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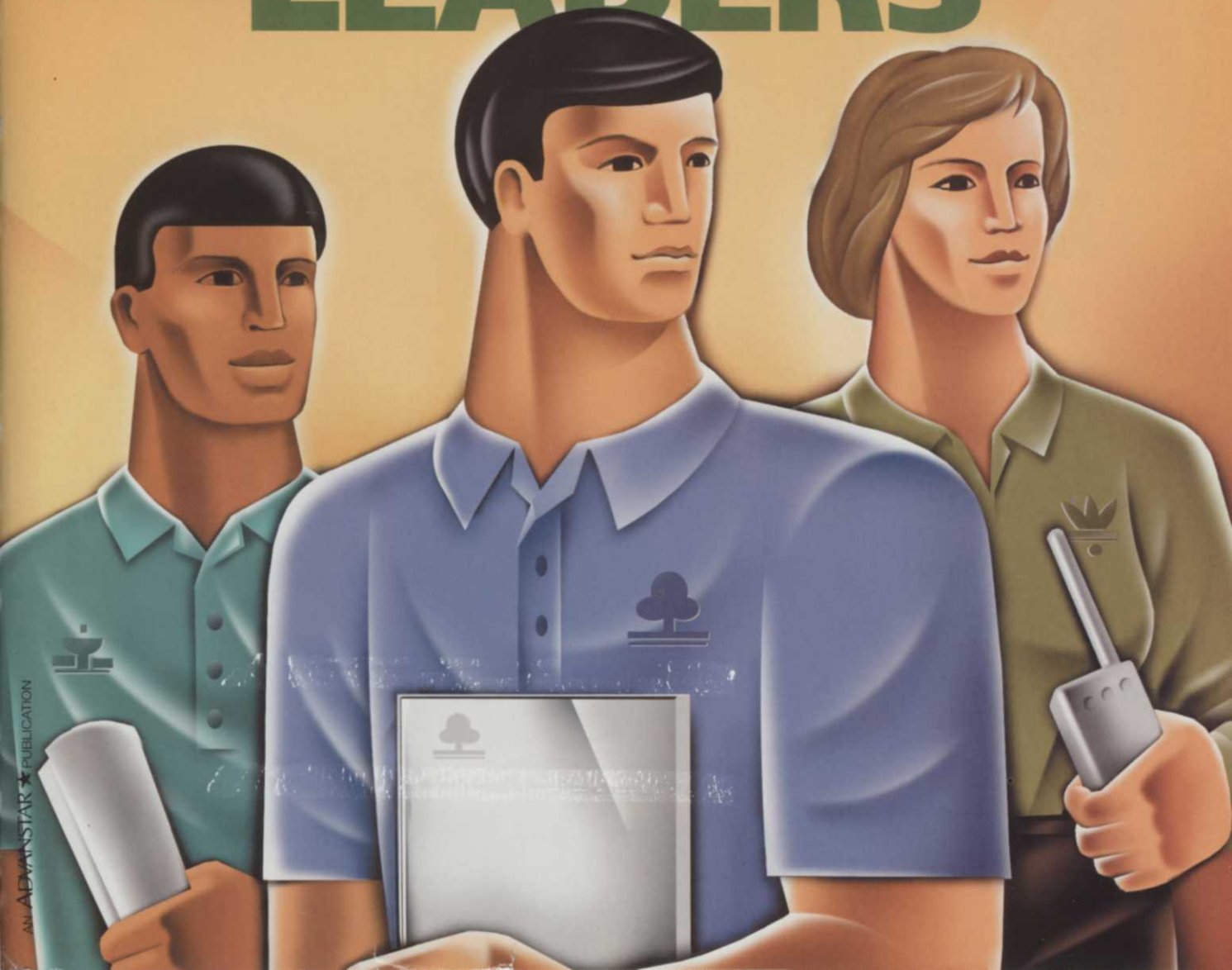
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MANAGEMENT



FEBRUARY 2002 / www.landscapemanagement.net

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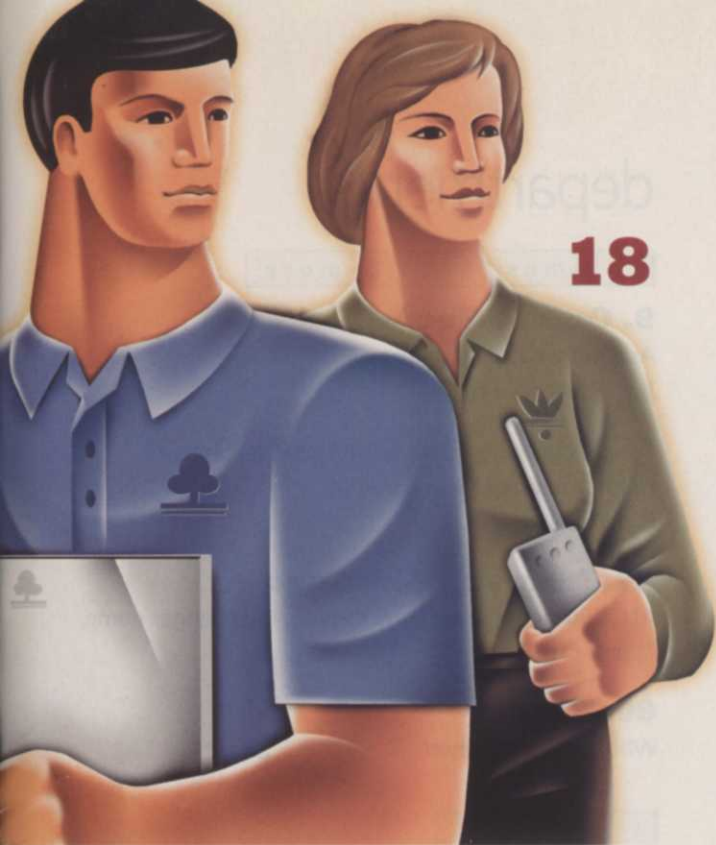
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Landscape MANAGEMENT

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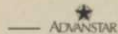
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■ Cover story: Focus on your strengths

Learn strategies to get better at what you do best, whether it be design/build or maintenance

■ Common sod job screw-ups

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■ Herbicide options

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■ Skid-steers and accessories

In the market for a skid-steer? Want to save time and labor with a new attachment? Check this out

■ How to grow fast

Learn from one landscape company owner's bumpy ride on the acquisition trail

■ Plus: Former Major Leaguer

Paul Zwaska reveals more of his secrets in maintaining the perfect infield, landscape pros speak out in "Inside the Owner's Head," the latest news in Industry Almanac, and more.

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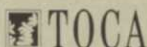
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Ask 'em what they think

How would a weekend at the Chicago Ritz Carlton sound to you? Would you treat yourself to a great meal? Check out a blues club? Take in an afternoon Cubs game at Wrigley? I can think of about two dozen things to do in Chicago on a weekend, particularly if somebody else is picking up the tab.

Robert Kinnucan is president of Kinnucan Total Landscape Management. I sat with him and several other landscape pros at an ALCA round table this past November.

Robert's company, based in Lake Bluff, IL, competes in the take-no-prisoners Chicagoland market. Some of the biggest and toughest regional operations in the nation duke it out there. Thousands of smaller operators growl over pieces of the market the big guys don't snap up.

If you want to be in the landscape business (and stay in business) in this market, you can't afford to be timid. And Kinnucan's firm is not timid.

Give to receive

Several seasons ago, it put up the money for the Ritz Carlton weekend and offered the promotion in a survey to homeowners in several upscale neighborhoods it wanted to penetrate. The Ritz Carlton agreed to a special rate, realizing it would reap some positive publicity in those neighborhoods. The response from potential clients was great, says Robert.

Even though that was a one-shot deal, Kinnucan preaches the value of ongoing customer contact. He regularly mails clients a one-page survey folded in

thirds that they can complete and return within 30 seconds. Respondents are eligible to win \$100 in free services from his company. Drawings are held quarterly.

The mailer's purpose is to measure client satisfaction. If there's a problem with his firm's services, it will show up on the survey and his managers can take action.

Kinnucan says the surveys keep his company's name and services in front of customers' eyes, serving as another form of advertising, subtle but effective.

But even the lure of winning a valuable prize sometimes can't generate the kind of response, at least not quickly enough, that Kinnucan sometimes feels he needs to keep his operation on track. "Often you get a delayed bounce on these surveys," he says.

Then it's time to call or meet with customers personally and find out what they think about your services and, perhaps, find out what else you can do for them.

Nobody in this business can afford to offer an expenses-paid weekend or \$100 in free work to a client every time you contact them. But almost all customers will appreciate that you've asked them what they think anyway.

Take this opportunity to thank clients for allowing you to serve them, too. Your brief and simple customer satisfaction surveys probably pack a lot more goodwill than you think.

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Brief and simple customer satisfaction surveys probably pack a lot more goodwill than you think.

BY RON HALL / EDITOR-IN-CHIEF

Help! Manager is in a funk

Everybody, including great performers like Tiger Woods and Michael Jordan, suffers the occasional slump.

Those of us in the landscape and lawn industry are far from immune. Our business is intensely competitive, the work can be physically and emotionally demanding, and sometimes the days and weeks never seem to end. It's understandable why some of our most proficient managers or top-producing employees sometimes lose focus.

"Ouch! This scenario sounds similar to situations that we have encountered," says K. Biene Schaefer, Landscapes By Atlantic Nurseries, Long Island, NY. "Our biggest error was avoidance. We didn't know if the employee perceived the company to be the root of their situation or if it stemmed from elsewhere."

She advises to come right out and find out what's bothering the employee. "Ask the question and be prepared for a tough

answer or criticism. Then we can tackle the problem and perhaps arrive at a win/win situation.

"Or, we may be able to extend a helping hand. In either case, the outcome will be better than if we avoid the situation. We don't have to play therapist, but we should provide a listening ear. We don't have to fix their personal problem, but we may be able to do a bit of legwork and come up with outside resources for the employee," says Schaefer.

Experienced landscape company owners are on the lookout for struggling employees, and try to get them out of the slump before their behavior affects co-workers and the organization. Or, threatens their own careers.

Steve Corrigan, Mountain View Landscape, Chicopee, MA, favors having a "heart-to-heart" with an employee whose performance suddenly sags.

"I ask the employee, 'what's happening? We have customers and team members that aren't happy with your attitude and performance. Is there something wrong at work or at home? Is there something that we can do?'"

"The team member will usually start to tell you the problems and issues that are causing this unacceptable behavior and performance. That's when we must listen!"

Corrigan says that after he and the employee talk over the points that have been discussed, they'll lay out a path to get the employee functioning as a valuable team member again. After that, it's

Stopping the slump

- Discuss the problem with the employee. Listen!
- Determine if the problem is personal or work-related
- Jointly plot a path to get the employee back on track
- Provide adequate support for the employee to succeed
- Establish a plan to monitor the employee's progress
- Acknowledge improvement or, if performance does not improve, dismiss the employee



K. Biene Schaefer, left, says it's a mistake to ignore the signs. Steve Corrigan says act early.

Reasons for a slump

- Same routine, same tasks each work day
- Little or no opportunity for career advancement
- Lack of direction, supervision, support from management
- Physical or emotional burnout
- Dissatisfaction with employment, pay

up to the employee.

Some problems are beyond a business owner's control. "Family issues are tough," admits Corrigan. But if the employee is suffering burnout, the solution might be as simple as some time off. "Work will be there tomorrow," he says.

— Information provided by the Owners' Network, www.owners1.com, a program of JP Horizons.



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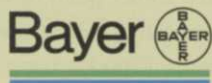
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industry almanac

NEWS YOU CAN USE

AGCO execs die in plane crash

DULUTH, GA — AGCO Corp.'s president and CEO, John Shumelda, and Ed Swingle, its senior vice president for sales and marketing, died in a plane crash at a Birmingham, England airport Jan. 4, 2002. The company said Robert J. Ratliff, executive chairman, will be assuming the additional responsibility of president & CEO on an interim basis.

