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CONTROLLING THEIR OWN DESTINY

**Ground Control
Takes on the Florida
Construction Market.**

ALSO IN THIS ISSUE...

**Special Report:
MOWING**

**Green Industry Expo
Show Coverage**

**Freezing Resistance of
Southern Turf**





Increased productivity

Automatic 4WD kicks in when you need it

Any four-wheel drive mower can climb hills. But only a Ford commercial front mower does it automatically. Four-wheel drive automatically engages only when it's needed, then disengages when it's not. That's a Ford New Holland exclusive that lets you get more work done in a day.

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Ford commercial front mowers—they let you get more work done in a day. See your Ford New Holland dealer.

Mower deck flips up vertically for easy access. (Do not attempt maintenance while mower is engaged.)



Cover Photo: Larry Kaplan,
Royal Oak, Mich.

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A slipping economy controlled by tight lending will lead to a slow down in construction in the South, but Ground Control is prepared.

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Editor's Focus

NOW THAT THE new year is here, most have given some thought as to how they'd like to do things differently and how this year is going to be better than any previous year.

Maybe a landscape maintenance operator has pledged to present a more professional image, another would like to begin posting after chemical applications and yet another would like to try and raise pricing levels in his area.

Whatever the individual agenda of each maintenance operator is, it's safe to assume that everyone would like to improve profits.

Three industry leaders from three different markets recently came together to discuss the difficult subject of profits.

While profits are the prime reason people go into business, there's no textbook method or path to achieve the ultimate goal of increasing receipts.

At the recent meeting of the Green Industry Expo, Ron Kujawa, president of KEI, Cudahy, Wis.; Bruce Wilson, president of Environmental Care Industries, Calabasas, Calif.; and David Minor, president, Minor's Inc., Fort Worth, Texas, led a group discussion on increasing the bottom line.

Do not confuse profit with compensation, Kujawa warned. Instead, profit is the amount left after everything has been paid for including benefits and perks.

One of the biggest problems company owners/presidents face is confusing what is taken in wages or perks with profit. "Your salary should be part of the budget," he said. "Why put up with the business headaches or do any of these things if you could make the same working for someone else?"

Some figures suggest that while the average company struggles to make a 3 percent profit, more successful companies average a 10 percent profit.

Specific goals in each area of your business must be set and achieved to ensure profit. For example, if your company has three or four profit centers, try to set goals for each of these areas, but remember the bottom line depends on all divisions. While setting these goals, it's necessary to analyze where the firm's strengths are and which divisions will bring the best return.

"If your sales focus is realistic, each division should be able to come in according to plan," Wilson said.

In all cases, a budget should be developed and every company needs to know



its costs.

"Don't fool yourself and think you're making money in every department," Minor said.

For instance, a firm may make \$40 an hour in irrigation and \$20 an hour in mowing, but costs may be higher in irrigation.

"There's a couple of divisions year in and year out that will always make a profit," Wilson said. "But different areas have different gross margins. Managers who understand that can manipulate areas to make up for a loss.

Financial tools which can assist maintenance managers include: Profit and loss statements — one for each profit center and one cumulative balance sheet for the company.

A weekly tabulation of costs by job. In maintenance, for instance, labor and materials are two areas which bear watching, according to Wilson. If you're bidding accurately and only buying what is specified in a bid and at the cost in the bid, material costs won't be as much of a burden.

Although each market dictates pricing to a certain extent, maintenance operators who are going to succeed can't afford to let low-ballers get the best of them.

"Fly-by-night firms are always going to be in our industry," Minor said. "Know what markets you're competitive in and stick with them no matter what they do."

As you prepare for the 1991 season, keep these thoughts in mind. In addition, look for *LLM* to continue bringing you business tips throughout the year. Let us know what you would like to read about.

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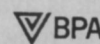
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News in Brief

NEWS DIGEST

**ISK Enterprises
Acquires Fermenta**

ISK Enterprises recently acquired SDS Enterprises from Fermenta AB for about \$300 million.

Fermenta ASC, Mentor, Ohio, is one of two wholly owned operating subsidiaries of SDS, and manufactures a wide variety of specialty chemical products including Dacthal and Daconil.

Fermenta will now be known as ISK Biotech Corp.

**PLCAA Eliminates Deputy
Position; Moody Fired**

In a budget cutting move, the Professional Lawn Care Association of America eliminated the position of deputy executive director, and with it Doug Moody who held the position since mid-1985.

Moody's firing follows recent staff shuffling at the association which included the resignation of eight-year director Jim Brooks, and Barry Troutman who left his job as director of education after two years to become director of operations for Green Up Lawns, Orlando, Fla.

PLCAA President Neal DeAngelo said the board's decision to eliminate the position stems from a need to reduce costs and eliminate duplication of services.

Moody's responsibilities will be reassigned within the current senior staff headed by Ann McClure, new executive vice president; Sandy Hensel Marting, director of public relations; and Tom Delaney, director of government affairs.

As deputy executive director, Moody handled communications, member services and edited ProSource, the association's newsletter.

Moody will remain in the green industry through his new venture, Moody Management and Marketing Services. His firm will manage and advise associations and companies.

**Federal Committee Plans
Exposure Report**

The federal General Accounting Office is preparing a report on the exposure of pesticides to applicators.

**Pesticide Residues in Drinking
Water Not Considered Dangerous**

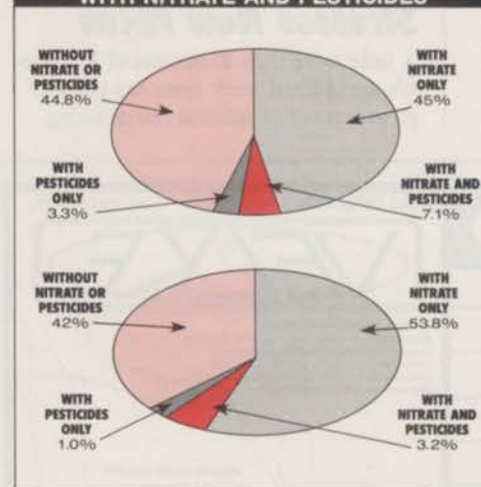
A FIVE-YEAR National Survey of Pesticides in Drinking Water Wells indicates that at least half of the nation's drinking water wells contain detectable amounts of nitrate with a small percentage at concentrations higher than EPA's regulatory and health-based limits for drinking water.

The survey, completed by the U.S. Environmental Protection Agency, is the first such monitoring survey to evaluate the presence of pesticides, pesticide degradates and nitrates in drinking water wells in the United States.

About 1.2 percent of the high nitrate citings were in community water system wells, and about 2.4 percent in rural domestic wells.

