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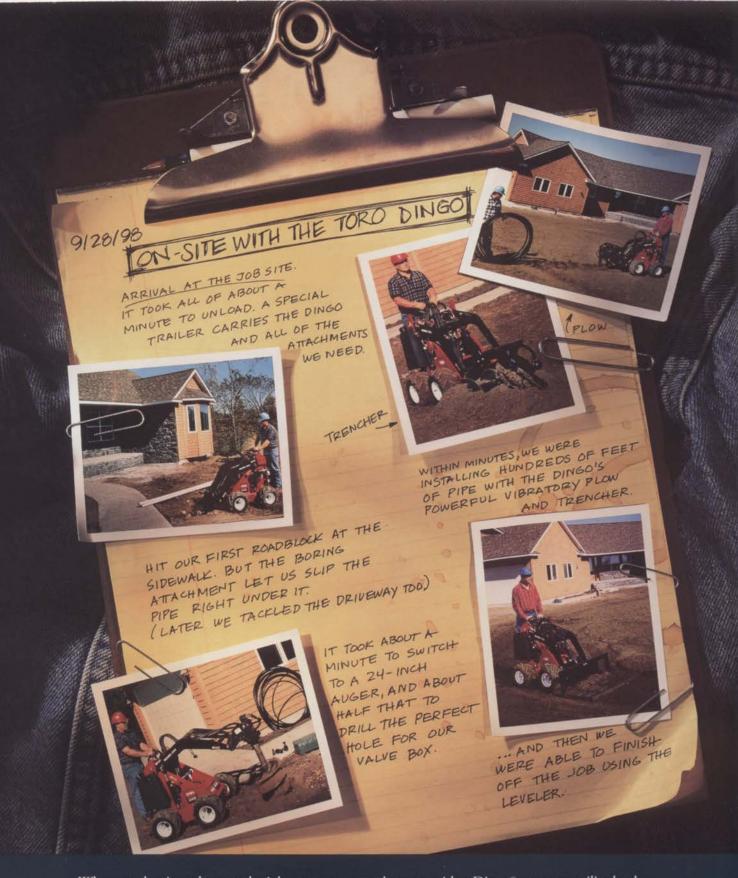
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Growing the Right Way

CoCal Landscape has proven that rapid growth can occur, especially when it is driven by quality work.

Features

Early-Season Weed Control

Putting together an effective plan means addressing issues such as local climate, application timing and product choice.



Driving Force

Riding mowers are gaining in sales and popularity as productivity demands drive the market.

Hands Off

Two companies confirm that aesthetically pleasing, low-maintenance landscapes are conceivable as the renovations of these properties in Oregon and Ohio illustrate.

Go with the Flow

Recent developments in irrigation valves have made them relatively problem free for contractors.

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There are several criteria that need to be factored into any fertilizer selection.

114 The Winners Are...

> T&O Service Tech magazine, a sister publication of Lawn & Landscape, honored two industry stars as its first-ever landscape maintenance and lawn care technicians of the year.

120 Send in the Subs

> The relationship between a contractor and a subcontractor can be difficult to manage but beneficial to both parties.

Power to Prune

Pruning trees seems like a simple task, but it's actually a task that is simple to err at.

132 Nowhere to Hide

Companies can no longer hide if they offer shoddy workmanship and poor customer service.

136 The Morning After

When acquinitions are mas there are certain to be some surprises encountered than can threaten the deal.



3

"Trouble is only

opportunity in work

clothes." - Henry

Kaiser

Boh West Fditor

ell, the industry and the anti-pesticide forces have finally found something they can agree on: no one is happy with the federal Environmental Protection Agency and the moves it has made since the implementation of the controversial Food Quality Protection Act. The environmental groups are upset the EPA isn't moving faster

to make its decisions. The industry, however, remains concerned about what basis the EPA will use for its tolerance reassessment decisions that will decide the fate of so many products on the market.

To that end, the industry has formed the Tolerance Reassessment Advisory Committee to ensure that the industry's voice is heard in our nation's capital above all of the other cacophony these days.

The concerns of some contractors and pesticide manufacturers, is that the EPA will enter the reassessment process predisposed to cancelling registrations, which will lead it to let its ideology influence the studies conducted and data utilized in the reassessment process. Others are equally concerned that incomplete testing would yield an unfair verdict against these products.

Numerous industry personnel have expressed the opinion that the EPA is ignoring or will ignore sound scientific practices in its analysis of these products. Apparently, the industry's opponents aren't too concerned about sound scientific practices being followed by the EPA, so long as the process moves quickly. Why could that be, other than that they're concerned that science will prove how nonthreatening these products really are?

Contractors must take a minute or two out of their busy time to make sure their own voice joins the industry's collective call for the appropriate action. According to the Ohio Professional Applicators for Responsible Regulation, "some states have already introduced or adopted resolutions urging Congress to conduct hearings about the implementation process and to provide the necessary ongoing oversight of the EPA's role."

Admittedly, calls for individual communication to elected officials have become tremendously commonplace these days, but this is one area where contractors need to realize the significance of what is taking place and what is at stake.

Landscape maintenance contractors have realized the extent of the threat posed by anti-backpack blower forces, and have mobilized sufficiently to at least stem the growing tide against them, although work remains to win the battle.

Now it's time for any contractors using various pesticide products to be equally proactive and supportive of their own industry. Call 202/224-3121 to get the phone number of your local senator or congressman in Washington.

Boh West

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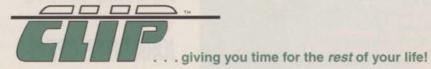
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- → "We love CLIP; it has improved efficiency and PROFIT!" Deresa and Jim Helems, Oak Hill Landscaping
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- ⇒ "Have anyone call me for a testimonial!" Mark Erbesfield, GreenMark

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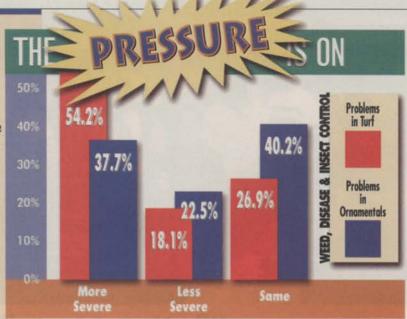
What are you waiting for?

WEED, DISEASE PRESSURES UP

Being in the lawn care industry is a double-edged sword at times. If there are few weed, disease or insect problems in the landscape, the job is easy but the revenues are low. If there are a lot of weed, disease and insect problems, then the work is more stressful but sales can go sky high.

In a survey of Lawn & Landscape readers, 1998 had its share of stress as 54.2 percent of respondents said turf weed, disease and insect problems were more severe in 1998 than in 1997, and 37.7 percent said likewise for ornamentals. About 18 percent and 22.5 percent said the problems were less severe in turf and ornamentals, respectively.

It's no surprise then that more than 56 percent of respondents indicated that their expenditures for pesticide control products increased over the last 12 months.



(Source: Lawn & Landscape Reader Survey)

Commercial & Consumer

Equipment Division an-

FERRIS PREPARES FOR GROWTH

MUNNSVILLE, N.Y. – As it enjoys positive early returns from the market for its new IS line of mowers, Ferris Industries got more good news when it finalized a deal to take on a new partner in Cygnus Management Group.

The investment group has become an equal partner in the company and will provide immediate additional capital to support Ferris' continued growth plans. The deal represents the first foray into the green industry for the Cygnus group. James Poole from Cygnus will serve as president of Ferris, running the organization with Dave Ferris.

"This arrangement brings in the necessary capital for us to move the company ahead," noted Dave Ferris, who will serve as chairman of the organization and stay involved in the organization by focusing his energies on new product development. "We've invested heavily with our new 100,000-square-foot factory that

opened in 1998, and there needs to be continued investment there. We'll also be anxious to improve our product offerings, so we'll be working heavily in research and development.

"In addition, one of the majority stockholders' stock went into a bankruptcy court trust, so this returns us to a normal financial environment, which is what we wanted," Ferris added. nounced the opening of a \$38 million business operation near Knoxville, Tenn. Incorporating engineering and assembly, the 300,000square-foot Commercial

'Incorporating engineering and assembly, the 300,000-square-foot facility encompasses the production of a skid steer line.'

JOHN DEERE OPENS NEW FACILITY

KNOXVILLE, TENN. -John Deere's Worldwide Worksite Products facility encompasses the production of a skid steer line,

.

The facility will produce skid steers and attachments (designated Worksite Pro®) for a wide variety of commercial and agriculture operation, including landscape contractors, construction contrac-

(continued on page 10)



New capital will allow Ferris to increase its already expanded production capabilities. Photo: Ferris

Honda Proudly Announces Some Dramatic Reductions.

No, this isn't a closeout sale. It's a brand new line of string trimmers from Honda. And thanks to some dramatic reductions, now you really can do more with less.

Noise Reduction Honda's new trimmers take advantage of their 4-stroke engine's combustion format to dramatically decrease noise.

Emissions Reduction

4-stroke engines are well known for producing fewer emissions than comparably sized 2-stroke engines, making them very environmentally friendly. In fact, Honda's trimmers meet all EPA and CARB emission standards.

Maintenance Reduction

Honda's trimmers use straight gasoline, eliminating the hassle of mixing gas and oil. And they can run two times longer than comparable 2-stroke engines on the same amount of fuel!

Effort Reduction

The engines also suppress spark plug carbon buildup and carburetor clogging, maintaining like-new starting ease.

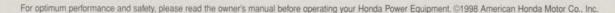
Price Reduction

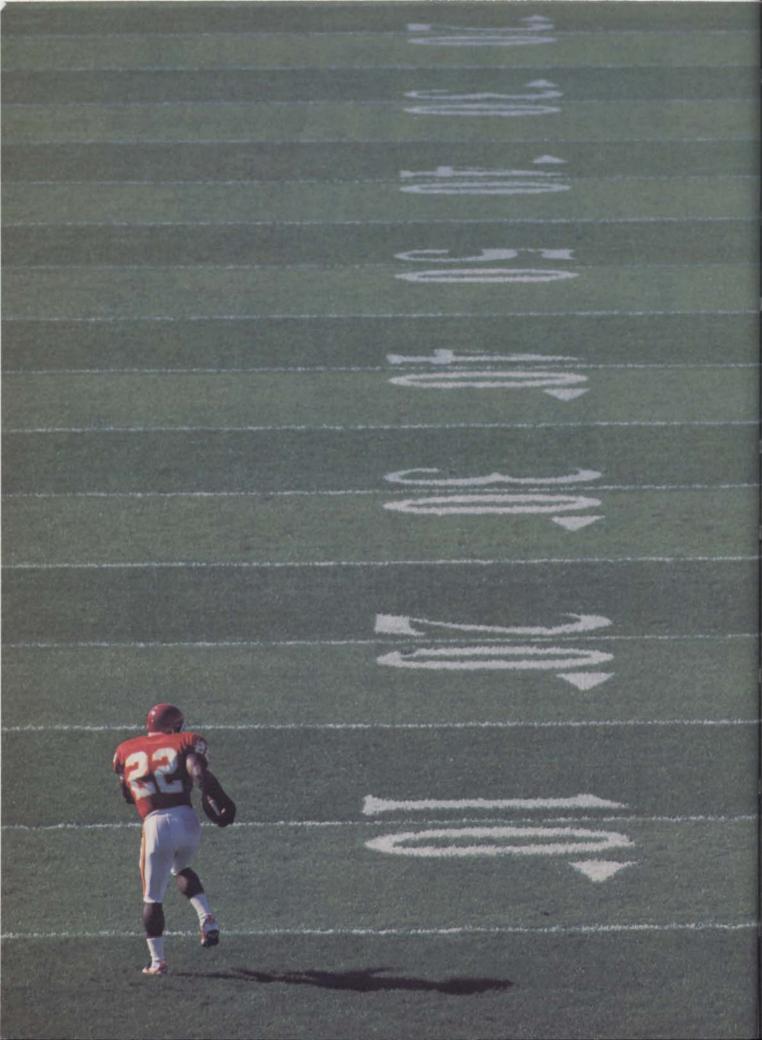
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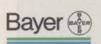
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MARKET TRENDS

(continued from page 6)

tors, rental operations, golf courses, nurseries, seed and sod producers and a wide array of specialty applications.

"With our long experience in the skid steer business and our engineering and manufacturing expertise, we felt it was time for us to design and build the product ourselves," Chuck Mogged said, general manager of the Commercial Worksite Products Business Unit. "As we place more emphasis on commercial and golf and turf products to increase sales overall, skid steers represent a natural outgrowth of our division."

The CWP group located its facility in the Knoxville area to take advantage of the location's proximity of key markets to reduce transportation time and expense,

The group is one of five business units that comprise the John Deere Worldwide Commercial & Consumer Equipment Division (net sales of \$1.8 billion is 1997). As part of a global growth strategy, the division has invested more than \$185 million in the last 18 months for development of new products and new facilities.

YAZOO/KEES TO ACQUIRE DIG-IT

JACKSON, MISS. - Yazoo/ Kees Power Equipment announced that it has signed a letter of intent to acquire

To ensure that your meeting date is published, send an announcement at least 10 to 12 weeks in advance to Law & Landscape, 4012 Bridge Ave. Cleveland, OH 44113.

FEB. 14-16 Lawn & Landscape School of Management, Atlanta. Contact: 800/456-0707.

FEB. 18-21 Rhode Island Spring Flower and Garden Show, Providence, R.I. Contact: 781/ 595-4510.

FEB. 20-24 Associated Landscape Contractors of America Executive Forum, Rancho Mirage, Calif. Contact: 800/395-2522.

FEB. 22 NYSTA Southeast Regional Conference, Suffern, N.Y. Contact: 800/873-8873.

FEB. 22-26 International Erosion Control Association, Nashville, Tenn. Contact: 970/ 879-8563.

FEB. 22-26 Indiana-Illinois Turfgrass Short Course, Willowbrook, Ill. Contact: 765/494-8039.

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MARKET TRENDS

FEB. 23-25 Western Pennsylvania Turf Conference and Trade Show, Monroeville, Penn. Contact: 814/863-3475.

FEB. 24 New Jersey Landscape '99, Secaucus, N.J. Contact: 201/664-6310.

MAR. 1-3, 11 Landscape Construction Series, New Brunswick, N.J. Contact: 732/932-9271.

MAR. 2-4 New England Regional Turfgrass Conference and Show, Providence, R.I. Contact: 401/848-0004.

MAR. 3 Professional Turf & Plant Conference, Huntington, N.Y. Contact: 516/ 665-2250.

MAR. 4-7 Association of Professional Landscape Designers winter conference, San Francisco. Contact: 312/201-0101.

MAR. 9-12 Arboricultural Consulting, Newport, R.I. Contact: 301/947-0483. MAR. 10-11 Metropolitan Detroit Landscape Association convention & show, Nova. Contact: 248/646-4992.

MAR. 18-21 ALCA Student Career Days, Lexington, Ky. Contact: 800/395-2522

MAR. 24 NYSTA Western Regional Conference, Buffalo. Contact: 800/873-8873.

MAR. 31-APRIL 1 California Landscape Contractors Association 1999 Landscape Industry Show, Long Beach, Calif. Contact: 916/448-CLCA.

APR. 22-23 Color Magic/Florida Nurserymen & Growers Association, Orlando. Contact: 407/295-7994.

APR. 25-27 Equipment & Engine Training Council annual meeting, Charlotte, N.C. Contact: 512/442-1788.

MAY 1-3 Turf & Ornamental Communi-

cators Association annual conference, Orlando. Contact: 612/758-6340.

MAY 19 North Carolina Turf & Landscape Research Field Day, Raleigh. Contact: 910/695-1333.

MAY 25 Las Vegas Landscape Association trade show & conference, Las Vegas, Contact: 702/673-0404.

JULY 19-20 Professional Lawn Care Association of America Legislative Day on the Hill and Arlington Renewal & Remembrance Project, Washington, D.C. Contact: 800/458-3466.

JULY 24-26 International Lawn, Garden & Power Equipment Expo, Louisville. Contact: 502/562-1962.

JULY 26-31 Perennial Plant Association Symposium, Lansing, Mich. Contact: 614/771-8431.

HCC's Dig-It tractor and towable backhoe products, the Huskie utility vehicle product line, and the Power King garden and estate tractor product line.

"We are very excited about the opportunity this acquisition will provide Yazoo/Kees," said Tom Lutes, CEO of Yazoo/Kees. "The product lines fit very well with our strategic direction of complementing our current commercial mowing equipment business with entries into the rental equipment, light construction, estate tractor and utility vehicle markets where we currently do not play a major role."

The manufacturing of the three product lines will be moved to the 166,000-

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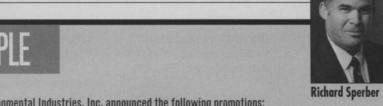
USE READER SERVICE #13

square-foot Yazoo/Kees manufacturing facility and corporate office location in Jackson, Miss.

RUPPERT EARNS PRESIDENTIAL AWARD

ASHTON, MD. - Ruppert Landscape was one of 18 recipients of a 1998 President's Service Award. Ruppert was nominated for the award by the District of Columbia Parks and Recreation Department in recognition of its donated efforts to renovate area parks and recreation areas over the last five years.

(continued on page 16)



Lynne Watts

nvironmental Industries, Inc. announced the following promotions: Richard Sperber, president and chief operating officer of Valley Crest Tree Company, the nursery division of EII, was also named executive vice president of EII; Thomas Donnelly was named senior vice president of Valley Crest, the landscaping division of EII and Robert Crudup was named senior vice president of Valley Crest Tree Company.

Roger O'Kane was named the new human resources manager for Moyer & Son.

Hunter Industries named **Don Turner** professional education manager and **Lynne Watts** district sales manager. Bri-Mar Manufacturing hired Richard Ross as product manager.

OmniQuip International appointed of David Merrifield to corporate director of product safety. Jacklin Seed promoted Susan Samudio to plant breeder.

Robert Bartlett, Jr., president of The F.A. Bartlett Tree Expert Co., was elected to the additional posts of chairman of the board of directors and chief executive officer.

Roberts Supply appointed David Bynum as director of sales for the Atlanta office.

Lee Dawkins was appointed to the position of pond products group manager at Aquarium Pharmaceuticals. Shindaiwa named Bert Albing technical services representative and Carmelo Grenier western regional sales manager.





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MARKET TRENDS

(continued from page 14)

TWO ARE NOW ONE IN TEXAS

AUSTIN, TEXAS – In what may or may not be a precursor of things to come on a greater scale, the Texas Association of Landscape Contractors and the Texas Association of Nurserymen announced a merger agreement to form one association.

The new organization will hold its first meeting in March 1999.

A new name for the association is expected to be announced in February, which is about the same time that a

(continued on page 18)

ASSOCIATION NEWS

he Illinois Landscape Contractors Association announced its 1999 officers: W. Scott McAdam, McAdam Landscaping, president; Barbara Rosborough, Rosborough Partners, executive vice president; Leo Kelly, Kellygreen Design, vice president; Susan Meier, Koch & Son Landscaping, secretary/treasurer.

Scott Holm is the 1998-99 winner of the \$2,500
James I. FitzGibbon Scholarship, sponsored by
Lesco, Rocky River, Ohio, and the Professional
Lawn Care Association of America. Holm, who is
majoring in Agribusiness at the California
Polytechnic State University, interned this summer
at Environmental Care, the company that

sponsored his entry. The deadline for next year's scholarship is Oct. 1. For more information, call PLCAA at 800/458-3466.

The International Society of Arborculture released Trees and Development: A Technical Guide to Preservation of Trees During Land Development. The 200-page book details information about preserving trees during all stages of the development process. It features detailed illustrations, a variety of easy-to-use tables and charts, appendices and case studies for specific scenarios. The book can be ordered by calling 888/ISA-TREE.

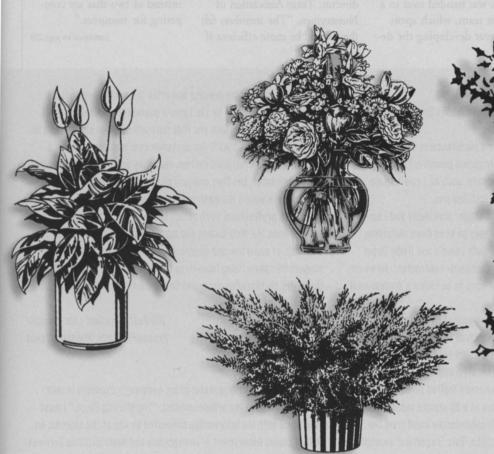
Matthew Sandberg, from North Carolina State University, was awarded the TRIMS Software International Turfgrass Scholarship, sponsored by TRIMS Software International and the Foundation for the Turfgrass Council of North Carolina. For information on next year's contest, call 602/277-8027.



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MARKET TRENDS

(continued from page 16)

new dues structure will be finalized. Later, in April, region officers and directors should be installed and functioning.

Discussions between the organizations began nearly

two years ago to create a unified Green Industry Association for the two groups. After a task force generated a proposal, the work was handed over to a transition team, which spent the last year developing the de-

tails of the merger process.

"We had a lot of crossover membership," explained Marilyn Good, communications director, Texas Association of Nurserymen. "The members felt they would be more efficient if they could pool their resources. It was the members' desire to focus their energy in one really strong organization instead of two that are competing for resources."

(continued on page 20)

To the Editor:

I appreciated your article "Keeping Up With Economic Changes" in the October issue.

I am a product line manager for a manufacturer selling only through distributorships to the irrigation industry. The fear of competition from mass merchandisers, such as Lowe's Home Warehouse and Home Depot, is a justified one.

I worked for Lowe's as a zone manager previously and I have some first-hand information that may be even more disturbing than your article suggested. Yes, both Lowe's and Home Depot have programs set up for the "professional contractor." However, to qualify, the customer does not have to be either a professional or a contractor.

The pricing structure is totally dependent on dollar volume of an individual sale and preferences are given to repeat purchasers. The possession of a tax certificate might help to cut some red tape, but is not required for this consideration. The technical know-how of the employees is generally limited to, but not uniformly enforced, as the viewing of a 20-minute video supplied by the manufacturer and possibly enhanced by input from the mass merchandisers corporate office. This "expertise" available to the DIY (do-it-yourselfer) may be passed on with an occasionally scheduled "how to" clinic which consists of viewing the video by the public with a question and answer period to follow. If the interested viewer pays more attention to the video than the store employee did when he viewed the same video, well, you can guess who will know more during the question and answer period. The situation would seem to greatly advantage the professional who has the training and experience.

However, the mass merchandisers again come to the rescue by offering their own installation professionals. Yes, both Lowe's and Home Dept offer installation of many of the DIY products that they sell. Do they presently offer installation of sprinkler systems? You will have to call your local store to find out. The installation programs are handled by the individual stores with support from the district, regional and corporate offices. At the present time, the Lowe's store in my area does not offer this service, but I was assured that they were "working on it" and hoped to be able to offer sprinkler system installation this spring.

The stores will then find local contractors and put them through

their own certification process and offer the confidence that his work will be backed-up by the Lowe's guarantee. The selling point for the store (and I assure you that they will be price competitive in the local market) is that if the customer ever has a question or a problem with the installed system, that they don't have to hunt down some contractor, but they can just pick up the phone and call the Lowe's store where the contract was signed.

The true professional contractors in this industry will need to have support from the distributors and manufacturers that advertise the emphasis of expertise and experience. Manufacturers that offer cooperative advertising incentives to the distributor, and distributors that offer certification programs to the contractors, should be the eventual winners in this war.

Bill Petty, Product Line Manager Presco Products, Sherman, Texas

To the Editor:

While I am certainly grateful of my company's exposure in your November issue in the article entitled, "The Missing Piece," I must take issue with the information presented by one of the sources. An United States Department of Immigration and Naturalization Services agent interviewed for the article stated that companies like mine do not guarantee the legality of the workers that are sent.

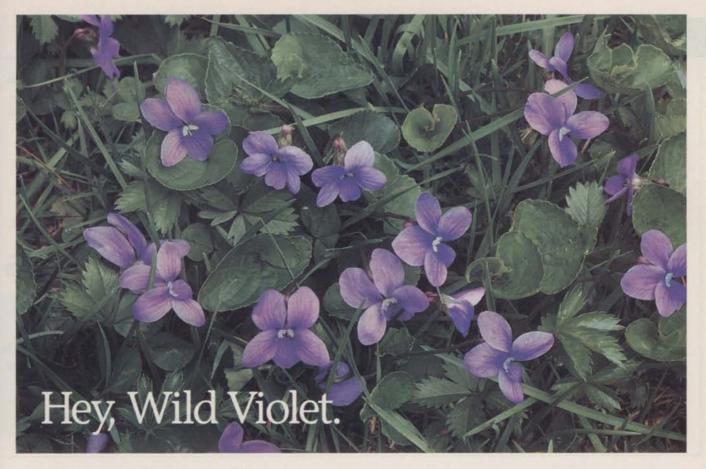
While I can't speak for any other company, I guarantee that any of the H-2B workers we send will have legal documents. This is because one of my employees personally prepares the worker's paperwork and walks them through the embassy in Monterrey, Mexico. They then have to cross the U.S. border that same day in order to catch a bus to their new employer. In addition, an H-2B worker arrives with his/her employer's name printed on their work visa.

