



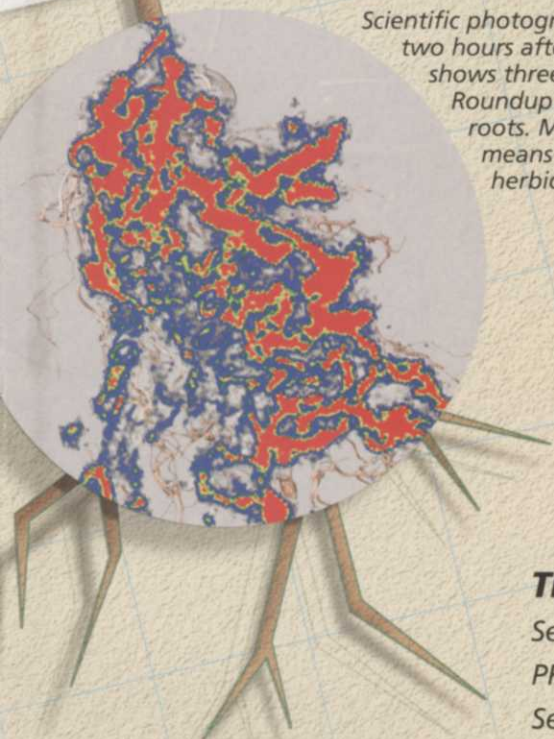
This is a cross-section of a weed leaf magnified 1000x. The yellow droplets mean Roundup Pro is already at work inside.



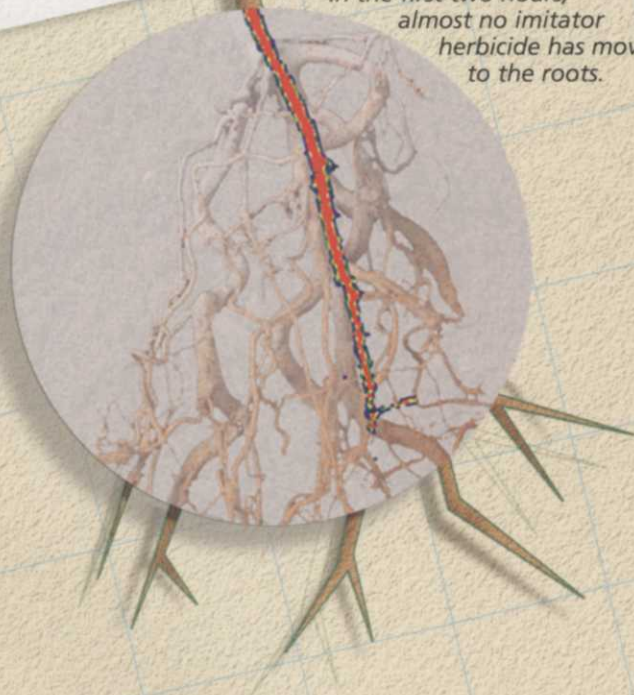
This weed, sprayed with the imitator, has almost no droplets in the leaf.

Glypro Plus

In the first two hours, almost no imitator herbicide has moved to the roots.



Scientific photography taken two hours after application shows three times more Roundup Pro in the roots. More color means more herbicide.



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Free video shows science in action.

See PROformance technology at work in a free, five-minute video. Scientists Dr. Tracey Reynolds, Ph.D., and Dr. Jimmy Liu, Ph.D. demonstrate the autoradiography and cryo-SEM techniques used to compare Roundup Pro with Glypro Plus on two identical weeds.

Call **1-800-ROUNDUP** and ask for your free Roundup Pro video today!



Always read and follow label directions. Test conducted with MON 77360, EPA Reg #524-475 with comparison to Dow product carrying EPA Reg. # 62719-322. 1. Test methodology: In scanning-electron microscopy Monsanto scientists identified penetrated formulations of both Roundup Pro and Glypro Plus in the mesophyll cell layer. These micrographs support the evidence that formulations containing Monsanto's patented PROformance technology rapidly penetrate the leaf surface. 2. Test methodology: Radiolabeled formulations were applied at equal acid-equivalent rates. Radioactivity was visualized by autoradiography following a simulated rain event two hours after application. Monsanto laboratory tests, 2000. Glypro Plus is a trademark of Dow AgroSciences LLC. Roundup[®], Roundup Pro[™] and PROformance[™] are trademarks of Monsanto Company. [10613 jct 1/01]
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What an awful way to go

Fire ants lose their heads over new bio-treatment

AUSTIN, TX — A tiny imported fly no larger than the head of a pin may be the key to controlling the imported fire ant, a serious turf pest in the South.