The EPA estimates that about 52.1 percent of the 94,600 community water system wells in the United States contain nitrate, about 10.4 percent contain one or more pesticides and about 7.1 percent may contain both.

**ESTIMATED PERCENT OF
COMMUNITY WATER SYSTEM WELLS AND
RURAL DOMESTIC WELLS IN THE U.S.
WITH NITRATE AND PESTICIDES**



Source: National Pesticide Survey

Of the approximately 10.5 million rural domestic wells, EPA estimates that about 57.0 percent contain nitrate, 4.2 percent contain one or more pesticides and about 3.2 percent contain both.

EPA estimates that less than one percent of rural domestic wells containing pesticides, about 60,900 wells, contain at least one pesticide over a maximum contaminant level or lifetime health advisory level.

"The substance of the report is positive for the industry and our products, but it also tells us we need to continue working to improve the use, storage and transportation of pesticides to further minimize what is a small problem," said Jay Vroom, president of the National Agricultural Chemicals Association.

Pesticides detected most frequently in the survey were DCPA acid metabolites and atrazine. The metabolite associated with DCPA — a compound known as TA (tetrachloroterephthalic acid) — was actually found in the groundwater, not the active ingredient of DCPA, according to Ed Sabala of ISK Biotech Corp.

DCPA, a preemergent herbicide, is also known by the common names of Dacthal and chlorthal dimethyl.

Survey results don't demonstrate any immediate widespread health problem, but indicate there is a need for continued attention to groundwater protection and additional analysis of the issue.

EPA plans to release a second, more in-depth report this spring.

The GAO has asked the Professional Lawn Care Association to assist them in the report's preparation and has gathered preliminary data, said Sandy Hensel Marting, PLCAA director of public relations.

Last year, the GAO released a report calling for increased regulation of lawn maintenance pesticides and regulation of industry advertising. Its findings were

released at Senate committee hearings which resulted in an attack on the green industry.

Unlike last year, when the green industry had no prior knowledge of the report's contents, Marting hopes the lines of communication with the GAO will remain open while the report is being gathered.

Davenport Seed Enters The Growing Business

For the first time, Davenport Seed Corp., Davenport, Wash., will be growing its own seed rather than contracting farmers as it has done in the past.

Davenport is now owned by Warren's Turf Nursery Inc., Suisun City, Calif. Warren's subsequently transferred its seed and specialty product division to Davenport, said Emory Hunter, sales manager for Davenport.

The company now has Avanti dwarf turf-type tall fescue available and is anticipating announcing more new varieties in the next several years, Hunter said.

Farm Bill Recognizes The Value of Trees, Turf

The environmental benefits of turfgrass sod have been recognized by the U.S. Congress in the 1990 Farm Bill following months of work by the American Sod Producers Association.

The bill indicates that "tree plantings and ground covers such as low growing dense perennial turfgrass sod in urban areas and communities can aid in reduc-

ing carbon dioxide emissions, mitigating the heat island effect and reducing energy consumption, thus contributing to efforts to reduce global warming trends."

The Farm Bill contains funding of nearly \$74 million for fiscal year 1991, in-



Environmental benefits shine through.

cluding more than \$21 million for urban and community tree and turf plantings and improvement efforts and \$32.5 million for rural forestry programs.

Monsanto Restructures; Stresses New Focus

A little more than 10 percent of Monsanto's agricultural work force has been let go as a result of internal restructuring.

Little to no changes were reported in Monsanto's Industrial, Greens and Residential division.

The changes were spearheaded by company president Bob Shapiro to create a more product focused company, according to Public Relations Manager Jim Altemus.

Under the new structure, information will be streamlined between manufacturing facilities in St. Louis and the end-user — a distributor in most case — and the sales force will represent all product offerings rather than a single line.

The firm is also positioning itself for increased competition when the patent on Roundup® and its active ingredient runs out. That comes in 1992.

"The company's attitude and commitment to the market is as strong as ever," Altemus said. "Monsanto is staying in its designated markets, but in a more economical way."

Restructuring plans have been under way since Shapiro came to Monsanto last June from NutraSweet.

In-house changes will not affect Monsanto's continued efforts to get Dimension™ its new herbicide for both pre- and postemergent control of annual grasses, registered.

(continued on page 10)

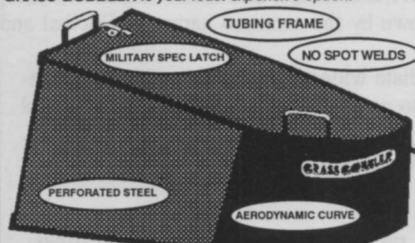
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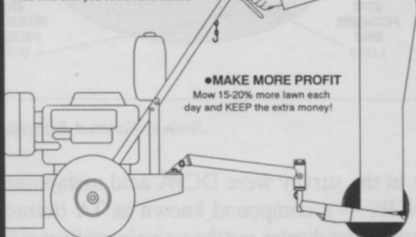
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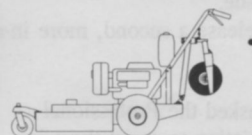


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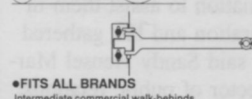


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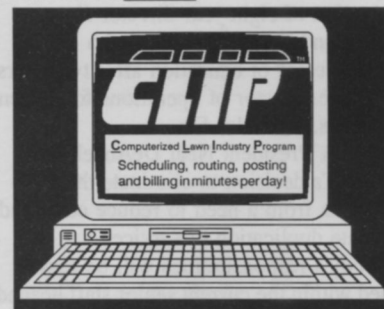
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News

(continued from page 8)

Monsanto employs about 3,000 people worldwide. Of those who were let go, the majority opted for early retirement or voluntary retirement packages. A few more than a dozen were displaced.

Regulatory Changes Top Industry Concern

While public environmental concern is viewed as an obstacle to future growth, lawn maintenance professionals believe more applicator certification and regulation will help emphasize the industry's environmental responsibility, according to a poll of Professional Lawn Care Association of America members.

Slightly more than half of 342 PLCAA members polled in Nashville said environmental concerns have cast a negative shadow on current business, and nine in 10 indicated they believe it's an obstacle to future growth.

However, Rick Steinau, president of Greenlon Lawn Care Services, Cincinnati, Ohio, said environmental awareness also could help bolster the lawn care business if communicated properly.

Cushman Hosts Ransomes Directors from England



Members of the Ransomes plc board of directors visited both the United States and Cushman headquarters in Lincoln, Neb., for a recent board meeting.

While in Lincoln, the board members toured Cushman plant facilities and heard presentations on new product developments from both engineering and manufacturing staff members. They also reviewed progress on the new 120,000-square-foot plant addition under way at Cushman.

Cushman is a subsidiary of Ransomes America, a division of Ransomes plc.