Syngenta, Bayer resolve dispute

BASEL, SWITZERLAND — Syngenta AG and Bayer AG have reached an agreement on their intellectual property disputes in neonicotinoid chemistry. Under the agreement, Syngenta will pay Bayer \$120 million for full access to crop protection and related markets worldwide.

Florist Mutual becomes Hortica

EDWARDSVILLE, IL — Hortica is the new name of the company formerly known as Florists' Mutual Insurance Company. President and CEO Robert McClennan says the name change better reflects the broader market now being served by the company.

SePRO buys Dow's flurprimidol

CARMEL, IN — SePRO Corporation purchased the worldwide rights of flurprimidol plant growth regulator from Dow AgroSciences LLC. Flurprimidol is marketed under the trademarks Topflor, Cutless and Greenfield.

Student Career Days is big in '02

EAST PEORIA, IL — Representatives from almost 200 landscape companies will check out the cream of this year's crop of hort, turf and ag business students at the ALCA Student Career Days on the campus of Illinois Central College here March 21-24.

Last year's event, held at Colorado State University, attracted more than 700 students representing 48 schools. Organizers say that several new schools are sending students and as many as 800 participants — from two- and four-year institutions — will compare their skills in a series of 21 landscape-related competitions. Industry suppliers and landscape contracting firms sponsor the events, but the real action takes place at the concurrent Career Fair at the nearby Hotel P re Marquette. This year, ALCA carved out space for about 90 booths in the ballroom of the hotel, and by mid January only a few vacancies remained.

Another feature of the Student Career Days this year is an on-line resume posting and job openings listing service provided by GrowCareer.com. This service provides immediate access to information about the



About 800 students from U.S. two- and four-year colleges will compete for recognition and jobs at ALCA's Student Career Days in March.

students participating in the competitions. Sponsors and Career Fair participants will have special pre-event access to this on-line information to review resumes and biographical information to better match prospects to job openings and to decide whom to interview.

For more information, contact ALCA's Kirsten Combs at 800/395-2522, e-mail her at kirstencombs@alca.org or visit www.alca.org.

CLIPPINGS

Gowan acquires Rubigan

INDIANAPOLIS — Gowan Company, Yuma, AZ, and Margarita Internacional, Madeira, Portugal, announced on Jan. 23 that they are buying Rubigan fungicide and Magister insecticide from Dow AgroSciences LLC.

Professional turf managers are very familiar with Rubigan, a liquid broad-spectrum insecticide, used to prevent and cure dollar spot and other damaging diseases on turfgrass and ornamentals. Rubigan, active ingredient fenarimol, is also used to control *Poa annua* in overseeded warm-season turf.

Magister, active ingredient fenazaquin, is not currently registered and sold in the United States, but is used in over 25 other countries to control spider mites on several important fruit and vegetable crops, as well as ornamentals.

Gowan will market the products in the United States and Canada, Gowan de Mexico in Mexico and Margarita Internacional outside of North America.

National "Do Not Call" list proposed

WASHINGTON, D.C. — If you sell via telemarketing, you should be watching a senate bill to establish a national "Do Not Call" list. Senate bill 1881, sponsored by Senator Chris Dodd (D-CT) this past December, has been referred to the Committee on Commerce, Science & Transportation.

The bill, if passed, would require the Federal Trade Commission (FTC) to set up a national list maintained by states. Fourteen states have already established "Do Not Call" lists, and another six are implementing them.

Other provisions would reduce calling hours to 9 a.m.-9 p.m. and prohibit calls from 5 p.m.-7 p.m. Also, list brokers would be required to scrub their lists of consumers on the national list before selling them to telemar-

eters. Consumers who ask to be on the list will remain on it until they ask to be removed.

Landscape and lawn business owners tell *Landscape Management* that "Do Not Call" lists have not had an impact on their

sales in those states where they're in effect. Generally, consumers who ask to be placed on such lists aren't interested in buying products, any product, over the telephone, say the landscape pros.

RBI changes name

LITTLETON, CO — Landscape construction firm and golf course contractor Randall & Blake, Inc. (RBI) has changed its name to American Civil Constructors, Inc. RBI and San Francisco-based West Coast Bridge merged in 1999, but RBI continued to operate under its name.

"The reason we're doing it now is that we've acquired all these companies and we have so many names out there right now that we felt we needed to form one corporate identity," says Jody Randall, Marketing Manager.

Other major acquisitions the company's made since 1999 include Jack's Nursery, Slidell, LA, and Pavement Specialists, Inc., Roanoke, TX.

Rick Randall and Dave Ricciatiello of West Coast Bridge will continue to lead the company along with the support of CEO Bill Yearsley.

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Bobcat donates over \$200,000 to 9-11 victims and families

WEST FARGO, ND —

The Bobcat Company has donated \$208,300 to the American Red Cross in support of the 9-11 relief work.

Shortly after cleanup efforts in New York began, Bobcat immediately shipped additional units to area dealers, and the dealers supplied their customers with additional machines, maintenance supplies and attachments. Yet Bobcat wanted to do something more.

"Seeing images of the rescue on network television, and knowing Bobcat equipment owners were working at ground zero, made it all the more compelling to help," says Chuck Hoge, Bobcat's president and CEO.

Also, on Sept. 17th, Bobcat

began manufacturing a Spirit of America special edition skid-steer loader painted in patriotic colors. The company announced to its dealers that it would donate \$400 to the American Red

Cross for each special edition machine ordered, and gave local Bobcat distributors three days to place the orders. The company also announced additional donations of \$100 for other Bobcat loader models

ordered by September 30th. In all, more than 300 Spirit of America commemorative skid-steer loaders were ordered, plus an additional 883 units backed by the smaller contribution.

People & companies



The Toro Company named Mark Mullowney national finance manager.

Deere and Company announced the retirement of 30-year employee Kenneth L. Edwards. Edwards had been the director of marketing and sales for John Deere Golf & Turf since its inception in 1986.

Syngenta Corporation has given Bob Woods, chairman,

responsibility for Syngenta Crop Protection in NAFTA, which includes Syngenta Professional Products.

Lifestyle Landscaping, North



Ridgeville, OH, appointed Dan Wolfe multiple account manager.

Komatsu Zenoah America



hired Afshin Mehraban as assistant marketing manager for

its RedMax handheld power equipment.

Otterbine Barebo named Steve Blackshire southeast regional sales manager.

Aquatrols named Vic Swann national sales manager, Colleen Clifford marketing assistant, and Mark Cleveland territory manager.

FMC Corp. appointed Jim Walter turf & ornamental/general household pest segment manager.



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Circle 107

LandTek Group improves New York City soccer field

NEW YORK — LandTek Group of Amityville, NY, put a little bit of good back in lower Manhattan recently by renovating a full-size soccer field at New York City's East River Park in December.

When Mike Ryan, president of LandTek, and Marty Lyons, former New York Jets player who is now LandTek's sales and marketing director, were asked to do the work by representatives of the New York City Parks Department, they were happy to volunteer.

"It was a challenge we had to take on," says Ryan.

LandTek staff worked around the clock for six days

and finished in time for a party attended by many children and families who lost loved ones in the September 11th terrorist attacks.

Approximately 100,000 square feet of Edel Grass from Holland was installed by LandTek to replace dirt and rocks at the field, located at East 6th Street. Other companies fixed a dilapidated amphitheater in the park.

After artificial turf was laid down, recycled rubber pellets donated by Ford Motor Company were brushed in at an average of three lbs. per square foot.

A LandTek crew attached

sections of artificial turf 15 feet by 218 feet using seaming tape and glue. Edges were trimmed and secured, then workers brushed and fibrillated the surface, which made the blades into grass texture. Hundreds of passes were needed to make the fibers grass-like.

In the middle of the project, many of Marty Lyons' sports friends came to help. Former Met Buddy Harrelson was among those who drove machines that added rubber in-fill. Lending a hand were Joe Klecko, Bruce Harper

and Ken Schroy of the Jets, John Nitti of the Jets and Giants, and Mick Foley, "Mankind" of WWF fame. Others who helped out included Al Trautwig, sportscaster, Bobby Ojeda, former Met and coach of the Coney Island Cyclones, former boxing referee Randy Newman, private investigator and former NYPD Bo Dietl, and "Fireman Ed," a well-known Jets fan. The LandTek Group also had support from the New York City Police Department Football Team.

Surfin' Turf

Growing up, up, up



Slow and steady has been the name of the game for dot com Nursery Network, which survived the tech crash and is now expanding its offering of over 7,000 different varieties of

plants to East Coasters. "Our nurseries are primarily on the West Coast," explains Todd Wiseman, President of Nursery Network. "But East Coasters can find just about anything they're looking for too." Wiseman believes his site is more interactive and offers users more control than competing sites. Simply click on a plant and their system will tell you which growers have that material, the sizes they have it in, and their individual pricing. A Request For Bid system also allows users to post plant material they need, at which point any of over 120 growers can respond online with their best bid. A new bonus feature allows registered members to place unlimited ads on Nursery Network's newly opened classified ads page. Check it out at www.nurserynetwork.com.



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Circle 108

CREATING GOOD LEAD

Successful landscape pros share what they've learned about developing leaders in their operations

BY JASON STAHL /
MANAGING EDITOR

Every landscape and lawn company owner knows how difficult it is to find quality employees. It's even more difficult to find employees with good leadership skills or with the potential to develop into leaders. But finding those leaders is an integral part of running a business and ensuring its future success. The question then arises: Can leaders be created? If so, how, and what kind of system can be put in place to ensure leadership creation continually occurs?

Not impossible

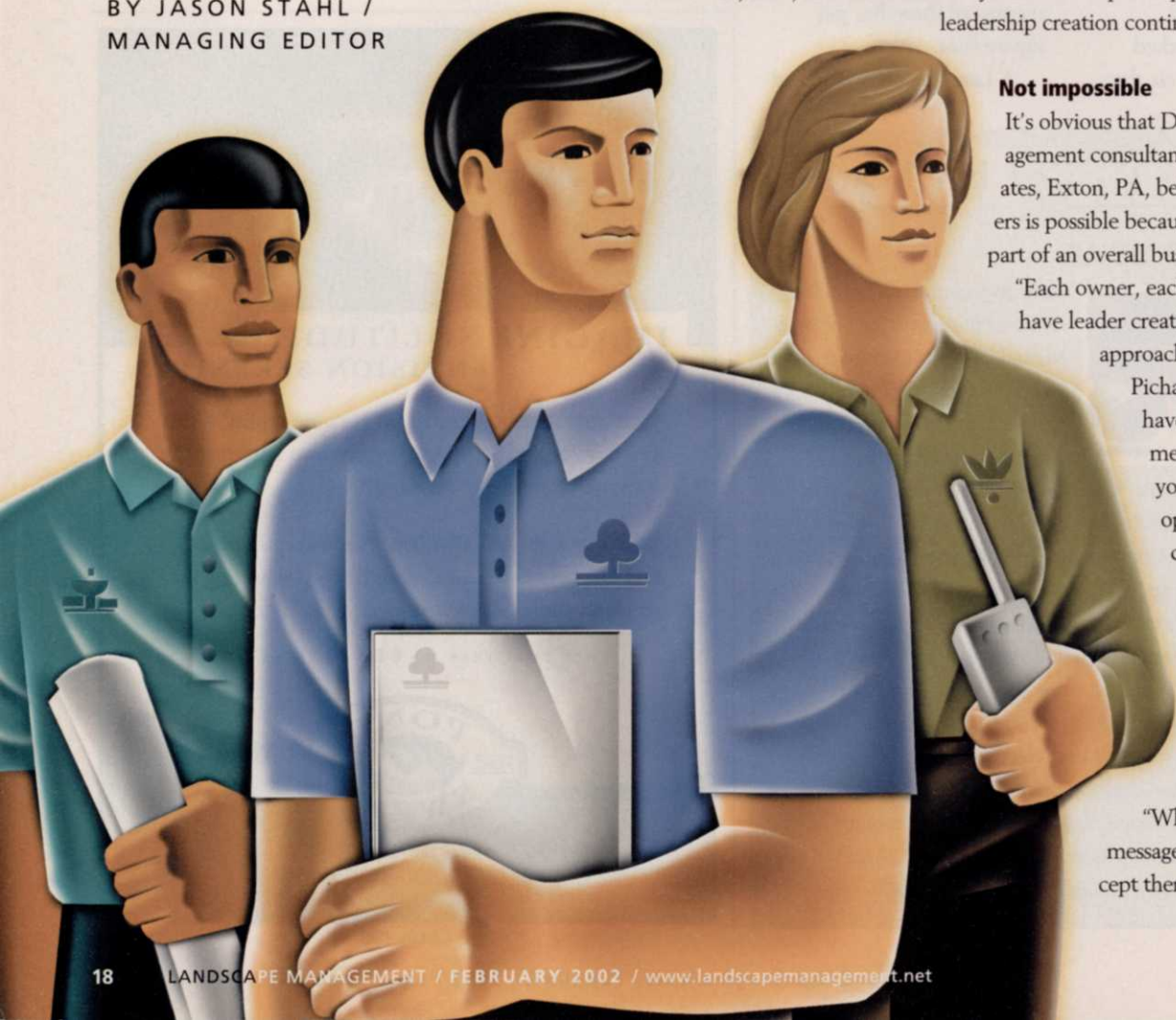
It's obvious that Daryl Pichan, management consultant with Kraft Associates, Exton, PA, believes creating leaders is possible because he espouses it as part of an overall business philosophy.

