



The cover of the January 1994 issue of 'Lawn & Landscape Maintenance' features a photograph of two men in a winter setting. The man on the left is standing, wearing a light pink shirt and a patterned tie, with a logo on his shirt that reads 'JB BEARD COLLECTION'. The man on the right is sitting on a stone wall, wearing a dark patterned cardigan over a white shirt. In the background, there are bare trees and a snow-covered ground. The magazine title is at the top in large, bold letters, with 'Lawn & Landscape' in orange and 'MAINTENANCE' in red. A small signature 'JB' is in the top right corner.

# Lawn & Landscape MAINTENANCE

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## FULL-SERVICE FUTURE

*Byrne Brothers Landscaping, a construction turned maintenance firm, strives for continued diversification and increased geographic reach.*

In this issue:

**Thriving Mower Sales**

**Pricing Contract Services**

**Avoiding Irrigation Liability**

**Replacing Old Engines**



## THINGS THAT DON'T WORK WELL TOGETHER.



## THINGS THAT DON'T WORK WELL TOGETHER.



Some things just aren't meant to go together. For example, baseballs and windows, Bush and broccoli, postal delivery persons and dogs. No matter how hard you try, they just don't fit together.

On the other hand, some things are meant to go together: beer and pretzels, football and Thanksgiving, peanut butter and jelly, kids and puppies.

When it comes to disease control on turf – especially brown patch, leaf spot, dollar spot, and summer patch – there are two products that go together pretty well, too.

### Diseases Controlled By A Tank Mix Of Banner And Daconil 2787.

*Anthracnose*  
*Brown Patch*  
*Copper Spot*  
*Dollar Spot*  
*Gray Snow Mold*  
*Leaf Spot*  
*Pink Snow Mold*  
*Powdery Mildew*  
*Red Thread*  
*Rust*  
*Spring Dead Spot*  
*Stripe Smut*  
*Summer Patch*

So well, that it's as if they were almost created to be used in a tank-mix combination: Banner® and Daconil 2787®.

Because when used together, these two remarkable products provide even more remarkable results. Such as:

- Broader control
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Banner and Daconil 2787, when used at their lowest labeled rates, provide excellent control of all major diseases (except Pythium) on a 14- to 21-day program.

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These low rates minimize the amount of active ingredient applied to the turf, yet provide both longer disease control and a spectrum of control that would not have been possible otherwise.

Because this tank mix offers two different modes of action, there is less chance of disease recurrence. It also minimizes the development of insensitivity.

And the results are based on extensive research conducted all across the country.

Tank mixing Banner and Daconil 2787 can let you stay ahead of diseases —while you use the lowest labeled rates for cost efficiency.

If disease becomes established, you often have to throw a lot of money at the problem to make it go away. Many times, using a lot of different individual products to control the various diseases.

Using a preventive instead of a strictly curative approach to disease control has several advantages, including healthier, better-looking turf that has not been weakened by disease.

This alone is reason enough to try a Banner plus Daconil 2787 tank mix to prevent disease from ever getting a foothold on your turf. And it's available for both golf courses and professional lawn care.

This tank mix is so economical and effective, it makes taking a preventive approach to controlling turf diseases totally practical. Even on a tight budget.

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## THINGS THAT DON'T WORK WELL TOGETHER.



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As a lawn maintenance pro, you can't afford to see it from the smallest trimmer to the largest chain saw, is built

What's it all mean to you? Crews that are more productive. Equipment that costs less to own. And a business that's better able to deal with little things like taxes and payroll. So when you're ready to take a break from looking at grass, go see the fastest-growing

# Most people see grass. You see taxes, the rent, and next week's payroll.

any other way. Sure, you appreciate a pretty yard. But it's a good bet you appreciate a healthy business even more. So let us suggest a way to win on both fronts: Shindaiwa. We offer a complete line of hand-held power equipment. Every model,



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# Lawn & Landscape MAINTENANCE

VOLUME 15, NUMBER 1

JANUARY 1994

## FEATURES

Cover Photo:  
Michael Gormley,  
Ipswich, Mass.

### 30 Cover Story: Full-Service Future

After a decade of heady growth and a few humbling lessons, Byrne Brothers Landscaping has sobered up to prospects of a long and healthy future through continued diversification.

### 40 GIE Show Gains Ground

The lawn and landscape industry's national trade show has established itself as a not-to-be-missed event.

### 42 Profitability Drives Mower Sales

Mowers with zero-turn radius capability and hydrostatic transmissions continue to drive the commercial market. The extra costs of these machines are easily recovered through higher productivity and lower maintenance.

### 52 Setting the Right Price For Contracted Services

Lawn and landscape maintenance contractors who price jobs solely on past experiences may inadvertently be putting their companies at risk.

### 59 The Dynamics Of Lawn Care Sales

Sales in the lawn and landscape industry are complicated because the services are generally intangible. A prospect must believe your services will meet their needs, particularly where pricing is concerned.

### 62 Engines: Repairing, Replacing Or Buying New

It's a given that the average piece of power equipment outlasts its engine. But knowing how to find quality replacement engines remains a mystery to many maintenance contractors.

### 69 Lesson 19: Sloppy Design Can Cost You a Bundle

Taking shortcuts in irrigation design and installation may save you money now, but will result in legal fees and costly settlements in the future.



p. 40



p. 69



p. 42

## DEPARTMENTS

86  
Advertisers' Index

27  
Association News

10  
Business Watch

82  
Calendar

84  
Classifieds

76  
Compost Digest

14  
Computer Bytes

6  
Editor's Focus

13  
Letters

20  
News in Brief

79  
People

80  
Products

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# Editor's Focus

NEVER A BIG fan of the lasting effects of traditional, motivational speakers, I generally take what these so-called experts have to say with a grain of salt.

Former sports stars, captains of the industry and big-screen movie stars have all stood before us at one time or another and told us what it takes to be successful. More often than not these speakers are getting paid a bundle to inspire us to reach for the stars, while in reality they have no tangible idea of what it takes to run a lawn and landscape business. They simply adapt their talk to fit the crowd they happen to be addressing that day and hope for the best.

So it was with this frame of mind that I began listening to Ty Boyd give the keynote speech at the Green Industry Expo in Baltimore. He entertained the audience with anecdotes and several interactive activities. He also implored the crowd to master the magic — the theme of his presentation.

He presented such masterful predictions as: There will be more business in your region than you can handle this year. Your competition will be better prepared and more focused than ever before. Getting and keeping good, qualified people will be your biggest challenge this year. Whatever your business concerns are today, they won't be what's worrying you tomorrow, next month or even next year.

Whether these suppositions come true is entirely up to each individual and the firm they represent. But in the fast-paced '90s, you're either going to be a victim of change or an agent of change, according to Boyd.

Change is an apt delineation of the lawn and landscape industry in the '90s. Manufacturers are acquiring and merging with other companies. Top lawn care and landscape firms are buying out reputable, mid-sized businesses. Well-known industry representatives are migrating to other positions within the industry.

These are all healthy signs. I believe it's also a signal that those who are in the green industry for the long run are ready and willing to make the changes necessary to thrive and survive.

Let me share a few of Boyd's suggestions for coping with change in the '90s:

Be a change-agent. Every institution representing business or society today is being impacted by change. This demands the courage to risk, to face change head-on, to seek change, to change your view of failure to one of a learning opportunity rather than a chance to lose and take action.

Did you ever tell yourself, a partner or a supervisor that it's just as easy to keep performing a job in one particular way because that's the way it's always been done? Well, it's more common than you think because



it's really difficult for most people to accept and embrace change. Sure, most come around sooner or later, but only after the benefits of change are clearly discernible.

The times are a-changin', that can't be denied. Professional mowing maintenance firms are trading in gear-driven mowers for new hydraulic models. Contractors are realizing the benefits of refurbishing or using replacement engines in still-good equipment. Lawn service providers are beginning to effectively relay the benefits of using specialty pesticides on turf, trees and ornamentals. More lawn and landscape professionals are focused on the bottom line and what it takes to operate a business through good financial tactics. Irrigation contractors are initiating water conserving methods for watering the landscape, not only to eliminate water waste but help their customers save money.

These are all positive signs of change in the '90s. But it's only the beginning. Managers need to take responsibility for promoting needed change. Change must be a shared vision by all involved on the team. Not only does it inspire excitement it promotes responsibility. Likewise, training should be a top priority.

Be more customer focused. According to Boyd, we need to stop thinking in the short-term, redefine your definition of service, reject doing something because that's the way it's always been done, create partnerships with your customers and learn to measure service so that service levels can be exceeded.

Above all, become a better listener.

Sure, these are the words of a motivational speaker, but for once, they are indicative of how the lawn and landscape industry needs to react to the '90s.

It's not as easy as it used to be. No business is. — Cindy Code

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# Business Watch

THE UNEMPLOYMENT rate took a sharp, sudden dip in November (see chart at right), plunging from 6.8 percent to 6.4 percent. It was the lowest reading in almost three years, and the biggest one-month drop in more than 10 years.

The unemployment rate decline, coupled with several other recent gains in important economic indicators, had the Clinton administration and some economists declaring an economic turnaround. A good portion of the employment gains were in banking, where many new employees were needed to process the flood of mortgage applications being generated by record-low interest rates; and in manufacturing, which is showing signs of a jobs recovery after a prolonged slump.

At press time, a number of analysts had boosted their estimates for fourth-quarter economic growth to more than 4 percent, based on expectations for high growth in sectors most affected by low interest rates.

On the downside, the Labor Department reported that another substantial portion of the unemployment drop can be attributed to the fact that some 81,000 people out of work simply stopped looking for jobs.

## CONSUMER PRICE INDEX\*

AUG.	SEP.	OCT.	NOV.
+0.3	0.0	+0.4	+0.2

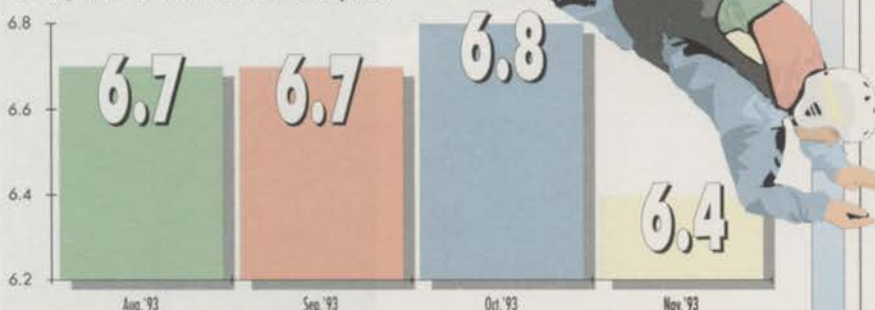
\*Percent change from preceding month (seasonally adjusted).

## PRODUCER PRICE INDEX

AUG.	SEP.	OCT.	NOV.
-0.6	+0.2	-0.2	0.0

## TAKING A DIVE

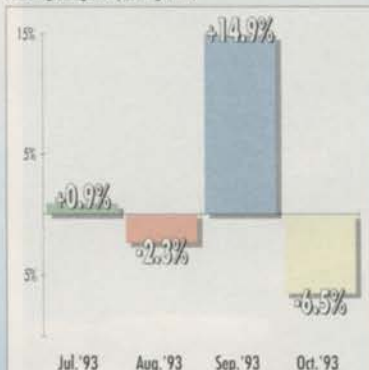
The U.S. unemployment rate dropped sharply in November to 6.4%, the lowest level it has hit in three years.



Source: Bureau of Labor Statistics

## NEW HOME SALES

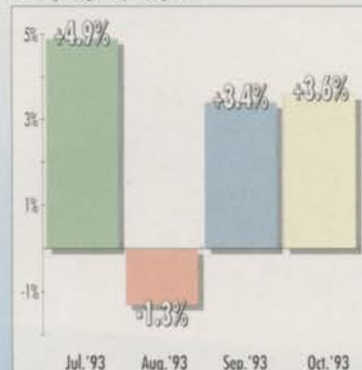
(Percentage change from preceding month)



Source: Bureau of the Census

## SALES OF EXISTING HOMES

(Percentage change from preceding month)



Source: National Association of Realtors

## HOW WIND CHILL IS FIGURED

### HOW TO USE THE WIND CHILL CHART:

1. Draw a line down from the temperature across the top.
2. Draw a line to the right from wind on the left.
3. Chill temperature is where lines meet.

Example: 10°F temperature, 20 mph wind: -24°F chill

	30°	25°	20°	15°	10°	5°	0°	-5°
10 mph.	16°	10°	3°	-3°	-9°	-15°	-22°	-27°
15 mph.	9°	2°	-5°	-11°	-18°	-25°	-31°	-38°
20 mph.	4°	-3°	-10°	-17°	-24°	-31°	-39°	-46°
25 mph.	1°	-7°	-15°	-22°	-29°	-36°	-44°	-51°
30 mph.	-2°	-10°	-18°	-25°	-33°	-41°	-49°	-56°

Source: National Oceanic and Atmospheric Administration

The National Weather Service's 60-day outlook calls for a generally mild east and cold western interior, with relatively wet conditions over much of the southern and central portions of the country. Below normal temperatures will cover most of the Northwest eastward and southeastward, while above normal temperatures will occur over a large region extending southeastward from North Dakota and much of the Mississippi valley to the Atlantic Coast. In unspecified areas there are no significant changes in climatology.

## 60-DAY OUTLOOK FOR JANUARY AND FEBRUARY

### Temperature Probability



### Precipitation Probability





# Letters

## Compost Clarification

My August 1993 Compost Corner article prompted two letters raising issues to which I would like to offer clarification.

Firstly, many laws now regulate the allowable metal levels in sewage sludge compost — not due to potential agronomic phytotoxicity, but because of potential human or animal toxicity or environmental damage. Composts exceeding allowable metals content should not be used in food production or in areas of human contact.

Secondly, while it is not necessary to use fully mature composts, immature composts will continue to decompose for some time, possibly robbing plants of nitrogen. These effects can be overcome by: adding nitrogen fertilizer, waiting several weeks before planting or buying mature, stable compost.

Thirdly, salt content of certain composts can hinder the germination of plants. Sewage-sludge and animal-manure composts, both higher in nutrients and salts than yard-waste compost, should be incorporated into the subsoil before seeding sensitive plants. ■

James Wilkinson, Ph.D.  
Earthgro Inc.  
Lebanon, CT



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# Computer Bytes

## SUCCESSFULLY SELECTING SUITABLE SOFTWARE

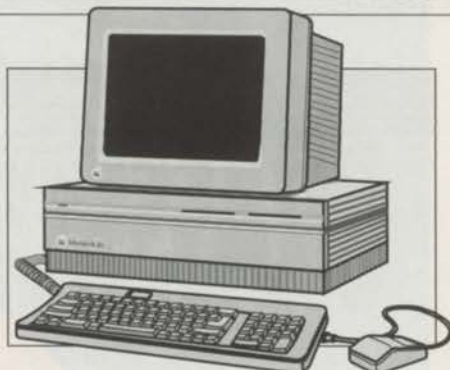
YOU FINALLY decided to purchase a computer and selected the best system available for your needs. Now it's time to choose the software programs.

Most likely, you have an idea of what you want the system to do. One approach is to visit your local computer superstore and buy all the products recommended by the salesperson. This route may well lead to boxes, manuals and disks that sit on shelves gathering dust while leaving a void in your pocketbook. Another approach is to categorize your software needs, make comparisons between the specific programs available and choose the right products for your firm.

Software applications can be categorized into: word processors/desktop publishing, spreadsheets/business management, databases and graphics programs. Programs in each category may differ slightly, but for the most part, any available software will fall into one of these main groups.

### WORD PROCESSORS/DESKTOP SOFTWARE.

Word processors, the most widely used software programs today, make it easy to



create and store documents. You can insert, delete, move and copy text to any part of a page or from one document to another.

Most word processors come with a spell check and thesaurus to simplify editing. Almost any business needs a good word processing program to handle daily correspondence. The more popular packages include: WordPerfect, Microsoft Word and Ami Pro.

A more sophisticated type of word processing package is desktop publishing. Desktop publishing software allows you to create pres-

entation quality documents suitable for professional printing. These programs are used to merge text and graphics from other applications and usually come with large font libraries, layout tools and graphics capabilities.

Since presentation quality can make a big difference in being awarded a contract, it may be worth looking into desktop publishing to give your business a sharper image. The leading desktop publishers are: Corel Ventura (formerly Ventura Publisher), Aldus Page-Maker and Microsoft Publisher.

### SPREADSHEETS/BUSINESS MANAGEMENT.

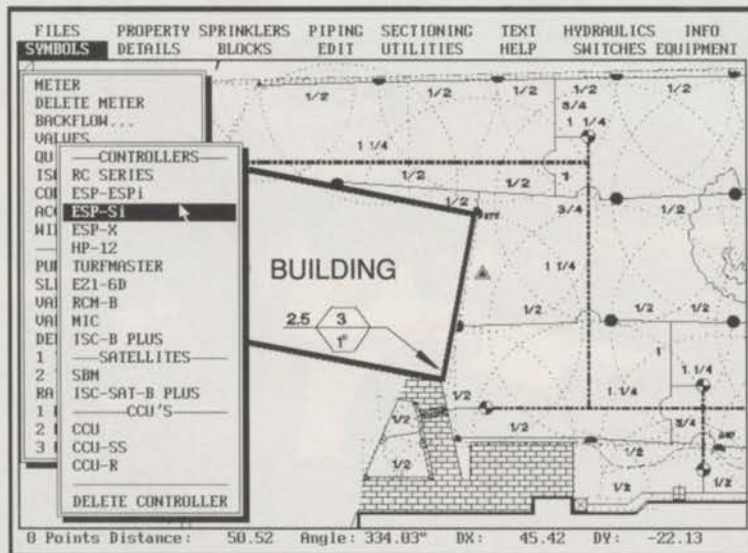
Spreadsheets allow you to perform calculations in tabular format. They provide built-in math functions that allow you to manipulate columns and rows of data. Spreadsheets are often used to store business data including financial statements and forecasts.

While spreadsheets are great for cost estimates, they may not provide all the tools needed for your business. Some of the more recognizable spreadsheet packages include: Lotus 123, Microsoft Excel and Quattro Pro.

(continued on page 18)

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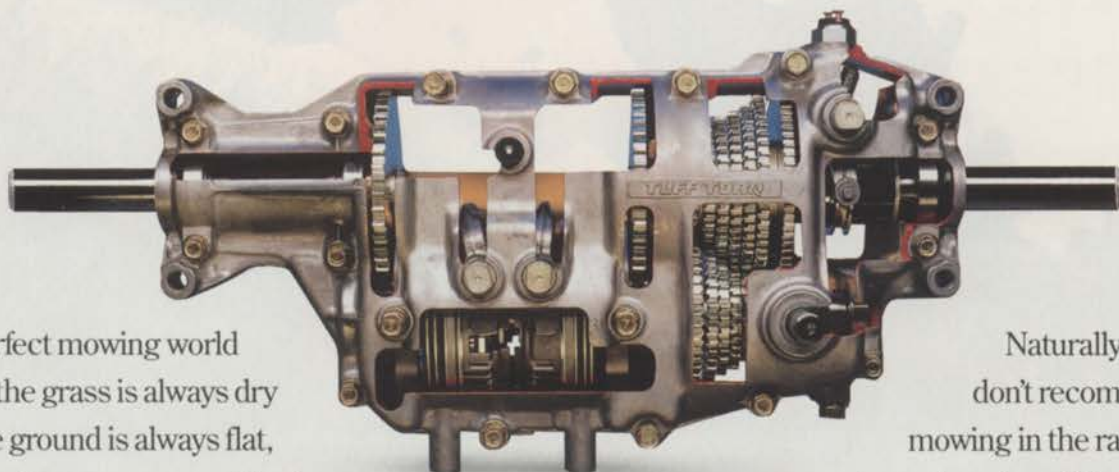


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## Computer Bytes

(continued from page 14)

To take charge of your business, an accounting application is recommended. An accounting program can help you set up and manage your business by tracking expenses, receivables, inventory and payroll. Many of today's programs help you set up accounts and automatically generate financial statements, balance sheets and income statements. Popular accounting programs include: Peachtree Accounting, Intuit's Quicken and Computer Associates Simply Accounting.

