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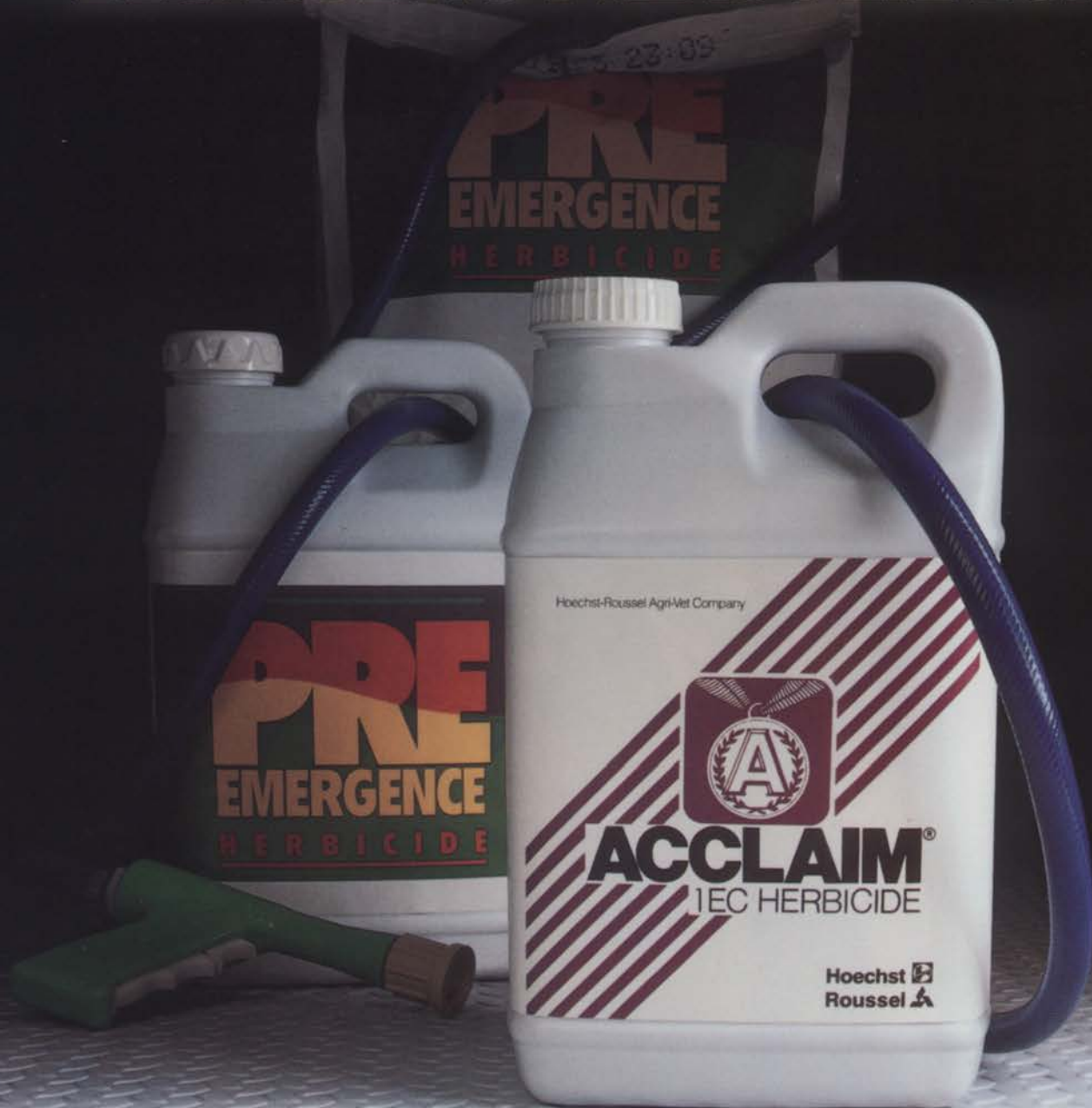
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*Conoco Worldwide Headquarters
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staff with a contract crew to
maintain its immense landscape
setting in Houston.*

In this issue:
Innovative Landscape Designs
Weed Control Strategies
Mower Productivity Rates
Profitable Irrigation Bidding



BECAUSE NO PRE IS PERFECT



PAIR A PRE WITH OUR POST

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USE READER SERVICE #98

Lawn & Landscape MAINTENANCE

VOLUME 15, NUMBER 2

FEBRUARY 1994

FEATURES

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Dan Taglia, Conoco,
Houston, Texas

30 Cover Story: Joint Landscape Endeavor

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Price slashing, bidding wars and an overcrowded lawn and landscape maintenance market leave many contractors wondering, is relief ahead?

77 Specialty Pesticides: The Legislative Front

To ensure government pays attention to the lawn care industry's voice on key issues, professionals must rally forces to communicate their views clearly and concisely.

83 Landscape Renovation Halts Erosion

Three Southern California counties lost 300,000 acres of land in a recent string of forest and brush fires. Now maintenance crews must race to restore vegetation.

87 Irrigation Lesson 20: Precise Bidding Leads to Profitable Jobs

Don't let the unknown ruin what you think is a perfectly good bid. Prepare a thorough bid by visiting the job site and uncovering potentially hidden problems.



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Editor's Focus

DO PASSION and good business sense mix?

I'd like to think they do. Without job passion it's hard to turn a barren lot into a magnificent landscape or turn your customer's vision into a living environment. Indeed, passion makes the creative aspects of the landscape — or any other profession for that matter — viable.

But when it comes to dollars and cents, what role does passion play? When a contractor is fighting tooth and nail for a contract, or price cutting is running rampant in your business territory, passion is probably the last thing on your mind. It shouldn't be.

You see, your customers have an innate ability to know if you're serious about your business or if you're simply trying to make a buck at their expense. And with the dour economic times this country has faced in the 1990s, there are plenty of the latter.

An important part of growing your landscape repertoire is knowing who your customers and potential customers really are. What are their wants and desires? How much are they willing to spend? Do they want to see you and your crews on their properties or do they just want to view the end product? Do they want a lot of extras, or should you stick with the basics?

Good business sense doesn't have to stop at the end of an invoice or a profit and loss statement. Passion is good business, and it should transcend your immediate business climate to build landscaping strength in your community, to promote professionalism in the industry, to further education among your peers and to build a national sense of understanding where landscaping needs are concerned.

As we delve into the businesses of our readers each month, it's evident that the entrepreneurial spirit is alive and well. Most business owners broke into the industry from the ground up — literally — and have done quite well.

Just because the green industry is continually evolving and increasingly complex, doesn't mean the original ideals of the business should be scorned. And they haven't been entirely.

As witnessed late last year in Iowa, several lawn care operators came to the rescue of a fellow contractor who was seriously injured in a motorcycle accident. Because of his injuries, Doug Tyrell of Tyrell Lawn Care was in danger of losing a good chunk of business.

Instead, the Iowa Professional Lawn Care Association coordinated its members to make the third-step application for Tyrell's customers. Applicators donated their time and a supplier provided product to make this project a reality. Needless to say, Tyrell was overwhelmed by the support from his peers.



But on a much larger scale, do the majority of the industry's members demonstrate their overwhelming responsibility for the business which supports their firms, their livelihoods and their recreational activities? Does the landscape industry have an image beyond reproach?

For instance, the debate over noise and air pollution as it relates to outdoor power equipment is back in the news. In and around Chicago, suburban city councils are scrambling to enact restrictions on the use of leaf blowers, limiting construction hours and, in some cases, contemplating restricting snow blowers, bug zappers and waste removal equipment.

It's not just a problem centered in the Midwest. Cities in and around Los Angeles, San Diego and San Francisco are being challenged to impose some sort of restrictions as well as other hot spots in the Northeast and Southwest. By and large, these debates are being conducted without the knowledge and support of the prime users of the targeted equipment — landscape contractors.

The same goes for federal administration officials charged with shaping the future use of pesticides in this country. Aside from the prominent industry participants in this debate, the rest of the users are strangely quiet.

The ability to create and transform landscape settings gets in your blood. There's no doubt about that. But on some level, much higher than any one individual can achieve, passion is needed to promote the entire lawn and landscape industry.

Somehow, the fervor and intensity that exists within separate firms must be linked to send a message of distinction to governing officials, customers and potential buyers of industry services. Let your passion be heard.

— Cindy Code

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USE READER SERVICE #49

Business Watch

ECONOMISTS ANTICIPATE economic growth, which surged in the fourth quarter last year, to continue increasing through the first quarter, but to slow to a trickle around June due to higher taxes on the wealthy and reduced government spending.

After that, growth in gross domestic product is expected to rise to a 3 percent annual rate in the fourth quarter as export markets in Western Europe start recovering, according to a semiannual survey of 51 economists conducted by the *Wall Street Journal*.

Additionally, experts expect long-term interest rates and inflation to remain near current levels for most of the year, with a slight increase around December.

A majority of the economists surveyed anticipated that the Federal Reserve would boost the federal funds rate no more than 0.5 percent, most likely in the first quarter, to help cap inflation yet keep long-term interest rates low.

The tax increase on wealthy Americans may curb consumer spending in the third and fourth quarters, according to economists surveyed, but first and fourth quarter spending should hold steady.

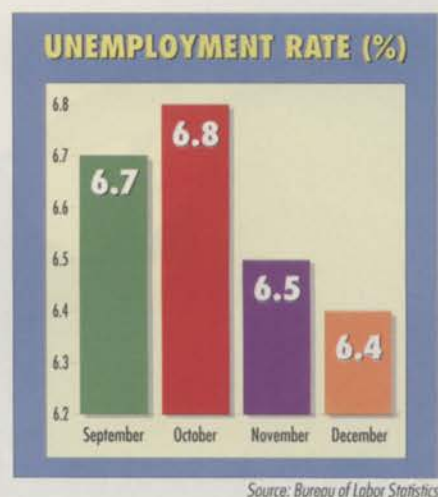
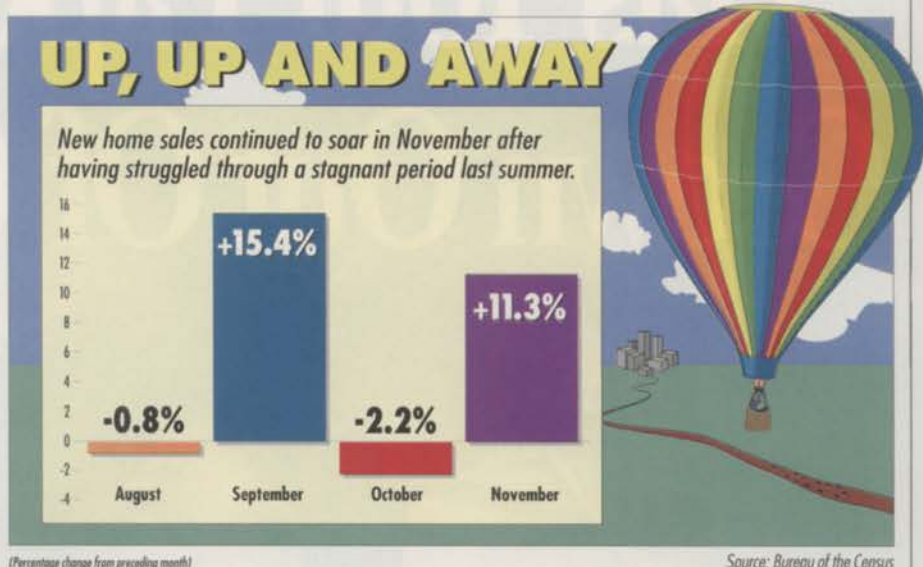
CONSUMER PRICE INDEX*

SEP.	OCT.	NOV.	DEC.
0.0	+0.4	+0.2	+0.2

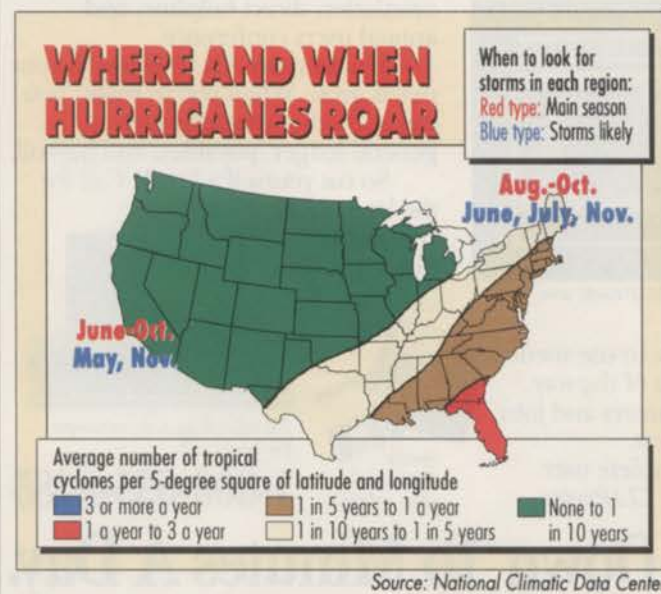
*Percent change from preceding month (seasonally adjusted).

PRODUCER PRICE INDEX

SEP.	OCT.	NOV.	DEC.
+0.2	-0.2	0.0	-0.1



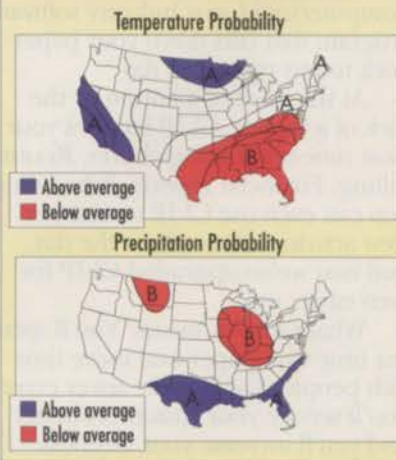
WEATHER WATCH



The National Weather Service 60-day outlook for February and March calls for at least a 55 percent chance of above normal temperatures over the North Central and Western sections of the nation including northern sections of Maine and Michigan, the Upper Mississippi Valley, the Northern Great Plains, the Northern, Central and Southern intermountain regions and the North, Central and Southern Pacific coasts.

There is at least a 55 percent chance of above-median precipitation over parts of New Mexico, Texas, Louisiana, Florida, Georgia and the Carolinas.

60-DAY OUTLOOK FOR FEBRUARY AND MARCH

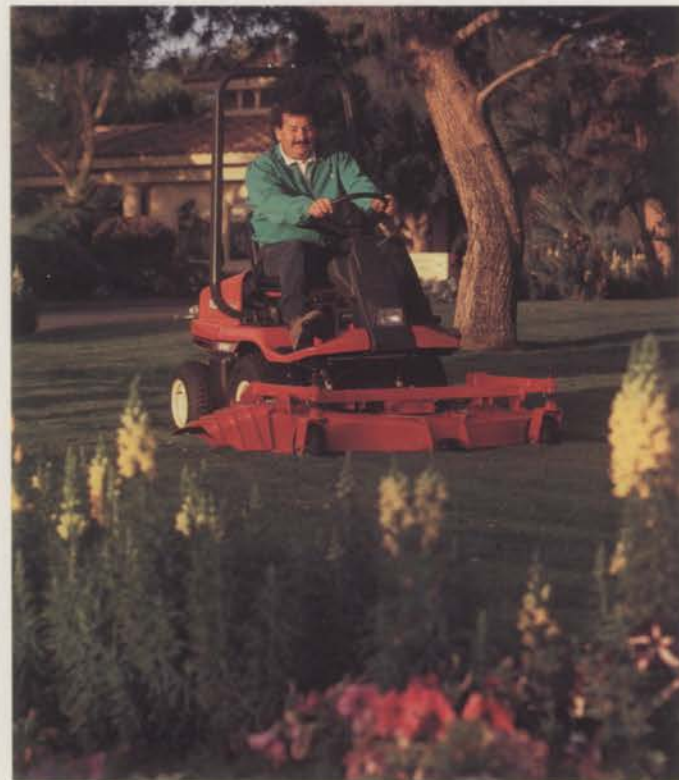


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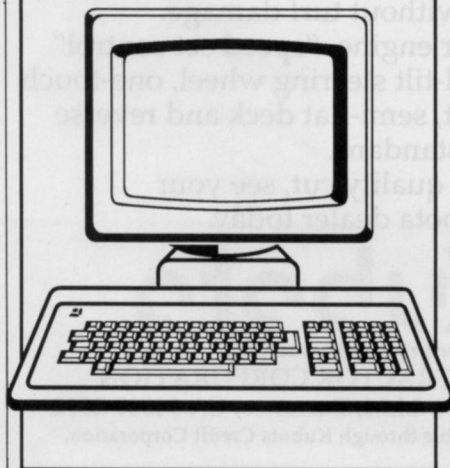
Computer Bytes

COMPUTER BYTES HOTLINE

Confused by all the computer hardware and software choices? Call the Computer Bytes Hotline at (800) 348-5886 for help in answering your questions.

Lawn & Landscape Maintenance has established the Computer Bytes Hotline to help you work through the hardware and software maze. If you don't know who else to ask, ask us! Talk to someone knowledgeable about computers and software every Wednesday between 10 a.m. and noon and 1-3 p.m. Central Time. Your questions and problems will be shared with other readers in the monthly Computer Bytes column!

This month's Computer Bytes Hotline is sponsored by Rain Bird Sales Inc.-Contractor Division and Irrigation Technologies Inc., teamed in the development of industry specific software applications.



PURCHASING THE RIGHT PRINTER

COMPUTERS AND software are just the tips of the iceberg in the world of office automation technology. To get the most from your investment, you will likely need to add peripheral devices to your system.

There are many types of attachable devices that can increase the capabilities of your computer, such as printers, plotters, external hard drives, mice, tape backup units and scanners, to name but a few.

Many of the popular peripheral devices will be discussed in future columns. This article focuses on the most important add-on feature, the printer.

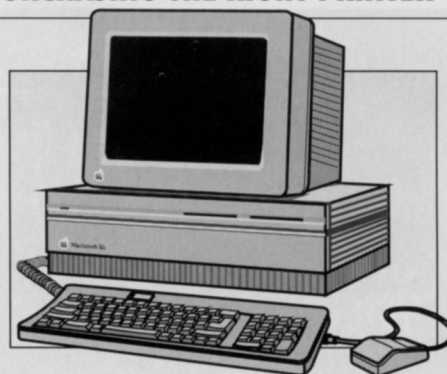
Deciding on the right printer can be as difficult as deciding what you want to be when you grow up. There are so many choices that selecting the one that's right for you requires a bit of thought. The good news is that having so many options available keeps pricing competitive. Prices range from the low hundreds to the thousands but most people spend between \$300 and \$1,600.

DOT MATRIX. Dot matrix printers make impressions on the paper by pressing small pins into a ribbon. Most late-model dot matrix printers have 24-pin printheads that deliver letter quality printing. These printers generally fall into the low end of the price range but should not be looked at as "low-end" printers.

Advantages to dot matrix printers include printing speed and versatility. Dot matrix printers can print just about anything whereas other printing technologies may have certain limitations. Other benefits include the option of wide-carriage printing and a low cost per page, which can be attributed to the low replacement cost of print ribbons.

The drawback to dot matrix printers is they provide a lower resolution print than other types.

LASER. Laser printers are referred to as non-impact printers because, unlike dot matrix, there is nothing actually hitting the paper to form images. These printers use a laser beam to create an electrical charge on a rotating drum. The electrical charge attracts toner (or dry ink) and transfers it onto the paper. The paper is then fed through a heating element that melts (or fuses) the ink to the paper. This process leads to a much sharper printed image.



Today's laser printers create printed output with 600 dots per inch (dpi) resolution. The higher the dpi, the better the print quality. As a comparison, 24-pin dot matrix printers typically achieve 360 dpi. In addition to higher

print resolution, laser printers also print faster than dot matrix printers.

Disadvantages to laser printers include a higher cost per printed page (up to six times more than dot matrix) and a higher price.

INKJET. Inkjet printers actually spray ink onto the paper through tiny holes, or nozzles. These printers deliver a print resolution that rivals the laser printer but costs substantially less. In fact, many inkjet printers can be found at prices as low as some dot matrix printers. Inkjet printers are available in portable models.

One drawback to the inkjet printer is that it costs more per page because the print cartridge must be replaced more often.

COLOR. No doubt, color adds a lot to any presentation. Color printers are available in dot matrix, laser and inkjet models. However, the dot matrix printers are extremely limited in the color arena. If you want to add color capability you should probably consider the inkjet or laser printer. Fairly high quality color printing can be found in some relatively inexpensive inkjet printers.

DECIDING FACTORS. When buying a printer, keep in mind what quality you need to achieve. If buying a second printer for outputting rough drafts, you may not need the higher quality of inkjet or laser printers. If this will be your only printer and the output will be used for customer presentations, weigh the option of spending more to gain higher print resolution.

It's important to consider all of your needs before purchasing a printer. Take ample time to make a sound final decision, just as you did when deciding what personal computer to buy. — *John Elliot*

The author is a director with Irrigation Technologies Inc., Houston, Texas. Readers are welcome to write to the author with questions or topics for discussion in future Computer Bytes columns.

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NEWS DIGEST

Toro, Outboard Marine Settle Lawsuit

The Toro Co. settled a long-standing lawsuit with Outboard Marine Corp. for \$1.85 million resulting from its purchase of Lawn-Boy from Outboard Marine in November 1989.

In the suit, Toro claimed that Outboard Marine failed to disclose an unreasonably high incidence of defective gas tanks on one of Lawn-Boy's product lines during the due diligence process. The problem was corrected by Outboard Marine shortly before Toro completed its acquisition. The settlement is said to cover all warranties and costs incurred in the lawsuit.

TMI Purchases German Forage Program

Turf Merchants Inc. purchased the turf and forage grass breeding program from KWS of Einbeck, Germany. The program, conducted by Dr. Fred Ledebor in Aurora, Ore., has previously produced Bonsai tall fescue, Cypress poa trivialis and Patriot II perennial ryegrass. Ledebor will continue to oversee the operation in Aurora.

The purchase coincides with TMI's 10th anniversary.

Vermeer Expands Parts Distribution

Vermeer recently opened an expanded parts center. The 120,000-square-foot facility in Pella, Iowa, allows the company to improve accuracy and speed of parts delivery to Vermeer dealerships and customers worldwide.

All parts and orders are computerized for greater efficiencies — speeding up processing by 30 percent. In 1993, Vermeer shipped more than 1 million parts per month, and plans to increase total parts shipped by 15 percent this year.

U.S. EPA Aims To Reduce Pesticide Risk

The U.S. Environmental Protection Agency formed an interagency group to explore both regulatory and non-regulatory approaches to pesticide risk reduction.

Its investigation will include pesticides used in large volumes, pesticides that pose a high risk to human health and commodities that are consumed in the greatest quantities, especially by children. The EPA is expected to pursue commodity specific reductions in an effort to reduce pesticide use by October. According to the Responsible Industry for a Sound Environment, the EPA will first seek to toughen up food safety laws and then try to reduce pesticides from children's playgrounds.

AAN Survey Taps Landscapers As Leading Horticultural Buyers

LANDSCAPE CONTRACTORS rank as the top buyers for small horticultural distribution firms, according to an American Association of Nurserymen survey.

AAN surveyed 180 leading horticultural distributors recently to pinpoint how large a role that segment plays in the nursery market.

About 14 of the 91 respondents (nearly 15 percent) indicated that sales to landscape contractors comprised more than 80 percent of their revenues. About 90 percent of the respondents said golf courses and recreation areas make up only 10 percent of their sales, trailed only by municipalities, development/property managers and retail sales.

The high sales to landscape contractors were reported mostly by distribution centers with less than \$250,000 annual revenues. None of the firms with \$5 million plus annual revenues reported sales to landscapers to comprise more than 80 percent of their total revenues. Survey respondents forecasted sales to those same markets (landscape, municipalities, garden centers, golf courses/recreational areas, development/property and retail) would increase over the next three years.

Distribution centers gave optimistic outlooks on anticipated changes in gross distribution center sales. More than half (51.1 percent) forecasted that overall sales would increase more than 25 percent in three years. Only 6.6 percent predicted any kind of decrease in sales; 84.4 percent forecasted an increase.

Based on overall survey results, AAN described the typical horticultural distributor as someone having the following characteristics:

- Is primarily a growing operation.
- Operates one location.
- Grosses \$1 million to \$2.9 million in sales.
- Maintains 9 acres or less.
- Has four to six full-time staff members.
- Services the Midwest.
- Ranks fertilizers, pesticides and grass seed as their most important hardgoods.
- Expects annual and perennial plants to become increasingly important.
- Believes on-time delivery is the most important customer service.
- Has been in business for more than 15 years.

The survey also called for respondents to rate specific product lines in three categories: container material, balled and burlap material and hardgoods and others.

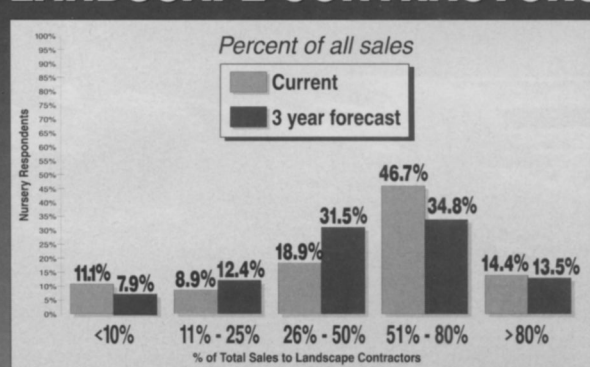
In the container material category, 64.9 percent of respondents rated broadleaf evergreens and specialty plants important, followed by conifer/evergreens (61.3 percent) and flower and shade trees/deciduous shrubs (55 percent).

Only a handful rated ornamental grasses and specimen trees and shrubs as important. Similarly, ornamental grasses and specimen trees were rated as not important by the largest percentage of respondents.

Almost 97 percent of the respondents reported that annuals and perennials are becoming more important, while more than 80 percent believe ornamental grasses, broadleaf evergreens, specialty plants, flowers and shade trees/deciduous shrubs as becoming more significant. Overall, specimen trees and shrubs are deemed to be losing market share.

Hardgoods and other materials are considered important by only a few survey respondents, compared to container material or balled and burlap material. Slightly more than 25 percent rated fertilizers, pesticides and grass seed important.

NURSERY SALES TO LANDSCAPE CONTRACTORS



Nearly 15 percent of survey respondents indicated that sales to landscape contractors comprised more than 80 percent of their current revenues.