"Each owner, each manager must have leader creation as a fundamental approach of what you do,"

Pichan says. "If you don't have that as a fundamental approach, you're missing a huge opportunity in your company."

Pichan cautions, however, that acceptance of employees as they are, not how you want them to be, is also important.

"When people get the message that you don't accept them, they develop a



ERS

bad attitude, they leave, or they don't participate."

Another important thing to remember before going about leader creation, Pichan says, is that competencies don't equal capacity for leadership. "There is no correlation between being able to install properties properly and leading."

Pichan explains: "Who do we tend to promote to positions of leadership? Competent people. We tend to look at their competencies and say, 'They know how to run all of the equipment, so let's make them a leader.' Maybe that will work. It depends on the kind of coaching and training you're willing to give them. But if you're making all of your decisions based on their competencies as opposed to their capacity for leadership, my guess is that you're going to get yourself in trouble on occasion."

Gotta want it

Dan Standley, owner of Dan's Landscaping and Lawn Care, Terrytown, LA, takes it one step further by saying that not only does someone have to have the capacity for leadership, they have to want to lead.

"They have to be thirsty and want to drink the water," Standley says. "Otherwise, you're just wasting valuable time and money."

Standley's main strategy for creating leaders within his company is taking his employees to industry trade shows and exposing them to influential people and hoards of educational material. "I had a guy 13 years ago who walked to work and the only time he pushed a mower was in high school for his parents and now he's

Test time

When it comes to creating leaders in her crew, JoAnn Smallwood of Smallwood Design Group/Smallwood Landscape, Naples, FL, relies on professionals outside of her company to administer tests and training.

Specifically, Smallwood employs the services of Talent Plus, an international consulting firm that provides a selection and development system that fosters company growth by maximizing human resources. Part of the system involves a test to determine how likely it is that a certain person can become a leader.

"It determines whether or not a person has the base talent needed to grow them into a leader over time," Smallwood says. "It's definitely possible to mold someone into a leader. It's more about understanding people."

To gain that understanding, Smallwood relies on other tests such as the Myers-Briggs personality profile, and an instinctive drive test that indicates areas that complement an individual's personality.

For more information on Talent Plus and Myers-Briggs, visit www.talentplus.com and www.cpp-db.com.



Both Dan Standley (left) and Chris James believe the faster you can determine whether or not a person is a leader, the better.

a supervisor," he says. "A lot of it had to do with my involvement with him — providing him with education materials and doing a lot of hands-on activities with him, including mentoring."

Chris James, president of Chris James Landscaping and Snow & Ice Solutions, Midland Park,

NJ, echoes Standley's view that time is of the essence when it comes to creating leaders. "Some people will step up and become leaders, but others won't," James says. "The quicker you can make that assessment, the happier you'll be and the happier they'll be."

One of the things James looks at when trying to identify leaders is who steps up when someone is on vacation or sick. "It's when the foreman gives someone a little extra responsibility, and then afterward you assess how he or she did," he says.

Give them an opportunity

For those individuals you see growing into leadership, Pichan advises that you need to make the commitment to develop them into a leader.

"Commit to 30 minutes a week with them and do that for a month," Pichan says. "Take a look at how they're functioning and how they feel about their work. Do that individually and set an agenda by saying, 'I have specific things I want you to work on.'"

Dave Peabody, president of Peabody Landscape Construction, Columbus, OH, committed to making 26-year-old employee Joe Hivner a leader from the start. Peabody has developed close relationships with two local colleges, The Ohio State University and Columbus State University, by offering internships to students studying in the schools' landscape programs. This ensures that the recruits have the skills necessary to become leaders. Hivner was a recruit from Ohio State, and Peabody made him a crew leader right away.

"Within the first year he was pro-

Leaders should...

- Listen and understand well.
- Make decisions: Make a choice and act on it. Don't say, "I think." Be positive. You need to know what you want and where you want to go.
- Follow through: If you're a leader and you say you're going to do something, do it.
- Be failure functional: The ability to see failure as not fatal and to keep moving ahead.
- Have life zest: Have an energy and vibrancy for life.
- Have vision: for your job and company.
- Be focused.
- Have emotional wisdom.
- Have positive self-regard: Recognize your strengths and compensate for weaknesses.
- Be available.

— Daryl Pichan

moted," Peabody says. "He just took on a lot of self-responsibilities, made quick decisions, communicated well with the staff on the job site and in the office, and it came back to me that he was really sharp."

Peabody also says working side-by-side with Hivner showed him how sharp Hivner was. "He was motivated and had a take-charge attitude. He was always at work on time, and made sure work was done in detail."

Peabody's experience with Hivner and other employees who were created into leaders has led him to believe it starts early. "A leader is developed from youth," he says. "The most important thing is that they're good listeners. Someone who tends to listen rather than react quickly tends to analyze the situation at face value and take the next step."

Establish a leader culture

W. James Ormond, co-owner and vice president of the landscaping firm Barringer & Barringer, Charlotte, NC, believes that creating leaders begins with creating a work atmosphere that cultivates leaders.



W. James Ormond says everyone should get a chance to be a leader.

"We consider everyone in our firm a family member," Ormond says. "Not everybody is a born leader, but everyone should get a fair opportunity."

Ormond takes a unique approach to hiring, too, in that he hires people who fit the company's culture, not just the position. In fact, he has hired some people when there was no position available, and instead created a position for them.

Also, new hires are put under a 90-day probationary period which "allows us to check them out, and them to check us out," says Ormond.

Two of the most important characteristics of leaders, Ormond believes, is integrity and empowerment. "True leadership is creating followership," he says. "You have to get folks to desire to be on the same page as you. If you lead by directing, you'll create a disaster."

Establish a game plan

The bottom line, Pichan says, is that companies who want to start creating leaders need to develop a game plan. He espouses a training plan that revolves around:

- knowledge
- attitudes
- skills to function more effectively as a leader
- habits

"You should have a specific plan with specific steps to take and it should be

Setting the stage to create leaders

1. Identify potential.
2. Look for threads of success: Ask, "Tell me again about your life, beginning with high school...what were you involved with, what did you do?"
3. Is the person teachable?
4. Can he or she be a team player with you?
5. Does he or she have personal integrity?
6. Is this really the kind of work he or she wants to be doing?

— Daryl Pichan

written out so that you can refer to it," Pichan says.

Also, Pichan makes it a point to remember that people want to know how long you're going to be working with them. Then, find someone who knows how to do training, and expect to dedicate six months to a year to getting them to the next level. Generally, Pichan says the trainer-trainee process involves four steps:

1. I do it, you watch me do it, and I tell you what I'm doing.
2. I do it, and you tell me the steps I'm taking.
3. You do it, you tell me what you're doing.

4. You go out on your own, but I stay in contact with you so I can see how you're making it because I want you to be successful.

"Each new responsibility requires training," Pichan says. "The number one problem

in every company is the desire to give away responsibility without giving training to get people to the point where they can really do the task."

Training, as Pichan says, is an investment, not a cost. **LM**

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JOHN DEERE

Fertigation

for the residential market

The battle to secure and keep lawn care customers never stops. For a contractor, there's nothing worse than spending money and time to land a new customer, only to lose others because of employee and/or service problems.

Fertigation systems are the perfect employees. They show up every day and always follow your instructions to the letter. You simply supply the fertilizer and other products you want to deliver. This not only saves you labor on each lawn, it also reduces your labor headaches and the risk of losing customers to poor performance.

Fertigation is the process of delivering small amounts of fertilizer each time you water, creating a consistently nutrient-rich root zone. The water carries the nutrients into the ground. It offers several advantages over the traditional practice of applying significant amounts of liquid or granular fertilizer several times a year, the biggest being that it produces healthier plants that are less likely to be stressed by diseases, insects or drought.

Fertigation was developed for agriculture in the 1960s and began finding widespread use on golf courses in the 1980s. The nursery industry embraced the technology early in its development, and now almost any operation of any significance uses it. More recently, fertigation has been gaining increased favor in providing improved turf quality on athletic fields.

Feeding turfgrass and landscape plants with in-ground sprinkler systems offers hard-to-ignore benefits BY STEVEN KING

Lawn care professionals, whose livelihood depends on caring for residential and smaller commercial properties, have until recently never had an effective and affordable fertigation product available to them. Several manufacturers are now designing products that can provide reliable fertigation to residential properties. They're addressing some of the problems that have slowed the growth of fertigation of residential properties, including:

Residential properties are complex in design, especially higher-end properties likely to be interested in fertigation that may have grass, gardens, shrubs and occasionally plants like roses that require special treatment. Gardens require different amounts and, sometimes, different types of fertilizer than turf. Grass frequently has a hard time getting established on hillsides. Roses require low flow-rate drip systems.

Water is occasionally diverted from the sprinkler system to serve misting systems or water features, like ponds or waterfalls. One doesn't want fertilizer in misting systems or waterscapes.

Properties are usually undulating, with

creative hills, slopes, valleys and landscaping. They also have large front yards, small side yards and large backyards, shady and sunny areas, sidewalks, driveways, houses, trees and the like that make them different from 40 acres of corn, a golf course or foot-

This system is installed into the in-ground sprinkler system between the backflow preventer and the first zone valve.



ball stadium. Each of these areas has to be cared for properly and, in most cases, differently from the others.

Three types

There are essentially three types of fertiga-



Installation and maintenance of residential fertigation systems is relatively simple.

tion systems: electric pumps, hydraulic pumps and Venturi systems. Each has its advantages, although Venturi systems are falling out of favor.

All of the systems can be installed for the homeowner for a few hundred dollars, and are fairly easy to install, operate and maintain.

The system we use on Lake City College's landscapes and athletic fields is the FertiGator system, and my students have installed and monitored several in residential settings, also. It allows complete control of fertilization by in-ground sprinkler system zone. The results have been excellent.

This particular system's controller allows for precise adjustment of the amount of fertilizer delivered to each zone to account for the differing needs of gardens,

hillsides, shady areas, newly seeded areas, front yards and backyards. It is excellent for drip systems required for a rose garden,

and various versions can even allow different products to be delivered to different

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The thing practically crawls up walls.

This may very well be the most versatile tractor line on the globe. To be versatile, you've got to do two things first: be agile and be userfriendly. Lots of old guard tractors are so big and clunky that they're hard to maneuver. Yes, they're durable, but difficult. Options can cost you.

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areas. It can also skip a zone to miss a misting system or other water feature. It is ver-

satile enough to use any liquid fertilizer, although the company sells organically-based fertilizers that work well.