According to Stu Rafos, Cushman president, the board meeting in Lincoln signified the commitment Ransomes management has made to making the Ransomes America companies the leading force in each of their markets.

"As people become more conscious of the environment, we expect they will better understand and appreciate the expertise of professional certified applicators," he said. "This may open up new markets for skilled professionals."

Because of increased environmental sensitivity, lawn maintenance applicators noted they currently conduct more employee and customer education programs, maintain better records and strictly comply with product label instructions.

Despite applicator response, environ-

mental concerns will prompt more regulatory changes, although 64 percent said all that is needed is enforcement of laws already on the books.

About 25 percent said no regulatory changes are needed.

Regulatory changes are expected to bring more stringent applicator certification, legislation banning certain pesticides, more stringent product regulations and more posting and notification laws.

The poll was sponsored by Sandoz Crop Protection Corp. ■

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Model 84



Model 85



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Association News

PROPOSED REGULATIONS requiring employers to provide driver safety training and ensure workers are wearing seat belts when driving or riding in a company vehicle have come under fire from the **National Arborists Association**.

If passed, employers would be responsible for providing employees with driver refresher education every three years. Those opposed to the legislation are calling it overkill because the proposed requirements are already contained in many state laws and standards issued by the Federal Department of Transportation.

Current federal regulations require drivers of vehicles more than 10,000 pounds GVW to complete a road test and take a written examination to obtain a certificate.

In addition, each employer is required to review the driving records of employees at least once a year. Seat belt regulations are now regulated by individual states.

The NAA's official position and comments on this matter are now being formulated and will be sent to the Occupational Safety and Health Administration.

The Golf Course Superintendents Association of America has reported that an Environmental Protection Agency stormwater requirement may affect a number of green industry operators.

The regulations, which were published in the Federal Register in mid-November, will give many cities the authority to ban the wastewater from washing vehicles and equipment from running into stormwater sewer systems.

The rules contained in the Municipal Stormwater National Pollution Discharge Elimination System would allow cities with populations exceeding 100,000 to require certain discharges either be contained or drained into municipal (not storm) sewer systems, where water is to be treated before being returned to water supplies.

Operators should contact the pollution control division of their city water department for more specific information on local ordinances.

The **Associated Landscape Contractors of America** is sponsoring an executive forum for landscape contractors Feb. 17-20 in Palm Springs, Calif.

Throughout the four-day forum, landscape executives and managers will participate in discussion groups of six to eight people. They'll be candid as they share some of their success-building knowledge which has come from being in the trenches.

For More Information Contact...

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GCSAA

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ALCA

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AAN

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CLCA

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PTC

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Leading much of the forum will be Jim Perrone, an expert in human relations. He'll provide support, training and guidance for the discussion group leaders and present special seminars including "What It Takes to Be a Successful Landscape Leader" and "What is Needed to Have a Successful Landscape Firm."

Also contributing his expertise on customer service, team building and employee motivation will be H.G. Dev Ogle, a management development consultant.

In a special presentation, he will stimulate group discussions and lead seminars to help participants increase the quality of their service, product, employee participation and profits.

The registration fee for ALCA members is \$400; and \$500 for non-members. Special savings are available on air fare, hotel and car rentals. Call ALCA headquarters for registration forms and more information.

Last year, the U.S. Supreme Court unexpectedly rendered a decision in a landmark case opening a gaping hole in the workers' compensation system.

The Court ruled that a worker can sue an employer under the Migrant & Seasonal Agricultural Worker Protection Act even if the worker has already recovered workers' compensation.

This ruling completely ignores the long recognized and rarely challenged doctrine of "exclusivity of workers' compensation."

While this particular ruling only affects the agriculture industry, the **American Association of Nurserymen** is urging the decision be overturned before it can spread to other industries.

The whole purpose of workers' compensation is to avoid lengthy lawsuits and provide workers with relief as quickly as possible. The system imposes considerable costs on employers and denies them the ability to contest who is at fault in workplace injuries.

AAN and several other national organizations have formed a coalition seeking legislative correction to restore the long standing

and fair protection of the workers compensation system.

"Essential Supervisor Skills for the Landscape Foreman" will be the focus of a two-day seminar offered by the **California Landscape Contractors Association** Jan. 29-30.

The workshop, headed by Jim Perrone of Perrone-Ambrose Associates, Chicago, Ill., will train landscape professionals to supervise others and to plan and organize work on the job site.

The first day will cover problem-solving through communication and becoming an effective team leader. Participants will learn how to communicate better with others and, through a team building exercise, how to involve people with decisions while maintaining supervisory control.

The second day will cover new ways of motivating people, organizing work and time management and analyzing your personal managerial style.

Participants will learn how to analyze what motivates employees and will create action plans for carrying workshop results back to the job.

Registration is \$300. For more information and a registration form, contact Michey Barnett at CLCA headquarters.

Christine King has been promoted to executive director of the **Pennsylvania Turfgrass Council**. In this newly created position, King will be responsible for the development and coordination of council programs, including those co-sponsored with The Pennsylvania State University.

During her 13 years with the council, she has served as secretary, secretary-treasurer and executive secretary-treasurer. Prior to joining the council, she worked in the agronomy department at Penn State.

In the past 10 years, the council has grown dramatically and now has 850 members. Contributions to Penn State have grown from \$25,000 to \$100,000. That amount has increased because of the number and size of the council's fundraising activities. ■

Irrigation News

Irrometer Receives Innovation Award

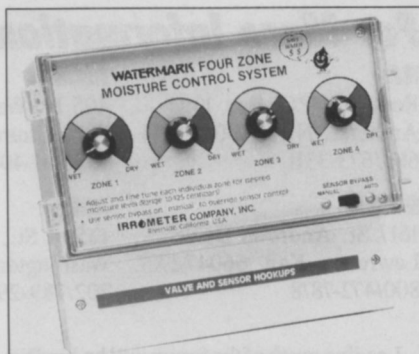
THE IRROMETER CO. Inc., Riverside, Calif., received the American Society of Agricultural Engineers AE50 award for its Watermark four-zone moisture control panel introduced in late 1989.

The award honors "outstanding innovations in product or systems technology." Irrometer's four-zone moisture control panel is based on the company's patented Watermark soil moisture sensor.

It's used to interface the non-maintenance sensor with any standard 24-volt AC automatic irrigation system control.

The Watermark soil sensor moisture system provides precise irrigation scheduling based on actual soil moisture readings in the irrigated area.

Benefits include reductions in water use, labor and maintenance as well as healthier turf and plants because of automatic soil moisture control.



Watermark's moisture control system.

Historic Conservation Pact Approved

After more than five years and at least one legal challenge, two unlikely players signed a historic pact that promises to increase Southern California's dwindling water supply.