(continued on page 15)

News in Brief

(continued from page 12)

Scotts Acquires Grace-Sierra

The Scotts Co. of Marysville, Ohio, recently completed its much talked about acquisition of Grace-Sierra Horticultural Products Co., Milpitas, Calif., from a subsidiary of W.R. Grace & Co. and other investors. Grace Sierra makes specialty fertilizers.

The purchase price was about \$120 million and was financed through bank borrowings. Scotts will become the world's largest turf and horticultural products company boosting sales to almost \$600 million.

The acquisition is expected to add significantly to Scotts' future sales growth and earnings potential by expanding Scotts share of the horticulture, golf and consumer lawn care markets in the United States and overseas, as well as through marketing synergies and cost reductions to be achieved by the combination. The acquisition is expected to make a positive contribution to 1994 operating cash flow.

"The acquisition of Grace-Sierra is a major strategic turning point for Scotts and will serve to substantially improve our growth

prospects, including development of international markets for Scotts brands through Grace-Sierra's global network," said Tadd Seitz, Scotts chairman and chief executive officer. "We also see a number of synergistic benefits arising from combining our respective consumer and golf businesses."

Scotts also hopes to expand its market presence to professional growers, including outdoor container nurseries and greenhouses.

Grace Sierra's worldwide sales for 1993 reached approximately \$115 million.

Grace-Sierra operates fertilizer plants in California, Pennsylvania, South Carolina and the Netherlands. Potting soils and soil amendments are manufactured in Arkansas and South Carolina.

California Registers Data On Pesticide

California's Department of Pesticide Registration called on about 1,000 pesticide registrants to gather toxicological data on 339 pesticide active ingredients. The data will be compiled and used as a source of information on potential chronic health effects for all pesticides registered in the state.

Registrants were asked to provide detailed descriptions of the studies they plan to

conduct, including a timetable for their submission to DPR. Registrants failing to comply may be subject to suspension action, according to the Chemical Specialties Manufacturers Association.

The current call-in notices affect some lawn chemicals, although the majority of products included have institutional, industrial or home uses.

Rhode Island Proposes VOC Regulations

The Rhode Island Department of Environmental Management proposed a state clean air rule comprised of several regulations aimed at reducing volatile organic compounds, including those in insecticides for lawns and gardens.

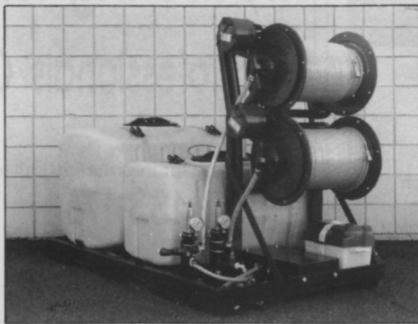
The proposed rule regulates at least 13 categories of consumer and commercial products, and requires labels to include VOC content, as well as the date the product was manufactured.

The rule, proposed to go into effect July 1, limits VOC content in lawn and garden insecticides to no more than 20 percent.

The Chemical Specialties Manufacturers Association opposes the regulations, saying they are a distorted, more restrictive version of California's standards.

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Norand, JAS Concepts Sign OEM Agreement

Norand Corp. signed a multi-year OEM agreement with JAS Concepts to re-market the JAS PC-based (OS/2-32 bit) Data Communications Server, which will be designated the Advanced Communications Network (ACN) by Norand.

The JAS server, said to offer significant advances in protocol and diagnostics, provides remote control for hand-held computers and integrates lap-top and remote PCs. ACN will operate with all 4000 Series hand-helds and future hand-held, pen-based and wireless computers offered by Norand.

NYDEC Appeals DEET Ruling

The New York Department of Environmental Conservation filed a last minute appeal with the New York State Supreme Court which last year overturned a New York State regulation banning the sale of insect repellents containing more than 30 percent DEET.

The ban was to go into effect nearly two years ago.

NYDEC proposed a blanket cancellation of the registration of products containing

more than 30 percent DEET, based on alleged reports of adverse health effects.

Scotts, Shemin Nurseries Form Alliance

Shemin Nurseries signed an agreement to sell and distribute The Scotts Co. Professional products, including a broad mix of fertilizers, herbicides, insecticides, nursery stock and grass seed products.

Shemin, a wholesale distributor of horticultural products, holds 10 locations in the Northeast, mid-Atlantic, Southeast and Midwest.

The presidents of both firms said the two firms are compatible in terms of strategies and growth plans and that the alliance would provide a one-stop source for landscape professionals.

Trees Plus Forms Two Sister Companies

Trees Plus Inc., a landscaping and tree trimming firm in Phoenix, Ariz., divided its services into two companies: The Weed Co. and Trees & Turf.

The Weed Co. offers comprehensive weed control applications twice a year for com-

mercial and residential properties. The Trees & Turf Co. offers deep-root fertilization.

Hardie Awarded Exporter Honor

Hardie Irrigation was named Exporter of the Year by the San Diego chapter of the World Trade Association. The award is based on growth of world trade business over a one-year period.

New Agency Focuses On Green Industry

The Ag/Turf Division of Mona Meyer McGrath & Gavin is spinning off into a separate agency to be named Ceres Communications. Ceres is a wholly owned operation of Shandwick plc, the international public relations consulting company that also owns MMG. Den Gardner is chief executive officer and Ben Miller is president.

CORRECTION

Riverdale's line of Tri-Power® herbicide products was spelled incorrectly in the December Product and Literature Guide.

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USE READER SERVICE #81

Association News

THE **ASSOCIATED Landscape Contractors of America** elected Richard Akerman, Northwest Landscape Industries, Tigard, Ore., as its 1994 president. Other newly elected officers include Terry Anderson, Rentokil Inc., Riverwoods, Ill., as president elect; David Minor, Minor's Landscape Services, Fort Worth, Texas, as vice president of Finance; and Judson Griggs, Lied's Nursery, Sussex, Wis., as secretary.

In other news, 13 of 16 members passed ALCA's certification exam during the 1993 Landscape and Grounds Maintenance Conference. ALCA plans to offer additional exams March 18 in Knoxville, Tenn., in conjunction with Student Career Days; July 10 in Cincinnati, Ohio, in conjunction with the Ohio Short Course; Sep. 21 in Las Vegas, concurrent with ALCA's Interior Landscape Division Conference; and Nov. 15 in St. Louis, Mo., in conjunction with the 1994 Landscape and Grounds Maintenance Conference.

The **Green Industry Expo** board elected George Gaumer of Davey Tree Expert Co., Kent, Ohio, as its new president. Gaumer is a member of the Professional Grounds

For more information...



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Management Society. ALCA member Steven Glover, L&L Landscape Services, Santa Clara, Calif., serves as vice president, and Joe Williams (of the Professional Lawn Care Association of America), Lawn Master, Pensacola, Fla., is secretary/treasurer.

Other ALCA members serving on the GIE board are David Luse, Artega Natural Green, Eden Prairie, Minn., and Rick Doesburg, Thornton Gardens, Maineville, Ohio. PGMS members include Earl Wilson, Thornton-Wilson, Loveland, Ohio, and Jeffrey Bourne,

Howard County Parks and Recreation, Ellicott City, Md. PLCAA members include Dave Duncan, Monsanto Agricultural Group, St. Louis, Mo., and Lou Wierichs Jr., Pro-X Systems, Appleton, Wis. Executive directors serving on the board are Ann McClure of PLCAA, John Gillan of PGMS and Debra Atkins of ALCA.

The **Responsible Industry for a Sound Environment** appointed Bob Yarborough

(continued on page 20)

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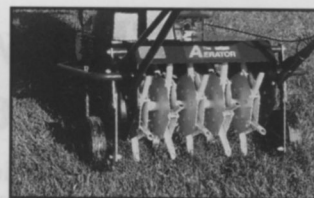
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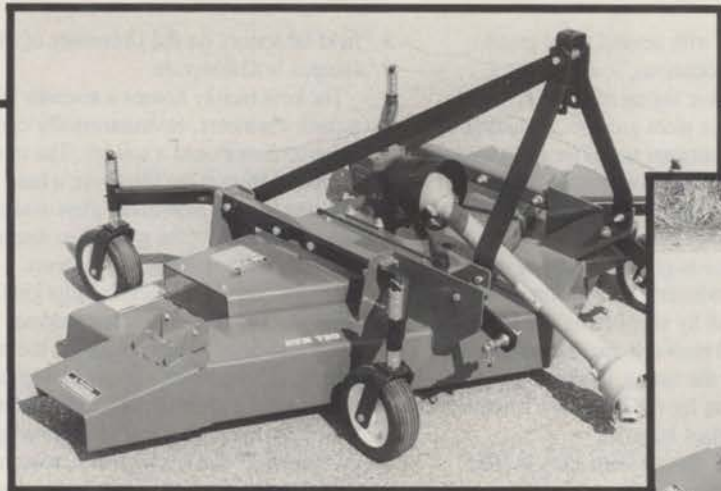
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Association News

(continued from page 18)

of LESCO and Richard Holzschu of DowElanco to its board of directors. Jan Novak of Monsanto/Solaris Group, who completed the board term of Dave Duncan of Monsanto Agricultural Group, begins her own three-year term in fiscal 1994.

Yarborough also serves as RISE's new treasurer, and Novak as vice chairman. Scott Johnson of Rhone-Poulenc Ag Co. became chairman.

RISE also recently added two seats to its board "to better represent all segments of the specialty pesticides industry," said a RISE spokeswoman. The 12-member board now includes Ron Fister of Sandoz Agro and Tommy Reeves of Oldham Chemical Co.

In other news, RISE moved its offices across the street from its former location. The new address is: 1156 15th St., Suite 400, Washington, DC 20005. The telephone number remains 202/872-3860; the fax number is 202/463-0474.

The **Georgia Farm Bureau Marketing Association** plans to implement a statewide plant-finding service for producers and buyers of horticultural plant material. GFBMA, in

cooperation with several other green industry associations, is compiling a comprehensive listing of plants available from Georgia plant growers, including field nurseries, container nurseries and greenhouses. Landscape contractors will be able to access the listing by calling GFBMA's toll-free phone number.

The service is geared mainly to increase sales for producers, but benefits landscaping firms as well by simplifying the search for hard to find plants. If specific plants aren't included in the listing, the bureau will contact suppliers for the landscape contractor to locate the plant material.

"That way we can keep sales in state, helping eliminate delivery problems and reducing shipping costs," said Ed Thornton, commodity specialist with the Georgia Farm Bureau.

The bureau plans to initiate the program in spring, updating the listing weekly. Thornton said ultimately the listing will be updated daily and offered via computer modem. The bureau also plans to publish and distribute a quarterly plant material listing.

The **Florida Turfgrass Research Foundation** opened doors to Envirotron, a 3,100 square foot environmental research

field laboratory on the University of Florida's campus in Gainesville.

The new facility houses a research lab, growth chambers, environmentally controlled greenhouses and a soil lab. The most distinctive feature is the rhizotron, a hoist system that lifts 24 individual, glass-walled research plots out of the ground so researchers can get a better look at root systems.

The lab, one of the largest of its kind, was built to allow researchers and students to study and develop technology on the relationship of turfgrass with various biological, environmental and cultural factors. Planned research for the project includes studying ground water and runoff issues, seasonal growth patterns of all warm-season grasses, the effects of heat and drought on root development, alternate water sources for all turfgrasses and the development of new grass varieties for Florida.

NEWS IN BRIEF...The American Association of Nurserymen introduced a membership growth program, rewarding active members with a \$100 AAN products/services certificate for each new member they recruit. Certificates are good for all AAN publications and meetings, including its convention and management clinic. ■

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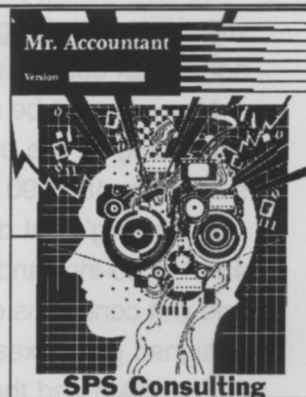
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USE READER SERVICE #92

Landscape News

EMPLOYERS GO BACK TO SCHOOL FOR THEIR RECRUITMENT NEEDS

WITH MORE THAN 6 percent of the nation's work force unemployed, it's encouraging to see businesses reach out to prospective employees. The 18th Annual Student Field Days is one example of industry lending a hand to promising job candidates.

Sponsored by the Associated Landscape Contractors of America, the student field days bring landscape industry leaders together with some of the nation's brightest and most capable landscape and horticulture students. For three days, students compete and demonstrate their skills in

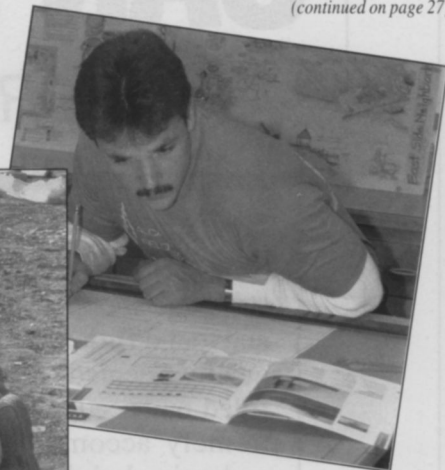
the areas of design/build, sales, surveying, equipment operation, plant identification, irrigation design, pest management and a host of other landscape areas.

This year's event will be held at the University of Tennessee, Knoxville. More than 350 students, 30 schools and 50 industry leaders are expected to participate.

"The student field days offer a unique

opportunity for students to meet prospective employers in the industry and to discuss employment opportunities," said Chris Kujawa of Kujawa Enterprises Inc., and

(continued on page 27)

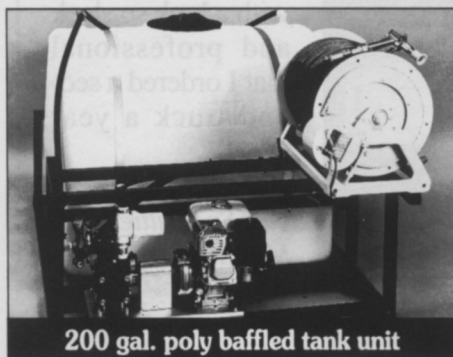


At the student field days, contestants are asked to perform a variety of tasks to demonstrate their landscaping skills.



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Professional success rarely comes without hard work. The Associated Landscape Contractors of America knows this and wants to invest in your business future.

Why reinvent the wheel? More than 1,200 landscape contractors have made ALCA their business adviser. This network of young, mid-sized and mature businesses is serious about their business future and have chosen to invest in the association that can take them to new business heights, not to mention improve their bottom line.

Since 1963, ALCA has been attracting savvy landscape contractors who desire to gain a network of associates to share and adapt field experiences. In fact, ALCA members rate networking as their number one association benefit.

Ask any of them...give a little of your time and receive a whole lot in

return. It's as easy as picking up a phone and reaching out to peers across the country. Answers are sure to be inventive.

ALCA members receive instant educational resources geared toward technical training, sales and marketing, employee orientation, customer relations, bidding, maintenance strategies, managing your finances and government affairs, among other valuable lessons.

As an ALCA member, access to key tips and strategies doesn't get any easier. Just read what the members say.

Networking and trading ideas with my peers are the most important benefits I receive from ALCA. I've probably personally visited with a half dozen companies and spent a couple of days exchanging ideas and recommendations. It's a tremendous benefit for us."

— Gary Kinman, Kinman Associates, Columbus, OH



"January is our budgeting month and I just pulled out a copy of ALCA's operating cost survey to give me industry perspective. Little things like that remind you of ALCA. Like any business, we're after value-added services. I

noticed from the beginning a strong business inclination that permeated ALCA members. It provides a good focus on how to run a landscape business." — Michael Currin, Greenscape, Holly Springs, NC

"The real essence of the Executive Forum is that it's networking at its best. That's why it's so dynamic. You take a small group of contractors who have similar interests and put them together for three days. They develop a comfort zone with one another that is often carried on after the forum. The Executive Forum is the best investment anyone can make to help elevate a company to a

higher level. Getting involved is the key to joining ALCA." — Rick Doesburg, Thornton Gardens, Cincinnati, OH

"ALCA keeps me up to date with the industry, particularly at the federal level. It's also increased my level of knowledge in the maintenance field allowing me to communicate with others who are experiencing the same problems, instead of reinventing the wheel."

— Lee

Greathouse, Greathouse
Landscape Co., Nashville, TN



"After attending one of ALCA's educational conferences, I was so impressed I immediately decided to support ALCA. I got hooked. As an organization it keeps us on the cutting edge of the industry. ALCA's video series on safety and equipment operations have become part of our orientation program. ALCA sets the standard."

— Wayne Richards, Cagwin & Dorward,
Novato, CA

"Benchmarking is an important benefit of ALCA...you can't put a dollar value on it. If you want to do something in your own company, look to others in your own industry who are already doing it well. Study them, review their procedures and borrow their processes. Benchmarking never stops for us."

— Tom
Lied, Lied's Nursery, Sussex, WI

"ALCAs educational resources are great. For instance when I received ALCA's Operating Cost Study, the insurance section jumped out at me. My ratio was different than most. So I put mine out to bid and saved \$22,000. ALCA expands your horizons. Its members are forward thinkers who are always trying to expand their paradigm." — Ed LaFlamme, LaFlamme Services, Bridgeport, CT

"Previously, I was a member of other associations but they weren't meeting my professional needs. ALCA offered avenues which provided me with the challenge and information on how to grow a maintenance business. The association is very focused on business aspects." — Steven Glover, L & L Landscape Services, Santa Clara, CA



"ALCA is head and shoulders above any association we belong to. The total quality management direction formulated and customized by ALCA for our industry is beneficial. The greatest challenge is accepting change and getting started. But by comparing notes with other ALCA members, we're now on the leading edge." — JoAnn Smallwood, Smallwood Landscape, Naples, FL

"ALCA's student field days is a chance for landscape students and contractors to foster relationships with the leaders of today and tomorrow. No matter if you're a small, medium or large company, ALCA has a niche for you. It gives you the opportunity to learn from the bottom up, particularly how to run a firm financially." — Eldon Dyk, Allen Keesen Landscape, Denver, CO



"ALCA enhanced my grounds management business. I implemented a four-day work week which reduced my overhead, labor and insurance costs. When Wednesday rolls around the guys know they have a three-day weekend

ahead if they get their job done. Additionally, I'm now set up on a monthly profit and loss statement...I now know if I'm making money or not." — Dan Standley, Dan's Landscaping, Gretna, LA

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Landscape News

(continued from page 22)

student field days chairman.

Kujawa, who has been chairing the event for the past six years, said that many landscape firms hire regularly from the student candidates. Particularly since many students attend two and three years in a row, giving contractors a chance to visit with the same students and see their skills mature.

The competition has strengthened and evolved since Bob Calloway of Mississippi State initiated the concept 18 years ago because he realized students needed to do more than academic work to succeed professionally. Because of his pioneering efforts the Bob Calloway award — a traveling trophy — is awarded annually to the top performing school.

Kujawa said that different locations are chosen each year for the field days. "We try to go coast to coast and to the Midwest. We always get an overwhelming response," he said. "We get a lot of perennial sponsors."

ALCA student field days are made possible via the sponsorships of ALCA member firms and suppliers. Sponsors commit time, money and resources to the event.

Throughout the three days, the enthusiasm is infectious. Students, sponsors and industry representatives meet for an opening ceremony followed by a get acquainted mixer. Education and equipment sessions, pre-qualification exams (where applicable) and opportunities to gain familiarity with the equipment are offered before the official start. Coinciding with these sessions, industry/student interviews are taking place.

The daylong competition takes place on Saturday. Among this year's events are arboriculture techniques, construction estimation, exterior landscape design, exterior maintenance estimating, insect and disease identification, interior landscape design and interior maintenance estimating.

In the morning, most are classroom events. From estimating a construction project to weed identification to business management problems, students vie for top billing. The pace picks up a bit outside when students go from building a brick patio to wood bench construction, to running a skid steer and assembling an irrigation system.

Although every event is full, some of the more popular competitions involve sales presentations and wood and patio construction.

"We try not to exclude anyone from the events they want to participate in," Kujawa said. "We emphasize participation and like to get everyone involved."

Participants can enter four events and awards are given by event, by team and to superstars. To place among the top finishers, students and school teams must

score high in a number of events. Points are tallied at the event of the competition.

"It gives students an opportunity to show the industry what they can do individually as well as what their schools have accomplished," said Eldon Dyk of Allen Keesen Landscaping, Denver, Colo. "It's also good for the industry because it gives contractors a great chance to meet with students across the country and find out what programs are being offered."

The real spirit of the ALCA student field days begins long before the actual competition. Many two- and four-year colleges and

universities hold their own competitions to determine who will get to go to the national event.

Once they're selected, students either cover their own costs on their own or with help from their parents. To support their students, many schools hold plant sales and other events to raise money for the trip. Endowments, sponsorships and grants from the host school are also possibilities.

ALCA University, held in conjunction with the student field days, gives students a chance to earn a certificate for attending and completing four, one-hour discussion groups. ■

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LANDSCAPE SUMMARY

IN-HOUSE MAINTENANCE STAFF: 6 full-time in-house, including the exterior maintenance coordinator, a landscape supervisor and four landscape workers who provide color change-outs, fertilization, aeration, pressure washing, lake maintenance, chemical application, irrigation and deep-root feeding of trees.

CONTRACTOR SERVICES: Conoco also contracts with MBC Landscape Inc., an exterior maintenance firm that supplies 6 full-time (peak season) employees for mowing, edging, trimming, weed control and other maintenance services.

OVERALL LANDSCAPE MAINTENANCE OPERATIONAL COSTS: About \$400,000/year.

EXTERIOR MAINTENANCE COORDINATOR

JOHN A. BEVIL

AGE: 37

FAMILY: Married for 15 years, one daughter.

EDUCATION: Attended Sam Houston State University, Huntsville, Texas.

LAST JOB HELD: General manager for Houston Landscape Systems.

FORMERLY OWNED: Exterior Designs of Houston, a landscape maintenance company, sold in the mid-1980s.

JOB RESPONSIBILITIES: Oversees landscape maintenance and irrigation, the chemical program, lake maintenance, jogging track repair and maintenance, cleaning of building exteriors, interior and exterior window washing, roadway maintenance and landscape design and installation.

John Bevil, exterior maintenance coordinator for Conoco Worldwide Headquarters established a joint working relationship between in-house and contract crews to maintain the firm's landscape. Photos: Dan Taglia, Conoco, Houston.



Joint Landscape Endeavor

Conoco Worldwide Headquarters successfully combines an in-house staff with a contract crew to maintain its diverse landscape setting in Houston.

By Julie A. Evans

JOHN BEVIL IS AN "outsider" on the inside. As a former landscape business owner, Bevil learned the ins and outs of the industry, including hiring, scheduling, purchasing and bidding. He now uses that knowledge to his advantage as the exterior maintenance coordinator for Conoco Worldwide Headquarters in Houston. In his position, he has devised an uncommon but successful system of shared maintenance with an outside landscape maintenance contractor.

Bevil's sole venture into business ownership fell victim to a troubled economy in the mid-1980s, he said. When the economy nosedived and the housing market crashed, Bevil sold his four-year-old landscape maintenance company, Exterior Designs of Houston, and went to work for Houston Landscape Systems as general manager.

In 1989, Bevil was offered the position of exterior maintenance coordinator for Conoco Worldwide Headquarters, a large petroleum company that employs about 2,300 employees and 300 contract workers at its Houston site.

According to Bevil, Conoco wanted to bring maintenance in-house and shed its exterior contractors to cut

soaring costs. At that time, the majority of its maintenance was provided by contractor services, costing the company a significant amount of money each year. Bevil jumped at the opportunity to create an in-house maintenance division for the company.

"Coming from a landscape contractor background, they now had an outsider on the inside. They had the type of guy who used to bid on these properties working for them," Bevil explained. "I knew all of the tricks of the trade, all of the ins and outs, how contractors cut corners, and what they thought was important."

At the time of Bevil's appointment, he helped to put in place and strengthen a water conserving irrigation program a responsible pesticide application program and a fertilization schedule for the five-year old site.

According to Bevil, based on his experiences as an exterior contractor, "I came in to Conoco, knowing all that needed to be done," he said.

Bevil decided that the company could save money and enhance control by bringing a number of formerly billable services in-house, including chemical applications, tree pruning and trimming, aeration, fertilization and color change-outs. Instead of paying a premium to a contractor annually for chemical applications, Conoco now only pays for materials and one employee's salary for a fraction of the cost, Bevil said.

Similar cost savings were realized across the board in most areas. But there were other maintenance jobs Bevil considered too costly for Conoco to provide for itself, including mowing, trimming and edging. The reason?

"The hardest and most difficult thing to do is keep lawn equipment running, maintained and operational on a continual basis," he said. "To do so, we would have had to invest in the equipment and hire a full-time mechanic. We don't buy, store or own any lawn equipment. That's the contractor's responsibility."

Bevil put a maintenance contract out for bid and awarded it to MBC Landscape Inc. in Houston, a \$2 million to \$3 million landscape and installation firm.

Bevil specified a three-year contract, basing annual costs on the hour unit price per worker, per site, rather than a fixed sum. MBC supplied the man-hour price and together they hammered out an agreeable hourly man-hour contract. MBC employees who maintain the Conoco site report directly to Conoco each day and spend their entire eight-hour workdays on site.

If Bevil needs additional help with aeration, fertilization or any in-house responsibility, he can pull MBC employees away from their assigned tasks. "That's the beauty of it," Bevil said. "In the late fall, when no grass is growing, we can mulch the whole place using their six men and our five men and get it done in half the time. The same is true for fertilizing. We supply the fertilizer and they don't bill us extra."

The shared maintenance strategy has cut maintenance costs dramatically at Conoco. Bevil estimates that the landscape portion of the maintenance budget, prior to the formation of an in-house department, cost the company three times what it now costs to maintain the landscape in a similar fashion.

"We've cut away all the gravy from the contract. It's set up so that

Aesthetics are a priority for Conoco, which has subtly reduced its landscape budget due to economic considerations.

the property doesn't pay through the nose. If they (the contractor) work it right, it can be a lucrative deal for them."

ENVIRONMENTAL CONCERNS.

Under Bevil's direction, Conoco's landscape program has taken a decidedly environmentally conscious approach. The amount of pesticides used in its application program has been reduced by 65 percent, according to Bevil. He also said he uses the slowest-release fertilizers available on the market and has replaced two of six scheduled slow-release treatments with organic fertilizers.