**DATABASES.** Databases allow you to store and retrieve information related to your business. This information may include customer lists with names, addresses, phone numbers, installation dates, etc. You may use a database program to store and retrieve data in any way that's most helpful to your business. Features include sorting, searching and deleting capabilities. The most popular packages are: dBASE, FoxPro and Paradox.

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to create newsletters, advertisements, flyers and door hangers.

Included in graphics packages are full function Computer Aided Design programs. These programs are used to draw anything you want with ease and accuracy. CAD programs can be used to design landscape and irrigation projects, and even calculate the materials needed as well as prepare cost estimates.

CAD programs were once geared toward sophisticated computer users and engineers. Now, full CAD is available to any user level at prices that won't send you into bankruptcy. Customized versions of full function CAD programs are also available through certain manufacturers.

These versions are adapted to address the specific needs of landscape and irrigation contractors and designers. CAD packages can go a long way in improving productivity and increasing business.

Popular graphics programs include: CorelDraw, Harvard Graphics and Freelance Graphics, while popular CAD programs include DesignCAD and AutoCAD.

**OTHER PROGRAMS.** There are a number of programs geared to the lawn and landscape industry and/or individual business needs.

More specifically, packages exist for landscape and irrigation design (as covered above), irrigation control, water management/irrigation scheduling and plant selection.

Landscape and irrigation design packages incorporate CAD capabilities with custom features including symbol databases, material takeoffs, automated sprinkler layout and cost estimating. Irrigation control packages allow operators to make adjustments to irrigation controllers from a remote location. Water management and irrigation scheduling software helps create efficient operation schedules that conserve water while maintaining a healthy landscape.

Before you buy any software package, take the time to research applications that will meet your business needs. Browse through computer magazines and talk to leading manufacturers about their industry specific programs. Many manufacturers offer free demos.

Read the annual product reviews and comparisons of software that many computer magazines offer annually. Most importantly, once you've selected an application, take the time to learn it. — Lisa Larson and John Elliott

*The authors are affiliated with Irrigation Technologies Inc., Houston, Texas.*

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USE READER SERVICE #89

## News in Brief

### Butterfly Gardens Promote Composting, Benefit Wildlife

ALAN MOORE, Allentown, Pa., began establishing butterfly gardens simply because he liked butterflies. He's since raised his quest to four other levels — answering the nation's solid-waste problem, reducing pesticide use, benefiting wildlife and saving the planet.

But he's still driven by his love for butterflies.

Moore attended a compost conference in Pennsylvania where a speaker urged participants to find new ways to promote composting. On the way home, Moore visited a butterfly garden. "An hour later, that was the only answer I could think of. It was an answer to the solid-waste problem, but it became so much more," he said. "It took about two months before it became more than butterflies. I never thought it would link so well."

A butterfly garden normally consists of patches of colorful, fragrant and weedy plants that attract any of 40 species of butterflies. Female butterflies tend to lay eggs on those plants, where the eggs stay until they hatch. The caterpillars also remain on the plants until they transform into butterflies.

Butterfly plants include annuals such as alyssum, cosmos, heliotrop, marigolds, nasturtiums and zinnia; biennials such as Queen Anne's lace and Sweet William; and perennials, such as asters, bergamot, butterfly bush, butterfly weed, purple coneflower, violets, thistles and black-eyed susans. Generally, it is the plant's shape, color and fragrance that attract the butterflies.

Butterfly gardens are becoming increasingly popular, particularly in eastern Pennsylvania, according to Dr. Bob Smetsinger, an entomologist with The Penn State University's extension service as well as publisher of a butterfly newsletter. Smetsinger estimated 500 people in east-

(continued on page 26)



A *Heliconius melpomene* or passion-flower butterfly. Photo: Cincinnati Zoo Insect World.

### NEWS DIGEST

#### Richton Acquires Century Rain Aid

Richton International acquired Century Rain Aid, a full-service distributor of sprinkler irrigation, landscape lighting and decorative fountain equipment.

Century operated 26 branches in Florida, Georgia, Illinois, Indiana, Kentucky, Michigan, Missouri and Wisconsin. Richton plans to expand those operations to Virginia and Maryland.

Wayne Miller, Century's chief operating officer and senior vice president, became Century's new president, and Century's former owner, Ernie Hodas, stayed on as vice chairman. Ben Taliaferro will remain executive vice president and Scott MacIntyre and Mike Stein as regional vice presidents.

#### Lawn-Wright Becomes Wright Manufacturing

Lawn-Wright Inc. sold various assets of its lawn maintenance division to Geze 2 Corp., t/a "Potomac Lawns." Under the agreement, Geze 2 took the name Lawn-Wright Inc., and

Lawn-Wright changed its name to Wright Mfg. Wright Mfg. will continue all other operations under its new name.

#### Loveland Buys Rights To Valent Spreader

Loveland Industries purchased all rights, including trademark and related assets, to Valent USA Corp.'s X-77 Spreader. The purchase also included Valent's remaining inventories of the spreader.

Valent plans to focus on its core pesticide business, according to Dr. Danny Rogers, acquisitions manager for Valent.

#### Roots Acquires RGB Laboratories

Roots Inc., New Haven, Conn., recently acquired the assets of RGB Laboratories, Kansas City, Mo. Manufacturing will remain in Kansas City and will be increased to produce Roots biostimulant products. Roots president Wayne Wall said the deal was a natural because of the inherent compatibilities of micronutrients and biostimulants. RGB owns a patented chelation technology for its micronutrients.



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## NESDA Closes Doors; NAEDA Fills the Void

The National Equipment Servicing Dealers Association ceased operation Nov. 30, after lobbying for and promoting equipment service dealers for 12 years. The North American Equipment Dealers Association will pick up many of NESDA's educational programs.

NESDA formed in 1981 to provide education and training for service dealers and to influence local, state and federal regulations. The association was run mostly by volunteers; Norman Beck, former executive director and founder of the NESDA, was the only paid employee. He has agreed to consult for the Outdoor Power Equipment Division of NAEDA for at least one year.

## OPEI Revises Its Economic Forecast

The Outdoor Power Equipment Institute revised its economic forecast to reflect current national economic conditions. All outdoor power equipment categories, except rear engine riders, are expected to show increased shipments in both 1994 and 1995 model years, according to the OPEI survey.

Walk-behind powered mower shipments

jumped 10.5 percent in 1993, to 5,688,810. That number is expected to increase 4.4 percent in 1994 and 4.7 percent in 1995.

OPEI's forecast calls for a 4 percent increase in the number of front engine lawn tractors shipped in 1994, and a 1.7 percent increase in 1995.

Shipment of rear-engine riding mowers fell 20.1 percent in 1993 to 163,711, and is expected to drop an additional 4.9 percent in 1994 and 8.2 percent in 1995.

Overall, riding unit shipments are expected to rise 2.9 percent in 1994 and 0.6 percent in 1995.

OPEI partially attributes the positive growth to modest growth predictions for personal disposable income in 1994 and 1995. Low interest rates and strong housing starts are also expected to continue.

## TOCA Offers Two College Scholarships

The Turf and Ornamental Communicators Association is offering two \$1,000 scholarships to college students who demonstrate an interest in green industry communications. Application deadline is March 1.

To qualify, college students must enter their junior or senior year by fall of 1994

and have an overall GPA of 2.5 with a 3.0 in their major field. Scholarship winners will be announced at TOCA's annual meeting in early May.

An application packet may be obtained by writing Lois Kocon, TOCA, 8400 Normandale Lake Blvd., Suite 500, Bloomington, MN 55437.

## Miles' Allowance Plan Aids Distributors

Miles Inc. Specialty Products is offering a promotional allowance program to its turf and ornamental pesticide product distributors.

Allowances are calculated as a percentage of a distributor's total-use yearly purchases and are based on proof of promotional expenses. They can be used to fund state and local advertisements, state and local association activities and university research efforts.

Association activities that qualify for funding include speakers, luncheons, research, foundations and special projects.

Miles products included in the Market Support Program include Bayleton 25 Turf & Ornamental Fungicide, Dylox 80 Turf & Ornamental Insecticide, Dylox 6.2 Granular Insecticide, Morestan 4 Ornamental Miticide,

(continued on page 26)

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## News in Brief

(continued from page 22)

Nemacur 3 Turf Nemacide, Nemacur 10 percent Turf & Ornamental Nemacide, Oftanol 5 percent Granular Insecticide, Oftanol 2 Insecticide, Sencor 75 Turf Herbicide, Tempo 2 Ornamental Insecticide and Tempo 20 WP Insecticide.

## Ames, NGA Sponsor Youth Garden Grants

A record 200 grants are expected to be awarded in the 1994 National Gardening Grants Program.

Sponsored by Ames Lawn and Garden Tools and the National Gardening Association, the youth program is designed to promote garden-based education in schools, communities and youth organizations nationwide. Grants for food and beautification gardens, totaling \$500 worth of tools and gardening products, are awarded to groups gardening with 15 or more children between ages 3 and 18 years.

Since 1982, NGA has awarded Youth Garden Grants to more than 1,000 garden programs in schools and community centers throughout the United States.

## PLCAA Offers Certified Turfgrass Professional

Georgia is the first state to recognize the Professional Lawn Care Association of America's new certification program. The curriculum, developed in cooperation with the University of Georgia, will satisfy pesticide recertification credits in Georgia. Acceptance is pending in 27 other states.

Successful completion of the program titled "Principles of Turfgrass Management," leads to the designation of Certified Turfgrass Professional. It is the first comprehensive national training course and certification program for the lawn care industry, according to John Robinson, PLCAA past president. The association hopes it will become a standard for the lawn care industry.

The course is a home-study correspondence course covering 14 topics including turfgrass identification; soil and climate adaptation; fertilization; mowing; irrigation; insects, weeds and pesticides; environmental issues and regulations; and customer relations. Topics are applicable to all regions of the United States.

Two monitored exams, offered across the country, are required for passage.

## Butterfly Gardens

(continued from page 20)

ern Pennsylvania are involved "in what they consider" butterfly gardening, including the state extension service's own demonstration garden.

"There will probably be several hundred butterfly gardens installed this summer nationwide," Smetsinger said.

Moore, also owner of Alan's Organic Gardening and Landscaping, encourages gardeners to use compost in their butterfly gardens, thus creating another end use for composted material. "My county doesn't take yard waste from commercial people. Composting facilities are thus acting as storage facilities too," he said.

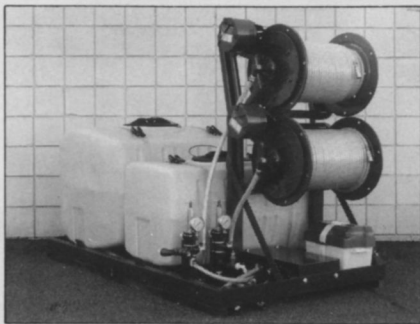
It is difficult to determine the number of gardens that are using this practice.

Moore recently founded a worldwide, non-profit Butterfly Gardeners Association, targeting about 1,200 potential members.

His pet project now is helping to establish a rooftop garden at Gilda's Club in Manhattan, N.Y., a support facility for cancer patients slated to open in spring. "It's no easy task attracting butterflies to the rooftops in Manhattan. That will probably be an enclosed habitat," he said.

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# Association News

THE **CALIFORNIA Landscape Contractors Association** elected Jim Everett of Everett Landscape, Woodside, its president. Everett, an active CLCA member since 1985, is serving his junior year on the board. He has held several officer positions as a member of the San Francisco Bay Area Chapter.

Everett helped shape CLCA's three-year plan while chairing the association's planning committee from 1990 to 1992. He believes the experience prepares him to face new challenges.

"I (think) next year will be, if anything, more difficult than last year for our members," he said. "Given the fact that I have personal experience with CLCA's first three-year plan and saw a majority of its objectives fulfilled, I will support the goals of the new plan. This is crucial, especially in a year when CLCA's expenditures are so carefully considered and membership commitment is at a premium."

Other members elected to the 1994 executive board were Jon Ewing of Landtrends Inc., San Diego, as chairman, and Richard Jark of South Coast Landscaping, Los Alamitos, as president-elect. Vice presidents include Robert Battinich of Battinich Tree &

## For more information...

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Landscape Specialists, Castro Valley; Ken Crowl of Riverside Landscape & Irrigation, Riverside; Barry Konier of Landscape West, Anaheim; and Dave Penry of Redwood Landscaping, Santa Rosa.

Sharon McGuire, CLCA's executive director, sits on the board as an ex officio member, a position she has held since 1986.

The **Professional Consulting Arborists Association** recently formed to provide widespread support to tree care consultants,

according to executive director John Kirkland.

The association, founded by Dick Proudfoot, general manager of Pruett Inc., Lake Oswego, Ore., provides networking opportunities, continuing education and marketing referrals for members. Plans also include publishing a quarterly newsletter and an annual directory.

Prospective members will be required to submit examples of consulting reports; obtain the sponsorship of another PCAA member, industry peer or client; and earn

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annual continuing education credits.

PCAA's annual membership fee is \$125.

The **American Association of Nurserymen** appointed Ashby Ruden director of horticultural research. Ruden previously worked with the Fairfax County, Va., extension service as a water quality technician.

Ruden said her main objectives for HRI include increasing its endowment fund program for 1994 and developing a clearinghouse of information for the industry.

"We also hope to grow our membership. We need to make people aware that HRI is not just a grower's institution...that we represent a broad spectrum of the nursery industry," she said.

Ruden also serves as AAN's liaison with the People Plant Council and U.S. Botanical Garden and National Arboretum and shares leadership responsibilities on the Horticulture Standards Committee.

The **Professional Grounds Management Society** named John Gillan its executive director. Gillan, who has served as acting director since April, joined PGMS as marketing director in April 1992.

Gillan's background includes serving as communications director for the American Society of Safety Engineers for three years and as public relations director for Bunker Ramo Corp. for five years. Most recently he ran his own public relations firm in Chicago for four years.

In other news, six members of PGMS received certification awards for 1993. A total of 41 members have passed the association's certification exam.

The **National Arborist Association's Annual Meeting and Management Conference** is set for Feb. 8-12 in Waikoloa, Big Island of Hawaii. The conference's theme is "Focus on Change — Positioning Yourself for Success."

The conference is geared to help acclimate members to the rapidly changing industry environment, according to Robert Felix, executive vice president of NAA. "Too many people are frightened by change, worried about the unknown future or unable to see that old ways of doing business can become counterproductive," he said.

The goal of the meeting is to show that change can be viewed as greater opportunity for profit and success, he added. "Everything about our meeting has been

designed to help our members welcome and take advantage of change."

The leading presentation at the conference covers how change in environmental awareness in the past 30 years has resulted in major efforts to preserve the earth's endangered trees and plant species. Other topics include altering attitudes and methods of training, changing old ways of dealing with employees, customers and competitors and using computers to improve sales and profits.

**IN BRIEF...**The **Michigan Nursery and Landscape Association's** 1993-94 Nursery Stock Index is now available. The index lists more than 1,300 trees, shrubs, rhododendrons, vines, groundcovers, perennials, ferns, grasses and bulbs. The index, priced \$10 for members and \$20 for nonmembers, is available by contacting MNLA, 517/487-1282...The **Oregon Association of Nurserymen** elected Art Anderson of Klupenger's Nursery and Greenhouse, Aurora, Ore., as its 1994 president; Norbert Kinen of J. Frank Schmidt and Son Co., Boring, Ore., as president-elect; Tom Fessler, Woodburn Nursery and Azaleas, Woodburn, Ore., as vice president; and Clint Smith of Four Mile Nursery, Canby, Ore., as treasurer.

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# Full-Service Future

*After a decade of heady growth and a few humbling lessons, Byrne Brothers Landscaping has sobered up to prospects of a long and healthy future through continued diversification.*

*By Julie A. Evans*

A HEALTHY SIBLING rivalry can foster competitive adults. That's the case with brothers Michael and John Byrne, partners in Byrne Brothers Landscaping of Essex, Mass.

Michael, 30 and John, 29, always shared a spirited love for competition, especially with each other, John said. But their approach has always differed. John is more forthright and aggressive. Michael competes more with himself than with others.

"I excelled more in football. Michael excelled more in baseball. That relates directly to our personalities," John explained. "That's why we've been so successful. We complement each other well."

As partners and as brothers, the two men have struck a winning balance that has enabled their 10-year-old company to grow to nearly \$1.4 million in 1993.

Now, after a decade of heady growth and a few humbling lessons, Byrne Brothers Landscaping hopes to expand its full-service maintenance client base and extend the company's geographical reach. And they appear to be committed to these goals. They've hired some top industry consultants to help them improve their productivity, fiscal management and people management skills. Michael especially has networked extensively with successful business owners through his involvement with the Associated Landscape Contractors of America. And both men have made some deliberate changes to their management styles.

Their long-term goal, the brothers agreed, can't be measured in dollars and cents. Said Michael, "The company's goal is to provide a future for our employees through developing a full-service company."


**HISTORY.** Byrne Brothers Landscaping sprang from the brothers' professed love for the landscape which developed at an early age. According to John, he and Michael developed rudimentary skills as children growing up in southern Florida. Their father was a stickler for "having a nice yard," John said, and taught them a healthy appreciation of the benefits of landscaping.

After growing up in Florida, Michael and John moved to Massachusetts with their family, where Michael would later start-up his first lawn care business. According to John, their parents' indirectly helped to shape the brothers' entrepreneurial spirits.

"When we moved to Florida, our parents had their hands full raising three boys. My dad used working in the yard as a means of keeping us busy," John said. "Our dad's on the job training was probably the strongest influence for us to go into the landscaping business. We learned young how to work hard and the benefits that would come from our hard work."

In 1982, Michael opened Mike's Lawn Service with only a pickup truck and a few pieces of equipment. John went to work for him.

Michael and John both foresaw greater opportunities in landscaping, but they knew they needed to further their education if they were going to be



John and Michael Byrne went in to the landscape business right out of high school. Ten years later, the former one-pickup-firm is more than a \$1 million business. Photo: Michael Gormley.





successful. While operating the lawn service, Michael enrolled in classes at the Essex Agricultural and Technical Institute. John enrolled the following year. Both men earned degrees in horticulture.

After two years in business,

Mike's Lawn Service closed its doors and Byrne Brothers Landscaping opened for business, with Michael and John as equal partners. Their mother and younger brother also helped with the landscape business start-up.

Working so closely with family took some time to get used to, both brothers conceded.

"Absolutely, it is difficult to work with family," John said. "Growing up, Mike and I worked together, lived together, hung out together.

Now that Michael is married, we still spend a lot of non-work time together, but we're in two different times in our lives with different interests."