The agreement will also serve as a model for other water agencies.

Under the pact signed by the competing water districts, Metropolitan Water District of Southern California agreed to pay Imperial Irrigation District about \$97 million to build conservation facilities in the agricultural district and another \$23 million for indirect costs.

Metropolitan will also finance 16 conservation projects in the Imperial Valley and, in turn, will receive an estimated 106,000 acre-feet of water a year that could be saved.

Southern California loses water while the population continues to increase by about 300,000 people a year, said Carl Boronkay, Metropolitan's general manager.

IA Calls for Cooperation Among All Water Users

The Irrigation Association approved a water conservation policy urging all water users to conserve. The association's board of directors called for increased coopera-

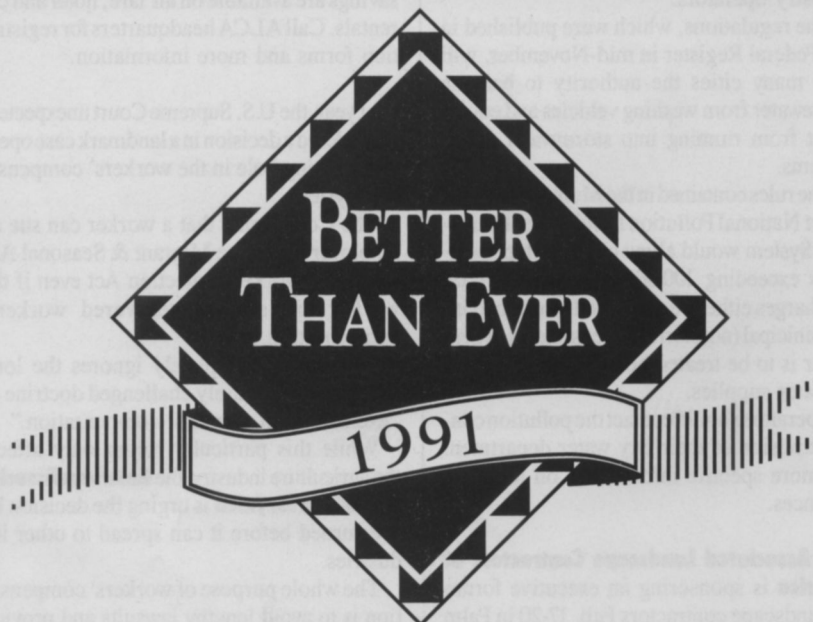
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tion among all water users, whether agricultural or urban, to support programs that advance increased efficiency in irrigation.

Under the policy, any long range planning undertaken by any community or organization should include certain goals:

- A requirement that water use be measured;
- A pricing policy that rewards those who conserve;
- Creation of educational programs emphasizing the necessity of supporting regulatory policies; and
- Promotion of policies that allow for the lease, sale or transfer of established water rights.

Hit Products Buys Oasis Control Systems

Hit Products Corp., Lindsay, Calif., recently purchased the assets of Oasis Control Systems, a manufacturer of electronic devices for governing irrigation systems.

Oasis has been marketed nationally and internationally since 1988, and has enjoyed wide acceptance from all levels of the industry. One main feature is its ability to plug in a module and create any station configuration desired.

The Oasis line joins Hit's existing line

Irrigation Show Continues to Draw a Crowd



MORE THAN 4,000 attendees and 235 exhibitors were on hand at the 11th Annual International Irrigation Exposition in Phoenix, Ariz.

The show continues to gain popularity among landscape contractors as water concerns across the nation become more recognized, and irrigation systems become more prevalent.

In fact, keynote speaker Marvin Jensen said that at the rate irrigation expansion is growing, something is going to have to give because of limited resources.

Jensen is the director of the Colorado Institute for Irrigation Management, Colorado State University, Ft. Collins, Colo.

In the West, in particular, there's overwhelming competition for renewable water supplies. At the same time, Jensen said, he's seeing some of the most modern irrigation systems.

"If you can show the direct and indirect costs, more efficient systems can be justified," he said. "The volume of water must be considered. Don't just stop at delivering water to the property; you need to manage the excess as well."

In addition to a variety of education seminars and one-on-one presentations, attendees also had the opportunity to gain certification credit and attend the IA's school of irrigation.

This year's conference is Nov. 10-13 in San Antonio, Texas.

of sprinklers and valves, along with Pro-code — its two wire solar powered control method — and Contech — the company's computer controlled master/satellite system to form a complete control and irriga-

tion product line.

Joe Ames of Joe Ames Co. has been retained as the independent sales representative for northern California, along with other representative firms. ■

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Landscape News

WINNING LANDSCAPE FEATURES AUTHENTIC JAPANESE GARDEN

JOHN NISHIZAWA Co. of Martinez captured the 1990 Sweepstakes Trophy for the best landscape project in California.

The trophy was awarded to John Nishizawa Co. by the California Landscape Contractors Association for the firm's Atherton Project, an authentic Japanese garden at a private residence in Atherton. Ron Herman of San Leandro designed the 2.5-acre property, consisting of an abundance of water, stone and plants.

More than 5,000 square feet of recycled water, including koi and reflection ponds, a swimming pool and a Jacuzzi hot tub are featured. These are visually connected with waterfalls and bridges.

The bridges and several antique Japanese lanterns are handcarved stone. River-washed cobble lines the ponds while stones and gravel are the base of the "dry garden." About 800 tons of large, river-washed boulders are interspersed throughout.

It took one year to complete the landscape which consists of such large, balled and burlapped specimens from Oregon as flowering cherries, rhododendrons and azaleas. In addition, large bonzai specimens of Japanese black pine were used. The overall appearance is one of a landscape planted 10 years ago.

The trophy awards committee this year was co-chaired by Richard Cohen of Richard Cohen Landscape and Construct in El Toro, and Wayne Duboise of David Wayne Landscape Construction in Costa Mesa.

The committee appointed three judges: Lyle Fredrickson, a retired landscape architect; William Morgan, owner of Morgan Horticultural Consultants in Yorba Linda; and Mas Tsuda, a retired landscape contractor and a CLCA life member.

According to Cohen, 240 projects from throughout the state were submitted for consideration — the highest total in the 35-year competition. Judges spent two weeks visiting each site to name winners in each of 28 residen-



This landscape was rated California's best by the CLCA.

tial and commercial categories, plus nine special awards.

The President's Trophy for best residential project was awarded to Craig Pauley & Associates of Tustin for the Villa Camello project in Laguna Beach. The designer was Dike/Runa of Irvine.