No pesticides are added to the fully stocked lakes, where employees are invited to fish at appointed times of the month. The company composts all of its yard waste and buys back its composted materials for mulch. A similar approach was taken with irrigation. Through modifications to the irrigation system, the in-house staff has reduced water usage by more than 3 million gallons a year, Bevil said. The reductions came from various techniques, including proper nozzle sizing and head spacing and the elimination of double coverage areas.

Pest control strategies have taken an environmental turn as well. Ladybugs are released weekly during spring, summer and fall months;

and preying mantis egg cases are set out weekly. The maintenance team also set up martin birdhouses to accommodate 200 adult birds to cut down on the mosquito and other pest populations.

"Conoco is dedicated and sensitive to all of environmental aspects of its operation, not just oil fields and double-hulled oil tankers in the ocean. They have a large push in the company to do everything they can for environmental protection."

According to Bevil, the landscape's appearance is none the worse for its environmental approach, but it does take some additional work. "We just put more effort into integrated pest management, using natural means whenever possible," he said.

Conoco has also devised a safety incentive program. Employees are rewarded with incentives when they have no safety violations or accidents. In addition, maintenance workers are instructed to take extra precautions for the safety of corporate employees. As Bevil explained, the employees have the right of way for every mower, edger and trimmer. Maintenance workers are instructed to turn equipment off or down each time an employee or visitor walks by.

"We've received letters from (headquarter) employees saying, 'I can't believe how responsible your

workers are.' Even though this is not an oil refining facility, we consider safety as important of an issue as they do."

ECONOMIC CONCERNS.

Because Bevil maintains a worldwide headquarters facility, he is doubly aware of the importance of the neatly trimmed, immaculately maintained landscape. "This is where the top management and all corporate employees do business, so we naturally want this place to be a showcase," Bevil said.

Annual color is kept up to peak appearance by using more than 400 flats for five to six color change-outs each year. But the economy has dictated some cutbacks in the maintenance budget, including two maintenance employees.

"The recent environment of Conoco has been aligned with the fact that the price of oil has been dropping," Bevil explained. "Conoco, out of respect and understanding for its employees, has lowered its visual aesthetics respectively."

In 1993, for example, Bevil's crew didn't overseed, and it reduced its use of color. This year, it is weighing whether or not to go ahead with its customary perennial ryegrass.

"We cut back on the level of service but not the quality of how the service looks. When the economy picks back up, we'll bump fertilizations back up to where it looks like a golf course year-round," Bevil said.

That's not to say that the appearance of the property has declined, Bevil added. "Conoco does not want to diminish the overall appearance of the facility. The firm has the highest standards for property looks of any company anywhere."

Mark Harris is president of MBC Landscape Inc., in Houston, a \$2 million to \$3 million landscape maintenance and installation firm. His company is in the third year of its three-year contract to provide landscape maintenance to Conoco Worldwide Headquarters.

Lawn & Landscape Maintenance magazine interviewed Harris to find out what it's like to share maintenance responsibilities with the in-house team at Conoco's worldwide headquarters.

Q: How does your contract with Conoco differ from your other commercial accounts?

(continued on page 36)



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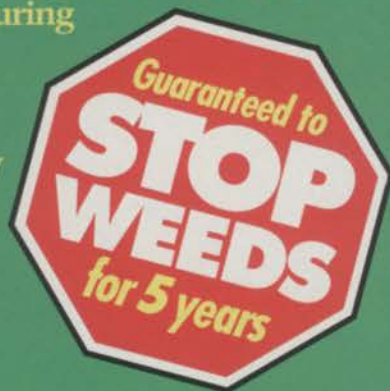
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Cover Story

(continued from page 32)

A: I think the biggest thing is that it's more of a teamwork effort in the sense of scheduling people. We have to work together on what they're doing, instead of us coming up with our own schedule for our people. We have a full-time crew there, but in particular times of the year when things need to happen rapidly, we'll have to put other people out there.

Q: How do you allocate the number of people needed for the Conoco account?

A: The number of people was determined by Conoco. They wanted so many hours of work per year and they outlined it in their program. Additional hours are negotiated at the time of the particular task. It's a team work thing. We negotiate from time to time for labor and people.

Q: How do you communicate



with your employees who are on-site full-time at Conoco?

A: We have radio communications. They report directly to Conoco and let us know when they're going on-site by radio. They are

here for routine meetings and are responsible for their own meetings as well. We communicate through the supervisor, who takes communications from our office to the job site. I think it's laid out pretty well. But they (employees) definitely

The in-house staff is responsible for fertilization, but can call on the contract crew if necessary.

have to be people who recognize Conoco's needs as well as our needs. We tend to put our higher-level people out there, because they have to wear two hats.

Q: John Bevil used to own a landscape business. How does this affect your communications with Conoco?

A: That has been a major benefit — communicating with someone who knows the business, and who knows the problems. Most of our customers are building managers who don't always have a background in horticulture. Even our common language has been a great benefit. John and I also share a lot of thoughts and conversation. We meet at least monthly to discuss projects.

Q: How do you allocate equipment and its storage?

(continued on page 38)

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NEW HOLLAND

The winning team

Cover Story

(continued from page 36)

A: We purchase separate equipment for that site and keep a full line there. We do all day-to-day maintenance of equipment on-site. If we can't take care of a problem, we'll send our mechanic or we'll bring that equipment back to the shop.

Q: Since your employees work so closely with Conoco employees, do you ever fear that they'll hire away one of your employees?

A: It's always a concern whenever you have on-site people. Although nothing is written into the contract about it, I think we're dealing with ethical people. John and I would sit down and discuss it before it happened. If it were my person going to him, I would have to agree that it would happen. As a matter of fact, we have exchanged people, but both of us knew about it in advance and it worked out for both of us. I would never hire one of his employees without asking him first.



Q: Your contract with Conoco is on a man-hour basis. How does that compare to your contracts with other commercial clients?

A: It is unusual for us to do it on an hourly basis. Typically, we

would do a contract on a fixed sum. Conoco had a set criteria they were trying to perform. It's been fair to both parties: They can monitor hours and the rate is the all important issue to me. And I think it's worked out for me.

Conoco's in-house staff works side by side with the contract crew from MBC Landscape. MBC employees report directly to the Conoco site on a daily basis.

The author is a Contributing Editor to Lawn & Landscape Maintenance magazine.

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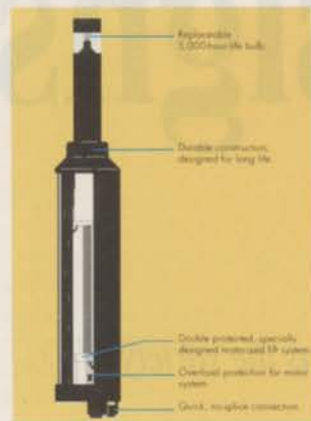


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Innovative design trends are evolving with hardscaping materials centering on a variety of stonework and railroad ties. Photo: DuBrow's Nurseries

Innovative Designs

Transform Ordinary Landscapes

Today's most surprising and innovative trends in landscape designs come not in the techniques used so much as the variety of hardscaping materials and services offered.

By Cathy Hoehn

FAD DESIGNS come and go but the one constant that remains in landscape design is the ambiguity of what's hot and what's not.

For the most part, the determination of which trends become mainstays and which fade away rests heavily on a particular region, clients' needs and preferences and the designer's personal taste and style.

Most landscape architects concur that the majority of today's innovations center on hardscaping—the types and range of services offered, as well as materials used.

Water features, particularly in residential settings, appear to be basking in their glory in the East and Midwest. Due to water conservation efforts on the West Coast and in the Southeast, however, the call for water designs in those regions is dwindling. The most innovative trends developing in hardscaping center on the variety of stonework offered by manufacturers. A pallet of new additives, particularly in concrete, gives designers more creative freedom in choosing shapes, contours, colors, textures and styles.

Other regional design trends noted include integrating prairie grass into landscaped habitats, creating natural-looking or traditional settings and using increasing numbers of ornamental grasses, as well as perennials and other low-maintenance plants.

HARDSCAPING. A surprising number of landscape architecture and design/build firms are offering hardscaping services, including the design of patios, decks, walkways, site furniture, fountains, waterfalls, ponds and rock sculptures.

Firms are finding these services tie in neatly with landscape design, since they greatly impact the overall effect. "Hardscaping can make or break a design," said Heather

Pallay, landscape architect for DuBrow's Nurseries, Livingston, N.J. "We place the hardscaping features—decks, patios, whatever—in the landscape before we install any plant material."

Requests for water features have waned in reduced water use areas, such as California and Florida, but architects in New Jersey, Illinois and Montana see a definite demand for that service, particularly at residential and small commercial sites.

Whether those services gain popularity because of client requests or designer preference is difficult to determine. Whichever bears closer to the truth, designers and architects seem to relish the challenges presented by integrating such features into their overall designs.

"You can't have too much water in the landscape. If residential clients don't have a brook or pool, we'll integrate a fountain of some sort," said John Smith of John C. Smith & Associates, Far Hills, N.J.

Small fountains and pools appear to be most popular with clients; ponds appear least liked by architects due to their difficult design features.

"From the design standpoint, you have to make sure (a pond) minimizes maintenance as much as possible. You also have to make sure the pumps are properly sized, and you get the filters in. Lighting is also important," said Bob Broughton, owner of Empire Landscaping, Hamilton, Mont. "There's also the challenge of making clients aware there is quite a bit of maintenance that goes along with ponds."

Van Neie, regional manager for The Brickman Group, Long Grove, Ill., finds stream beds and ponds hold the keen interest of clients. His own preference lies in creating waterfalls for small commercial sites, set off by overhanging decks or rock outcroppings. "I might prefer (a certain style), but we always base our designs on a client's wishes. We collect input from them. What we draw comes out of that. We kind of massage their visions into a workable solution."

Manufacturers of hardscaping materials have produced an array of options in recent years. "We see a lot of different styles for walks—not just pavers, but concrete that's stamped with a pattern or is exposed aggregate, where you can actually see the stone work," Broughton said.

A number of landscape architects choose to dabble with a variety of native and natural weathered stones, sometimes as a substitute for concrete.

Based on client preference, Neie uses earthy and natural-looking types, such as flagstone and brick, for walkways and patios. "I've seen increased use of Lannon stone and other types that have different textures. The Lannon is a great rustic stone. It has an informal appearance," he said.

Jeff Snyder, landscape architect for Chapel Valley Landscape Co., Woodbine, Md., recently worked for a landscape architecture firm in California where concrete is used in a variety of creative applications, including replacing natural stones,

such as limestone, at lower cost.

"They're doing a lot of exciting, creative things with concrete technology," he said. "They're using more materials mixed in the concrete to alter its color and texture. One company offers a line of benches, balustrades and railings made out of cement mix materials that give the impression of limestone."

The advantage here is that it broadens the designer's base for creating textures, shapes and configurations, often at a lower cost. In addition, concrete is one of a few materials that can be recycled and reused.

Other alternative materials continue to gain popularity as well. The most innovative example stems from renowned landscape architect Peter Walker's experimentation with metal tree surrogates.

"Walker has invested time and energy in creating plants without using plants," Snyder said. In particular, Walker designed a metal structure in the shape of a tree, overgrown by plants, for areas where trees can't be planted. "It doesn't look exactly like a tree, but it gives the same effect."

The concept, though considered bizarre by some, challenges designers to think in broader terms of materials available, as well as their multitude of potential uses.

"Some designers are out of touch with what's available. They get in the habit of going by what's in their trusted catalog and don't try to find other materials that may work as well or even better," Snyder said. Other hardscaping trends noted include increased use of painted, custom-made fences for high-end residential and advanced technology to prolong the life spans of outdoor lighting systems.

THE PERENNIAL QUEST. Clients' preferences for perennials, a not-so-new trend, continues to thrive, predominantly on the East and West coasts and in the South, according to landscape architects.

"We're seeing a definite inclination toward increased use of perennials and color and away from foun-

Water features are popular in most every landscape setting, although areas known for drought are cutting back. Photo: CLCA



dation plantings, Smith said. "I think we've used perennials on almost all of our jobs. We're staying away from standard lilacs and azaleas."

Smith attributes the trend to a growing movement toward returning to traditional-style landscapes and gardens. "It's sort of going back to the 1930s and during World War II when everyone had perennials and noticed them."

He also bases the move on Americans' seemingly increasing respect for English-type gardens. "People go over to England and like what they see. They want to bring a little back with them. Their tastes are moving from static conditions to gardens that are big and overgrown and that may require a little more work."

Perennials remain popular because they're "nicely textured and visually pleasing," according to Wolfgang Oehme of Oehme, van Sweden & Associates, Washington, D.C.

New perennial plants keep coming available, providing fresh alternatives each season. "We like to try new plants, mix types that bloom in



Traditional-style landscapes are returning as homeowners are spending more time at home.

different seasons," Oehme said.

He and Smith see amplified use of minor trees and shrubs adjacent to perennial gardens. "They blend nicely with the perennial gardens; providing a nice visual effect," Oehme said.

In general, Neie finds trees and turf are replacing ground covers in

commercial and residential landscapes. "It boils down to a maintenance issue. They cost much less to maintain. The value of the dollar typically relates to using small trees, incorporating less detail," he said. "Flowers always have a material cost. The first to go is annual color. There's more use of perennials,

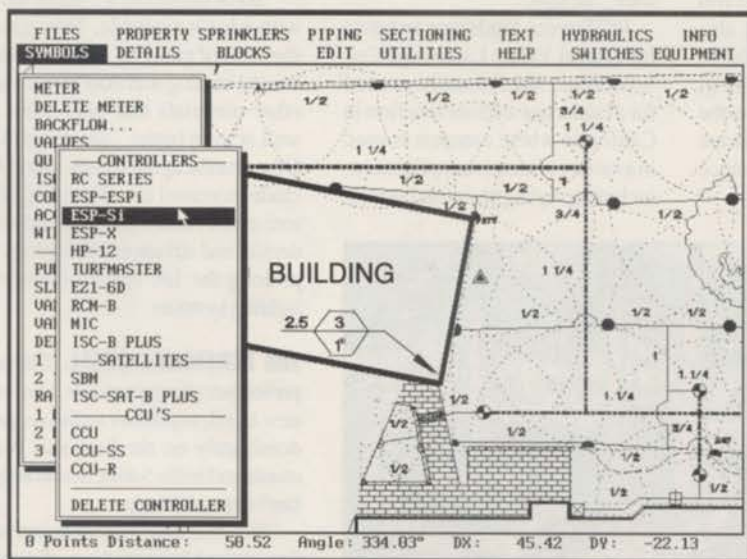
smaller bed mixes and fewer details."

Pallay is witnessing more concentrated stands of shade trees being implemented in residential designs. "They improve the microcli-

(continued on page 44)

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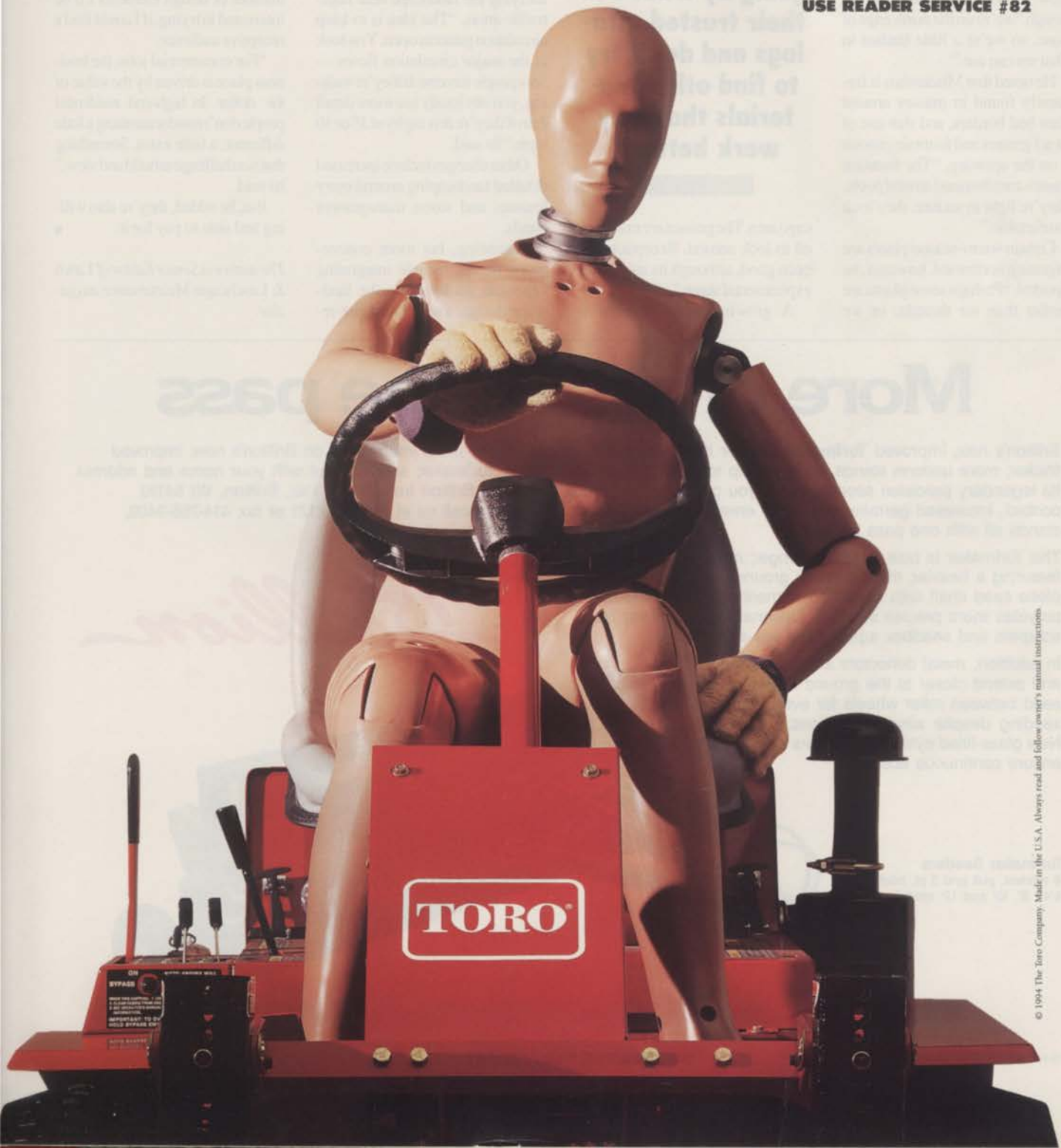
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Landscape Design

(continued from page 42)

mate, help heat and cool homes, release oxygen into the air — and are low maintenance," she said.

ALTERNATIVE TRENDS. While some clients may clamor for traditional settings, Smith concedes there is a growing demand for use of natives and "naturalistic type plantings, as opposed to shapes that take a lot of time."

Ornamental grasses continue to grow in popularity, he said, although "we're on the north edge of those, so we're a little limited in what we can use."

He noted that *Miscanthus* is frequently found in masses around plant bed borders, and that use of dwarf grasses and fountain grasses is on the upswing. "The fountain grasses are often used around pools. They're light in texture; they look comfortable."

Certain warm-season plants are migrating northward, however, he reported. "Perhaps some plants are harder than we thought, or we

haven't tested them thoroughly. As they continue to survive, we push them a little more. One we're seeing more of in New Jersey is the Virginia magnolia."

Neie noted a trend toward testing uses of prairie grasses next to native grasses at residential sites. "That's very new here in the Chi-

"Some designers get in the habit of going by what's in their trusted catalogs and don't try to find other materials that may work better."

cago area. The grasses are manicured to look natural. Reception has been good, although it's still in the experimental stage."

A growing trend Broughton

noted is an increased use of tactile pavers that have bumps along the curbing that signal grade changes and other deviations in the landscape for the visually impaired. "They're queuing devices, really," Broughton said. "The visually impaired can feel the raised bumps with a cane and know a change is coming in the pavement."

Design techniques, often governed by personal taste and whim of the landscape architect, haven't seemed to fluctuate much in recent years. One trend Neie noted was unifying the landscape near high-traffic areas. "The idea is to keep circulation patterns open. You look at the major circulation flows — how people traverse. If they're walking, you obviously use more detail than if they're driving by at 35 or 50 mph," he said.

Other changes include increased detailed landscaping around entry features and storm management ponds.

Interesting, but more concentrated trends, include integrating vegetable gardens into the landscape design; a search for deer-re-

sistant plants in the East and Northwest (some alternative solutions used thus far include increased use of fencing and grading changes); and use of plants in non-traditional settings, such as palm trees in New Jersey. "The palm trees were used indoors. They took them out at the end of summer," Smith said. "It was a kind of fun thing. You can try anything."

Overall, designers are largely limited by budget, time and material constraints, as well as client preferences, Neie said. "There are a number of design elements I'd be interested in trying, if I could find a receptive audience."

"For commercial jobs, the business place is driven by the value of the dollar. In high-end residential people don't mind something a little different, a little extra. Something that is a challenge to build and view," he said.

But, he added, they're also willing and able to pay for it. ■

The author is Senior Editor of Lawn & Landscape Maintenance magazine.

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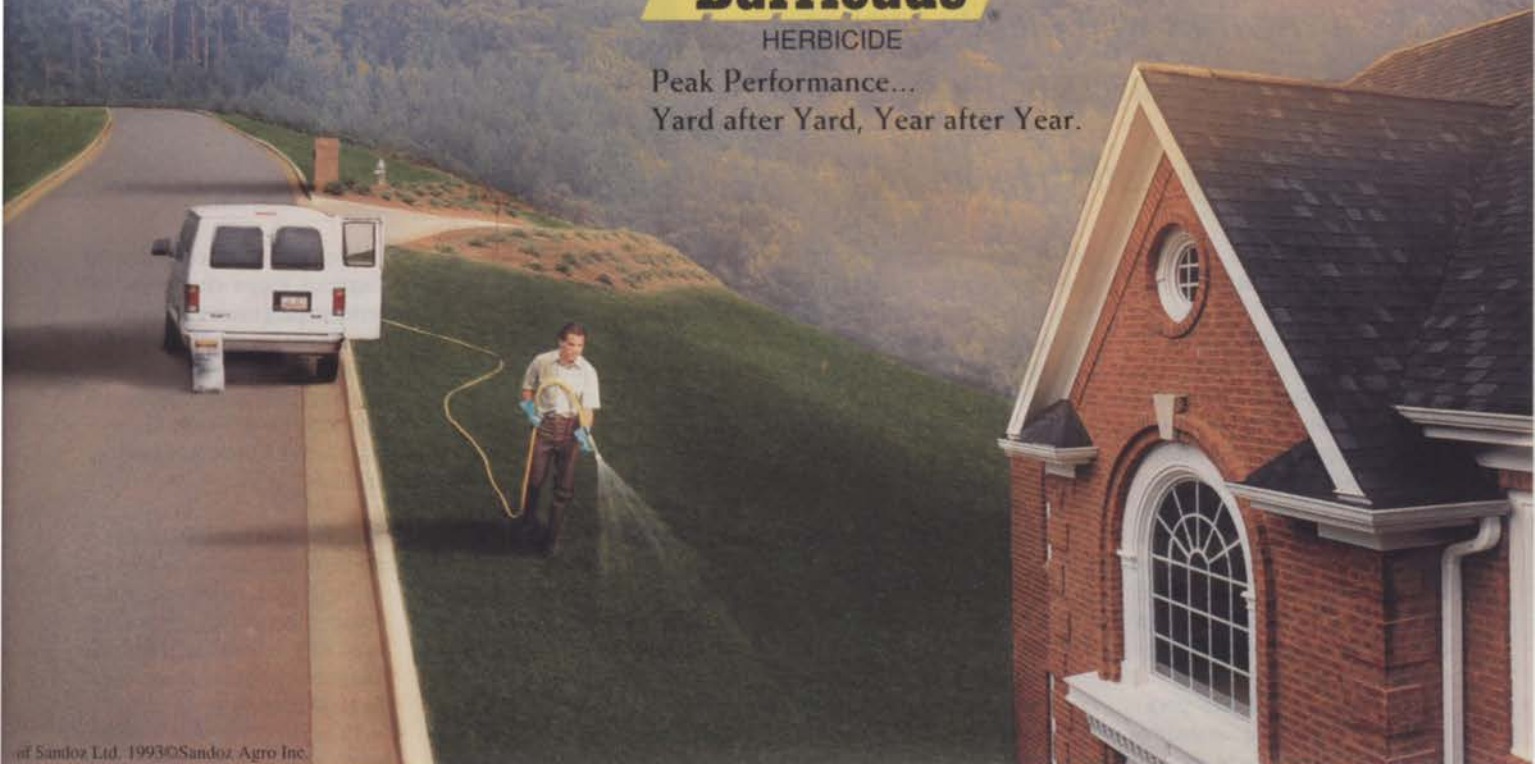
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Contractors Expect Interior Rebound

Competitive pricing, underbidding and low construction forced the interiorscaping market to slump in the early 1990s. Today's leaner, tougher companies have armed themselves with quality service and diversification.

By Cathy Hoehn

IN THE 1980s, if an interiorscaping firm's employees quit their jobs, the company simply hired replacements without regard to cost. In fact, firms generally hired extra help to keep pace with client demand for elaborate plantscaping designs in malls, office parks, hotels and other buildings with high-traffic areas.

In short, businesses boomed.

Like many segments of the green industry, interiorscaping firms entered the 1990s stung by increased competition, underbidding and a cutback in jobs because of a stagnant construction market.

Large multi-service, deep-pocketed corporations had infiltrated the market, busily acquiring the top interiorscaping firms, along with their experience and expertise. Competition suddenly became fierce,

pricing pressures increased and mid-sized firms learned quick, hard lessons in frugality and efficiency.

Since then, those mid-sized firms have mastered the key phrases of the 90s: marketability and customer service.

"We concentrated on quality, clients and service. It's really paid off in this particular downturn," said Ray Brooks, owner of Plant People, a \$1 million-plus interiorscaping firm based in Tucson, Ariz., which, despite the tight market, saw its best year in 1993.

Companies gave mixed reports on the rate of recovery. Most said a return to a comfortable growth level will take a few years. "Growth has been strong in the last four or five months...The market has been flat, but I expect there will be slow growth

over the next few years," said Gordon Crenshaw, vice president of market development for Orkin, which is owned by Rollins Inc.

Crenshaw declined to give specific growth figures for Orkin's plantscape division, but said by region, the California market showed the least growth in 1993, the Southeast fared very well and the Northwest held its own.

In general, mid-sized companies are expected to feel the most heat. "I think the squeeze may come to the mid-sized companies in the industry. They need to do a certain amount of business to support their overhead. Down the road, they will have a hard time," said Gary Mangum, vice president of Creative Plantings, Burtonsville, Md.