Michael agreed, adding that "sometimes it's challenging. Family

## BYRNE BROTHERS LANDSCAPING INC.

**HEADQUARTERS:** Essex, Mass.

**BRANCHES:** None

**FOUNDED:** 1984 by Michael and John Byrne

**OWNERS:** Michael and John Byrne

**PRIMARY SERVICES:** Commercial landscape maintenance, residential design/build, commercial snow removal, arboriculture.

**EMPLOYEES:** 34 seasonal, 15 full-time

**1993 SALES:** Nearly \$1.4 million

## EXECUTIVE SUMMARY

**THE CONCEPT:** Provide full-service landscape maintenance, including lawn care, tree care and snow removal to commercial clientele; provide landscape construction and design/build to residential market.

**PROJECTIONS:** Reaching \$1.5 million in 1994.

**HURDLES:** Honing management skills; circumventing a volatile New England construction market in the late 1980s.

## THE OWNERS

**MICHAEL & JOHN BYRNE**

**AGES:** 30 (Michael), 29 (John)

**FAMILY:** Michael is married, John is single

**EQUITY HELD:** Michael and John are equal partners.

**EDUCATION:** Both men hold horticulture degrees from Essex Agricultural Institute in Essex, Mass.

**OTHER COMPANIES STARTED:** Prior to Byrne Brothers, Michael owned Mike's Lawn Service; John was an employee.



issues get carried over into business and vice versa. But we complement each other well in a lot of situations."

**STRATEGIC PLANNING.** It soon became evident to the Byrne Brothers that opportunities were greater in landscape construction than in maintenance, thanks to the building boom of the 1980s and a thriving real estate market for residential and commercial construction.

Like many other landscape firms across the country, Byrne Brothers benefited from this '80s building boom. With 70 percent of sales coming from construction, the company grew from first-year revenues of \$200,000 to \$1.2 million in 1988.

According to John, the real estate market was a "tidal wave starting to swell," just as the brothers finished their first year in business. "We just rode it to the top," he said.

"In 1987-88, there were people calling you up, not asking 'how much is it going to cost?' but 'when can you get it here?' We hit the timing perfectly."

Byrne Brothers was successful,



he added, because it developed a reputation for getting the job done on time; even under pressure. "It wasn't that you had to babysit the

Byrne Brothers," John said. "Deadlines were so important. We would do whatever it took to get the job done on time."

A division of Byrne Brothers Landscaping, Arbor Tect tree health care services now accounts for 10 percent of the firm's revenues.



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When the overheated construction market threatened to take a downturn in the late 1980s, the brothers made a decision to shift their business focus from construction to maintenance, a move that may have saved their business.

"Everybody was chasing down the construction work, but there were a lot of customers that needed servicing," John said. "We decided to go great guns with the maintenance; and as it turned out, the bottom fell out of construction and a lot of people went out of business because they didn't offer maintenance any longer."

The company presently derives 60 percent of its revenues from maintenance, 25 percent from construction, 10 percent from arboriculture and five percent from snow removal.

During the recession which followed the construction boom be-

ginning in the late 1980s, the Byrne brothers watched their revenues decline, from \$1.2 million in 1988 to \$989,000 the following year.

"We were able to stay steady, once we got over the shock of not doing \$1.2 million anymore. It was at that point we decided we wanted to be a maintenance-based firm because that is steady."

According to John, Byrne Brothers refused to succumb to a "recession mentality."

"They said Massachusetts had a two-year recession. That was something that Mike and I decided we weren't going to partake in. We had a mindset that we weren't going to complain. We went and picked up where everyone else was slacking off. When everybody else was out of work, we were still busy. Business was off from the 1980s, which I don't think we'll see again in the near future. But we were probably busier than most companies."

"A lot had to do with attitude. Our employees were the same way. Everyone looked for opportunity rather than dwelling on the recession that was all around us."

**LEARNING LESSONS.** But Byrne Brothers was not without its mistakes and costly miscalculations. "We made the mistakes, absolutely," John said. "When times are good, you buy a lot of equipment, you invest a lot of money, you get overextended and you have a few people go belly up on you and file for bankruptcy. It could very easily have cost us our business."

In fact, one particularly large account, a golf course development, did go bankrupt, costing Byrne Brothers Landscaping about \$100,000 in 1989. Michael said the company learned a hard lesson from the experience.

"If I could do it again, I would be more timely in providing services and make sure the payments stayed with the work we did," Michael said. "In retrospect, it was one of the best things that happened to us."

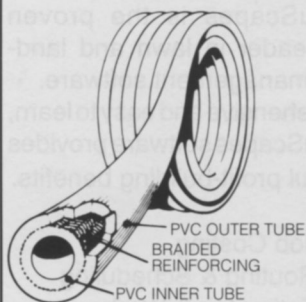


**Key for Byrne Brothers is maintaining year-round employees. The firm keeps 15 people in the off-season for snow removal and winter tree pruning.**

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The company had grown so quickly, it made us stop and take another view of what was going on."

John also admitted to another costly mistake: His lack of strong management skills cost the company some valued employees in the early days.

"I've learned that the most important aspect in this business is the people. Everything revolves around the people. I didn't understand that at first. I thought it revolved around work," he said. "I guess I've lost some good people due to my mismanagement. As an owner, I thought everyone would work the way I did and people don't. I guess I'm an exception in that I'm aggressive and can't sit still."

John believes that he's become a better manager, but not without the help of advisers and consultants "beating it through" his head.

**CHANGE.** If the Byrne brothers implement only a portion of the changes they want to make, 1994 should be a busy year. For starters, they plan to strengthen the com-



pany's Arbor Text tree health care service, which now accounts for 10 percent of revenues.

Michael said the tree service has the ability to open new doors and move the company closer to its overriding goal of providing full-service landscape maintenance,

from lawn care to irrigation to maintenance. "People want to deal with one person who can do the entire landscape," he explained.

Byrne Brothers also plans to hire more specialists as the company grows, including certified arborists and people with strong lawn care

**Tree work, including pruning and some injections, has opened many doors for Byrne Brothers.**

and plant health care backgrounds. "That background would give us more of a competitive edge. Smaller companies tend to rely on the

(continued on page 38)



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USE READER SERVICE #50



owner's expertise," Michael said.

The company also hopes to move its headquarters this year to Burlington, Mass., placing the company within 25 miles of Boston and bringing it closer to the majority of its clients and prospects.

Byrne Brothers is also evaluating an opportunity to purchase a local contractor's business.

In terms of new business prospects, the company is going to more aggressively pursue two markets in particular: companies with in-house

The switch from a construction to a maintenance emphasis helped the firm survive the harsh, mid-80s economy.

maintenance personnel; and larger commercial accounts. For the former, the plan is to demonstrate how companies can save time and money by outsourcing their landscape maintenance, rather than maintaining a full-time, in-house staff and equipment supplier.

According to Michael, "We have the equipment. We have the specialty people on staff. We're trying to show them that we can save them money and provide a better service. I think you'll



see that more and more throughout the industry," Michael said.

The strategy seems to be working. Recently, Byrne Brothers took over maintenance for a large cemetery that previously had a large in-house crew. They demonstrated to the owners how Byrne Brothers could provide better service at a lower cost and won the contract.

As for attracting larger commercial accounts, the company believes it has the manpower and expertise to service large properties such as the AT&T headquarters in North Andover, Mass. Byrne Brothers won that coveted contract three years ago and recently won a supplier excellence award for their work there.

A spokesman for AT&T described Byrne Brothers as a "classy outfit," which is helping AT&T achieve its goal of becoming a world-class company.

Finally, the company plans to expand its residential construction client base. Home sales have picked up, John said, and people are making landscaping a bigger priority.

**PRIORITIES.** Offering year-round employment to key people has long been a priority for Byrne Brothers, but its New England address hasn't made that goal easy to achieve. Presently, the company has 15 full-time employees, 10 of whom work outdoors on snow removal and winter tree pruning.

An obvious benefit of offering year-round employment, the brothers said, is the cultivation of a more motivated and dedicated staff. Also, the ability to have experienced personnel working on spring start-ups "makes all the difference in the world," Michael said.

"We've been able to attract more mature people that are married and have families, because we can offer them positions they can afford to live on," John added.

Michael agreed, adding that employees are more likely to stay with a company if they see opportunities for advancement.

"We went from \$900,000 last year to \$1.4 million this year. People see this company moving in a positive direction, while most people in this area are just trying to maintain what they have," Michael said. "My goal is to provide a future for the young people involved, for all of us. I think the most successful people in this country keep their employees."

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

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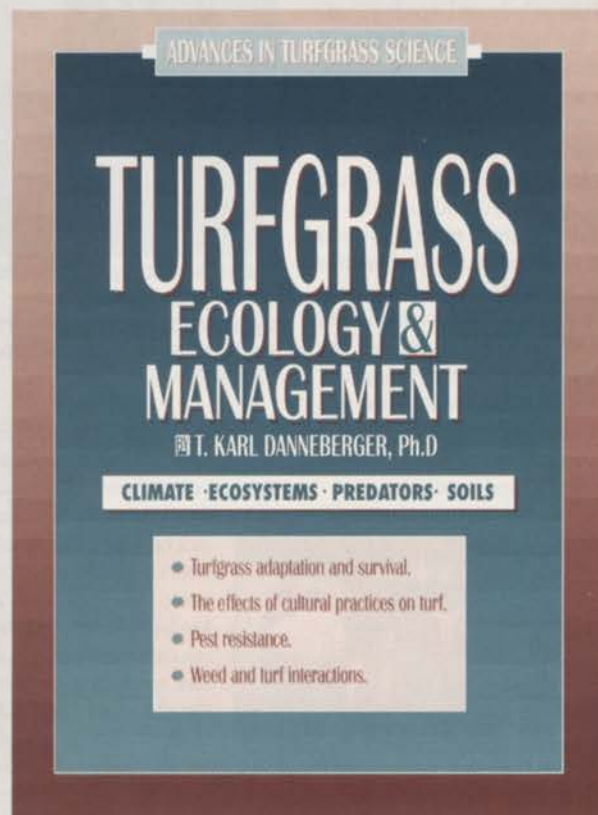
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# GIE Show Gains Ground

*The lawn and landscape industry's national trade show has established itself as a not-to-be-missed event.*

IF THE SUCCESS of the 4th annual Green Industry Expo foreshadows the kind of season lawn and landscape contractors can expect, then it should be a strong year for green industry supporters.

Exhibitors, attendees and show officials alike were pleased with the growing success and presence of the only national trade show and conference specifically designed for lawn and landscape professionals. Each year, the GIE — sponsored by the Associated Landscape Contractors of America, the Professional Grounds Management Society and the Professional Lawn Care Association of America — has grown in size, stature and popularity.



About 2,400 show-goers viewed the wares of 277 vendors whose exhibits covered more than 53,700 net square feet.



GIE visitors enjoyed a selection of new products (top) and dynamic educational speakers such as Roko Paskov of Career Track (above).

A number of exhibitors claimed that the show's growth was apparent this year as show traffic remained steady over the 15 hours of indoor exhibit time. The Outdoor Demonstration continues to be a strong event as all kinds of mowers, hydroseeders, chippers/shredders, aerators, sprayers and more were tested by more than 200 attendees at a nearby park.

Exhibitors seemed pleased with the demo's overall turnout. "We've al-



Ann McClure of PLCAA, Tom Smith of PGMS and Ron Kujawa of ALCA signal the start to the 4th GIE trade show (top). Peer networking sessions (above) and GIE keynote speaker Ty Boyd (right) provided a good mix of business and humor.

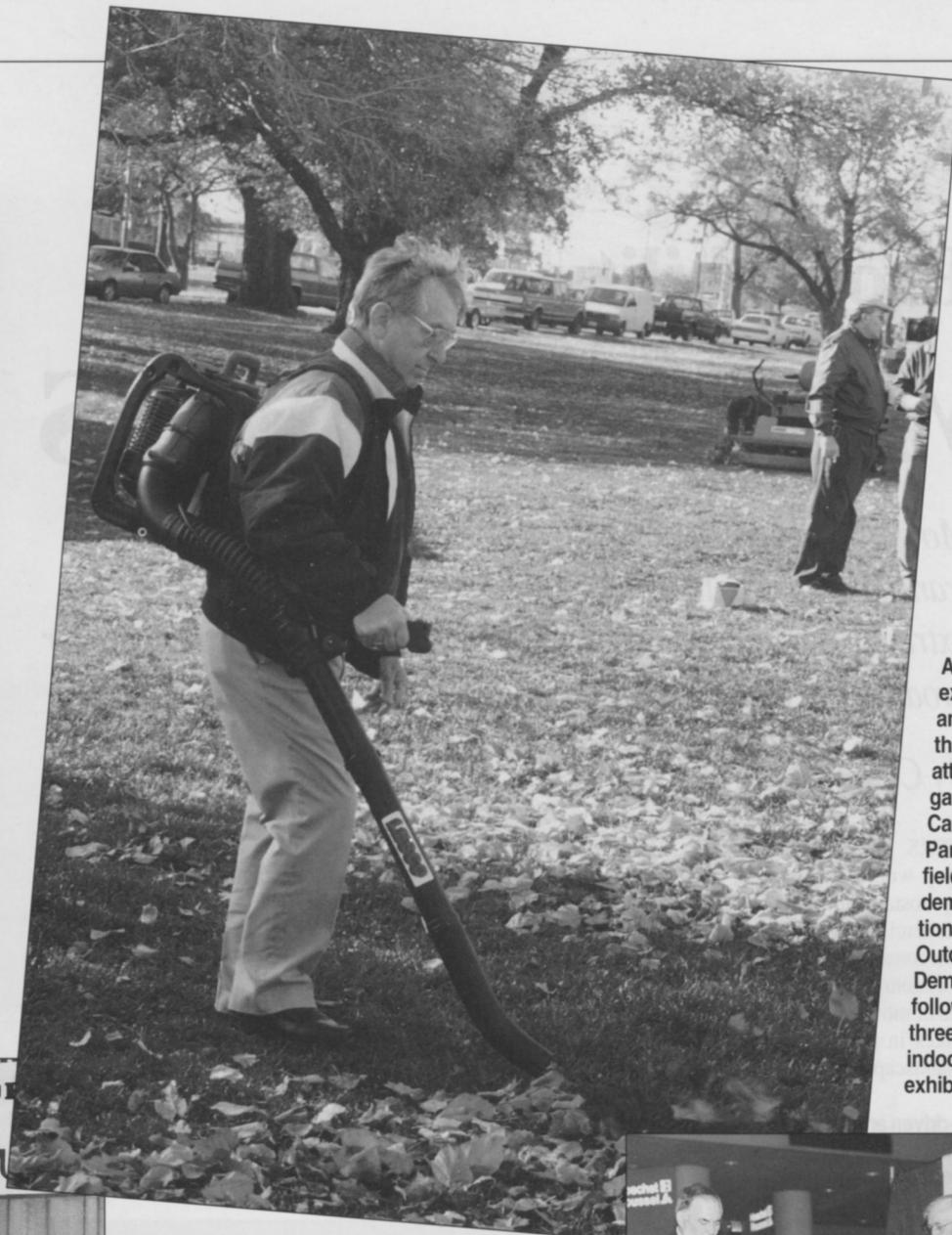
ways liked that part of the show," said Bob Walker of Walker Manufacturing, Fort Collins, Colo. "Weather is really the only concern. But this particular day worked out very nice."

In addition to more traditional lawn and landscape products, other indoor exhibits included nursery products, seed, computers, products for erosion control, snow removal, irrigation, engine maintenance, colorscaping and hardscaping.

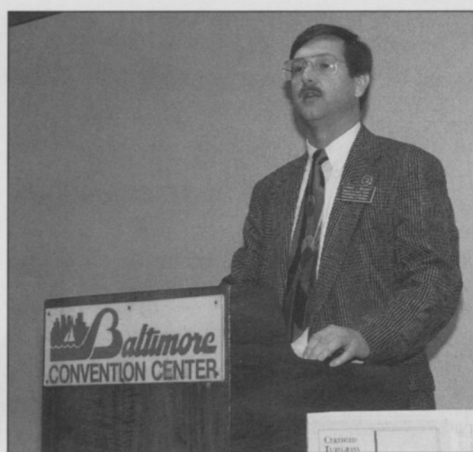
This year's show emphasized

meeting the challenge of change as GIE keynote speaker Ty Boyd shared his observations and advice for coping with the fast pace of the '90s. "This is the decade of more standards, morals and ethics," Boyd said. "You can either





About 35 exhibitors and more than 200 attendees gathered at Carroll Park for field demonstrations. The Outdoor Demo followed three days of indoor exhibits.



PLCAA's Tom Delaney details "Principles of Turfgrass Management," a new training and certification program (left). Exhibitors were pleased with the response and the growth of the cooperatively formed show (above).

be a victim or a change agent. Change agents take charge and do what it takes to satisfy the pieces of the puzzle."

Giveaways are common at trade shows, but few reach the magnitude of the \$250,000, 10-year sup-

ply of pendimethalin awarded to Lawn Doctor operator Gary Vitt from American Cyanamid, LESCO and O.M. Scott & Sons. Vitt, based in Colorado Springs, serves 3,100 customers.

All three associations claimed

success in their breakfast meeting roundtables designed to enable lawn and landscape maintenance contractors to exchange ideas and information. Meetings, held all three mornings, boasted packed rooms despite the early hour.

Forty-seven products were up for bid at PLCAA's benefit auction which raised \$21,010, surpassing the \$20,000 goal set by PLCAA. Proceeds go toward PLCAA's legislative and public relations ambassador programs. ■



# Profitability Drives Mower Sales

*Mowers and zero-turn-radius capability and hydrostatic transmissions continue to drive the commercial market. The extra costs of these machines are easily recovered through higher productivity and lower maintenance.*

By Cathy Hoehn

IF MOWERS WERE hotcakes, maple syrup would come in the form of hydrostatic and zero-turn radius commercial machines.

That's the consensus among contractors and manufacturers who say those types of mowers are moving like hotcakes in the commercial lawn and landscape market.

**Both belt-driven and hydrostatic mowers remain popular. Whichever model, contractors want the most productivity.**

The trend toward hydrostatic and zero-turn mowers began in the 1980s and gained momentum around 1990. Today, almost half the commercial riding mowers are hydrostatic, according to Outdoor Power Equipment Institute statistics. Manufacturers estimate that ride-on and walk-behind hydraulic mowers together roughly represent 25 percent to 45 percent of commercial mower sales.

"Since hydrostatic-driven mow-

ers are taking almost half of the market, people need to ask themselves, why is the market moving in that direction? And of course the answer is productivity. I'm sure we'll see more and more of it," said Bob Walker, owner of Walker Manufacturing, Fort Collins, Colo.

Profitability in 1993 may enable contractors to spend more money for higher productivity and maneuverability this year, according to manufacturers, who saw increased

sales for ride-on and walk-behind commercial mowers last year and anticipate continued growth.

"Overall, 1993 was a good year for commercial cutters. We see them going to more productive machines, particularly hydraulic-driven mowers," said John Crowson, national sales manager for Scag Power Equipment, Mayville, Wis. "Mowing contractors have money to spend. They need products that go out and perform."

Most manufacturers contend gear-driven mowers continue to hold their small share of the market—especially for smaller companies that can't afford the higher priced models—but that hydraulics have become the mainstay.

**WHY HYDRO?** "There's a certain segment of the market that will go hydrostatic because of the ease with which you can operate the machine," said George Schaefer, senior vice president of F.D. Kees Mfg., Beatrice, Neb. "You don't have to manhandle the machine. And you don't have to stop and shift. Just squeeze the levers on most of the machines, and they go into reverse."