Stalice Landscape & Design of Los Angeles took the Judges Award for the Spector Resi-

**More than 240 projects
from throughout
the state were submitted.**

dence in Los Angeles. The award is for best residential landscaping under \$75,000. The designer was Richard Mosbaugh of Los Angeles.

The Ben Slade Memorial Award for overall landscape maintenance went to Dinsmore Landscape Co. of Santa Clara for the Sakata Seed America project in Morgan Hill. Wilson & Van Dens of Mountain View designed the property.

California Landscape Inc. of Canoga Park took CLCA's Jere Driscoll Award for their Port Cochere at the Beverly Hilton in Beverly

Hills. The designer was Lawrence Reed Moline of Culver City. The Jere Driscoll Award is for the best entry from all commercial installation categories.

For the best use of unique methods or materials, and/or special artistic effects, American Landscape Inc. of Canoga Park won the Special Effects Award. Emmett Wemple & Associates of Los Angeles designed the project, the UCLA Student Housing Northwest Campus Recreation Center.

CLCA's Excelsior Award is for a firm who has been a member less than a year

and demonstrates superior landscaping qualities. This year's winner is Alder Landscaping Co. of San Ramon, whose own Don Vivatson designed the project at the Steiner Home in Danville.

The Humanitarian Award went to Stalice Landscape & Design for the Sunshine Preschool in Los Angeles. This award recognizes the best project in which more than 50 percent of the total labor and materials are donated.

New this year is the Landscape Enhancement Award presented to a company that has most successfully enhanced its environment through landscaping. For the use of and commitment to landscaping, the Enhancement Award recipient was Shell Oil Co.

The program's biggest multiple winner was Stalice Landscape & Design. In addition to the Judges and Humanitarian Awards, Stalice won two regular awards for a total of four in the competition.

Additional multiple winners were: California Landscape (3); Greenit Landscape of Sylmar (3); Landtrends Inc. of San Diego (3); Toddco Landscape Co. Inc. of Venice (3); Valley Crest Landscape Inc. of Santa Ana (3); American Landscape (2); California Landscape Maintenance Inc. of Canoga Park (2); B.L. Cohen Landscape Inc. of San Jose (2); Dinsmore Landscape Co. (2); R.M. Tulleners Landscape Inc. of Laguna Hills (2); and Haruo Yamashiro of Gardena (2). ■

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Industry Viewpoint

DOES 2,4-D TREATED TURF HARM PETS?

Wendell Mullison is a herbicide consultant and director of the 2,4-D hotline. Toxicity of 2,4-D has been a much debated issue over the years and, although less controversially, continues. Most recently, a Michigan lawn maintenance operator was charged with the death of a customer's dog from repeated applications of 2,4-D. The case has not yet been resolved, but in this column, Mullison sheds some light on the effects of 2,4-D. The author and the 2,4-D hotline can be reached at 800/345-5109.

THE QUESTION HAS been asked, "Will chemicals used in lawn care have a harmful effect on pets, particularly dogs, who might eat the treated grass?"

This is an ambiguous question without a precise answer since it differs considerably depending upon a number of unstated varia-

bles. Some of the obvious variables are: what chemicals were used and at what dosage; how much is absorbed and degraded over time; what breed of dog is involved; the size of the dog; when it was last fed; how active the dog is; its age; and the kind of grass.

One way to answer this question is to find out how much grass is on a given area of turf after a maximum amount of chemical can be calculated. This gives you a worst case scenario.

In an attempt to address the question about the commonly used herbicide 2,4-D, and Kentucky bluegrass so widely used in lawns, the following simple procedure was followed.

A one-foot-square frame was constructed from a strip of wood approximately 1/2-inch wide and 3/4-inch high. This was put over the grass making a one-foot plot. The grass was clipped using a pair of barber's scissors.

The top of the frame was used as a guide to cut the grass the same height from the ground on all the plots. The grass height was measured at the four corners, the center and then averaged. These plots were all taken from a home with an average sized yard, and from a grass area that had been skipped at the last mowing.

There were 13 plots in all, but results from the first plot were regarded as a technique learning plot and subsequently discarded. The sampling was done on Oct. 8, 1990, between 1 p.m. and 3 p.m. to avoid most of the morning dew. Because it was a cool cloudy fall day, some of the tall grass had a little remaining dew, however, the dried weight data indicated that this did not significantly change the conclusions.

The samples were weighed immediately using a Mettler P1220 balance to obtain the fresh weight data. Although only the fresh weight

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data was used in these calculations, the dried weight data was also taken for comparative purposes.

The samples were dried in a Model OV-490 A-Z electric drying oven made by Bloem Electric Co. and then reweighed. The weight data from the plots using tall grass is shown in Table 1. Tall grasses were separated from the short grasses using an arbitrary figure of four or more inches to determine the tall classification.

The tall grass roughly yielded about a cup of grass clippings and the shorter grass about one-half cup. These are crude volume estimates as the grass was just put into a cup and no effort was made to firm or pack it.

Scientific literature gives an LD₅₀ dosage for dogs of 100 mg 2,4-D/kg. A common dosage of 2,4-D to lawns is one pound per acre. One pound of 2,4-D per acre if deposited completely on bare ground amounts to 10.4 mg/ft².

A small dog weighing 10 kg (22 pounds) would have to eat the grass from 96 square feet to reach the LD₅₀ dosage. At this dosage, half the dogs would die and half would live. For a large dog of 20 kg (44 pounds) it would take 192 square feet.

At the test site, 96 square feet produced 3.8 pounds of short grass and 7.3 pounds of tall grass. The actual amount of grass grown varies considerably with the variety and the site.

TALL GRASS > 4 IN. HIGH

PLOT NO.	HEIGHT (in.)	FRESH WT.(g)	DRY WT. (g)	%MOISTURE
2	3.80	16.38	8.51	52
3	3.73	18.41	9.39	51
4	3.05	16.66	7.74	47
5	3.93	13.98	7.69	55
7	3.90	14.53	8.13	56
8	3.50	21.53	12.27	57
11	3.80	23.41	14.10	60
AVERAGE	3.67	17.83	9.69	54

Table 1.

Regardless of these variations, 96 square feet of lawn produces far more grass than a dog would eat at one time.

While the pounds of grass produced per square foot will vary, the one pound per acre dosage theoretically will always deposit the same amount per square foot.

As a result, it seems reasonable to conclude that even a small dog would not eat enough of either short or tall grass treated with 2,4-D to reach the LD₅₀ even immediately after treatment. For a large dog (20 kg or 44 pounds) the above quantities would have to be much greater, being doubled to 7.6 and 14.6 pounds.

Experiments have shown that only a small

amount of 2,4-D (approximately 10 percent) can be dislodged from grass after it has dried even on the day of application. In addition, it's known that the amount of 2,4-D on or in the grass disappears relatively rapidly over time.