Large companies which can rely

on their other services to recoup financial losses during the interiorscaping market's downturn, remain mostly optimistic. As expected, conglomerates like Orkin and Rentokil Inc.-Tropical Plant Services, Riverwoods, Ill., continue to watch for acquisition possibilities.

STATE OF THE INDUSTRY. Overall, the interiorscaping market remains sluggish. Housing starts and construction are picking up, however, which should help spur the interiorscaping market into some form of recovery.

"The interior market has been tough the last couple of years. It's really slowed down our industry," said Deborah Sparks, market manager for Foliage Plant Sys-





Money was once no object in interiorscaping, but economic constraints have recently taken over. Photo: Rentokil

signs with less space for atriums and plants, according to David Muesel, owner of Inner Gardens Landscape, Houston. Muesel's clients, remaining budget conscious, are replacing live plant material with artificial silk ones to cut maintenance costs, a trend which Sparks said is not evident on the East Coast. Muesel cited a chain of banks that replaced all its live plants with artificial ones.

Clients of Creative Plantings are spending more money on low-cost "curb appeal," integrating designs that lead up to the building entrance and "carry right inside," Mangum said.

"They're dressing up outside and in. Anything from street trees and street tree planters—any flowers you add to the base of those street tree planters—to adding free-standing containers to the left and right of a door to define the entrance way and leading right inside."

Even the largest companies feel slightly squeezed, Crenshaw said. "The economy took a big lick on this business, more than any of our other businesses. I think that has to do with who we're servicing. When dealing with hotels and office complexes that have low occupancy rates, this is one of the first services to get cut."

But the overall market is far from doom and gloom, according to Dick Cottrill, president of Rentokil, Riverwoods, Ill.

"There are still some areas where office vacancy rates are increasing—Dallas and Houston in particular. But most of the other markets we're in—Chicago, Washington, Boston, Atlanta—in those markets, office vacancy rates are starting to shrink," he said.

CONSOLIDATION. The service industry has become the second largest growth sector in the United States behind health care, according to federal government statistics. That fact is never more evident than in the green industry, where key players like Orkin carry the concept of one-stop shopping to new heights.

Orkin entered the United States interiorscaping market to seize what the industry portrayed as tremendous opportunity, said Crenshaw, who guided the company's move into the market.

"Before we (Orkin) go into anything there needs to be big potential for where it can go in the future. The interiorscape industry was projecting, through its national associations, a billion dollar market. We thought it was big enough for us to look into," Crenshaw said.

Interiorscape magazine recently ranked Plantscaping by Orkin the second largest interiorscaping company in the United States. The company reported \$18.9 million in sales between Sep. 1, 1992, and Aug. 31, 1993, and boasts 10 branches nationwide.

The top contender in the market is Rentokil, a United Kingdom company which gained national recognition when it purchased Terry Anderson's Tropical Plant Rentals, an Illinois-based firm, about five years ago. Rentokil, which manages 13 offices nationwide, was ranked number one by *Interiorscape* magazine in interiorscaping sales with a reported \$66 million in revenues.

Both Orkin and Rentokil expect to continue building their nests. Rentokil hopes to acquire a few more "good sized" companies this year, according to Cottrill. Crenshaw predicts "modest growth" for Orkin, as the company focuses on "trying to retain and keep customers happy and satisfied that we have already acquired. We spent a lot of money to get them. We don't want to just lose them."

Crenshaw pointed out that even when times are tough, largely diversified, deep-pocketed companies like Orkin hold a definite advantage. "I'm sure (low construction) has affected

tems, Pine Brook, N.J. "Clients are often looking at cost-cutting measures so they're either asking us to hold the price they've had for years, or they're asking for a reduction in price. And competition is tough. There's not much brand new work going on. All competitors are looking at each others' businesses a lot more closely than they ever did."

"What companies are asking for now is plain, run-of-the-mill plantscaping service at the lowest price they can get," Brooks said. "It's different from when we first got into the market. Up until 1989, we were doing unusual landscapes. Money was almost no object."

Office, warehouse, apartment and residential occupancy is all picking up, at least in Arizona, Brooks reported. "Housing is rebounding

fairly well in town. It will be another year before office vacancies start to dwindle to where they're actually building new high-rises."

New construction won't include malls, hotels or major office parks for at least one to two years, according to industry observers. To compensate, interiorscaping companies are embarking on renovation projects.

Office renovation has become central to Brook's business. "Companies are moving because of the office space glut. Pricing for office space has decreased, leaving companies with money to spend on landscaping and interior design, he said. "We've gotten a good deal of business from that."

Developers and architects continue to specify cost effective de-

business, but we have so many things we can do to take up the slack from other sources, cross-marketing our own customers with our other services.

"We have really continued to grow, whereas if we just continued to do same old thing we'd done for years, or done what people we acquired had done, we'd probably have gone backward," he said.

Some animosity exists between established interior companies and those who have entered the market by acquisition. Not uncommon, the smaller company owners hold the larger companies generally responsible for inciting price wars. "We're really seeing pricing pressures. We haven't raised our prices in four years, and we're getting underbid 30 to 40 percent. Those companies are taking profitability right out of the business," Mueller said.

On the other hand, Cottrill claims Rentokil charges higher than average prices and Sparks and Mangum agreed the larger companies have not underpriced the market.

Crenshaw believes numerous smaller companies wrongly view



large corporations as trying to dominate the industry.

"But that's not the case. For instance, if you go into a town like Dallas, I think we're bigger than any other company in Dallas—the biggest of any individual companies—but not the biggest of all the others put together. So we would

be a small percentage of the total," he said.

One company owner (who wished to remain anonymous) sold his business to Rentokil last year, an agreement he almost refused. "I think everybody is skeptical and concerned. They want to know what these huge companies are doing...I

Office renovation is becoming central to quite a few interior firms. Photo: Rentokil

have a lot of friends in the industry that are perfectly happy with what they're doing. They look at me and wonder what's going on in my head," he said.

"I've had a really good experience. When I was wearing the other hat, before the Rentokil deal, I never saw any price pressures from them. They have specific profit and growth goals. I have not seen any pressure to add business by selling the services cheaply," he said.

In addition, his firm gained the benefit of Rentokil's vast research resources in the United Kingdom.

MARKET POTENTIAL. Industry observers predict continued consolidation among the larger companies, slow recovery of construction and office occupancy and increased renovations for malls and offices.

"Interiorscaping is a viable market. It's a service that is definitely needed. But companies have to be

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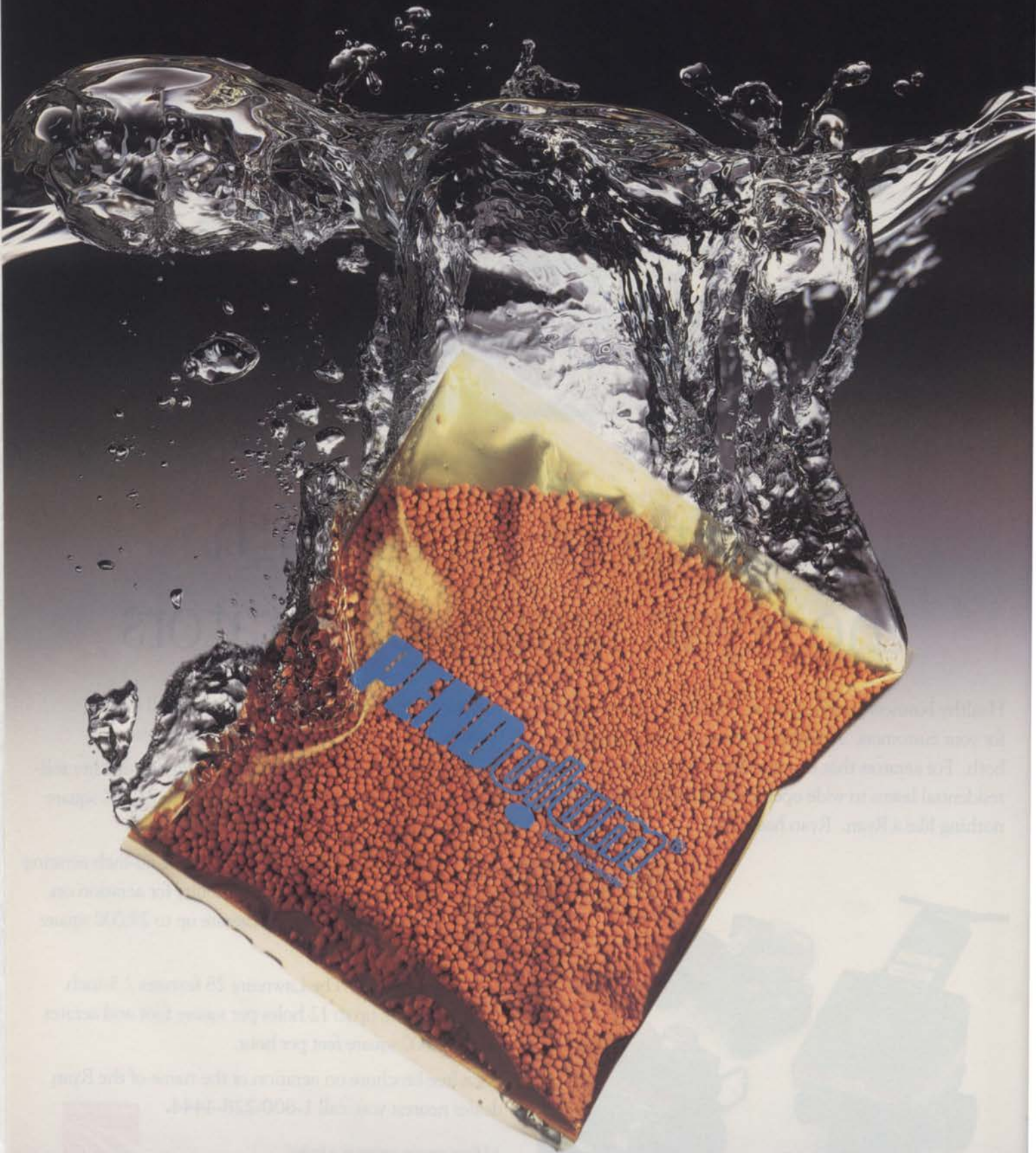


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Interiorscaping

(continued from page 50)

ready to plan for the long-term. That's where the money will be made. That's why we're staying in it," Muessel said.

"What we need to watch is for building and construction to pick up significantly. There will be a little

bit of a delay before it affects interiorscaping. I don't see that happening tomorrow. Maybe in a few years," Sparks added.

Interiorscaping companies plan to focus more on customer service and to delve into some specialty niches, such as holiday decorating, plant rotation and exterior work. Orkin already offers holiday deco-

ration and exterior work in some markets, such as color beds, containerized plantings, special events and short-term rentals, Crenshaw said.

About 90 percent of Rentokil's business is interior maintenance of tropical and subtropical plants, Cottrill said. Blooming rotations used to be a separate service; now it's assumed to be part of the same.

"There are some small services we occasionally get into, but no large-scale landscaping. Nothing that major. We have no intention of getting into the exterior business," Cottrill said. ■

The author is Senior Editor of *Lawn & Landscape Maintenance* magazine.

INTERIOR AND EXTERIOR: A BAD MIX?

IT ISN'T UNUSUAL for exterior landscaping firms to delve into interior work, or vice versa, but the two services don't mix easily. There are tricks to offering both services well, according to company owners.

The main challenge is hiring technicians with expertise in both, according to Ray Brooks, owner of Plant People, Tucson, Ariz. "The services are almost the exact opposite. Interiorscaping requires a different type of knowledge. You put in too much water or not enough, the air comes on and dries the plants out. Heat comes on and throws off everything."

Crenshaw advised keeping the two entities entirely separate divisions, particularly for smaller exterior companies just entering the market.

"I don't advise having an interior and exterior business unless they're completely separate divisions," he said. "If you are a small exterior company and are considering expanding to interior, I would think carefully because it's not the same technology as exterior."

"As you get into it more, get more comfortable with it, you can start to bring in your other people — as long as you have a good foundation and they're a small part of it. You can start to train. But with no experience,

to just go into it and start it would be pretty rough. As a matter of fact, I say you would have a real high rate of failure."

Creative Plantings, a mostly interiorscaping firm, evolved its exterior business slowly. The same crews handle both the interior and exterior work, Mangum said. "We probably did our first exterior work about 15 years ago. As the business expanded, we added equipment and so on. We could compete with most any exterior company right now, but we just don't do larger scale projects. We just really stay away from them."

Mangum has noted more interior companies getting into exterior than vice versa. "I think it's smaller scale, and it's usually work exterior folks aren't crazy about going after — small-scale stuff in the city, where you just have different things to be concerned with than in a larger commercial or any residential setting."

"For example, you have parking tickets, people walking down sidewalks to the bus stop. We're used to dealing with that type of thing in people's hallways. In hotels, you have to be really sensitive to those kinds of things. To most exterior folks it's a different operation. Our people are really trained from inside out and I think that's a little bit easier of a transition."



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nents last longer than competitive machines. Compare Scag's decks, frames, controls and handles to the competition. You'll quickly see why a Scag keeps cutting, while others are in the repair shop.

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Approaching Turf Weed Management Through IPM

WEED MANAGEMENT is a component of any sound turfgrass program and is dependent upon the maintenance of a dense and healthy turf. A thin, weak turf is an invitation to weeds. Consequently, a weed management program is dependent on successful maintenance of a dense and healthy turf.

The first step in stopping weed invasions is selecting the most appropriate turfgrasses for the site, preparing the seedbed properly, optimizing turfgrass maintenance practices (fertilization, irrigation, mowing, etc.) and controlling insect pests and diseases.

Regardless of the maintenance regime, some weeds will encroach. But an effective weed management program will optimize the competitiveness of the turf to minimize the number of weeds encroaching. Control guidelines can then be developed for the remaining species based upon knowledge of the weeds, the turf management system and the available control options.

To develop a pest management program the pest problem must be understood. First, develop a historical account of the turfgrass and weed management program and problems. Second, scout the property. Record the turfgrass species,

Scouting and mapping turfgrasses for weed infestations can provide lawn service contractors with historical information to better control unwanted outbreaks.

By Joseph C. Neal, Ph.D.

management practices (particularly fertilization, irrigation and mowing practices) and previous pests and pest management practices.

Develop a map of the property identifying historical "hot spots" for weeds as well as other pests and thin turf (each of which will lead to weed encroachment). This historical account will make weed scouting efforts more efficient and effective,

and provide a basis for evaluating the success of future weed management decisions and actions.

Weed scouting is the tool with which the remaining information will be accumulated to develop a customized and effective weed management program. Once current weed species have been identified and documented and their distribution, abundance and possible

reasons for occurrence have been listed, more effective weed management decisions can be made.

WEED SCOUTING. Identify and map all weeds and thin turf areas. Identify current weeds paying particular attention to those which escaped previous control procedures, species known to be troublesome, those which occur in patterns and species new to the site.

If an unknown species is encountered, take a sample for identification. Also learn to recognize "diagnostic weeds," or those which by their presence may indicate correctable soil, site or management problems. It is often helpful to refer to the history for guidance on what to expect and where to look for the first and most severe weed outbreaks.

On the scouting map, record the following:

- the weed species, location, distribution, relative abundance and patterns (if present),
- areas of thin or damaged turf, and
- drainage patterns, dense shade from trees or other factors which might directly or indirectly affect turfgrass vigor and the grass species present.

(continued on page 58)



Common turfgrass weeds (left to right), dandelion, Florida Pusley, ground ivy, hawkweed and henbit. Illustration: Wilbur-Ellis

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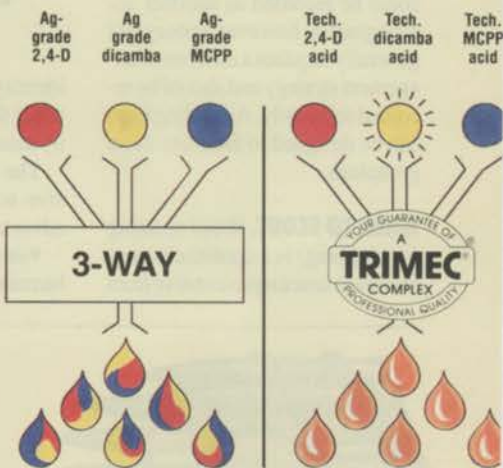
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In a standard 3-way tank mix, the droplets are not always identical, so there can be discrepancies in control. In a Trimec complex, every droplet is identical, for weed control you can count on — time after time.



Color code: Red, 2,4-D; yellow, dicamba; blue, MCPP; amber, Complex acid. Note: Colors are for code only and do not indicate the color of the product they are intended to identify.

The schematic drawing above indicates that, in a formulator's tank-mix (left), the molecules of 2,4-D, MCPP, and dicamba do not combine to form a new molecule. Accordingly, each droplet will be different and control may vary from droplet to droplet.

In a Complex (right), the three acids are reacted together to form a salt. Every droplet is identical, and thus precisely optimizes the intended synergistic activity.

The differences between a tank-mix and a Complex become significant when the goal is aesthetic excellence.

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Weed Control

(continued from page 56)

It's not necessary to record every species encountered. Some knowledge of control procedures can help streamline the scouting process. For example, if a property is infested with a complex of easily controlled broadleaf weeds, identify them on the map as broadleaves. On the other hand, if a single weed species dominates the population, it should be identified and mapped separately.

Additionally, species requiring different management procedures should be individually identified. For example, a mixed population of crabgrass, foxtail and panicum could be recorded as summer annual grasses; however, goosegrass generally requires a different management strategy and should be recorded separately. A scouting form can be designed to facilitate these groupings.

WHEN TO SCOUT. Weed scouting (or mapping) is a continuous process; each time a representative from

a company is on a property, pest and turf problems should be reviewed. A comprehensive weed scouting once or twice a year will provide an assessment of how effective a weed management program is. This assessment will also

High priority areas will have a more intensive maintenance regime and a lower threshold for weed infestations.

identify serious weed problems while they are small and more easily managed.

The timing of the comprehensive scouting is critical. Timing advantages include:

- summer annual, winter annual, biennial and perennial weeds are all

present and easily identified;

- site modification or repair work can be accomplished and turf reseeded in the fall;

- winter annuals are young and more easily controlled in the fall than in the spring;

- perennial broadleaf weeds are also more easily controlled in the fall; and

- ample time is available during the winter to reassess your current weed management program.

Less comprehensive scouting should be conducted in the spring and summer months to assess the effectiveness of fall treatments, identify immature seedling weeds when they are more easily controlled (particularly important for summer annuals such as crabgrass, goosegrass, spurge, etc.), and to gauge the density and quality of the turf.

More frequent scouting may be necessary in regions with longer growing seasons to accurately document the weed infestations in warmer climates.

HOW TO SCOUT WEEDS. The actual scouting process can be simplified

by dividing the property into management units. In a home lawn, these units might be as simple as the front, back and side yards. On commercial properties, campuses and parks, the management units should reflect the priority status of the area. High priority areas will have a more intensive maintenance regime and a lower threshold for weed infestations; whereas, low priority/lower maintenance areas may have a higher threshold for weeds.

Walk or ride the area in a zig-zag pattern, stopping at key indicator areas for a closer look when early detection is essential. If you encounter an unknown weed, take a sample for identification. High priority areas require a more comprehensive procedure, with lower priority areas requiring less. On the property map, record the information previously described. By mapping the species and locations, you build a "picture" of the weed population and distribution, as well as identify patterns which might suggest an underlying reason for the weeds' presence.

Weeds occur in turf for several



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 Bracted plantain

WET SITES

Moneywort
 Annual sedge
 Annual bluegrass
 Alligatorweed
 Pearlwort
 Moss
 Liverwort
 Rushes (*Juncus* spp.)

the presence of which may indicate soil, site, environmental or management problems. For instance: the box to the left features species which are well adapted to extremes in soil moisture conditions, drought-

prone or excessively moist sites.

Encountering one or more of these species as the predominate weed(s) can signify that the site conditions may be too dry or too moist for optimum turfgrass growth. However, remember that the presence of one or more of these weeds is not proof of a moisture problem as they will grow well under optimum water availability.

Also, there may be other reasons for a weed's presence. For example, annual bluegrass presence does not prove that the site is too wet; other factors make this species more competitive than the desirable turf, such as compaction.

The following weeds are adapted to the shallow rooting conditions associated with compacted soils:

- Annual bluegrass
- Corn speedwell
- Annual sedge
- Goosegrass
- Annual lespedeza
- Prostrate knotweed
- Broadleaf plantain
- Prostrate spurge

Several of these species are better adapted to compacted, dry soils, like annual lespedeza, goosegrass and spurge, while annual bluegrass and annual sedge are better adapted to compacted, moist soils. Either extreme results in shallow rooting and poor turfgrass vigor, leading to a competitive advantage for the weeds.

Core cultivation is used to alleviate compaction. Under most conditions, herbicide efficacy is not reduced by this procedure. Likewise, no increase in weed germination should occur when aeration is done when the turfgrass is growing vigorously.

However, if coring is done when turf vigor is low and weed germina-

tion is high, some increase in weed germination can be observed. For example, core cultivating Kentucky bluegrass in early summer will often lead to increased crabgrass emergence. When core cultivation must be done at non-optimal times, use a smaller diameter tine (about 1/4 inch); the turf will fill the smaller holes more quickly, minimizing the opportunity for weed emergence.

In general, core cultivation will improve turf vigor and competition, effectively offsetting any increased weed emergence which might occur. The hydroject system is less destructive and may not increase weeds; however, this has not been investigated.

Soil pH and fertility can affect turfgrass vigor and the weed species present. The presence of red sorrel often indicated acid soil conditions (however, this species has been observed growing in pH 7 soils). Nitrogen is one of the most important elements to consider when examining the effect of soil fertility on turfgrass vigor.

The following species are well

reasons. The weed may be well adapted to persist in the closely mowed plant community (like annual bluegrass); exploiting a unique niche created by management procedures (like pearlwort in a heavily irrigated green); or the turfgrass has been weakened by some site, environmental, or management factor(s) consequently favoring weed growth over that of the desirable turfgrass.

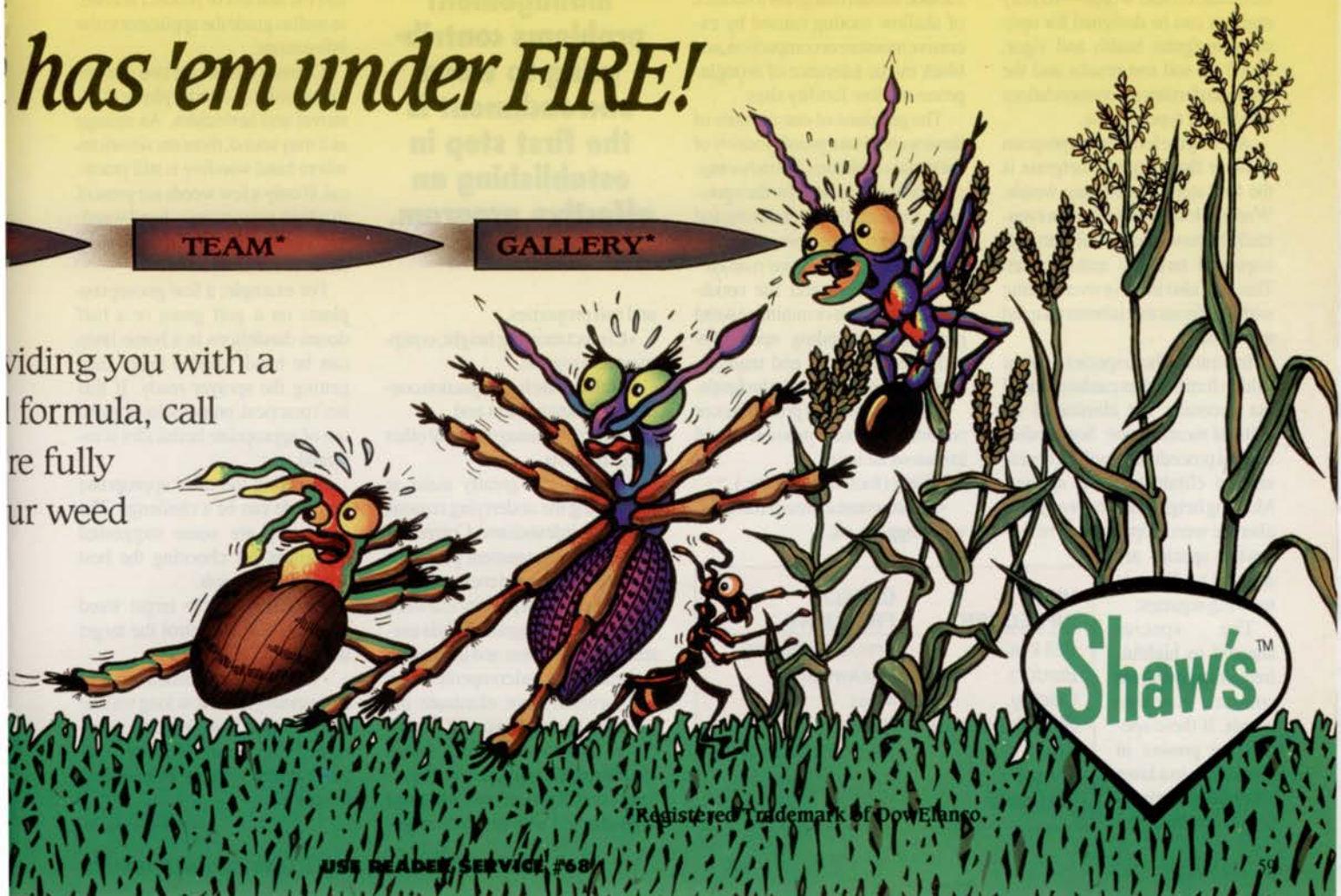
Many weed infestations can be minimized by altering the site or management practices to tip the competitive balance in favor of the turfgrass. How do we identify such instances? One way is to take your cues from the "diagnostic weeds,"

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USE READER SERVICE #68



Common turfgrass weeds (left to right), spurge, violet, white clover, wild garlic and wild onion. Illustration: Wilbur Ellis

adapted to extremes of soil fertility, very low to very high nitrogen:

LOW N	HIGH N
Birdsfoot trefoil	Annual bluegrass
Black medic	Chickweed
Broomsedge	Moss
Clovers	Ryegrass
Common speedwell	
Hawkweed	
Moss	

Phosphorous and potassium have also been shown to influence weed populations; however, in each case the impact of nutrient treatments on weediness can be linked to the overall health and vigor of the turfgrass. In other words—fertility regimes can be designed for optimum turfgrass health and vigor, based on soil test results and the optimum fertility recommendations for the turf type and use.