The hydro's instant forward/reverse makes the machines much more maneuverable than belt-driven machines. "You can drive up to something and squeeze the lever and back away. And you can back up steep slopes. Hydraulics don't care so much what the conditions are. They'll keep going under more adverse conditions," said Mark Wegner, engineering manager for Ransomes America Corp., Lincoln, Neb.

Problems noted with gear-driven mowers is that they require shifting to change speeds, slip when the belts get wet and need more frequent maintenance as belts wear out or break.

The drawback to hydros is that the initial cost, and cost of repairs, is somewhat higher. Additionally, the hydros tend to veer from side to side, so that the operator must

(continued on page 46)





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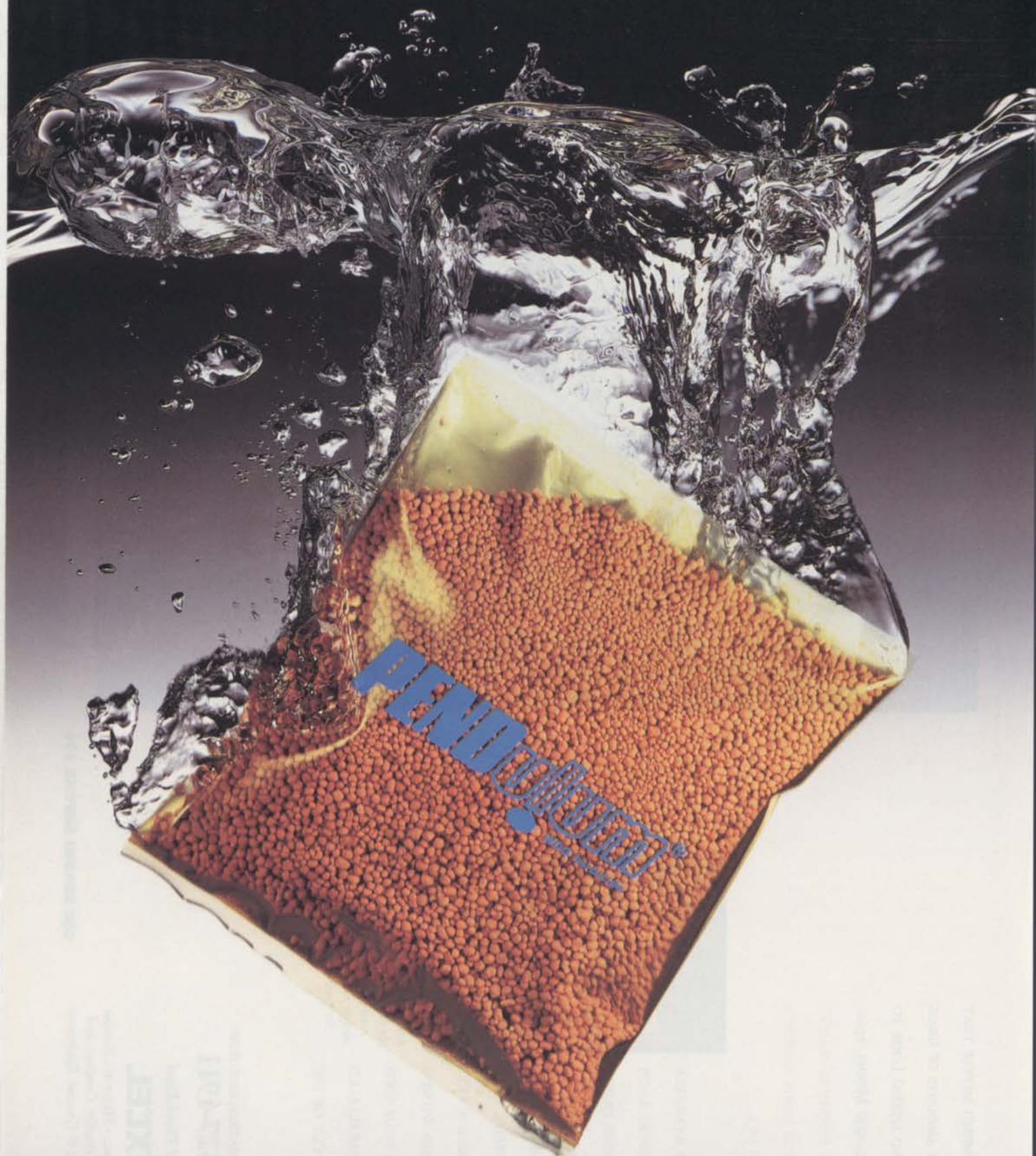
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## Mowing Trends

(continued from page 42)

continually adjust tracking.

Some contractors have not been sold on hydrostatic mowers. Lee Mueller, owner of Reliable Landscaping, St. Louis, Mo., who maintains a fleet of five belt-driven walk-behinds for residential and small commercial jobs under three acres, said he has heard too many complaints from business associates who use hydros.

"My dealership tried everything they could last year to get me to buy a hydrostatic. I wouldn't have it," he said. "One fellow had a machine where the hydraulics reservoir was too close to the engine. Once it heated up, it lost viscosity and didn't want to drive the mower. I haven't had any problems with the belt drives other than having to tighten the belts up and make adjustments as the belts stretch."

Mueller concedes, however, he will probably break down and buy a hydrostatic walk-behind next year. "That's about all the manufacturers are offering anymore," he said.

The life expectancy of hydrostatics rates about the same as belt-driven, according to Wegner. "There isn't going to be much difference in the overall life of a machine. As hydrostatics get older, the hydraulics die. You'll have one big failure whereas with the belt-type machines you pay as you go along because you have to replace belts as they wear out."

Dick Tegtmeier, president and CEO of Encore Mfg., Beatrice, Neb., anticipates that the company's new hydro rider will bite into sales of its walk-behinds. "The commercial operator can do more production with them," he said. "We feel they can mow 20-plus acres a day with the rider, whereas with walk-behinds you can't do that."

**TRACKING/STEERING.** The biggest complaint with hydrostatic mowers is that they are difficult to keep on track. "The pump pressure changes over time and the mowers begin tracking off to one side or the other. With most models, this requires some tools adjustment at the pump down by the wheels," said

Jim Jenkins, marketing director of walk-behind and commercial products for Snapper Power Equipment, McDonough, Ga.

To correct the situation, Snapper last summer introduced its Accutrac™ Control System which allows an operator to use a joystick to adjust tracking while maintaining regular mower operation. "When using a hydraulic mower on hills, the front end of the mower tends to want to go down hill, so you have to keep correcting it with controls. On a hill you can adjust Accutrac so it automatically tracks straight," Jenkins said.

F.D. Kees recently introduced the Hydro Trac™ tracking system by which the operator can "just tweak the clutch handles and do a 180-degree turn," Schaefer said.

The new system provides straight tracking on slopes and in a variety of conditions, said Donald Kanter, director of sales and marketing for F.D. Kees. "(It) requires no tools or mechanical adjustment and is easily aligned by the operator to eliminate drift, thereby avoiding any downtime."

New steering technology from Excel is designed to make it easier for operators to control a mower's direction with one lever, according to Ken Raney, communications manager for Excel, Hessler, Kan.

Available on several models of the Hustler mowers, the Trim Steering™ bar consists of a molded hand grip which can be operated with either the right or left hand. Turning requires a twist of the wrist in the direction of the turn. On tight turns, the system automatically counter-rotates the drive tires without pivoting. Directional speed is controlled by pushing the bar forward or pulling back.

**ZERO-TURN RADIUS.** The second buzz word in commercial mower markets is zero-turn radius. This feature allows the mower to turn on a dime because one wheel moves forward while another wheel moves backward.

"The zero-turn is the big push in the market, for riders and walk-behinds. We've seen increased sales over the last couple of years. It's a

(continued on page 48)

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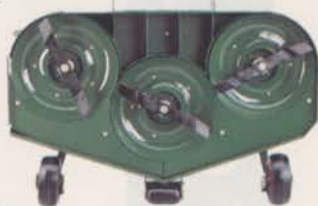
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tested units from all the major manufacturers. What we discovered is the Versadeck has a high deck design that allows the clippings to be drawn up and chopped several times before they are forced to the ground where they decompose. Because of the fine cut, we don't have a problem with clumping. And, for those times when we can't mulch, the Versadeck can be converted to a side discharge mower."

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## Mowing Trends

(continued from page 46)

very fast-growing segment," Jenkins said.

Zero-turn radius mowers were first introduced in the mid- to late 1970s. They didn't take off tremendously in the commercial market until the 1980s. Their durability and reliability have since increased.

The disadvantage to zero-turn radius, compared to those with steering tires, is lower performance on slopes, Wegner said. Zero-turn mowers have at least two castor wheels, as well as two drive wheels that provide stability.

"On a side hill, the castor wheels don't do anything to keep the machines from turning down the hill, whereas steering tires keep the machines from tipping downhill and consequently tend to have better hillside performance than zero-turn," he said. "But if you have relatively flat areas with lots of obstacles, the zero-turn works great for trimming."

Tegtmeier noted that belly-mounted zero-turn riders are in-

creasing in popularity over machines with outfront decks and tail wheels. "The belly mounts don't take up as much space on the trailer or in the yard," he said.

Marty Dieckmeyer, owner of Pacific Landscape, Corona, Calif., believes the zero-turn feature offers the greatest advantage on mowers attached with wing decks. "They give a 12-foot-wide trim, yet enable us to mow small areas as well. That works for us," he said.

Steve Mazzarella, landscape manager, Custom Care Building Services, landscape division, Boca Raton, Fla., said he prefers his walk-behind that isn't zero-turn.

"It's simpler, more reliable. It does well on slopes and berms. And it doesn't scalp. We had another mower that scalped because of the design of the deck."

### RIDERS VS. WALK-BEHINDS.

Regardless of the features, manufacturers and contractors differ in opinion as to which type mower—ride-on or walk-behind—offers the most advantages.

"Our mower range is everything

from the small, 21-inch walk-behind to a larger, 36-inch and 48-inch walk-behinds. We also use large rider mowers and, if we're doing bermudagrass, we use a Triplex," said Robert Zolezzi, co-owner of L&L Landscape Services, Santa Clara, Calif. But the backbone of the company is the 36-inch and 48-inch walk-behinds, he said.

"Dollar for dollar, I think we get a lot more out of the 36-inch or 48-inch walk-behind machines. Eight years ago, we used ride-on mowers to just blast through grass. But we've changed things. The large riding mowers sometimes are a necessity, but if we can get around it, we'd rather have a 36- or 48-inch (walk-behind). They're more productive and tend to not break down as much, so they require less maintenance."

Tegtmeier, however, sees ride-ons taking over the walk-behind market. "Every one of those trailers that has a walk-behind on it will have a rider on it too," he said. "They zip through open spaces at 7 mph. The fatigue factor (for the operator) isn't there like for walk-behinds."

But, he added, "there's room for both. I think commercial operators will continue to use walk-behinds for trimming and under fences and bushes, and as soon as they get out into the open, they'll use the rider. I think it's a good marriage of the two mowers."

Although he believes the belly-mounted rider market is growing more rapidly than the front-cut rider market, Tegtmeier concedes both offer advantages.

"With the belly-mount, you can zip around trees faster than with the front-cut. But the front-cut offers the advantages of trimming under bushes and fences."

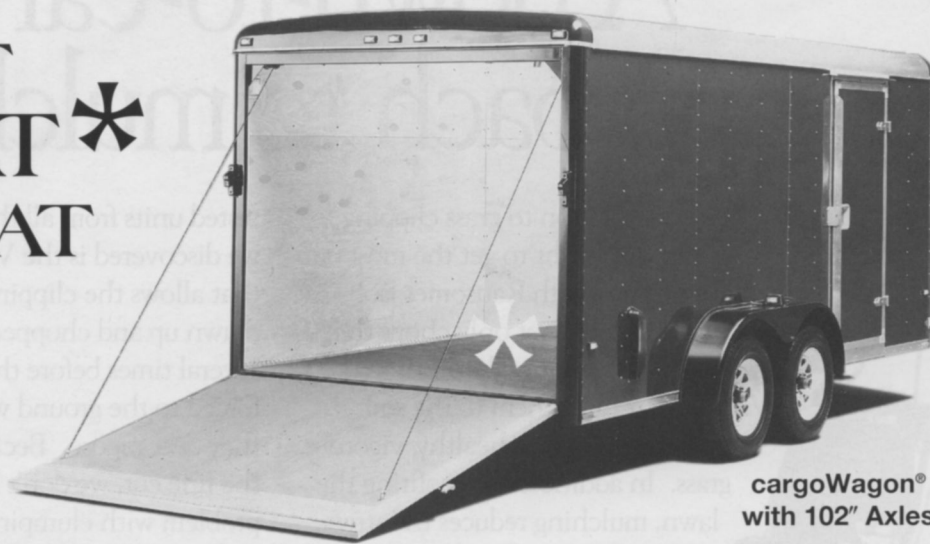
The prospect that manufacturers may one day offer the "mower that does it all" doesn't exist, said Tegtmeier. "Landscape architects won't hardly allow that. A lot of designs call for confined areas where big mowers won't fit. They require two mowers. That's good for us."

**READY OR NOT.** While manufacturers concede mulching mowers on the market fail to meet commercial needs, they believe landfill bans

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on grass clippings will eventually force contractors, and their clients, to buy into the mulching concept.

"I defy anyone to tell me they can mulch properly cutting more than an inch off the grass. I just don't think that's the real world," Tegtmeier said. "But mulching mowers are here to stay. Contractors are going to have to cut lawns more often. They might not like it. Their clients may not like it. But that's the reality."

Crowson said he doesn't foresee improvements in mulching mower technology. "Manufacturers are still trying to come up with a better mousetrap, but as of yet none of them seem to have it. They're trying to find the perfect mulcher that will mulch well under all grass conditions and I don't think that exists. There will always be some limitations to mulching."

In California, where mulching mowers are relatively new, contractors consider the technology a viable and necessary option.

"Out here every spec wants everything caught in bags and discarded, because grass clippings are



considered unsightly," Zolezzi said. "Mulching mowers have allowed us to go in and shred up the clippings so the lawns look a lot nicer. That trend is really big. It saves us a lot of labor hours by not catching clippings, especially on larger turf areas."

**OTHER NICHES.** Manufacturers pinpointed a number of niche markets where improvements are called for or have been implemented.

Schaefer and Joe McDonald, senior marketing coordinator for Deere & Co., Horicon, Wis., believe the use of wide-area commer-

**Zero-turn radius mowers give operators increased maneuverability in the landscape.**

cial mowers is on the rise. "It's a fairly small niche. For mowing football fields and wide-open areas, you would use a riding wing mower. For roadside work you would use walk-behind wing mowers," McDonald said.

Another market segment, sulkie mowers, seems to be holding steady. "The real advantage is they provide big-tractor performance in the amount of grass they mow," Wegner said. "They give a lot of the maneuverability of zero-turn radius because they can be turned so short. They cost less than a full-blown, four-wheel tractor."

Manufacturers continue to add features to increase ease of operation. A deck height adjustment, for instance, that made it possible for operators to adjust cutting height with a lever accessible from the operator position would be an asset. This would allow the operator to easily raise the entire floating deck for going over high curbs and

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for loading and unloading the mower on/off trailers.

The commercial mowing market has seen great improvements in engines, particularly with the pending California Air Resource Board emission standards expected to take effect in 1995. Engine suppliers are competing to be first in offering products to meet those standards.

Due to that trend, overhead valve engines have become increasingly popular. "OHV engines are more efficient and clean burners. They don't suffer the same carbon deposits flathead engines do," Wegner said. "They tend to be 20 percent more fuel efficient. That does a couple of things for the landscape contractor — it reduces fuel cost, obviously. It also means that whatever machine he has, the OHV engine makes the fuel tank effectively 20 percent larger."

Manufacturers are also heeding contractors' call for more horsepower from the engines. "We used to do a large business with our commercial rear-engine rider," Raney said. "But as the industry matured the higher horsepower, zero-turn ra-

dus and midsize mowers came about. They allowed commercial operators to get more jobs done more quickly. I see that trend continuing. Overall I see cutting width and engine horsepower continuing to increase."

To keep up with the higher horsepower trend, Walker plans to introduce a 25-h.p. engine in its compact rider mower, a move the company considers entrepreneurial.

"Imagine with that kind of power in the tractor, what we could put on the front of the tractor, in terms of offering contractors the ability to use both big and small machines," Walker said.

Safety features on mowers have also increased in the last four to seven years. Operator presence, a sensor feature which automatically stops a mower once the operator lets go of the controls (on a walk-behind, or even if the operator moves off the seat on a rider), has become pretty universal.

Manufacturers tagged rear-discharge capabilities as the mower feature needing most improvement. "I haven't seen a rear-discharge

mower that leaves the lawn looking as nice as the side discharge," McDonald said.

Contractors would like to see improvements in bagging systems as well as the development of a mower that chews through 12-inch grass. Mazzarella claims having to stop mowing every 50 yards to dump clippings is the biggest drawback on midsize mowers.

**FUTURE TRENDS.** The upcoming trend for commercial mowers will be increased use of — you guessed it — hydrostatic and zero-turn radius mowers.

Wegner also believes the future holds yet another type of driving system. "People will continue to search for a means of driving those machines with something other than wheel belts — something less expensive than hydrostatics but not subject to the slippage problems that belts are," he said.

Most manufacturers agree that wide-area walk-behind mowers also will continue to thrive. Walker foresees compact riders taking over intermediate walk-behinds. "People

are taught to buy the biggest piece of equipment they can afford. The smart guy has to think in terms of production. We feel, from things contractors have told us, compact riding machines can cover in a productive way and outproduce walk-behinds."

Mower engines are expected to continue improving as well. "I think the trend will continue toward improved engines that run longer and require less overhaul or replacement," Wegner said.

Some manufacturers hesitate to predict what the future market will bear. "There are so many things you can do to a mowing deck. It may cut better under one condition and worse under another. Developing mowing technology is an art, not a science," McDonald said.

Jenkins concurs. "We've gone from variable speeds to gear drives and now to hydros. Hydro tends to be top of the line. I don't know what you can do beyond that." ■

*The author is Associate Editor of Lawn and Landscape Maintenance magazine.*

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# Setting the Right Prices for Contracted Services

*Lawn and landscape maintenance contractors who price jobs solely on past experiences may inadvertently be putting their companies at risk.*

*By Cathy Hoehn*

A MAJORITY OF contractors base how much they charge for jobs on gut instinct rather than a proven pricing system, according to top industry financial consultants. In a business already mired with risks, those contractors are setting themselves up to lose money.

"How you price your product ultimately drives the business decisions you make day in and day

out," said Charles Vander Kooi of Vander Kooi & Associates, a financial consulting firm for the green industry based in Littleton, Colo. "Most maintenance contractors make business decisions from the gut. They're really basing decisions on emotion — what they feel at the moment. They're making decisions that they will live to regret in December and January."

Indeed, too many risks and variables exist in lawn care and landscape management for contractors to price jobs without carefully analyzing all of their costs and spending needs.

"(The green industry) has the most difficult and impossible types of businesses to manage. Only one business is riskier — the restaurant business," Vander Kooi said.

He equated a maintenance contracting firm to an F-16 jet flying 950 mph in the Grand Canyon, 300 feet above its floor with 1,000 feet off each wing tip.