It is true with the "green card" workers that it is sometimes difficult to detect fake documents. But as the article mentioned, we have placed more than 8,000 workers and have had less then 10 reported problems with fake papers.

While there may have been a few that slipped through our watchful eyes, none of the employers had adverse consequences with the INS.

There are some "flesh peddlers" out there sending anyone who can fog up a mirror, but I assure you that Amigos is not one of them.

Robert Wingfield
Amigos



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COOL POWER

USE READER SERVICE #15

(continued from page 18)

WHERE DID THE **GRASS GO?**

CLEVELAND, OHIO - The more grass the better, as far as industry contractors are concerned. But they may, in fact, have reason to be concerned that the future will feature less greenspace, according to National Association of Home Builders.

The NAHB's "Housing Economics" report identified a trend toward larger houses on smaller property lots. Although, as the Turfgrass Producers International observed, smaller areas for landscaping could encourage

THE YARD OF THE FUTURE?

	1995	1996	1997
House size	1,920	1,950	1,987
Lot size	9,375	9,100	9,000
Area remaining	7,455	7,155	7,025

more homeowners to purchase these professional services because the prices would be less. 1998 Top 100 Franchise Businesses of America list.

Natural awn of America, Frederick. Md.; Lawn Doctor.

Holmdel, N.J. and U.S. Lawns, Orlando, Fla., a subsidiary of Environmental In-

dustries, were chosen based on financial performance; corporate growth, management and stability; the relationship between the franchisor and the franchisees and opportunities to expand. Their rankings were No. 34, No. 55 and No. 76, respectively.

Out of the over 4,000 U.S. franchisors, 240 companies submitted eligible applications to Success.

TOP FRANCHISES **GROW GREEN**

NEW YORK - Three landscape franchisors were included in Success Magazine's November

MISSION STATEMENT:

AWN & LANDSCAPE magazine delivers superior, total coverage of the continually evolving professional lawn and landscape contractor market, from in-depth business trends and technical research reports to market analysis and new product introductions. For 19 years, L&L has provided industry presidents, business owners and top-level managers the most up-to-date information needed to effectively run their businesses.

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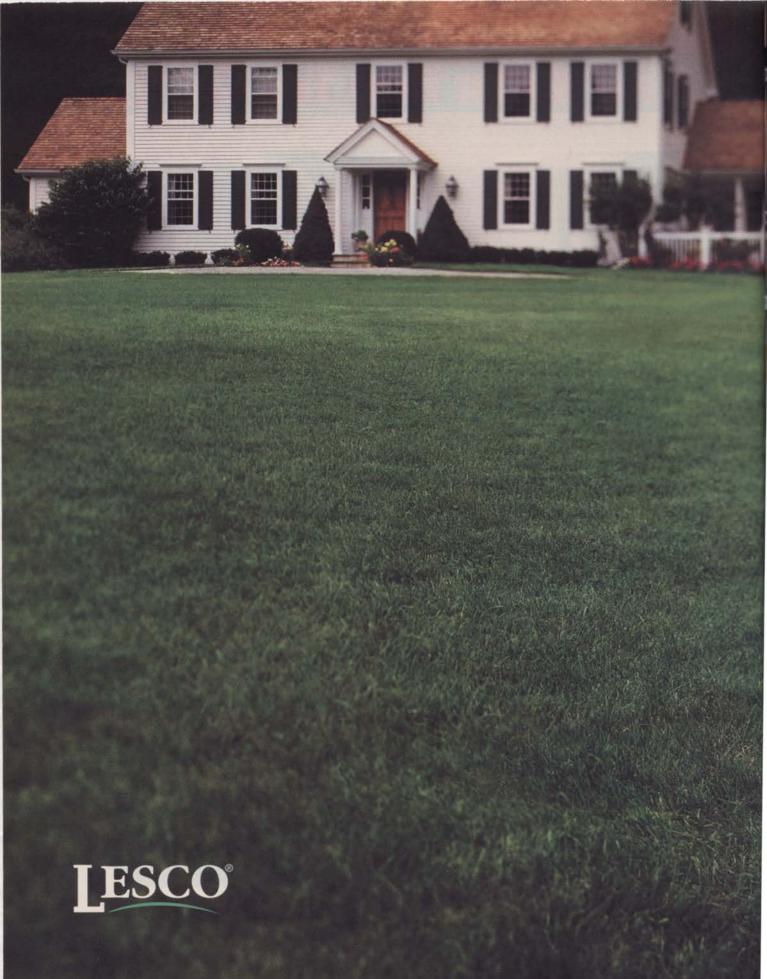
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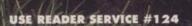
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SCOTTS REORGANIZES SUPPLY SIDE

MARYSVILLE, OHIO – The most dominant name in consumer lawn and landscape care will now be easier for the professional lawn care contractor to obtain, if the plan announced by The Scotts Company meets its goals.

The company announced a reorganization of its North American Professional Business Group "to strengthen distribution and technical sales support, integrate brand management across market segments and reduce annual

operating expenses."

The reorganization will significantly expand upon the company's relationships with four considerable distributors: Turf Partners, serving the Midwest and Northeast; BWI Companies in the Southwest and Southeast; Wilbur Ellis Company in the Pacific Northwest; and Western Farm Services in California.

"We feel confident that this broadened relationship will bring better service and deliver to our professional turf and landscaping customers as well," noted James Hagedorn, head of Scotts' North American Businesses.

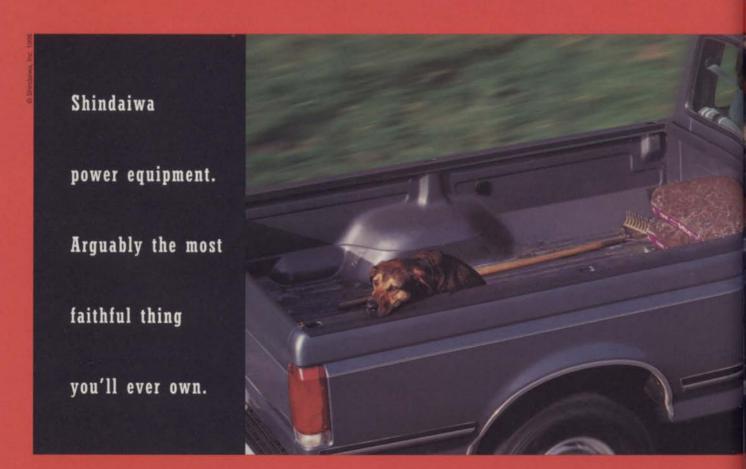
Working with these new distributor relationships should double the numbers of Scotts' sales representatives and quadruple the number of warehouses carrying professional product for Scotts.

Scotts also reported that the reorganization will eliminate about 60 jobs in the group's ProTurf division, primarily in marketing, sales management and customer services positions that will now be replaced by the aforementioned distributors.

Hagedorn noted that Scott Todd, who most recently served as vice president of the horticulture Division within Scotts' Professional Business Group, will lead the new turf and ornamental organization.

In a separate move, Scotts announced a turfgrass technology-sharing pact with Monsanto where both companies will work to produce "improve transgenic turfgrasses and ornamental plants" that could then be licensed to other suppliers in the industry.

Specifically, "the alliance will focus on providing professional and consumer benefits such as turfgrass that requires less mowing and water, ornamental plants that last longer and produce larger and more plentiful blooms, and plants that will allow for better weed control," according to a release from Scotts. — Bob West



MERGERS & ACQUISITIONS FOCUS OF SEMINAR

SAN FRANCISCO – About 100 potential buyers and sellers came together for the second annual Landscape and Lawn Care Industry Mergers and Acquisitions Institute, presented by the Fulcrum Group last month.

The event was chaired by Burt Sperber, chief executive officer of Environmental Industries, Calabasas, Calif. Attendees heard members of the industry and financial professionals speak on a number of topics, such as "Knowing What Buyers Are Looking For," "Selecting the Best Available Financing Alternative" and "Negotiating the Acquisition Agreement."

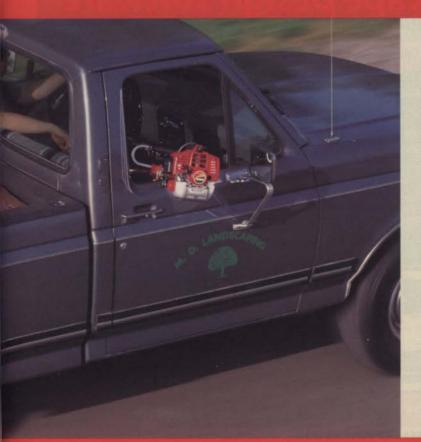
Representatives of all of the green industry's major consolidation players were in attendance. In addition, a new player may be joining the game shortly, as Growscapes, Houston, Texas, confirmed it is in the final stages of formulating the basis for its industry consolidation efforts. The company hopes to formally

Acquisition Update

- LandCare USA has announced the following additional acquisitions: Eagle Landscape, Rancho Cordova, Calif.; ServiceScape,
 Michigan City, Ind.; and Austin Natural Resources, Austin, Texas, for a total of 22 companies.
- TruGreen-ChemLawn has also announced the following acquisitions: Pennink Arrimour, Huntingdon Valley, Pa.; Earth Enterprises,
 Seattle; Van Herrick, Los Angeles; and Evergreen, Bellevue, Wash.,
 for a total of 16 companies.

announce its initial acquisitions, which may number as many as 12 current independent companies, in early March with the possibility of an initial public stock offering to take place this summer.

– Bob West



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IRRIGATION Q&A

ASKTHE Droughtbusters

Droughtbusters is a question and answer column provided by the Irrigation Association and Lawn & Landscape magazine. Fax your questions to 800/455-4320 or e-mail them to irricom1@earthlink.net.

Recently, I lost a decent-sized commercial job. My bid was nearly 25 percent higher than the winner, which turned out to be the plumbing contractor.

Looking back, three things cost me the job. First, the request for proposal was too vague because the general contractor and the landscape contractor did not provide an irrigation plan. The plan was included as part of the bid.

Next, I bid using what I consider professional-grade components and I devoted serious attention to making my irrigation plan fit the land-scape plan. Everything I used was guaranteed by the manufacturer or by me.

Finally, the general contractor on the job was trying to make up for cost overruns and the plumbing contractor was trying to impress the general contractor for future work. In the end, the irrigation system used sprayheads purchased from the local discount hardware store operated with a residential type controller without sensors.

What can I do to prevent this from happening again?

Unfortunately, you're in a state that doesn't certify irrigation contractors, doesn't require irrigation plans before building permits are approved and has few irrigation consultants to rely on.

If I were you, I'd explain what happened to your local irrigation supplier. Help the supplier organize irrigation training and certification classes in your area through the IA, which will supply all training materials and a qualified instructor. The cost of this training will be offset later by reducing the number of situations like you described.

Also, watch the job in the coming months. Talk to the landscape contractor about the risk he took with an in-

creased chance of plant failure since most contractors have to replace plants that fail for up to one year after job completion.

If you know the local building inspector, express your concerns. His or her reputation is on the line, too.

Don't fight alone. Create a team that includes landscape contractors, irrigation distributors and irrigation consultants. – Bruce Shank

The author is the owner of Irricom, Palmdale, Calif., and Austin, Texas, the communications agency for the IA. For more informa-

tion on the IA

call 703/573-

3551.

The Irrigation Association



HORTICULTURE FORUM

PLANTING ANNUALS

WHETHER IT is an entirely new landscape or a new landscape bed of annual color for the spring, some simple guidelines to remember can be very helpful in making the installation a year-long success.

BED PREPARATION. Proper soil preparation is critical for success with bedding plants. The area should be tilled 8 to 16 inches deep. Most landscape managers incorporate some

organic matter, such as leaf mold, compost, peat moss or sterilized manure, in the upper 6 to 8 inches of the soil surface. This organic matter improves

moisture retention, drainage, aeration and soil structure, and these materials should be applied at a rate of approximately 25 percent of the soil volume where the roots will be. This will require 2 inches of material if tilled to an 8-inch depth.

Fertilizer is also incorporated at this time. Most summer annuals do not require a high level of fertilization. The fertilizer applied assures establishment, vigorous initial growth and subsequent flowering. Apply 1 to 2 pounds of nitrogen per 1,000 square feet of bed as a complete low-nitrogen material with a ratio of 1:2:1, 1:1:1, 1:2:2 or similar. Higher rates are sometimes

used, however, excessive nitrogen can result in rank vegetative growth and can reduce flowering. Also, some managers choose to incorporate slow-release products at planting to reduce supplemental additions of nitrogen.

Most bedding plants tolerate a soil pH range from 5.5 to 7.5. Alkaline sites require the use of tolerant species. Additions of lime, sulfur or other pH adjusting materials should not be made except on the basis of a soil test.

Some managers also incorporate fungicides, wetting agents and water-holding compounds. However, their

cost and
varying benefits should
be carefully
evaluated
and justified
before increasing
project costs.

After incorporating organic ma-

terial and other supplements, the beds should be raked smooth and slightly mounded. Sticks, clods and other debris should be removed from the bed.

PLANTING. Plant summer annuals only after the danger of killing frost is past. Some species are relatively cold-tolerant and can be planted in the early spring or even in the fall in some areas. Contractors should also take care to store plants that cannot be planted due to scheduling or weather in a lightly shaded area and water them as needed.

In addition, it's important to keep plants moist during the planting. They may dry out quickly in the open.
Carefully remove plants from the pot, including those made of peat. Gently crush the root mass with the fingers to stimulate root growth in the surrounding soil.

Begin planting in the center of the bed and keep traffic in the worked soil to a minimum. Make the hole slightly larger than the root ball and set the plant at the same depth or slightly higher than it was growing in the container. Smooth out the soil around the plants after planting, including footprints.

MULCHING. Some landscape managers mulch annuals immediately after planting, while others wait until the plants have "set-up" for a few days, and some contractors (probably the majority) do not mulch at all.

Mulch can be quite beneficial to a bed as it aids in water conservation, weed control and gives the bed a "finished" look. Organic mulches such as pinestraw, bark, compost, fumigated or composted hay or straw, should be applied 1 to

2 inches deep. Incorporate a little additional fertilizer if an organic mulch is used or spread a very small amount of fertilizer material on top of fresh organic mulch to compensate for nitrogen loss during decomposition of the mulch.

WATERING-IN. Finally, water the newly planted bed immediately after planting or mulching. Use a water wand, breaker or sprinkler to water the base of the plants. Water until the bed is wet to a depth of 3 inches for transplants from 2-inch containers and deeper for those from larger pots. Keep the wand or breaker in motion to reduce washing of the soil or mulch.

Some managers "water-in" with or inject a "starter" solution containing a soluble, high-phosphate fertilizer such as 10-52-17, but the benefits to this are questionable, especially if adequate nutrients are incorporated prior to planting. – David Hensley

The author is a landscape extension specialist with the University of Hawaii.



Proper fertilization levels for bed establishment mean avoiding over fertilization so plants don't have unwanted competition. Photo: Clean Cut

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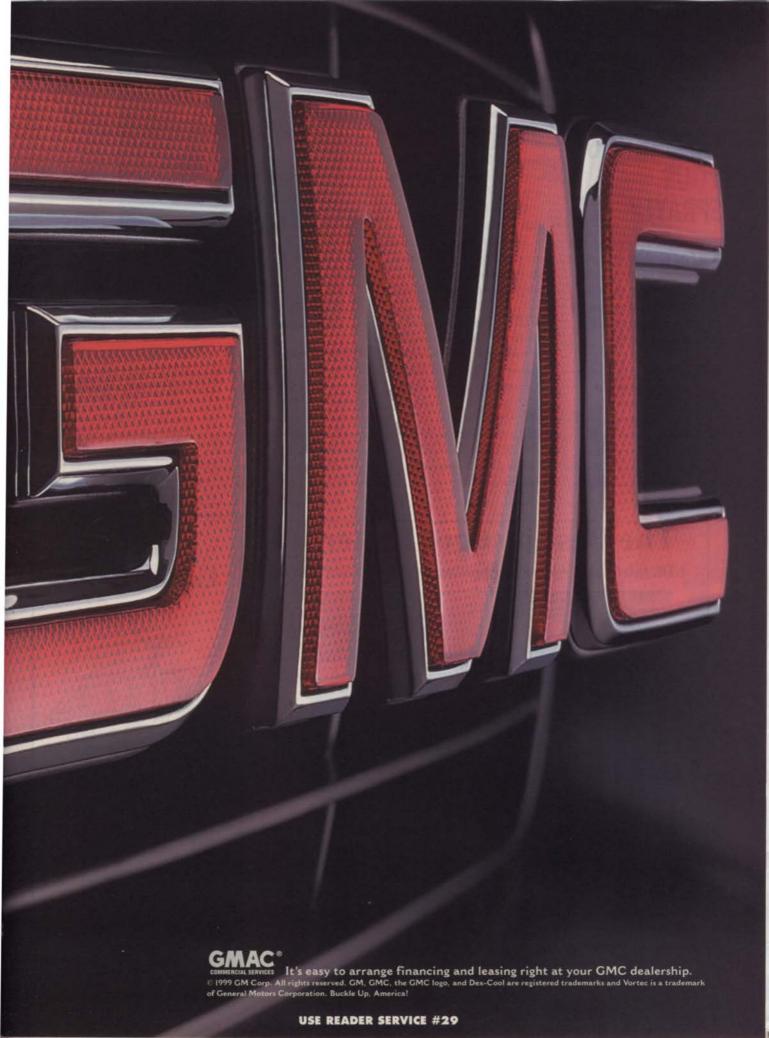
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CALIBRATING YOUR **SPRAYER**

EVERYONE IN the lawn and landscape business relies on the small volume sprayer. To offer the best results and ensure that the right amount of pesticide is applied, spray equipment must be calibrated properly.

BASIC CONCEPTS. There are several concepts to remember when calibrating sprayers:

- 1. Always fill the tank with the same quantity of liquid.
- 2. Pay attention to the nozzle on the sprayer. Different sizes and types of nozzles cover

different areas of lawn.

- 3. The pressure inside the sprayer, which you generate by pumping the handle, controls how much liquid is sprayed out of the nozzle.
- 4. Walking speed must remain constant.
- 5. Once you know how much area the sprayer covers, calculate the fill rate for the pesticide, based on label directions.

NOZZLES. The type of nozzle selected will depend on the area to be sprayed. Flat fan nozzles produce medium-sized droplets in a fan-shaped pattern and are excellent for use on open lawn areas. Hollow or solid cone nozzles spray a rounded pattern and may be more suitable for use along fences or spraying in beds around plants.



Calibrating sprayers ensures complete applications are made without wasting any product.

SPRAYER SELECTION. You will need to change nozzles for different uses. Never use a sprayer for bed weed control that has been used to spray broadleaf weeds. Even if you wash the sprayer very carefully, trace amounts of broadleaf herbicide remaining in

the sprayer, hose or wand can damage ornamental plants. Don't be tempted to use a vegetation control sprayer for lawn weed control, either. It is best to separate your sprayers by type of use and clearly mark the sprayers.

(continued on page 32)

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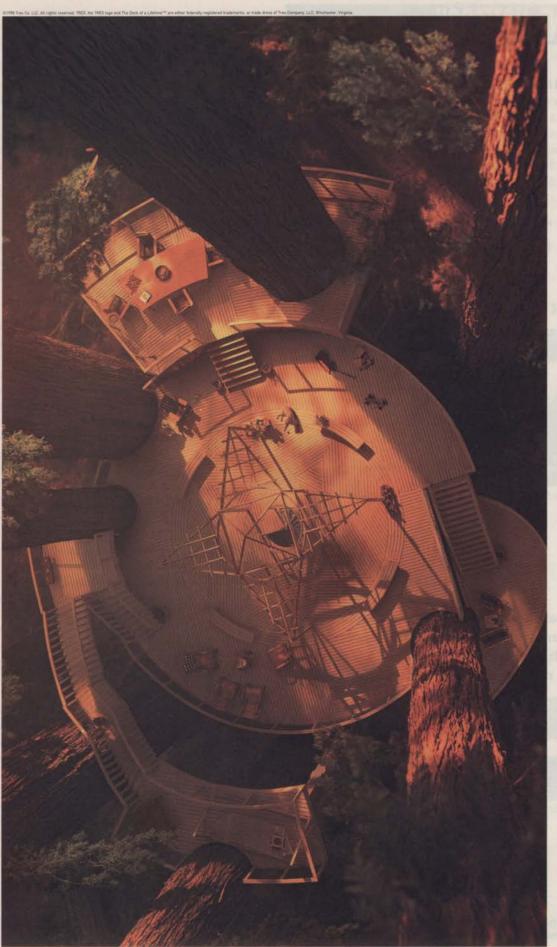
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EQUIPMENT NOTEBOOK

(continued from page 30)

CALIBRATING FAN NOZZLES. Integrate points 1 through 4 from above when initially calibrating a sprayer. Walk at your normal pace across a lawn area. Establish a comfortable walking speed, which should be about 30 feet in 10 seconds, and make all applications at this pace.

Now, fill the sprayer with I gallon of water. If you have a larger capacity backpack sprayer, fill it with 2 gallons of water. Pump the sprayer until the pressure inside the sprayer resists additional pumping. Fifteen to 20 pumps is usually adequate to start.

If all is going well in your calibration

process, you are duplicating the action of a tractor-drawn spray rig.

By turning the nozzle so that it is perpendicular to your direction of travel and walking at a constant speed, you will spray the liquid over a certain area. Measure the area sprayed to determine the square feet per gallon.

Most lawn pesticide labels list an application rate in ounces of pesticide concentrate to fill for 1,000 square feet. If the rate is listed for an acre of lawn, divide the ounces per acre by square feet. This calculation determines the "fill rate" for the pesticide.

calibrating cone nozzles. Calibrating sprayers with cone nozzles is not as exact as with flat fan nozzles. For these sprayers, follow the same steps of filling the sprayer with a known amount of water and pressurizing the sprayer. If using the cone nozzle along a fence or driveway, spray the water and measure the area sprayed. (Be sure to walk faster since the spray pattern is more closely spaced than in a cone nozzle in a flat fan nozzle.)

If you cover a pattern 6 inches wide, measure the length of the area sprayed. If you sprayed 1,000 feet with a 6-inchwide pattern, you sprayed 500 square feet (1,000 feet x 0.5 feet = 500 square feet). If the label indicated you should fill with 1 fluid once of product to be sprayed on 1,000 square feet, you should fill ½ fluid ounce of pesticide in 1 gallon of water.

Use the same general technique as above when trying to calibrate a sprayer equipped with a cone nozzle for use in ornamental beds. Fill the sprayer with 1 gallon of plain water and spray the mulched areas of the bed until the sprayer is empty. Then measure the area sprayed and determine how much coverage 1 gallon of liquid provides.

Calibration is well worth the time because it will improve the results of your spray applications while also making sure you are following pesticide label directions by making appropriate applications, which is a must. — John Thatcher

Thatcher is manager, lawn care compliance for TruGreen-ChemLawn, Delaware, Ohio.

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DESIGN NOTEBOOK

IN 1994, a Wisconsin-based company chose to use the prairie concept and installed a distinct, ecologically sound landscape around its newest building.

Prairie Nursery, a wildflower and native grass plant and seed producer in Westfield, Wis., helped the company design, prepare and install the two-acre natural landscape by also keeping in mind its overall objectives for the prairie: year-round aesthetic interest, maintenance efficiency, local environmental preservation and improved water and air quality.

DESIGN CHALLENGES. The project was managed by Linda Sievert, landscape architect, and designers from Saiki Design, Madison, and Neil Diboll, senior ecologist, Prairie Nursery. Beyond the appeal of an environmentally responsible landscape, the company had specific and challenging requirements for its project.

The challenges were to reduce maintenance requirements in terms of man-hours and materials. The project also entailed designing a year-round landscape that would accommodate the different soils, slopes and sun exposure found on the various parts of the site.

DESIGN SOLUTIONS.

Part of the client's environmental commitment is to do all it can to sustain a habitat for wildlife around its buildings.

A properly designed, installed and maintained prairie requires far less maintenance than traditional landscapes. By using native plants adapted to the region, an eco-

logically sustainable, low maintenance, natural landscape can be created.

The quality of the seed mix is an important part of a prairie installation. The prairie concept was the best possible solution for the diverse areas that were to be a part of the company's restoration because the site had different slopes, each with a different exposure to the sun and significantly varied soil conditions.

The north-facing slopes adjacent to the parking lot are primarily clay soil. Prairie Nursery utilized a group of species called Clay Busters, including yellow coneflower, bergamot, New England Aster, rattlesnake maters and roundheaded bushclover,



Wisconsin-based ProMega Corporation gets the wild flower and native grass treatment, which provides year-round aesthetic interest and maintenance efficiency. Photo: Prairie Nursery

which bloom in blues, purples and whites until late summer and fall when strong yellow accents appear. The two main grasses utilized were big bluestem and Indian grass, both adapted to clay soils.

At the same time, the seed mix contained species that will bloom at different times from late spring into autumn, with the grasses providing interest throughout the winter.