Selling fertigation

For homeowners who have already bought into the concept of automatic watering, the leap to automatic fertilization is an easy one. There are several benefits of fertigation that justify it to the property owner.

A fertigation system delivers healthy plants that resist disease, weeds, insects and other problems naturally. Grass is one of the most aggressive plants in the yard. If the grass is healthy, weeds will not be able to get established. No fluctuations, no burning or streaking, no flush of green that results in hay fields; just nice, consistent, green growth. Leave those clippings to make the grass even healthier.

Fertigation systems offer lawn pros a new service to sell.

Fertigation decreases water use, according to an article in *Irrigation Business and Technology* magazine (January/February 2001 issue, "Using Every Last Drop"). Deeper root systems reach water throughout the root zone rather than only that which remains in the top couple of inches. As a result, less water is required.

Every homeowner that considers a fertilizer injection system has bought into the idea that it's more convenient and productive to automatically water his or her grass. Thus, it's easy to go to the next step of convincing them to automatically feed their lawn.

Today, everything is automated, from the garage door to the television to the dishwasher. Fertigation is the next logical step after irrigation. **LM**

— The author is Professor of Irrigation Management, Lake City College, Lake City, FL.



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Property at a glance

Location: Chicago, IL

Staff: Chicago Christian Industrial League Landscape Services

Category: Public Works Sites

Total budget: \$1,400,000

Year site built: 1996

Acres of turf: 0

Acres of woody ornamentals: 2.9

Acres of display beds: 3.4

Total paved area: N/A

Total man-hours/week: 3,750

Maintenance challenges

- ▶ High traffic locations
- ▶ Environmental stress
- ▶ Diverse microclimates

Project checklist

Completed in last two years:

- ▶ Michigan Avenue streetscape seasonal displays
- ▶ Congress Parkway seasonal plantings and holiday treatments
- ▶ LaSalle Street seasonal plantings and holiday treatments

On the job

- ▶ 20 full-time staff, 75 seasonal employees, 10 licensed pesticide applicators

Chicago Central Medians

2001 PGMS Grand Award Winner for Public Works Sites

What started as a way to provide work experiences for the homeless has turned into a \$3.5 million venture for the non-profit Christian social agency, Chicago Christian Industrial League (CCIL). It all started in 1993 with a three-year, \$350,000 contract with the City of Chicago for landscape care. With the addition of many new roadway medians to Chicago in 1996, CCIL expanded its maintenance operations on several high visibility areas located within the city.

The Central Business District contains 16 major roadway medians with more than 17 miles of plantings, 167,000 sq. ft. of planting beds and 865 trees. Harsh winters, hot summers and pollution take their toll on these plants, and many locations have specific needs and require constant maintenance.



Because most of the maintenance work is done on highway medians, workers must observe strict safety rules and wear orange work vests.

Since all of these locations are high traffic areas, safety is a huge challenge. All median work requires lighted arrow boards, orange work vests and safety cones. The heavy traffic also provides plenty of trash for the crew to pick up, and makes sweeping and power washing all hard surfaces a must.

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Editors' note: *Landscape Management* is the exclusive sponsor of the Green Star Professional Grounds Management Awards for outstanding management of residential, commercial and institutional landscapes. The 2002 winners will be named at the annual meeting of the Professional Grounds Management Society in November. For more information on the 2001 Awards, contact PGMS at:

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What started in 1993 as a \$350,000 venture to provide work experiences for the homeless has grown to a \$3.5 million operation directed by the non-profit Chicago Christian Industrial League. Workers maintain 17 miles of plantings and 865 trees on highway medians and other high visibility areas in the City of Chicago.





Irrigation's changing face

The trends that will determine how you will soon irrigate your customers' properties

BY BRIAN E. VINCHESI

Water conservation is a huge issue in the irrigation industry. Providing products and systems that do more with less water is increasingly becoming the focus of ir-

rigation equipment manufacturers.

Look for equipment manufacturers to accelerate development of technologies such as smart systems, moisture sensors, interactive sensing, remote control and pressure regulation. These types of products will become standard in most irrigation systems.

Smarter moisture sensors

Soil moisture sensors have been around for years but the technology hasn't changed much. The sensors have required maintenance, removal for winter and calibration for accuracy. This will change. Reliable moisture sensors requiring less maintenance will be developed. Precise watering to match the needs of the plant will be mandated.

Moisture sensors are usually installed in pairs over an area and for each different type of hydrozone. Any irrigation system can potentially have a large number of sensors, increasing the installation costs but saving water. Many of today's moisture sensors are used to avoid over-watering and function like a rain sensor by "telling" the irrigation system not to water. Tomorrow's sensors will not only keep the system from coming on but will also tell the system if it needs to come on and when to shut off.

In recent years, irrigation controllers, especially high-end commercial ones, have featured two to

What's cool in irrigation

The International Irrigation Show in San Antonio unveiled several cool new products, including:

▶ Redmond, WA-based **Remote Control Technology** showed its Phantom antenna to help landscape contractors control irrigation systems remotely. The vandal-proof antennas are buried under one inch of topsoil.

▶ Las Vegas, NV-based **Bio-Green Automatic Fertilizing** revealed its four systems to introduce fertigation into the commercial and residential landscape market. Easy to install (the process takes around 30 minutes), the four different tanks allow you to carry less equipment, use smaller trucks and have less bulk fertilizer on hand. You can set your clients up for regular refills, and your job is complete.

▶ The Rollcart from Althengstett, Germany-based **Perrot Rengerbau CALW** provides a compact, rolling irrigation system that needs little oversight. The Rollcart starts moving as soon as you turn on the hose (which hooks up to the back) and then moves slowly across the lawn along a previously laid steel track. Once it reaches the end of the track, it turns itself off, giving operators complete control over how much water they put down.

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Irrigation systems are being developed that will be able to tell when soil conditions require additional water and also can be programmed to be operated and tracked off site.

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four sensing ports, which are designed to interact with various accessories to better control irrigation. Devices that can be attached to these sensor input ports include rain sensors, wind sensors, temperature sensors, rain gauges and soil moisture sensors. Most sensor ports

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► Simi Valley, CA-based **Rain Master** introduced its line of evapotranspiration (ET)-based irrigation controllers. The Internet-ready system offers water-saving features, including an automatic or manual ET adjustment, along with electrical- and water-flow alarm capabilities.

► Looking for a way to control weeds while still allowing water and nutrients to get to the landscapes you maintain? Try Bridgeview, IL-based **Ground Cover Industries'** new Architect's Choice landscape fabric. The brushed polypropylene fabric conforms easily to the ground and features a rough surface that holds mulch or stone in place.

— Frank Andorka

have an override switch and a system override indicator. Soon these sensor inputs will also be incorporated on lower end controllers and be more interactive with the overall irrigation system. The more information the irrigation system receives, the more accurate it becomes.

Regulate the pressure

Pressure regulation is accomplished different ways on an irrigation system — at the point of connection, at the zone valve and, in some cases, at the sprinkler. Various pressure regulating valves have been available for the water supply for many years using either a plumbing type product like a Watts U5-B or Wilkins 600, or with a large Cla-val type product. These products haven't changed over the years. Pressure regulation options for the zone valve have also been available for many years, but only in the last few years have they become reliable. Almost all valve manufacturers offer this option and the required maintenance is much lower than it was in the past.

Spray sprinklers are the only pop-up sprinklers that have pressure regulation available at the sprinkler. Keep in mind that pressure regulation is different than pressure compensation, which has been available from several manufacturers for years. Until last year only one manufacturer made a pressure-regulating

sprinkler and now there are at least three. Soon, we'll hopefully see pressure-regulating rotors that are already available on the golf market.

Why is pressure regulation important? Every sprinkler has an optimum range for operation. For each pressure the sprinkler throws a specific distance and uses a precise amount of water. From a manufacturer's standpoint, the more pressure ranges and distance a sprinkler can cover, the fewer sprinkler types need to be designed and built. However, each sprinkler still has an optimum pressure for how evenly or uniform the sprinkler applies water. The more uniformly the water can be applied, the less time the sprinkler needs to operate and the less water it will use.

This optimum pressure is usually in the middle of a sprinkler's pressure range. That pressure for spray sprinklers appears to be 30 psi. Rotors will probably vary with their size, but the pressure will be determined by manufacturer testing. Expect to see a lot of pressure regulation of individual sprinklers in the next decade. They'll cost more but they'll be worth it. In the meantime, pressure regulate the zone valves to save water.

Remote control

Remote control is a great service tool for the

continued on page 35



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The same benefits can be found in Prospect®, a liquid micronutrient for foliar application or for use in fertigation systems.

Effect of Fertilizer with Prospect Plus on Creeping Bentgrass Density

Ohio Turfgrass Foundation Research and Educational Center – 2000

Treatment	Rate	% Turf Density
Check		60.00
Fertilizer (46-0-0)	0.014 lb. N/1000 sq. ft.	72.00
Fertilizer (46-0-0) + Prospect Plus	0.014 lb. N/1000 sq. ft. + 48 oz./acre	77.00

Seeded on August 4, 2000 with G-2 creeping bentgrass at a rate of 2 lbs. per 1000 sq. ft. Density measurements were based on % cover taken visually on 10/4 (8 weeks after treatment)

Study Results: "... a significant increase in creeping bentgrass establishment two months after seeding with the application of fertilizer and Prospect Plus compared to the untreated control." A 22% improvement over check and more than a 12% increase over fertilizer alone!

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Tomorrow's irrigation specialist will require more education and may need a license or certification to install and maintain systems.

for communication between the controller and a PC or other devices.

Smart controllers

Once the irrigation system controller can communicate with other devices, the possibilities are limitless. Large-scale central control systems have been communicating with different devices for many years, some successfully, some not. This technology is filtering down to smaller irrigation systems.

The smart irrigation system of the future is likely to be semi-automatic and irrigate when needed instead of when told. Smart systems, for example, will have the ability to sense the soil moisture, determine if the irrigation system needs to water, turn it on and then shut off the system when the optimum soil moisture level is achieved.

A smart system will monitor the flow and pressure from a pump system, and if there's more or less flow available than the irrigation system is using, the system will turn on or off more sprinklers. A smart system, used with other equipment, will tell if there has been a significant pipe break or leak, determine if it's a main line or lateral, isolate the location, shut down that part of the system and continue to operate the rest of the system. It will also inform the responsible party, either through a page or phone call, about the location and problem.

There are also some irrigation trends we'll see in the next few years or sooner that aren't related to equipment but the environment. These include regulatory restraints and some installation procedures.

Restrictions on the increase

Expect more regulation with the irrigation industry. This may be in the form of reduced water availability and residential irrigation system restrictions such as a ban on automated systems or new potable water taps, as is currently the case in some areas. Additionally,

groundwater sources from private wells will also be under increased scrutiny. Licensing or certification requirements for installation contractors will become more prevalent.

Bills are pending in New York and North Carolina, and more states will likely require that installers be properly trained and educated. This will involve either mandated licenses or voluntary certification of installers. There will be increased costs and the need for more education of the industry.

Step in this direction

Directional boring is another trend that will accelerate. Boring under roads, railroad tracks and other obstacles has been around for decades, but it has been limited to straight bores that were expensive due to the size of excavations required and amount of time and labor needed to complete the bores. New technology is now available from companies such as Ditch Witch and Vermeer.

The directional bores don't require the deep excavations, straight lines or time of traditional bores. The machines are almost 100% automatic and the operator uses a joystick much like playing a video game. Even though the operation is still performed by specialty contractors, the cost of boring is now competitive if not less expensive than open cutting, trenching and patching of a road crossing. The costs for directional boring continue to decrease and more irrigation systems are using this technology.

In summary, competition for water will force more restrictions on irrigation systems and those who install these systems. New technologies geared toward using less water and still meeting the watering needs of the area being irrigated are just around the corner. **LM**

— Brian Vinchesi is President of the American Society of Irrigation Consultants (ASIC) and President of Irrigation Consulting, Inc., of Pepperell, MA.

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contractor because it saves time and labor, and therefore cuts costs to not only the contractor but the end user as well.