"Point A is Jan. 2, and you're flying to point B which is Dec. 31 — with profit. Two pedals, perfectly aligned, allow the plane to fly in a straight line. One pedal goes off, the plane yaws (veers off-course). The first pedal is the bill in the night — the amount of overhead you must recover. The other pedal is sales — how much you need to make to recover overhead and make profit. That's the key to this business. Knowing what the bill in the night is based on the method used to mark up jobs, and knowing how much work you have to do to recover that overhead."

The biggest setback that sends companies into a tailspin is not knowing their break-even point on a particular job, said Randy Sigg of Randy L. Sigg Landscape, Charlotte, N.C. "Holidays, overhead, insurance, benefits, taxes. They all go into the break-even cost. That's the big thing I think people need to know about. People lose money because they don't take that into consideration."

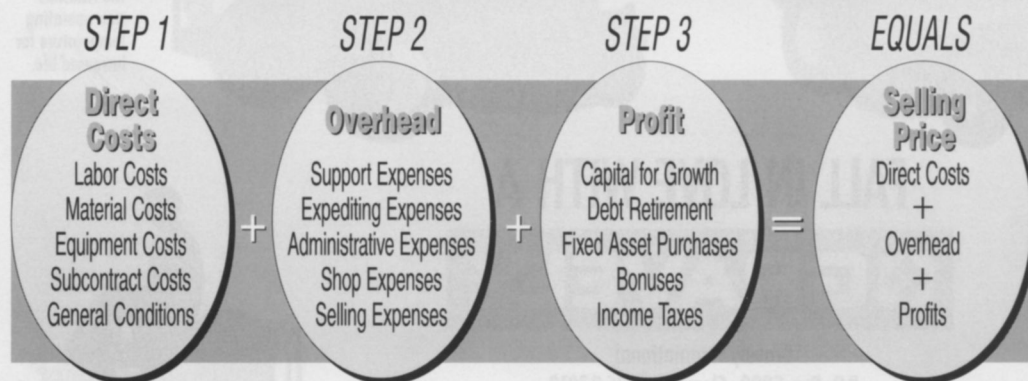
The good news is that a well-polished pricing system can effectively prevent a business from veering off course by allowing a company to recover every dollar it spends; by compensating for variables that exist job to job; and by pre-establishing costs spent on materials, labor, equipment and other goods.

**WHERE TO START.** The basic principles of pricing jobs are essentially the same for all contracted services in the green industry, including lawn, landscape, irrigation installation and maintenance and tree work.

The pricing process begins by gathering all of the necessary data to prepare an intelligent estimate of the raw, out-of-pocket costs of services, according to Frank Ross of Ross-Payne & Associates,

(continued on page 54)

## THE PRICING PROCESS



Source: Ross-Payne & Associates



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## The Pricing Game

(continued from page 52)

Barrington, Ill., author of *Pricing for the Green Industry*, a manual published by the Associated Landscape Contractors of America.

"Unfortunately there is no short-cut. If you don't document what your pure, out-of-pocket costs will be, and then apply whatever the appropriate overhead is for the company, you'll never come up with the right price for the job," Ross said. "The problem in the industry is not that we don't have enough profitable jobs. It's that we pick up the loser jobs, so that the profitable jobs aren't strong enough to make the numbers work."

In the pricing system Ross sets up for clients, direct costs include labor, material, equipment, subcontracts and general conditions. (General conditions can include supervisors' time not spent in the field, mobilization or time spent getting crews in motion, material hauling, start-up and cleanup.)

But, Ross contended, "there is no right or wrong way to distin-

A BUDGET provides a picture of next year's finances. While a budget deals more with short-term realities, a long-term plan gives the overall focus. Five steps essential to budgeting include:

1. Determining how much profit the company needs to make next year, based on its specific needs such as debt retirement, equipment upgrades, growth, risks of business and taxes.
2. Forecasting the company's spending habits based on its overhead structure. These first two steps tell how much margin the company needs to generate.
3. Establishing the amount of margin already sold.
4. Determining new sales goals and converting those to earned revenue goals. This generates any remaining margin requirements.
5. Preparing a monthly income statement.

Source: Ross-Payne & Associates

guish between direct costs and overhead. Each company is different. The only absolute is that once you've decided what is a direct expense of what you are selling, (you should) be consistent from that time forward."

The next step to pricing is determining overhead costs and applying those to the cost of the company's services. Overhead costs, determined by analyzing the com-

pany's budget and spending needs, can be classified in different ways, but generally include everything not spent at a job site, such as support expenses, expediting costs, shop-related costs and administrative expenses.

The third step is to determine how much profit a company needs to make on a job. Again, every company is different and can apply profit in various ways. But in gen-

eral, gross profit is applied to future growth, debt retirement, replacing trucks and other equipment, bonuses and income taxes.

The combination of direct costs, overhead and profit should equal the selling price.

Bear in mind that while an efficient pricing system is vital to a successful contracting service, no system guarantees winning a job. "This process will not sell for you — you will do that with your own skills in selling and negotiating. What it will do is tell you where you need to be priced if you intend to meet your goals," Ross said.

**MAJOR COMPONENTS.** Financial advisers concur that practical budgeting, overhead recovery and labor cost estimates are vital components to pricing successfully.

Vander Kooi fondly refers to overhead as "the bill in the night." "For every maintenance contractor, there is a bill sitting out there in the nighttime of 1994. It is your overhead. It sits out there and you know what it says? You're going to

(continued on page 56)

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## The Pricing Game

(continued from page 54)

pay me. Every nickel, every dime. You're going to pay the bill in the night. The question is how big is that bill?"

In Vander Kooi's pricing system, there is no such thing as variable overhead. Variables are built into the estimating system and thus become part of cost, not overhead.

"Every time I sign a contract I don't look at how much I charged for overhead. I look at it this way: How much overhead do I have the opportunity to go out and recover? There's the key concept. You don't charge for overhead. You recover overhead every time you sign a contract," he said.

Equipment should never be considered part of overhead, regardless of how a company differentiates between overhead and direct cost. It's a variable that should be classified as a separate job cost, since jobs vary by the type and amount of equipment used.

Additionally, equipment used on a job should be treated like a busi-

ness unto itself. "You've got to say, 'I'm going to get an income from this equipment. I'm going to have expenses. And I'm going to make sure that it's economically viable for me to own all of this equipment, and that the prices people are paying me are in proper proportion for use of this equipment,'" Vander Kooi said.

Analyzing labor costs is vital to recovering overhead, according to Sigg. "Getting the labor costs to break even — that is the key to everything. The overhead, the office, the telephone, the advertising, holidays and vacations are all added on to labor costs."

Labor should never be estimated on a dollars and cents basis, claimed Vander Kooi. "Always use production hours because one, dollars and cents become quickly antiquated through giving raises, etc., and two, using production hours helps control labor."

Labor costs differ between maintenance and installation jobs, according to Bill Winter, owner of Oak Brook Maintenance in Naperville, Ill. For maintenance projects,

it's a given that material costs will be much lower than labor costs, whereas in installation, it's difficult to pinpoint labor hours, he said. "So when bidding maintenance, the basis of the bid is estimating hours properly and putting the right hourly rate on it. On the installation side, there are a lot more variables. It's important to keep all the records you can and see where the downfalls are."

Ross preaches the unquestionable advantages of working off a yearly budget. "How can I go to a prospective client and tell him what my price needs to be if I have no clue as to how I'm going to spend money? If I don't know what my labor rates are going to be, I don't know what I'm going to be spending in various overhead accounts. What equipment am I going to need? How much am I going to have to spend on my cash flow? How many new people am I going to have to have? I have to know all those things before I can put together an intelligent price," he said.

Other key elements to effective pricing include building a basic un-

derstanding of financial management — knowing how to read a financial statement ("It sounds awfully simple but it's amazing that the majority of the industry doesn't now how to read a financial statement," Ross said.), as well as establishing an intelligent accounting system, a consistent estimating system and a practical process for marking up overhead and direct costs. Ross and Vander Kooi both assert that an accounting system should be built around a company's estimating process.

**PRICING NO-NOS.** There are a number of myths associated with pricing. Topping the list is the belief that a contractor should always keep his prices within close range of his competitor's.

"This isn't flying blind, it's flying stupid," Ross said. "You aren't managing your business based upon its characteristics, its cost structure or its talents. You are superimposing so-and-so's company on your own and assuming that if he can sell at this level, it must be right, so you will too...If the competition keeps

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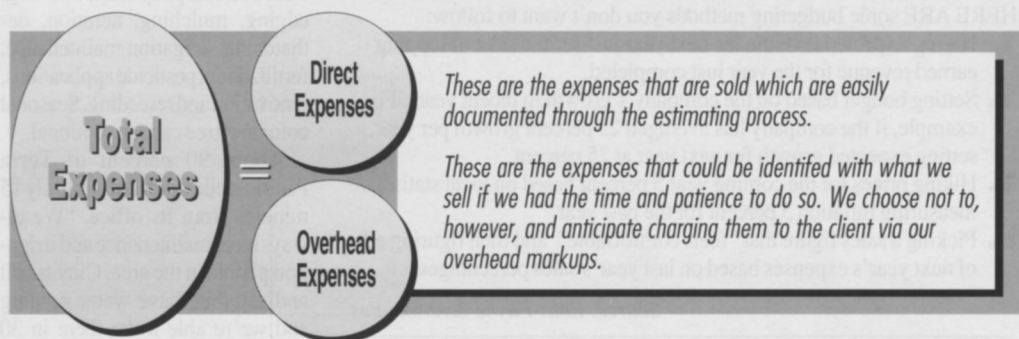
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## SEPARATE YOUR EXPENSES



Source: Ross-Payne & Associates

beating you in price, you may have to face the fact that you don't have the most efficient structure to be competitive. Here is where you go back to your budget and develop a more competitive approach to your market. Streamline that approach, reduce it to numbers and re-attack the competition."

Another pricing faux pas is charging a "going rate," particularly when it is unclear who set the rate. Using that method, "you have no clue as

to where your break-even point is," Ross said. "You don't know if you are making a reasonable contribution to overhead. You don't even know if you've priced the job with a profit because you don't know if, in the aggregate, the estimate fairly represents the spending habits of your company."

Some contractors make the mistake of pricing a job based on a similar project the company has already tackled. The downfall here

is that no two jobs are identical and can't be priced as such.

Then there are contractors who overprice work simply because of a lack of knowledge. A contractor may successfully bid on several projects consecutively, then lose a few. In panic, he lowers his price the next time around to guarantee winning the job. "In a knee-jerk response, they're reaching down and picking up work they probably shouldn't have anyway. And they

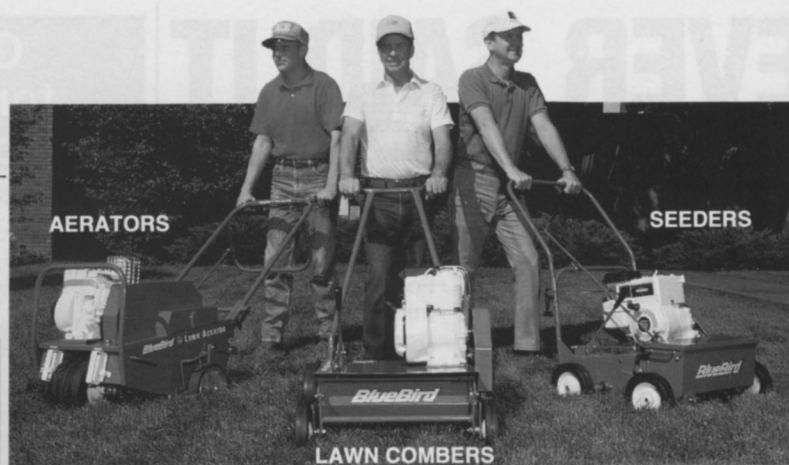
find themselves in this death spiral that is very hard to get out of," Ross said.

Pricing so low as to go below the company's break-even point — a general no-no — becomes OK when there is a valid profit motive. However, the conditions must be just right, Ross said.

**CONTRACTORS' VIEWS.** Sigg contends that effective pricing includes knowing where to cut corners. "It's a fallacy that at slow times you have to stay busy to make payroll; that you have to cut prices on jobs just to keep the men working. (That philosophy) usually catches up with folks. If a company knows their break-even cost is \$5,000, but the customer only wants to spend \$4,500, there should be no question whether or not they should take the job. Why lose the money?"

Of issues affecting pricing, Sigg pinpointed taxes as his top financial concern.

"On the landscaping side, if taxes go up tomorrow and I bid on a job on Monday and I know what those



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taxes are, then it's included in the price I bid on Monday. On maintenance jobs in which I signed a contract last month for 12 months and then the prices go up, I'm stuck. I'm locked into that. That's when I have to decide whether I'm going to maintain the same type of profit margin and offer less of a product, or lose money."

Winter also expects taxes to continue driving contractors' prices upward. "I can't ever figure out what's coming next," he said. "Take this fuel tax. It doesn't mean much, but when you're burning 78,000 gallons of fuel a year, a 4-percent tax increase has an impact. It causes companies to raise prices a little bit. Fuel is not a major portion of a bid, but it adds up."

In Southern California, worker's compensation is the main cause for price increases, according to Rich Wingard, president of Terra Pacific Landscapes, Santa Ana, Calif. "I look at some of the competitions' bids and wonder how they can charge so low and still cover worker's compensation," he said.

Another disturbing trend he's

## BUDGET BLUNDERS

HERE ARE some budgeting methods you don't want to follow:

1. Hiking expected revenue for next year just for the sake of topping earned revenue for the year just completed.
2. Setting budget based on the company's growth in recent years. For example, if the company has averaged 25 percent growth per year, setting expected growth for next year at 25 percent.
3. Hiking prices for the coming year 5 percent based on local statistics measuring inflation 5 percent for the past year.
4. Picking a sales figure that "feels comfortable," and then figuring all of next year's expenses based on last year's sales percentages.

Source: Ross-Payne & Associates

noticed are landscape construction firms — taking a beating in their own niche — touting themselves as landscape maintenance companies. "They're offering much lower prices. We bid against one company whose bid broke down to \$11 per man hour. I don't know how they can price at that amount."

**ALTERNATIVE APPROACH.** Wingard's company, rather than treat each service as an individual profit center, includes all of its services in each contract, with the exceptions

of tree care and color. "We offer our services as a package deal. That way we can discount our services, cut administrative costs and eliminate proposal writing, paper work and a lot of red tape," Wingard said.

Wingard's mainly higher-end commercial client base, centralized in a small geographic area, makes this method feasible, he said.

"We know the types of services our clients are going to need. We sell them on those services. We break out our price in the contract, man hours, monthly maintenance

charge, etc. The focused area allows us to give a variable rate," he said. The company offers mowing, edging, mulching, aeration, dethatching, irrigation maintenance, fertilization, pesticide applications, renovation and reseeding. Seasonal color and tree care are optional.

About 90 percent of Terra Pacific's clients are located only 15 minutes from its office. "We always have maintenance and irrigation people in the area. Clients call and say they have water running and we're able to be there in 30 minutes. That cuts down on response time, we're not paying drive time, and there's less wear on the vehicles," Wingard said.

He admits his clients demand top-notch service and are willing to pay for it. "We need to be careful. We have to know our stuff. But it's a fairly tight community. We know our competitors. We've lost bids because we're in the highest range. But it works for us."

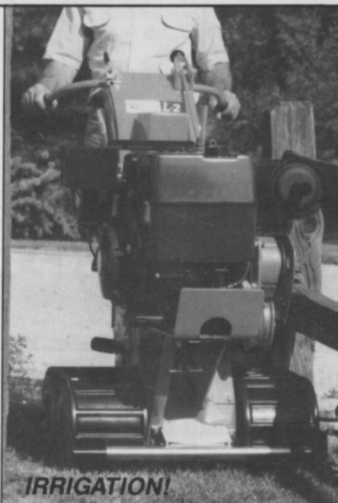
The author is Associate Editor of Lawn & Landscape Maintenance magazine.

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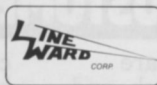
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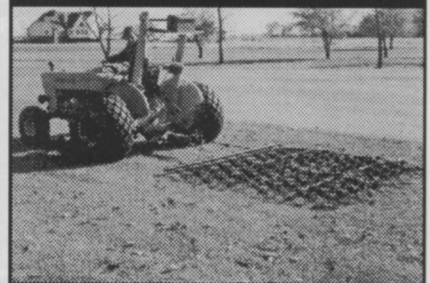


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**PESTICIDES  
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PART 2

# Selling Lawn Care

*Sales in the lawn and landscape industry are complicated because the services are generally intangible. A prospect must believe your service will meet specific needs; particularly where price is concerned.*

*By Phil Christian*

*Ed Note: This is the second in an ongoing series on effectively using specialty pesticides in the urban environment.*

REMEMBER THE "Good Old Days"? I do. I'm thinking of the late '70s and early '80s when customers were easy to attract and eager to sign up for a new service.

All we had to do was take orders — there was no sales process. In fact, sales were





# PESTICIDES IN THE URBAN ENVIRONMENT

discouraged because there was no need to increase customer expectations. Today, we're past the order-taking stage. In fact, our sales skills are now one method of differentiating our company and services from other lawn care service providers.

Although little has changed since Aristotle wrote the "Theory of Persuasion" hundreds of years ago, the application of this theory is in constant change. Most professionals agree that the days of the hard-closing, high-pressure, silver-tongued salesperson have ended. They also agree that sales methodology must reflect the social and business values of the '90s. Indeed, professional sales skills are necessary to perform swift and effective sales presentations.

Lawn care services are a tough sell because of the competitive posture of the industry, the confusion caused by unprofessional lawn care sales practices and the uncertainty of environmental issues surrounding the industry. Sales are further complicated because lawn care is an intangible service. After a sales presentation, our customers are left with nothing but a promise to perform a future service with an outcome that is possibly beyond the control of both the customer and the lawn care provider.

**SUCCESSFUL SALES.** For the most part, we have set aside the myth that sales people are slick, high-pressure folks with a casual disregard for the truth. In fact, in a mature, service-related business like lawn care that is plagued with misinformation, the single most important characteristic of a sales person must be believability.

Think back. What were the most important characteristics of a successful sales person who recently contacted you? The nation's leading sales training professionals, including W. Steven Brown, founder of The Fortune Group, report that the two most prominently shared characteristics of professional sales are enthusiasm and self-confidence.

Eighty-eight percent of purchasers of services rate enthusiasm at or near the top of the performance list. Buyers, especially homeowners, equate enthusiasm with sincerity. (How can someone be so excited about their company and service if it is not good? They must believe in it themselves.)

A sales person can maintain a consistent and enthusiastic attitude only when

*Selling services to the commercial market often requires competitive bidding to allow the professional purchaser to choose from the ranks of qualified bidders.*

they have an adequate level of product/service knowledge and are aware of the miracles they can work for the prospect.

An average sales person evaluates properties in terms of problems. Successful sales people work from a list of miracles; frequently known as benefits or features. What they're called doesn't matter; but they must represent the "good things" that will happen to the customer's property as a result of buying services from a lawn care firm.

The most successful sales people mention 10 miracles for every one promised by the not-so-successful sales person.

Try it. Next time you are walking across the landscape on the way to a sales call, think of three to five miracles you can work for that prospect. Don't focus on the problems; expand on the positive results. By the time you greet the prospect, you will feel a new energy. Call-reluctance disappears. You can't wait to tell them about your services and the miracles you can perform on their landscape.