On the east side of the building, the land is sandy and sloped, creating varying moisture levels. Prairie Nursery selected wildflowers and grass species that would survive the dry, sandy soil as well as control erosion. Some of the wildflowers selected include butterfly weed, sky blue aster, white

false indigo and lanceleaf coreopsis, which range in color from blue and purple to orange and yellow. The main grasses used to stabilize the slopes and compliment the flowers were little blue stem and side oats grama.

The plants that grow best in the heavier clay soils are typically taller and more robust, while the plants selected for the dryer, sandier soils were short. Each of these two prairie meadows have their own distinct composition and character creating very different landscape effects in every season. An additional benefit is that each of these meadows attracts different types of birds and butterflies.

A concern of the client was the acceptance from employees and the community of the prairie landscape, primarily due to its early appearance. The species that combined to create the prairie landscape are slow to mature and the landscape could initially be perceived as weedy.

Company officials requested that Prairie Nursery host a tour so that employees and visitors would have an opportunity to ask questions, learn about the benefits of prairie landscapes and experience the plants first hand.

Neil Diball

The author is the senior ecologist at Prairie Nursery.

DESIGN NOTES

PROJECT: LANDSCAPE COMPANY: DESIGNERS:

SIZE OF PROPERTY: MAN-HOURS TO INSTALL: PLANTS:

ProMega Corporation
Prairie Nursery, Westfield, Wis.
Linda Sievert, landscape architect,
Saiki Design, Madison, Wis., and
Neil Diboll, senior ecologist,
Prairie Nursery
Two acres (90,000 square feet)
40 hours
Tall prairie seed mix for clay soil,
short prairie seed mix for sand and
loam soils



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NURSERY REPORT

SHORTAGE SITUATION

As contractors know by now, the green industry has experienced a balled-and-burlapped plant shortage over the past two years and all indications are that this trend will continue for at least another year and perhaps longer.

The limited product has varied from year to year. Last year, we would have had a difficult time locating Zelkova's, Hybrid Maples and Yoshino Cherries just to name a few. This year, the list consists of Willow Oak, Kwanzan Cherries and Hybrid Maples. Next year, much of this material will be more available in small sizes but not in larger sizes (i.e., 3 inches). Why has this occurred and how can we avoid these shortages in the future?

BEYOND OUR CONTROL. For

the moment, let's pretend that you are in the process of developing a competitive bid calling for the following plants: (200) 4-inch Willow Oak, (250) 3½-inch October Glory Maple and (150) matched 8- to 10-inch Nellie R. Stevens Holly.

Five years ago, you would not have been concerned about the availability of these items. Today, however, you would probably ponder this list and ask the questions: Who would have these available? If I found them, would the cost effect my competitiveness?

Sound familiar?
Unfortunately, the landscape business is influenced by the economy and trends – two forces that are not only unpredictable but can change without much notice. Not only does a B&B grower deal with these forces, but this grower must try to forecast these forces several years (typically three to six) in advance in order to adjust the quantities and mix of product being grown.

Plant availability shortages, most frequently B&B products, have happened in the past. In fact, it is considered a phase within the plant production cycle. So, can we expect to be able to control this phenomenon? To understand

Our industry has become increasingly proactive in the quest to elevate the perceived value of our service or products. In order for us to succeed, we must be able to market to the future trends.

where we are today, we must first understand how we got here to begin with.

The "plant production cycle," for lack of a better term, goes through several phases. Like a proverbial snowball, once the process begins, the momentum carries it through to the end where it starts once again. What do these phases consist of? It's basic Supply and Demand 101.

PHASE I (THE GLUT). In this phase, it appears that over production of a specific B&B product occurs. Certain contributing factors typically can be identified, including economic slow down and buying trends, both of which have been cited as difficult to predict.

The third factor, one that is more controllable than the previous two, is overproduction. Growers depend on historical sales to determine what they should grow. Many of these growers end up planting

> the same product in large quantities, thereby creating a "glut."

PHASE II (THE RESPONSE).

Many growers react to this "glut" of product by reducing the quantities they produce and/or by changing specific varieties in order to meet the changing trends.

PHASE III (THE HUNT).

The effect of this reduction of B&B will not be felt by the market for three to six years, depending

on the target size and variety of plant. Plants that once were a commodity product are now considered a premium product, and the prices reflect it.

These higher prices effect everyone in the supply chain and typically are passed on to the end consumer, homeowner or developer. Just think, if only you had planted 10,000 Nellie R. Stevens six years ago, you could easily pay for your kid's college education. But, as the saying goes, "Hindsight is always 20/20."

The duration of time that material will be in short supply depends on how long the growers stifle their production. In addition to closely monitoring demand trends, growers rely on tree liner sources to produce specific varieties and quantities of plants for their own supply, and it is common practice for the liner sources to require orders two years in advance.

Several years ago, the liner growers over produced products due to some aggressive

(continued on page 43)



The landscape industry is influenced by economy and trends, both of which B&B growers have to deal with. Photo: Shemin Nurseries

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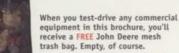
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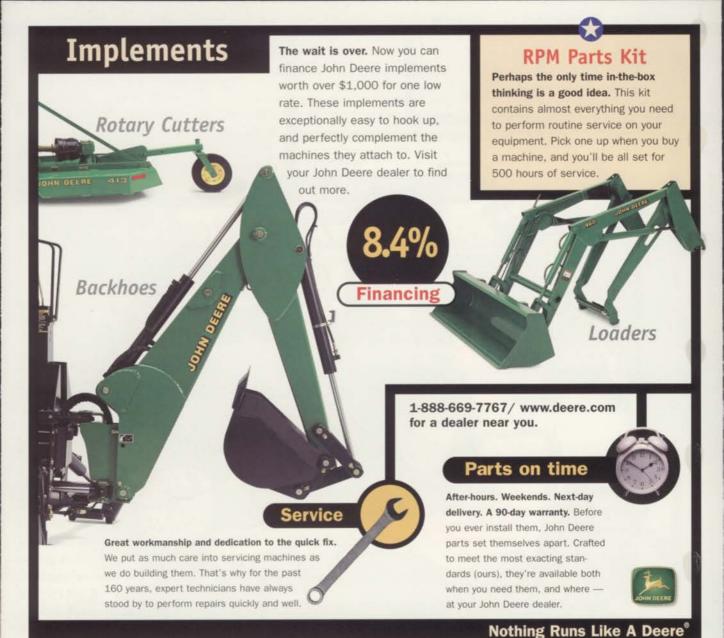
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NURSERY REPORT

(continued from page 36)

orders. As a result, a "glut" occurred for the liner industry and they reduced their production. It has taken years for the supply of the liner products to return to the growers' demand levels. Then consider the number of growers nationwide, and we have a prognostication nightmare.

PHASE IV (THE SURVIVAL). Af-

ter approximately three years (again this would depend on the target size and variety of plant), specific plants will become more available. This increase of products will diversify as the larger and/or slower growing plants reach target size. But many growers decide to sell the product before it

reaches the target size. They see an opportunity to create additional revenue or to pay off debt by selling product ahead of time, so pricing continues to remain high. And such selling of products before its time delays resurgence of product availability.

PHASE V (THE LIGHT). It is during this phase that trends and economy come into play. The current availability was planted three to six years ago. Were the projections that the growers made at the time of the planting correct or have the trends of buying habits changed? This question will be answered by what goes on the truck and onto the job site in the next year or two.

Meanwhile, the grower is measuring sales and adjusting new crop production based on present market behavior.

Once again the question comes up, "Will the trends be different when the grower harvests this crop?" Who really knows? No one has found the crystal ball that works.

However, our industry has become increasingly proactive in the quest to elevate the perceived value of our service or product. In order for us to succeed, we must be able to market to the future trends and maintain a continuous research and development network. In fact, organizations throughout the United States have developed such a valuable network.

For example, the University of Georgia along with the Georgia Green Industry Association and McCorkle Nurseries have combined efforts to develop the Center For Applied Nursery Research, a multi-faceted evaluation program. Growers such as Shadow Nursery (bare root, container and B&B) and Frank Schmidt Nurseries (bare root and B&B), just to name two, have been evaluating new and, in some case, reevaluating the not-so-new plant varieties. Obviously, the list of these proactive growers goes on and on.

As the plant availability cycle continues, the economic status during these phases will determine the intensity of im-

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NURSERY REPORT

pact. As we near the end (or is it the beginning?) of this "plant production cycle" pricing will continue to be a major issue. Until the quantities available justify commodity status, prices will remain high. For many of the remaining older crops available, quality may be affected. What remains today may be what contractors walked by in the fields a year ago. How-

ever, the light can be seen at the end of the tunnel. In fact, the current market situation is entering Phase VI.

PHASE VI (THE SUPPLY). As already mentioned, we can expect these shortages to continue for another year or two or until supply catches up with demand. Meanwhile, what is the industry to do?

For starters, we must become open to alternatives. Contractors can turn to the growers or rewholesalers of nursery products that they trust for alternative ideas. These sources have a broad knowledge of availability.

Once these alternatives are identified, growers must begin consulting with the people that specify this product, such as landscape architects, design/build firms and homeowners, and we must equip ourselves with the knowledge of today's plant

Limited product varies year to year. This year, the list of limited plants consists of Willow Oak, Kwanzan Cherries and Hybrid Maples.

availability and educate the masses. This should not be considered a temporary effect only to be performed when we are experiencing such a shortage, but a continuous part of the way we do business. We are in an industry of constant change. Through new plant introductions and the increased awareness of environmental concerns, we have the right tools to make the difference. – Andy Hull

The author is the nursery coordinator for McGinnis Farms, Alpharetta, Ga.

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Partners Tom Fochtman (left) and Chuy Medrano (right) have put a combined 46 years of experience to work in the Denver market. Photo: Robb Williamson

CoCal
Landscape
has
proven
that rapid
growth can
occur, especially when
it is driven
by quality
work.

By Bob West s growth levels for green industry companies go of late, there's no growth, average growth and good growth. There really isn't a category that would sufficiently encompass what has taken place at CoCal Landscape, Denver, Colo., since that company first opened its doors in 1993.

Today, CoCal stands as the goal many contractors dream of achieving when they cut their first lawn or install their first landscape.

After just six years of business, CoCal topped the \$7 million mark in 1998 and has no plans for slowing down.

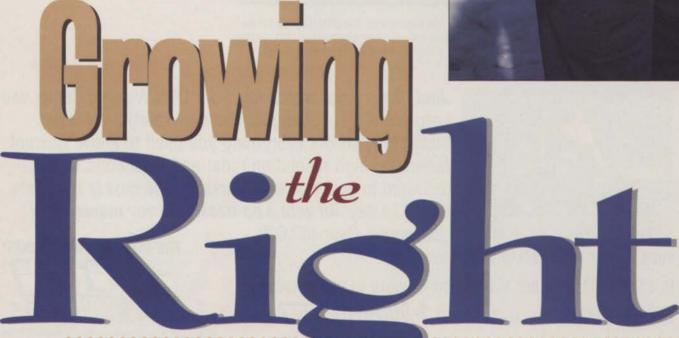
But despite being in business for just six years, CoCal's two principals are far from new to the industry with a combined 46 years of landscaping experience between them, including 24 years with industry leader Environmental Care where they first met.

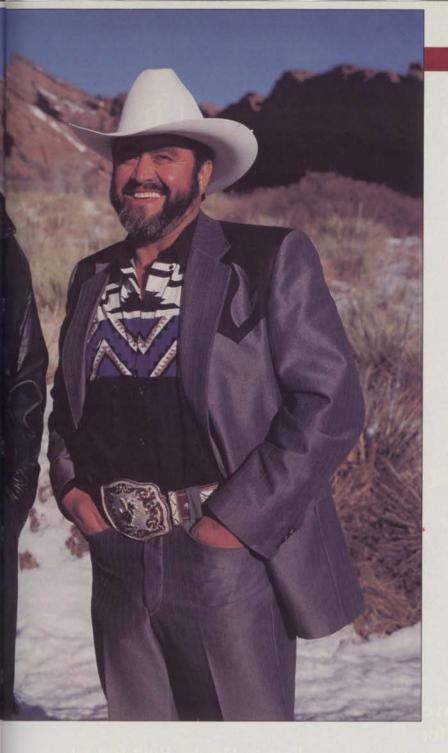
ROCKING IN THE ROCKIES. CoCal owners Tom Fochtman and Chuy Medrano have enjoyed success together in the Denver market before. In fact, Medrano oversaw maintenance operations for ECI's Denver service center while Fochtman was responsible for that operation's marketing and sales.

Two years after Fochtman left the industry in 1990, he and Medrano got back in touch with the idea of opening their own company back in the Denver market where

(continued on page 50)







Way

CoCal Landscape

LOCATION: Denver and Colorado Springs, Colo.

FOUNDED: 1993

SERVICES: CoCal derives approximately 50 percent of revenues from landscape installation services, with 45 percent of sales in landscape maintenance and 5 percent in irrigation services. About 92 percent of its sales are to commercial/industrial clients, with 7 percent from government/municipal and 1 percent from residential.

1998 REVENUES: \$7.1 million 1999 PROJECTIONS: \$7.8 million

EMPLOYEES: 60 year-round; 192 peak-season ACCOUNTS SERVICED IN 1998: 65 maintenance customers account for 125 jobs, and the company worked on 16 installation job sites.

AVERAGE ACCOUNT SIZE: The company has about 125 maintenance jobs, with an average job size of 35,000 square feet.

Executive Summary:

MISSION STATEMENT: To provide ethical, responsible and profitable landscape construction and maintenance services that will inspire and enrich the lives of our employee team by providing the best in quality landscape project results for our clients.

FUTURE CHALLENGES: Developing our Colorado Springs office, continuing to attract middle management level people, pursuing the right job opportunities and improving our customer service through increased proactivity.

The Owners:

Tom Fochtman and Chuy Medrano

AGES: 42 and 44, respectively

BACKGROUND: Fochtman graduated from Michigan State University with a landscape architecture degree. He spent eight years with Environmental Care before going to work for the largest residential roofing contractor in the U.S. Medrano went to work for EGI in Denver in 1974 and progressed to general superintendent.

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cover story

(continued from page 46)

Medrano was still working. After spending six months hatching a 45-page business plan, the pair lined up some initial bank financing and opened its doors for the 1993 season.

"I knew a lot of people in this market because I had been here for 20 years, and I knew the competition well," Medrano related. "Plus, Tom had the experience selling the work and handling all of the administrative aspects, so there was no doubt in my mind we could get this business off the ground and running."

"We had a pretty thorough business plan, which really was our Bible," Fochtman noted, encouraging any new businesses to follow Improving its ability to capture highly desirable jobs is one of the CoCal's key goals for the immediate future.

the same approach to outlining their goals for the business and a method to reach them.

"We had pro forma sales projections for \$520,000 for our first year and \$975,000 for our second year," Fochtman continued. "But the second year we decided to shoot for almost \$1.1 million and ended up doing about \$1.3 million in maintenance alone. And, during the middle of the year, one of our key maintenance customers asked us to do some installation work, so we added another \$635,000 to that \$1.3 million."

Fochtman noted that expanding into installation services wasn't a part of CoCal's initial business plan, which meant the plan went "out of the window" the third year when the company did almost \$2 million in construction revenues and \$1.7 million in maintenance.

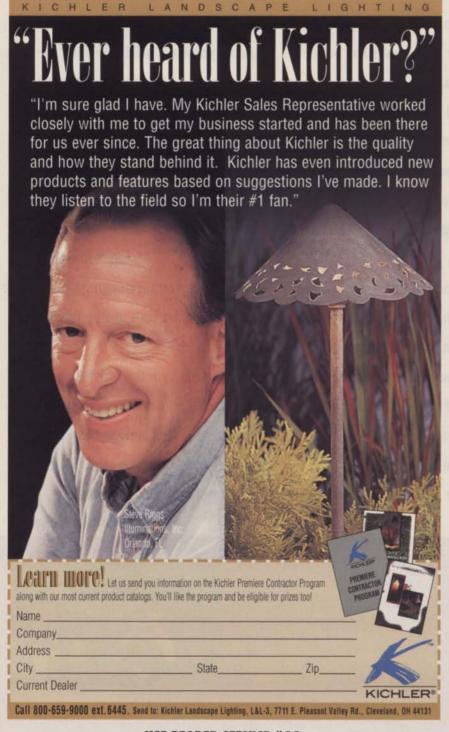
"That growth required we move to a new facility, create a 4-acre holding area for nursery materials to meet our installation needs and add to our corporate structure," Fochtman related.

Managing the installation work became a challenge for Fochtman and Medrano since they both have maintenance backgrounds. Ultimately, the company hired a project manager to oversee installation work.

"Our need for better people really developed at this point," Medrano noted. "Our installation needs really took quite a bit of Tom's time away from maintenance, and we also developed a need for a true controller and administrative team."

"I think that not paying enough attention to the administrative part of the business is where a lot of smaller contractors fall down," added Fochtman. "That can really keep companies from growing as they would like because the owner is usually not trained to handle functions like bookkeeping. We went through three different people before we had the right person in place, and now

(continued on page 52)



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we're much better equipped to manage our financial statements, implement a job costing program, pay vendors timely, take advantage of discounts when they're available and so on."

Like so many other large and growing firms, CoCal has focused its efforts exclusively on commercial accounts, with its only residential work being maintenance contracts for some homeowners' associations.

Unlike a lot of companies, however, CoCal derives a majority of its sales from installation work – about 55 percent, although a pending acquisition could add nearly \$2 million of revenues and tilt the balance heavier toward maintenance dollars.

While Fochtman said such a relatively equal balance leaves the company with growth opportunities in both markets, CoCal likes the opportunity for rapid growth associated with installation work.

"For example, we just picked up a \$750,000 installation contract that could grow to \$900,000," he noted. "It's hard to predict when these jobs will occur, but you can gobble up a lot of revenues if you're positioned properly to do installation work. Maintenance, however, is more of a slow, steady growth business, and much more predictable. It is also much less risky than landscape installation.

"If we had the opportunity to grow our maintenance dollars by 50 percent with one job, that would be difficult to accommodate because we would have to get more trucks, more trailers and more people," Fochtman continued. "But, for construction work, we just need one foreman and 10 crew members to do the work, and they move from job to job as a team."

SELLING THEMSELVES. One obvious key to CoCal's stunning growth has been its ability to sell so much work despite being a relatively new company in the market.

"I would definitely say that we're aggressive in our selling approach, more so than the industry typically is," Fochtman recognized. "We take advantage of plans such as direct mail and we've had all of our employees in full uniforms from head to toe from our first day in business so we appeared to be more established than we really were.

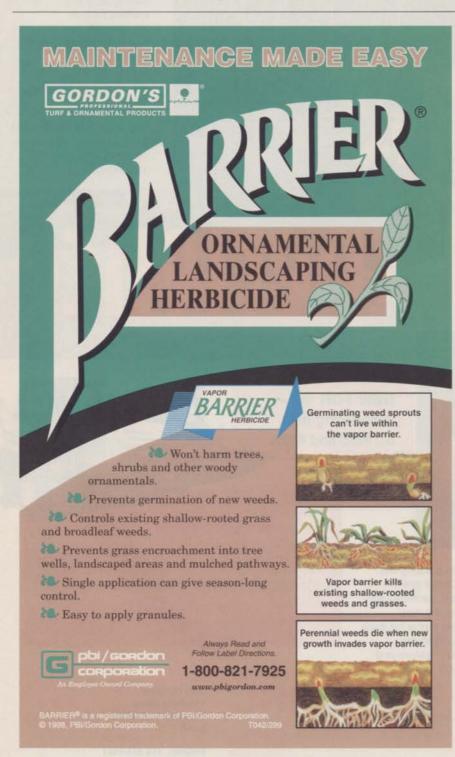
In fact, the company has a marketing budget of about \$35,000 for the year, and that will include six direct mail pieces.

"Most contractors don't spend enough effort, meaning time and money, marketing themselves," Fochtman continued. "Our collateral materials are generally better than our competitions' and our quarterly newsletter is the best I have seen."

In addition, Fochtman explained that CoCal uses database software to manage a custom data base/mailing list of property managers, developers, general contractors, architects, landscape architects and customers, and aggressively pursues opportunities for mention in the local media.

"We are not shy about being a little

(continued on page 54)





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USE READER SERVICE #42

cover story

(continued from page 52)

boastful, if it is well deserved," he added.

And while CoCal attributes a great deal of its sales success to its ability to provide top quality installation and maintenance services, Fochtman said the company needs to get away from its early-days attitude of "Let's get the job and then figure out how to do it."

"We used to just go out and get as much work as possible to keep money coming in the door and keep the bank happy, but we need to do a better job of saying no to business and selecting better opportunities as they present themselves," Fochtman explained, adding that such increased focus

should allow the company to improve its margins and thereby improve the benefits it offers employees.

"Since we are in a seasonal market, our profits are restrained," he added, explaining that larger companies can be at a disadvantage because of the overhead costs they must carry through decreased-revenue generating winter months. "Our goal is to net 10 percent before taxes, and margins have gone up the last two years in maintenance while they were flat in construction this past year."

The Hispanic Perspective

he good news for many contractors is that the availability and productivity of Hispanic employees dramatically improves their labor situation. The challenge is handling the presence of a multiple cultures in an organization.

For Chuy Medrano, a partner with CoCal Landscape, Denver, Colo., being an industry veteran of Hispanic descent gives him a first-hand perspective on the challenges facing the companies and the Hispanic employees.

"As Hispanics, we relate well to the green industry because we were raised as farmers," Medrano observed.

Medrano pointed out a couple of keys to successfully managing a multicultural workforce.

When starting a job, many Hispanics are likely to prefer maximizing take-home pay instead of receiving benefits.

"Actual dollars are more important at the outset because I may need those dollars to get a house or care for my family," Mendrano noted. "Benefits become important to Hispanics once they get established in an area." Medrano said employees of the two cultures shouldn't have trouble working together.

"Hispanics won't have any problem working alongside Anglo workers once they know the Anglos are willing to put in an honest day of work with them," he pointed out, noting that Hispanics' reputation for possessing a superior work ethic is recognized by both groups. "And while it's important for Hispanics to learn the English language, it can be a real positive if Anglo employees also try to learn Spanish."

Although the language barrier is often cited as the key obstacle prohibiting Hispanic employees from advancing within an organization, Medrano believes Hispanic employees aren't challenged enough to improve themselves.

"Employers need to show Hispanic employees what opportunities are available, show them how to overcome obstacles and get them out of the mindset of, 'I can't advance because I don't know English," he said, adding that having Hispanic managers will make a company a more attractive employer to other Hispanics. — **Bob West**

Improving its ability to capture highly desirable jobs is one of the company's key goals for the immediate future.

"We've been in business long enough that we have developed a reputation as a quality contractor, so we have the ability to say no now. That means we should ferret the small maintenance work that doesn't fit our niche as well any more," Fochtman obsreved. "We pay attention to the 80/20 rule where 80 percent of revenue is controlled by 20 percent of your clients, and although that's not a hard and fast rule for

us, we definitely go after multi-job accounts, and we're not opposed to being very aggressive on a job if we know it will result in additional work and a long-term relationship."

Specifically, the company likes commercial maintenance jobs generating at least \$1,000 monthly or multi-family/planned community work. On the installation side, jobs need to deliver at least \$100,000 in sales for CoCal, although the company prefers jobs in the \$350,000 to \$500,000 range.

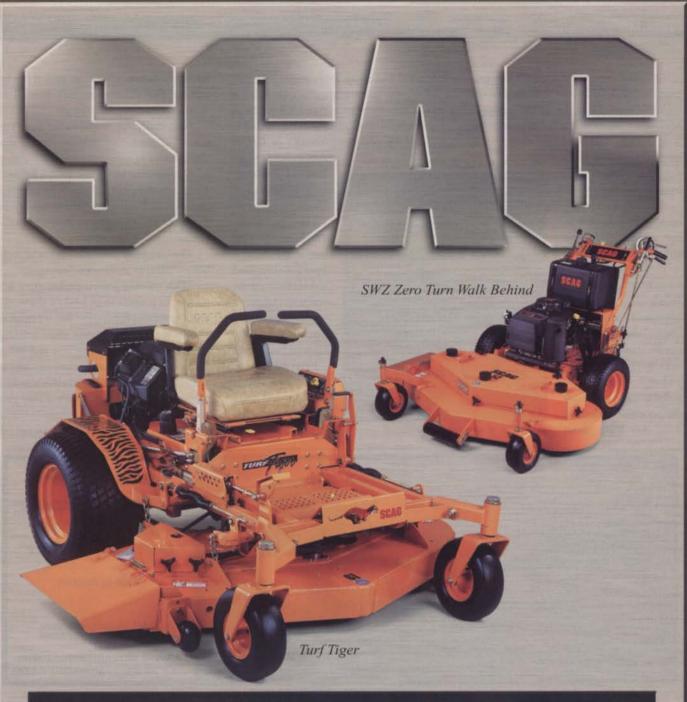
The company has also focused on improving profitability by offering employees bonuses, and it structures the bonus payments in such a way to encourage the general laborers to aspire for advancement.