Altering the fertilization program to favor the desirable turfgrass is the first step in managing weeds. Weeds at low fertility sites can eventually be controlled strictly through improved turfgrass management. This may also involve overseeding with a turfgrass that is better adapted to the site.

In contrast, those species adapted to high fertility sites can be reduced but generally not eliminated by cultural means alone. Some other control procedure(s) will be necessary to eliminate these species. Mowing height and frequency also alter the weed population. The following species are adapted to different mowing regimes:

The species adapted to high/in-frequent mowing are common roadside weeds. If these species are present in abundance in a lawn situation, it's important to evaluate the

HIGH/ INFREQUENT	CLOSE/ FREQUENT
Bull thistle	Annual bluegrass
Burdock	Chickweeds
Chicory	Moss
Smooth bedstraw	Pearlwort
Sweet clover	Thymeleaf speedwell
Teasel	
Wild carrot	

current mowing regime. These latter species also will grow well at higher cutting heights but tend to be less competitive with turfs as mowing heights are increased.

As with fertility, mowing height should be optimum for the turfgrass species, management and site conditions to ensure the maximum competitiveness and quality.

Close examination of these lists reveals that several weeds are adapted to a range of conditions. This is often associated with the broad adaptation of a species to many ecological niches. Examples include annual bluegrass tolerance of shallow rooting caused by excessive moisture or compaction, and black medic tolerance of drought-prone and low fertility sites.

The presence of one or more of these weeds is not proof-positive of the stated conditions, but rather suggests potential reasons for their presence. Evaluate these conditions and correct them if possible.

In summary, turfgrass management procedures and site conditions can increase or minimize weed problems, depending upon how well the conditions and management are optimized for the turfgrass.

Turf management procedures or conditions which promote weed invasions include:

- Wear (foot, tire, use, etc.),
- Environmental stresses (drought, waterlogging, etc.),

- Introducing weed seed or other propagules (on equipment, in top soil, etc.),

- Aerating or dethatching during peak weed germination and low turfgrass vigor, and

- Any management input not matched to soil tests, the turfgrass species and management of the site.

Good cultural procedures for preventing and minimizing weed invasions include:

- Proper species and variety selection for the site and use,
- Optimum fertility, pH and irrigation management for the turfgrass

Correcting site and management problems contributing to weed encroachment is the first step in establishing an effective program.

and soil properties,

- Correct mowing height, equipment and regime,
- Traffic, thatch, compaction control and management and
- Effective management of other turfgrass pests.

Scouting can greatly assist in identifying the underlying reasons for weed infestations. Correcting the site or management problems contributing to weed encroachment should be the first priority in a weed management program. While correcting the problem and increasing turfgrass vigor and competitiveness will generally not eliminate the weed, failure to do so will almost ensure that the weed will return after herbicide applications. Therefore, control procedures will need to be coupled with site or manage-

ment medication for effective long-term weed management.

DO I NEED A HERBICIDE? If the scouting report contains both the identification and some estimates of distribution, relative abundance and patterns, the decision-making procedure should be simple. Based on the priority status of the pest management unit and the relative abundance of the weeds, ask yourself, "Do I need to treat for weeds." If the answer is yes, the distribution estimates should indicate whether broadcast, limited areas or spot applications are warranted.

If spot or limited treatments are needed, the scouting map should help estimate the area to be treated and the amount of product needed, as well as guide the applicator to the infestations.

Currently, there are two options to controlling weeds: physical removal and herbicides. As strange as it may sound, there are situations where hand weeding is still practical. If only a few weeds are present in a high priority area, hand weeding can be the fastest and most economical alternative.

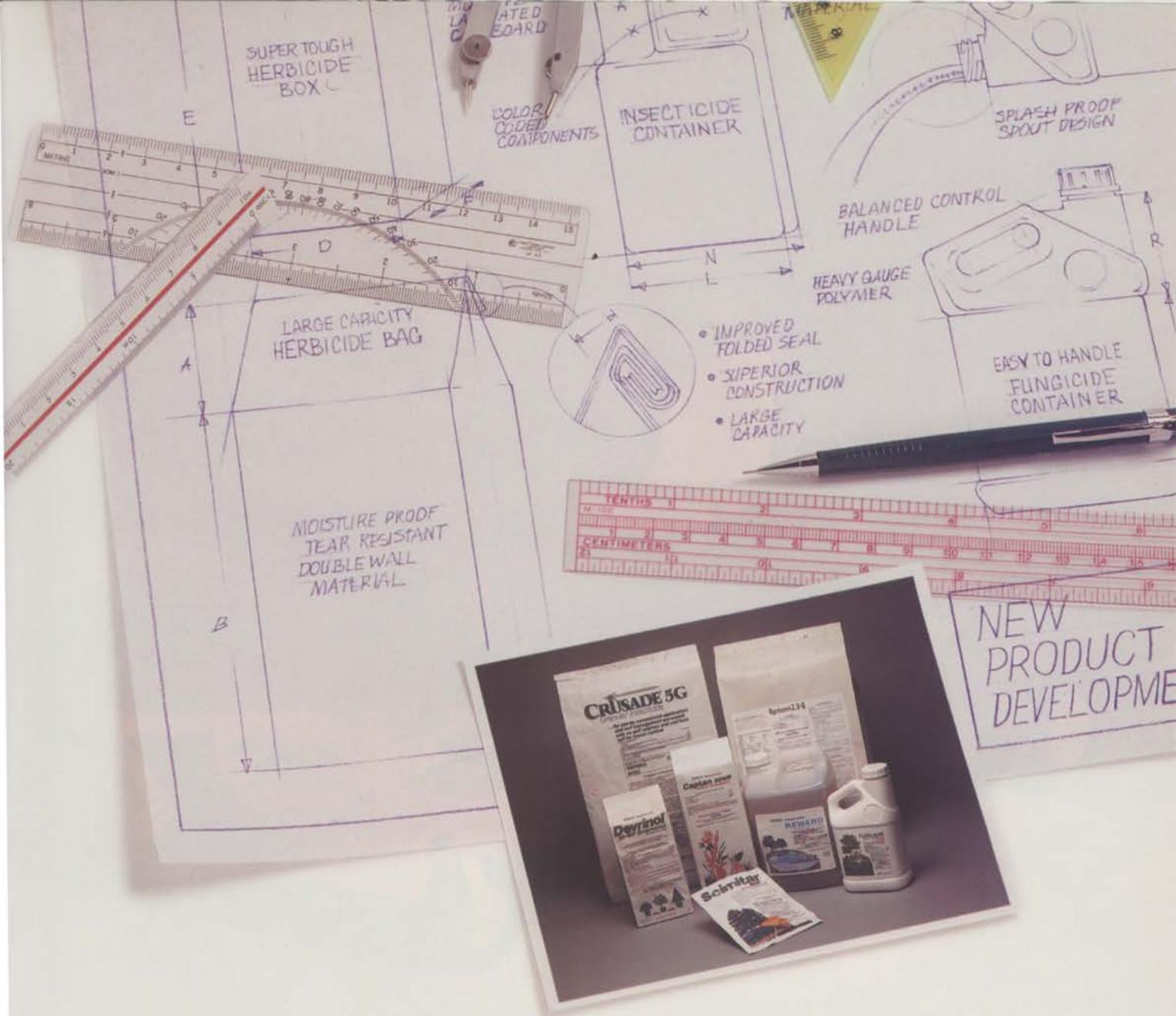
For example: a few goosegrass plants on a golf green or a half dozen dandelions in a home lawn can be hand weeded faster than getting the sprayer ready. If this isn't practical, proper selection and use of appropriate herbicides is essential.

Selecting the most appropriate herbicide can be a challenge. The following are some suggested guidelines for choosing the best product for the job.

- Efficacy on the target weed species: Will it control the target weed?

- Longevity of residual control (if preemergent): How long will the control last? Will multiple treatments be necessary? Will the residual interfere with my overseeding program?

(continued on page 64)



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USE READER SERVICE #21

Weed Control

(continued from page 60)

• Turfgrass species and management: Will it injure the turfgrass species on my site?

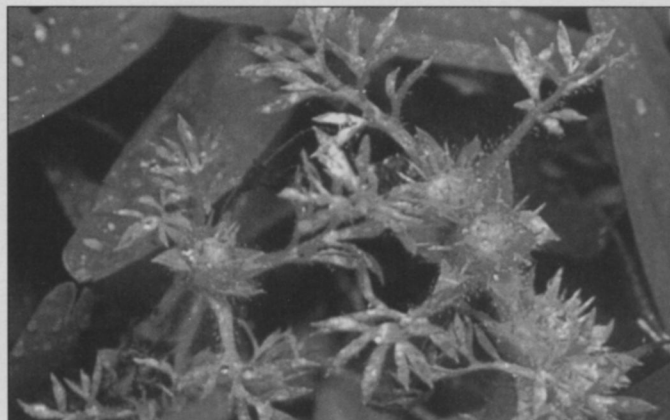
• Weed status or growth stage: Do I need a preemergent or postemergent product? For a postemergent treatment, does weed age or size (tiller number) affect product or rate selection?

• Weed control spectrum: Will other (incidental but important) weeds also be controlled? For example, crabgrass will be controlled but what about the spurge or goosegrass which occurs sporadically?

• Available equipment: Do I want to spray or spread granules? Do I need to alter my equipment (such as changing spray pressure and nozzles) to achieve adequate control?

• Proximity of susceptible species: Are there susceptible landscape plants nearby? Would another product reduce the chances for non-target effects?

• Environmental impact and mammalian toxicity: Is this product the safest or most environmen-



tally friendly option?

• Economics: How much does it cost for an "acre treatment" and how many "acre treatments" will be necessary for season-long control with each option? What are the labor and equipment costs associated with repeat or sequential applications?

Once a herbicide has been chosen, proper application is crucial. Misapplication increases the chances of turfgrass injury, lack of control, skips in control and injury to off-target species. It wastes herbicides,

applicator time and money, produces unsatisfied customers and invites criticism and regulation.

Information on the subject of sprayer or spreader maintenance, calibration and use is available from equipment manufacturers and from Cooperative Extension.

Weed mapping can be used to identify not only weed populations but also turfgrass management or site conditions which may be contributing to the weeds' success. In other words, the weeds may be trying to indicate something about the

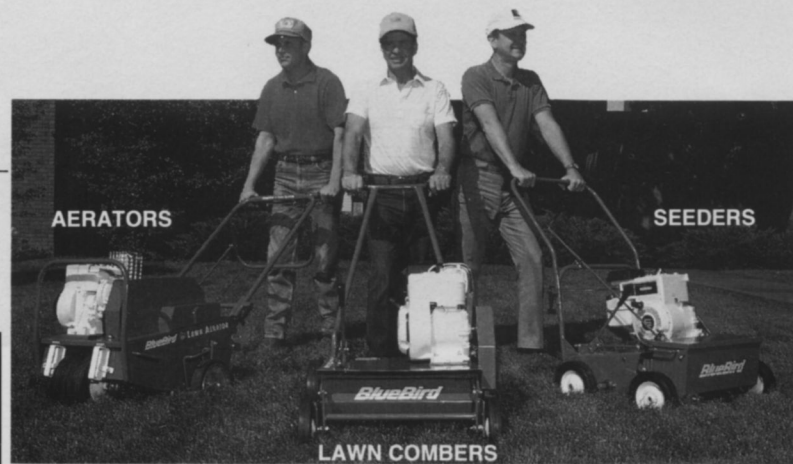
Spurweed should be treated in early spring or during active growth. Photo: DowElanco

site, soil or management which allows weeds to be successful.

By listening to weeds, heeding soil tests and following the best management recommendations for turfgrasses in specific regions, the number and severity of weed infestations can be minimized. After all, a dense and healthy turf is the first line of defense against weeds.

However, it is nearly impossible to completely eliminate weeds by improved turfgrass management alone. If a reasonably weed-free turf is desired, integration of cultural procedures and herbicides is necessary and produces the best long-term solution to turfgrass weed management problems. ■

The author is an associate professor of weed science, Department of Floriculture and Ornamental Horticulture, Cornell University, Ithaca, N.Y. Neal recently presented these views to the New York State Turfgrass Association.



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Mower Productivity Rates: Finding the Right Formula

Figures derived by following strict formulas serve as a valuable gauge, but often fail to factor in real-world conditions.

By Bob Gitlin

AS WITH MOST rules, formulas used to calculate mower productivity frequently go out the window as contractors labor to meet the cutthroat demands of the marketplace. Attempts to precisely calculate, by mower size and field

size, how long the job will take must be taken in context. And attempts to bill or to bid on the basis of these numbers, to many contractors, can be futile.

One good mowing time formula, devised by The Deere Co., Raleigh,

N.C., goes like this: 108.9 divided by [mph x 0.9 (mower width in inches)] equals hours to mow an acre x 60 minutes, which equals minutes to mow an acre.

The factor 108.9 includes the acres-per-hour dimensions and a

10 percent time factor for turning at the end of swaths. Mowing speed is the miles-per-hour rating at the recommended mowing gear or usual ground speed. Deere uses nine-tenths of the mower deck width to factor in overlapping swaths for a uniform mowing job.

"Here's an example," said Bob Tracinski, a Deere spokesperson. "If the normal, safe mowing speed of a lawn tractor is 3.5 mph and the mower deck width is 38 inches, then we multiply 3.5 times 34.2 inches (nine-tenths of 38); the product is 119.7. We divide 108.9 by 119.7 and get the answer of 0.909, or 0.9 hours. Multiply that by 60 minutes to get the answer of 54 minutes. To mow an acre of lawn (assumed flat, no landscaping touches) with a 38-inch mower deck at 3.5 mph will take about 54 minutes."

Needless to say, you have to work backward from here to work in all the trees, shrubs, landscaped touches, gates, etc.

LIKES THE FORMALITY. Some lawn and landscape maintenance professionals find it useful to follow fairly stringent schemes for calculating mower productivity rates.

Dan Ferrise, manager of landscape management for Stano Landscaping, a Milwaukee company that handles about a 60/40 commercial/residential mix, has production figured out like this:

With a 21-inch mower, an easy job takes 6,000 square feet an hour; a medium-difficulty job, 5,000 square feet; a difficult job, 4,000 square feet. The corresponding numbers for a 36-inch are 12,000, 10,000 and 8,000; a 48-inch, 34,000, 24,000 and 15,000; a 60-inch, 40,000, 30,000 and 20,000; and a 72-inch, 60,000, 40,000 and 30,000.

Ferrise admitted that the mowing time formulas — and they're available from all the major mower manufacturers — are ideals from which the fudge factors must be deducted. "You buy a 60-inch riding mower and they say it can do so many square

Many professional contractors develop formulas to determine the cost of mowing commercial and residential properties including manhours, equipment selection and downtime between jobs. Photo: Teufel Nursery-Landscape.



feet an hour, maybe 40,000. But that means it's got to be flat, wide open, not a single tree in the way."

A site-by-site assessment is needed, he said. That's how he came up with ballpark difficulty figures for all his mowers. Only now does the mowing formula he uses really work for him.

Has new mower technology changed the way these assessments are done over the years? "Sort of," Ferrise said. "Some mowers have a little better maneuverability, so that reduces the numbers."

Like most big lawn maintenance contractors, Stano Landscaping has different kinds of crew configurations depending on the situation.

"I have four different types," Ferrise said. "Each has its own set of mowers." One crew has two riders and a walk-behind; another, one rider and two walk-behinds; a third, also one rider and two walk-behinds, only different sizes; and the fourth (mostly a residential crew that usually does smaller jobs), two 36s. "Of course that doesn't count the 21s. They all go out with those, for trim work and tight spaces."

MOWING PRODUCTIVITY CHART

(in acres per hour)

Width of Cut	Travel Speed				
	2mph	3mph	4mph	5mph	6mph
21 inch	.42	.63	.84	1.05	1.26
30 inch	.61	.91	1.21	1.52	1.82
38 inch	.77	1.15	1.54	1.92	2.30
48 inch	.97	1.46	1.94	2.43	2.91
54 inch	1.09	1.64	2.18	2.73	3.27
60 inch	1.21	1.82	2.42	3.03	3.64
72 inch	1.45	2.18	2.91	3.64	4.36
76 inch	1.54	2.30	3.07	3.84	4.61
144 inch	2.92	4.38	5.84	7.30	8.76

These production rates assume 100 percent constant cutting. Estimate a percentage of time lost due to maneuvering around the landscape, buildings, hills and odd-shaped areas, refueling the mower, as well as 5 percent to 10 percent for overlapping cuts on each pass of the mower. Collection of clippings also reduces mowing production.

Ferrise said mowing productivity formulas help him assign the right crews.

Is there a difference in mower productivity rates between commer-

cial and residential cutting? Ferrise said yes. "Residential jobs tend to be more meticulous. People want a little better cut and they're willing to pay a little more. And, if it's a

large property, it takes even longer."

The crew to send out on a large open area would be the one with the 72, the 60 and the 36. With easy access, 60,000 square feet an hour will predictably be reached by the big mower. "But then you look at the more average work, with more obstacles, and you won't even do 30,000 on that," Ferrise said. "You simply have to figure out how much work each of those mowers can accomplish."

Pat Enstrom, landscape maintenance supervisor at Teufel Nursery-Landscape, Portland, Ore., manages an all-commercial mowing operation whose accounts range from 1 to 60 acres. "We base our productivity rates not upon manufacturers' specifications, because they're almost always overly optimistic. Mowing involves more than cutting a flat grass area," he said.

Mower size types provide useful overall time averages. "For instance, a 21-inch mower almost always realizes 5,000 hourly square feet," Enstrom said. "We have a different production rate for what we call difficult, which is 3,500 square feet

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Inclines and other obstacles on the property need to be accounted for in a quote. Photo: John Deere.

an hour, but that really only applies to small jobs. If you're mowing for more than a couple hours on a large enough project, 5,000 is a very realistic number. We could go higher

but there's no incentive to reduce prices."

Enstrom's standard cut with a 36 is 10,000 square feet an hour, 7,500 on difficult or tight mowing jobs.

He uses the same figures for the 48s. "Don't ask me why. We do two-thirds of our mowing with the 36s," he said. Maybe that's why another measurement category was

never necessary; the figures were close enough.

For his 70-inch triplex reel mowers (necessitated by the quality- and ecology-conscious Northwest market), the production rate being used is 15,000, he said.

A 72-inch outfront Toro rotary used for rougher cuts uses two production rates: an acre an hour, or 30,000 square feet an hour. These same rates apply to a jumbo Ransomes five-gang reel.

These data are fully computerized at the Portland shop.

"We purchased a software program called Timberline, which is primarily developed for construction and general contractors," Enstrom said. "We bought it because it can do all our job costing, payroll and office management functions. Everything's on it. We had to do a lot of work to tailor it toward landscape maintenance, but

(continued on page 70)

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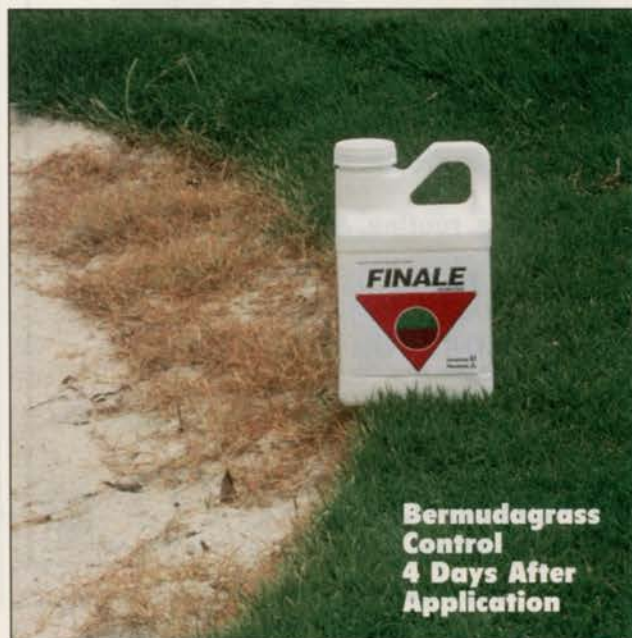
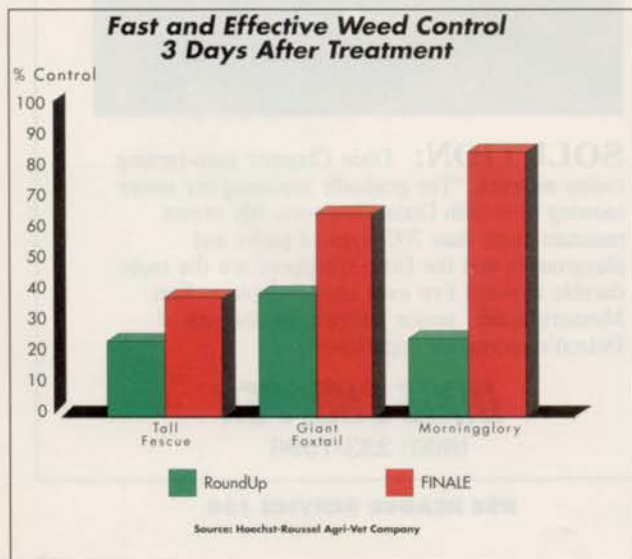
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USE READER SERVICE #91

Mower Productivity

(continued from page 67)

it made sense to do so."

Formulating electronically hasn't made his life any easier than if he scribbled on a legal pad, but as long as everything else was on line, it made sense to computerize this function too.

DO THE NUMBERS ADD UP?

You talk to most lawn maintenance contractors about mowing-time formulas and they're going to start talking to you about bidding for jobs.

Terry Stout, president of R.B. Stout Inc., Akron, Ohio, has, among other entities in his business, a grounds maintenance department that does about 80 percent commercial work.

When asked if he uses a formal process for calculating mower productivity by deck size and expected job difficulty, he responded, "We're pretty much quoting based on site logistics, location and difficulty. Everybody knows how much a mower can mow in an hour. You can basically just say an acre per hour on a

48. But that's not really what's going on. It's getting to the site. It's what's the next closest site, how many fences, what's the rest of the crew going to do if it's just mowing? Somebody's got to pay for them."

In view of all this, his attention has focused on locking customers, as much as possible, into three-year contracts. "It's a complete package deal, with mowing, spraying and fertilization. They pay a set monthly fee for eight months. We don't have extras, in and outs, anything like that."

He used to get involved in the kinds of numbers Ferrise uses, but found it got to where it was no longer useful for him.

"We set up a computerized bidding process that did that, but we found that cumbersome. The difficulty factor used by one person putting the quotes together isn't the same as those used by someone else. We base our quotes on the particular crew, crew size and location. We match location to crew size. 'OK, this crew can drive here in 45 minutes and mow in 3 hours,'

MANUFACTURER'S MESSAGE

AS NATIONAL ACCOUNTS manager at John Deere Co., Raleigh, N.C., Keith Hoverstad fields a lot of phone calls from contractors who want to know how Deere develops its mowing time formulas. He would like to stand atop a tall building with a bullhorn and scream that these numbers were never intended to be anything but ideals from which the predictable obstacles, in-and-out times and other variables must be deducted to achieve real-life figures.

Added Bob Tracinski, a company spokesperson: "What people have to do is run a stopwatch to time certain kinds of mowing jobs. Any kind of mathematical formula can't take into consideration all the variations of every piece of terrain. Every job site's going to be different, so through experience you get an idea roughly how much time it'll take to do different kinds of jobs. Our charts and formula give you something to go by as a starting point."

we might decide. We found if we customize to the site, we lose."

This method allows Stout greater flexibility in collecting business, he said. "Say you're out in the boonies or just at a big factory. Someone saw what you did, liked it, and wants you to do their small office down the street from the factory. If you've got four guys and it's 1 acre, it's still going to take them the hour.

And you have to charge for it. The travel time would kill me to send a two-man crew to do that little job and come back. But I want the business."

These are the types of exceptions (which help cement so many successful lawn maintenance contracts) that get lost in the equation if you're tied to billing systems that trace themselves to an orthodox use of

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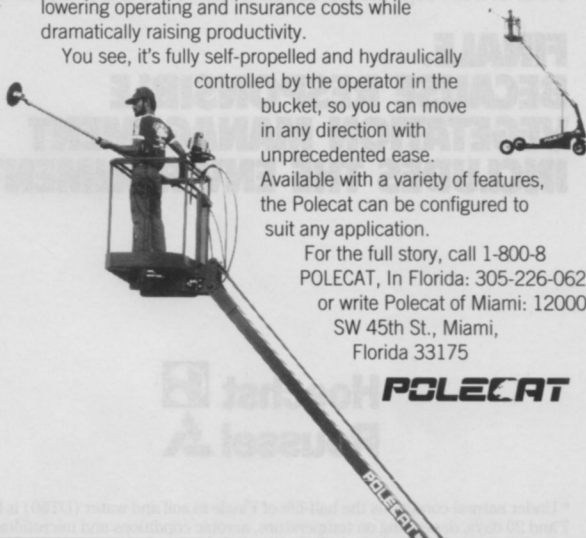
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Landscapes

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mowing productivity formulas.

Similarly skeptical (though respectful) of mowing productivity formulas is Sam Russo, president of Sam Russo Landscape, a Bayville, N.J., company that mows 14,000 lawns a week, mostly retirement communities and some individual houses.

"We probably cut about an average of 750 square feet a minute," Russo said. A lot of what's useful from hourly-rate formulas he has internalized after 12 years in the business.

Sometimes, he said, the time formulas don't even translate into real-world terms. "In reality, so many times you know what the bid price is, the price you have to beat, and you don't always have the luxury of sitting back with a formula."

He's primarily concerned with equipment selection as a way to make his mowing as productive for his bottom line as possible.

"Our common-area machines — 60-inch Dixie Choppers — work well on big open fields; we can get about 3 acres an hour. My main concern has been finding the most efficient machine to cut those common areas, and to not have secondary equipment that does it slower (if it does it slower they don't even want it). I know that a certain 42-inch walk-behind with a grass handling system will do about an acre or acre-and-a-half in an hour, and no other machine out there works that well in tight places."

These are the kinds of things Russo concerns himself with to make money mowing and continually enhance his reputation.

Productive mowing depends primarily on knowing the best possible equipment is being used, and the ability to determine a break-even point and desired profit margin, he said.