Self-confidence is the second shared characteristic of a successful sales force. It is difficult to be genuinely enthusiastic unless you have acquired an acceptable level of self-confidence. This self-confidence originates with a base philosophy including product/service knowledge, people knowledge and basic sales skill knowledge. Many sales people have an in-depth understanding of the prospect, as well as the product or service they're selling, but are not confident because they lack basic sales skills.

**WHY PEOPLE BUY.** Purchasing decisions are usually based on emotions. People buy because they want to. Technical programs, needs, price and guarantees play supporting roles — they justify the emotional process.

Your offerings must meet the logical qualifiers.





That is, the prospect must believe that your services will meet their needs; particularly is it priced right and can it be delivered on time. Remember, need is a constant in the service industry. It is the satisfaction of this need that is the issue. Most potential customers are aware of the right price and will not generally buy at the wrong price.

Prospects are often not willing to divulge the real reason they don't want to buy from you. They may be protecting information, feelings or just don't want to defend their position. The customer will tell you "little white lies" and substitute price or discounts in place of their real concerns. If, for instance, a prospect doesn't like you or your company, they may tell you they have received a lower quote.

Even when the prospect has selected your firm as their service provider, they lie about the price. They feel it is their responsibility to "keep you honest," and they want to see you deal with the price pressure.

The belief that price is the dominant buying motive removes all accountability from the sales process. It allows the sales person to leave a call with absolutely no knowledge of why the prospect didn't buy.

#### RESIDENTIAL VS. COMMERCIAL SALES.

Professional sales people can sell in both (homeowner and commercial) market segments assuming they understand some important differences between the homeowner and professional purchaser.

The first step is to recognize that the homeowner segment consists only of buyers for single-family dwellings. The remaining purchasers are classified as commercial including residential, retail, office and industrial, recreational, institutional, governmental, etc. The market segments are defined in terms of "who does the purchasing" rather than size, type of turf or variety of trees and shrubs.

Selling to homeowners is difficult. You have a relatively short amount of time to spend with the prospect and must go through an introduction, measure and evaluate the landscape area, outline the miracles that your company can work for them and ask for the order — all in one visit.

The presentation includes introducing your firm and appropriate players as well as the benefits the customer can expect to receive for the service purchased. A brochure which lists these benefits is a useful tool in these situations. It's wise to inquire which benefit is most important to the customer and why. This leads you into the information phase.

This key benefit (the one the customer chose) becomes an important part of the presentation. Your job is to match your company's services with the picture the customer has created. You should then price the services offered to the customer and close by asking for the order.

Experienced, professional sales people know the time to close is when the customer is ready to buy. If they are not prepared to make the purchase, they will respond to a closing question with an objection.

In his sales course "Creative Selling Skills," Steve Brown explains that objections must be either verified or buried. If the sales person fails to verify an objection, they run the risk of spending too much time chasing dead-end objections rather than dealing with spe-

cific issues preventing the customer from subscribing to your service.

For example, you try to close the sale by asking: "May we get started today?"

The customer responds by saying: "I don't know. Your price is a little higher than other companies. I need to check with them before making a decision."

You now have an objection. You must verify this objection or bury it so the sales process can continue. At this point you might answer: "If you were not concerned about verifying my price, could I sign you up for our services today?"

The customer might then answer: "I need to know more about the environmental safety of the materials you apply to my turf."

At this point the first objection has been buried and the prospect has now raised a second objection. The customer's second complaint must also be verified.

The sales person could say: "If you were not concerned about the environmental safety of our materials, would you be willing to sign up for our program today?"

Customer response: "No, I told you that I need more information about environmental safety."

You now know that the real issue is environmental safety. It is your job to satisfy this customer's need for more information before they will agree to buy.

**COMMERCIAL SALES.** Professional commercial purchasers, both men and women, are known to us as Big Al. Mr. and Ms. Big Al represent the enormous, long-established purchasing culture of the real estate management industry.

Lawn care service providers are not going to influence Big Al. If they don't learn to work with Big Al's purchasing practices, they won't be successful selling services in the commercial segment of the market.

The sales presentation is similar to residential. However, Big Al will require proof of every promise you make. Sooner or later he will make price the central issue of the negotiation. At this point you will be introduced to the "competitive bid system."

It's best to go along with the competitive bid system assuming you understand the final selection of a service contractor is seldom made by virtue of being the low bidder. The purpose of the competitive bid process is to allow the professional purchaser the option of selecting the successful bidder from the ranks of two or three qualified bidders that are close in price.

Remember, professional buyers are professional liars. They mislead you with misinformation on pricing so they can improve their negotiating position. The goal of the professional buyer is to get the right contractor at the right price while preserving the integrity and protection of the competitive bid process.

Big Al must want you to be their lawn care service provider. It is up to you to make that happen. ■

*Based in Alpharetta, Ga., the author has provided consultation to landscape service contractors and property managers for 10 years. His experience in landscape construction, management and maintenance exceeds 29 years including eight years as founder and head of ChemLawn's Commercial Services Division.*





# Engines:

## Replacing, Repairing or Buying New

MOST LAWN MOWERS and other pieces of power equipment go through at least a few engines before being junked. Successfully repowering is one of the high arts of the lawn and landscape maintenance business.

When searching for a replacement engine, key issues include where to shop, how to ensure complete match-up even with replacements not from the original equipment dealer and, of course, price.

Early in the life of most pieces of equipment, contractors commonly see fit to recondition the stricken engine rather than replace the whole thing.

Reconditioning means installing a "short block," which consists of pistons, rings, rods and bearings. Instead of a whole engine, it's most of an engine. Then you attach your old carburetor, flywheel ignition and other components, and you're back up and running.

Price influences decisions. If, say, the short block is \$260 and the new engine \$550, you've got a strong inducement to refurbish. But if the short block is \$280 and the new engine \$365, you might be more likely to spring for the extra bucks and get a whole new unit with new carburetor, ignition, flywheel and exhaust.

The worst mistake you can make is getting a new engine that does not fit. The second worst mistake

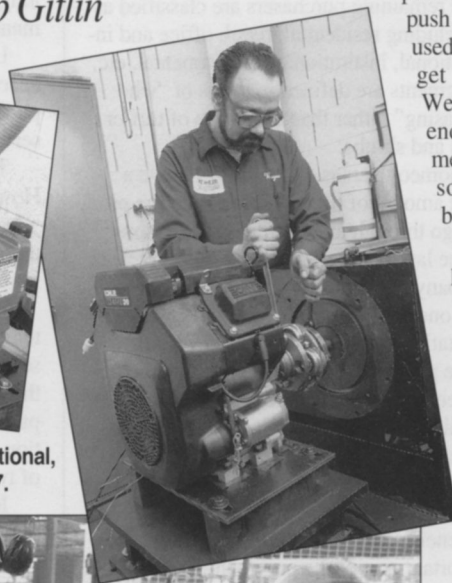
**The life cycle of an engine increases with regular maintenance.**

*It's a given  
that the average piece of  
power equipment outlasts its engine.  
But knowing how to find quality replacement  
engines remains a mystery to many  
maintenance contractors.*

*By Bob Gitlin*



**Engine manufacturers are readying engines to comply with national, off-road emissions to be set by 1997.**



is getting an engine with insufficient power, which tends to happen with a rebuilt engine.

Generally, the best rule of thumb when determining whether to buy new or rebuild is this: If a rebuilt engine would cost you two-thirds of what a new engine would cost, buy the new engine.

Mowers, more than any other type of power equipment, are usually associated with engine replacement. Particularly 21-inch push mowers, which are often used in dusty areas and tend to get banged around a lot. Weedeaters and blowers also end up needing replacements—lighter ones more so than top-of-the-line brands.

When looking for replacement engines, the same points of consideration apply to leaf blowers and chippers/shredders as they do all sizes of mowers, said Paul Scholten, manager of service and technical publications at Kohler Co., Kohler, Wis.

**TWO TYPES.** Power equipment uses either two-cycle or four-cycle engines. Two-cycle engines mix oil with the gas and have no crank case.

"They tend to be throwaways more than the four-cycles," said Richard Gaffney, owner of Gaffney Landscaping, South Euclid, Ohio. "Four-cycles have crank cases, hold oil, use

*(continued on page 66)*



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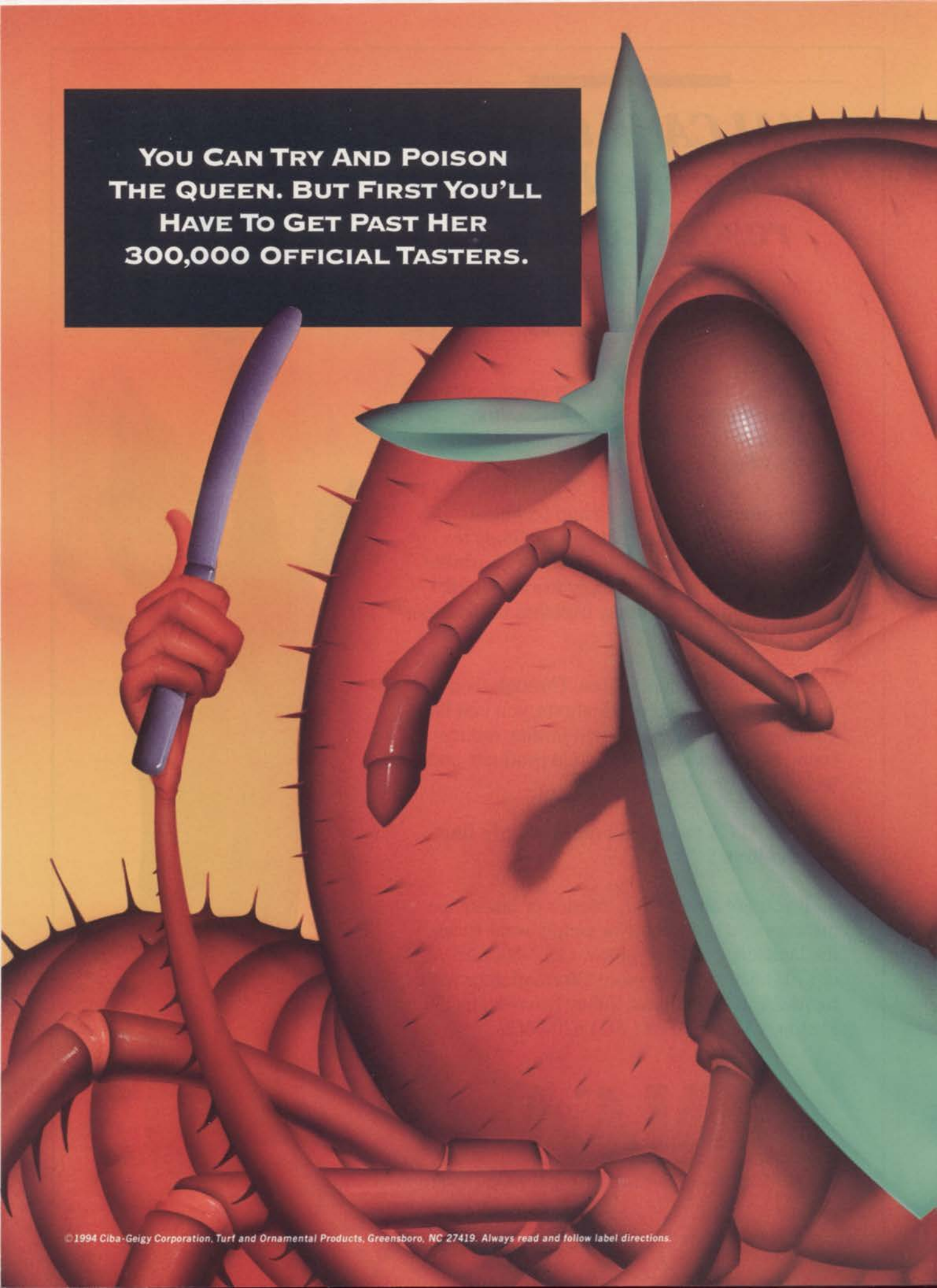
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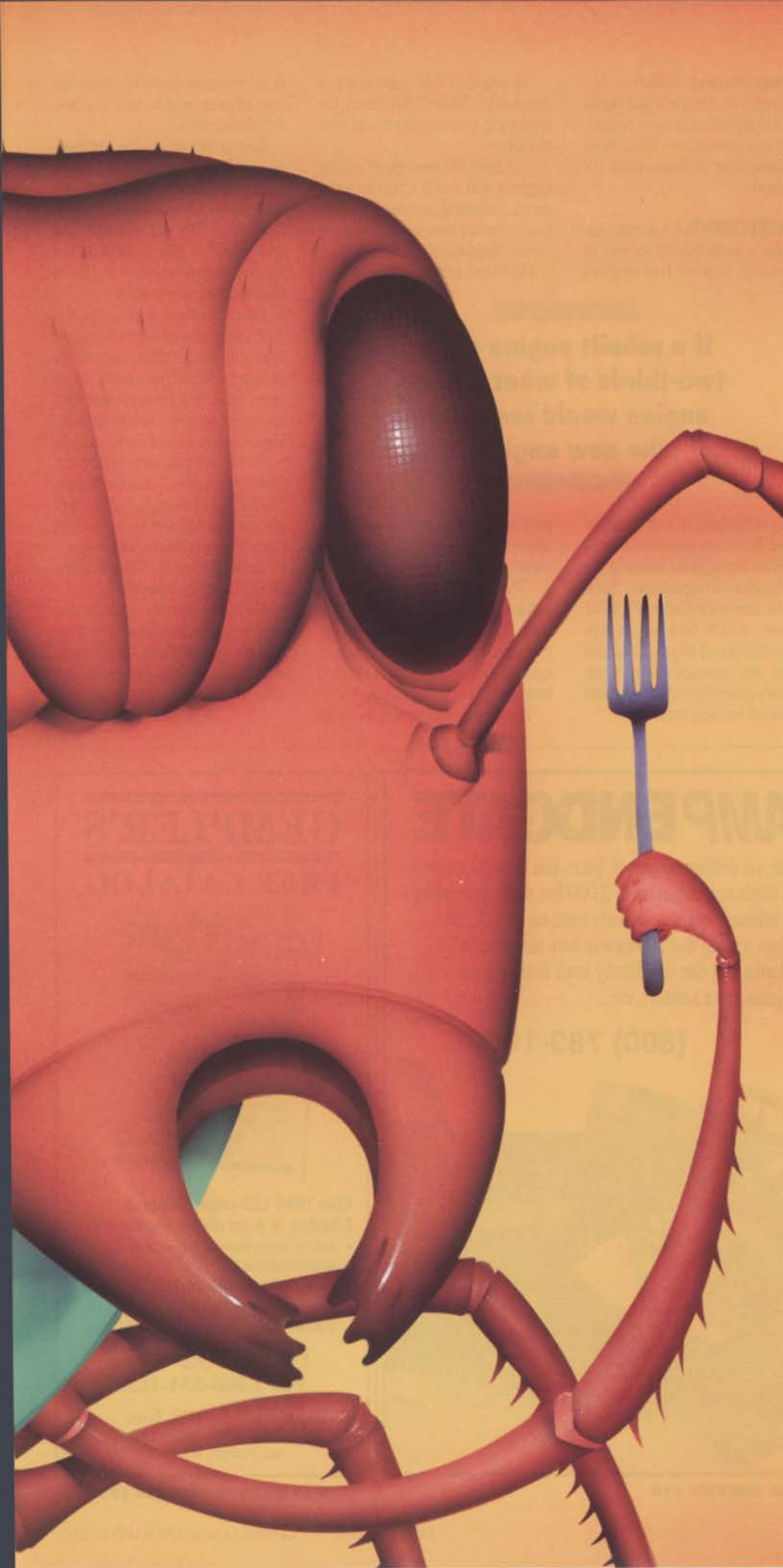
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And with her ability to produce new ants eliminated, it's only a matter of time before the mound collapses.

So next time, try Award. And get 300,000 otherwise loyal subjects to unknowingly betray their queen.





## Engine Replacement

(continued from page 62)

straight gas and tend to be a little more expensive."

Two- and four-cycle engines each have their advantages in all types of power equipment, said Del Coon, a mechanic at Greenscape Inc., Raleigh, N.C.

"A lot of people like the two-cycle engines because they can control the fuel mix and so forth. You don't have to change the oil, because each time you use the engine you get fresh oil with it. And I find that in certain types of grass the two-cycle does better because of the power impulses."

But contractors are moving away from two-cycle engines on 21-inch walk-behinds, said Dave O'Connell, vice president of marketing at Tecumseh Engine and Transmission Group, Grafton, Wis.

"A lot of two-cycles used to be used by commercial cutters, because they didn't have to worry about checking the oil level in the sump, particularly when they needed to keep tabs on employees."

Meaning deterring oil theft.

But two-cycles got a bad rap in regard to engine emissions, he said, and many contractors have been switching over to four-cycles for that reason.

**LIFE EXPECTANCY.** It's not uncommon for a walk-behind mower to go through four or five engines

An engine's life expectancy is generally 1,500 to 3,500 hours, according to manufacturers and contractors.

"At least 90 percent of all our engines will reach 1,500 hours or more, assuming standard maintenance, before they need any major repair," said Kohler's Scholten.

He added, however, that life ex-

relative engine durability, between one mower width and another, Scholten added.

Ken Kolhagen, equipment manager at Minor's Inc., Fort Worth, Texas, believes changing air filters frequently helps increase engine longevity. "In the summer we change air filters on heavy-use hot weather mowers every day, at a dollar a piece or whatever."

When Kolhagen changes engines, he goes with the most rugged available. He gets free rein to shop, as Randy Ferrari, vice president of operations, has been pleased that his head mechanic exploits his catalog tirelessly to find the best deal.

"We look for industrial/commercial type engines," said Kolhagen, "with good air filtering systems and pressurized lubrication so we can run oil filters on them. All our mowers have oil filtering. We change the oil at least once a month."

Coon has already noticed that certain types of engine failure afflict his mower fleet. "A problem with the larger walk-behinds is that after two to three years engine wear

(continued on page 68)

## If a rebuilt engine costs two-thirds of what a new engine would cost, buy the new engine.

during its lifetime. A well cared for mower, however, can sustain itself well with the original motor if the maintenance is superlative. Such was the case with Gaffney's 1981 Buntun, which had an 11-h.p. Briggs that lasted 10 years because the oil was changed every week (Gaffney poured the still-clear fluid into an oil-burning truck).

pectancy applies to design criteria under stringent, heavily loaded test conditions.

"The total life of that engine could be a lot more," he said. "We had one on a Toro, the guy did nothing more than routine oil changes and ignition maintenance. It was at 3,500 hours and still going strong."