"If a job is completed below our budget at the quality we expect, then half of the money that crew saved the company is given to that crew," Medrano commented. "Everyone on the crew gets an equal share of that money, except for the foreman, who gets one-third of the bonus.

Currently, the company offers a medical plan or a cafeteria plan, a 401(k) plan and bonuses. But perhaps the biggest benefit it offers employees is the potential for extensive training.

An extensive commitment to training in a wide range of topics will periodically keep workers out of the field for educational sessions but ultimately results in efficient and developing labor. Photo: Robb Williamson

(continued on page 56)



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(continued from page 54)

"We're very aggressive in our training program, and we'll hold 10 to 12 sessions for our leadmen/foremen over the winter," explained Medrano. "We believe a lot in promot-ing from within, and we know that finding

quality people will probably be our biggest challenge in the future.

"We try to identify leadership potential in our current employees and classify them from A to F based on the amount of training we think they'll need," Medrano continued. "Some employees just need to learn more about managing paperwork and such administrative tasks, while others have the potential to develop once they learn about

irrigation and spray applications."

CoCal's training program includes a mix of classroom education with practical teaching that takes place in the field and is handled by company veterans or CoCal

> suppliers, particularly on the pesticide or irrigation issues.

> In addition, employees grading out at the A or B level are then used to help facilitate the training classes

> "For example, one training session we had before Christmas dealt with plant identification and took place in our nursery," Fochtman

added. "This was a 3½-hour session run by our certified nurseryman that takes place during normal working hours.

"Obviously, we would rather have our crews out producing revenues during this time, but we've come to realize that training is an investment in the company's future," Fochtman continued. "This type of training helps us develop new people and ensure that they are operating at maximum efficiency during our season."

The company also holds periodic, voluntary training sessions on Saturdays.

"This training generally takes place at a jobsite, so it needs to be held on the weekend," explained Medrano. "But we emphasize to the employees that these training events are keys to promotions and raises because it indicates to the company who is serious about improving their skills and moving up in the organization as they give up their free time."

(continued on page 156)



One obvious key to

CoCal's stunning

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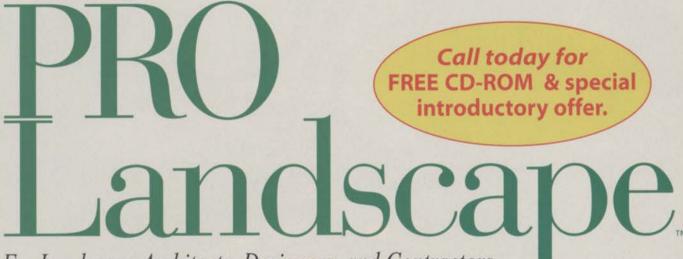
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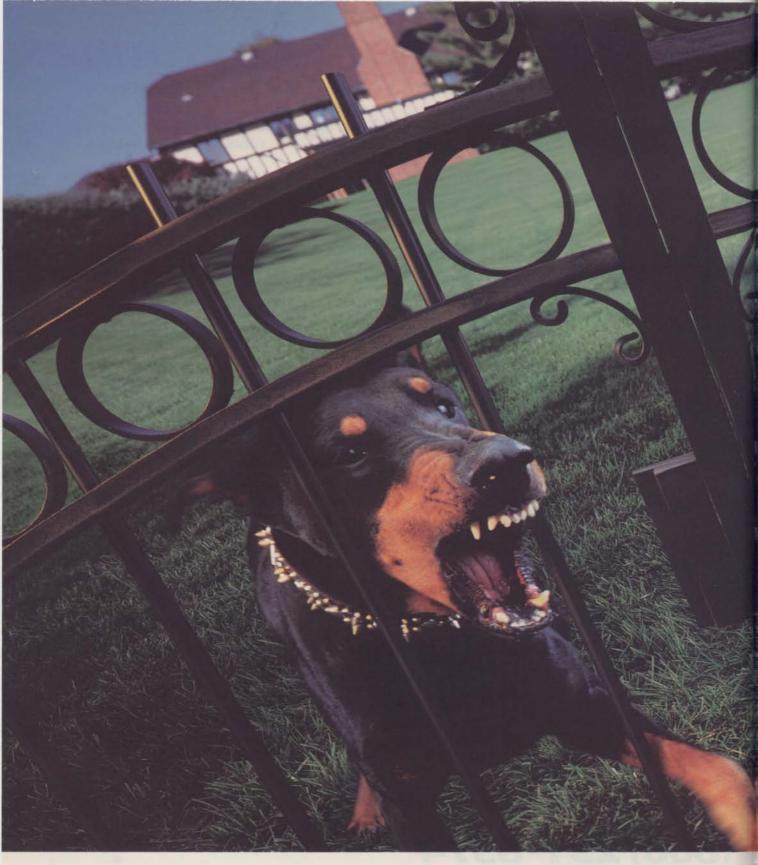
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Putting together an effective plan means addressing such issues as local climate, application timing and product choice.

By John Boyd

Early Season

ecause preemergence herbicides form the foundation of any early season weed control program, this article will concentrate on the fundamentals of their effective use.

The preemergence herbicides commonly used in lawn and landscape turfgrass kill weeds by stunting their growth. Barricade (prodiamine), Pre-M, Pendulum, Scotts Weedgrass Preventer (pendimethalin), Surflan (oryzalin), Balan (benefin), Treflan (trifluralin) and Dimension (dithiopyr) are primarily inhibitors of root growth. As the roots of germinating weed seeds come in contact with these herbicides, cell division in the root tips does not

proceed normally. The result is thickened, club-shaped primary roots and an absence of secondary roots. This inhibition of root growth is also why these products should only be used on established turfgrasses. These herbicides are most effective on annual grasses and will control some small, seeded broadleaf weeds.

It is sometimes incorrectly assumed that these herbicides prevent weeds from germinating. They do not. Weed seeds germinate and emerging roots and shoots absorb the herbicide. Once absorbed, these herbicides interfere with cell division in the new roots and shoots, which slows growth adn produces stunted or dead plants. Common visual symptoms on surviving plants are the aforementioned club-shaped primary roots and absence of secondary roots.

While timing is the key to preemergence annual grass control, lawn care operators should not ignore basics such as herbicide selection, calibration and uniform application. Use the research data and recommendations developed by the land grant university in your state to help in selecting a herbicide. If you do not feel comfortable in interpreting the data, call the turfgrass specialist at the university for advice on herbicide selection. Because

Weed Con



The club-shaped
primary roots and lack
of secondary roots
makes continued
growth unlikely for
weeds controlled with
preemergence control
products. Photo: John

herbicide performance varies with climate, soil type and weed spectrum, recommendations must be tailored to local conditions.

Attention to calibration (for sprayer calibration tips, see Equipment Notebook, page 30) tends to vary widely among lawn care operators. I have never seen anyone spend too much time on calibration. There is no substitute for accurate application. In our work, we calibrate our equipment every time we apply. Research data shows that the error range can be from 10 percent to as high as 50 percent for commercial applicators that think they are right on target. I have investigated hundreds of weed control failures with herbicides and they are all too frequently related to inaccurate application.

The other common pitfall in herbicide

application is lack of uniformity. A contractor may have applied one pound of material per 1,000 square feet but it may not be uniformly distributed across that area. Lack of uniformity leads to weed breakthroughs in the light spots and the potential for turfgrass damage in the heavy spots.

WHAT TIME IS 17? Discussing application timing for preemergence crabgrass herbicides in a national publication is difficult due to the wide range of climate variations across the country.

Crabgrass germinates from February to May when the soil temperature reaches 53°F to 58°F. Before discussing applica-

Effect of Irrigation Timing and Formulation

FORMULATION	RATE	IRRIGATION		
	LB AI/AC	DELAY	CRABGRASS COUNTS	
			1990	1991
Granular	1.5 lb	0 days	6	15
Granular	1.5 lb	7 days	8	10
WP	1.5 lb	0 days	18	9
WP	1.5 lb	7 days	68	16

Table 1. The Effect of Irrigation Timing and Formulation on Pendimethalin Performance. Credit: The Ohio State University

Work hard to avoid skips and overlaps in an application. Overlaps result in a double rate of herbicide while skips lead to an unsightly strip of weeds. Applicators using granular products with drop spreaders need to be especially aware of the potential for skips and overlaps.

tion dates, it's important to stress that having the herbicide on the soil surface before germination occurs is not enough to guarantee control. To maximize control, the herbicide must be watered in before crabgrass germination begins with ½-inch of rainfall or irrigation. If irrigation is not



weed control

available, it is a good idea to apply preemergence herbicides well in advance of the time that they need to be active so that there will be adequate opportunity for rainfall to occur. Ideally, preemergence herbicides should be applied just before weed seed germination begins. However, a good deal of research indicates that successful preemergence summer annual grass control applications may be made as early as January.

In the Deep South, preemergence crabgrass herbicides should have been applied and watered in by February 15th. In the central part of the country, March 1st is a good target date, while in mountains and northern states crabgrass germination typically occurs from March 15th to the 30th.

Timing preemergence herbicide applications is another area where a land grant university can be of help. The turfgrass professionals located there can offer target application dates for the climate zones in

Application Timing and Herbicide Performance

HERBICIDE	RATE LB/AI/AC	DATE APPLIED	% CRABGRA	ASS CONTROL (JULY)
			1993	1994
Dimension	0.5	January 7	90	85
Dimension	0.5	February 7	90	83
Dimension	0.5	March 7	85	86
Surfian	2.0	January 7	89	85
Surflan	2.0	February 7	93	83
Surflan	2.0	March 7	91	86

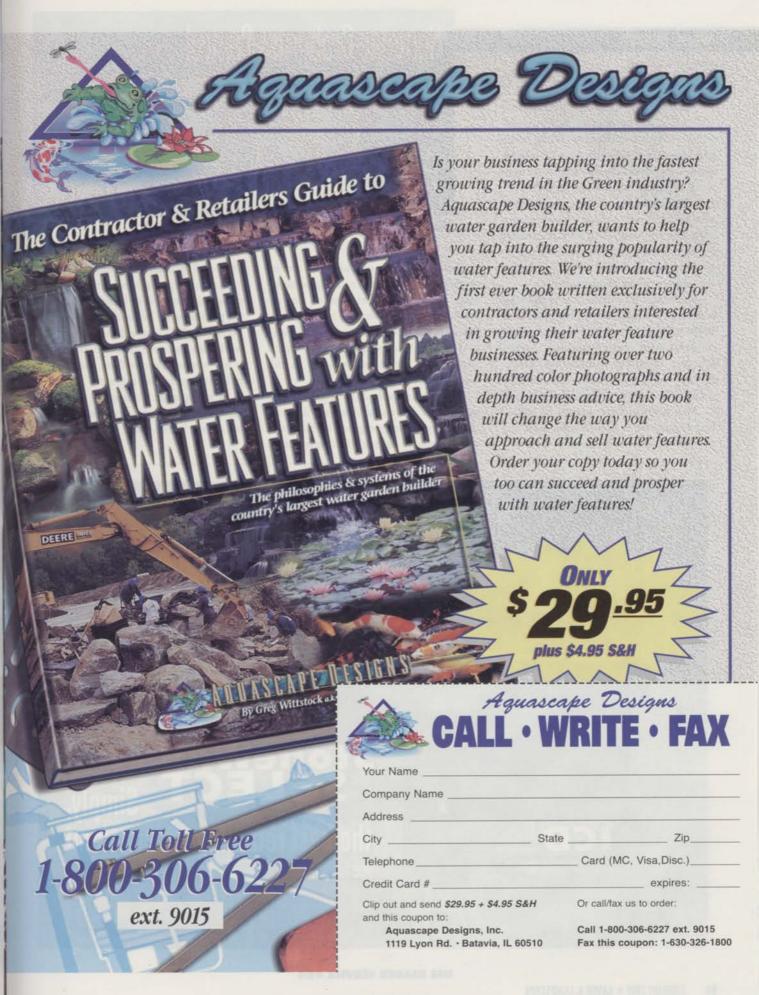
Table 2. Application Timing and Preemergence Herbicide Performance. Credit: University of Arkansas

your state. In addition, some university research stations record soil temperatures, which can be helpful in pinpointing application timing.

The length of time between application and watering in seems to be more critical with sprayable formulations than with granular products. This is probably due to the fact that granules are less susceptible to volatilization and photodecomposition than sprayables. The important point to remember is that the sooner the herbicide is watered in, the better. The data in Table 1 (on page 61, from The Ohio State University, Columbus) shows the benefit of immediately watering in the wettable powder (WP) formulation of pendimethalin.

(continued on page 64)





weed contro

(continued from page 62)

See Table 1.

Whatever your location, remember that it is better to be early than late with preemergence crabgrass herbicides. While some preemergence herbicides have a modest amount of postemergence activity on very small crabgrass, contractors shouldn't expect these applications to be acceptable substitutes for a well-defined postemergence plan. The philosophy that weed researchers have promoted over the years is that preemergence herbicides should go out just before the target weed begins to germinate.

The reason for just-in-time application is to avoid dissipation of the herbicide level in the soil during the time between application and weed seed germination. Several processes including volatilization, breakdown by sunlight and soil microbial activity decrease the amount of herbicide in the soil.

After herbicides are watered in, microbial degradation is probably the most important of these mechanisms. Low soil

Summer Crabgrass Control

HERBICIDE	RATE LB/AI/AC	DATE APPLIED	% CRABGRASS CONTROL (JULY, 1997)
Barricade	0.75	Oct. 14, 1996	82
Barricade	0.75	March 4, 1997	95
Barricade	1.0	Oct. 14, 1996	95
Barricade	1.0	March 4, 1997	93

Table 3. Summer Crabgrass Control with Barricade Applied the Previous Fall.

temperatures reduce soil microbial activity so there is little loss when crabgrass herbicides are applied in late winter. For example, lawn care operators in central Arkansas begin preemergence applications in mid to late January although the typical germination period for crabgrass in this area is the first week in March.

The data in Table 2 (see page 62) from our studies in central Arkansas illustrate that applying preemergence herbicides as early as January did not affect performance compared to a March application.

Another approach to early timing of crabgrass control is to be really early with the preemergence herbicide by applying the previous fall. We have done quite a bit of work with Barricade applied in the fall and it has worked quite well on crabgrass the following spring and summer.

It is important to delay the application until soil temperatures drop and soil microbial activity lessons. Table 3 shows the perfor-

(continued on page 66)



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(continued from page 64)

mance of fall and spring applied Barricade.

One disadvantage of this approach is that delaying an application until soil temperatures cool will result in missing control of annual bluegrass and other winter annuals. In addition, applying crabgrass control products early enough to get winter weed control (Sept. 1) may reduce the effectiveness of spring and summer crabgrass control (See Table 3 on page 64).

As we have been discussing, preemergence herbicides do not last forever. Residual control ranges from six to 16 weeks depending on the product and the environmental conditions, including rainfall, weed pressure and the density of the turfgrass stand. In most cases, a repeat application is needed for full season control.

Contractors should time the second treatment to occur about 60 days after the onset of crabgrass germination. If you operate in an area where fall overseeding of cool-season grasses such as tall fescue is routine, a second application may create problems. Consult the herbicide label for the required interval between herbicide application and establishing turfgrasses from seed.

WINNING COMBINATIONS. Will tank mixing preemergence crabgrass herbicides provide any benefits? Obviously, manufacturers think so because there several premixed preemergence products on the market.

Bear in mind that, with the exception of Ronstar (oxadiazon), the commonly used preemergence crabgrass herbicides all have pretty much the same mode of action (root growth inhibition). But, do not be lulled into thinking that because a group of herbicides has the same mode of action that performance will be identical.

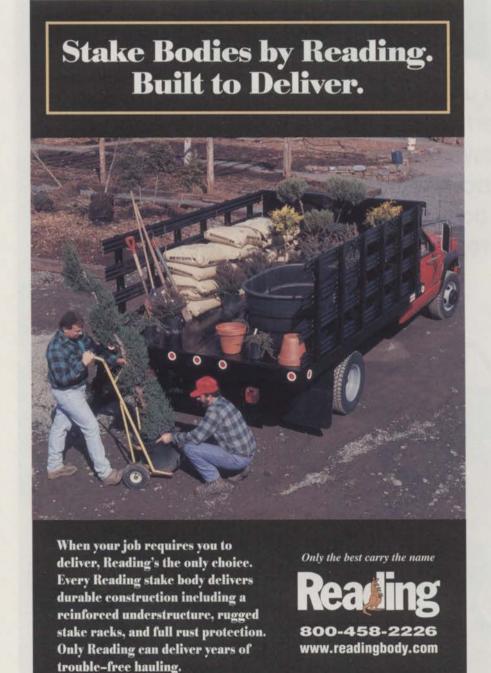
We have looked at number of combinations in our research trials and have found that the two areas in which tank mixing enhances performance are goosegrass and broadleaf weed control. However, goosegrass is not typically a lawn weed. Goosegrass is more likely to be found on golf courses and sports fields where traffic, compaction and moist soil conditions come together.

That leaves broadleaf weed control as the area in which lawn care operators can make the biggest gains in weed control through tank mixing. Applied alone, crabgrass herbicides will control winter annual broadleaf weeds such as common chickweed, henbit and corn speedwell but do not do as good of a job on lawn burweed and parsley piert. This may be too much hair splitting for most contractors but fine-tuning may be the future of turfgrass weed control.

With the appearance of new products dwindling, the future may be one of very specific prescriptive weed control programs. Mixing isoxaben with crabgrass herbicides will significantly improve broadleaf weed control. Isoxaben is convenient because it may be used on warm- and cool-season turfgrasses.

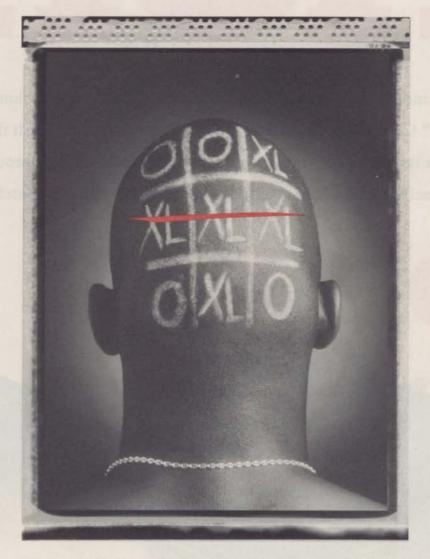
In tolerant warm-season grasses, com-

(continued on page 70)



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weed control

(continued from page 66)

bining preemergence crabgrass herbicides with Princep or Aatrex (atrazine) will enhance pre and postemergence broadleaf control and provide some postemergence control of annual bluegrass. Princep seems to be more popular in the transition zone while atrazine is used more in the Deep

.

A big part of having a plan is scouting and mapping the weeds. As you travel to the sites that you maintain, collect information that will allow you to be ready with the correct herbicides and plan of attack come treatment time.

South on St. Augustinegrass and centipedegrass lawns.

HAVE A PLAN. Too often, weed control measures are a reaction to a crisis rather than

part of a well-planned effort. Turfgrass professionals should spend at least as much time learning the conditions that lead to weed infestation as they do studying control strategies after weeds become established.

The value of planning ahead can't be underestimated. The old cliche, "failure to

plan ahead on your part does not constitute an emergency on my part," applies here.

A big part of having a plan is scouting and mapping the weeds. As you travel to the sites that you maintain, collect information that will allow you to be ready with the correct herbicides and plan of attack come treat-

ment time. Late summer or early fall is a good time to make weed surveys. Follow the fall survey with a spring assessment to observe spring germinating weeds. Put your survey data on paper. The ability to conduct a useful weed survey is dependent on a lawn care professional's ability to identify weeds. Skill in weed identification is important from more than a control standpoint. The first question a client is going to ask will usually be, "What is that weed?" So, weed identification is important in establishing your credentials as a professional.

It is also very easy for contractors to fall into a pattern of devising elaborate herbicide strategies, often of less value, instead of concentrating on the fundamentals.

A recent training program for county extension agents focused on weed identification and how herbicides work and never mentioned specific herbicide recommendations. The feedback was tremendous. The message is clear – for maximum control, master the fundamentals.

The author is a weed scientist at the University of Arkansas, Little Rock.



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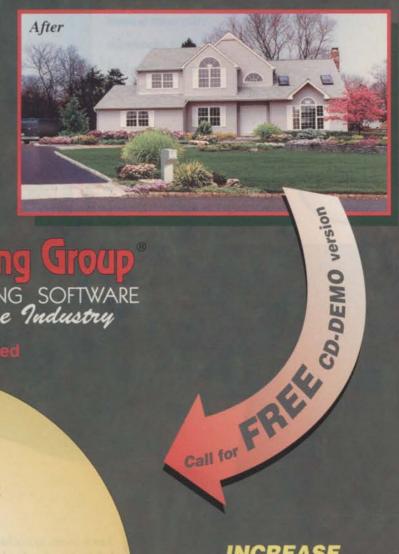
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By Nicole Wisniewski hen it comes to machinery, Wayne Snyder knows exactly what he's looking for. For his predominantly commercial landscape company, Early Bird Landscape Maintenance, Kutztown, Penn., using the best equipment is the only way to stay ahead of the game. "I stick with one type of mower that has proven efficient for the work

that I do," Snyder maintained, pointing to zero-turn riding machines, diesel engines and front-mounted, rear-discharge decks as his favorite features.

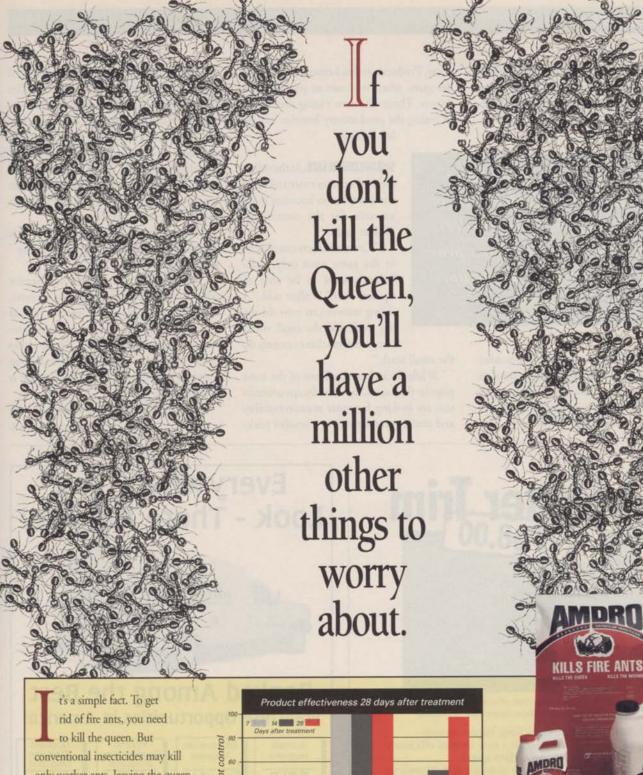
Every landscape contractor has a type of mower he or she favors over another.

Every landscape contractor has a type of mower he or she favors over another. Most of the time the decision is based on the machine's productivity on the type of landscapes the company maintains.

As manufacturers continue to improve upon riding mowers by making them more compact, more maneuverable and faster, shipments of riding mowers continue to increase at a faster rate than their walk-behind counterparts regardless of their higher price tags, according to the Outdoor Power Equipment Institute. OPEI's November 1998 figures show that shipments of commercial riding units increased by 24 percent from 1997 (52,400 units to 65,100 units), compared to shipments of commercial walk-behind units, which increased by only 7 percent from 1997 (91,140 units to 97,400 units).

"If you go back to 1984, the intermediate walk-behind was the mainstay of

(continued on page 74)



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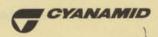
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riding mowers

(continued from page 72)

the commercial mower industry and riding mowers were primarily used for big openspace mowing," said Bob Walker, president, Walker Manufacturing, Ft. Collins,

Every landscape contractor has a type of mower he or she favors over another. Most of the time the decision is based on the machine's productivity on the type of landscapes the company maintains.

Colo. "Manufacturers helped this market shift from walk-behinds to riding mowers with compact zero-turn radius riding mowers. Even though riding units cost more upfront, their productivity pays for the purchase. Productivity has become the name of the game when it comes to purchasing a mower. Those who aren't using these units or seeing the productivity benefits will be

left behind."

SHRINKING IN SIZE. As the riding mower becomes more and more compact, it also becomes more versatile for the contractor, Walker said.

"Compact riders can now fit in the same areas only walkbehinds used to be able to squeeze into," Walker said. "A riding mower can now do the big work and the small work, but a small machine can only do

the small work."

While 61 inches is still one of the most popular deck sizes, more landscape contractors are looking for more maneuverability and similar productivity in a smaller package, said Rick Cuddihe, vice president of sales, Great Dane Power Equipment, Elm Grove, Wis., noting that smaller deck sizes, such as 48 and 52 inches, are selling quickly.

"It is similar to the differences between driving a boat and driving a sports car," Cuddihe explained. "These big three-wheel riders with the seat over the back wheels are longer machines, and contractors can't fit as many of them on a trailer.