Ten years ago, there were only two handheld remote controls available in residential/commercial irrigation. These controls were basically from third party manufacturers whose equipment could be added to any manufacturer's controller. Today, almost all manufacturers offer remote-ready controllers through their entire controller line.

Although we'll continue to see improvements in the on-site remote control of systems, the exciting area is in off-site remote control.

There are several ways this control can be accomplished, like off-site programming of the controller through a personal computer (PC)-based software program. You would then simply go to the site and upload it. Or, it can be a faceplate that can be removed from the controller, programmed, then put back into the controller. Most directly, it can be a modem, internet or satellite connection that interfaces directly with the controller.

For contractors with a large commercial or homeowner association customer base, this technology provides unlimited cost savings and potential increased sales.

Controllers of the future will be equipped with RS232 communication ports to allow

Sprayers, spreaders at a glance



Cutler-Malone units with air-powered delivery via hand-held spray wand

"A 1,000-gallon sprayer is easier on the truck full than it is three-fourths full," says Chuck Kolenut, General Manager of North-eastern Arborists. "A three-quarters tank starts sloshing — boom, boom, boom — and the material moves front and back and starts to throw the truck around. You hit the brakes harder and still feel the truck step forward." The result is either a heavier foot on the brake at intersections or a lot of wear on the clutch even when the truck is stopped. Given a choice, Kolenut says he would use up his brakes because they can be repaired in a morning. Lose a clutch and the truck is out of service for a day or two.

Be careful of total weight, too. A 200-gallon tank is a lot for a one-ton pickup. Sure, there's only 1,700 lbs. of water in the tank, but don't forget the weight of the material, the pump, the frame, and tools in the bed.

The sloshing problem will also show up if the truck has to swerve in traffic or take a steep curve. Be sure to use a solid frame and torque down on the mounts. Don't go cheap on the frame. "If the frame twists and the tank cracks and leaks, you'll end up paying more in fines than you'll ever save," Kolenut says.

BY CURT HARLER /
CONTRIBUTING EDITOR

Commercial sprayers are manufactured using stainless steel, fiberglass, polyethylene or brass. Each material has its place, and each has its cost. Brass, for example, is limited almost exclusively to fittings. It's too expensive and heavy to use anywhere else.

If weight is the major consideration, engineers look to poly tanks. It's great for backpack units; it's cheaper, too. However, there is a cost. Poly only lasts around 10 years — and truck-mounted poly tanks can become brittle in the sun. If they leak, there is a whole array of problems to be faced.

Fiberglass takes impact better than poly. Also, it can be shaped to any form and therefore can be mounted on a pickup truck and removed easily.

Stainless steel is used in top-notch products that last a long time. The trade-off is in weight. Landscape professionals in the market for a larger spray truck or a dedicated spray vehicle prefer stainless or fiberglass tanks.

Vehicle considerations

The most common spray equipment in the business is the pickup-mounted tank. But it's a spray tank, not a Sherman tank, so don't drive it like one. Tanks can wreak havoc with a pickup's mechanics, especially the clutch and brakes.



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continued on page 40

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continued from page 36

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continued on page 47

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Scientists also used autoradiography to photograph and measure the amount of herbicide in the roots two hours after application. Time after time, at least three times more herbicide showed up in the weeds sprayed with Roundup PRO. With the imitator, barely any herbicide has moved to the roots.

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

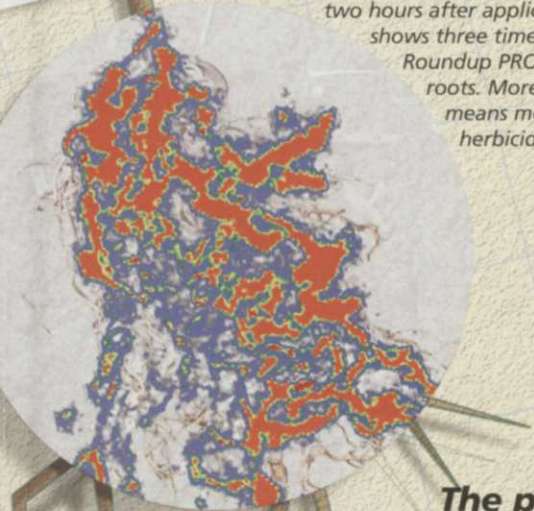
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Always read and follow label directions. Test conducted with MON 77360, EPA Reg #524-475 with comparison to Syngenta product carrying EPA Reg. #10182-449. 1. Test methodology: In scanning-electron microscopy, Monsanto scientists identified penetrated formulations of both Roundup PRO and Touchdown Pro 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, 2001. Roundup®, Roundup PRO® and PROformance™ are trademarks of Monsanto Technology LLC. [12748 jct 10/01] ©2001 Monsanto Company RUPRO-12748

solutions center

DESIGN/BUILD

Building a 'grand' view

New Hampshire landscapers partner with a developer to restore elegance to a grand old hotel

BY RON HALL/ EDITOR-IN-CHIEF



Kevin Craffey knew he had a job on his hands in bringing the century-old Mountain View Grand Hotel back to life. The historic hotel in Whitefield, NH, had been vacant since 1986. It had started to fall apart. So had its landscape.

The problem: start from scratch

"The landscape was gone," says the owner of Craffey & Company, a general contracting firm based in Hanover, MA. He bought the resort hotel in 1998 with visions that he and his crew could recondition it and reopen it again in a few months.



Now, after three years of hard work and intense and complicated political and financial deal making, Craffey's dream project is almost done. The restored hotel will welcome guests again this May.

Key to its continuing success as a resort destination, feels the owner, is its landscape that, in spite of being new, had to complement the hotel, surrounded by mountains and overlooking 5,000 acres of unspoiled New England countryside.

The solution: hire local experts

Fortunately, Craffey could count on a pair of local professionals to design and build the "natural" landscape that the site demanded. Roger Petit and Mark Sullivan, partners in R&M Naturescape Designs LLC, brought unique skills to the project.

"He (Craffey) wanted whatever we did to have a natural feel to it," says Sullivan. That request perfectly

R&M workers used hundreds of tons of native stone to build terrace walls, water features.

R&M Naturescape Design pregerminated the turfgrass seed, then used a hydroseeder for faster establishment for the May reopening.

suit the company's expertise, which included the design of habitats and trails, too.

R&M Naturescape's collaboration with Craffey resulted in a landscape that blends two acres of new turf, 250 tons of dry-laid granite, gardens containing almost 100 varieties of annuals, perennials and spring-flowering bulbs and the landscape's signature water features.

Challenges? There were plenty.

Often, landscape crews worked at the same time and in the same areas as tradesmen refurbishing the hotel's exterior, a scheduling nightmare. "Usually, we were working on three or four projects at once, but we tried to plan ahead so that we were always busy somewhere on the site," says Sullivan.

Another challenge was the presence of a stone ledge running the length of the site, and where Sullivan had designed prominent water features. "The ledge ultimately determined where a lot of features were going to go," says Sullivan with a laugh.

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Patent # 5,916,027 and 6,158,167

Circle No. 106

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Water and stone features dominate the property — three ponds, two streams (one of 16,000 gallons per hour, the other at 8,000 gph), several sizable waterfalls (including one 9-ft. wide with a 6-ft. drop), and an antique 5-tier fountain to greet guests at the hotel entrance. R&M Naturescape relied on Chicago-based pond builder/supplier Aquascape Designs (www.aquasapedesigns.com) for the basic design and materials to install and make the water features appear natural yet maintainable. Areas surrounding the water features are finished with collections of native bog plants.

The landscape company, which employed as many as 16 workers during peak construction last summer, will be

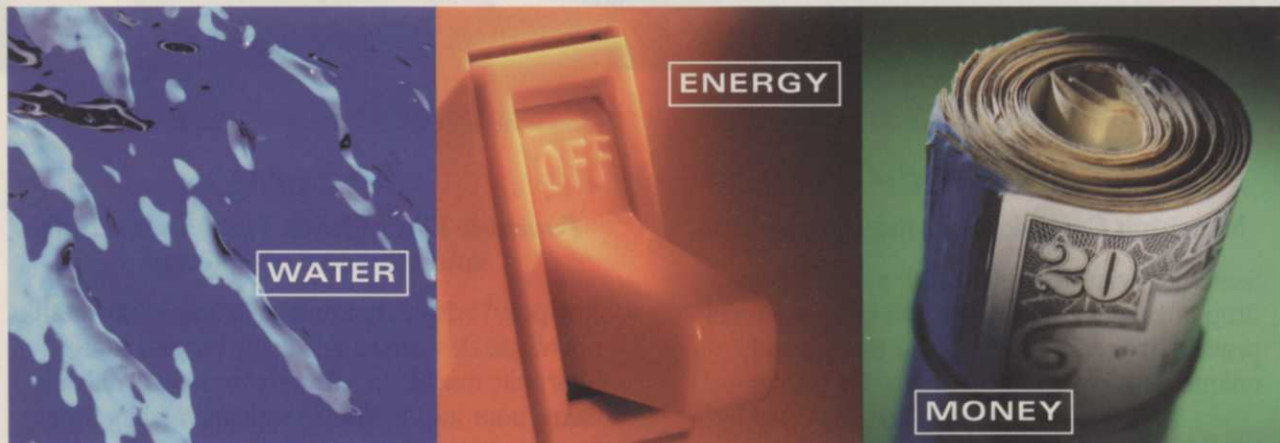
Running out of time: pregerminate

Realizing that winters come early in New England, R&M Naturescape pregerminated grass seed in 55-gallon plastic drums prior to hydroseeding the lawn at the Mountain View Grand Hotel. Roger Petite and his R&M Naturescape crew put the germinated seed down during the 2001 Labor Day weekend. He used a 300-gallon Turbo Turf hydroseeding unit rented from Dayton Supply in Maine.

Mark Sullivan, one of the partners in R&M Naturescape, said that he learned how to pregerminate seed by visiting the Web site www.turboturf.com. "It provided me with a lot of great information," he said. The company used a mixture of Kentucky bluegrass, perennial ryegrass and fescue seed (Catamont Supreme Mix from the Oliver Seed Co., Vermont) on the hotel site.

putting in finishing details and establishing gardens at the hotel until early July. Sullivan says that R&M Naturescape will seek to professionally

maintain the property, too. But no firm decision has been made about that, and Craffey says he may opt for in-house maintenance. **LJM**



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OPERATIONS MANAGEMENT

The one that got away (almost)

This landscape company owner saved a big contract by crunching the numbers



Tony Bass, in saving a big account, argued that his company was better equipped and had more expertise.

BY JASON STAHL

There's lots of things that can cause a landscape or lawn care company owner to pull his or her hair out, but one of the most stressful has to be watching a big client cancel their contract with no explanation. That's what happened to Tony Bass, President of Bass Custom Landscapes, Bonaire, GA, last year.

The problem: big client cancels

Bass's client had experienced a tough year, and decided to cut the landscape operating budget. "It didn't make a lot of sense," Bass says. "They called and asked us to fax them a copy of their current contract, and two days later we get a fax from them saying

they were going to discontinue our services within 60 days."

Bass immediately called to find out what the client's goals were and to make sure his company hadn't done anything wrong. He was relieved to find out the problem wasn't his company, it was that the client wanted to save money. Still, Bass was perturbed.

"They said they estimated they could save money by bringing the work in-house," Bass says. "I reminded them that the reason they had hired my company was because it wasn't working out for them in-house. We were better equipment and had more expertise."

Still, Bass knew he had to do more than sweet-talk this client.

The solution: cost analysis

Bass decided to work up a detailed cost analysis with the client to figure out if the

client truly was going to save money by canceling the contract with him. Bass asked several questions, including:

- ▶ How many hours are allocated for maintenance each week?
- ▶ What is the average worker wage?
- ▶ What is the cost of your labor burden, specifically a benefits package?

"I told them how much it costs per hour to run a mower and an edger," Bass says. "As it turned out, there was only a \$5,000 difference between what I was getting paid and what the cost would be to them. Then I said, 'You haven't bought any flowers or mulch yet, and your savings are only \$5,000.'"