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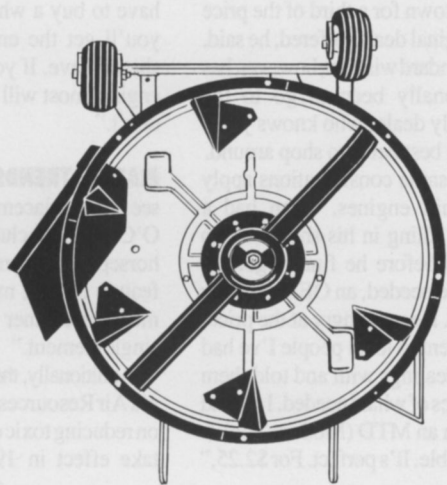
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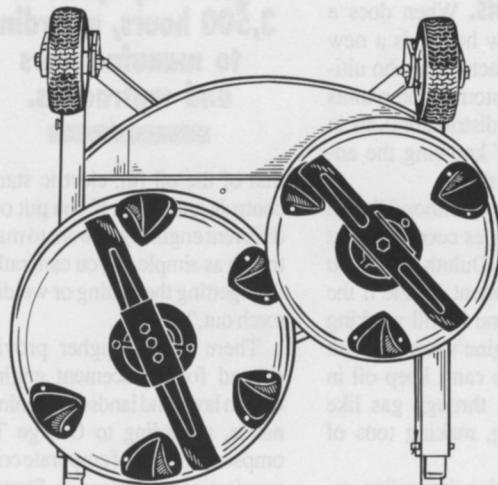
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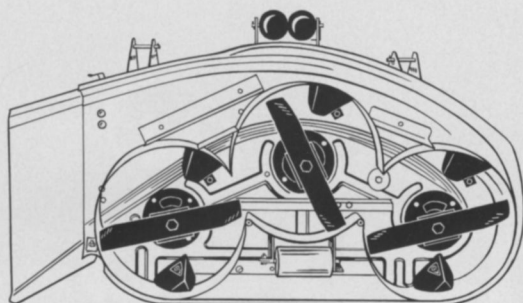
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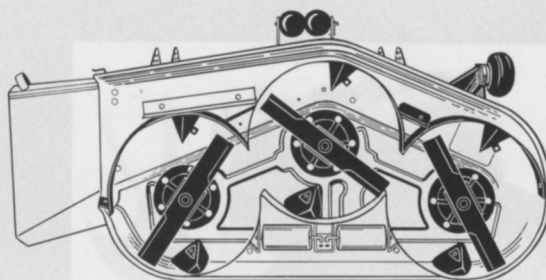
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## Engine Replacement

(continued from page 66)

will show up in carbon scoring of the pistons. The wear and tear will even show up on cylinder walls and the main bearing and rod, as the original shortblock ages under use," Coon said. He has successfully replaced many of the engines with four-cycle Quantum 5-h.p. Briggs models.

**TELLTALE SIGNS.** When does a contractor know he needs a new engine? Manufacturers, who ultimately hear customer complaints (via dealers and distributors), are in the business of knowing the answer to this question.

"It's a guy's livelihood," said Dave Dunne, sales coordinator at Honda Engines, Duluth, Ga. "You go to a replacement engine if the mower in general is still working well but the engine's wearing out: blowing oil (he can't keep oil in there), running through gas like crazy, smoking, making tons of noise."

When replacing the engine, re-

searching its compatibility with specific equipment is imperative. It's a skill that comes with patience and hands-on experience, Scholten said.

"You really have to know the features of the original engine. That means crankshaft diameter, extension and length as well as the loca-

**An engine's life expectancy is generally 1,500 to 3,500 hours, according to manufacturers and contractors.**

tion of the oil fill, electric starter controls and so on. If you put on a different engine, you want to make things as simple as you can, rather than getting the cutting or welding torch out."

There is no tougher proving ground for replacement engines than in lawn and landscape maintenance, according to George Thompson, director of corporate communications at Briggs & Stratton

Corp., Milwaukee. "You're talking cast-iron cylinder sleeves, heavy-duty replacement bearings, stainless steel valves and seats, heavily ribbed crank case and dual element air cleaners similar to those on a car," he said.

**SHOPPING AROUND.** When it comes time for a new engine, it doesn't always pay to buy from the original mower dealer, Coon said. He's gotten an engine at a dealership across town for a third of the price the original dealer offered, he said. The standard wisdom, however, has traditionally been to go to the "friendly dealer who knows you." But the best bet is to shop around.

The same considerations apply to rebuilt engines. Coon had a mower idling in his shop for two months before he finally got the cable he needed, an OEM part, for \$14.40. He was angry at the price.

"I went to local people I've had some dealings with and told them the specs of what I needed. I wound up with an MTD (Modern Tool & Die) cable. It's perfect. For \$2.25," he said.

Coon changed much of his fleet over to adapt to the availability of the part. Similarly, he changed many of his mowers over to accommodate a certain kind of non-OEM blade that proved to work well and was more readily available than the original manufacturer's part.

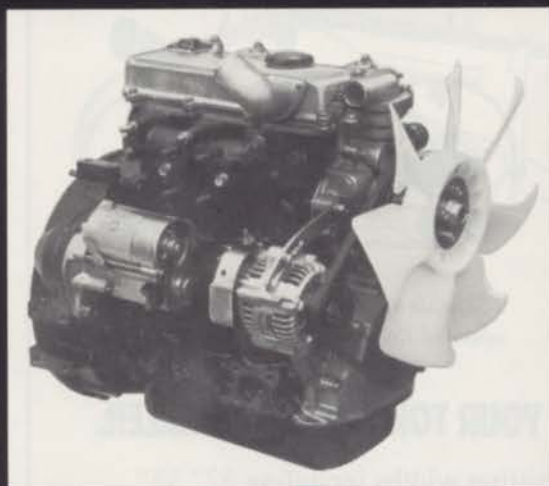
Thompson counsels shopping at the place the mower was purchased, however.

"That dealer knows you. If you have to buy a whole new engine, you'll get the engine you really should have. If you don't need an engine, most will tell you that you don't."

**MARKET TRENDS.** "The trends we see in the replacement market," said O'Connell, "include slightly higher horsepower or maybe an upscale feature or two, maybe a dual element air cleaner as opposed to a single element."

Additionally, the pending California Air Resources Board standards on reducing toxic emissions, which take effect in 1995, are forcing

(continued on page 83)



  
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# SLOPPY DESIGNS CAN COST YOU A BUNDLE

*Taking shortcuts in  
irrigation design and  
installation may save you money  
now, but result in legal fees and  
costly settlements in the future.*

*By Larry Keesen*

PROPERTY OWNERS are sometimes left with no recourse but to sue developers, designers, contractors and even manufacturers for inefficient and poorly designed irrigation systems.

Many irrigation designers stretch head spacing, ignore good hydraulic design, neglect water pressure controls and specify residential equipment in commercial applications to name a few glaring problems. This is often done in the interest of cutting costs and increasing profit.

Whatever happened to ethics and quality?



In light of sloppy design, property owners are becoming more concerned about the cost of maintaining the landscape. Water costs are increasing as are penalties enforced to prevent waste. Water costs in the Washington, D.C., area, for instance, average more than \$3 per 1,000 gallons. Likewise, the Denver area reports rates as high as \$5 per 1,000 gallons. One large housing development in California had paid out \$275,000 (covering an eight-month period) in penalties for excess water used through August.

Maintenance costs are high and will continue to increase because most of the irrigation systems in the United States have been designed for the gains of the contractor or the developer, and not the economic needs of the individual water user or the plants.

Because environmental concerns and the water conservation ethic are here to stay, the irrigation industry needs to improve its reputation and take quality and water conservation more seriously.

**THE CONSEQUENCES.** The approach the Crossings homeowners' association in Denver (140 condominium units) took to resolve design flaws is an expensive example of what can happen following a poor irrigation design.

Two years ago, I was asked to evaluate The Crossing's irrigation system to determine if the turf was being over-watered, and whether the design was the cause of drainage problems and structural damage. The site was mostly level, covering five acres of turf area.

An investigation revealed numerous problems with the design and original installation of the irrigation system. The system did not provide uniform coverage,



resulting in over-watering or "flood" irrigation in some areas in an effort to keep the grass green in other sections.

Our findings indicated that in many cases the head spacing was stretched. Most of the pop-up spray heads were

spaced at 18 feet to 23 feet (65 percent to 80 percent spacing) instead of the manufacturers' recommended 15 feet. Rotor heads were spaced at 44 feet to 48 feet in lieu of the recommended spacing of 38 feet. There was a great deal of over-spray



**Water pressure can be easily regulated. Steps should be taken to provide optimum pressure at each head.**

onto the buildings, asphalt, roads and tennis courts.

Many of the pop-up spray head zones had high operating water pressures ranging from 40 psi to 50 psi instead of the required 30 psi. Some of the heads were operating at pressures below 30 psi, in the 15 psi to 20 psi range. These high and low water pressures result in a reduced radius of coverage from 15 feet at 30 psi down to an 11-foot radius at 15 psi.

The impact rotor head pressure ranged from 20 psi to 60 psi resulting in both high and low pressures. These defects caused a distortion of the spray pattern, reduced radius coverage, poor stream breakup and variable rotation speeds, all of which resulted in poor uniformity of coverage and wasted water.

The irrigation system was supplied by three 3/4-inch water taps, with 40 feet of 3/4-inch "K" copper service pipe and 3/4-inch water meters. We calculated the system run time based on 1 1/2-inches of water applied per week during July. The system run time calculates out at 23.33 hours per day. Consequently, The Crossings had the enormous water bills that reflect daytime watering, and they were deprived of the use of turf areas for normal summertime activities.

Many of the irrigation zones had a flow rate of 50 to 59 gallons per minute (gpm). At 59 gallons per minute (19.6 gpm per meter) the velocity of the flow averages 14.43 feet per second (fps) in the 3/4-inch "K" copper service line. The maximum allowable velocity for water service lines is 15 fps. Thus, one meter, because of its location, will always operate at a velocity of flow greater than 15 fps.

The Crossings' flow rates were up to 11 fps through the 3/4-inch backflow preven-

ter. This exceeds industry standards and the manufacturers' recommended velocity flow rate of 7.5 fps maximum. The purpose of establishing a recommended flow rate is to prevent water hammer within the system which causes a rapid deterioration of the system (pipes, valves and fittings) resulting in leaks.

Irrigation water consumption data based on meter readings at the project for 1988, 1989 and 1990 indicate the following as the total annual irrigation usage:

Turf water requirements for this area do

	GALLONS OF WATER	INCHES OF WATER
1988	6,278,000	45.27"
1989	6,554,000	47.26"
1990	8,522,000	61.46"

not exceed 30 inches per square foot, or 4,160,000 gallons on an annual basis. Usage above 30 inches per year is due to the deficiencies in the design and installation of the irrigation system.

Proper and efficient irrigation design for this site reduces irrigation water consumption by as much as 42 percent, or 2,958,000 gallons (three-year average). This results in a water cost savings of \$3,875 per year at 1991 water rates.

Because of the deficiencies in irrigation design and installation, the homeowners' association at The Crossings successfully sued the developer for damages and received a large settlement.

Poorly designed irrigation systems, such as at The Crossings, can cause severe damage to structures, asphalt paving and plants as well as waste water. Americans are spending millions of dollars every year

to repair and replace the paint, siding, asphalt, concrete and plants that are damaged from over-watering and over-spraying.

Asphalt and paint will deteriorate when water is frequently applied. The combination of swelling soils and settling have damaged all types of structures, resulting in huge insurance settlements and higher rates. Water damage from spray through open windows, flooding and water seeping into basements has likewise wreaked havoc on homes and the companies that insure them.

Personal injury can also occur from heads and valve boxes installed too low in turf and athletic fields. I have seen several cases where people have stepped into vaults and valve boxes and sustained serious injuries because of unsafe lids. People have tripped and fallen on sprinkler risers. Water and ice on walks and roads have caused numerous vehicular and pedestrian accidents.

**PRESSURE CONTROL.** Many designers do not understand the importance of pressure control. High pressure causes pop-up spray heads to mist and shriek from the high velocity of flow, and leak around the heads and wiper seals. I have seen rotor heads operating like "machine guns" and spinning tops, creating a bank of mist that drifts away from the area for which it was intended. This dramatically reduces the longevity of the head.

Low operating pressure causes the water to explode into larger droplets producing soil compaction and reducing the effective radius of coverage. High pressure, on the other hand, causes the water to explode out of the nozzle into a higher number of tiny droplets that range in size



from 1.0 mm (moderate rain) to 0.10 mm (a light mist).

A 1.0 mm drop falling from 10 feet in a 3 mph wind will drift 5 feet while a 0.10 mm drop will drift 50 feet. This reduces the effective radius of coverage and causes the water to appear as a drifting mist. This mist will evaporate much faster than larger droplets, and will easily drift away from the irrigated area. Imagine the water wasted by drift in a 5 or 10 mile per hour wind.

The ideal operating pressure (and therefore adequate droplet size to meet the needs of plant materials) for small pop-up spray heads is 20 to 30 psi. A pressure of 30 to 50 psi is recommended for most rotor



head applications.

Water pressure can easily be regulated. To correct high pressure, pressure reducing valves and pressure loss in the pipe can be used to provide optimum pressure at each head. Use pop-up spray heads with a pressure reducing device (set for 30 psi) installed as an integral part of the unit. Pres-

*Over-spray onto sidewalks, driveways and streets should be avoided. It wastes water and presents potential hazards.*

sure reducing valves can be installed in the system at the electric control valve to control pressure for the rotor head zones.

Plastic preset PRV's can be installed under each rotor head. When the static pressure in residential and commercial irrigation systems is more than 70 psi, I prefer to install an adjustable PRV at the point-of-connection to protect the system from unnecessary water surges.

High water pressure can also cause surges in lateral lines, especially if the lateral is drained or partially drained after every cycle. This results in damage to the equipment, water leaks and a reduction in the system's life span. Install heads with check valves to prevent low head drainage and to



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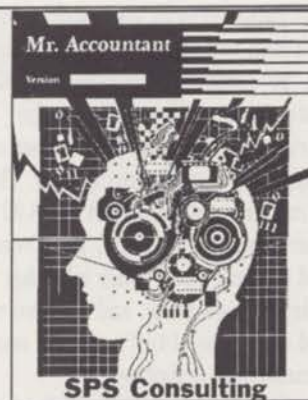
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save water.

Low water pressure can be avoided by carefully calculating hydraulics for every design and allowing for a possible 10 to 15 psi supply pressure drop as a safety factor.

Irrigation system uniformity is the bottom line. I know of several town house associations in the Denver area which received large cash settlements from designers and contractors for improper design and installation of their irrigation systems. The contractors in question all did the same thing; they stretched the head spacing to 70 percent and 80 percent of the diameter of coverage when most manufacturers recommend spacing at 50 percent of the diameter.

The result is unacceptable irrigation uniformity causing damaged turf and asphalt from the over watering required to prevent the turf from wilting and dying. Proper spacing for any head should be no greater than the manufacturers' recommendations, plus some adjustment for wind conditions. Uniformity is important in turfgrass where every square inch has roots and a shallow root zone in which 75 percent of the roots are often in the top 1 to 2 inches of soil.

Equipment that is high in quality and performance, low in maintenance, long lasting and water conserving are the essential components of a quality irrigation system. Selecting the right equipment for an irrigation project is vital to its long-term success.

Many contractors and designers select equipment based on price or a friendship instead of considering the quality, performance and maintainability of the specific equipment.

For example, head selection in turf areas should require a minimum pop-up height of 4 inches. This height is necessary because of the mowing heights for turfgrasses and the turf buildup that occurs. Additionally, for appropriate equipment uses select slotted brass nozzles for small spray heads. Plastic nozzles usually apply little water within 12 inches to 18 inches of the head. Brass nozzles have a slot cut into the nozzle below the main outlet that provides water for the area im-

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mediately around the head.

Smaller, plastic impact rotor heads expose the system to more damage, while the use of stronger materials or smaller diameter heads minimizes damage from equipment, vandalism and injuries.

Swing joints are necessary to protect sprinkler heads from damage. Flexible, kink resistant tubing or premanufactured PVC swing joints are the best choice. Avoid self-assembled PVC swing joints; premanufactured swing joints prevent leakage.

**CONTROLLERS AND VALVES.** The single most important selection criteria for an automatic controller is ease of operation and

simplicity. If you need an instruction booklet in order to operate it, look for another controller. Other important features contributing to irrigation efficiency are accurate timing from hours to seconds, multiple repeat cycles, flexible day scheduling, sensor input and water budgeting.

To apply the correct amount of water, the timing should be accurate within seconds. Multiple repeat cycles reduce runoff and improve infiltration rates. Flexible day scheduling is useful for mowing, special events, etc.; particularly if water restrictions are implemented. Insist on a memory retention in the computer chip instead of replacing a rechargeable backup battery every year.

Look for valves that have an internal manual bleed so the valve box won't fill with water. The small ports in the valve should be clog resistant and/or self-cleaning when dirty water is present. An encapsulated solenoid with a captured plunger helps increase the life span and reduces maintenance headaches.

Select valve boxes that withstand compaction and weight against the side and top of the valve box. I have seen many valve boxes which have caved in on the sides (12-inch rectangular) because of the lack of structural strength.

The recommendations in this article are only a start. Each designer should determine the requirements for a specific project

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based on quality, efficiency and longevity. Products that work well can save maintenance dollars, improve the reputation of our industry, conserve water and provide us with a beautiful, healthy environment.

Quality control is vitally important throughout the design and installation of an irrigation system. Contractors often take shortcuts and substitute quality for economy or profit.

Every designer should insist on reviewing the installation process, answering questions and evaluating the final installation to make sure the system was installed correctly and operates properly. Contractors with designers on staff should also follow this practice as a simple quality control procedure. Independent designers should include site observation services for

all their designs both to protect the client and to maintain a better reputation.

We can reduce our liability if we improve the quality of design in our industry. How do we do it? More and better education. Design systems with more care and concern. Design for higher efficiency, a longer life span and lower maintenance costs. People demand, expect and deserve it. ■

*The author is vice president of Keesen Water Management, 10700 E. Bethany Dr., Suite 103, Aurora, CO 80014.*



### IRRIGATION QUESTIONS

1. What is the maximum allowable velocity for "K" copper service lines?
2. What causes large water droplets and soil compaction and reduces the effective radius of coverage?
3. What device is best to use when controlling pressure?
4. What are the primary concerns of owners and managers?
5. What causes water to mist and reduces the effective radius of coverage?

Answers appear on page 83 of January LLM.

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If you're a landscape contractor, you've probably noticed that disposing of your trimmings, leaves, and clippings is getting to be more and more difficult, not to mention expensive. And the demand for premium organic materials, like mulch and top soil, is on the rise. For some, these trends are a problem, for others, they are an opportunity.

### Introducing the Olathe 837TG Tub Grinder

The system designed specifically for an operator who needs full scale processing power on a limited, or even start-up budget.

### Compact and Portable

This unit can easily be towed behind a one ton truck, and set up takes only a fraction of the time of competing systems - making it ideal for portable operations.

### Designed for the novice operator as well as the novice budget.

The Model 837TG Tub Grinder is designed to put the operator at ease in a heavy equipment environment. Our Self Compensating Material Management System, automatically synchronizes the tub rotation, hammer mill, and discharge conveyor, for the specific material you're processing.

### Operator Friendly

The Model 837TG Tub Grinder incorporates many of the ease of maintenance and operational features found in our 867 series tub grinders. The tub tilts forward to provide easy access to the system, so changing our no-bolt screens and hammers is a snap

### Durable by Design

Our direct drive mechanism incorporates a hydraulic coupler an Olathe Manufacturing design innovation that dramatically increases the durability of the drive system and clutch assembly - virtually eliminating clutch wear and replacement.

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If you see the advantages of starting your own composting or wood waste processing operation, but aren't sure where to go next, you owe it to yourself to call Olathe Manufacturing - the source for equipment and management expertise in composting.



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# Compost Digest

## Scotts Wins Shreveport Composting Contract

O.M. SCOTT & Sons, Marysville, Ohio, recently signed a five-year contract with the city of Shreveport, La., to operate and produce yard-waste compost at the city's facility. According to the contract, the city will pay Scotts \$15.70 per ton of yard waste, or \$471,000 per year based on 30,000 tons.