"We try to work multi-year contracts with percentage increases for mowing. Throughout the contract, the more years they sign the less percentage per year we charge. This way we get some longevity out of the contract, the customer saves over the long haul, and we get them out of the market from shopping with 25 bidders with 25 different prices," he said.

The reality of the contracting world often dictates against clean-cut mathematics. "Mowing-formula numbers are good stuff," Russo said. "If I had the right contract, it would be nice to work it out that way."

He has made a career of using gut instinct, which sometimes flies in the face of standard wisdom buttressed with charts and graphs.

"I've sat with these 'experts' that say, 'You're crazy doing that,' but I can tell you that sometimes what would appear to be my worst contract becomes my most profitable. Maybe I know going in they don't want to pay anything for grass cutting, but they're going to throw me \$60,000 a year in extra tree work."

REAL-WORLD APPLICATIONS. Mowing-time formulas provide a good basis for lawn maintenance contractors to do their initial figuring on how to assess their own costs, by time, money and man hours.

Obviously, to reach realistic figures, the smart contractor will time four or five standard mow-

ing job types, at least every other year or so including a big open-field commercial job, a small residential job, etc. The formulas provided by the mower manufacturers are a gauge to work back from to reach your true numbers.

Once these are realized, a lot of the veterans don't even bother with the numbers anymore. The figures become part of the instinctual knowledge that enables the contractors to spit out a price, or bid a job, by doing a little scribbling or clattering around on the office PC.

Sometimes the bidding marketplace even forces you to "give away" one aspect of landscaping in hope of either gaining a foothold in

another segment or delving into a whole other service area that could prove more lucrative for your business.

Mowing productivity formulas are a sound, elementary business practice. They teach you your own costs — an important consideration in anything you do. More than that, however, they teach you a way to charge for the services offered and performed by your crews.

Unfortunately, these are often two different things. ■

The author is a Contributing Editor to Lawn & Landscape Maintenance magazine.



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Trouble in Twin Cities

WHEN *FORTUNE* MAGAZINE released its fifth annual "Best Cities for Business" issue last November, Minneapolis squeaked by with a number 10 spot on the top 10 ratings list. (It ranked second in 1991).

Noting that the Twin Cities of Minneapolis and St. Paul are home to 31 Fortune 500 companies, the magazine praised a highly educated work force, access to high technology, excellent transportation and availability of capital. It also took note of the region's "unspoiled countryside" and environmental activism.

Fortune magazine is not alone in its praise for the Twin Cities. In 1991, the Urban Institute of Washington, D.C., ranked the metropolitan area number one for overall quality of life. The previous year, *World Trade* magazine rated Minneapolis the second best city in the nation for international business; and *Forbes* noted that Minneapolis/St. Paul is home to more than 200 of the best small businesses in the country.

Indisputably, the Twin Cities area has been providing superior business opportunities for large and small companies alike. But ask someone involved in the lawn and landscape maintenance industry to describe their economic outlook, and the stories you'll hear will paint entirely different pictures.

Price cutting, bidding

Last November, Minneapolis was rated 10th on *Fortune* magazine's "Best Cities for Business List."
Photo: GMCVA.

Price slashing, bidding wars and an overcrowded lawn and landscape maintenance market leave many contractors wondering, is relief ahead?

By Julie A. Evans

wars and an overcrowded market have many landscape business owners begging for relief. Firms of all size note wicked competition and profit margins in the single digits, down from the mid to upper teens in the 1980s.

As Steve Laugtug, owner of Management and Maintenance Inc., St. Paul, explained, "All that glitters is not gold. Minneapolis is sort

of the mecca of the Midwest, but we're in the dark ages within our industry."

WHAT WENT WRONG? According to many reports, price cutting soared and profitability nose dived in the landscape management market in the mid- to late 1980s. Although no one factor alone caused this industry upheaval, many business owners point to one company, the now bankrupt Green Masters, as a major catalyst.

Founded in 1985 by Charles Glossop, Green Masters of Minneapolis is a case study in how growth left unchecked can spiral out of control and bring down a company along with some of its competitors.

The company appeared to be a Midwest success story: Revenues for the landscape maintenance firm grew from \$20,000 in its first year to \$2.1 million in 1990; and at its peak, the company employed approximately 35 full-time employees and an additional 30 seasonal workers. While flush with growth, the company was the subject of a *Lawn & Landscape Maintenance* cover story in 1991.

But according to industry observers, Green Masters was neither watching its profitability nor heeding basic principles of business management; it was reportedly bidding jobs at cost or below. Competitors, fast losing accounts to this formidable force, also lowered prices to salvage business and remain competitive.

"When they (Green Masters) started to bid solely on price, they got everybody scared. Every-

one jumped on the bandwagon and tried to go with them," Laugtug said.

According to Laugtug and others, Green Masters' low bids, combined with slick marketing, a high-tech computer system, upscale corporate offices and a polished sales staff, made the company irresistible to prospective clients.

"People aren't used to seeing that level of sophistication from a lawn maintenance company and it blew them away," Laugtug said. "Their bids were 30 percent to 40 percent cheaper than everyone else in the area, and they had credibility because they seemed so sophisticated...they just blew everyone away."

Steve Hoogenakker, owner of Showcase Landscape and Granulaw, Plymouth, offered a further explanation. He said Green Masters estimated the potential market for landscape maintenance





The Twin Cities have also been praised for their quality of life. And in the warmer months, the area's parks and resorts are lush with growth. Photo: GMCVA.

in the Twin Cities area at \$500 million, when in fact \$10 million to \$12 million would have been a more reasonable estimate. Based on that \$500 million, Green Masters set its long-term sales goals at 10 percent of the market, or \$50 million, according to Hoogenakker. Since the market was not that big, they didn't get the share they had hoped for and lowered prices considerably, he said. "When they started lowering prices by 30 percent, others said 'we could do it for 35 percent less.' The reaction of other companies exacerbated the whole thing," he said.

Glossop, who now is vice president of landscape management for Artega Natural Green Corp., Eden Prairie, conceded that his former company is largely responsible for the current industry chaos.

"The market is definitely weaker than it was three or four years ago," Glossop said. "We're seeing pric-

MINNEAPOLIS

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RESEARCH CENTERS: 235
EDUCATION OF PEOPLE AGE 25-PLUS: BA or higher, 26.9 percent;
grad degree, 7.7 percent
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PRESENCE OF INNOVATIVE FIRMS: rank 18
PRO-BUSINESS ATTITUDE: Rank 56

Source: Fortune, Nov. 15, 1993

ing at levels attained 10 years ago, and a lot of the pricing structure got set in place by Green Masters and (former business partner Dennis) DeSender," Glossop explained. "He, being a numbers driven individual, wasn't looking at what clients wanted. He thought he could constantly lower prices. It lowered margins to such a level that there was no way he could make money and he lost the focus of the busi-

ness, which was customer service. The external and internal client fell apart."

Glossop said he "walked out" in May of 1991 because the business philosophy no longer mirrored his own. On Aug. 11, 1992, Green Masters filed for Chapter 11 and operated under that protection until July 1993.

Mike Hoogenakker, a sales representative for Showcase Landscape

and Granulawn, was interim president for Green Masters from March to July, 1993. Hoogenakker said Green Masters did price some jobs too low, but said that's not the sole reason for the company's demise. He declined to elaborate, citing legal reasons.

Meanwhile, a dismal market scene continues to plague Laughtug and other landscape management business owners. The industry is caught in a Catch-22: Property managers, enjoying the low prices, aren't willing to pay more for services; and landscape firms are fearful of raising prices, believing they would lose work altogether.

ACCEPTING RESPONSIBILITY. According to Jim Birch, CEO and co-owner of BLM Inc., Little Canada, "Green Masters had a large responsibility for bringing prices down, but also my peers are afraid to charge what they should. Property

managers realize the more they shop, the better value they're getting for their dollar...Everyone wants to raise their rates, but they're cautious. They think, 'if I raise the rates, am I going to lose some customers? If I lose customers, how am I going to pay the rent?'"

As for his own company, Birch said, he elected to bring his company down from 1992 gross sales of \$1 million to its present size of \$700,000. The reason: He attempted to "get big and compete with the big guys" and began to struggle to track costs. Customer service also slipped. Now, he said, the company has a tighter grip on its accounting, and customers are being serviced better.

According to Birch, town houses on average are being maintained for \$18 to \$19 per month. "That's a hell of a lot of responsibility for \$4 to \$5 dollars a week," he said.

Another problem, Birch said, is that many landscape maintenance owners don't understand the fiscal ramifications of their business decisions. "There's plenty of work for all of us out here. We could all de-

crease the bulk of business that we have by 50 percent and charge that (remaining) 50 percent 25 percent more and make a heck of a lot of money.

"A lot of my peers in this business only evaluate how they're doing by their gross sales. Very few have a handle on net profits. I consider net profit after I've paid all expenses and me," Birch said.

Tom Mann, whose Eagan-based landscape firm, The Caretaker, was a victim of the competitive market (he sold his accounts in 1990) added that many contractors in the Twin City area don't have a good picture of their profits. "Profit should be what's left after everything is paid for," Mann said. "The greater majority of companies are not profitable if you follow general rules of accounting."

According to Mann, too many people enter the business as technicians who know the basics of mowing a lawn but not of writing a business plan. "When we used to hold seminars on how to mow a lawn (for the Associated Landscape Contractors of America), we had

high attendance. If it was on how to manage cash flow, we couldn't get attendance. But managing cash flow — that's where the rubber hits the road. It doesn't matter how many lawns you maintain. If you're not managing your cash flow, you'll be out of business in weeks."

OTHER MARKETS. Business owners in the lawn care industry also report heavy competition and price-driven clientele. The market has been losing customers to environmental and economic pressures, according to Mike Hoogenakker.

"Lawn care is more sensitive to economic pressures than lawn maintenance. It's considered more of a luxury that can be discarded," he said. Another factor impacting independently owned firms is tough competition from nationally based franchise firms, Hoogenakker added.

"Lawn care comes down to pricing and you're competing with aggressive marketing companies that have national funding for their marketing efforts," he explained.

Still, Hoogenakker believes na-

tionally based franchise firms have lost the greater percentage of their accounts, as much as 50 percent to 60 percent in some instances, he estimated.

Michael Hornung, owner of a Nitro-Green franchise in St. Cloud, said the market for lawn care grows increasingly competitive as one nears the downtown area. His own business is 60 miles northwest of downtown and he feels buffered somewhat from the overly price-driven market.

"We get people who are willing to pay for quality service," he said. "The closest we get (to downtown) is 30 miles. There, we're starting to run into a lot more competition. Everything is based on price. It doesn't matter what level of service you provide."

Commercial accounts are far more competitive than residential, he added.

Design/build for upscale commercial and residential accounts may be one of the few market segments buffered from the intense price wars. David Luce, president

(continued on page 76)

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USE READER SERVICE #89

Market Report

(continued from page 74)

of Artega Natural Green Corp., described his design/build business as "excellent." It accounts for one quarter of total revenues.

But like others, Luce said there has been little money to be made in landscape construction or maintenance for the past two or more years. As a result of low profit margins, the firm shies away from the bid market in most instances and relies on name recognition and its 20-year reputation for outstanding work. "We've decided to stay out for the last two years unless it's an established company that we've had a past relationship with," Luce said.

In the winter, Luce said, there is money to be made in snow plowing, but a company has to be prepared with proper equipment and personnel. Artega Natural Green won the coveted Mall of America snowplow contract which includes 260 acres of surface area. "We're able to re-use our equipment in the winter," he said. "That's why we are successful. We can use our

equipment year-round."

Kenneth Torborg, owner of the landscape maintenance firm of Chapman-Torborg Grounds Maintenance Co., Prior Lake, told a different story about snow removal. He said snow removal is not as competitive as other sectors but it's more inconsistent.

"I've never felt that I've made much money on plowing snow no matter what the price," Torborg said. "Sometimes you can go a month here with no snow, but the next time you're inundated with 30 inches like we were on Halloween two years ago."

Still, maintenance firms have to offer snow removal to remain competitive, he said. "Many places like to deal with one business for all their needs."

WHAT'S AHEAD. Lawn and landscape maintenance business owners express little optimism for the short-term future of their industry. Few seem to think the price wars will end anytime soon.

"The business owners and plant owners are so used to getting their

lawn maintenance for next to nothing that I don't know how, if ever, we are going to get the prices up," Torborg said.

"I think there is enough work to go around—if everyone would get their prices up a bit and no new lawn services come into business in the next five years," he said. But "so many people come and go around here, it's just unreal."

Steve Hoogenakker echoed Torborg's thoughts about the future of the industry. "Some of the guys now feel that prices are going to get better in the future. I do not hold that view. Property managers are used to lower prices and it's going to be depressed for several years."

However, Hoogenakker has more reason for optimism than many of his competitors. When his brother Mike left Green Masters, a number of customers of the now bankrupt firm switched over to Steve's business.

Several business owners noted that property managers in the Minneapolis/St. Paul area simply don't place the same value on curb appeal as do property managers in other

cities such as Atlanta or Houston. Laugtug said the blame can be placed on the industry as well as on short-sighted property owners.

"The green industry here is motivated by price, not service or quality of service. That's where I think everyone is going wrong. If you're in a service industry, shouldn't you sell service and not price? When I walk into a customer's office, shouldn't I show them how I can do it better than everyone else, rather than cheaper? You can only sell so many customers well."

As for competition, nobody believes the number of new firms entering the industry will die down. Lawn and landscape maintenance, they say, is simply too appealing for those looking for an easy entry into business ownership.

Hoogenakker compared the competition to a weed grown out of control. "When someone leaves, six new ones spring up. I don't think things are going to change." ■

The author is a Contributing Editor to Lawn & Landscape Maintenance magazine.

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USE READER SERVICE #26

**PESTICIDES
IN THE URBAN
ENVIRONMENT**

PART 3

The Legislative Front

To ensure government pays attention to the lawn care industry's voice on key legislative issues, professionals must rally forces to communicate their views clearly, concisely and courteously, but emphatically.

By David Clancy

Ed Note: This is the third in an ongoing series on effectively using and promoting specialty pesticides in the urban environment.

FOR THE ILL-prepared, working with government on legislative issues can be an intimidating experience. However, for the well-prepared lawn care professional, it can be a positive experience that need not be frightening. In fact, according to



PESTICIDES IN THE URBAN ENVIRONMENT

many industry professionals active in legislative affairs, the fear factor is highly overblown. It's all a matter of how you perceive government to operate.

Aside from taking part in industry Legislative Days, the easiest way to get involved in government is through letters and phone calls. The key is not always what your message is, but how you present it.

Tom Diederich, vice president of government affairs for Orkin Lawn Care, Atlanta, said brevity and organized thinking are important. "When writing to legislators, you need to hold your thoughts to one page. Focus on the issue and talk about what it means to your family, your business, your employees or your customers."

He added, "It is important to state your case —

why it is important for a certain bill to pass or be defeated — and then thank them for their time."

"It really is quite simple," said Ben Bolusky, director of government affairs for the American Association of Nurserymen, Washington, D.C. "A succinct one-page letter outlining your position to your legislator will draw attention. Don't underestimate the impact of the letter."

RALLYING SUPPORT. Strength lies in numbers, so if you feel strongly about an issue, it might be a good idea to enlist some help.

"I wouldn't hesitate in calling my competitors to get them writing as well," said Roger Albrecht, president of Nitro-Green, Fairfield, Calif. "On any one issue if (the legislator) gets more than four or five letters, it becomes urgent enough for him to pay attention and read them."

Bolusky agreed, recommending letters address only one subject. Additional issues can be broached in future letters, he said. "A series of single-issue letters builds impact."

Bolusky advised that lawn care professionals writing to a government representative explain in their letters the impact a certain issue, such as posting and notification, will have on their businesses. "Don't say 'this legislation will shut my business down' without backing it up with relevant facts. Provide the legislator with a thumbnail sketch of your business — what you do, how many people you employ and exactly what the ramifications of the legislation will be. You must show how it's going to affect your bottom line."

"You must explain to them the benefits for their constituency," said Norman Goldenberg, vice president/government affairs, TruGreen/ChemLawn, Miami. "You always want to state how many offices you operate in their district, state, etc. Emphasize that you are a small business and how this issue affects your operations."

Allen James, executive director of Responsible Industry for a Sound Environment, Washington, D.C., concurred. "State your business interests rather than personal interests," he said. "Explain that you hire people in the community and build empathy that way."

"Talk specifically about the issue your company is concerned about," he added. "Lay out your points in a way the lay person can understand. Otherwise, you may confuse them. And finally, ask for what you want. Leave them with a clear understanding of your position."

When writing in reaction to a bill already introduced, cite the bill number. "This makes it easier for them to identify the issue, and will help you in

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Washington, DC 20510

Representative's Name

United States House of Representatives
Washington, DC 20515

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Hart Senate Office Building

2nd Street and Constitution Avenue, NE

Russell State Office Building

Constitution Avenue between Delaware and 1st Street, NE

House Offices:

Cannon House Office Building

Independence Avenue between C and First Streets, SE

Longworth House Office Building

Independence Avenue between C and South Capitol Streets, SE

Rayburn House Office Building

Independence Avenue between South Capitol and First Streets, SE

All Senate buildings have the 20510 ZIP code

All House buildings have the 20515 ZIP code



Sen. Bob Dole, R-Kan., (left) and PLCAA's Tom Delaney (bottom) previously addressed Legislative Day attendees. For many, it was also a chance to tour Washington (above) and meet their legislators.

the long run," James said.

For Lou Wierichs, president, Pro-X Systems, Appleton, Wis., his first involvement with government was through a letter that appeared in two newspapers where he did business.

"On a 'no' vote by two of my area legislators, I wrote a letter to the editor, naming those guys for voting against it. That appeared on Wednesday. By Thursday morning I was sitting down having breakfast with both of them."

Wierichs said his letter was concise, direct and positive. "I didn't want to be negative. I tried to be

positive about the bill, yet draw attention to unknown situations."

After that meeting, where Wierichs explained his position, the two legislators have consistently supported his position.

A PHONE CALL AWAY. While letters may be the best way to go, there is nothing wrong with a simple phone call — once again as long as it is straightforward, to the point and non-threatening.

However, when making contact by phone, especially at the national level, chances are that you

The Down Side of Sending Literature

BROCHURES AND other literature often make good enclosures when writing to government representatives about a particular issue. However, there are points to consider when including literature written by other sources.

For instance, don't ever send anything that you haven't fully read and understood. "If you are handing out other people's literature and you haven't read it yourself, you might be giving out contradictory information," said Tom Delaney, director of government affairs for the Professional Lawn Care Association of America. "That may actually sway the legislator against you."

Denny Linnell, co-owner of Lawn-Life Corp., Salt Lake City, Utah, agreed. "I don't send any literature that I don't understand. If I don't understand it, I'll call someone. If I still don't understand it, I hold onto it. I don't even pass it on until a later date."

"Providing literature is not a bad idea," said Allen James, executive director of the Responsible Industry for a Sound Environment. "But, like your letter, it must be straight to the point, concise and describe the business in a clear way. And, you must understand the piece yourself. Your audience might ask questions and, if you cannot provide

solid answers, you have ruined your credibility."

But one key to literature and other information requests might be the speed in which you provide them. "If they request information, do whatever it takes," Linnell said. "Sometimes when (legislators) request information, I'll say, 'Well it may take a day or two, but I'll provide it.' Then I'll come back and work until five o'clock in the morning to get that information to them immediately, so that they can see that my level of interest is very high."

And that perception will show how committed you are to your business.

PESTICIDES IN THE URBAN ENVIRONMENT

will speak to an aide rather than a legislator, according to Tom Delaney, director of government affairs for the Professional Lawn Care Association of America, Marietta, Ga. "But making that contact allows your opinion to be recorded," he said.

"Let them know that you want a particular bill voted for or against, and any changes you would like to see. It is important to let them know that you are either a voter constituent or you are running a business in their area that has a lot of employees and customers who are constituents."

That staff member will typically take notes, and pass along any information to another staff person who has direct responsibility for that issue.

"The staff people really are the ears of their bosses," Bolusky said. "Realistically, the legislator has too many issues on the table to be familiar with every one of them. It is the staff that holds the marionette strings."

"Many times it's our own egos that say we want to meet with an elected person," Goldenberg said. "We must put those aside and realize the aide can help the business more. There are thousands of bills introduced into Congress and at the state level. The legislators are on a lot of committees, and don't always have time to understand the ins and outs of the issues."

A rule of thumb is to look at the number of people the elected official represents, Wierichs said. "The more people they represent, the busier they will be."

For instance, Maryland Senator Barbara Mikulski's office receives between 4,000 and 7,000 letters a week from people asking for her time; more than 700 of those requests are forwarded to her.

As important as aides are to the process, however, their third-party involvement creates some risks, Wierichs warned. "When you deal with an aide, you run the risk of misinterpretation. Make sure the aide understands your position."

CULTIVATING TIES. Building a relationship with a staff member may be just as important as

(continued on page 82)

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USE READER SERVICE #43

PESTICIDES IN THE URBAN ENVIRONMENT

(continued from page 80)

building the relationship with the legislator. After all, the aide is there to advise the legislator.

"Staff people are usually from the legislator's constituent's area," Delaney said. "It's a small world, and that helps build rapport. Oftentimes you will have mutual friends, and that will give you common ground, which can be very important."

"Whenever you have met with or spoken with a member of a legislator's staff, drop them a quick thank you note," Bolusky said. "This helps build rapport and keeps you in a positive light."

However, while building this rapport, it is imperative that you don't gain a reputation as a pest. For instance, don't comment on everything, Diederich said. "You must wait and use your comments for the big issues. If you write on every single bill and every move they make, you become the barking dog in the neighborhood and pretty soon they just take it as background noise. But if

you are courteous and approach the issues directly, they will be interested in that."

"You must be courteous in your actions, even if the elected official hasn't been on your side in a particular area," Delaney said. "You only have two senators. If one of them has been against you on certain issues you still must respect his rights if you want him to respect yours. He can judge the entire industry by you."

Most importantly, never try to intimidate. "Don't threaten the people," Diederich said. "Don't say, 'I'll never vote for you again,' or 'I'll see to it that you'll never hold office again.' Or 'I'll never send you another dollar.' That just ruins professionalism, and discounts your ideas."

Likewise, Bolusky said, "don't say 'I contributed to your campaign, so I want your support.' Be civil and professional, and your voice will be heard."

"I don't want to be threatened about my job, and neither do legislators," Goldenberg said. "They must have justification for voting your position, not threats. If you threaten them, you will alienate yourself from them."

(continued on page 106)

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USE READER SERVICE #18

Landscape Renovation Halts Erosion

Three Southern California counties lost 300,000 acres of land in a recent string of forest and brush fires. Now maintenance crews are racing to restore vegetation to prevent soil erosion and mud slides.

By Cathy Hoehn

AT FIRST GLANCE, Laguna Beach, Calif., looks like any of the numerous small, sleepy towns nestled among the steep Southern California hills overlooking the Pacific Ocean. The hills are dotted with picturesque bungalows and Spanish-style stucco homes, tucked among hollowed nooks and crannies or roosted high over simmering valleys filled with cactus, wildflowers and native grasses and shrubs.

A slow drive along the narrow roads snaking through the scenic countryside reveals a different picture, however.

In some places, one side of the road remains highly vegetated while the other sports lines of green brush amid haphazard stretches of bare red clay. Farther along, a steep incline stemming from the road is nothing but a huge sheet of bare, clumpy red soil marred by tufts of burnt grass, masses of rock and charred cactus stumps. Perched atop the hill, two houses stand mercifully unscathed, divided by the black, jagged foundation of a home licked away by the flames of a raging forest fire.

Neither rhyme nor reason can explain the arbitrary path of the fires' devastation.

In the wake of 17 arson and accidental forest fires late last year, city and county officials from Laguna Beach and other parts of Orange County, Thousand Oaks and Malibu continue to shuffle through the dust, ash and rubble, trying to clean up as best as possible and figure out how to recoup losses, both

in homes and landscapes.

Sixteen of the fires were allegedly started by arsonists; the other by a philanderer seeking warmth. Laguna Beach's fire enveloped 90,000 acres while some 300,000 acres of land and 600 homes were destroyed throughout the region, according to Mike Harding of Woodward-Clyde Consultants, San Diego, the firm charged with developing and implementing the municipalities' plans for reseeded private and public property to prevent soil erosion and mud slides.

Gray smoke still hovered over the scorched earth as emergency crews from the U.S. Department of

Agriculture's Soil Conservation Service and the California Conservation Corps arrived to hastily lay straw bale dams, silt fences and jute mesh blankets to prevent soil erosion, which leads to mud slides.

RESEEDING. While the rest of Orange County and other municipalities remained gridlocked by political controversy over what individual action they should take, city officials from Laguna Beach, a 45-minute drive south of Los Angeles, quickly hired Woodward-Clyde, the same group that engineered Oakland's revegetation and soil erosion prevention efforts after its dev-

astating fire three years ago.

Their objective was to reseed the steep, bare hillsides that coddle the city's homes and businesses. Quick action was imperative; post-fire rains had already caused serious mud slides. Further rainfall could send more mud cascading down, threatening damage to city hall and the downtown area.

Woodward-Clyde speedily devised a plan deemed acceptable by environmentally conscious residents. The firm recommended three methods of securing new seed in the soil and preventing soil erosion: blowing straw topped by a tackifier, spreading a paper mulch and polymer mixture and, in inhabited areas at most risk, using a bonded fiber matrix system.

The firm's main challenge in developing a reseeded plan was determining how to apply and secure seed in hard-to-reach areas on the steep slopes. While traditional soil erosion blankets are effective under most conditions, California's rocky hills called for a more binding (and less expensive) substance that could be evenly applied to 1,000-foot-plus inclines.