Then, Bass pointed out that the client still had a full-time person tractor mowing the large areas who had worked there a long time. "I told them that I knew they were loyal to him, but when we had sat down they had told me they wanted to save money," Bass says. "If that's your goal," I said, "then you need to give me the opportunity to price the whole property."

Bass concluded that it would only cost the client \$20,000 a year to add the other services. Two weeks later, the client signed a contract for an additional two years. The total savings to them was \$50,000.

"A simple conversation would have proved my case," says Bass, "but looking at the numbers in a clear, legible format helped."

Bass says he learned two lessons from his conversation with the client who almost walked: 1. Don't always think you can't salvage a contract, and 2. If people want to save money, figure out how to allow them to do it. **LJM**



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Get saved by software

Winter's a great time to upgrade your computer systems and train your staff to make those upgrades pay off

BY LYNNE BRAKEMAN /
ON-LINE CONTENT EDITOR

If your company hasn't upgraded its computer systems in the last five years, it may be time to consider investing in Green Industry-specific software and staff training that will allow your company to grow, even in tough economic times.

As these two landscape/lawn care company owners admit, the up-front cost in time and money will seem like a lot at first — but the results will speak for themselves.

Steve Hill, President

TurfTenders, Inc. ■ Raleigh, NC

We've been in business 21 years. We still use QuickBooks for some of our accounting, but we implemented the CLIP system years ago because it has some great functionality on industry-specific issues.

For example, we have an installation division and a maintenance division. On the maintenance side, CLIP allows us to capture the square footages so we can project the amounts of fertilizer and labor needed. And it allows us to schedule jobs once a year, once a month or once a week.

This is especially valuable for an annual job like irrigation winterization. For each job,

we can input notes about where the device is, what type of clock it has, etc. So, from year to year, you don't lose that knowledge when different personnel perform that task. Those notes also help us when a property changes hands.

In order to get the value out of a product like this, you have to invest in training your people. I think you need to invest an amount at least equal to the cost of the product itself. We have four front office people using it: myself, our estimator, the maintenance manager and our accounting assistant. We've sent our folks to several CLIP training sessions, and we buy the updates.

Tim Doppel, President, Owner

Atwood Lawncare ■ Sterling Heights, MI

I've been in this business for 32 years. There's never been any question about doing things the best we possibly could, so we've been computerized for almost 25 years.

I just crack up when I think back to what we used to use. We used to have Radio Shack Tandy machines with 5.25 in. floppy disks!

About 13 or 14 years ago, we went with the RealGreen system so we could have information at our fingertips that helps us make much better decisions on ordering products and scheduling labor.

We've just started using remote data capture. The technicians use a hand-held device

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Performance Software Tech., Inc.

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Sensible Software, Inc. (CLIP)

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Easy with the N

Why slow-release fertilizers can help you eliminate problems caused with turfgrass growth peaks

BY BOB STAIB

The American prairie was once lush in vegetation with no input from humans whatsoever. Intense microorganism activity and consistent turnover of plant and animal residue enabled prairie grasses to flourish. Undisturbed plants had extensive root systems that penetrated to depths of 30 feet or more. In total contrast, modern turfgrass culture is incompatible with the notion of perpetual and natural sustained plant growth.

Unlike prairie grasses, turfgrasses must be regularly groomed for their aesthetic appearance and as a cushioned surface for walking, running and playing. By focusing

attention on optimizing root growth and soil microbial activity, it's possible for turfgrass managers to maintain a healthy turf environment with a significant reduction of inputs.

Frequent mowing and irrigation, combined with nitrogen fertilization, result in growth cycles that interfere with the normal exchange of carbohydrates from shoots to roots, and vice versa. The art of turf management is the ability to maintain a consistent shoot-to-root ratio during the time of year when a particular variety enters its most rapid growth period. Left to their own accord, turfgrasses, like prairie grasses, grow massive root systems that sustain plants through seasons of extreme heat and cold. In cultured turf, root growth is often re-

stricted, resulting in inefficient carbohydrate utilization, translocation and storage.

Steady growth the key

Spurts of growth, or "growth peaks," are the most energy-consuming phenomena in the metabolic cycle of all life forms. Plants derive energy from the sun to manufacture carbohydrates in leaves through the process of photosynthesis. They then translocate the carbohydrates to the roots,

When top growth occurs in peaks and valleys, the demand for carbohydrates is so great that roots will actually lose mass.

where they're stored and drawn upon as needed. When top growth occurs in peaks and valleys, the demand for carbohydrates is so great that roots will actually lose mass. When root systems become unable to store and transport water and carbohydrates, turfgrasses decline. A shallow root system — the consequence of growth peaks — becomes even more vulnerable to rapid deterioration at soil temperatures above 80 F.

A Catch-22 situation

Mowed turfgrass requires a constant, steady supply of nitrogen during the growing season to minimize growth peaks and maintain a healthy root system. This is best accomplished with reserve soil nitrogen from a slow-release source. The shoot-to-root ratio — or the rate of shoot growth compared to that of root mass — should remain 2-to-1 or lower for optimum health and ability to recover from stress. For closely mowed grasses, such as golf greens, this ratio should be closer to 1.5 to 1. Growth

peaks precipitate root decline, and mowing more than 1/3 of top growth further shocks a root system struggling to survive.

Thatch is sloughed-off stem and crown

tissue that accumulates faster than microorganisms can break it down. Unlike leaf tissue that easily decomposes, these more

continued on page 58

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Circle 128

TURFGRASS FERTILIZATION

continued from page 57

lignaceous parts of the plant create a barrier to air and water movement into the soil. To maintain color and growth, turf managers commonly use quickly available soluble nitrogen. But the long-term results get worse instead of better. Root growth becomes increasingly restricted and confined to the shallow, hotter layers of the soil profile.

Manage your N

Steady growth with good color and a shoot-to-root ratio of less than 2-to-1 can be accomplished by:

- “spoon feeding” light amounts of soluble nitrogen every 10 days to 2 weeks with no more than 1/4-lb. of N per 1,000 square feet, or

- applying slow-release or water-insoluble nitrogen (WIN) every two to four months. A variety of slow-release nitrogen fertilizer products exist in granular or coated-prill forms. They include sulfur-coated urea, polymer-coated urea, isobutylidene diurea, methyleneurea and ureaform.

Each of the slow-release nitrogen sources will supply a reserve of nitrogen in fertilizer form beyond the immediate

Balanced diet for southern turf

Turf managers striving for ideal conditioning in warm-season turfgrasses should focus on early spring and early summer fertilization. Good soil nutrition at that time of year will encourage a deep and vigorous root system going into the heat of summer. A strong root system is the best defense against stress, and will efficiently transport nutrients and water to leaf tissue to maintain color and rigidity.

The ideal strategy for optimum root growth is to approximate an annual NPK fertilizer program of a 3-1-2 or a 2-1-2

ratio of nitrogen (N), phosphorous (P2O5) and potassium (K2O). This principle applies equally to warm-season and cool-season grasses, regardless of geography. In golf and sports turfs, where clippings are removed, potassium levels equal to or exceeding annual rates of nitrogen will help build turf that's more resistant to wear and frequent mowing.

Soil health is vital

Soil teeming with microbial activity supports vigorous rooting and healthy plant growth. Shifting emphasis from turf nu-



Warm-season turfgrasses should be fertilized in early spring and early summer before high heat sets in.

trition to soil nutrition will ensure that turfgrasses have a healthy, sustained color and growth. A biologically active soil has an abundant population of decomposer microorganisms, including bacteria, fungi, actinomycetes and other less prominent species. As these organisms decompose organic matter — dead plant and animal

needs of the turf. But WIN from ureaform can supply enough residual nitrogen to the soil for release over an entire growing season. Ureaform and methyleneurea release nitrogen through microbial activity while contributing both nitrogen and carbon toward microorganisms' food and energy requirements. Unseen caretakers of the soil, microorganisms are the driving force of the nitrogen cycle.

Ureaform, also known as Nitroform, is used commercially to stimulate microbial degradation of petroleum-contaminated soils. Research at the University of Illinois

tissue — they release a smorgasbord of nutrients and enzymes beneficial to soil and all parts of living plants.

When roots do their thing

During early spring and early summer fertilizer applications to warm-season grasses, it's important to strike the correct fertility balance. Manage top growth for good color, but don't allow such rapid growth that there are excessive carbohydrate demands on the root system. Keep a narrow root-to-shoot ratio by applying slow-release nitrogen sources. A sound fertilizer program with proper watering will not only promote microbial activity but encourage roots to penetrate into the cooler depths of the soil before the severe heat of summer.

Warm-season grasses expend the greater part of their energy for root formation in early spring to mid-summer. Root formation also occurs in mid-fall, but to a lesser degree. Timing fertilizer applications to coincide with these periods promotes a more healthy, stress-resistant turf when other good nutritional and cultural practices are employed.

showed that Nitroform contributed to the least thatch build-up over all other N sources tested. The evidence suggests that well-nourished soil microbes accelerate

decomposition of resistant plant residues to humus.

Liquid nitrogen fertilizer can only be

continued on page 60

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Circle 122

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considered slow-release if it contains suspended water-insoluble nitrogen (WIN) particles. Liquid products that claim controlled-release nitrogen typically contain a third or more free urea nitrogen. The remainder is soluble monomethylol urea, a "prepolymer" compound formed in the urea-formaldehyde reaction, and methylenediurea, the only polymer formed in the UF reaction that will stay in solution. Attempts to produce and market more complex liquid UF polymers containing WIN have been unsuccessful to date.

Nitroform ureaform is marketed in a powdered form. Known as Powder Blue or powder gray, it contains 69% of nitrogen as WIN. Here are some application tips:

- Suspend 1 lb. of Powder Blue or gray in two gallons of water with good agitation.

- Or, suspend 1 lb. of either product in one gallon of water with strong agitation and a suspension agent such as Kelzan-S or Flozine.

- Use flood-tip nozzles or showerhead nozzles with holes a minimum of 9/37-in. diameter for good delivery of a ureaform suspension.

- Remove screen filters to help prevent a backup of solids during application.

Liquid application advantages

Though reacted-urea fertilizer solutions don't supply residual nitrogen, they do exhibit a greatly reduced burn potential over prilled urea or urea solution, which is the

principle advantage of their use. They work particularly well in fertigation systems. They require little additional water to effect an even distribution. Nitrogen is released rapidly, mostly by chemical hydrolysis, though there may be slight but rapid microbial conversion of methylene diurea to the ammonium (NH4+) form.

Liquid application disadvantages

Disadvantages include:

- Leaf tissue has a strong affinity for monomethylol urea and methylenediurea. Where clippings are removed, considerable nitrogen fertilizer could be removed with them. Rinse the treated area with clear water as soon as possible, and don't collect the clippings for at least two mowings.
- Larger, more expensive application equipment is required to carry and accurately apply liquid fertilizer. A good spinner applicator can cover the same area with granular products just as fast with minimal downtime due to wind.
- Applying 1 lb. of nitrogen per 1,000 sq. ft. from urea or reacted urea solutions will nearly always result in excessive growth for one to two weeks. The more soluble nitrogen available to the plant, the more water it takes to satisfy the demands of new growth. Applications of no more than 1 lb. of N from liquid nitrogen (all sources) per 1,000 sq. ft. at two-week intervals will avoid growth peaks that contribute to root mass decline.

Potential for leaching and volatility loss of nitrogen is significant when nitrogen is applied as a soluble liquid. Several research projects have shown that ureaform resists leaching and volatilization. In fact, N loss is nearly insignificant in sandy soil.

Summary

Peaks and valleys in turfgrass growth cycles contribute to root mass decline and thatch build-up. Slow, steady growth promotes a dense turf with a greater root mass in the

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Circle 129



Mowed turfgrass requires a constant, steady supply of nitrogen during the growing season.

deeper, cooler layers of the soil profile. Only water-insoluble nitrogen (WIN) contributes to a soil reserve of N from which plants can draw as needed.