The city's solid-waste division picks up yard waste once a week. Scotts composts using the windrow method: Yard waste is de-bagged, chopped and ground into 1-inch particle sizes and lined in windrows for decomposition. Watering and frequent turning helps break the material down to a compost mixture over three to six months.

The city will retain 15 percent of the finished compost for parks, streets and other uses; Scotts plans to ship the remaining portion to its Texas facility where it will be bagged for resale.

Composting is expected to recycle 20 percent of Shreveport's waste stream, based on national averages for the amount of yard waste produced. The city estimates it will compost 30,000 tons of yard waste each year. Funding for the project comes from a \$2 surcharge the city receives from landfill tipping fees.

## Ohio Delays Its Landfill Ban

Ohio's ban on dumping yard wastes in Ohio landfills, slated to go in effect last Dec. 1, has been postponed possibly as late as July because of a lack of funding.

The Ohio Environmental Protection Agency, charged with writing rules for the ban, claims staff shortages have prevented it from writing rules the state legislature approved four years ago. The agency hoped to complete the rules no later than July, and to put them in effect one year later, but that deadline may be pushed back even further, according to Kurt Princic, compost specialist with the Ohio EPA's Northeast District Office.

Meanwhile, Ohio cities such as Cleveland, which already set up composting facilities and other alternative measures for yard-waste collection, will forge ahead with its alternate disposal plans.

## Council Forms Speakers Bureau

The Composting Council recently elected eight new members to its board of directors. The new board members are: Craig Benton of H&H Wood Recyclers, Seattle, Wash.; Walter Carey, Nestle USA, New Milford Farms, New Milford, Conn.; Clark Gregory, The Compost Man, Atlanta, Ga.; J.D. Lindeberg, Resource Recycling Systems, Ann Arbor, Mich.; David

Loveland, Cargill, Washington, D.C.; Lyle McGlothlin, James River Corp., Norwalk, Conn.; John Sulton, Keyes Fibre Co., Waterille, Maine; and Jim Wimberly, Winrock International, Morrilton, Ark.

In other news, the council plans to form a speaker's bureau as a networking resource for organizations seeking experts to speak on composting. Applications are being accepted for potential speakers with expertise in all aspects of composting.



# People

BLUEBIRD INTERNATIONAL appointed **Frank Zayle** its president. Zayle previously worked with Astroturf products for Monsanto.

**Joseph Kurucz** joined EverGreen International as controller. Kurucz formerly worked for GTE Sylvania.

Poulan/Weed Eater named **John Waters** president of the company and **Bill Barefoot** vice president of manufacturing operations. Waters, who joined the company as executive vice president, succeeds **Carl Mikovich** who retired and became vice president of the company. Barefoot succeeds **Mike McCann**, who also retired. Barefoot formerly served as McCann's special assistant.

**Ron White** became sales and marketing manager for Regal Chemical Co. White was formerly manager of sales support marketing for Ciba.

Prime Equipment named **James Turpin** director of quality, responsible for developing a customized quality program. Turpin formerly worked for Enclean.

ISK Biotech announced the following appointments: **Gordon Reynolds** to sales and marketing manager, wood preservation,



Zayle



White

industrial biocides division. Reynolds formerly served as district manager for Monsanto. **Alain Deschamps** to western regional sales manager of ISK Biotech Europe Ltd. in France. Deschamps formerly served as sales manager in Normandy and surrounding regions. **Beatrice Verdickt** to supervisor of international registrations. Verdickt previously served as regulatory affairs officer in Brussels, Belgium. **Marjo Hoefnagels** to purchasing and production administration manager for Europe, the Middle East and Africa. **Mark Wagner** to process engineer, responsible for Chlorothalonil II process support. Wagner formerly served as area engineer with DuPont. **Mark Gelin** as registration specialist, international registrations. Gelin previously served as a

toxicologist for Ricera.

**Matthew Albrecht, John Meyer** and **Martha Trubey** joined Sandoz Agro's turf and ornamental division as sales representatives. Albrecht represents the industrial vegetation management market in the mid-Atlantic region; Meyer covers the Southeast, excluding Florida; and Trubey handles turf and greenhouse operations in Texas and Oklahoma.

**Sylvia Gale** joined Hunter as district sales manager for Latin America and southern Florida. In the newly created position, Gale coordinates new product introductions and provides distributor support and training for Hunter sprinklers, valves and controllers.

**Jeff Mgebroff** was promoted to Hunter district manager for the Pacific Northwest. His territory includes Oregon, Washington, Montana, western Idaho and parts of Canada.

Encore Mfg. promoted **Bill Harms** to service manager, in charge of parts orders, warranty work and service training. Previously, he directed product assembly.

Aquatrols named **Al Lanoie** technical sales representative in charge of supporting distribution in New England and eastern Canada.

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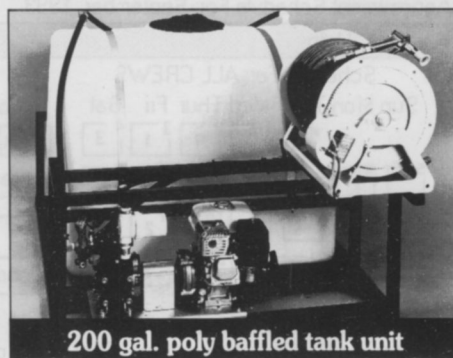
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# Products

HINIKER IS offering a new line of hopper-type spreaders.

Available in mild or stainless steel, the spreaders feature low-friction, corrosion-proof polyethylene conveyor floors, sealed 25:1 gearboxes, and a clean-out door that allows the operator to use the conveyor to



empty the hopper without tipping or removing the spinner assembly.

**Circle 126 on reader service card**

**Sandoz Agro.** Turf and Ornamental's Barricade preemergence herbicide has been approved for use in and around more than

## PRODUCT SPOTLIGHT

THE YAZOO YHR series of front-cut mowers offers an 18-, 20- or 23-h.p. Kohler or 20-h.p. Wisconsin engine and a choice of a 48-, 60- or 76-inch cutting deck.

The mowers feature hydrostatic drive for smooth changes between forward and reverse and ground speeds; rear-wheel steering for easier maneuvering in tight areas and a full-floating, side-discharge deck made of 11-gauge formed steel with steel reinforcement. The deck includes three 1/4-inch, tempered, alloy steel high-lift blades. Cutting height is adjustable from 1 1/2 to 4 inches.

Other highlights include twin fuel tanks for additional fuel capacity, a heavy-duty PTO cutting section drive for durability and new instrumentation for operator efficiency.

**Circle 125 on reader service card**



100 species of landscape ornamentals, as well as on bentgrass and golf tees.

The company has also simplified Barricade's label by removing height restrictions for turf at the time of application and by reducing label list rates of application in regions of the country.

Used as part of a comprehensive turf and landscape management program, Barricade

provides season-long control (up to 26 weeks for most weeds). Its low water solubility enables it to stay at the soil line throughout the growing season for long-term protection and residual control.

Barricade is available as a dry granulated fertilizer and in water-soluble packets for spraying applications.

**Circle 127 on reader service card**

## OUR APPOINTMENT SCHEDULE!

Appointment Schedule For: September, 1993

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Schedule For: ALL CREWS

Crew	Sun	Mon	Tue	Wed	Thur	Fri	Sat	Month
ALL				1 3	2 4	3 1	4 3	Next Prev
Truck 1	5	6 5	7 6	8 7	9 4	10 1	11	Enter Date
Truck 2	12	13 6	14 5	15 1	16 3	17 2	18 1	
	19	20	21 5	22 7	23 3	24 2	25	Zoom Exit
	26	27 5	28 4	29 1	30 1			

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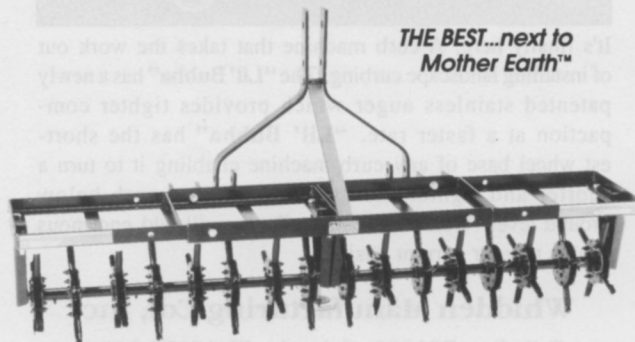
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USE READER SERVICE #22

The Rainjet floating aeration system from **Century Rain Aid** is available in 5-h.p. and 15-h.p. units.

Due to higher h.p., the systems can produce elaborate display patterns while operating at a minimum of 54 feet and shooting water up to 102 feet high.

All nozzle assemblies are made of high-density polyurethane/polyester and machined



epoxy and brass, and are available in eight interchangeable patterns.

**Circle 128 on reader service card**

**Versa-Lok Retaining Wall Systems** offers a collection of construction details stored on computer diskette. Created using autoCAD software, the electronic images help architects and engineers efficiently plan and design segmental retaining walls.



Construction details stored on the 3.5-inch disk include typical cross sections, curve/corner plan views, capping details and

several other segmental retaining wall illustrations. Guide specifications, which can be imported into most PC word processing applications, are also provided on the disk.

Versa-Lok's concrete units can be used to construct inside corners, outside corners, radius curves, serpentine curves and steps.

**Circle 129 on reader service card**

Tri-way sprayers from **Ritchie Bestway Commercial Sprayers** offer 30-, 50- or 100-gallon spray tanks available with a skid mount, trailer kit or a three-point option that includes either a standard, category 1 3-point



or a fork set.

The sprayers are constructed from heavy steel with a baked-on, powder-coated finish. There are also several attachments available including 40-inch, 120-inch and 6-meter booms, hose reel, swivel kit and a handgun with adjustable tip and swivel.

**Circle 130 on reader service card**

**Ball Seed** adds a geranium mix and a plug and seedling mix to its line of Ball Professional seed mixes. The seed mixes are blended without soil and have been pH-

adjusted and nutrient-charged specifically for the needs of each crop. The seeds provide young seedlings, plugs or cuttings with a good initial start.

The geranium mix is blended with a higher soil solution pH than many soilless mixes, allowing for regulated iron/manganese uptake. It reduces potential toxicity from feeding trace elements in fertilizers. The plug production of the plug and seedling mix is said to provide good initial root development and good drainage and aeration.



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**STEINER**

USE READER SERVICE #35



# Calendar

**FEB. 3-6** NLA Management Clinic, Louisville, Ky. Contact: National Landscape Association, 202/789-2900.

**FEB. 4-5** 24th Annual B&G Pest Control Conferences, Oklahoma City, Okla. Contact: Clinton Kemp, B&G Chemicals & Equipment Co., 800/345-9387.

**FEB. 7-8** Soil/Root Relationship Seminar and Workshop, Madison, Wis. This event will

also be held Feb. 9-10 in Minneapolis, Minn. Contact: Rainbow Treecare, 612/922-3810.

**FEB. 7-8** PLCAA Day on the Hill, Washington, D.C. Contact: PLCAA, 1000 Johnson Ferry Road, NE, Suite C-135, Marietta, GA 30068; 404/977-5222.

**FEB. 8-12** 56th Annual Meeting and Management Conference, Hawaii. Contact: National Arborist Association, 603/673-3311.

**FEB. 9-10** Soil/Root Relationship Seminar and Workshop, Minneapolis, Minn. Contact: Jeff Rick, Rainbow Treecare, 4601 Excelsior Blvd., #300, St. Louis Park, MN 55416; 612/922-3810.

**FEB. 9-10** NJNLA Garden State Landscape & Nursery Conference and Trade Show, Somerset, N.J. Contact: N.J. Nursery and Landscape Association, 609/291-7070.

**FEB. 10** Northeastern Pennsylvania Turfgrass and Grounds Maintenance School, Mt. Laurel Resort, White Haven, Pa. Contact: Pennsylvania Turfgrass Council, P.O. Box 1078, Lemont, PA 16851-1078; 814/863-3475.

**FEB. 10-11** Lawn Care Short Course, Holiday Inn on the Lane, Columbus. Contact: Barbara Bloetscher, The Ohio State University, 614/292-7457.

**FEB. 10-11** NCTLC Expo Show, Santa Clara Convention Center, California. Contact: Northern California Turf and Landscape Council, 3723 Jersey Road, Fremont, CA 94538; 510/490-6282.

**FEB. 12-13** APLD midwinter meeting and conference, Rockville, Md. Contact: Association of Professional Landscape Designers, 8683 Doves Fly Way, Laurel, MD 20723; 301/498-8780.

**FEB. 15-17** 1994 Winter Workshop, Holiday Inn Crowne Plaza, Rockville, Md. Contact: Landscape Contractors Association, MD-DC-VA, 9053 Shady Grove Court, Gaithersburg, MD 20877; 301/948-0810.

**FEB. 15-18** 25th Silver Anniversary Conference and Trade Exposition, Reno Hilton, Reno, Nev. Contact: International Erosion Control Association, P.O. Box 4904, Steamboat Springs, CO 80477-4904; 303/879-3010.

**FEB. 16-17** Turf and Grounds Exposition II, Holiday Inn, Suffern, N.Y. Contact: New York State Turf Association, 518/783-1229.

**FEB. 16-17** 1994 Landscape Industry Show, Long Beach Convention Center, California. Contact: California Landscape Contractors Association, 916/448-CLCA.

**FEB. 17-18** Nevada Landscape Conference & Trade Show, Reno-Sparks Convention Center, Reno. Contact: Steve Williams, 702/856-1150, for conference information; Louanne McGhee, 702/851-0423, regarding the trade show.

**FEB. 22-24** ProGreen Expo, Colorado Convention Center, Denver. Contact: ProGreen Expo, 5290 E. Yale Circle, Suite 100, Denver, CO 80222; 303/756-7282.

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**USE READER SERVICE #33**

## Engine Replacement

(continued from page 68)

manufacturers to jockey for position as good environmental citizens. Accordingly, manufacturers have come out with, or are designing, engines to comply with the new legislation.

"Frankly all of our overhead valve engines are already ahead of their time as far as ignition standards go," said Ken Tanis, service coordinator and trainer at Kawasaki Engine Division, Grand Rapids, Mich.

The big wave of the future, he said, will be fuel-injected engines for mowers. "We've already got it on some of our larger models."

Diesel is also being touted by some as another important trend, largely because of its ease of environmental compliance. No U.S. companies manufacture diesel mower engines as of yet. Thompson maintained that the U.S. outdoor power equipment market isn't calling for that type of engine.

But water-cooled engines will be a trend, he predicted, adding that Briggs is readying a line of them. "Water-cooled has not taken off in the lower horsepower range. But it will, and ultimately you may be looking at water-cooled engines up to about 30 h.p."

At Kohler, customers are demanding quieter, more efficient engines and increased power in a smaller package, Scholten said.

**THE EMISSIONS ISSUE.** The Environmental Protection Agency, via its Clean Air Act, is charged with developing a national standard for off-road emissions to be set by 1997. The federal standard will likely emulate a major portion of the CARB standards, according to the Outdoor Power Equipment Institute. It remains uncertain if the federal standards will meet or surpass California's standards.

Three primary engine emissions pose environmental and health concerns: hydrocarbons, nitrogen oxides and carbon monoxide. Small gasoline engines (four-cycle, spark-ignited gasoline engines under 50 h.p.) account for 2.6 percent of total man-made hydrocarbon emissions, according to Briggs & Stratton.

Stricter standards could inadvertently reduce the quality of engine performance, Scholten said. "In compliance the engines have to run leaner and cleaner. That gets tricky. People are used to good acceleration; they want to move the throttle forward. It gets tricky in the governing and calibration of the carburetor, to get that as good as before."

This kind of design overhaul is not expected to jack up the price of the engines. "But it's possible that the manufacturers will have to go through some major design changes, which would affect the cost," Scholten said.

Next year's CARB implementation will be less difficult to prepare for than regulations ex-

pected by 1999, he added. "A lot of people think everybody will need catalytic converters by 1999. This presents another challenge. If you're talking lawn and garden equipment, you're talking higher temperature. What do you do with that heat? There are fire potential considerations. Also considerations regarding weight, not to mention expense."

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

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3. PRV or pressure regulating valve.
4. The cost of water and maintenance.
5. High water pressure.
6. Yes.



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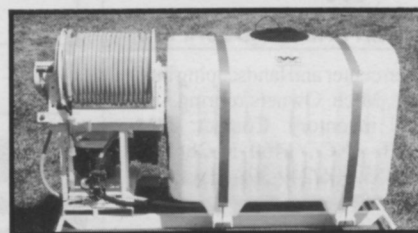
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## PRICING WORK AT A PROFIT

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## Ad Index

ALCA .....	63	Isuzu .....	68
American Cyanamid .....	44-45	Jacklin .....	87
Ameriquip .....	32	F.D. Kees .....	38
The Andersons .....	15	LNM Corp. ....	63*
Badger .....	46	Lineward .....	58
Blue Bird .....	57	Longhom .....	56
Bush Hog .....	23	Manor Software .....	80
C&S Turf .....	26,34	J.J. Mauget .....	55
CBS Software .....	28	Mutton .....	49
Ciba-Geigy .....	2,3,64-65*	Noram .....	24,25
Compuscapes .....	34	Norand .....	53
CoRoN .....	20	Northeastern .....	74
Corona Plastics .....	19	Oldham .....	79
Creative Auto .....	66	Olathe .....	76
Creative Curb .....	73	PBI .....	67
Deere & Co. 16, .....	17	Parimeter .....	58
Design Imaging Group .....	49	Professional Tree & Turf .....	75
Dilloware .....	46	RND .....	56
Dixon .....	21	Raincadd .....	14
Doane .....	13	Ransomes, Ransomes America Corp. ....	47
EasyRake .....	27	Riverdale .....	73,75
Echo .....	18	Royer .....	28
Encore .....	82	SPS .....	72
Excel .....	43	STNGA .....	83
Feldmann .....	80	Sandoz .....	36,37
Focal Point .....	33	Scag .....	88
GMC Truck .....	8,9	Sensible Software .....	7
Gemplers .....	66	Shindaiwa .....	4
Genius Software .....	27	Snapper .....	29
Glen Hilton .....	72,74	Steiner .....	81
Grasshopper .....	13	Still .....	86
Gravely .....	51	Toro .....	67
Green Earth Pastures .....	86	Tuflex .....	22
Green Thumb .....	54	Turftech .....	26
Grotech .....	54	Walker .....	35
Harmony .....	50	Wells Cargo .....	48
Hudson H.D. ....	33	Westheffer .....	83
Imler .....	56	Whidden .....	79



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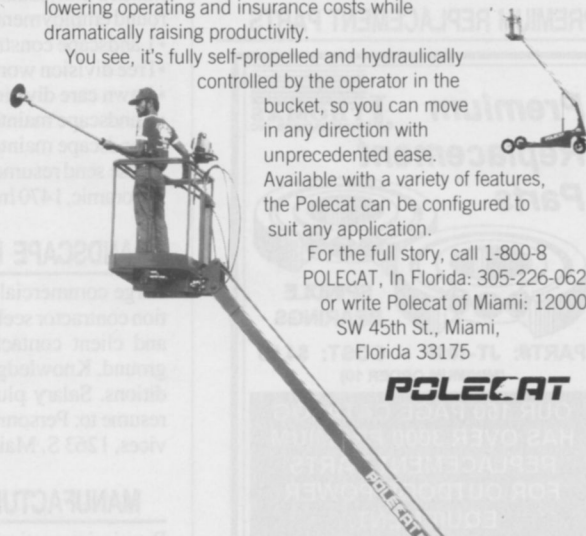
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