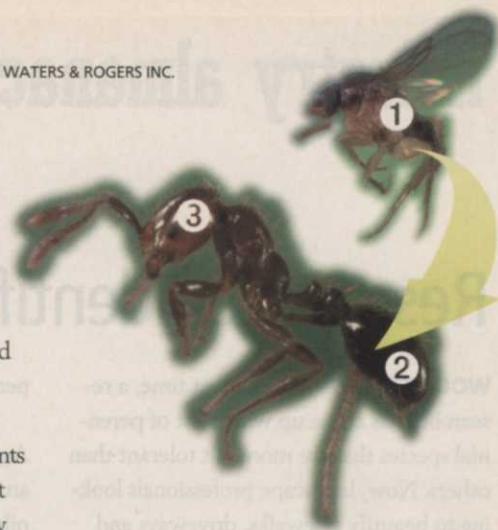
The phorid fly, a natural predator of the fire ant, hovers over its victim and injects an egg into it. The egg hatches several days later, and the miniscule maggot moves into the fire ant's head. As the maggot matures, it releases an enzyme that causes the ant's head to fall off.

Larry Gilbert, an ecologist at the University of Texas, has established a phorid fly breeding farm in Austin, TX. So far, he and his team have released more than 100,000 flies in Texas. Similar trials are underway elsewhere. Researchers in Gainesville, FL, for example, say the flies they released over a

period of several years can now be found over a 1,000-sq.-mi. area.

Sanford Porter, with the USDA in Gainesville, FL, says that the imported fire ants stop their foraging and flee when they detect the presence of the flies. While the flies may not be able to kill great numbers of fire ants, they may cause enough of a disruption to give native ants an advantage to reduce the impact of the imported pest ants, he explained.

The imported fire ant was inadvertently brought to the United States about 80 years ago from Brazil. Although both the federal and state governments have spent hundreds of millions of dollars trying to eradicate the pests, their range keeps extending. Imported fire ants are commonplace in the Southeast, and their range is spreading west and north.



1. Phorid fly injects egg into fire ant.
2. After hatching, the maggot travels to the fire ant's head.
3. After reaching the fire ant's head, the maggot matures, releasing enzymes which cause the head to fall off.

Both Gilbert and Porter cautioned against counting on the phorid flies to have a great impact on fire ants anytime soon. Testing will continue for several years, they said.

People & companies

L.R. Nelson Corp. appointed **Douglas Ramsdale** vice president, international and



managing director of its wholly owned European subsidiary, Nelson, BV.

Exmark Mfg. promoted **Dan Dorn** to product marketing manager.

Green2go.com named **Robert Shoelson** merchandise manager for the web site's green products.

Otterbine Barebo appointed **Chris Barebo** president.

Harmony Products, Chesapeake, VA, named **Gregory R. Moore** north-east regional sales manager.

Stens Power Equipment appointed **Terry Deneau** territory manager and Lee Boehm to oversee management at Stens' seven distribution centers throughout the U.S. **Craig Smith** was promoted to market development manager.

Environmental Care, the landscape maintenance company of Environmental Industries, hired **Scott**



O'Donnell as a member of its national accounts team.

Yanmar Diesel America announced the certification of its compact air-cooled diesel engines by the United States Environmental Protection Agency.

Cebeco International Seeds retained the services of **Eric Schmidt**, with Schmidt Services, LLC, as southwest regional representative.

John Deere's 4700 compact utility tractor was honored with an AE50 award by Resource Engineering & Technology for a Sustainable World. AE50 awards

are given each year to honor companies that release the best new products engineered for agriculture, food, biological and related systems.

Tyler Enterprises expanded its product marketing efforts into municipal and independent athletic fields and grounds. **Brian McGuffin** was hired to head the effort. It also opened a full-service warehouse and delivery operation in Indianapolis, IN that will serve as a distribution center for its custom blended fertilizer products and specialty chemicals and an office for the Indiana sales team.

Researcher identifies perennials tolerant to salt

WOOSTER, OH — For the first time, a researcher has come up with a list of perennial species that are more salt tolerant than others. Now, landscape professionals looking to beautify sidewalks, driveways and roadways subjected to heavy de-icing during winter don't have to guess as to which

perennials will work best.