Ureaform and methyleneurea fertilizers supply both useable nitrogen and carbon to soil microorganisms. In turn, ammonium nitrogen (NH_4^+) is gradually released back to the soil and subsequently to the nitrate form that plants prefer.

Reacted-urea N solutions have less burn potential than straight urea, and provide controlled release of nitrogen. They shouldn't claim slow release or water insoluble nitrogen unless they contain ureaform in suspension. **LM**

— The author is a technical consultant with Nu-Gro Technologies, Inc.

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Circle 130

ask the expert

BY BALAKRISHNA RAO

Multiple stress syndrome

A number of ash, sugar maple and oak trees with thin crowns are showing decline at a campground. Walkways there contain small gravel which we think is crushed limestone. There also appears to be a lot of soil compaction. Most of the trees were planted about four years ago. Grass is growing close to the trunks. We haven't seen any rodents or other means of bark injury. Any idea what may be wrong?

— CANADA

Based on your description of the growing site and plant decline, it appears the problem is related to a combination of stress factors that I call "multiple stress syndrome." A stress factor such as compaction can limit air and water infiltration to the rootzone, and crushed limestone can raise the soil pH level and adversely affect nutrient uptake. This can lead to nutrient deficiency and chlorosis disorder. Check for the possibility of a high pH-related problem. Also, consider that these trees are newly transplanted and experiencing transplant shock. Check for problems such as deep planting or left-over nylon threads, which can cause girdling roots at the soil line and prevent water and nutrient uptake. After transplanting, it takes several years for the plant to establish. During this recovery period, exposure to moisture and/or temperature extremes can induce lots of stress on plants. Lack of moisture during drought can particularly affect overall tree health. Without proper water and air, roots cannot grow. Without a good root system, the above ground plant parts also stop growing.

To manage this problem, consider vertical mulching or radial trenching and filling

with compost to improve air circulation. Recovery from decline is a slow process. Proper watering, mulching, fertilizing and pest management as needed would improve the plant health. If the soil pH has been elevated above 7.5, remove the limestone if possible and replace with pea gravel or other material that's not alkaline.

Alternative options

With some organophosphate and carbamate insecticides slowly disappearing, we need to find comparable alternative pesticides to use. In our insect control program, we've used Dursban, Sevin, Orthene, etc. to control caterpillars feeding on trees and shrubs. What alternative insecticides would be good to use in this situation?

— MD

To manage destructive caterpillars, consider using Talstar, Tempo, Deltagard, Scimitar, Astro, Conserve, Merit, Meridian (Flagship), Bt, insecticidal soap, and oil.

Some of the alternative pesticides won't have long residual effects like many traditional insecticides. Therefore, it's important to periodically monitor and know the insect's biology to provide good management of specific pests as needed. Once you know your key target pests, treat them as needed using the multiple target principle. In this approach, provide the treatment at the optimum time to obtain management of multiple pests of different species at a given time from that particular treatment. Because of shorter residual of some of the alternative pesticides, multiple applications at shorter intervals may be needed.

Dollar weed dilemma

How do we get rid of dollar weed from centipedegrass? Also, since the centipede lawn is thin, how can we improve the turf?

— FL

Dollar weed requires a lot of water for good growth, so cut down the amount of water you provide to reduce growth. Second, centipedegrass doesn't need too much nitrogen per year.

To manage the dollar weed using herbicides, consider using Atrazine. Atrazine can be applied as a liquid or in granular formulation. Reportedly, granular Atrazine with fertilizer performs better. Consider using fertilizer products such as 20-0-20 with Atrazine or 0-0-7 with Atrazine. Generally, one time per year is sufficient.

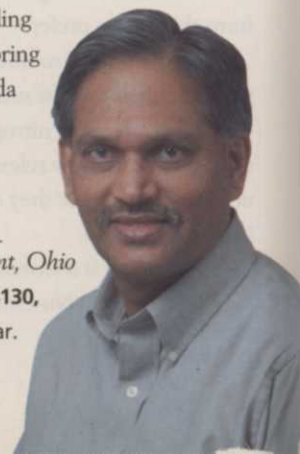
If the centipedegrass becomes yellow and shows evidence of nutrient deficiency, treat with iron products. Iron starvation can weaken the turf, turf density and growth.

By using Atrazine herbicide once, dollar weed might begin to disappear. Your existing centipedegrass should fill in open areas, and the lawn should become more dense. If it doesn't fill in the empty areas, consider either vegetative sprigging or sodding as needed. Both of these operations are labor intensive and expensive, so only consider them if your cultural approaches plus herbicide management don't provide satisfactory results. Generally, overseeding isn't done with centipedegrass.

Sprigging or sodding can be done in spring in northern Florida and any time in other areas in Florida.

Manager of Research and Technical Development for the Davey Tree Expert Co., Kent, Ohio

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2. Which of the following best describes your title? (fill in ONE only)

- 12 10 **Executive/Administrator** - President, Owner, Partner, Director, General Manager, Chairman of the Board, Purchasing Agent, Director of Physical Plant
- 13 20 **Manager/Superintendent** - Arborist, Architect, Landscape/Grounds Manager, Superintendent, Foreman, Supervisor
- 14 30 **Government Official** - Government Commissioner, Agent, Other Government Official
- 15 40 **Specialist** - Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist
- 16 50 **Other Titled and Non-Titled Personnel** (please specify) _____

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- 17 A Mowing
- 18 B Turf Insect Control
- 19 C Tree Care
- 20 D Turf Aeration
- 21 E Irrigation Services
- 22 F Turf Fertilization
- 23 G Turf Disease Control
- 24 H Ornamental Care
- 25 I Landscape Design
- 26 J Turf Weed Control
- 27 K Paving, Deck & Patio Installation
- 28 L Pond/Lake Care
- 29 M Landscape Installation
- 30 N Snow Removal
- 31 O Other (please specify) _____

4a. Do you specify, purchase or influence the selection of landscape products?

- 58 Yes 59 No

4b. If yes, indicate which products you buy or specify: (fill in ALL that apply)

- 32 1 Aerators
- 33 2 Blowers
- 34 3 Chain Saws
- 35 4 Chipper-Shredders
- 36 5 De-icers
- 37 6 Fertilizers
- 38 7 Fungicides
- 39 8 Herbicides
- 40 9 Insecticides
- 41 10 Line Trimmers
- 42 11 Mowers
- 43 12 Snow Removal Equipment
- 44 13 Sprayers
- 45 14 Spreaders
- 46 15 Sweepers
- 47 16 Tractors
- 48 17 Truck Trailers/Attachments
- 49 18 Trucks
- 50 19 Turfseed
- 51 20 Utility Vehicles

5. Do you have Internet access? 52 A Yes 53 B No

5A. If so, how often do you use it?

- 54 A Daily 55 B Weekly 56 C Monthly 57 D Occasionally

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104	116	128	140	152	164	176	188	200	212	224	236	248	260	272	284	296	308
105	117	129	141	153	165	177	189	201	213	225	237	249	261	273	285	297	309
106	118	130	142	154	166	178	190	202	214	226	238	250	262	274	286	298	310
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Landscape MANAGEMENT

February 2002

This card is void after April 15, 2002

I would like to receive (continue receiving)

LANDSCAPE MANAGEMENT free each month:

Yes no

NAME (please print) _____
 TITLE _____
 FIRM _____
 ADDRESS* _____
 CITY _____ STATE _____ ZIP _____
 *Is this your home address? Yes No
 PHONE (____) _____ FAX (____) _____
 E-MAIL ADDRESS _____
 Signature: _____ Date: _____

1. My primary business at this location is: (fill in ONE only)

CONTRACTORS/SERVICE COMPANIES

- 02 255 Landscape Contractors (Installation & Maintenance)
- 03 260 Lawn Care Service Companies & Custom Chemical Applicators (ground & air)
- 04 285 Irrigation Contractors & Consultants
- Other Contractors/Service Companies (please specify) _____

LANDSCAPING/GROUNDS CARE FACILITIES

- 05 290 Sports Complexes
- 06 295 Parks
- 07 305 Schools, Colleges & Universities
- Other Grounds Care Facilities (specify) _____

SUPPLIERS AND CONSULTANTS

- 08 355 Extension Agents/Consultants for Horticulture
- 09 360 Sod Growers, Turf Seed Growers & Nurseries
- 10 365 Dealers, Distributors, Formulators & Brokers
- 11 370 Manufacturers
- Other (please specify) _____

2. Which of the following best describes your title? (fill in ONE only)

- 12 10 **Executive/Administrator** - President, Owner, Partner, Director, General Manager, Chairman of the Board, Purchasing Agent, Director of Physical Plant
- 13 20 **Manager/Superintendent** - Arborist, Architect, Landscape/Grounds Manager, Superintendent, Foreman, Supervisor
- 14 30 **Government Official** - Government Commissioner, Agent, Other Government Official
- 15 40 **Specialist** - Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist
- 16 50 **Other Titled and Non-Titled Personnel** (please specify) _____

3. SERVICES PERFORMED (fill in ALL that apply)

- | | | |
|--|---|--|
| 17 <input type="radio"/> A Mowing | 22 <input type="radio"/> F Turf Fertilization | 27 <input type="radio"/> K Paving, Deck & Patio Installation |
| 18 <input type="radio"/> B Turf Insect Control | 23 <input type="radio"/> G Turf Disease Control | 28 <input type="radio"/> L Pond/Lake Care |
| 19 <input type="radio"/> C Tree Care | 24 <input type="radio"/> H Ornamental Care | 29 <input type="radio"/> M Landscape Installation |
| 20 <input type="radio"/> D Turf Aeration | 25 <input type="radio"/> I Landscape Design | 30 <input type="radio"/> N Snow Removal |
| 21 <input type="radio"/> E Irrigation Services | 26 <input type="radio"/> J Turf Weed Control | 31 <input type="radio"/> O Other (please specify) _____ |

4a. Do you specify, purchase or influence the selection of landscape products?
 58 Yes 59 No

4b. If yes, indicate which products you buy or specify: (fill in ALL that apply)

- | | | |
|--|--|--|
| 32 <input type="radio"/> 1 Aerators | 39 <input type="radio"/> 8 Herbicides | 46 <input type="radio"/> 15 Sweepers |
| 33 <input type="radio"/> 2 Blowers | 40 <input type="radio"/> 9 Insecticides | 47 <input type="radio"/> 16 Tractors |
| 34 <input type="radio"/> 3 Chain Saws | 41 <input type="radio"/> 10 Line Trimmers | 48 <input type="radio"/> 17 Truck Trailers/Attachments |
| 35 <input type="radio"/> 4 Chipper-Shredders | 42 <input type="radio"/> 11 Mowers | 49 <input type="radio"/> 18 Trucks |
| 36 <input type="radio"/> 5 De-icers | 43 <input type="radio"/> 12 Snow Removal Equipment | 50 <input type="radio"/> 19 Turfseed |
| 37 <input type="radio"/> 6 Fertilizers | 44 <input type="radio"/> 13 Sprayers | 51 <input type="radio"/> 20 Utility Vehicles |
| 38 <input type="radio"/> 7 Fungicides | 45 <input type="radio"/> 14 Spreaders | |

5. Do you have internet access? 52 A Yes 53 B No

5A. If so, how often do you use it?

- 54 A Daily 55 B Weekly 56 C Monthly 57 D Occasionally

101	113	125	137	149	161	173	185	197	209	221	233	245	257	269	281	293	305
102	114	126	138	150	162	174	186	198	210	222	234	246	258	270	282	294	306
103	115	127	139	151	163	175	187	199	211	223	235	247	259	271	283	295	307
104	116	128	140	152	164	176	188	200	212	224	236	248	260	272	284	296	308
105	117	129	141	153	165	177	189	201	213	225	237	249	261	273	285	297	309
106	118	130	142	154	166	178	190	202	214	226	238	250	262	274	286	298	310
107	119	131	143	155	167	179	191	203	215	227	239	251	263	275	287	299	311
108	120	132	144	156	168	180	192	204	216	228	240	252	264	276	288	300	312
109	121	133	145	157	169	181	193	205	217	229	241	253	265	277	289	301	313
110	122	134	146	158	170	182	194	206	218	230	242	254	266	278	290	302	314
111	123	135	147	159	171	183	195	207	219	231	243	255	267	279	291	303	315
112	124	136	148	160	172	184	196	208	220	232	244	256	268	280	292	304	316

Save TIME and fax it:
4 1 3 - 6 3 7 - 4 3 4 3

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Lock down

Knox Industries' new DuraLock CableLock is a 8-in.-long woven cable with stainless steel ends that allows truck and trailer owners to secure valuable cargo. Its hardened electroless nickel coating resists hacksaws and saltwater. Mount anywhere, including tool box, headache rack, truck bed or trailer.

