ Expanded Metal w/tubing frame
6. Runners 6” structural channel
7. Cross members 3” structural channel
8. Side vertical supports .3” x 3” sq. tubing

General
1. All G-60 galvannealed material
2. Sides: Fabricated in (2) pcs. for easy removal
3. All wiring in conduit
4. Sealed lexan lens lights meet FMVSS 108 specifications
5. Anti-sail mud flaps
6. Hydraulic dump hoist
7. Safety body prop
8. Trailer light connector 6 pole; Elec. back up alarm
9. Pintle; or pintle/ball combination trailer hitch with tow hooks
10. Bodies: mounted, undercoated, coal tar epoxy coating inside chip box, primed and painted
11. Stainless steel tool box hinge pins w/grease zerks
12. Tool Boxes - “Weatherproof” - Bulb type weather stripping
13. Top includes (4) corner lifting eyes
14. Chipper Air Exhaust Vents

Tool Boxes (14 ga. galvannealed material):
1. Underbody tool boxes:
   (two) 48” long x 20” high x 17” deep
2. Locks: Slam locks, keyed alike with hidden theft resistant rods

Cross Box:
1. “L” cross box - which includes underbody tool box
   Cross box: 24” long x 92” x 37” high across chassis rails; (6) swivel rope hooks; (1) shelf; (3) gal. water cooler holder

Optional:
1. Top ladder pruner rack

NOTE: Chassis cabs available to complete package 84” C/A Chassis cab required

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Brush Bandit Chippers
(2) Mighty Bandit II, Kohler 25 hp, Wisconsin 30 hp; (1) Mdl 60, Wisconsin 30 hp; (1) Mdl 65, Honda 20 hp; (2) Mdl 90, Cummins 4B3.9, Wisconsin gas; (1) Mdl 90W Cummins 76 hp; (3) Mdl 100, Continental diesel, Hercules gas; (3) Mdl 1250, Cummins 116 hp, John Deere 115 hp, GMC gas, Ford 109 hp; (2) Mdl 280, Cummins 4BTA3.9, John Deere 110 hp.

Bandit Whole Tree Chippers
(1) Mdl 1250, Cummins 200 hp diesel; (4) Mdl 1254, Cummins 200 hp diesel; (2) Mdl 1290 Drum, John Deere 80 hp diesel; (2) Mdl 1400, Cummins 200 hp diesel; (1) Mdl 1400 Track, Cummins 200 hp diesel; (1) Mdl 1450, Cummins 116 hp diesel; (1) Mdl 1850 w/loader, Cummins 250 hp diesel; (1) Mdl 1850 Track, Cummins 250 hp; (2) Mdl 1900, Cat 425 hp diesel; (1) Mdl 3680 Beast, John Deere 375 hp.

Morbark
(1) Mdl 5, Kohler 12 hp gas; (1) Mdl 7, Wisconsin 35 hp gas; (1) Mdl 10, John Deere 56 hp diesel; (1) Mdl 13; (1) Mdl 16, Cummins 250 hp diesel; (2) Mdl 17, Perkins 113 hp diesel; (1) Mdl 100, Kohler 24 hp; (1) Mdl 200, Cummins 100 hp diesel; (1) Mdl 3036, Cat 330 hp; (4) Eeger Beever, Wisconsin gas, Cummins diesel, Ford 65 hp gas; (1) Tub, Cat 375 hp.

Vermeer
(1) 630- A Stump grinder; (1) 665- A Stump grinder; (2) Mdl 1250, Perkins 80 hp, Ford 6 cylinder gas.

Miscellaneous
(1) Asplundh, Ford 6-cylinder gas; (2) Asplundh 16-inch drum, Ford V-8; (1) Asplundh Whisper; (1) Wayne drum, Chrysler 6-cylinder gas; (3) Mitts & Merrill, 6-cylinder gas; (1) Chipmore 12-inch drum, 6-cylinder Ford gas; (1) Treelan Mdl DL-18; (1) Duratech HD-8 tub, Cat 183 hp diesel; (1) Innovator 8-foot tub, Cummins 177 hp diesel.