Laura Deeter, an Ohio State University Agricultural Technical Institute researcher, analyzed 38 perennial species and compiled a list of 15 plants that performed the best under various levels of soil applied sodium chloride.

Species found to be very tolerant to salt were:

- **Splendens sea thrift**
- **Karl Foerster feather reed grass**
- **Helen Allwood pinks**
- **Blue lyme grass**
- **Perennial fountain grass**

Other species found to be tolerant included Powis Castle wormwood, Silver Mound artemisia, Elijah Blue fescue, variegated hosta, sea lavender, Cherry Cheeks and Stella d'Oro daylilies, Autumn Joy sedum, creeping lilyturf and Palace Purple alumroot.

Deeter discovered that it was each plant's ability to regulate where the sodium went within the cell that determined how salt tolerant they were.

The five-year project started in a greenhouse before ending in a hand-salted field. "I wanted to see if the results of the greenhouse study accurately predicted salt tolerance during dormancy, and they did for those plants studied," Deeter says.

Info Center

VIDEOS AND LITERATURE FOR THE GREEN INDUSTRY

FIND A BRIGHT IDEA... in HADCO's "At a Glance" brochure, which provides an overview of the company's landscape lighting fixtures and allows lighting



specifiers to make easy comparisons for specific illumination requirements. To obtain a copy, call 717/359-7131 or log on to www.hadcolighting.com.

SEE INTO THE FUTURE...with ALCA's Crystal Ball Report 21 entitled, "Implementing Technological Change in Your Company: Incremental Improvement or Re-engineering." The report tells landscape contractors how technology can help their businesses and what the challenges are in incorporating technology into their every day operations. It costs \$5 for ALCA members and \$25 for non-ALCA members. To receive a copy call 800/395-2522 or log on to www.alca.org.

BAYER PRODUCTS, PROGRAMS AND RESOURCES...can now be found at

www.BayerProCentral.com, a new customized Web site devoted to professional service providers. Whether you want to enroll in the free Bayer Accolades rewards program or look up pest information, the Web site will be there 24 hours a day.

TREE PRUNING GUIDELINES... are offered in the International Society of Arboriculture's (ISA) Tree-Pruning Guidelines publication. Written and reviewed by a committee of top arborists and educators, it was developed to accompany the new A300 Pruning Standard set forth by the American National Standard Institute (ANSI) and designed to be used in the field as a handy pocket reference or to assist in training. To order contact ISA at P.O. Box 3129, Champaign, IL, 61826-3129.

LOTS O' SEED...can be found in Barenbrug's new catalog entitled, "Grass Seed Mixtures for the Professionals." The catalog profiles more than 35 of Barenbrug's varieties so that its grass seed users can select the correct variety for their needs. To obtain a free copy call 800/435-5296.

All in the family?

Only 3 in 10 family businesses survive the transition from the first to the second generation.

Only 1 in 10 of these businesses survive the transition to the third generation.



—Steve Naito, AOI
Business Viewpoint (January/February 1999), publication of the Associated Oregon Industries

Laws target bio-tech vandals

RICHMOND, VA — Two state lawmakers here have proposed harsher penalties for those convicted of vandalizing agricultural research projects, reports the Mid-Atlantic Grower. The legislators are sponsoring the action in the wake of raids on bioengineered crops and animal research laboratories. Animal rights activists and organizations opposed to genetic engineering have claimed responsibility for the mayhem.

Justin White of The American Crop Protection Association (ACPA) says there

have been 40 attacks on ag bio-tech research in the last two years. Last June, for example, the Anarchist Golfing Association caused damaged estimated at \$300,000 to turf plots

at an Oregon seed research facility.

California toughened its penalties for vandalism to ag research, and other states are debating bills that treat vandals as criminals.

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Circle 112

Crew size is the kind of issue that's maybe "too close for comfort" — or at least too close to get the attention it deserves.

It's so obviously important that perhaps we look right past it.

LANDSCAPE MANAGEMENT knows at least two successful contractors who understand the importance and competitive value of getting their crew sizes right. They've agreed to share with you what they've learned over the years about the ideal crew size. ▶ ▶ ▶

Jerry Gaeta, The Good Earth, Inc.