"But compact riders take care of that problem without sacrificing productivity,"

However, for contractors like Snyder who only use large, front-mount mowers, manufacturers have added features such as tilt-up decks to save space and ease maintenance, Walker pointed out. Tilt-up decks enable the operator to lift the front cutting assembly to a vertical position because it is hinged at the back.

"This feature gives the operator the (continued on page 76)



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riding mowers

(continued from page 74)

opportunity to clean the mower deck on the job, especially in the springtime when a lot of wet clippings build up under the deck," Walker said. "It also helps compact the machine for storage or transport. Contractors can fit three machines on a trailer instead of two because of the extra space the tilt-up deck provides."

Compact riders have only decreased in size to 40- to 42-inch decks, said Ken Raney, advertising manager, Excel Industries, a manufacturer of Hustler Turf Equipment, Hesston, Kan. Although that is significant and addresses contractors' needs, Raney said in some situations, it is still not small enough, especially for landscape businesses that have primarily residential clients.

"A typical back yard gate is 36-inches wide," Raney stressed. "That's why there will always be walk-behinds and that's why a contractor should know his business in-



Most contractors and manufacturers would like to see improvements on riding mowers' mulching features in the future. Some of the complaints about current models include mulchers that do not keep up with all the grass and catchers that are not big enough. Photo: Encore

side and out before coming in to purchase a mower. If I was a contractor and all of my business was residential, I would want a zero-turn radius mid-mount because they are shorter and can get in and around tighter areas. If I had a commercial business, I would want a larger, front-mount unit because it's more productive than a mid-mount in wide open areas, but it won't squeeze into tight areas or under low branches."

Besides size differences, front-mount and mid-mount mowers also have weight differences that influence contractors' decisions on which one to use, said Dick Tegtmeier, president and CEO, Encore Manufacturing, Beatrice, Neb.

"The weight on a front-mount is split between the drive wheels and rear wheels, therefore, weights need to be added over the drive wheels to climb hills and have the proper pounds per square inch for good traction," Tegtmeier explained. "A midmount already has most of its weight resting over the drive wheels so weights do not need to be added."

As riding mowers become more compact, they are also being built to move at faster speeds, Cuddihe observed.

"Rather than the typical 6 miles per hour, mowers are now going at speeds of 7 to 10 miles per hour," he noted. "Generally speaking, this can provide a better cut depending on the conditions and the depth of grass. In lush, green Florida, it's better to move slow while mowing, but on Georgia's thin grass, contractors want to move faster."

Another key development for riding mower compaction and maneuverability is the stand-up riding mower, which has become popular with contractors in the past couple of years, according to Raney.

"They save space and they give operators some added visibility," Raney explained.

(continued on page 78)

What's a Mower Really Worth?

o one denies that prices for riding mowers continue to rise, but is the number on the price tag where contractors should focus their attention when making a mower purchase? Mower manufacaturers and equipment dealers continue to emphasize the importance of looking beyond a machine's price and realizing what its value is to a business.

"Most contractors tell us that labor is their number one concern, and increasing their fleet productivity is extremely important in today's competitive economy," noted Rick Cuddihe, vice president of sales, Great Dane Power Equipment, Elm Grove, Wis. Here are some supporting calculations about the actual value of a 61-inch riding mower with zero-turn capabilities. (Various numbers may need to be adjusted for geographic differences. Figures are provided by Great Dane but apply to any manufacturer's unit.)

- · Mowed acres per day: 20 acres at 5 miles per hour
- · Mowed acres per week: 100 acres at 5 miles per hour
- · Weekly gross revenue: \$3,800 at \$38 per acre
- Revenue for a season: \$114,000 for a 30-week season
- Revenue for a mower's life span: \$570,000 in gross revenues for a 5-year life span \$456,000 in gross revenues for a 4-year-life span

Gross revenues do not account for labor, upkeep, fuel, maintenance and are based on a 30-week mowing season. Mowing conditions, travel time and number of hours worked per day will vary. — **Bob West**



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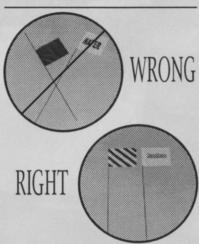
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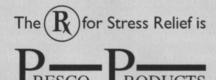


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riding mowers

(continued from page 76)

MULCHING VS. CATCHING. One area that most contractors and manufacturers would like to see improvement on is riding mowers' mulching features.

"There's still a lot of room for improvement in mulching," Raney said. "I don't know if it's physically possible, but the need is there. In the spring, a lot of places have lush, thick grass, and it costs contractors money to haul off the clippings. If someone would come out with a better mulching system, it would help this problem. Right now, there's so much grass that a mulcher can't keep up."

Over the last 25 years, Tegtmeier said he has noticed a cycle going back and forth between mulching and catching.

"Several years ago, there was a big push

to get the grass clippings out of the landfills because they made up approximately 40 percent of the landfills, so everyone started mulching," Tegtmeier remarked. "Now, contractors are catching more. You just can't hide a couple of inches of grass on a well-groomed looking lawn."

Scott Evans, president, Scott and Company, Bay City, Texas, noted that another solution could be for manufacturers to offer larger catchers.

"In the fall, I purchased a catcher that carries up to nine bushels of leaves and grass," Evans said. "It reduced my leaf raking by approximately 90 percent. I'd like to see more manufacturers increase the capacity of their catcher."

OPERATOR COMFORT. "When you operate a mower for 10 to 12 hours each day, you can get bounced around a lot," Snyder said. "I've noticed that mower seats are getting better and better."

Operator comfort is indeed driving a great deal of design, Walker said.

"Originally, I think contractors were happy just to sit down when the riding mower was invented, and now they want to sit down comfortably," Walker recognized.

While Snyder is pretty happy with riding mowers' current operator comfort, Evans said it is only "coming along."

"The seats could be more comfortable,"

Evans commented. "I'd also like to see canopies for the operators. But manufacturers are starting to pay attention to the ergonomics of human beings when designing these machines, which is good."

The introduction of patent-pending independent suspension also addresses the issue of operator comfort, said Bill Shea, vice president of sales and new product development at Ferris Industries, Munnsville, N.Y.

Independent suspension separates the chassis from the back of the cutter deck by connecting the rear deck suspension to the wheel motor bracket.

"Taking away the jarring effect of bumps will also dramatically extend machine life," Shea said. "A short wheel base usually means

Another trend, especially for commercial landscape businesses, is the purchase of an over-sized mower as an asset to a contractor's equipment fleet. As deck size increases, however, so does the cost of the machine.

> a rough ride. Independent suspension adds traction, comfort and speed to the machine without sacrificing that base."

When it comes to operator comfort, the focus should remain on the seat, Tegtmeier countered.

"At the point of purchase, it's the seat itself that lets the operator know whether the machine is comfortable or not," he explained. "If it feels good when they sit on it and the levers and ergonomics of the seat and controls are natural to the operator, then that spells comfort. If an owner or operator wants additional comfort, he'll go buy a higher priced seat."

BEYOND THE 61-INCH DECK. Another trend, especially for commercial landscape businesses, is the purchase of an over-sized mower as an asset to a contractor's equipment fleet. According to the 1998 *Lawn & Landscape* Mower Survey, 20.5 percent of respondents are using mowers with a deck size in excess

riding mowers

of 61 inches.

"I remember when the 54-inch mower deck was big," Evans said. "Now, it's the 72-inch deck or bigger."

Manufacturers have also noticed the trend, said Howard Price, president of Howard Price Turf Equipment, Chester-field, Mo.

"This market is growing as more large parks and school districts continue to bid out their business to landscape contractors," Price said. "Big contractors with big acreage to mow will always want a larger deck for the added productivity and reduction in labor – one man and one large riding mower instead of two men and two smaller mowers."

While the bulk of Price's business has always been the 72-inch through 16½-foot deck riding machines, some companies, such as John Deere Turf Care, Fuquay Varina, N.C., are just getting into the larger riding mower market.

"In 1999, we're introducing a riding mower with a deck size in excess of 11 feet," said Mike Koppen, product manager, John Deere Turf Equipment. "We've noticed through our own research that it is a growing market. It's not growing as large as the zero-turn radius riding mower market, but it's growing."

As deck size increases, however, so does the horsepower and the overall cost of the machine, Koppen said.

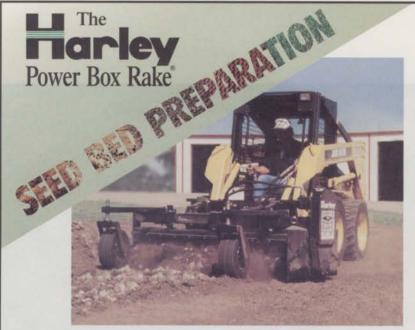
"Although contractors pay more initially for a large riding mower, at the same time they're immediately reducing the number of operators it takes to get a large site mowed at the same time," Koppen explained, "and people are expensive.

"Horsepower is also an issue," Koppen continued. "As the deck size goes up, the required horsepower goes up as well because it takes additional horsepower to operate the larger machine."

Snyder, who owns a riding mower with a 6-foot deck and two riding mowers with 12-foot decks, hopes manufacturers will continue perfecting larger riding mowers in various sizes.

"I would love to see an 8-foot deck machine," Snyder said. "It would have a 6foot deck in the middle and two 1-foot wing decks on each side that could be flipped up one at a time or together."

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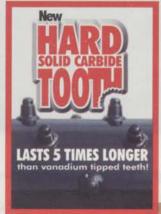
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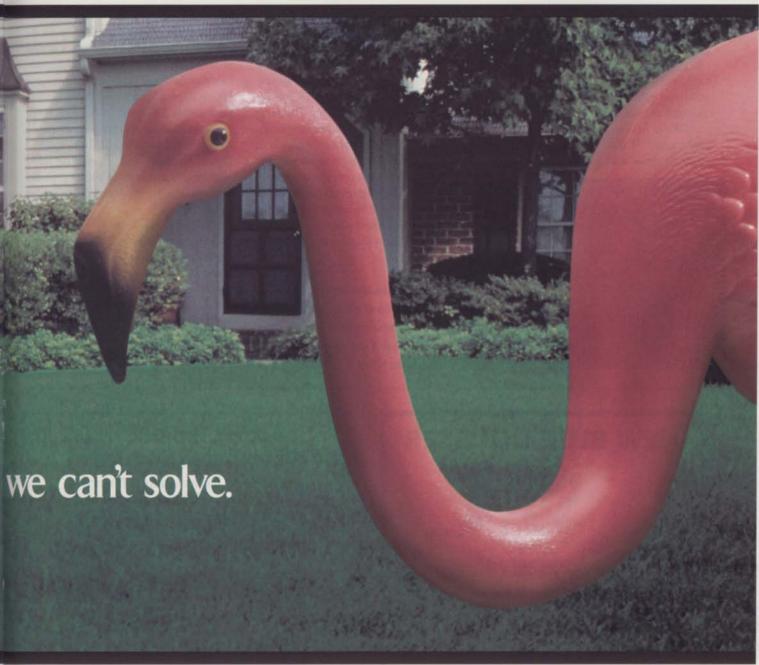
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riding mowers

(continued from page 79)

NEAR-FUTURE IMPROVEMENTS. During the next couple of years as the emissions standards become more strict, Walker said it will be important for manufacturers to cut down on exhaust emissions by using fuelinjected engines.

"We're field testing a program on that right now," Walker explained. "It's basically all about adopting automotive tech-



nology and applying that to the lawn mower via small, air-cooled engines. In this feature, the engine is actually operated by a computer, which gives the proper air-fuel mixture ratio. The computer adjusts for the optimum running conditions. There's no choke on the engine – just two revolutions and the engine will start right up, especially in the cold weather. So far, we've noticed that

the engine throttle response is better."

If the test program goes well, Walker said it will be a feature included on the products he is introducing in the year 2000.

"The fuel savings alone, which we've

As emissions standards become more strict, some manufacturers will find ways, including using fuel-injected engines, to cut down exhaust emissions on riding mowers in the future. Photo: Walker

tested at 30 percent, will make up for the extra cost, which will be about a 5 percent increase," Walker enthused. "For contractors that run their machines an average of 600 to 700 hours each year, they will save a great deal in fuel cost."

While some future improvements to the riding mower are technical, Evans said he'd like to see one simple change on riding mowers that would bring them up-to-date to green industry happenings today and in the future.

"I'd like to see the owner's manual, operating instructions and equipment labeling printed in Spanish as well as English," Evans stressed. "Eighty percent of the employees in the green industry are Hispanic. It just makes sense. Currently, I have to ask my dealer to provide them for me."

The author is Assistant Editor of Lawn & Landscape magazine.

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Two companies confirm that aesthetically pleasing, low-maintenance landscapes are conceivable.

By Nicole Wisniewski



ppealing, low-maintenance landscapes can be a challenge for design/build contractors, especially for residential clients who want the impossible: a no-maintenance landscape.

"There's no such thing as a no-maintenance landscape," confirmed Bill Fehrenbach, project manager, The Pattie Group, Novelty, Ohio. "Every landscape needs some maintenance - no matter how minimal."

The Pattie Group and Dennis' Seven Dees Landscaping, Portland, Ore., show through two of their residential project designs that asthetically pleasing, low-maintenance landscapes are feasible.

RETURNING FOR A CHANGE. After spending some time away from their home, Ike and Laurie Hanawa returned to renovate their 25-year-old residence and upgrade their 1/3acre property. One major area of concern for the Hanawas was the greenspace surrounding their home.

Hidden in a dense Douglas Fir forest along the Willamett River in Portland, Ore., the woodsy area with its steep valleys provides a nice, yet

dark and watery, hideaway. The intense wetness proved a problem for not only the home because it was located in the low center of the flat site, but for the landscape, which had become hard to get around because it was overgrown with deciduous trees and dead, overwatered grasses, perennials and annuals. The abundant overgrowth shaded most

(continued on page 86)

(Top) Before renovation, the Hanawa home was surrounded by overwatered, dead grasses and plant life. (Left) After the removal of dead plant life and the addition of low maintenance, flowering broadleafs, the Hanawa residence became more manageable. Photos: David Papazian

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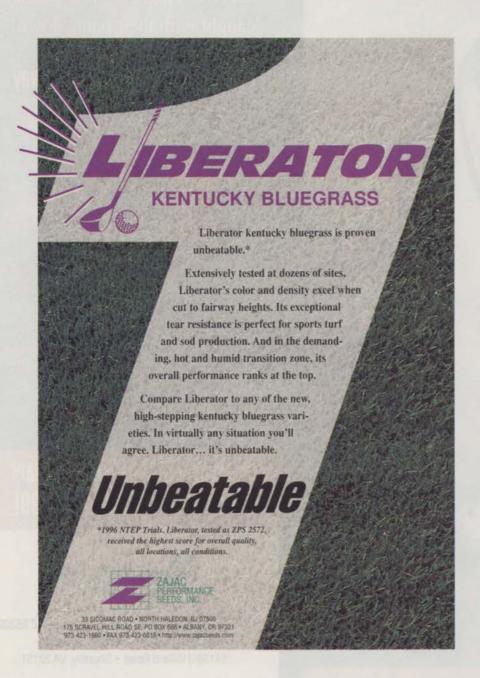
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low maintenance landscapes

(continued from page 84)

of the sunlight from entering the yard so it could not dry up the excess water and feed the plant materials. The site was also behind on its routine upkeep.

Refusing to attempt handling another high maintenance garden, the Hanawas recruited Dennis' Seven Dees Landscaping to alleviate the drainage problems and reduce the high amounts of pruning and mowing needed on the site to create an aesthetically pleasing low maintenance landscape. The project was done in two phases. The first began in November 1996 to rectify and repair site problems and the second began in October 1997 to add a new plant pallet.



It's All In The Way You Plan It

lite planning is the most important part of a low maintenance land-scape, according to Mike Gilliland, landscape architect, Dennis' Seven Dees Landscaping, Portland, Ore, His tips include:

- Identify improvements the site allows while minimizing disturbance and cost.
- · Identify and define the goals of the design.
- · Identify hardscape & circulation patterns.
- Prepare the soil correctly to minimize additional fertilizers and amendments.
- Define user's notion of low maintenance and how much they are willing to do.
- Identify and integrate any grades that need to be added to the design. Do not force the grades into forms that increase or collect erosion or storm run-off.
- If possible, minimize high walls or terracing for maintained areas.

STEP ONE: DEMOLITION. After visiting the Hanawa residence a number of times to get a feel for the surroundings, Bill Sanders, landscape designer, Dennis' Seven Dees Landscaping, went through various design schemes with the Hanawas to make sure the plan fit the greenspace to their style of utilizing the property and to enhance the landscape views from inside the house.

The first step was to identify the types of improvements the site would allow while at the same time keeping cost and plant disturbance down. The drainage problem was obvious due to the pocketing and saturated, dead lawn and overgrown plant materials, but the actual areas of concern needed to be pointed out. Before discussing a garden theme, extensive demolition had to be done.

Overgrown, excess plant varieties, particularly most of the perennials, annuals

(continued on page 88)

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low maintenance landscapes

(continued from page 86)

and all of the vegetables/edibles due to the high maintenance needed to keep them growing, were removed and the flat site was recontoured with properly located mounds of soil to channel water away from the house and the site. Many of the deciduous trees were also removed to let sunlight into the site.

Over time, the site had also developed

A dry creek
with decorative rock
and grasses
was added
as a convenient disguise for the
technical
irrigation
system.

odd corners and spaces such as 1foot strips of lawn that were hard to irrigate and maintain. When it was recontoured those spaces were eliminated.

STEP TWO: DESIGN.

The major goal of the site's redesign was to keep it scaled and simple.

The property was regraded to accommodate an extensive irrigation system. A dry creek with decorative

rock and grasses was integrated into the landscape as a convenient disguise for the technical irrigation system and was a low maintenance addition because it can be easily blown clean.

For ornamentals, Sanders matched flowering ornamentals, such as the Pieris Japoniea variety of rhodedendrons to the clay soil where they are known to do well. He also matched plants that like wet feet, such as Kelseyi Dogwood, in the wet, shady areas.

The theme chosen for the yard was similar to a Japanese garden effect because the plant pallet included Japanese maples and low maintenance grasses. Vinca minor groundcover, which keeps weeds out and adds color, and bark mulch, which helps the soil retain water, were low maintenance additions.

The Hanawas wanted to open up their yard to sunlight, yet retain privacy, so Sanders also added low maintenance conifers selectively. Dwarf blue spruces added a different color and texture throughout the landscape.

Designing

The Pattie

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its clients a
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arl and Lois Lantz had a wooded thicket separating their Chesterland, Ohio home from the street. The only maintenance they ever had to do to the deciduous, natural woods was to occasionally cut back some of the dead plant material.

look.

Although the area was easy to care for, Mr. Lantz wanted something with a more refined look, and Mrs. Lantz didn't mind the 150-foot long, 75-foot wide area getting dressed up as long as it continued to screen the house from the street.

The Lantzes lived on a 5- to 6-acre property near a ravine and a creek. They had been working with

(continued on page 90)

The new installation still
offered some of the
shielding initially
present in the landscape
(top) but also featured
more color through
added turf area and
ornamental plantings
(below). Photos: The
Pattie Group





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low maintenance landscapes

(continued from page 88)

The Pattie Group since 1990. For this phase of their multiphase landscape design project, Bill Fehrenbach, project manager, had the challenge of designing a low maintenance, neat, yet shielding, area. The design was done in March 1995 and was implemented in April/May of that same year.

STEP ONE: PREPARATION. The big challenge for Fehrenbach was to plan a design that fit both of the Lantzes' needs. When getting the design approved, Fehrenbach had to explain to Mrs. Lantz that the ornamentals chosen for the project would grow high enough to screen their property and show

Mr. Lantz that, at the same time, they would act as a tailored, colorful mix of plants. Since Mr. Lantz wanted to implement a lawn area in this section of the landscape to give the entire landscape more balance, Fehrenbach also had to make sure all other parts of the landscape were as low maintenance as possible since this area would need the most maintenance: regular mowing.

Since the existing natural landscape was

Low main-

evergreens,

which were

not part of

the original

landscape,

helped to

color and

provide

texture.

tenance

not in good shape, the first step in the demolition process was to tear out the dead, halfdead or rotten trees. Also removed were the trees and ornamentals that were in the area where the lawn or dense, screening ring that would separate the house from the street was going to be added.

STEP TWO: PLANT-ING. The few 8inch caliper maple trees that Fehrenbach left on the landscape

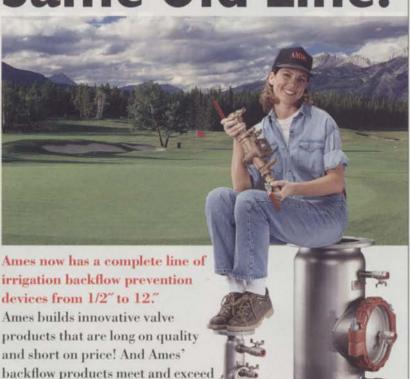
acted as a base for the design. Adding Hawthorns and Witch Hazels helped to begin the screening process.

These additional trees mimicked what was already natural to the area and were a low maintenance addition because they grow fast enough to fill in the space, yet slow enough not to grow out of control. Hawthorns are a flowering tree, an addition that appealed to Mr. Lantz's idea of a neat and colorful landscape. Low maintenance evergreens, which were not part of the original landscape, helped to provide color throughout the year and needed little pruning or raking of dead leaves.

Ornamentals chosen to continue filling in the screen also had to grow fast enough to shield the landscape, yet not grow out of

(continued on page 92)

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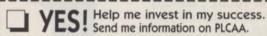
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low maintenance landscapes

(continued from page 90)



The first step in the demolition process was the removal of the dead, half-dead or rotten trees. Also removed were the trees and ornamentals that were in the area where the lawn was going to be added. Photo: The Pattie Group

control or be prone to insect problems so that they wouldn't need a lot of maintenance. Those added to the Lantzes' landscape ranged in color from whites to yellows

to greens and included Annabelle Hydrangea, Cornus Mas (Cornelian Cherry, a species of Dogwood), Hemlock and some forsythia. Aggressive, yet naturally growing groundcover, such as Christmas cottoneaster (a ground covering shrub), sea green junipers and other types of ferns, helped to control weeds and fill in lower story spaces.

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ers to look like natural rock formations and acted as a buffer for the beds, retaining the soil.

The lawn, a bluegrass, rye and mostly

fescue mix, was added. Fescue was the dominant grass in the mix because it grows well in shady areas like this one.

The design scheme used on the Lantzes' property is something Fehrenbach calls "tailored natural," somewhat controlled, yet out of control – loose, yet together. A landscape that is low maintenance, yet aesthetically pleasing because it ages naturally and gracefully.

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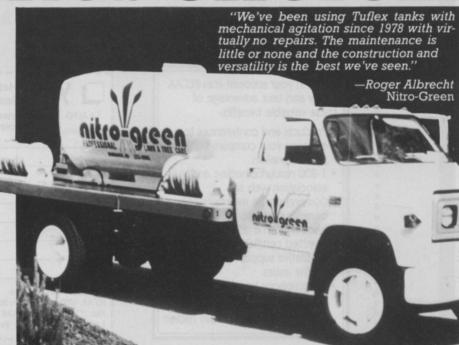
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Recent developments in irrigation valves have made them relatively problem free for contractors.

valve for the specific needs of the irrigation system can improve irrigation efficiency and save contractors unnecessary service calls to the site.

Using the correct



By Bob West

hey turn on, and water flows. They turn off, and water doesn't flow.

Okay, maybe that oversimplifies irrigation valves somewhat, but it does represent the core of their function - to control the flow of water through an irrigation system.

Valves are viewed this basically by many irrigation manufacturers and distributors because of the widespread improvements that have taken place in them over the last 10 years that have turned them into more of a commodity item and driven product prices down.

"There used to be some junk equipment out there that worked until the weather changed or the ground shifted a little bit, and then it didn't perform," noted Jerry Lewis, owner, Sundance Irrigation Training, Keller, Texas. "But that has all found its way off of the market."

"All valve manufacturers are looking at making

small improvements to what we're already offering, but the next step in valves will probably be a major technology leap," observed Laurie Berry, product manager, contractor valves, Rain Bird Sales, Azusa, Calif. "It may take us to wireless valves or something along those lines, but there hasn't been a real innovative leap like that in awhile."

UNDER CONSTRUCTION. One of the key areas where industry observers have seen an improvement in valves is in the construction materials used, particularly for the valve body.

"The manufacturers have gone from using PVC plastic that can become brittle when it gets cold to using glass-filled nylon that's much more durable," according to Don Leyn, owner, Irrico Sales, Aurora,

(continued on page 98)

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(continued from page 96)

Colo. "Glass-filled valves will last longer, handle higher pressures and are more durable.

"The PVC construction gets contractors in and out of a job cheaply, but it really sacrifices quality," Leyn continued.

The increased durability of the glassfilled plastic valves has boosted sales dramatically in some areas, although even the best glass-filled valve can't compare to a brass valve for long-term durability.

"Plastic has taken over our market," related George Burtch, managing partner, Irrigation Station, Houston, Texas. "We have relatively low pressure in this area because the ground is pretty flat, and plastic works for all of our applications. But it's still not as durable as brass. If a system gets surges up to 60 psi or something like that, plastic valves can warp and leak."