Therefore, this is a worst case situation since not all of the 2,4-D applied theoretically would be on the grass. Some would hit the thatch or ground and some might drift during application.

This data shows that dogs would not die from eating grass on lawns sprayed with 2,4-D at labeled rates for weed control. — *Wendell Mullison*

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GROUND CONTROL LANDSCAPING: CONTROLLING THEIR DESTINY



GROUND CONTROL LANDSCAPING

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Orlando, Fla.

FOUNDED:

In 1978 by Mark Yahn,
Frank Edwards and
Allan Curran.

OWNER:

Mark, Laurie
and John Yahn.

PRIMARY SERVICES:

Landscape construction,
maintenance and
irrigation for the
commercial and multi-
family markets.

EMPLOYEES:

130 year-round

1990 SALES:

\$5.3 million.

*A slipping economy
controlled by tight lending
will lead to a slow down in
construction in the South, but
Ground Control has spent
the last year preparing
for the market pinch.*

CONSISTENCY IS the mainstay of success at Ground Control Landscaping Inc.

With a clear goal in mind and the right blend of people working with him, President Mark Yahn has taken this Orlando firm from \$300,000 to \$5 million in 12 years.

But he's the first to admit it took more than selflessness, long hours and firm monetary control — it took pride and commitment from a hardworking staff. Managers Tracy Morland, vice president, maintenance division; Michael Guthrie, sales/estimating, maintenance division; Van Neie, vice president, landscape and irrigation divisions; Don Soderblom, sales/estimating, landscape and irrigation divisions; Sam Carns, operations manager; and wife and business partner Laurie Yahn are just the beginning.

About 130 year-round employees work tirelessly to make this company one of the premiere firms in Florida.

Good business instincts, genuine marketing abilities and a committed staff have enabled Yahn and his "for college money only company" to take advantage of fantastic growth opportunities in the booming metropolis of Orlando.

One look at the attention to detail visible throughout the company's headquarters, and the pride each and every employee exudes makes you want to join the team.

While the passing of more than a decade is bound to signal change, business today is not all that different from what it was 12 years ago. Yahn, 34, still gives tremendously of himself to his customers, employees, managers, colleagues and the industry in general through the firm's involvement in the Associated Landscape Contractors of America.

Yahn and Ground Control are committed to building more than a company, but a professional industry.

Just 21 years old at the time, Yahn and two partners were just starting out in the business when, perhaps by chance, they were approached by a local





Coordination between trades is critical during the early stages of a project. (far left) Proper spacing helps maintain the integrity of the design while the correct planting depth ensures a good start.

The next two years saw some changes. The firm concentrated on quality control techniques and expanding its budgeting, job costing and general accounting systems.

With that within their grasp, the beat went on.

In 1989 Ground Control reported \$4.3 million in sales: maintenance \$1.8 million, construction \$1.7 million and irrigation \$700,000.

Currently, the company is completing another year of growth. Adjustments were made to internal operations and management staff to accommodate growth and the continually changing landscape industry.

"Maintenance had a strong finish. It is growing and becoming more profitable. It was dog eat dog here in maintenance for awhile," Yahn said.

In 1990, maintenance reached \$2 million. It's expected to grow another 10 percent this year. Irrigation accounted for about \$800,000 while construction led the company with \$2.5 million. Total sales reached \$5.3 million.

Yahn said Ground Control is now confident in its ability to manage its efforts, and plans to increase its client base and expand its services vertically to meet the needs of existing and future customers.

"We are as prepared as ever to fill our role in the market place," he said. "The basic formula is set. The personnel are in place, we have developed a good accounting program, budget and job costing system. However, we will monitor our growth so as to remain profitable."

The firm generally pursues jobs up to \$1 million.

"We do not have the manpower and it would stretch us to do more. But that is not to say we would not tackle something larger if it fit our scope and were given the right amount of time to perform," Yahn said. "For now we are content to be involved with this size work and that is nothing to be ashamed of; that is what we are good at."

Although profitable, 1990 was far from normal for Ground Control. Looking at a severe slow down in construction, they began pursuing additional backlog. It paid off, resulting in about \$1.7 million in new projects.

"Construction is going to slow down because of tight lending. We will see a lot of that this year,"

"We are prepared as ever to fill our role in the market place. The basic formula is set."

developer seeking a landscaper. They got the job, later acquired other customers and were soon on their way to building a foundation for a solid business.

Yahn's original stake in Ground Control was to raise money to complete his business degree. As business flourished, however, Yahn took a year off school and never made it back.

In its first year, Ground Control grossed more than \$300,000; money generated mainly from a steady flow of residential and small commercial maintenance accounts as well as tract home

subdivision work.

This philosophy guided the firm through 1984. "We never had a lot of debt and doubled in size every couple of years," Yahn said.

The company continued to grow rapidly through 1986 and, although the market started to tighten up, Ground Control expanded and completed a wide variety of projects totaling more than \$4 million annually.

Like so many others, however, rapid growth makes one want to pull in the reins, re-evaluate goals and set a course for the future; Ground Control was no different.

he said. "We have tried to get a backlog of projects to take us as far into next year as possible."

Consequently, Ground Control took on most bid opportunities and the work came rolling in during the summer of 1990.

Growth stalled somewhat in June and July, but not enough to keep Ground Control from recording its biggest year to date.

Yahn remains cautious, however.

"The economy is starting to slip controlled by tight lending, the concurrency issue and a slow down in development based on building moratoriums," he said. "It is crippling lots of companies."

Concurrency, an effort to slow down building on a county by county basis, requires that services such as water and roads be concurrent to planned usage. In many cases, they must already be in place before the development is started, stopping some projects from getting off the ground.

As a result, Yahn said, he expects the demand for renovation services to increase.

Some areas such as Broward and Dade counties are practically shut down. Sarasota and Tampa suffer from similar setbacks. Orlando remains strong because of Walt Disney World and surrounding business, but last month filed its own concurrency plan.

"The pie is going to get a lot smaller. Next fall we will feel a severe slow down," Yahn said. "From the feedback I am getting from clients, it is close to impossible to put together a conventional deal even in prime building areas."

Ground Control maintains 75 percent to 80 percent of what it installs.

About 15 contractors are scrambling for limited business.

"We have a distinct advantage having a backlog to work with. We will stay busy through the first quarter, have maintenance on track, a lean overhead and some money put away."

Ground Control will also be relying on current clients to fill in the production lulls.

Because it is a competitive market, Ground Control is sometimes affected by irresponsible bidding.

"It is not as bad as one year ago. Some were drastically low; we could not understand how they could cover their costs," Yahn said. "Some competitors have gone away while others have



The landscape maintenance division completed \$2 million worth of jobs last year. Here, a power auger speeds up shrub planting.

drastically changed and are not the spoiler they were a year ago."