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<td>..........</td>
<td>37. Lewis Utility Truck Sales, Inc.</td>
<td>68</td>
</tr>
<tr>
<td>4. Altec Industries, Inc.</td>
<td>43</td>
<td>40. NAA - ANSI</td>
<td>67</td>
</tr>
<tr>
<td>5. Altec Industries, Inc. - Used Equipment</td>
<td>59</td>
<td>41. NAA - EHAP Program</td>
<td>30</td>
</tr>
<tr>
<td>6. American Arborist Supplies, Inc.</td>
<td>23</td>
<td>42. NAA - Membership Program</td>
<td>53</td>
</tr>
<tr>
<td>7. Arbor Direct LLC</td>
<td>68</td>
<td>43. NAA - Tailgate Safety Program</td>
<td>65</td>
</tr>
<tr>
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<td>33</td>
<td>44. New England Ropes, Inc.</td>
<td>55</td>
</tr>
<tr>
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<td>48</td>
<td>45. Northeastern Associates</td>
<td>64</td>
</tr>
<tr>
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<td>60</td>
<td>49. Pete Mainka Enterprises, Inc.</td>
<td>49</td>
</tr>
<tr>
<td>14. Bishop Company</td>
<td>51</td>
<td>50. Petersen Industries Inc.</td>
<td>58</td>
</tr>
<tr>
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<td>15</td>
<td>51. Porter-Ferguson</td>
<td>48</td>
</tr>
<tr>
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<td>39</td>
<td>53. Rayco Manufacturing, Inc.</td>
<td>72</td>
</tr>
<tr>
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<td>61</td>
<td>54. Roots, Inc.</td>
<td>1</td>
</tr>
<tr>
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<td>20</td>
<td>55. Royal Truck &amp; Equipment Inc.</td>
<td>41</td>
</tr>
<tr>
<td>20. CNA Commercial Insurance</td>
<td>35</td>
<td>56. SavATree</td>
<td>57</td>
</tr>
<tr>
<td>21. Creative Automation Solutions</td>
<td>31</td>
<td>57. Schodorf Truck Body &amp; Equipment Company</td>
<td>60</td>
</tr>
<tr>
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<td>29</td>
<td>58. Sherrill, Inc.</td>
<td>38</td>
</tr>
<tr>
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<td>63</td>
</tr>
<tr>
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<td>50</td>
</tr>
<tr>
<td>25. FC1/Racine</td>
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<td>32</td>
</tr>
<tr>
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<td>70</td>
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<td>62</td>
</tr>
<tr>
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<td>45</td>
<td>63. Tanaka - International Sales/Marketing</td>
<td>39</td>
</tr>
<tr>
<td>28. Fuel Harvestors Equipment, Inc.</td>
<td>38</td>
<td>64. TCI EXPO '99</td>
<td>27</td>
</tr>
<tr>
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<td>3</td>
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<td>66. Timberwolf Manufacturing Corporation</td>
<td>56</td>
</tr>
<tr>
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<td>67. Tree Tech Microinjection Systems</td>
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<td>66</td>
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TREE CARE INDUSTRY - JUNE 1999

We have a variety of poles, including white ash, in solid lengths; also six-foot sectional poles with lightweight aluminum couplers. Also available is a line of nonconductive, sectional or full-length, fiberglass poles for the electrical contractors.
On Friday evenings, before everyone had to answer the call of home and family, my co-workers and I would gather on my back porch and reflect on the week at work, recalling that huge takedown, the client who brought us pizza, or the log that nearly rolled into the creek. Each story included an attempt to make the incident more dramatic than it really was. Inevitably, someone would ask, "What do you think that orange thing is in the top of that tree?"

The same speculations would always arise.

"It looks like a kite."

"Yeah, but it's round. It looks more like one of those Halloween trash bags with the pumpkin face on it."

"But how did it get 75 feet into the top of the tree?"

And on and on until everyone had to go home.

One day, the call I was waiting for finally came. Prune the tree with "The Thing" in it. The neighbor asked me if I knew what that was in the top of the tree, and also pointed out a mess of strings and a box hanging between hers and her neighbor's house. She thought that the neighbor had installed a bat box or something. Bat boxes were fairly new then, and neither of us were sure what they looked like. Upon starting, another neighbor came out to talk and mentioned that she thought I had put in that "bird house," and what was that orange thing in the top? Everyone was confused!

There was no deadwood higher than 35 feet, but there was no way I was going to climb that tree and not retrieve the alien orange artifact. Once I had determined that the box wasn't intended to be a home for anything, someone on the ground worked to cut the strings with a pole pruner. I cut, they lowered, I climbed, with only one thing in mind—learn the secrets of "The Thing!"

Closer to the top I could see more string, shreds of plastic (it had been a long time since the first sighting and the wind and branches had ripped it up), and something like a blackened, dried-up chicken neck tangled in the strings.

The box was cut out and one of the guys opened it. It read: "The apparatus you have found belongs to the National Weather Service. It is a balloon released from Athens, Ga., for research purposes and was intended to rise to a height of 17 miles. Please remove the strings, cut the box open on the dotted lines, remove the batteries and take the remainder to the U.S. Post Office where you can mail it back to us ... at no charge. Thank you for your cooperation." Darn, no alien connections.

I was happy to follow the instructions and doing so made me feel like a real patriot. Since then, I have spotted two others, retrieved one with a throw line and gave it to the client's son to experience. Every now and then, as the stories come and go on the porch or by the trucks at the end of another week, the one about "The Thing" comes up for a laugh.

Mark Collins is the owner of Appleseed Tree Service in Decatur, Ga.
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