In fact, whereas there used to be a mix of plastic and brass valve installations on residential jobs, improved construction characteristics of plastic valves has shifted the market almost entirely in that direction for residential jobs. Now, the 1-inch, plastic valve is the top selling valve for almost any valve manufacturer, according to Don Thompson, director of sales, Storm Irrigation,

.

One of the key areas where industry observers have seen an improvement in valves is in the construction materials used, particularly for the valve body.

Los Angeles, Calif. (Storm Irrigation is the new name for West Ag since its acquisition of Imperial and the contractor portion of Buckner Irrigation in late 1998.)

"Improving the materials in plastic valves means fewer problems in freezing conditions," Thompson observed. "When the valves expand and contract with freeze/thaw cycles, the bonnet can loosen and leak."

Dick Greenland, director of marketing, Superior Controls, Valencia, Calif., agreed that the stronger brass valves have found themselves mainly used on high quality commercial jobs, municipal installations and use in areas of high water pressure.

"There are a lot less brass valves sold than there are plastic valves sold, except in high water pressure areas like California where most of the pressure is greater than 125 psi," Greenland noted.

In addition, some new valves feature a plastic/brass combination construction to take advantage of the durability of brass while keeping the valve as light and affordable as possible.

(continued on page 100)





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valves

(continued from page 98)

ALL TOGETHER NOW. Another key construction improvement commonly applauded is the encapsulation of the solenoids and what this has meant for maintenance issues.

"I think all of the manufacturers use encapsulated solenoids now, which makes them much easier to service," related Leyn. "It used to be that the contractor would remove the solenoid and would lose the spring or plunger in the valve box. Now, everything is built together, and the diaphragm comes off with the bonnet, so that's not a problem."

"Solenoids also used to corrode much more, but encapsulating them has fixed these problems," agreed Burtch.

"In addition, the diaphragms don't tear like they used to," added Leyn.

PRESSURE REGULATION. It's pretty unlikely that too many irrigation systems will have the exact same water pressure variables at

(continued on page 102)

Valves for Dirty Water Applications

f you're working on sites where the primary water source is lakes, ponds, streams or effluents, it's very likely that you deal with "dirty" water. Since the dirt and debris from this kind of water can choke an irrigation system, picking the right equipment is vital — and nowhere is this more vital than in the selection of the correct remote control valves.

When you select a remote control valve for a dirty water application, make sure it has filtration features incorporated into the valve by the manufacturer. This is very important, because not all valves have filters and the area on top of the valve diaphragm and the solenoid area is extremely susceptible to damage from fine particles of dirt and debris. One method for

filtration that manufacturers employ to prevent dirt from contaminating the valve and interrupting operation is the "self-flushing" screen.

A filter or screen that is self-flushing prevents water containing dirt and debris from entering the top of the diaphragm and the solenoid. Located on the bottom of a valve's diaphragm or inserted into the side of the valve body with a tube connected to the base of the solenoid, the screen or filter is positioned in the water stream running through the body of the valve. The water flow continuously flushes the filter screen, dislodging particles and debris before they can accumulate and clog the filter. — *Harold McKinney*

The author is commercial valve product manager for Rain Bird Sales, Azusa, Calif.

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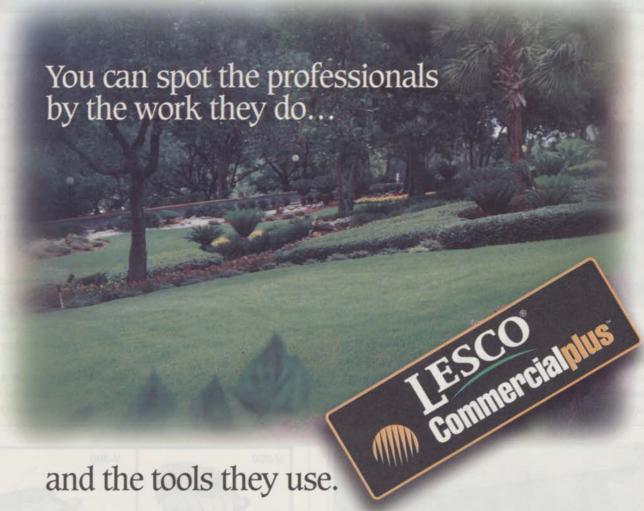
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(continued from page 100)

play in them, which has spurred development of pressure regulating valves.

"Everyone can identify with a system

Some manufacturers have developed low flow features in their valves, thereby enabling the valves to shut off regardless of the flow level.

that needs pressure regulation because we've all driven by houses or office parks where there's an irrigation fog over the lawn," noted Rick Fields, national sales manager, Zurn Wilkins, Paso Robles, Calif, "That's a sure sign of a problem with the pressure, and that can be an extremely damaging problem for the valves and the heads."

Fields estimated that as much as 90 percent of the systems that should use pressure regulating valves don't because contractors don't understand them properly.

"Using pressure regulating valves eliminates callbacks and delivers better irrigation coverage for the client, and it's a relatively inexpensive addition to a system," he noted.

"Water flow usually fluctuates coming from city main lines, and the regulators can be set so the water that is coming in at 60 psi or 40 psi is going out of the valve and through the system at 10 psi," noted Thompson. "These valves are getting to be considered more standard, especially on commercial applications."

"Pressure regulating valves are also good for systems running over elevation changes or with fluctuations from the inlet pressure," commented Greenland. "Here, the valves maintain a constant downstream pressure, which designers like so they know what they'll be working with."

Pressure regulating valves can be of particular importance in systems with multiple application heads, such as sprayheads, rotors and low-volume irrigation.

"Contractors have to make sure they control the flow of water to fit the application conditions on the site," noted Burtch.

In addition, some manufacturers have developed low flow features in their valves, thereby enabling the valves to shut off regardless of the flow level.

"If the flow is lower than a manufacturer's recommendation for a valve, then it's possible that valve won't be able to shut off," observed Greenland. "Some new valves can shut off no matter how low the flow is."

INSTALLATION ISSUES. Despite the numerous structural improvements to the valves, (continued on page 104)



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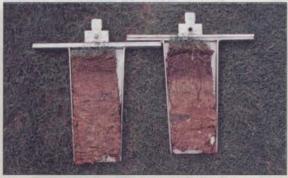


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(continued from page 102)

manufacturers and distributors noted that contractors' failure to educate themselves properly on the various products, their applications and recommended installation techniques can result in poor performance.

"I would bet that less than 20 percent of the contractors fully understand what is on the market in terms of valve products and why certain changes have been made," admitted Leyn. "Most contractors simply buy what their distributor sells them, which has made price a huge issue right now."

"The more seasoned contractor will take a harder look at valves than someone just trying to grow a business," agreed Thompson, noting that installation problems are more prevalent on the residential jobs handled by smaller, growing contractors. "That's because the seasoned contractor has learned from making mistakes, and he or she knows that having a problem with a valve means you have to go out and dig it up, and no one wants to do that."

"We need the same education effort that has taken place regarding backflow prevention devices to occur with valves now," added Fields.

One example of a common installation problem Thompson encounters is a contractor's failure to use waterproof wires coming off of the valve, particularly on residential jobs.

"There has to be waterproof wires in that valve box," Thompson emphasized. "Black tape with a twist on attacher doesn't cut it, because once that box fills up with water it will short out the line. But the contractor won't know what is causing the problem unless there's a sophisticated controller on the system.

"The other problem we see quite often is when contractors apply too much glue and primer to the end of the piping and cause it to plug up the internal bleed valve and keep the valve from draining," Thompson added. "The valve itself works just fine, but if the bleed gets plugged up, nothing will work."

Another common installation mistake is to not properly support a valve from underneath it within the valve box.

"The valve should always be installed at the proper depth, and contractors should put some gravel beneath the valve in the box so it's less likely to end up under water," Lewis noted.

Lewis also recommended contractors leave an extra 2 to 4 feet of wire neatly coiled up in the valve box to give themselves room to cut if it's ever necessary to work on the solenoid.

"Basically, the installation requirements are all there from the manufacturer," commented Lewis. "If a contractor can't meet the minimum requirements, then the contractor is responsible for the system's failure and making the necessary callbacks."

The author is Editor of Lawn & Landscape magazine.

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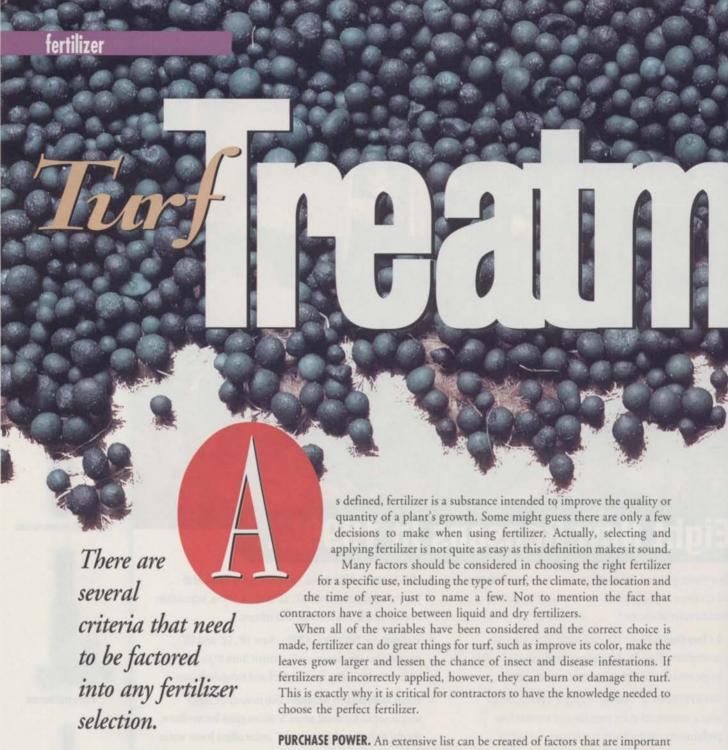


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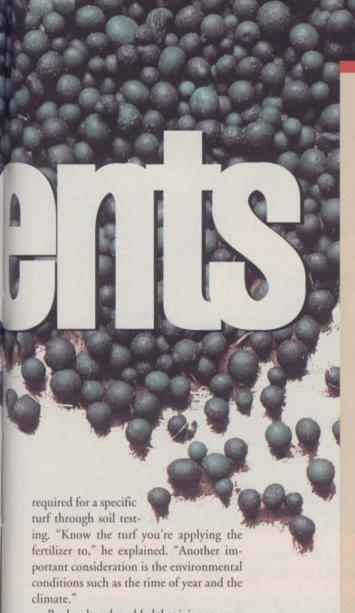
By Angela Dyer

PURCHASE POWER. An extensive list can be created of factors that are important in making the right fertilizer purchase. However, many contractors and manufacturers agree on a few of the basics.

"The first thing is to determine what you want the fertilizer to do," said Tim Lacy, director of sales and marketing for Pursell Technologies Inc., Sylacauga, Ala. "Do you need a slow release? Do you want a fast release?"

He added that several products are available to meet feeding requirements once these requirements are established. For example, sulfur-coated ureas can last six to eight weeks. For 10- to 12-week applications, methylene ureas work well. For contractors who want an application to last beyond 12 weeks, they should consider a polymer product.

Ray Buckwalter, product manager for Lebanon Turf Products, Lebanon, Pa., expanded on this idea by explaining that contractors should know what is



Buckwalter also added that it is necessary to consider the value of the fertilizer as well. A good slow-release nitrogen is a critical part of making a choice. "A lot of contractors are now realizing they can get more bang for their buck with a slow release."

These sentiments were echoed by Trey Curry, technical service representative for Terra Industries, Sioux City, Iowa. "You have to know what percent is slow release. This way you won't have to worry about later applications."

Another point regularly mentioned was the uniformity of a fertilizer.

"Uniformity is very important," declared Wayne Horman, marketing manager for seed and turf, Scotts, Marysville, Ohio. "A blended fertilizer would have four components. When you spread the fertilizer it has to have an equal amount of particles over a square foot so it's all the same. If not,

News on Nitrogen

itrogen has been studied and used more than any other nutrient, according to the Greensmiths, Frisco, Texas. Because nitrogen is important in the manufacturing of chlorophyll, new plant growth is virtually impossible without it. Several nitrogen sources are available to choose from, and a few key advantages and disadvantages of each follow:

82-0-0 Anhydrous Ammonia

ADVANTAGES: Easy to apply and little danger of leaching.

DISADVANTAGES: Uneven distribution and losses in irrigation water with some systems and sprinklers. Possible toxicity can be very hazardous to the applicator.

20-0-0 Ammonia Solution

ADVANTAGES: Easy to apply.

DISADVANTAGES: Uneven distribution and losses in irrigation water with some systems and sprinklers. Possible toxicity can be very hazardous to the applicator.

21-0-0 Ammonium Sulfate

ADVANTAGES: Minimal leaching loss, easy to use, safe to handle and sulfur boost if needed.

DISADVANTAGES: Delayed availability during nitrification and has a high loss potential on calcareous soils if it is not incorporated into the soil.

33-0-0 Ammonium Nitrate

ADVANTAGES: Minimal volatilization loss potential and works well in colder weather. DISADVANTAGES: Some volatilization loss on calcareous soil if it is not incorporated into the soil.

16-20-0 Ammonia Phosphate-Sulfate

ADVANTAGES: Same as with Ammonium Sulfate but also has a Phosphate content where needed.

DISADVANTAGES: Same as with Ammonium Sulfate and carries a higher cost.

15-0-0 Calcium Nitrate

ADVANTAGES: Calcium is beneficial to acid and sodic soils. Has immediate availability with little to no volatilization losses.

DISADVANTAGES: Clumps in moist or humid weather and is susceptible to leaching.

46-0-0 Urea

ADVANTAGES: Easy to use and very quick availability.

DISADVANTAGES: High loss potential if not incorporated or watered in.

16-0-0 Sodium Nitrate

ADVANTAGES: Immediate availability.

DISADVANTAGES: Sodium is detrimental to soils. -Angela Dyer

different areas of the turf will get different nutrients. It's possible to mask this if the turf has all the same color, but the nutrient levels in different areas will not be equal."

For this reason, Charlie King, president

of King Green, Flowery Branch, Ga., explained that it's crucial for contractors to look for uniformity of granular size with dry fertilizers before making an application to ensure a consistent application.



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(continued from page 107)

CHANGING COURSE. With the different temperatures throughout the year, the consensus with contractors and manufacturers is that it is critical to change fertilizers depending on the time of year. Occasionally, another reason to change fertilizers can be the property a contractor is servicing.

"As a general rule, liquid fertilizer is used

in the spring and fall when incorporating broadleaf weed control," King noted. "Dry fertilizer is used for summer and fall. With this we can get a higher analysis with control-release nitrogen for less money."

Higher analysis formulas, according to Lacy, mean that the ratios of nitrogen (N), phosphorus (P) and potassium (K) – listed in that order on fertilizer packages – are higher and therefore are packaged with less non-productive carrier material. For example, a fertilizer with an ratio of 30-3-10 would have a high analysis of nitrogen (30).

Northern Lawns, Omaha, Neb., uses a high-percentage, slow-release formula early in the season, according to Dale Amstutz, president. "For the fall, we use a winter fertilizer application. Once the grass has quit growing, we need a quick-release formula. This is also called a dormant fertilizer."

A major consideration for many contractors is the amount of nitrogen needed at different times of the year. For Daryle Johnson, president of All American Turf Beauty, Van Meter, Iowa, crabgrass prevention is important in the spring and broadleaf weed control is necessary in the fall. "We use a granular fertilizer for a late fall application and we use something with more insect control in the summer months," he explained.

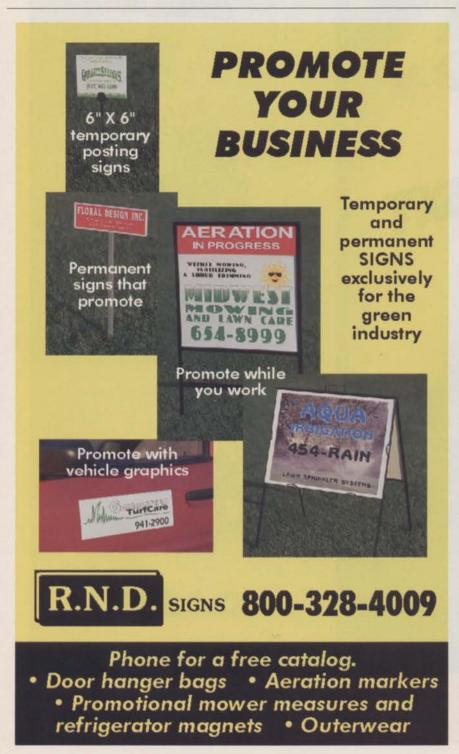
Curry also recommended considering the amount of nitrogen applied at various times of year. A blend with a high nitrogen percentage is useful in the spring for leaf growth, while in the late summer and early fall it may be more beneficial to use something with more potassium. This helps harden the grass and prepare for winter. Then in the spring, this helps fend off diseases.

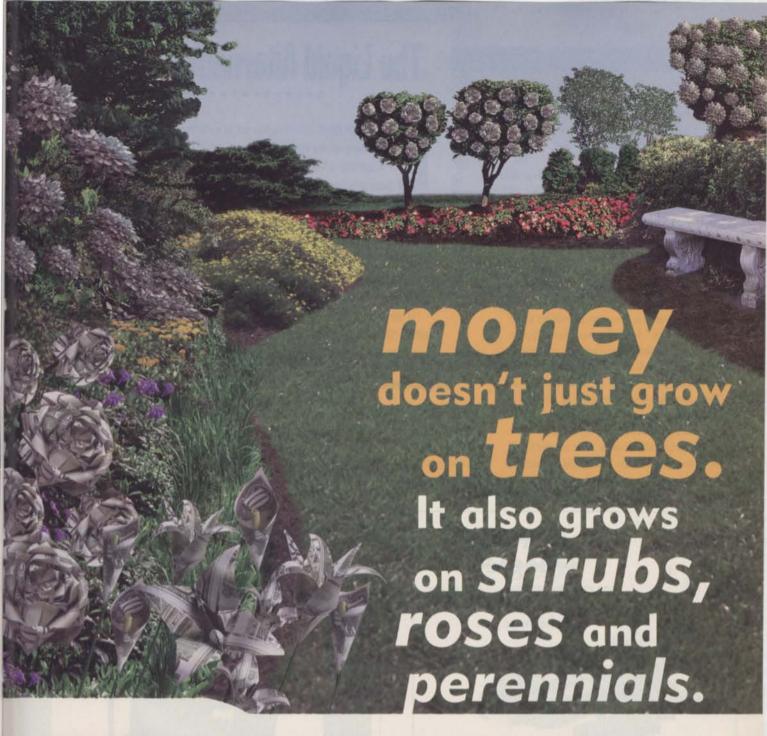
According to the Greensmiths, Frisco, Texas, a multi-service company specializing in finding solutions to problems with soil and water, potassium is essential to the manufacturing of sugar, starches and proteins in plants. When potassium isn't available to turf, leaf margins and tips can begin to turn brown and curl.

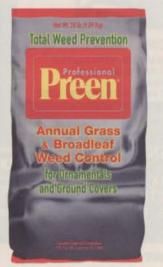
"In almost any application, you need to look at the 1-1 ratio of nitrogen to potassium. Now, researchers are finding that potassium leaches out quickly, so they are pushing for higher levels of potassium so that once it leaches enough remains to be effective in the ratio," Lacy said.

Lacy added that phosphorus is generally applied in the springtime because winter weeds germinate around August or September and a fall phosphorus application would enhance this germination.

(continued on page 112)







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(continued from page 110)

Expanding on Lacy's comments, Curry explained that phosphorus also aids in root system development, if a contractor is planting from seed.

In addition, phosphorus, according to the Greensmiths, assists in the aging of tissues and stimulates root growth. A phosphate deficiency will primarily affect the root areas of turf grass.

Other than the time of year, there are occasionally other variables influencing fertilizer choice, such as the property and its specific needs.

"We use nearly the same blends on all of the properties," Johnson explained. "Some large commercial properties that are several acres, like a football field, may need something different because of different traffic. They also don't need to look as good as a home lawn, and we have to follow budget restraints with different properties."

King echoed Johnson, "We use the same blend as a general rule. We've got a standard

The Liquid Alternative

ven though liquid fertilizers may not be a contractor's number one choice, they do have some notable strong points.

According to Trey Curry, technical service representative for Terra Industries,
Sioux City, Iowa, liquid fertilizers can be tailored to specific applications. "Some are high in nitrogen and some are slow release. They've got as much flexibility as with dry

"Many available liquid fertilizers are soluble with four- to six- week feeding periods," explained Tim Lacy, director of sales and marketing for Pursell Technologies Inc., Sylacauga, Ala. "For contractors who want to go back to the property several times, that works well for them."

"In the summer, in the southern U.S., you lose a lot of liquids due to burning," Lacy added. "Contractors should usually go with a granular in the summer in the Sun Belt. The burn potential is definitely higher with liquids although it is less expensive." —Angela Dyer

product for each turf, but special circumstances dictate when we need something else."

fertilizers if contractors look for it."

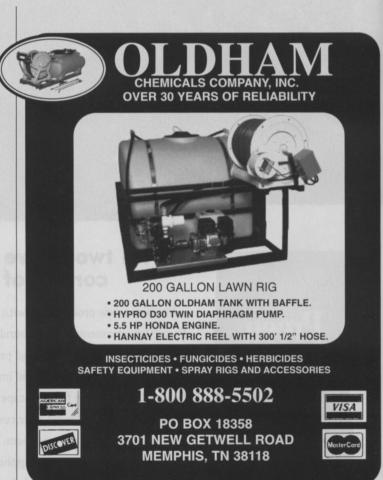
Some commercial properties need a highpercentage of slow-release fertilizer, according to Amstutz. Sometimes this enables contractors to get by with less labor and fertilize only once a year.

"You could fertilize a home lawn once a



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season, but that would be an expensive application and most homeowners don't want to do it this way," Amstutz added.

POPULARITY CONTEST. With all of the available options today, there are a few fertilizer blends that manufacturers have found to be especially popular.

Fertilizers coated with preemergent herbicides are popular now nearly all across the country, according to Lacy. Canada and Michigan are the only exceptions because their season is short so there are not a lot of grassy weed problems to contend with.

"Most small contractors use preemergent fertilizer combinations for the labor savings," Buckwaltersaid. "It used to be that there were two steps needed in order to apply the fertilizer and the preemergent. Now, with the combinations, it's one step that saves time and money."

Other trends gaining popularity include a higher interest in potassium fertilizers.

"This is more popular now in the landscape market," Buckwalter added. "Potassium makes the turf more resilient. It makes it stand up a little better. For years, 4-1-2 ratios have been used. Now, we are seeing ratios where nitrogen and potassium are more equal."

A nitrogen to potassium ratio of 2-1 is popular right now, according to Horman. He added that a 31-3-10 application is still popular for spring and fall applications.

"Someone who wants good color but doesn't care as much about growth may choose a 22-0-6 or 22-3-11," Horman said.

"A good starter blend in the spring is somewhere around a 14-22-14," explained Lacy. "This is higher in phosphorus, which is helpful in seeding. It's also important to have magnesium in a starter fertilizer to enhance germination."

Lacy added that during the fall, a 15-0-30 blend is very popular.

With so many options available, it is no

wonder that fertilizer prices have dropped over the past several years.

"Pricing over the last 10 years has come way down because of all the competition out there," Lacy declared. "If I had to look in a crystal ball, I would say that prices may go up again with all of the consolidation going on in the fertilizer industry. But right now, it is as inexpensive as I've ever seen."

Other factors can affect price, including the amount of filler a manufacturer adds to their formula. "Some companies put fillers in the fertilizers and others use only pure nutrients," Lacy explained. "They will charge more money for fertilizers with pure nutrients instead of filler."

A fertilizer price may also be higher if it is a slow-release formula, according to Lacy. A slow-release will last longer between applications, making it more expensive.

The author is Assistant Editor of Lawn & Landscape magazine



TeO

Winning - Some State of the Sta

James Gorton

Landscape Maintenance Technician of the Year:

echnicians are an integral component to a green industry organization and deserving of recognition for their dedicated work. For this reason, T&O Service Tech honored its first-ever Service Technicians of the Year with winners for landscape maintenance and chemical lawn care technicians. James Gorton, The Groundskeeper, Tucson, Ariz., the 1998 landscape maintenance category winner, was chosen in part based on some comments from his supervisor and branch manager, Glen Killmer.

"His personal commitment to further education has proven a great asset to the company," Killmer stated. "James is always willing to take on new projects with a positive attitude, and he portrays this attitude to his employees, peers, superiors and customers. He excels in all aspects of the job from customer satisfaction to technical service to being a leader."

Gorton, a nine-year veteran of the company, started out as a criminal justice major in college, and it was really by accident that he ended up in the green industry.

"I got bored with that major, so I started working at a golf course 14 years ago and loved it," Gorton commented.