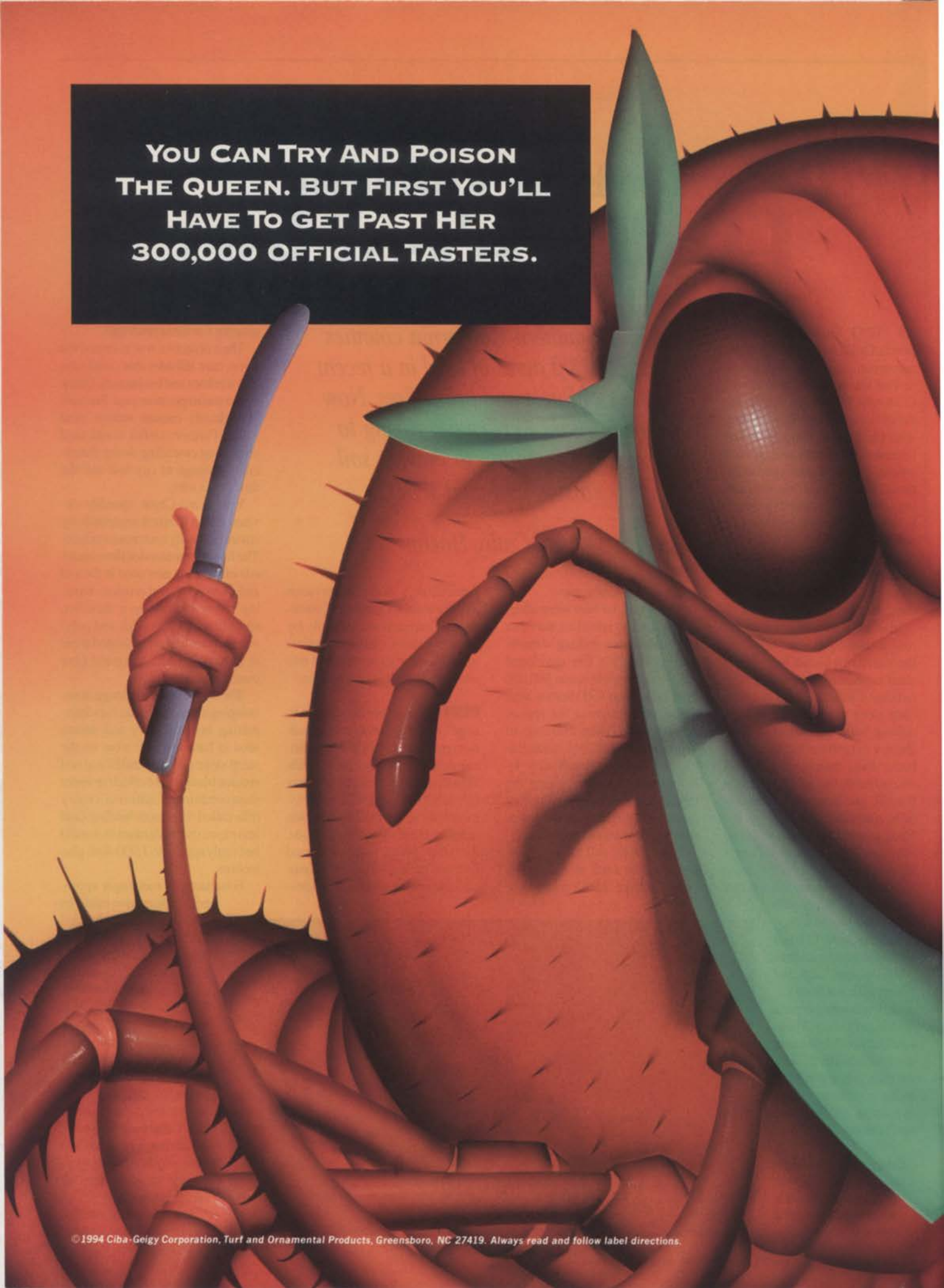
Fortunately, a seemingly appropriate alternative made its way to the market: a bonded fiber matrix system that received high marks in field trials. Only publicly introduced in mid-November, Soil Guard bonded fiber matrix system, a viscous, yellow, spongy substance before mixed with water, is made up of wood fibers, natural bonding agents and organic and mineral activators. Combined with seed, the mixture is sprayed from truck-mounted hydroseeders via lengthy hoses or spray cannons.

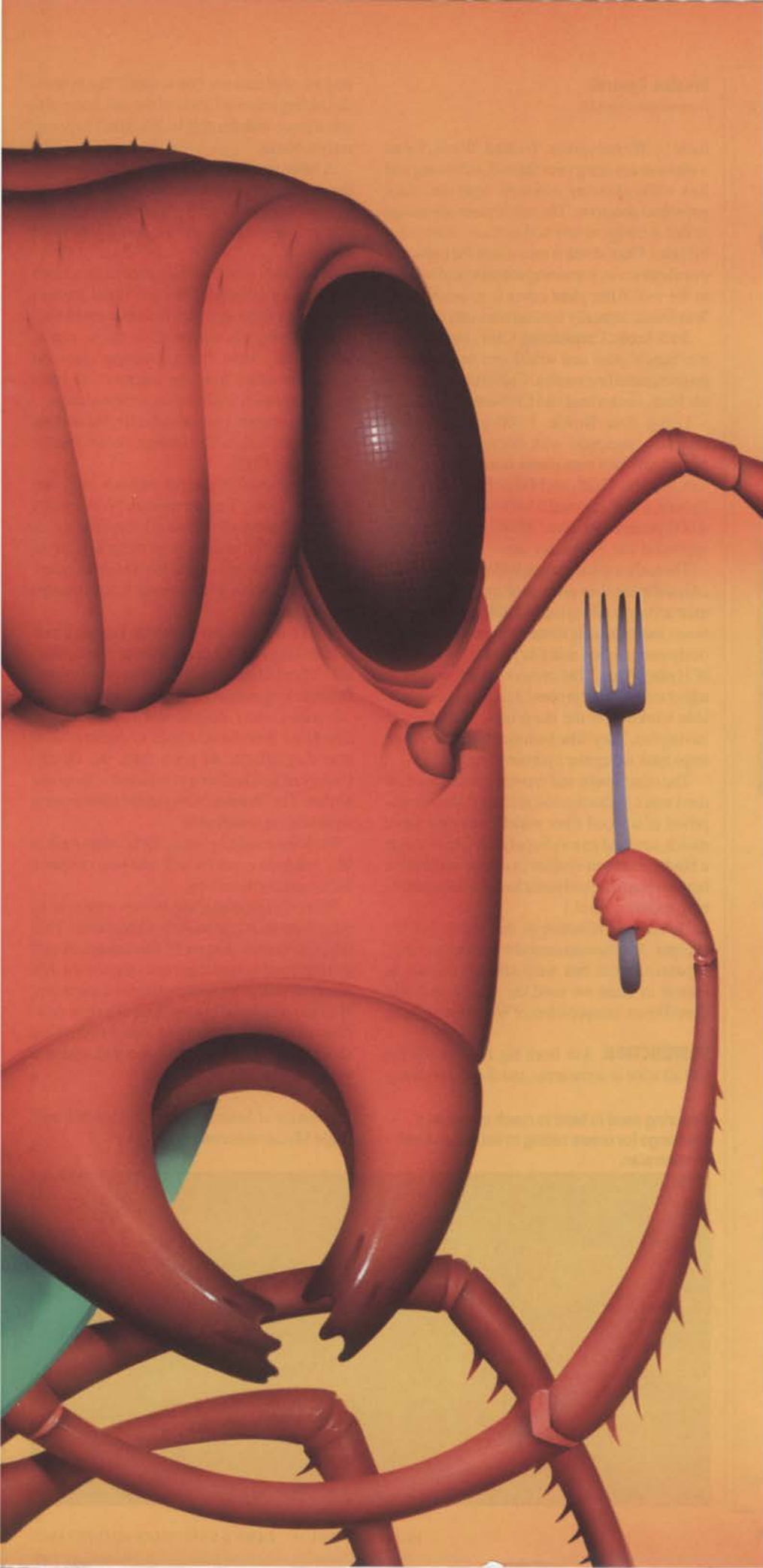
Soil Guard, manufac-
(continued on page 86)



California's devastating fires wreaked havoc on the landscape and everything in its path. Erosion is now a query.

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Erosion Control

(continued from page 83)

tured by Weyerhaeuser, Tecoma, Wash., forms a massive covering over the soil, inhibiting soil loss while allowing moisture, light and plant growth to penetrate. The mix's main advantage is that it clings to any soil surface, even steep hillsides. Once dried, it minimizes the impact of even heavy rain, remaining cohesive and bonded to the soil. After plant cover is re-established, Soil Guard naturally biodegrades into the soil.

S&S Seeds, Carpinteria, Calif., supplied native bunch grass and wildflower seeds for the project, including encilia, California sage, coyote bush, buckwheat and California poppy.

Using four Bowie 3,000-gallon hydro-mulchers equipped with Moyno rotor-stator pumps, the two-man crews from Hydro-Plant, San Marcos, Calif., and Dietz Hydro-seeding, Sylmar, Calif., covered 65,000 acres at 3,000 to 4,000 pounds per acre. About 100 tons were applied at 2 to 3 acres per day.

The real trick was getting hydroseeding crews adapted to the slow process of applying the fiber matrix via extra-long (up to 1,400 feet) pipes and hoses, and balancing themselves on the treacherously steep slopes, said Gary Weems, president of Hydro-Plant. "The crews took a few days to adjust to the slower process, and getting comfortable working on the steep hills. Now they're having fun. They'll be bummed when they have to go back to regular hydroseeding."

The other major soil erosion control method used was a hydraulic soil sealing system, comprised of a wood fiber mulch, recycled paper mulch, seed and an acrylic polymer which acts as a binder and semi-sealant (it allows infiltration but also binds the soil particles, providing short-term erosion control.)

"It's not as effective as the matrix but it's cheaper. We recommended it for use on large, expansive areas that were critical, but not as critical as areas we used the matrix on," said Carol Forest, vice president of Woodward-Clyde.

DESTRUCTION. Ash from the fires turned the soil alkaline in some areas, but didn't create any

Securing seed in hard to reach places is a challenge for crews racing to establish a soil erosion plan.



major complications, Forest said. "The hydraulic seeding removed some of the ash. Some was taken away with the debris. We didn't have any real problems."

A large number of domestic plants were destroyed by fire as well, including acacia, cedar, cypress, hopseed, eucalyptus and junipers. Private property owners must contend with those losses.

Woodward-Clyde opted against seeding much of the area's wildlands. "We don't think the fires were hot enough to completely destroy seed there."

Initial progress reports show native plants, wildflowers, some shrubs, creeping vines and clover sprouting from the carcasses of burnt plant material in wildland and irrigated areas.

"Now we need a nice steady rain, but nothing real intense," said Mike Harding, a consultant for Woodward-Clyde.

The soil erosion control methods used "are doing their jobs," Forest reported. "We're pretty happy with the performance of everything we've used so far. The material is working in terms of interim control until vegetation is re-established. The revegetation will provide the permanent erosion control."

Project coordinators estimate the Laguna Beach undertaking cost about \$2 million. The California Office of Emergency Services plans to continue tracking mitigation progress through spring.

Orange County, Malibu and Thousand Oaks also hired Woodward-Clyde to engineer their reseeded efforts. At press time, the Orange County project had been completed without any hitches. The Thousand Oaks and Malibu projects were nearing completion.

While the reseeded brings the hillsides back to life, residents expect it will take years to piece back together their lives.

Frank Cinquegrana, one of two owners of 13 bungalows built to house competitors in the 1932 Olympic Games, lost six of the cottages as well as irreplaceable landscape trees and shrubs. His future, as well as his tenants', remains uncertain. "I'm too emotional to stay close to it right now. After they finish cleaning up here, I'm thinking about putting up a chain fence and taking a vacation," he said.

The author is Senior Editor of Lawn & Landscape Maintenance magazine.



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PRECISE BIDDING LEADS TO PROFITABLE JOBS

Don't let the unknown ruin what you think is a perfectly good bid. Prepare a thorough bid by visiting the job site and uncovering potentially hidden problems.

By Larry Keesen

SIX YEARS AGO, an irrigation contractor in New York called me to discuss his business. It seems his firm was losing money on most of its projects, and he wanted me to review his operation in an effort to help him correct the problems.

Three weeks later I was in New York observing their installation methods, estimating processes, accounting procedures and general methods of operation.

Photo by Clean Cut, Austin, Texas

The firm's installation techniques were adequate, but morale was low stemming mainly from the installer's frustration with the profitability of the irrigation division — or lack thereof. The crews also indicated they were encountering rock or difficult soil conditions on many of their projects resulting in slower installation times and high trencher maintenance costs.

On top of all that, the crews had no performance criteria or labor budgets. Likewise, the owner had little information to use in evaluating employee performance.

A look at estimating and cost accounting procedures revealed the real culprits. Labor and material job costing were non-existent. This left the estimator guessing about the labor costs, and gave him no sound basis for estimating future work.

Apparently, the estimator was extremely busy leaving him little time to look at the job site prior to bidding the job. If he had visited the job sites and dug a few holes, he could have determined the soil type. Then, with proper job costing he could have bid the project accordingly and made money.

The contractor changed some of his procedures and within a year, the irrigation division was showing a profit. This story is typical of how many irrigation contractors fail to manage their estimating and cost accounting methods.

AVOIDING PITFALLS. What are the components of a good, solid estimate and

how can some of the pitfalls contractors experience be avoided?

The first question that should be asked before bidding a job is, "Does this project fit my business and can it be profitable?" Contractors need to learn to be selective about the type of projects they bid and avoid going after every potential project.

Additional considerations include: Will I be a prime contractor or a subcontractor? Is the owner financially capable of completing the project, and is the designer fair to deal with? Is there retention held on the monthly payments and will payments be prompt?

Deciding between the roles of prime contractor or subcontractor is a control issue. Grabbing the prime contractor position gives the lead firm more control over scheduling, payments, etc. If payments take 45 to 60 days and retention is 10 percent until acceptance, interest charges should be added to the bid.

Look at the size and type of the proposed irrigation system to see if your firm has the experience and financial capability to do the project efficiently and profitably. Check the bonding and insurance requirements as well



as possible costs that may unexpectedly occur.

After deciding to assemble an estimate, perform a job site inspection. Check the drive time from your office to the site to see if it is longer than an average drive time. If it is, add that time to your estimate. While you're at the site, dig some holes to check the soil conditions.

Don't bypass this step to save time. It reminds me of the time I bid a golf course in Tulsa, Okla. After looking at the site, I sensed there might be some rock problems. So I rented a backhoe and dug several test holes



Pitfalls to a beautiful landscape can be avoided by solid estimating and design methods. Uncovering all of a site's potential problems before a project begins leads to a more profitable job.

bid include: Does the site have a lot of pedestrian or vehicular traffic? This may require fences and barricades which cost money. Will other construction trades be involved in the project resulting in delays and several move-ins? This can cause scheduling nightmares and added expense to the job. Are all areas accessible to the equipment and is power available to the automatic controller?

Answering all of these questions prior to bidding will help you price your job profitably.

PREPARING THE BID. Set up an estimate spread-

sheet with the following headings across the top: quantity, size or measure, description, material unit price, material total, labor unit price, labor total, total materials and labor.

Next, perform a quantity material takeoff. As you count heads, valves, etc., use a colored pencil to mark each one so you know which ones you've counted. This is helpful if you're interrupted. Color all the lateral lines using a different color for each pipe size, making judgments faster and more accurate.

Take off and list the different items in the same order they will be in-

stalled. This practice helps eliminate omissions and gives you a better job understanding. Likewise, when listing the items on the bid form, do so in the order they will be installed to prevent omissions.

Beginning with mobilization, follow through with the POC backflow preventer, trenching and backfill, mainline by size, quick coupler valves, manual drain valves if necessary, automatic control valves, automatic controller, wire, lateral lines by size, heads by type, turnover material (keys, spare parts, etc.), testing and adjustment of the system, cleanup, as-built drawings and winterization, if required.

Once all the bid items are listed, contact your local supplier for current equipment prices. Enter the unit prices on the irrigation estimate sheet. Job costing records will provide the amount of labor required to trench and install the equipment. For example, it might take 15 minutes to install a pop-up head or 1.5 minutes per foot to trench, backfill and compact the trench.

If the average hourly labor cost is \$12 per hour, the labor unit price per head is \$3 for the pop-up spray head, and 30 cents per lineal foot for the trenching. The average labor cost should include payroll taxes such as FICA and state and federal unemployment taxes. Workmen's compensation insurance and the company paid portion of medical insurance should be included as well as retirement benefits, if applicable.

Many contractors forget about over-

only to discover that the entire site had a limestone shelf about 12 to 24 inches under the soil surface. Such an oversight could easily bankrupt a contractor.

Once the soil and ease of trenching/excavating is determined look for steep slopes or poor drainage areas that may require hand digging or result in slower installation. Survey the area surrounding the site for vandalism or potential vandalism. Nearby schools can result in children traversing the site and lead to future problems and concerns.

Other thoughts to help flesh out your

time expenses for a seasonal business. If your crews work 50 hours a week, overtime premiums need to be added to the average labor cost. Holiday, vacation and sick pay should also be included, if applicable.

After labor totals are entered in the estimate under labor quantities, extend all of the material and labor units, enter totals both down and across the spreadsheet and add the total columns both down and across. This is important. I have found many bid errors using this double-check method.

Next, add up the material and labor totals from all of the irrigation estimate sheets and enter those totals on the irrigation bid summary sheet. Compute the sales tax on material (if applicable) and round up to the nearest dollar. Do this with all your extensions and calculations to speed up the process.

Now determine your overhead cost. Overhead should include all business expenses not listed on the irrigation estimate sheet or in the labor cost and labor burden mentioned earlier. If you're not sure what to include or how to go about calculating overhead, ask your accountant for help. If the estimate is not accurate you could lose a lot of money or obtain few jobs.

CONSIDERATIONS BEFORE BIDDING

- Does this project fit my business and can it be profitable?
- Will I be a prime contractor or a subcontractor?
- Is the owner financially capable of completing the project, and is the designer fair to deal with?
- Is there retention held on the monthly payments and will payments be prompt?
- Does the site have a lot of pedestrian or vehicular traffic?
- Will other construction trades be involved in the project resulting in delays and several move-ins?
- Are all areas accessible to the equipment and is power available to the automatic controller?

For example, if your overhead is 25 percent of total sales, that percentage must be converted to an add-on percentage which would be 33 percent. Calculate the overhead on the labor and material total and enter the total.

Profit should be a minimum of 10 percent of your sales price or an add-on of 11 percent. Because of the high risk involved with irrigation systems and all of the unknowns involved with weather, underground utilities and excavation, I recommend a minimum profit goal of 15 percent.

Enter any miscellaneous costs, i.e., list subcontractors at cost and add a markup of 10 percent to 20 percent to cover the cost of dealing with the subcontractor. I like to add a markup on subcontracts just in case they go out of business and your firm is stuck paying more to complete the work. If a performance bond is required add your cost for a bond and total the estimate. Give the estimate to someone else to check the math and review the estimate.

Once you establish what's needed for a project, find out how much you can increase your profits. Determine who your competition is and how busy they are. I kept track of all the projects I bid including the projections from other bidders. This method helped me predict if other bidders were competitive.

REFLECTION. Ask yourself if you feel the estimate is accurate, as well as if you think you need the work, can handle the project without a lot of problems and if it will be easy to do. If you have any doubts about the project or if the market will allow a higher price, add more money.

At one time, I prepared an estimate totaling \$25,000 for an irrigation project and added \$4,500 to the total because things didn't feel right. The result — we were the low bidder at

(continued on page 108)

IRRIGATION QUESTIONS

1. Why are site inspections important for the irrigation contractor?

2. What is the best source of determining labor costs for an irrigation estimate?

3. What methods can prevent estimating errors?

4. What should be included in labor costs?

5. What should a contractor determine about a project prior to compiling an estimate?

Answers appear on page 108 of February LLM.

IRRIGATION SEMINAR SURVEY

Return this survey and win a chance for free registration to one of LAWN & LANDSCAPE MAINTENANCE's 1995 irrigation seminars! Two winners will be selected from all entries! Simply complete the survey and FAX it to us on our toll-free line: 800/456-4865, or, if you prefer, mail it to us at:

Lawn & Landscape MAINTENANCE

4012 Bridge Avenue, Cleveland, Ohio 44113
Attn: Cindy Code

1. How interested would you be in attending an irrigation seminar (led by an industry authority, such as Larry Keesen) in 1995?

Very interested Not sure Not interested

2. What time of the year would you prefer to attend such a seminar?

<input type="checkbox"/> January	<input type="checkbox"/> May	<input type="checkbox"/> September
<input type="checkbox"/> February	<input type="checkbox"/> June	<input type="checkbox"/> October
<input type="checkbox"/> March	<input type="checkbox"/> July	<input type="checkbox"/> November
<input type="checkbox"/> April	<input type="checkbox"/> August	<input type="checkbox"/> December

3. What days of the week would you prefer to attend a seminar?

<input type="checkbox"/> Monday - Tuesday	<input type="checkbox"/> Thursday - Friday
<input type="checkbox"/> Tuesday - Wednesday	<input type="checkbox"/> Friday - Saturday
<input type="checkbox"/> Wednesday - Thursday	<input type="checkbox"/> Saturday - Sunday

4. In which of the following cities would you be most likely to attend an irrigation seminar?

<input type="checkbox"/> Atlanta	<input type="checkbox"/> Houston
<input type="checkbox"/> Charlotte	<input type="checkbox"/> Long Island
<input type="checkbox"/> Chicago	<input type="checkbox"/> Orlando
<input type="checkbox"/> Columbus, OH	<input type="checkbox"/> Seattle/Portland area
<input type="checkbox"/> Dallas	<input type="checkbox"/> Washington, D.C.
<input type="checkbox"/> Denver	<input type="checkbox"/> Other: _____

5. What do you think is a fair price a two-day seminar? (Including all materials, seminar instruction, lunch and coffee breaks both days.)

<input type="checkbox"/> \$150 - \$175	<input type="checkbox"/> \$225 - \$250
<input type="checkbox"/> \$175 - \$200	<input type="checkbox"/> \$250 - \$300
<input type="checkbox"/> \$200 - \$225	<input type="checkbox"/> More than \$300

6. What specific topics would you like to see covered in an irrigation seminar?

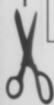
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Trees & Ornamentals

PREPARING TREES AND SHRUBS FOR SPRING

AH, SPRING. IT'S the time of transition from preparing and promoting service contracts to handling packed work schedules — the beginning of what should be a busy and prosperous season.

Take advantage of the brief lull between winter — the northern ice, snows and frigid weather, or southern rains and cooler temperatures — and warm spring which which brings a flush of new growth. That short period is the ideal time to focus attention on the long-term needs of your clients' trees and shrubs.

The work you do now to prepare trees and shrubs for spring will pay off in plant health and vigor during the remainder of the year, increase customer satisfaction and bring in funds to bolster winter cash flow.

SPRING SCRUTINY. This is the time to closely examine

trees and shrubs. Inspect them for signs of winter injury — cracks in trunks or branches from freeze-thaw cycles or sunscald; damage to evergreen leaves or needles from drying winds or de-icing splash; and branches weakened or damaged by heavy ice, snow and wind.

Also look for injuries from mowers, weed whips, vehicles or pedestrians, as well as damage inflicted by hungry mice, rabbits or deer, such as stripped bark or nibbled branches and buds.

Other problem signs include soft, discolored or decaying wood and holes oozing sap or wood-dust particles. Inspect these spots for signs of disease activity. If necessary, probe the areas for bores and other burrowing insects and imbedded foreign particles.

Bark, branches and crevices are easy marks for scale insects or egg masses of other insect pests. Survey these areas, as well as evergreen needles and other existing foliage, for scale, egg masses, tunneling, chewed portions, webbing, insect debris and active insects. These problems



In northern climates, winter bare branches make some plant forms obvious.

(continued on page 94)



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ADVANCES IN TURFGRASS SCIENCE

TURFGRASS ECOLOGY & MANAGEMENT

BY T. KARL DANNEBERGER, Ph.D

CLIMATE · ECOSYSTEMS · PREDATORS · SOILS

- Turfgrass adaptation and survival.
- The effects of cultural practices on turf.
- Pest resistance.
- Weed and turf interactions.

Trees & Ornamentals

(continued from page 92)

create spots, discoloration, distortions and raised or sunken areas on the foliage.

Also check tree wrap for proper positioning and tightness. Look for signs of insect activity beneath the wrap. Note wrap that will need removal or replacement as the weather warms.

Beneath the plant also should be inspected. Check for proper mulch levels and placement, removing any mulch buildup against the base of the trunk or branches. Evict any over-wintering mice or other rodents making their nests in mulch material. Note soil density or compaction, pockets of wet or dry soil, low or high spots, insect or animal soil mounds and holes or burrows leading into the root area.

The findings unveiled by this examination may be obvious to the inspector, such as weather-related damage, common scale insects, egg masses of a known insect attacker, evidence of a bothersome fungus condition or foliage discoloration consistent with a specific micronutrient

deficiency. Other discoveries may be unfamiliar and thus require gathering samples for inspection by an entomologist or plant pathologist or for analysis by a qualified laboratory.

Precise identification in late winter/early spring — when crews and specialists both have a little more time — provides impetus for problem solving.

Some injuries demand immediate treatment;

others can be noted for follow-up inspection during spring. You can thwart a number of insect and disease problems by removing egg masses or infected material; others by applying dormant oil and/or lime sulphur sprays.

Signs of other insect or disease activity can be noted for periodic checking during the proper time for your region. Anticipating certain infestations on specific plants allows crews to use integrated pest management practices to keep ahead of potential damage.

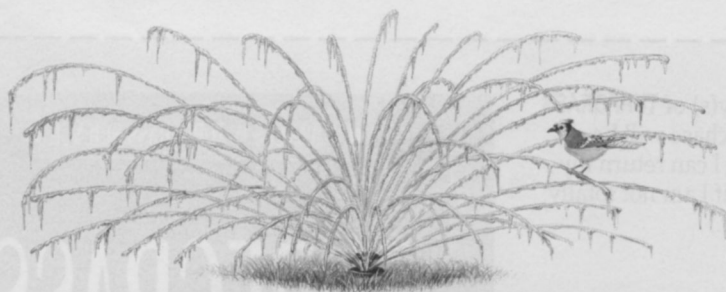


Winter's branches on deciduous trees leave clear access for pruning. Photos: Steve Trusty

GETTING AN EARLY JUMP.

In northern climates, the stark, bare branches of deciduous trees and shrubs make a striking display in the frigid landscape. Pruning is easier because plant form is so obvious and the lack of foliage allows clear access to branches. The ground may still be frozen providing a more forgiving surface for large branches that fall when removed. Even when the ground softens, spring flowering bulbs and most herbaceous perennials remain safely nestled below the soil surface and are not likely to be damaged by falling debris.

In southern climates, existing foliage may inhibit pruning of many deciduous trees and shrubs. Still, the transition between



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Freeze-Click installs easily and comes with a five-year warranty. It also comes from Glen-Hilton Products, inventors of Mini-Click, the best-selling rain sensor in the world. For the nearest distributor, call 800-476-0260 or 804-755-1101 world-wide. The cost is so reasonable, it's a good way to break the ice with any customer.