Jerry Gaeta is president of The Good Earth, Inc., Mount Pleasant, SC, a \$3 million company with 62 full-time employees that provides lawn, design/build and landscaping irrigation services, plus a turf program covering sports fields. Gaeta also serves as a management consultant to the Green Industry under the aegis of Charles Vander Kooi, a Littleton, CO-based management consultant to the Green Industry and related industries.

As part of his consulting duties, Gaeta gives seminars and does public speaking — often on crew size, a subject he is passionate about.

Landscape Management:
Why are you so interested in crew size?

Gaeta: Because labor is nearly the whole thing we sell, and with the lack of experience in the work force today, typical crew leaders cannot handle more than two or three people efficiently.

Labor is the primary thing that costs us money in this industry. Many



Is your.
crew size
on target?

BY GEORGE WITTERSCHEIN

Most landscape companies believe a three-man crew is ideal for commercial or larger sites.

people in our industry focus too much on materials, whereas our company focuses on labor. Labor is the key factor that makes you competitive or non-competitive. With so much unskilled labor today, you're much better off having the most efficient crew size and rewarding those people a little bit more so they don't have to "babysit the deadweight" so much.

If we need larger crews on a particular job site, we'll put two crews together with a responsibility level. The objective is for the foreman to remain within eyeshot of the laborers, aware of where they are at any time so that he can get more efficiency out of them.

Keeping that in mind, we've been running with 20 fewer employees since the summer. Our productivity has gone up, which means our labor costs have come down.

It's customary for landscapers in this region to do everything by 12-month contract. As labor costs climbed over the last six or eight months, we had to increase our productivity if we wanted to make money on our fixed contracts. That meant we had to reduce our crew size by one or two persons.

LM: How do you measure productivity?

Gaeta: By comparing the estimated man-hours on a job vs. actual hours. We also do time and motion studies during the year to validate our assumptions.

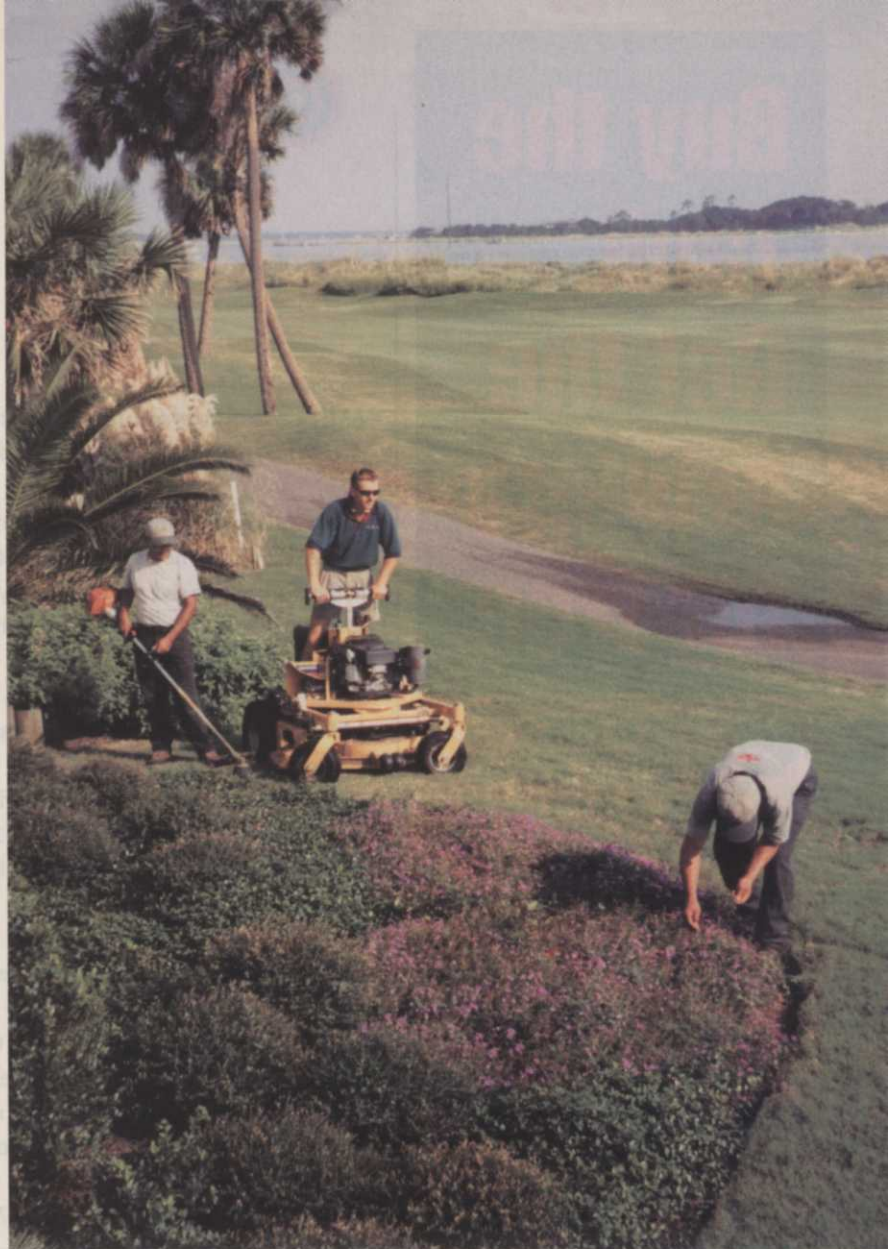
LM: What do you call the right crew size for a particular kind of work?