For more information contact Knox Industries at 877/456-6699 or www.knox.com / circle no. 250



Tight moves

Buhler Manufacturing's B56 wheel loader is a four wheel drive unit that articulates and oscillates for tight space operation. It is powered by a 56-hp Kubota diesel engine.

For more information contact Buhler at 204/661-8711 or www.buhler.com / circle no. 253



Chip it up

Bandit's 14-in. capacity Model 254 hand-fed Brush Bandit Chipper is now available with an optional back hoe style loader to ease the task of feeding large diameter materials and piles of brush. The boom has an 11-ft. reach with a lifting capacity of 500 lbs. A 270-degree swivel rotation grapple comes standard.

For more information contact Bandit at 800/952-0178 or www.banditchippers.com / circle no. 251

Bye bye thatch

Sisis's Rotorake 600 thatch remover has a 13-hp engine, a 24-in. working width and will work to a maximum depth of 2 in. It also has one neutral, one reverse and six forward gears and front or rear discharge.

For more information contact Sisis Inc. at 864/261-6218 or www.sisis.com / circle no. 252

Cut it out

Exmark has two new Lazer Z mid-mount zero-turns, one with a 20-hp Kohler engine and one with a 25-hp Kawasaki engine. The new 20-hp features a 52-in. UltraCut deck, and the engine has a heavy duty canister air filter and clean-out

ports. The 25-hp features a 60-in. UltraCut deck.

For more information contact Exmark at 402/223-6300 or www.exmark.com / circle no. 254

Go with the flow

L.R. Nelson's 9000 Series one-inch valves are available in threaded or slip versions and angle and globe models with and without flow control. This PVC valve also has a captured diaphragm for ease of service.

For more information contact L.R. Nelson Corporation at 800/622-8024 or www.lrnelson.com / circle no. 255



Much mulch

The Mulch Tender from Millcreek Manufacturing carries up to 10.2 cu. yds. of mulch to residential and commercial job sites, then automatically dispenses mulch into wheelbarrows. One man can load a wheelbarrow in 10 seconds by operating an on/off switch, says the company.

For more information contact Millcreek at 800/311-1323 / circle no. 256

All wet

Specially engineered for mid-size commercial turf areas, Rain Bird's 5004 stainless steel rotor has a radius of throw of 23-50 ft. The tough stainless steel riser deters vandals, and a built-in slip clutch mechanism provides added protection to the gear drive.

For more information contact Rain Bird at 520/741-6100 or www.rainbird.com / circle no. 257



Mid-sized might

Sarlo Power Mowers' Viper is a mid-size lawn mower, a five-speed and self-propelled machine with a 32-in.-wide cutting swath. Available with either a 10.5-hp Briggs & Stratton industrial-commercial, 12.5-hp Kawasaki, or 13-hp Honda engine.

For more information contact Sarlo at 800/749-5296 or www.sarlomower.com / circle no. 258

Get a grip

GripWorks' Foam Grip Wrap cushions grips for all kinds of tools. The wrap is 1/8-in. thick, and each foam kit includes a 5-ft. strip of wrap and four finishing tape strips.

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events

WHAT, WHEN & WHERE

February

18-22 Cornell Turfgrass Management Short Course / Westchester County, NY; 607/255-1792

20-21 Landscape Industry Show / Long Beach, CA; 800/448-2522

20-22 Winter Workshop 2002 / Bethesda, MD; Sponsored by the Landscape Contractors Association; 301/948-0810

22 ILCA Annual Excellence in Landscape Awards Dinner and Ceremony / Oak Brook, IL; 630/472-2851

22-23 Xeriscape Conference 2002 / Albuquerque, New Mexico; 505/341-5743

23-3 Southern Spring Show / Charlotte, NC; 704/376-6594

25 NYSTA Southeast Regional Conference / Suffern, NY; www.nysta.org

25-1 Indiana-Illinois Turfgrass Short Course / Willowbrook, IL; 765/494-8039

26-28 Western PA Turf Conference & Trade Show / Monroeville, PA; 814/863-3475

27 NJLCA Trade Show & Conference / Secaucus, NJ; 201/664-6310

27-3 Wichita Lawn, Flower and Garden Show / Wichita, KS; 316/721-8740

28 Connecticut Groundskeepers Association Trade Show / Hartford, CT; 203/699-9912

March

5-6 CALCP Spring Training Conference / Aurora, CO; 303/850-7587

5-7 New England Regional Turf Conference & Trade Show / Providence, RI; 401/848-0004

5-8 The Work Truck Show / Orlando, FL; 800/441-6832

6-7 Metropolitan Detroit Landscape Assn. Trade Show and Convention / Novi, MI; 800/354-6352

9-17 Chicago Flower & Garden Show / Chicago, IL; 312/321-0077

11 NYSTA Western Regional Conference / Buffalo, NY; www.nysta.org

16 ILCA Equipment Auction / Crystal Lake, IL; 630/472-2851

21-24 ALCA Student Career Days / Peoria, IL; 800/395-2522

22-24 Capital District Garden & Flower Show / Troy, NY; 518/356-6410

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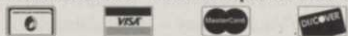
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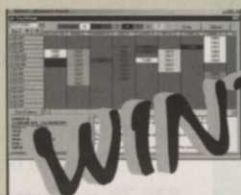


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GUIDELINES TO HELP AN INDUSTRY GROW

mowing

Mow and prosper

Making money by mowing grass is simple, right? Get yourself a pickup, a trailer and a big mower, and you've got yourself an instant landscape business. Shazam! What could be easier?

In most areas, all you need is a local business license to start rounding up customers. Customers? They're everywhere. You just find out what the next guy is charging and offer to start cutting for 10% less. Or whatever you feel it

will take to get the privilege of mowing that property.

Those of you who have survived that first dangerous flush

How do you determine what to charge?

of unfounded enthusiasm and have gone on to build successful and profitable mowing operations know that it's not that

easy. After working yourself almost to death and then facing that second or third year of payments for that once-shiny four-wheel drive pickup, you discovered that you have to charge a fair price for the services you provide.

We can't tell you what you should be charging. Every market is different. Every operation is different. What we can give you is what our research tells us the rest of the industry is charging.

For mowing, that number is \$36.78 per hour per employee. We base that number on the results of our 2001 State of the Industry Survey with almost 300 respondents. Caution, that number is a national average.

LM's Best Practices suggests you calculate your hourly rate based on the many factors particular to your operation and the market in which you compete, but if it's much below \$36.78, you better park your pickup out back and keep your eye out for the repo man.

Sound off

What do you think about our hourly charge for mowing? How do you determine your charge?

Every month we'll be providing space for feedback on this page. If we select your comments (even if you don't agree with us), we'll mail you a copy of the book, "Picture Perfect: Mowing Techniques for Lawns, Landscapes and Sports," by David Mellor, grounds supervisor for the Boston Red Sox. We've got several extra signed copies here in the office. You'll love it. Send comments to

Best Practices, Landscape Management, 7500 Old Oak Blvd., Cleveland, OH 44130. Or e-mail your response to jstahl@advanstar.com.



AVERAGE HOURLY RATES FOR MOWING

Company revenues	Rates
Under 100,000	\$41.83
101,000-250,000	\$38.57
251,000-500,000	\$36.67
501,000-1 million	\$35.06
1 million-5 million	\$39.96
Over 5 million	\$30.63
▶ National avg.	▶ \$36.78

SOURCE: LM 2001 SOI REPORT



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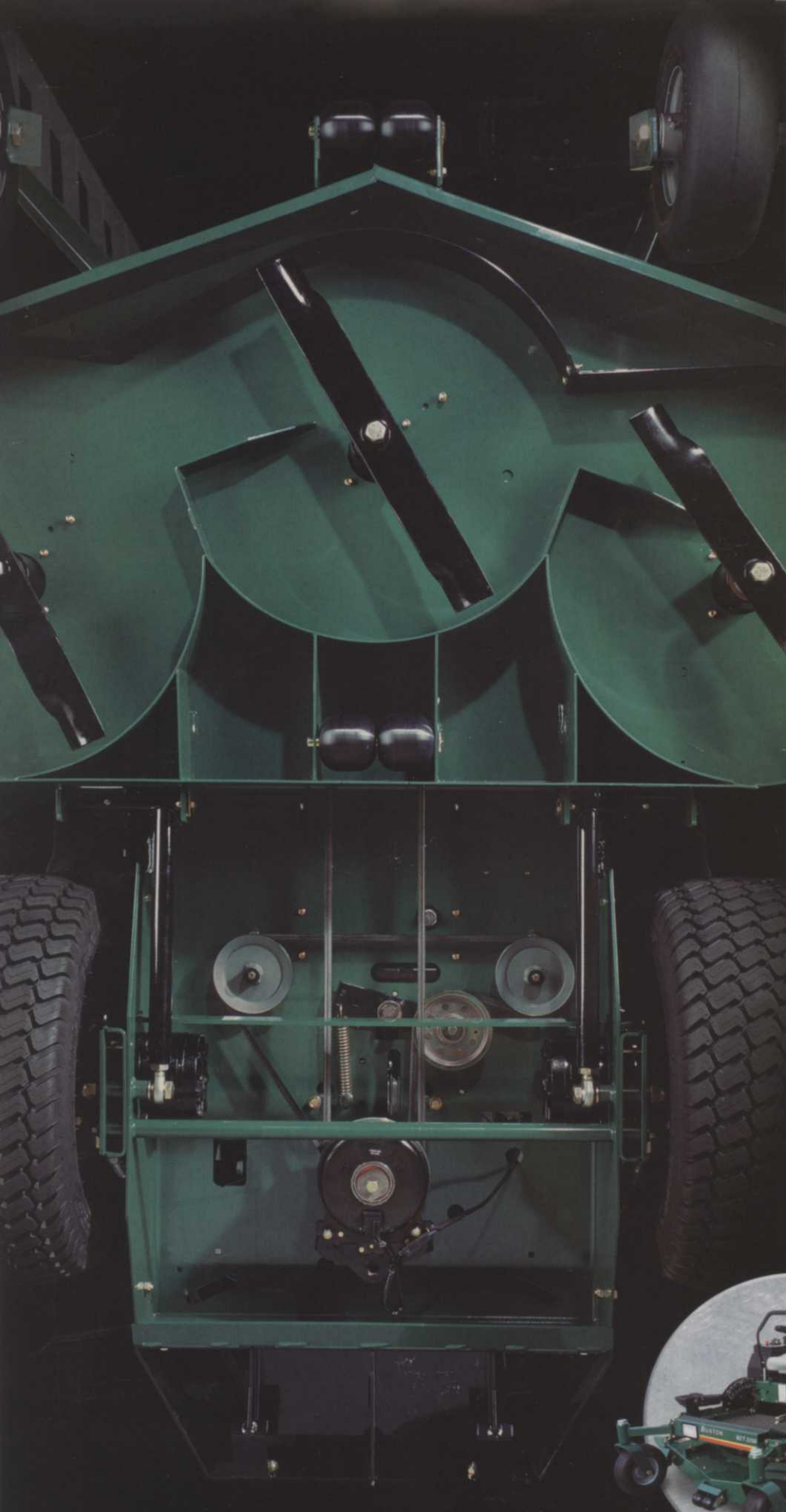
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