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USE READER SERVICE #40



Weak branches should be removed first.

winter work schedules and spring plant growth spurts coincides with pruning time. Pruning cuts are soon camouflaged by renewed growth in spring.

Another point to consider is plant flowering times. Pruning spring flowering trees and shrubs in late winter/early spring means sacrificing blossoms that would have grown on the removed branches. If the plants are healthy and their shape adequate, it's best to prune them during the two weeks following flowering. But for overgrown, weakened or damaged plants and for most fruit-producing trees, pruning now is beneficial enough to offset the loss of flowers. Also, it can be difficult to arrange crew time for trimming during the rush of spring.

As always, prune to a point of origin — where a small branch connects with a larger branch, larger branches join the trunk or shrub branches emerge from the ground — and follow correct pruning procedures. Cuts should conform to the natural growth pattern of the plant, neither leaving stubs nor slicing too deeply, and exposing only as much of the "wounded" surface as necessary.

Remove broken, damaged or weak branches first. Then observe which branches rub together or interfere with each other. Select the strongest, best placed branch for keeping and prune away the offenders. Finally, trim away branches as needed to open up the interior of the plant to sunlight, to raise the tier of lower tree branches to allow access underneath or to form a more pleasing or uniformly balanced appearance.

With mature deciduous shrubs, removing up to one-third of the oldest branches at ground level reduces overall height, improves interior air movement and rejuvenates growth.

Certain needled evergreen trees and shrubs also can be pruned during this period. Others must be pruned during their spring growth spurt. Check with area horticultural extension personnel for specific local recommendations.

When pruning such evergreens as members of the Juniperus family, locate cuts on the lower tiers of branches beneath the spread of the upper branches as much as possible. This shields the cuts from view,

avoiding that just-pruned appearance.

Pruning and inspection reveals evidence of overall plant health. It helps pinpoint trees and shrubs that benefit from an application of a complete fertilizer or specific nutrients or micronutrients. Late winter/early spring is an excellent time for such treatments because it allows plants to distribute nutrients most effectively during spring's increased sap flow.

Certain systemic insecticides and fungicides also are enhanced by early season application.

Declining plants, those badly damaged or

those reaching the end of their natural life cycle can be identified for removal. This allows the client to schedule removal and plan for appropriate replacements to be planted as soon as weather conditions allow.

Acting now to prepare trees and shrubs for spring puts plants in prime condition, frees up valuable crew time during the rush of the season and helps add to the bottom line. —

Steve & Suz Trusty

The authors are partners in Trusty & Associates, Council Bluffs, Iowa, and are consultants to the horticulture trade.

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By switching to Gallery the superintendent at Crooked Stick Golf Club in Carmel, Indiana, reduced herbicide applications on his fairways from five a year to one. The very particular PGA officials who inspected those fairways for the 1991 PGA Championship raved about their outstanding condition.



ornamentals or turfgrasses for up to *eight months*. That means you can go all season long without worrying about whether spurge, oxalis, plantain or other weeds will show up to mar your landscapes and turf.

Other herbicides would require five applications to deliver season-long control. Gallery delivers all season long with only one application.

Although Gallery is activated by water, it remains stable on the

soil surface without rain for up to 30 days. It resists breaking down by sunlight, so you can be assured of maximum performance even under dry conditions. Gallery doesn't have any of the harsh effects of other



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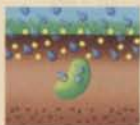
long-residual herbicides. And there's minimal risk of off-target damage.

When you use Gallery along with Snapshot* and Surflan*, you can now get the long-term weed control you want in sensitive areas

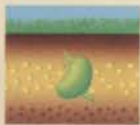
where ornamentals, shrubs, trees, perennial flowers or turfgrasses are growing. Snapshot controls both broadleaf and grassy weeds in ornamental beds for up to eight months. It is labeled for over-the-top

application of woody ornamentals.

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Gallery shuts down the growth process for up to 8 months.



With Gallery, seedlings die before you ever see them.

prevent grasses that invade beddings, combine Gallery with Surflan herbicide to create the ideal long-term weed management program. Surflan is gentle on labeled established plants, as well. And when used according to label directions, it can be sprayed over the top of more than 200 different species of established ornamentals, trees, shrubs, ground covers and field-grown fruit trees.

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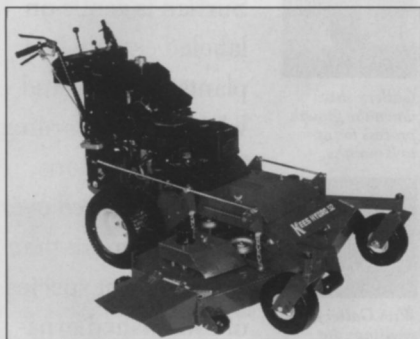
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USE READER SERVICE #83

Products

THE KEES HYDRO mower from **F.D. Kees** promises commercial cutters increased productivity with hydrostatic drive maneuverability. The mower is available with 48-inch and 52-inch full-floating cutting decks, 14-h.p. Kawasaki and 18-h.p. Kohler engine options. The Quick-Lift™ lever actuated deck height adjustment is controlled from the operator position.



The HydroTrac™ tracking adjustment allows the user to align the steering without tools while the mower is in operation.
Circle 126 on reader service card

PRODUCT SPOTLIGHT

INNOVATIVE CONCRETE Design Corp. offers Selectedge™ Decorative Concrete Edging Units, available in natural scale and colors to blend with any landscape plan. Their modular, trapezoidal shape offers a multitude of edging design possibilities.

Selectedge creates up to a 40-inch diameter ring around trees, light poles, mailbox posts or planting beds.

Raised Selectedge is used as curbing along sidewalks, driveways and patios. And a flush Selectedge border along a fence, retaining wall or building foundation allows grass to be mowed right up to the border, eliminating grass trimming and weed control.

The 3 5/8-inch wide Selectedge border prevents grass from encroaching on protected areas. The unit's small, compact size, light weight and modular fit make it easy to install and maintain.

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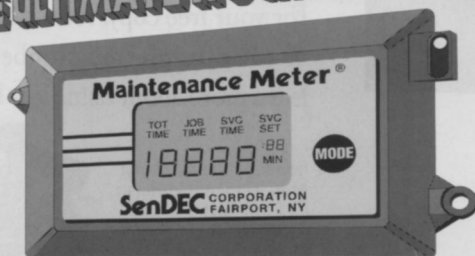
American Cyanamid Co. introduced a water-soluble bag for Pendulum® WDG. The new packaging is part of the company's effort to address customers' environmental concerns.

The water-soluble package is designed to

eliminate container disposal problems, provide pre-measured quantities in an easy-to-use package and eliminate product exposure during mixing and loading. The packets are made of inert ingredients that completely dissolve within minutes after

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CS 5500 Gas Powered
- 13 hp Honda engine
- Skid mount trailer

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USE READER SERVICE #29



being added to the tank.

Pendulum WDG, a pendimethalin-based product, controls most annual grasses and certain broadleaf weeds as they germinate. Pendulum should be applied only to established plants and should not be used on seedbeds, transplant beds or liners until plants have become well-rooted.

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The Program Builder from **Buckner** is an advanced irrigation scheduling software program for use as a stand-alone or with Buckner's Genesis and Universal central control systems.

Program Builder's simple menu system allows the user to type in all the necessary data which it displays and, with the Genesis

of Universal versions, easily transfers to the field control units. Extensive reporting features allow the user to view or print programs, valve data, daily reports or water use data.

Program Builder provides an extensive database of historical evapotranspiration rates, or allows for actual ET data for the user's area. To incorporate current ET data,



the user can access Buckner's weather station or CIMIS weather stations automatically. For further accuracy, plant factors (the amount of water a particular plant uses, expressed as a percentage of ET) can be implemented with the plant database.

Circle 128 on reader service card

Encore's Power-Comb dethatcher features a newly designed combing shaft with spring

tines molded into a rubber mounting. The combination of rubber and high carbon wire is said to extend the tines' life spans.

The Power-Comb rotates in the direction of travel to avoid tearing grass while removing thatch. The design also prevents the unit from throwing rocks and debris.

The standard 5-h.p. Power-Comb has 24 tines; an optional hardware kit is available to increase the shaft to 48 tines. The shaft assembly can be purchased separately and adapted to Encore's heavy-duty Power-



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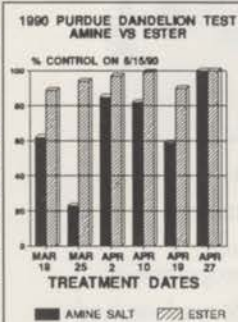


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USE READER SERVICE #16

Thatch dethatcher.

Additional features include a deadman clutch for positive belt disengagement, collapsible handles for easy transporting, heavy-duty wheels with sealed ball bearings, semi-pneumatic tires and single action height adjustment.

Circle 129 on reader service card

Hoechst Roussel offers Finale post-emergent herbicide for nonselective weed control in noncrop areas.

Finale controls broadleaves, annual and perennial weeds, grasses, sedges and woody species one to four days after application; inhibits plant enzyme glutamine synthetase; severely limits photosynthesis; and destroys weeds' tissues.

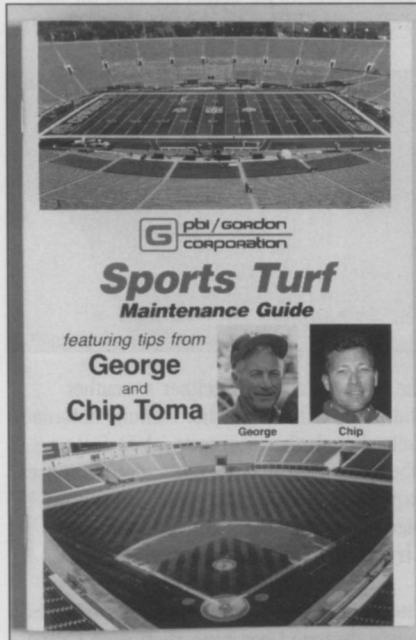
The herbicide degrades rapidly into natural compounds in any microbiologically active environment, actually nourishing the soil. It has no residual soil activity or root uptake.

Circle 130 on reader service card

A SportsTurf Maintenance Guide from **PBI/Gordon** features tips from George and Chip Toma, noted Kansas City groundskeepers. The 32-page booklet, available at no cost, outlines specifications and sug-

gestions for mowing, watering, fertilizing and weed, insect and disease control; as well as seeding, sodding, thatch and clippings management.

PBI/Gordon's major sports turf products include Trimec herbicides, Ferromeo



Liquid Iron and Bov-A-Mura Liquid Organic Fertilizer. Other herbicide, fungicide, insect-icide and PGR products are also detailed.

Circle 131 on reader service card

Stockman Agri-Services offers Guardian DCD liquid fertilizer for lawns with a slow-release nitrogen program.

Guardian fertilizer, available in bulk, is a clear liquid blend of 3-18-18 and 26-0-0-.05, resulting in a 21-4-4-.05. The nitrogen in 26-0-0-.05 is a triazone, non-burning, slow-release form.

The clear liquid form includes slow-release 66 percent nitrogen, dicyan-diamide. When added to nitrogen-containing solutions at the recommended rates, the nitrogen in Guardian DCD is slowly released. This helps reduce nitrogen loss, keep grass green longer and protect ground water supplies.

Two applications per year are recommended for lawns and golf courses, according to the manufacturer.

Guardian is available in both dry and liquid forms to suit the needs of the user. It is easily blended in dry mixes (impregnated), or in liquid solutions.

Circle 132 on reader service card

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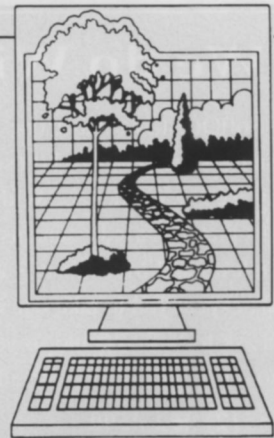
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USE READER SERVICE #33

PRODUCT FOCUS: LIGHTING

The Cambria #212 low-voltage hanging fixture for downlighting and general area illumination is available from **Lumiere Design & Mfg.** designed with the bayonet D.C. base socket, the #212 accepts the MR11 lamp (35 watt maximum) for controlled beam patterns, or the incandescent lamp for warm, even illumination.

The fixture is ideal for downlighting or area lighting from trees and/or overhanging structures. Equipped with a hanging ring the #212 is simple to install and easy to maintain. Quality and durability are built in, leased and "O" ring sealed for a watertight fit. Powder paint with a chromate undercoating gives the fixture greater corrosion resistance and fixture strength.

The Cambria is available in standard finishes, including black, bronze and verde.

Circle 133 on reader service card

Intermatic's Professional Landscape offers two mushroom-style, low-voltage lights for creating picturesque lighting effects. Available with contemporary fixtures, the mushroom lights are



ideal for highlighting low foliage around the house and yard. The lighting gives flowers and shrubs an interesting appearance, while the fixtures' large shades conceal the light source.

The CL618 small mushroom-style and CL619 large mushroom-style lights provide downward illumination over a relatively confined area. During winter, the lights create a sparkling effect against snow.

The smaller model, which measures 18 inches high and 4 inches wide, is ideal for lighting flowers, shrubs and decorative ground cover.

The larger mushroom light is designed to illuminate broader areas such as borders, walkways and paths. It measures 18 inches in height and 6-1/2 inches in diameter.

Circle 134 on reader service card



(continued on page 110)

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USE READER SERVICE #10

People

USA PRODUCTS Corp. named Fred Hunter vice president of sales and marketing for its ROOTSinc. division.

Calvin Hendrix joined the irrigation division of The Toro Co. as vice president and general manager. Hendrix formerly served as president of the Thermador Corp., a subsidiary of Masco Corp.

Hunter Industries appointed **Ron Freund** district manager for seven mid-Atlantic states. Freund coordinates sales efforts, product introductions and technical training for Hunter sprinklers, valves and controllers.

National Lime & Stone Co. appointed **Brad Gwartz** regional sales representative for ECOHRST products. Gwartz manages sales for agricultural, turf and commercial accounts in three Midwest states.

ISK Biotech Corp. named **William Mulvaney** manager of marketing research and information technology, and **Michael Boden** as the Kodiak business manager for its industrial biocides division. Mulvaney was previously associate director of international marketing research for Searle. Boden formerly served as product manager for ISK Biotech's wood preservatives business.



Freund



Erekson

Randy Finchum joined Husqvarna as territory manager of the company's Southeastern branch. Finchum is responsible for recruiting, developing and servicing outdoor power equipment dealerships in eastern Tennessee.

Hawkens Equipment Co. appointed **Steven Huss** president and chief executive officer. Huss previously worked for Brockway-Smith for two years, Chadwick-BaRoss for two years and ITT for six.

Mustang Manufacturing Co. appointed **Bruce Collins** executive vice president and chief operating officer in charge of day to day operations, and **Dennis Kruepke** vice president of sales and marketing, responsible for overall sales and marketing in the United States, Canada and Mexico.

Eaton Brothers Corp. hired **Lawrence Foster** as national sales manager, responsible for developing and implementing sales and marketing for its retail products division.

William DeMare and **David Bailey** joined SureCo Inc. as president and vice president, respectively. Both served similar capacities at the Southern Mill Creek Products Co., which merged with SureCo.

Nibco named **Cameron Erekson** product manager of plastics for its residential division. Erekson is responsible for plastics marketing analysis and planning, pricing and product development. He formerly served as product/program manager for CTS Corp.

Dilloware promoted **Paula Kirmse** to national sales director. Kirmse holds 13 years high-level sales experience and extensive knowledge about personal computers.

Syed Akbar and **Minal Mehta** joined Irrigation Technologies as computer programmers. Akbar has several years experience in business and a strong background in both software development and computer engineering. Mehta graduated from the University of Houston with a degree in computer science.

OUR APPOINTMENT SCHEDULE!

Appointment Schedule For: September, 1993

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USE READER SERVICE #14

USE READER SERVICE #19

Calendar

MAR. 1 Water Gardens School, Tom's Country Place, Avon, Ohio. Contact: Charles Behnke, Horticulture Agent, Ohio State University Extension, 42110 Russia Road, Elyria, OH 44035; 216/322-0127.

MAR. 1-2 Landscape Construction: A Demonstration of Techniques, New Brunswick, N.J. Contact: Office of Continuing Professional Education, Cook College, Rutgers University, 908/932-9271.

MAR. 2 26th Annual Professional Turf & Plant Conference, Huntington Town House, West Huntington, Long Island, New York. Contact: Pat Voges, Nassau/Suffolk Landscape Gardeners Association, P.O. Box 489, Brightwater, NY 11718; 516/665-2250.

MAR. 2 1994 Great Lakes Irrigation Trade Show, Willowbrook Holiday Inn, Willowbrook, Ill. Contact: Century Rain Aid, 800/347-4272.

MAR. 3 Turf & Golf Fair, Spring Valley Turf Products, Country Inn, Pewaukee, Wis. Contact: Jordan Sensibar, 414/677-2273.

MAR. 3-4 Athletic Turf Management Seminar, Gainesville, Fla. Contact: National

Institute on Park & Grounds Management, P.O. Box 1936, Appleton, WI 54913; 414/733-2301.

MAR. 4-5 ALMA 94, Bahia Mar Yacht and Tennis Resort, Fort Lauderdale, Fla. Contact: Barbara Ganz, American Landscape Maintenance Association, 305/925-7996.

MAR. 4-6 Western Lawn Expo, Kansas City, Mo. Contact: Western Association, P.O. Box 419264, Kansas City, MO 64141; 816/561-5323.

MAR. 8 Pruning Landscape Ornamentals, New Brunswick, N.J. Contact: Office of Continuing Professional Education, Cook College, Rutgers University, 908/932-9271.

MAR. 8 1994 Great Lakes Irrigation Trade Show, Southfield Civic Center, Southfield, Mich. Contact: Century Rain Aid, Madison Heights, Mich., 800/347-4272.

MAR. 8-10 Colorado Association of Lawn Care Professionals Spring Training Conference, Jefferson County Fairgrounds, Golden, Colo. Contact: Judy Maurer, CALCP, P.O. Box, 102502, Denver, CO 80250-2502; 303/777-1578.

MAR. 10 Integrated Pest Management Conference, Montgomery County, Pa. Contact: Penn State Cooperative Extension, 215/489-4315.

MAR. 11 Turf Management Seminar, El Cajon Community Center, El Cajon, Calif. Contact: Dave Shaw, 619/694-2845.

MAR. 11-13 1994 Yard, Garden & Patio Show, Oregon Convention Center, Portland. Contact: Oregon Association of Nurserymen, 503/653-8733.

MAR. 16 New Hampshire Landscape Association Education Symposium, Barton Hall, University of New Hampshire, Durham, N.H. Contact: Guy Hodgdon, NHLA, 800/639-5601.

MAR. 16-17 MDLA Convention & Trade Show, Novi Expo Center, Detroit. Contact: Metro Detroit Landscape Association, 313/646-4992.

MAR. 18-20 ALCA Student Field Days, University of Tennessee, Knoxville. Contact: Associated Landscape Contractors of America, 703/620-6363.

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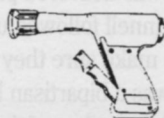
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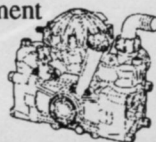


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USE READER SERVICE #34

Pesticides in the Urban Environment

(continued from page 82)

The same courtesies hold true in state and local politics as they do in the national arena. While national politics may be your main target, state and local legislators should also be considered. The good news here is that these officials are generally easier to contact than federal lawmakers. While the main points — courtesy and professionalism — remain the same, the

chance of face to face meetings increases.

"The smaller the governmental unit, the more likely you will have a direct impact," Diederich said. So in your town, you will tend to do best. In your state, you will probably do second best. Of course nationally, that is the hardest level to impact."

GROWING INVOLVEMENT. It appears lawn care professionals are opening their eyes to the importance of individual action. "Participation in the industry is getting

better," Wierichs said. "It never seems like you have enough because it is the old 90/10 rule — 90 percent of the work is done by 10 percent of the people. But it is getting better. It seems like we are more aware of the problems that are going on. The last couple of bills were rallied on."

And that tenacity can be rewarded. "You can write or call any senator or representative. They record that information. Sometimes their mind is made up on an issue, but by contacting them you can help them understand both sides," Wierichs said. "Some people say, what good is my vote or what good is my doing that? Collectively we have an advantage."

For Denny Linnell, co-owner of LawnLife Corp., Salt Lake City, Utah, working with government has its benefits when preemption issues arise. "I follow what other states are doing through PLCAA, and see what is working in those areas."

"If they say we have a preemption issue in Wisconsin, or we have a posting issue in Idaho, I work with our Department of Agriculture to grasp their views. I have fairly good relationships with senators and representatives, which makes it easier."

Linnell, who recently helped introduce a preemption bill into the Utah Legislature, said his visits with the Department of Agriculture are vital. "I make it a point to go over there and meet with them monthly to let them know what is going on."

From these meetings, Linnell is able to sense the mood of the department and take action where needed. "I can sense what the commissioners are thinking. That alerts me if I need to take any action."

From there Linnell set up meetings with and distributed literature to appropriate legislators, selecting ones with agricultural backgrounds. "Basically I spoon fed them the information. I took and prepared a folder with all sorts of information, explaining preemption in other states."

The packet was delivered prior to the meeting, and Linnell followed up with phone calls "to make sure they read it."

The result was a bipartisan bill introduced into both branches of the Utah Legislature. "I wanted it to be bipartisan so it wouldn't get killed by party politics," he said. "My lobbying paid off." ■

The author is a free-lance writer in Cleveland, Ohio.

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5. If the project fits his business and can be profitable.

Irrigation Training

(continued from page 90)

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The author is vice president of Keesen Water Management, 10700 E. Bethany Dr., Suite 103, Aurora, CO 80014.



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Troybilt—Genuine replacement parts discount catalog. Kelley's, Manilla, IN 46150; 317/398-9042.

HELP WANTED

SALES/SERVICE TECHNICIANS

Atlanta area lawn and tree and shrub company seeking sales and service technicians to run and expand existing branch operations. If you are looking for a challenging new job, please send a resume including references and salary requirements to: KING GREEN, P.O. Box 1585, Norcross, GA 30091-1585 E.O.E.

CAREER OPPORTUNITIES

Chicago firm is looking for qualified, career-minded individuals who are interested in year-round employment in the following categories:

- Landscape construction project coordinator
- Tree division working department manager
- Lawn care division manager
- Landscape maintenance project director
- Landscape maintenance division manager

Please send resume and salary requirements to: Panoramic, 1470 Industrial Dr., Itasca, IL 60143.

LAWN CARE SERVICE MANAGER

Buffalo, New York, locally owned lawn care firm seeks highly motivated, experienced service manager. College degree required. A growing established market, excellent benefits, 401K, salary bonuses. Creates a unique situation for the right person. Send resume in confidence to: R. Funk Lawn Care., 330 Fillmore Ave., Tonawanda, NY 14150.

REPS WANTED

Would you like to "Rep" for a leader in the green industry? Garick Corp. is looking for independent representatives/rep firms to call on landscape management companies, institutions and municipalities in all areas east of the Rocky Mountains. Please call for Rep Application form. Ask for Cindy at 216/581-0100. FAX: 216/581-4712.

PROFESSIONAL SALES BULK SOIL & MULCH

Growing producer of soil and mulch is seeking an experienced bulk products salesperson. Metro New York area. Please send a resume in confidence to P.O. Box 1023, King's Park, NY 11754.

MAINTENANCE/CONSTRUCTION

Environmental Maintenance Inc., a large commercial landscape maintenance contractor in Baltimore, Md., is currently seeking high-quality landscape/maintenance supervisors. Please send resume to: 3701 Commerce Dr., Suite 107A, Baltimore, MD 21227, or fax to 410/242-1162. ■

Products

(continued from page 103)

Corona Plastic Sales & Services

offers Lumastones,™ low-voltage outdoor lights that can be installed directly in pathways or lawns and be walked on like stepping stones.

Lumastones are designed to withstand extreme temperatures, and are billed to resist lawn and garden chemicals and harmful sun rays.

Lumastones can be installed to any existing 12-volt system.

Circle 135 on reader service card

Dreamscape Lighting continues to expand its solid brass landscape line. The new series of outdoor transformers are enclosed in solid brass, verde finished cases. The brass enclosure increases the transformers' durability, while the verde finish enhances their appearances.

Other new products include a close-to-ground walkway light, a wall-mounted arch light and a solid brass well light.

Circle 136 on reader service card

Pop Light's low-voltage outdoor path light and spotlight fixtures feature the ability to automatically recede into the ground when the power is turned off. This capability ensures the lights are safely out of the way during lawn maintenance.

The PL2000 Path Light uses a T-5 glass wedge base bulb, and the SL3000 directional fixture uses any MR-16 lamp up to 50 watts.

Circle 137 on reader service card

California Landscape Lighting

publishes a complimentary monthly newsletter on landscape lighting called "Lite-Tips," as well as a comprehensive 56-page contractor's net price list of items the company sells. The price list includes leading landscape lighting manufacturer's products and related supplies.

Circle 138 on reader service card

Toro offers five types of outdoor lighting systems for walkways, gardens and decks.

The lighting systems each cost less than \$100, averaging \$60 to \$70 for 16-light kits.

Toro also offers a "Bright Ideas" outdoor lighting brochure, available at no charge.

Circle 139 on reader service card



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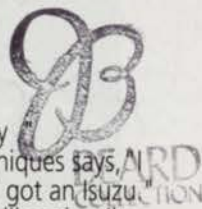


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"I first bought an Isuzu in 1986; within 6 months I bought another one. Ever since, I've averaged one or two new Isuzus per year," says Greg Coleman, owner of Vision Scapes.

According to Andrew Baldy, vice president of Oakwood A.P.C.I., half his company's 20 trucks are Isuzus. "As we keep growing, we'll keep on buying Isuzu trucks. Reason being, we get longer life out of them. We also get better fuel mileage, easier maintenance, lower

upkeep and much better overall durability.

Ken Thomas, owner of Landscape Techniques says, "I didn't know what cargo room was until I got an Isuzu."

Adds Greg, "My mechanic loves it. He likes the tilt cab. And if you take an Isuzu in a cul-de-sac, you can almost do a figure eight."

Terry Walton of Greenscape just bought two new Isuzu trucks. "People I talked to had nothing but good things to say about the trucks."

Andrew sums it all up, "I will never go to another truck. And that's truth."

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