Gaeta: We try to have the right number of people that our foremen can handle, which is normally three. When a foreman has four or five people, two aren't producing much, and the foreman spends most of his time babysitting.

I have people here who can efficiently handle five or six people. We look at the volume of work the job site requires and try to do that work with the most efficient crew size possible. At a larger job, we stick with a three-man crew.

LM: What's the right crew size for your residential lawn maintenance work?

Gaeta: We do a lot of lawn maintenance work. About 70% of my business is maintenance under fixed con-



tracts, and our crew size for maintenance is two to three people. Some special projects have four-man crews, and these are managed by our most experienced foremen.

LM: How about a basic commercial property traveling crew that does things like bed work and irrigation?

Gaeta: We have an irrigation service technician who's a one-man show. We don't have a detail crew because all the detail work is typically done by the crew on the job site. We do have an "enhancement" crew that plants our annuals and does our mulching. In the past, we found that having a detail crew sometimes made the regular crew lazy.

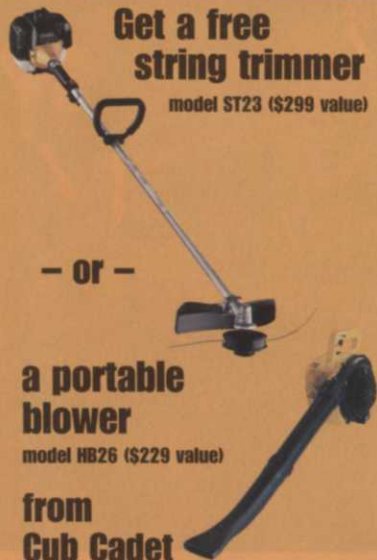
We break out the "big mow" crew at certain times of the year or for certain projects to do some of the cutting with a big mower and keep the other guys moving quicker.

continued on page 28

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CREW SIZE

continued from page 27

LM: Does the issue of crew size have anything to do with the problem of labor availability these days?

Gaeta: Absolutely. Once you understand that you're selling labor hours that are hard to find in the marketplace and productivity is your competitive edge, you'll automatically begin to focus on a smaller crew size.

LM: Do you find that your crew configuration makes any difference?

Gaeta: We typically have a foreman, who we call a supervisor; a lead person, who's a foreman in training and who can serve as a backup foreman; and a laborer.

LM: What kind of equipment do your crews use, and how do your crews get to jobs?

Gaeta: We run in a regular van/pickup truck which sometimes has an open trailer behind it. We're looking at getting a large cutting machine this year to reduce labor some more.

LM: Do you ever change your basic crew?

Gaeta: We try not to, but it happens during the winter sometimes when our schedule is lighter and we have to shift people around for things like hard pruning. We try to keep the basic crew together — we may pull a float man off another crew — but we've found that shifting crews around causes bedlam. This is especially the case in the maintenance business, where the object is for the people on the crews to know the job site and go in knowing exactly what to do.

LM: Do you find that the cohesiveness of a crew can get messed up if you keep shifting crews around?

Gaeta: Exactly right. We have a very good foreman who's been with us for a long time — and he used to be the training ground. This frustrated him because he would train some-

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Time and motion studies — should you be doing them?

When asked whether or not time and motion studies are important in his company, Tony Bass of Bass Custom Landscapes replied with an enthusiastic "yes." In fact, he says efficiency is impossible without them.