Yahn credits increased professionalism to the influx of respected firms entering the market. Among them, Reinhold & Vidosh and Environmental Care Industries.

"We have a lot of quality competitors, large and small. In that group, no one really gets in each other's way," he said. "If we want a larger piece of the market, we have to act in a professional, friendly business manner when marketing."

GROWING PAINS. Ground Control has been doing at least \$4 million in sales since 1986 but, Yahn said, it's been a real strain on him.

"I decided to make a commitment to bringing the right people on board to create an efficient staff," Yahn said. "I really needed to trust the people around me because I give them lots of freedom and an opportunity to prove themselves."

Neie, Morland and Carns were the three most recent additions to the firm, giving maintenance, construction and irrigation a much needed shot in the arm.

The bulk of Ground Control's work is centered in Orlando, but the firm is pushing into Melbourne, 60 miles east of Orlando.

The firm has done a half dozen construction jobs in Melbourne and plans to open a satellite office there early this year. Ground Control has picked up the maintenance contracts here as well.

"The first year will be a test. Right now it is a sleepy market; customers are not willing to pay the price for a high grade service,

but it is changing," Yahn said. "We have no wild aspirations, but hope to build a million dollar branch over the next several years."

Ground Control wanted to open an office in Ft. Lauderdale, but due to a poor maintenance market decided to cancel plans.

There's talk of a similar satellite office in southwest Orlando. Because it's a booming area, traffic makes jobs more difficult to get to efficiently.

Ground Control will begin plans to expand into a new office building this year and develop a holding area for nursery materials.

The firm has no present need to produce its own material because they have established a good rapport with area growers and nurseries who will generally block off materials to ensure size and availability.

"It gives us the benefits of a growing contract without going through the formality," Yahn said. "If we establish a good track record of payment, they will work with us."

Currently, prices are relatively cheap in the depressed Florida growing market, making good buys available.

Yahn said he prefers to use container grown plants because the method doesn't disturb the plant's root system and reduces shock unless it's left in the container too long.

"It's really uncommon to lose container grown plants," he said. "In fact, more architects are specifying and demanding container material. We will see more of this in the next five years."

Ground Control's pride and joy is the award winning Peabody Hotel project. Built under the

most strict time constraints, crews worked around the clock to install more than 1,000 trees and 30,000 shrubs in a three-month period including an extensive landscape planting on its fourth-floor recreation deck.

Ironically, this showpiece property came back to haunt Ground Control. Originally contracted for \$825,000, the hotel landscape suffered substantial damage during the December freeze of 1989. Damage amounted to just shy of \$250,000, with more than \$130,000 in specimen palm trees alone. Although most of the original plant material was from central Florida, a 48-hour period of about 17 degree temperatures took its toll.

Ground Control is just now completing renovation of the four-year-old property partly because it was difficult to determine just which plants and trees would survive.

Ground Control maintains 75 percent to 80 percent of what it installs and virtually guarantees plant materials as long as the firm remains on site with a horticulturally sound program; 12 months if they don't maintain the property.

Since the area has suffered three freezes in the last six years, an "Act of God" clause is included in all contracts.

OPERATIONS. The company operates with three profit centers: landscape construction, landscape maintenance and irrigation services.

In addition to the installation of landscape and hardscape materials, landscape construction includes design/build capabilities with two registered landscape architects on staff.

Because of pressure from local design firms, Ground Control chose not to start a separate design division, Yahn said.

"We do a handful of design/build projects a year, but when we do a design, we do a quality job so we maintain consistent quality in the division," he said. "We're hoping to increase our dialogue with designers in a way that it will filter down to everyone. Consistency in areas like the writing and enforcement of specifications benefits professionals in the industry."

A blend of multi-family, business parks, shopping centers and commercial properties have

given Ground Control a good reputation leading many developers to approach the firm with bids.

The landscape maintenance division handles all facets of grounds maintenance including turf and tree/shrub care programs, annual change-outs and bed dressing replenishment.

About a year and a half ago, the firm brought their spraying business in-house offering liquid insecticides and herbicides and granular fertilizers to current customers. The firm made \$75,000 the first year and \$200,000 last year.

Ground Control's special services division offers light construction capabilities — refurbishing or new installations — up to \$30,000.

Although not their priority market niche, Ground Control provides a full scale of maintenance services to small commercial and residential properties.

The irrigation construction division handles new installation and renovation or service to irrigation systems on residential

Water conservation in central Florida has been poor, but restrictions are on the horizon.

and/or commercial projects. The division also offers in-house design capabilities including the ability to incorporate computerized pumping systems for optimum and efficient watering.

MAINTENANCE. Ground Control's maintenance season runs from mid-March to mid-October during which time mowing is completed weekly while the frequency of detail work is left up

to the property owners and bid accordingly.

During the off-season, mowing is done every other week.

An average mowing crew consists of three to five men using 36- to 74-inch mowers. Assist groups follow with detail work, enabling the firm to turn the property faster. A portion of the crews take care of specific properties themselves depending on the size.

The firm maintains 20 crews including groundskeepers who remain on site. A \$1 million maintenance job may have as many as 30 men on site.

"Everything we install is irrigated and 95 percent of what we maintain is irrigated," Guthrie said. "It's necessary to compensate for the traditionally dry months of February through May."

While southern Florida has done a good job with water difficulties, water conservation in central Florida has been poor, Guthrie admitted. However, the area will see a string of restrictions implemented in the next few years. Currently, contractors must

apply for a variance to water on new properties.

Three specialty service crews do extra contracting primarily for current customers only. This includes anything from storm damage to winter palm tree care to mulch work.

Since coming to Ground Control a little more than a year ago, Morland has strived to make better use of labor in the maintenance division.

"It's a question of efficiency. We can spend less time on projects allowing the labor rate on base services to go up," he said.

Typically, every crew has specific routes they perform, although it can change with the season. Similarly, foremen remain with one crew resulting in less turnover as Ground Control has found. In addition, supervisors in each territory are located with a similar proximity to the office.

"Most companies put too much on too few people," he said. "But we have worked hard to add people where needed, giving smaller portions and keeping consistent."

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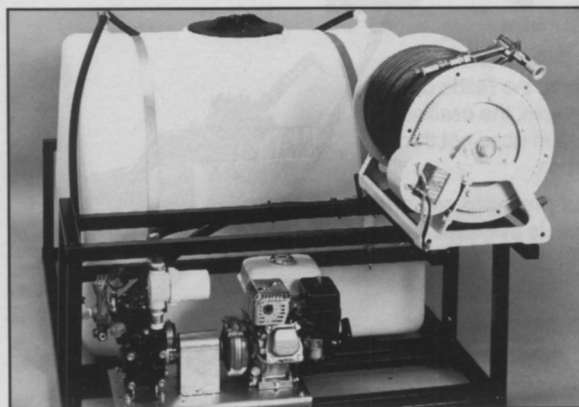
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cy among crews."