Gorton has come a long way since then. He started at The Groundskeeper as a laborer. Now, he has moved up to maintenance supervisor overseeing 20 people in the winter and as many as 30 in the summer. These workers consist of maintenance crew leaders, crew members and a turf management team as well.

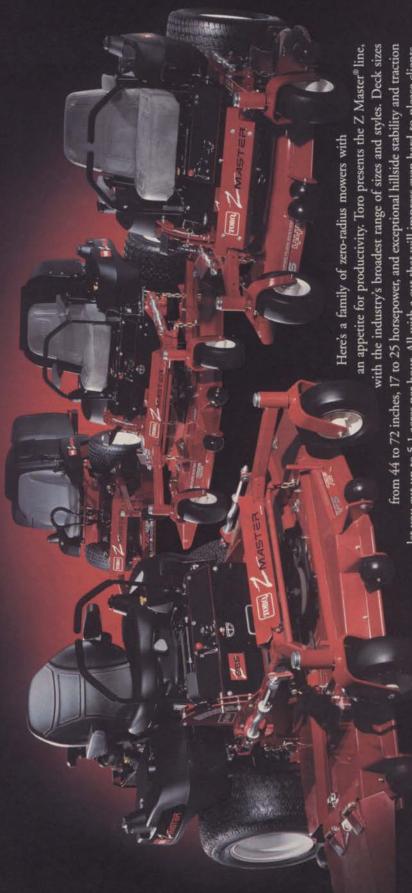
"James does the scheduling of routes, orientation and training of employees," Killmer noted. "He also handles quality assurance issues and customer relations. About 60 percent of his time is spent in the field."

While Gorton said that the key to handling all of these tasks is time management, he never imagined that his accomplishments at his job would earn him a nomination from Killmer. "The nomination was a complete surprise," Gorton added. "Glen didn't tell me about it until after he had nominated me. It was very exciting."

(continued on page 116)

Service Tech magazine, a sister publication of Lawn Landscape, honored the following two industry stars as its first ever Technicians of the Year.

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tech of the year

(continued from page 114)

Killmer explained that Gorton falls in line with the company's philosophy. "The Groundskeeper believes we should move

the industry forward with technicians. We are about raising the standards. James goes in and gets any extra education on his own."

Work habits, attendance, ability to build and maintain customer relations – both internally and externally – are the key factors that make him an excellent employee from Killmer's viewpoint.

Gorton believes these work ethics are personality traits. "When I first started, I was focused on the company and it gave me an outlet," he stated. "Because of the opportunities here I was able to grow."

The passion Gorton has for his work is evident as he talks about the company. The most enjoyable part of his job, he explained, is being a team. "The most satisfaction comes out of the team atmosphere at this office. Everyone will help someone out when they need it with no questions asked."

......

This team-player attitude of Gorton's is

To nominate a technician for the 1999 T&O Service Tech Technician of the Year contest, check in the next issue of T&O Service Tech or call 800/456-0707 and ask for an entry form.

> only part of what has made him the outstanding employee he has been ever since he first stepped in the door, according to Killmer. "He came to the company wanting to gain education and raise the standards to a technical level," Killmer noted. "This is much like the company's philosophy."

> With the dedication that Gorton has put into his work over the last nine years, he gives the company credit as well for helping him boost his career.

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"I couldn't have received the award without support from the organization," Gorton said. "They support my desire to seek outside

> education. The support and recognition from my peers and superiors was a huge help."

> So, what's next for Gorton? Killmer explained that in addition to the many functions Gorton performs regularly, he is also learn-

ing about sales. This ties into his current duties because when he is talking to customers about changing an existing landscape or finding a solution to a problem, he may actually be selling an upgrade.

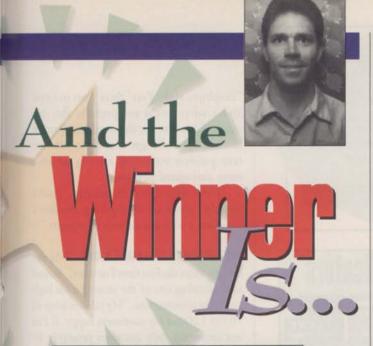
"He can be inspecting the property and as he finds and solves a problem, he turns that into a sale." Killmer added. – Angela Dyer

The author is Assistant Editor of Lawn & Landscape magazine



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USE READER SERVICE #92



Chemical Lawn Care Tochnician of the Year:

ast year, Tom Strand was running the best route at the north Seattle branch of TruGreen-ChemLawn, Redmond, Wash. His territory's customer cancellation rate hovered just above 25 percent, the lowest in the company since 1995, said Ion Stein, branch manager.

"His territory's customer retention rate has always been 5 percent or more better than the next highest rate," Stein enthused. "That's saying a lot since the spray business always has a high customer turnover. Since I've been here, our revenues have jumped from \$2 million to \$6 million, and Tom Strand had a lot to do with that. If I had 25 Tom Strands, my business would be out of control.'

But about five months ago, Strand, a senior lawn care specialist, decided to leave his cushy position and take on a new challenge: He asked to manage the most northern territory of the branch - the territory with the worst customer cancellation rate in the company (approximately 40 percent).

'I needed a change," Strand said. "I want to be the best in the branch. I want to be No. 1 in everything I do. And a challenge is always a good motivator."

It is this kind of positive, aggressive, go-getter attitude that led Stein to nominate Strand for T&O Service Tech's Technician of the Year Awards and that led the Judges to select Strand as the 1998 chemical lawn care winner.

AN EARLY START. Strand began his career in landscape maintenance when he took a part-time job in high school as a favor to a friend who owned a company in Arizona, Strand's home state.

"I love working outside," Strand said.

Interested in learning more about lawn care, Strand traveled to Washington 10 years ago and got a job at TruGreen-ChemLawn. His do-whatever-it-takes work ethic kept him moving up in the company and has earned him a host of awards, including

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tech of the year

"Employee of the Year" three years in a row and a safety award competition. But because of his love for the outdoors, Strand continually challenges himself in his current position instead of moving up to a more managerial position.

"I love what I do," Strand said. "And I wouldn't give it up for anything. Besides, I also have a wife and six kids to support."

THE CUSTOMER IS ALWAYS RIGHT. "I do the best job I can the first time I'm there," Strand said, revealing one of the secrets to his high customer retention rate. "My job is to keep all 700 to 1,000 of my customers happy. If I'm not answering their questions promptly by phone, I'm on their property. I see all of my customers eight to 12 times a year."

Strand keeps tabs on his customers by making sure his employees take detailed notes about the customer and what care has been given to their lawn.

"It's all about good communication," he advised. "That's the first thing I'm going to do to improve the customer cancellation rate in my new territory - make sure better notes are taken. In 1999, I want to reduce the cancellation rate from 40 percent to 25 percent. It will help the company achieve its goal of a 30 percent cancellation rate overall."

Strand will most likely accomplish this ambitious goal, Stein pointed out.

"He treats every property like it's his own," he said. "And he's a great listener. He has a genuine, caring attitude. He understands that if he satisfies their needs now it will become a benefit later instead of just doing today and forgetting about how that will affect tomorrow. Customers just love him."

Stein is quick to point out that Strand is also a good, quiet leader, which is why he sells more services than anyone in the branch every year. His dedication has been proven, Stein said, through his five years in a row of perfect attendance and high sales.

"Some leaders motivate by ranting and raving," Stein explained, "but not Tom Strand. He is an unbelievably quiet leader. He motivates by consistently doing everyday what needs to be done and setting an example for others to follow." - Nicole Wisniewski

The author is Assistant Editor of Lawn & Landscape magazine

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The relationship between a contractor and a subcontractor can be difficult to manage but beneficial to both parties.

By Bob West

s competitive pressures drive contractors to maximize the number of services they offer, many find that handling new services via a subcontracted relationship is the ideal way to satisfy customers and maximize revenues.

However, many contractors who have relied on subcontractors for various services requiring extensive technical knowledge or certification, such as irrigation work or pesticide application, have been suitably frustrated to the point where they are now investing the time and money necessary to bring these services in house.

While 23.9 percent of respondents to a 1998 Lawn & Landscape survey indicated they work with subcontractors for pesticide applications, this is down from 26.4 percent in a similar 1994 survey as more contractors now offer this service internally.

A FULL MENU. "We want to offer our clients as many services as they can, and when they ask for a service we can't provide internally, we go outside to look for someone who can," remarked John DeBell, president, Clippers, Chantilly, Va., adding that his com-

pany subcontracts irrigation and mulch work. "We don't actively promote the services that we don't provide internally, but subcontracting lets us keep the relationship with the client flowing through our company."

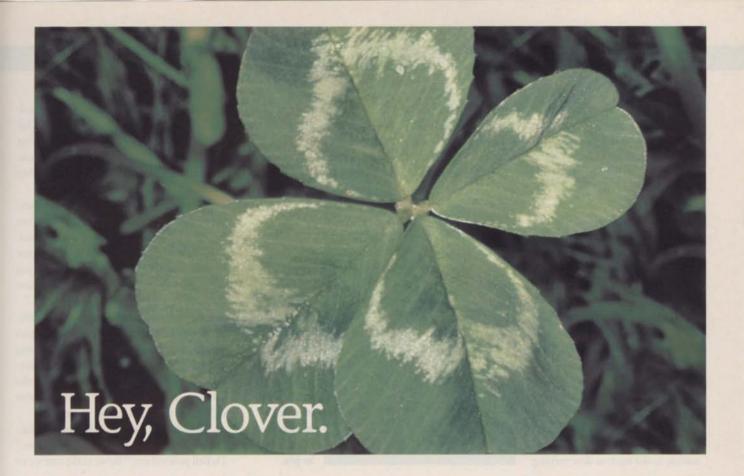
DeBell noted that finding a subcontractor sensitive to your own clients' service needs can be the key to the entire relationship.

"When we sell our services to a client, we sell a team concept and promise that we'll make sacrifices and they can depend on us," DeBell remarked. "I want that same commitment from a subcontractor. I need them to be able to respond to emergency needs immediately. Stressing this team concept on the front end means that if we need to make changes to fix a service they provided, they will be willing to do so."

Bill Miller, president, All Seasons Landscaping, Ketchum, Idaho, also compared the relationship with subcontractors to a contractor's relationship with its customers.

"I'm looking for proof of the quality of their work before I hire a subcontractor," Miller said.

(continued on page 122)



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subcontractina

(continued from page 120)

"When they're working for us, they are what the customer sees as All Seasons Landscaping, so they need to be responsive to that customer's needs and provide top notch service.'

Mark Marcus, president, CentreScapes, Pomona, Calif., said his company will subcontract for some specialty work, such as interior pesticide applications and large tree work, but he fears upsetting clients because of someone else's mistake.

"If something is going to go wrong on our job, then it should at least be our fault," Marcus related.

KEEPING CONTROL. While pesticide applications are one of the most commonly subcontracted services because of the required technical expertise and licensing requirements, issues such as determining what product is applied and when it is applied have swayed many contractors to handle the work themselves.

"We contracted pesticide applications out in the past, but the subcontractors only



Many contractors pointed out that one of the keys to a good partnership is being able to schedule the subcontractor for jobs.

made the applications when it fit their schedule," noted Robert Winter, president, Oak Brook Maintenance, Naperville, Ill. "If they ran into scheduling problems or backups, our customers were treated last, after they finished with their customers."

"We don't have control over when subcontractors will do the work," agreed Tom Nordloh, president, The Bristol Group, Bristol, Wis. "And it's difficult to call a subcontractor up when there's a problem and tell them you need them immediately because they have their own clients they're trying to serve."

"By keeping pesticide work inhouse, we're able to control the product that goes down," noted DeBell. "In addition, doing this saves us the scheduling conflict of having our mowing crew show up when the subcontractor was applying the pesticide or right after that application was made.

'Scheduling is the most important challenge of working with a subcontractor," DeBell pointed out. "So we make sure we sit

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Reporting to a General

he other side of the subcontracting coin comes into play for landscape installation contractors working on a new installation as subcontractors to the general contractor responsible for the entire property. While these are usually high dollar, commercial contracts or residential developments, the different priorities of contractors can lead to considerable difficulties.

The Bristol Group, Bristol, Wis., often finds itself operating as a subcontractor on large, commercial jobs, and the biggest problems it encounters stem from poor communication with the general contractor.

"The problems come down to one thing — contractors will lie by saying the job is ready for us when the excavating isn't done or the electric, gas and plumbing aren't all installed," noted Tom Nordloh, president. "We're working on a plan to deal with these problems with a checklist for the superintendent to complete before calling us."

Nordloh added that the fact that landscape crews are often one of the last ones to complete their work means they are often held responsible for other contractors' mistakes.

"Is there garbage left on the site? Then we usually end up cleaning it up," Nordloh added. "And who's responsible for watering the material installed before we got pulled off the job? It will end up being us."

The other challenge associated with this type of work is common to most subcontracting relationships – receiving timely payment.

"With residential jobs, we'll receive 25 to 50 percent payment as a deposit, complete the job, submit the invoice and get paid within 10 to 20 days," Nordloh commented. "With commercial jobs, it's important to know how well the general contractor pays.

"We generally get paid within 30 to 45 days for commercial jobs," he continued. "And we'll bend over backwards to work for contractors with good internal structure who pay on time, because that allows us to plan our cash flow. We generally pay our suppliers when we get paid for a job, but if it takes us 60 days to get paid, we can't wait that long to pay our suppliers." — **Bob West**

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down and meet with any subcontractors and plan what they're going to be doing for us and when."

"Working with the right subcontractors can make or break a job," added Nordloh. "We look at a lot of different criteria before hiring a subcontractor, such as how willing they are to work with us when problems arise, how well they understand their work, how customer-oriented they are and any staffing issues they're dealing with that could impact their ability to do the work."

Bill Clutter, president, TurfGard, Dayton, Ohio, wants to see his company expand the amount of subcontracted work it provides to better penetrate the commercial market. And when it comes time for devising an application program, he agreed that

communication is the key.

"Some of the maintenance contractors we work for have a contract to mow the property for a set fee for a year, so they want to minimize the

Lawn care companies prefer being allowed to use their expertise to prescribe a specific program for a job, realizing that it must fit the maintenance contractor's needs.

amount of fertilizer applied with maximum slow-release properties so the lawn doesn't grow," he explained. "Other contractors may be paid by the number of times they mow, so they're looking for the grass to grow more."

Clutter added that unless the specific product to be applied is spelled out by the client in the contract, he believes the maintenance contractor should leave that decision up to the lawn care contractor.

"Contractors should defer to us as the expert," he noted. "That's why they hire us in the first place."

PAY DAY. Handling financial terms of any relationship can always create difficulties, and contractors have a variety of philosophies as to how this part of the subcontracting setup should be handled.

"I have my subcontractors bill me and then I'll bill the customer so that the cus-

(continued on page 126)





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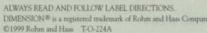
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subcontracting

(continued from page 124)

tomer is only dealing with one company and they get the perception that we provide all of the services," noted Miller, who added that he usually marks up his prices by 10 percent when they are provided by a subcontractor to cover his administrative costs.

DeBell also stated that he'll add a slight markup to any work handled by a subconWhile 23.9 percent of respondents to a 1998 Lawn & Landscape survey indicated they work with subcontractors for pesticide applications, this is down from 26.4 percent in a similar 1994 survey as more contractors now offer this service internally.

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tractor to cover administrative costs and that the subcontractor should be willing to charge slightly less for the work.

"Subcontracted work isn't usually profitable for us," he added. "We look at that service as an additional opportunity to be of service to our client. We just don't want another contractor to come in and be able to steal the contract by offering all of those services at a cheaper price."

Clutter noted that when he works as a subcontractor providing pesticide application services, he prefers to do his own billing, although he sees a lot of contractors preferring to minimize the bills received by the client.

"Some contractors will let us collect all of the revenues, but most charge between 5 and 12 percent to cover their costs," Clutter explained. "That equates to a high cost per sale on a residential basis, but it's still a low cost as a percent of revenue dollars on commercial jobs."

Clutter also recommended that companies assuming the subcontracting role be diligent in qualifying contractors to work for to ensure they'll be paid for their service.

"Some contractors have intentions that are better than their wallets," he observed. "When they sell their services and include our services in that price, it can require a lot of persistence to get our money. In fact, we had to take two contractors to small claims court this year to get liens against their equipment because they hadn't paid us."

In general, however, Clutter said the subcontractor arrangement is one that benefits both parties when it works correctly.

"We have seven or eight contractors that we're working for right now, and we can pass customer names on to them and they refer customers to us," he said. "When it works, it works tremendously."

The author is Editor of Lawn & Landscape magazine.

Tager to Pulls

Proper pruning techniques can still be damaging to the plant if they're conducted during the wrong times of year or at the wrong point in a tree's life. Photo: Ruppert Landscape

Pruning
trees seems
like a simple
task,
but it's actually
a task that is
simple to err at.

By Jeff Iles

eing a professional in any line of work means keeping your knowledge base current. Techniques, methods and principles accepted 20 years ago may be obsolete today.

And so it goes with pruning. Considered both an art and a science, pruning recommendations have changed dramatically over the last 20 to 30 years. In fact, practices such as flush cutting of branches, topping of trees and treating pruning wounds with asphalt-based dressings are now relics of the past.

Landscape professionals must combine their talents with a thorough knowledge of hundreds of plants, and each plant's response to pruning, to do the job correctly.

WHY PRUNE? There are many valid reasons for pruning trees and shrubs. The most important reasons are for safety, health and appearance.

Safety pruning often becomes necessary to correct a "plant in the wrong place" situation. Examples of safety pruning include trimming branches from trees and shrubs that interfere with lines of sight for automobile, bicycle and pedestrian traffic, eliminating branches that grow into utility lines and removing dead or structurally unsound branches from trees. Some-

times, completely eliminating a tree from the landscape is the best option when large sections must be removed to ensure safety.

Pruning for health might involve removing crowded, rubbing or crossing branches to improve airflow and decrease the chance of self-wounding. It may also mean eliminating diseased or insect-ridden branches. Promoting a strong framework through judicious pruning is also pruning for health, as trees and shrubs neglected at an early age frequently have structural problems later in life.

There is a certain amount of subjectivity involved when the goal of pruning is to improve or enhance the ornamental quality of trees and shrubs. Some situations call for plants to be molded into formal or rigid shapes, while others require a plant's natural tendencies be accentuated, not modified.

Each style has its place, however, and trees and shrubs pruned to take advantage of their natural growth habit usually require less maintenance than their carefully sculpted counterparts.

WHEN TO PRUNE. Trees and shrubs respond to any wound, including those inflicted during the pruning operation, by "walling-off" or compartmentalizing injured tissue. Once these

areas are walled off, the isolated wood dies, but the rest of the plant is protected from decay-causing pathogens and rot.

Because this wound response takes place most rapidly just prior to the onset of growth in the spring when energy reserves are at their highest, late winter (February through April) is commonly regarded as the best time to prune. Late winter is also a time when woody plants will not have to cope with opportunistic insects and disease-causing pathogens. Finally, the absence of foliage makes it easier to view the general structure of deciduous trees and shrubs and makes it easier to remove the appropriate branches.

Pruning can be performed at other times of the year with few problems. In fact, pruning to remove broken, dead or diseased branches should be done as soon as these defects are noticed. But pruning should not take place in the spring when leaves are forming because energy reserves are low and the bark "slips" or tears easily at this time.

Autumn pruning, particularly during the period when leaves are falling, should also be avoided because this is when new, absorbing roots are forming, and the wound response drains energy during this period of growth.

MAKING THE CUT. Contained within the branch collar (the flared base of most branches) is an important barrier or protection zone preventing the spread of decay into the trunk or parent branch. The branch collar and raised strip of bark, the branch bark ridge, mark this boundary between the branch and trunk.

Pruning cuts that injure or eliminate the collar will destroy the protection zone, leaving vulnerable tissues open to invasion and infection. Hence, the proper pruning cut should be made to the outside of the branch bark ridge and collar. Contractors should also be sure to avoid flush cuts because they violate the protection zone and leave large wounds that make it difficult for trees and shrubs to defend against infection.

When removing larger limbs (usually those with a diameter exceeding 1 inch), a three-cut technique should be used to prevent the branch from tearing away as it is being removed. The one-third to one-half size initial cut through the limb is made on the underside of the branch, 1 to 2 feet from the trunk. The second cut is made on top of the branch, 1 inch farther out.

As the second cut is made, the weight of the branch will cause it to break at the pivot point between the two cuts. Once the branch falls, the third and final cut is made outside the branch collar.

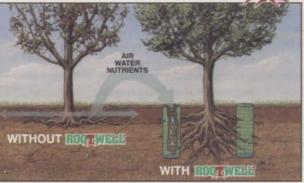
WOUND DRESSINGS. These materials have fallen out of favor after experimental work proved that they do not prevent decay in wood, and, in some cases, actually slow the tree's response and protect wood-rotting fungi.

Recently, non-phytotoxic wound dressings, such as orange shellac, have been rec-

(continued on page 130)



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USE READER SERVICE #104

pruning

(continued from page 128)

ommended for pruning wounds made on several oak species and American elm in the spring and early summer. While the use of wound dressings may be justified to prevent the transmission of fungal pathogens causing oak wilt and Dutch elm disease, a better approach would be to avoid pruning susceptible species during periods when insects for these diseases are active.

PRUNING DECIDUOUS TREES. Ideally, tree pruning should begin at time of planting. Trees that receive proper pruning when they are young usually have fewer structural problems at maturity than those left to fend for themselves. But avoid the temptation to thin a young tree's crown. Excessive pruning removes leaves needed to manufacture carbohydrates for the developing tree.

Severe pruning also removes stored energy in branches and buds the tree will need for root growth. Studies have shown that post-planting growth is more rapid and

Doing It Dormantly

here's little disagreement among researchers that the dormant season, defined as the period between the dropping of leaves in the fall and the expansion of buds in the spring, is the best

time for tree pruning. But there are some keys to remember during dormant pruning, according to John Ball, associate professor of forestry, South Dakota State University, Brookings, S.D.:

- Pruning will result in sap flow or "bleeding" in the spring in certain species because of root pressure or stem pressure to push sap flow. This won't harm the trees, but contractors should alert customers to it before hand.
- Pruning trees that are considered marginally hardy for a region early in the dormant period can result in an increase of winter damage around the wounded

trees establish sooner if pruning at planting time is limited to only weak, dead, diseased, rubbing or injured branches.

Also, avoid removing the many small side branches along the trunk. Lateral branches help the trunk increase in base diameter, or caliper, and make for a sturdier tree. Laterals also help shade the trunk, reducing the chance of sunscald injury, and ward off equipment operators, animals and vandals. In general, two-thirds of the tree height should be left as crown.

After the young tree has become established in the landscape (usually one year

after planting), pruning really becomes a job of training. There are two general concepts contractors can use as guides: first, training or pruning should take place progressively over the next three to five years, and second, no more pruning should take place in a single year than is needed to enhance shape or structural strength.

The first step is identifying those primary limbs, called scaffold limbs, that will eventually make up the tree's framework. The height to the lowest limb will be determined, in part, by the anticipated activities that will occur under or near the tree.





cell, particularly if winter conditions are worse than normal. Heavy pruning of marginally heavy species can kill the entire tree.

Over pruning during the dormant season is a common mistake without leaves on the trees to help direct contractors. Such over pruning can easily lead to increased ice damage, however, because the branches cannot support each other's weight. Also, branches that were shaded for bud formation may produce less efficient leaves because the leaves cannot readily adapt to the increased sunlight after being developed in the shade. — Bob West

Scaffold branches selected should be spaced evenly and distributed radially around the trunk, and they should be roughly one-half the diameter of the trunk or less. Optimally, major limbs on large-growing shade trees should be spaced 18 to 24 inches apart on alternative sides of the trunk. For smaller-growing trees, a spacing of 6 to 12 inches is recommended. And never let one limb grow directly over a lower one.

Unless the tree has a natural multistemmed habit, it should be trained to have a single, central, dominant leader. The central leader is the uppermost vertical stem extending from the trunk. Laterals that threaten to grow taller than the leader should be pruned back. Double leaders, if left unattended, can pose problems for trees as they age. Either of the two stems, usually the weaker stem, should be removed.

Branches that ascend from trees at steep angles and double leaders that grow close together are often poorly attached because of the formation of included bark. This is bark that turns inward at the point where branch and trunk, or double leaders, meet. As affected branches increase in size, they often tear away from the tree. These weakly attached branches should be pruned from the tree as early as possible.

As training continues in subsequent years, other practices will be necessary to maintain tree health and vigor. Laterals that have grown higher than the terminal leader or beyond the perimeter of the crown should be pruned back. Any laterals that have grown inward toward the center of the crown should

be removed back to their point of origin. And structurally weak water sprouts and basal sprouts, commonly known as suckers, should be removed to preserve beauty and natural growth habit.

Mature trees should be pruned cautiously. Dead branches and those that are structurally unsound should be removed as soon as they are noticed. But because they depend on carbohydrates produced by leaves and stored in branches, mature trees should never be pruned or thinned excessively.

Under no circumstances should trees ever be topped. Large branch stubs that result from topping are open invitations to insects and wood-rotting pathogens. Once decay enters the stub, it may progress into the trunk, weakening the tree and creating a hazard for people and property.