Bass: I concentrate on time and motion studies a lot. Many people in our industry talk about the "morning circus" — the situation that occurs when people do everything except getting into the truck and heading out to the first job. You can't possibly run an efficient operation if you have the "morning circus" going on. I did a time and motion study in our company a few years ago, and it turned out we, in fact, did have the "morning circus" going on. My study revealed that the problem was the 180 feet from our time clock to the truck parked farthest away on our yard. After some observation, I realized that no one was walking a straight line to the truck. Now, as a solution to this problem, we have one employee who comes in early and lines the trucks up just outside the office doors. As a result, the trip from the time clock to the truck cab is now 15 steps, and our managers find it easy to keep an eye on everyone. This study led to crews to arrive an average of six minutes earlier per day at their first job. Clearly, time and motion studies are also useful in establishing your correct crew size.

LM: Where did you learn to do time and motion studies?

Bass: [laughs] I started doing them in the early days to keep from starving to death! I have an agricultural engineering degree from the University of Georgia, and that's where I learned to perform time and motion studies. (Our readers can also learn to do those by taking courses at local community colleges, or looking for professional organization seminars.)

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Circle No. 113 on Reader Inquiry Card



continued from page 28

body and then that person would leave. But if you're switching people around, you have to tell them exactly what to do every time you're on a job site. That slows things down, and could cause problems for the client.

LM: *Do you find that your crew members like to work with the same people for a long time?*

Gaeta: Yes. We like to keep the basic makeup of the team the same.

LM: *Do you ever form SWAT teams to do things like hydroseeding?*

Gaeta: We subcontract out our hydroseeding, but we do have some special service crews in the maintenance business. We have one crew that does our annual planting and mulching, and they can be that SWAT team as necessary.

LM: *Do you feel you have finally found your right crew size?*

Gaeta: I'm not sure you ever find that. I feel that our crew size is working properly now for the job sizes we have, but given some of the work we're starting to chase, we may have to increase our crew size here and there. For example, you may have to increase your crew size if you have a larger job that has to be completed within a short period of time. An extra person can occasionally help with detail/bed work on big jobs with short time frames. But I don't think we'll

Spending for employee training — 1% to 2% of total sales

Avoiding the spending trap

No matter what crew size you use, your employees will be more efficient, effective and careful with continuous training. *Landscape Management's* Best Practices Panel recommended a variety of training dollar ranges from .5% to as much as 10% of total sales, but it doesn't have to be expensive. In fact, training may have a higher cost in time than actual dollars.

Resources to the rescue

Where can you get good training resources? Do-it-yourself is a good start, but there are so many thorough, inexpensive and worthwhile resources available, including:

- Associations — National and regional associations have video programs, training guides and "tailgate" programs on equipment use and technical topics.
- Local associations — They offer reasonably priced one-day programs on specific topics.
- Suppliers — Many dealers, distributors or manufacturers provide on-site training, training days, videos, product manuals and other resources for free.
- Conferences — Get in the loop at state or regional turf, horticultural or association ed-

ucational conferences.

- Outdoor demos — Grab a good opportunity to review and try out safety and operating features.
- Group training programs — Experts may hold their own seminars or ongoing programs offering specialty or multi-language training.
- Company training — Bring in your own professors or experts to make sure everyone has a solid technical foundation.

ever go over four people per crew, even though we do have some foremen who can handle larger crews.

Pressures also work in the other direction. On some jobs, we'll try to get our three-man crews down to two people via natural attrition. Our costs for things like labor, gasoline and health insurance have started to go up, and given that I can't raise my prices much, I'll try certain (mostly residential) jobs with crews of two. It's difficult to raise prices in this industry, especially on service, so crew size is the first

thing I look at when fighting cost increases.

LM: *Has your crew size contributed to your success? How do you measure that?*

Gaeta: Yes, it has. I measure success in two ways: first, I've been in business 26 years, and second, we're still holding onto our good long-time accounts.

Two more signs of our success are that we've been getting minimal increases in our contract prices, and we've signed a lot of renewals for maintenance contracts. The fact that I've been keeping the

price in line and the quality high tells me that I'm succeeding.

Tony Bass, Bass Custom Landscapes

Another landscaper with a passion for getting crew size right is Tony Bass, owner/president of Bass Custom Landscapes, Bonaire, GA. His company has been in business since 1987, commands revenues of \$2.5 million a year and has a peak-season workforce of 55 people providing landscape, design/build and lawn maintenance services to commercial and residential customers.