The author is assistant professor in the department of horticulture at Iowa State University, Ames, Iowa.

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USE READER SERVICE #107



Companies
can no longer
hide if they
offer shoddy
workmanship
and poor
customer
service

By Lloyd Merritt Smigel onsumers have a way of getting back at companies that do shoddy work and/or have poor customer service. Service companies of today have to be

proactive on customer service. They have to be sure that the customers have been taken care of and that those customers feel the company has lived up to their expectations.

Consumer rights and advocacy groups are ready to advise and defend any and all consumers. Add to that the fact that many of these fraud cases cost the consumer nothing in attorneys' fees (it can be paid for by the consumer advocacy group) while the company has to pay to defend itself.

Now, the pendulum has swung to the other side.

Every contact the customer has with a company is a test of what the organization is about and it either cements a continuing relationship, causes the relationship to be questioned or puts it on the path of destruction.

There are six areas of concern that will be highlighted, including:

- 1. Mission Statement
- 2. Sales
- 3. Service
- 4. Office
- 5. Follow-up
- 6. Suggested Solutions
- 7. Dealing With Change

MISSION STATEMENT. A mission statement should define what the company does. Let's say implementing the best customer service is part of the mission statement. To the customer, that means nothing. It's just a bunch of words. When a customer contacts a company and he or she is treated rudely or is ignored (as in not calling back when promised), the mission statement is mocked.

It is important to have a mission statement because it is a definition for all to follow within the company. The customer will know if it is true or not.

A company needs to establish what it stands for, but those words must be exemplified. This is much like the father that yells

at his child and tells him never to lie. Then the phone rings and as the son picks up the receiver his dad says, "If that's my boss tell him I'm not here!"

The mission statement is the company's thoughts. Their deeds give the words meaning to the employees and customers.

SALES. Many of the problems service companies have come from promises, innuendoes, misrepresentations or just plain lies that sales representatives tell to get an order.

Keep in mind most sales personnel are honest and do not intentionally do these sorts of things. There are many things that can be misrepresented in a sales presentation and customers can also conveniently forget certain things that were said.

But either way, the service company

must straighten this out or lose a customer. Worse yet, the company could get bad-mouthed or even be sued.

It is suggested here that after the sale is made, a qual-

ity call could be done to verify the highlights of the agreement and get feedback on the sales presentation. ("Was the sales representative courteous and professional?" and "Did he or she explain things to you?")

This could help offset potential problems as well as improve the sales representative's presentation. When these questions are created for the quality call, I suggest this be done with the sales staff. This is not a "gotcha" – it is merely trying to improve communications.

After the sale is made, it is critical to have the service representative actually do what the sales representative said would be done.

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A COMMITMENT SERVICE. After the sale is made, it is critical to have the service representative actually do what the sales representative said would be done.

If there is a clash, such as having what was promised end up wrong or illegal or impossible to do, then there is a major problem. It is important to exceed customer expectations and not reduce them.

When this happens, it is best to prepare the service staff on how to handle these



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situations. Informing the customer that the sales representative had no idea what he was doing does not help the company image.

When a sales person writes an incorrect order, some companies instruct the service representative to get started on the project while the manager heads out to the account immediately. The one thing that should not be done is criticizing other employees. Doing so only shows that the right hand of the company does not know what the left hand is doing. Customers want a company that can prove what is promised is really going to happen.

IN THE OFFICE. For some reason, this area seems to be the sacred cow of what an organization is about. This is the area where things are processed, but supposedly not messed up. The office is as much a part of the company when it comes to customer service as the sales and service departments.

I can't begin to explain how often I have

been in an office and heard about a customer waiting weeks or even months to get a call back to reschedule service or hear from the office to straighten out a past due account. Many well-run offices implement a policy that any customer who wants to verify or rectify a past due account will be corrected within 24 hours.

Another sacred cow is the manager/ owner, who is always in a meeting or will return the call but never does. The office is just as accountable to the customer as the sales and service departments. Too often I have heard this conversation:

Customer: "Is the manager in?"

Receptionist: "No, he isn't, may I help you?"

Customer: "No, I want to talk to the manager. When will he be back?"

Receptionist: "I don't know?"

Customer: "Do you expect him back sometime today?"

Receptionist: "I don't know. He didn't tell me when he would be back."

Customer: "Will he be in tomorrow?"
Receptionist: "I don't know."

Usually, this is not the office person's fault. The owner/manager feels that he or she does not have to let the employees know anything. After all, "I am the boss!" The manager may be the employees' boss, but the customer is the manager's boss and has the right to know when he or she will be back.

FOLLOW UP. I recall working with a company that ensured all incoming phone calls were returned. They had an elaborate system of checking every incoming call that asked for a return call. The system established a check to make sure that someone called the customer back.

Ironically, no one ever checked with the customer to see if they were satisfied. Yes, the customers received return phone calls, but their problems still existed.

The manager/owner thought everything was handled when, in fact, nothing was

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Winter Garden, FL 34787 • Phone (407)656-1088 • Fax (407)656-5148 www.groundtek.com solved. Each complaint must be followed up until it is completed to the customer's satisfaction. Too often companies feel that the situation is concluded because someone contacted the customer.

Many companies are now sending out customer surveys for both new accounts as well as sending out surveys to see if their recent problem with the company has been handled to their full satisfaction. These companies want to make sure they not only deliver satisfaction, but also exceed customer expectations.

SUGGESTED SOLUTIONS. Today, handling problems is not only a function of customer service, but it is a function of employee management.

With today's low unemployment rate, keeping good employees is more of a challenge. How companies are treating their employees and getting them to care about customers is the new challenge.

The first true step here is to recognize

With today's low unemployment rate, keeping good employees is more of a challenge.

employees doing things right. Second, treat all employees fairly and with respect. The third suggested area for improving the company is training. The fourth area is to have training on formal review and/or planned re-negotiation when things are not going the direction that management and employees feel that they should be going.

DEALING WITH CHANGE. There is a favorite old saying that I say to many of my clients,

"What got you to where you are today may not be what will get you to where you want to go tomorrow."

Many owners and managers need to be taught how to deal with the new generation. In my training, I tell them that they are not worse than the last generation – just different. And it takes an understanding of those differences to survive, and an understanding of dealing with differences to advance.

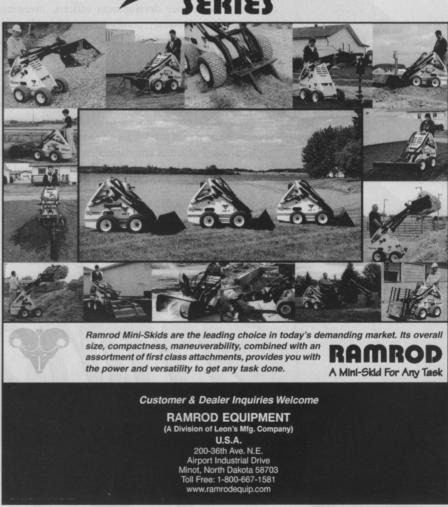
Change is inevitable and companies must give good service and treat employees with

respect. Management can run, but they can't hide (for long). I have found that many managers/owners try to avoid complaining customers and feel that they will eventually go away if they are ignored. That doesn't work any more. If an organization doesn't deliver on their promises, they will suffer the consequences.

Companies can't hide from poor service, ignore customer complaints and cheat consumers. This no longer leads to bad feelings, but rather, an overwhelming amount of options the consumer has available.

The author is an industry consultant with Care Management Consultants, Oceanside, Calif.





s a long-time mergers and acquisitions specialist and a past chapter president for the Association for Corporate Growth, I have seen many examples of acquisitive companies that don't really understand what matters most in terms of corporate due diligence. This has occurred across a wide range of consolidating industries, and the landscaping and lawn care industry is no different.

The tragedy of this is that oversights in the due diligence process can take away much - if not all - of a deal's value. This problem is a constant theme during meetings with fellow ACG members, among them experienced corporate development officers, investment banks and consulting firms. However, poorly executed due diligence does not have to cause irreparable harm to a deal. With a focused approach, oversights can be overcome.

NUMBERS CAN LIE. As an example, picture a family-owned landscaping business, which found what appeared to be an ideal acquisition for its plans to both move into upscale neighborhoods to grow its residential business while also expand from residential to corporate services with the acquisition of some commercial accounts. All of the "numbers" from due diligence looked good to the family-owned business, which saw the acquisition as an opportunity to accomplish these goals. Hence, the deal was done.

When acquisitions are made, there are certain to be some surprises encountered.

By Ronald



An Inside Perspective

ew people can speak so authoritatively on the due diligence process for landscape companies as Ken Garcia, senior vice president and chief development officer for LandCare USA, Houston, Texas.

Garcia and his colleagues have successfully completed due diligence on nearly 30 acquisitions in the last 12 months, and while he recognizes that due diligence is rarely an enjoyable process for the sellers, he pointed out that understanding the process ahead of time can make it run more smoothly for all involved.

Speaking on the topic of "Conducting Bullet Proof Due Diligence" at the second annual Landscape and Lawn Care Industry Mergers and Acquisitions Institute in San Fransisco, Garcia noted that the goal of due diligence from the buyer's perspective is to illiminate any surprises that his company could encounter after closing the deal. He pointed out five key areas LandCare USA focuses on in its due diligence, which typically take 45 to 60 days: financial, operational, risk management, legal and environmental.

Regarding financial performance, Garcia said he has been surprised by how many landscape companies operate without detailed and realistic projections of their future financial performance. Such projections are of particular importance to an acquiring company because that company is looking to acquire the target company's future earnings.

A company's operational history — how it handles human resource issues, the depth of its talent pool, how long employees have been with the company — is also of importance to an acquiring company. — **Bob West**

Within several months, however, the acquired business began to lose money. The marketplace had not changed, yet the numbers indicated trouble. A consultant was brought in to get to the root of the problem.

The analysis revealed that while the new division's primary business was profitable, there were many commercial contracts that had been underbid and, thus, were being grossly over-serviced. These contracts were depleting resources from the profitable residential contracts, resulting in overall negative net income and eroding competitive position even in the company's traditionally strongest markets.

Management acted quickly, redirecting personnel from unprofitable client sites to profitable sites to better align the services delivered with the revenues generated from these commercial accounts. Within six months, the commercial side of the business had returned to profitability.

COMMON HEADACHES. As this example indicates, the "morning after" with an acquisition can be similar to the "morning after" following a romantic fling. What looked great the night before may lose its glow in the day-to-day world of running a business. Even an extended courtship – or exhaustive due diligence – may fail to find all of the potential trouble spots.

"Morning after" headaches that due diligence may not typically reveal include the following:

• Competitive strength not what the acquired company thought - Declining market position can be hidden by the numbers - at least for a while. Acquiring companies can

be lulled into thinking that a company with increasing gross margins and cash flow cannot be threatened by eroding market share.

Aging equipment – Pending obsolescence of capital equipment can be overlooked because of the seduction of solid financials. Strong net income and cash flow may mask deferred investments in new, more efficient equipment that will ultimately be required of the acquiring company.

• Customer franchise or reputation not what the acquired company thought—Verifying the loyalty of customers can be difficult. The company being acquired may object to customer contacts from fear of creating unrest. In addition, there's no way to anticpate how a change in ownership will affect the customer base.

 Unprofitable contracts – A company being acquired may be profitable overall, but may also have individual contracts that repeatedly under-perform, as indicated in the earlier example. With solid portions of the business propping up unprofitable segments, it may take several "mornings after" for the problem to reveal itself.

 Valued key employees with one foot out the door – Due diligence cannot tell you which key members of management, sales or production are planning to leave. A pending sale may cause individuals to begin a job search. Sloppy melding of human resource policies and procedures can also be disastrous.

• Incompatible cultures – The most serious "morning after" problem is a clash of corporate cultures or value systems. One company may be a pioneer, while the other is traditional; one analytical while the other is intuitive; one structured while the other is fluid. A culture clash can kill assimilation, resulting in failure to achieve synergies that otherwise made the merger attractive, especially if key personnel from the acquired company do not support the new ownership's philosophies.

FIXING THE PROBLEM. After a company determines it has "morning after" problems, the next question is, 'what are we going to do about them?'

- Determine why—Before new ownership can attack the problem, it has to determine root causes. Are there external factors, such as changes in the marketplace, or internal problems, such as aging equipment? To gain a clear understanding, outside assistance may be necessary, particularly as it can lend an unbiased eye toward the acquiring company's plans.
- Develop a credible plan After understanding the nature of the problems, the next step is to develop a specific action strategy. Does the assimilation plan need to be reworked? Are the right people in the right positions? Do contracts need to be renegotiated or terminated? Including personnel from the acquired company in this process can be particularly valuable toward retaining them.

As simple as this approach to a remedy sounds, there can be many impediments to a "morning after" cure:

- Too much diversity If the acquired company is in a different industry segment than the new owners, such as focusing on commercial clients instead of residential clients or primarily offering lawn care services instead of maintenance, the acquiring company may lack the necessary knowledge to correctly diagnose the problem, take decisive action and formulate a successful solution plan. This problem makes the case for steering away from acquisitions in which the acquiring company would be in trouble if it had to rely solely on its own expertise to make critical decisions early on after the acquisition.
- Reluctance to act Many companies lack the stomach to take painful medicine. Even in the face of clear warnings, management and directors may fear making a bad situation worse.

• Denial – If management or directors lobbied for an acquisition, there may be denial on their part to admit that a particular problem exists. Individuals who advocated the deal will often be reluctant to admit they made a mistake.

HAVE YOUR EYES OPEN. Because "morning after" problems have become common, a growing body of principles is forming in dealing with these situations.

- Err on the side of acting too fast—Unless you have objective information that tells you to react slowly, such as a seasonal downcycle in the market, it is better for new owners to move quickly. Value lost early in the post-acquisition period can never be recovered.
- Make sure you know why the business is broken The fewer things that are broken the better your chances are of fixing them. While it is important to act quickly before a problem grows worse, rushing to make





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changes without full knowledge of the situation can be a disaster. Of course, your chances of repairing a business are greater if it has never been broken and fixed before.

· Beware of culture clashes - The business press is filled with stories of mergers that have failed, and the most common element in these situations is a clash of cultures. Due diligence that focuses only on the numbers is not enough. Many companies have increased the odds of a successful integration by arranging for the employees of the two companies to meet before they have to start working together at a picnic, sporting event or some social function.

Just as examples of a failure to address "morning after" problems abound, there are many success stories.

For example, another landscaping com-

pany acquired a familyowned competitor serving a special niche. Because the acquired company was a familyowned business, there was concern over interfamily issues. To avoid "morning after" blues, these issues were identified and resolved before the merger was closed.

In addition, the acquiring company recognized that the company it was buying had the better name recognition and a stronger franchise. After the merger, the ac-

quired company became dominant in the new organization, with both companies operating under its name in the market. Key management personnel of the acquired company were promoted to head the overall organization, resulting in a powerhouse brand that took advantage of the opportunities available to it.

The key point is this – "morning after" problems are more the rule than the exception. While due diligence can reduce surprises, it cannot and will not eliminate them. The key to making the integration of the two companies successful is to recognize problems early and take decisive action to solve them. Even a marriage with a rocky start can lead to years of wedded bliss through planning, compromise and a shared vision of the future.

The author is president and CEO, Norelli & Company, Charlotte, N.C. He can be reached at 704/376-5484 or at Rnorelli@norelli.com.

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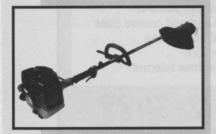
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(continued on page 142)

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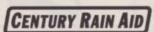
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(continued from page 140)

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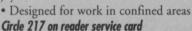
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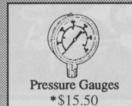
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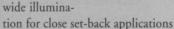
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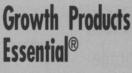
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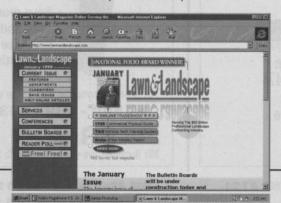
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AN ECONOMICAL **FORECAST**

TRADITIONALLY, lawn care and landscape contractors have relied on television and radio reports for weather information in scheduling crews for mowing, maintenance and chemical applications. However, the weather can change quickly and hundreds of dollars can be wasted on product applications and the labor costs involved.

Iim Davis, the owner of Landscape Management Company, Gainesville, Fla., has eight crews in the field almost year round. Inclement weather is disruptive to his schedule.

In April 1997, Davis purchased a Weather Center Turf Manager system from DTN,

Omaha, Neb. It contains regional radar maps indicating county level precipitation that updates every 15 minutes and hourly national radar summaries that give information on severe storm watches.

"The system cost \$300 up front, plus a monthly fee, Davis noted.

The weather center offers local, regional and national outlooks that provide temperature and precipitation forecasts for the next 24 hours, with forecasts through 90 days. More than 550 city forecasts are available on the system, as well as regional weather observation maps updated hourly for temperature, wind speed and direction, dew point, relative humidity and barometric pressure. Davis frequently uses

maps showing wind speed and direction.

In addition, the system features the C&P Press Turf Product Index, a database of more than 275 turf pesticides, and Material Safety Data Sheets. An Evapotranspiration Table combines temperature, wind, humidity and precipitation data - by region - to provide evapotranspiration rates.

The system has become a partner in Davis' scheduling. He uses it almost daily and can rely on the forecast it provides up to two days in advance. Not only is he able to see the weather as it's happening, but the forecasting helps to plan crews' work schedules.

According to Davis, this heads-up planning keeps crew members from coming to

work on days with inclement weather. He estimated that he calls crews at least once a week for this reason.

"We could possibly be saving as much as \$500 to \$1,000 every rain day," Davis shared.

"From a safety standpoint, we are able to warn our crews by two-way radio of approaching severe weather in their area," Davis explained. "We are able to bring maintenance crews in and send all non-essential personnel home when we see inclement an weather forecast. It's an invaluable tool that has paid its way every day." - Ruth Cattlett

The author is the marketing coordinator for DTN.

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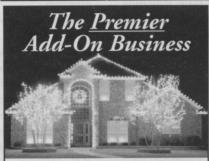
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Well-established lawn care company located in Montgomery County, Maryland is seeking a general manager to oversee company operations and coordinate with owner. Qualified applicants should be self-motivated and experienced, and able to perform well in sales and customer and personnel management. Benefits and salary based on experience. Send resume to 14404 Falling Leaf Dr., Darnestown, Maryland 20878.

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La Rosa Landscape Management Company, Inc. 10950 N. Buntrock Avenue Mequon, WI 53092 (414) 242-9092

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a landcare USA subsidiary, headquartered in Orlando, FL, has immediate openings in Tampa and Orlando for Operations and Account Managers in our Maintenance Division.

Preferred candidates must have 3 years applicable experience in maintaining landscapes and irrigation systems for commercial properties, multi family developments and/or homeowners associations. Must have proven skills in client relations, communication, organization, cost control, a commitment to quality and safety, and the ability to work independently with minimal direction. B.S. Landscape Management or Horticulture desirable.

We provide excellent salaries with generous benefits. Qualified candidates are requested to fax resumes to 407/678-8097 or mail to: 2169 Forsyth Road, Orlando, FL 32807.



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Current Positions Available:

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- Irrigation Service Technician
- Tree Climbers and Bucket Operators

Positions include excellent compensation, year around employment, 401K and full benefits. Immediate openings available with quality ALCA Member firm. Please fax or forward resume to fax number or address below.

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P.O. Box 17338 Boulder, Colorado 80308 303/938-8230 Phone 303/938-8137 Fax

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GROUNDS MANAGEMENT

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Rapidly growing Vegetation Management Company is looking for experienced Division Managers to work out of our regional and branch locations throughout the U.S. Must have a minimum of two (2) years experience in Vegetation Management and/or a degree in horticulture/arboriculture/urban forestry or related field. Must be self-motivated, decisive, creative and have strong organizational skills.

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Growing Design, Build and Maintenance firm seeks Design, Sales, Estimating, Supervision, and Management candidates. Excellent compensation, benefit, and relocation packages offered. Send resume to Yardmaster, Inc., Attn: Carole, 1447 N. Ridge Road, Painesville, OH 44077. Fax 440/357-1624, phone 440/357-8400.

LANDSCAPE FOREMAN/CREW LEADER

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> Pellettieri Associates, Inc. 199 Old Pumpkin Hill Road Warner, NH 03278 603/456-3678 FAX 603/456-3229

LANDSCAPE & IRRIGATION OPPORTUNITIES

HORIZON LANDSCAPE COMPANY a leader in landscape and irrigation in the Northern New Jersey area is searching for top quality people to join our team in the following positions:

- Irrigation Technician/Foreperson
- Landscape Designer/Salesperson
- Landscape Construction Foreperson
- Landscape Maintenance Foreperson

Qualified candidates will possess a minimum of two years experience in their respective position as well as excellent communication skills, self-motivation and a strong desire to succeed. In return Horizon offers a competitive salary and benefits as well as a comfortable working atmosphere and a place to grow. Please fax or mail your resume with recent salary history to:

HORIZON LANDSCAPE COMPANY

411 West Main Street Wyckoff, NJ 07481 Fax 201/848-5566

IRRIGATION FOREMEN/ MECHANICS/SERVICE TECHNICIANS

LOCATION:

East Hampton, New York

DUTIES

Whitmores Inc. is a well established, full service, landscape company on the east end of Long Island. Our irrigation division is seeking individuals to work on all phases of installation and service of high-end residential irrigation systems.

QUALIFICATIONS:

Candidates should have experience in irrigation, but we will train the right people. Attention to quality workmanship and a professional attitude are a must.

CONTACT:

Tom Rowan - Irrigation Manager Whitmores P.O. Box 10 Monatuk Highway Amagansett, NY 11930 516/267-8423 (FAX)



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Commercial and Residential Division:

Crew Leader - 3 years experience in commercial installation

Installers - must have basic knowledge of installation

Service Tech. - must be a "people person," experience in troubleshooting, documentation, and repair of irrigation systems.

Positions include competitive salary, benefits, 401K program and possible yearly employment. Please forward resume and salary history to:

Michigan Automatic Sprinkler, Inc. 248/681-3770 phone 248/681-3898 fax

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This ad index is provided as a service to our readers. We regret any omission.

cover story

(continued from page 56)

NURTURING GROWTH. Managing growth is a challenge for any company, and financing it on an ongoing basis may be even more difficult for many companies. To that end, one of the most important roles in driving CoCal's growth may have been played by someone not even on the company's payroll – its banker.

"We've had a good relationship with our banker since we started out," Fochtman remarked. "We've always had good operating lines and equipment lines of credit, and you can't grow without them. This is particularly true in a seasonal environment where you have spring start up costs occurring right after the lower revenue winter months.

"We have always had two basic lines of

credit with our bank," Fochtman explained. "The first is an annual equipment line that we establish in conjunction with our annual budget, and that is essentially a three-year note with the bank. The second line is our operating line that is designed to get us going each spring when payroll and material expenses occur and our receivables have not started turning yet. Our goal is not to enter the operating line before April 1, and we are usually out of both lines by midsummer to early fall.

105,157

"When the company's receivables aren't turning over into cash as quickly as you'd like, you really have to stay on top of the collections efforts," he added. "But those are the times when your bank lines are most important." Fochtman observed that 1998 was the first year where cash flow was somewhat of a challenge for the company, which was primarily attributed to rapid growth in the construction department.

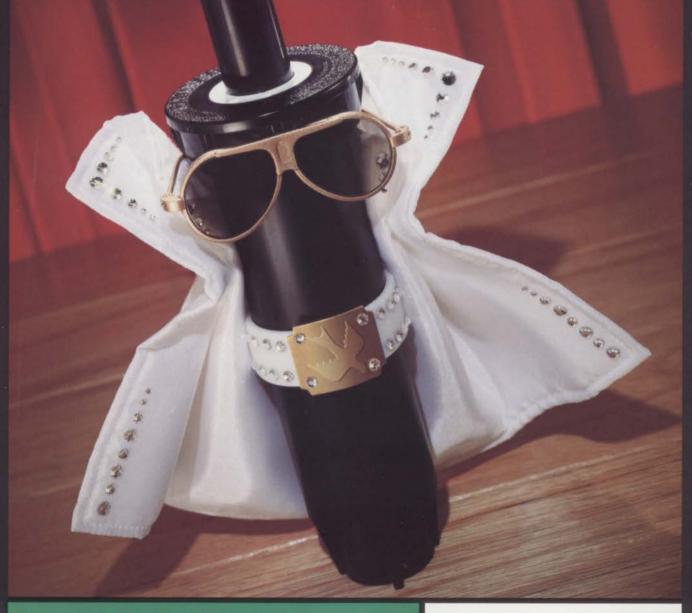
"Typically, contractors aren't prepared on the business end of growing a company and aren't familiar with managing lines of credit," he concluded, "but we couldn't have grown like we have without our lines and our bank."

CoCal Landscape is located at 3850 East 48th Ave., Denver, Colo. 80216. Phone: 303/399-7877.

The author is Editor of Lawn & Landscape magazine.

^{*} Denotes regional advertising.

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