Crews work four-day, 11 hours per day work weeks, while supervisors work five. There were only two busy periods during the season when Morland thought crews would have to go to a five-day work week.

Ground Control pays fairly competitive wages for the Florida market — \$4.75 an hour starting, with an average of \$6.05 an hour across the board.

"We are well-known for our quality and try to give customers what they want," he said. "New opportunities will surface as the demand for good landscape maintenance increases particularly in more concentrated growth areas in central Florida.

"A 20 percent increase in maintenance per year is not unreasonable, but as we get bigger it's obviously harder to do."

Morland said he spends 35 percent of his time out of the office reviewing properties.

"From the outset, maintenance bids assume all services are required for a property so we do not have to go back and nickel and

dime the client," he said. "We are trying to instill a full service mentality in our market place by comprehensive bidding."

MAINTENANCE BIDDING. With about eight years of landscape bidding experience behind him, Guthrie uses a mix of techniques to develop a bid.

"Generally, if they invite you to bid they've done their homework. They know what kind of work we're capable of and our costs," he said. "So I try to be upfront, ask them what their budget is, find out what they're all about, their pet peeves, what they're looking for, etc. I offer to take them to other properties, show them our facilities and convey our abilities."

Ground Control is not yet computerized for bidding, but have sound production rates and formulas to target production costs. Based on square footage of turf and selection of mowers, for instance, they figure they can work x amount of feet per hour by assigning production rates to each piece of equipment.

Similarly, edgers can do so many linear feet per hour and beds can be cultivated so fast per hour.

"We take the square footage, break it down into what size mowers we'll use, transfer it to man hours and figure the price based on how much we charge per hour," he said.

Bottom line: "You have to live with what you bid."

In addition to established formulas, Guthrie said, he uses plain old "gut instinct" as a complementary bidding tool, often driv-

ing a property for 30 minutes sizing up the project in his mind."

CONSTRUCTION. Soderblom handles the majority of construction estimating. Ninety percent of the materials are located before bidding since growing is unpredictable.

With an increase in the number of bids being sent out by Ground Control, computer-generated bids will begin this year.

"We've developed a program to computerize our bids, however, we will still need to manually tweak each bid before it goes out of here. There's no generic bids," Yahn said. "We give attention to each bid whether it takes 15 minutes or four hours. We feel we have a better than even chance of getting every bid which leaves here."

Once a job contract is awarded, the landscape construction department starts purchasing and lining up material, reviewing the site and meeting with all involved.

"We have to coordinate scheduling of our work with that of the subcontractors," Neie said. "We

(continued on page 65)

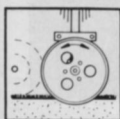
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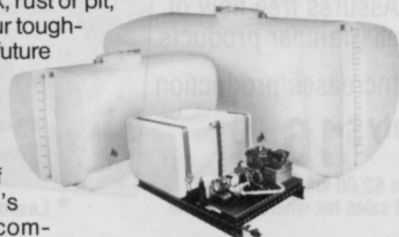
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RIDING AND WALK-BEHIND MOWERS

Increased mowing needs have led to more diverse equipment. Most maintenance managers have a preference between walk-behinds and riders, but productivity proves most important when buying.

OCCURRENCES OF late seem to indicate that those who want to survive in the lawn and landscape maintenance field need to diversify. In most cases this means increasing equipment fleets and having a variety of mowers on hand to maintain varied accounts.

Whether you choose walk-behinds or riders, as increased business demands more equipment most operators are looking for mowers to improve productivity and efficiency.

While most companies have a combination of the two, maintenance managers with the final buying decision seem to prefer one over the other.

Lawn Ranger Inc. of Indianapolis, Ind., mows more than 800 acres of turf a week. The majority of that is done with 48-inch walk-behinds because that's the way owner Mike Kail prefers it.

With apartment and condominium complexes representing a good portion of his business, walk-behinds offer the needed versatility for mowing in and around landscaped areas as well as in small, tight areas, he said.

"In those situations, it just makes sense to use a walk-behind," he said. "For the operator there's more of a feeling of control. And I think once they get used to using one type of equip-



ment, they prefer using it in other situations."

A lowered occurrence of scalping is another advantage, according to Kail. He has experimented with several smaller riders that feature decks the same width as the wheels. Those proved to be a problem along trees, edging and fences because it was inevitable that the wheels would get in the way.

He's also tried out different sized walk-behinds, but favors the 48-inch for a practical reason — they fit between the wheel wells of the trucks the company uses.

"We do have other equipment: riders for large open areas and 30- and 36-inch walk-behinds for fitting through gates and driveways," he said. "But after 10 years of experience, I believe the 48s are the most versatile mowers for the work we do. Riders would probably be more productive on some of our sites, but I'm not ready to give up the versatility — the backing, turning, getting in and around stuff — for a faster cut. Crews would still have to get off the riders to get spots they can't reach."

Now that he has found the equipment that best suits the com-

pany's needs, Kail said, it's unlikely he'll make any drastic changes in his equipment buying patterns.

"The manufacturers are in business to sell mowers so they're constantly hawking changes or additions as a re-invented wheel," he said. "There's definitely a lot more to choose from than there used to be, however."

ANSWERING A NEED. But obviously Kail's walk-behind theory isn't right for everyone. Walker Manufacturing, Fort Collins, Colo., produces smaller sized riders and targets them to maintenance contractors who mow grass in landscaped areas such as condos and apartments.

First made 10 years ago, the main competition to Walker mowers are midsize and intermediate walk-behinds, according to Bob Walker, company president.

"Prior to us devising our mower, all the riders were large area machines," he said. "Walk-behinds were the dominant machines for landscaped areas. They really were the industry standard, but we thought we saw

an opportunity to develop a niche market. And it turns out we were right."

Many Walker customers are switching to the company's machines from midsize and intermediate walk-behinds. Feedback from customers often reports that productivity per man can actually double.

"Those type of reports are pretty consistent," Walker said. "But there are variables. It's like the old tortoise and hare story: We're not as fast as some on large open areas, but we are quick and maneuverable on smaller sites, which after a number of jobs does make a difference."

Those claims are often questioned by operators at trade shows.

"Folks look at the mower and are pretty skeptical," Walker said. "It doesn't have a swath twice as large; they don't think it's possible. It comes down to walking five or six hours at a certain pace. That gets tiring and the more a person does it, the less productive they become."

While all that is relatively true and cannot be denied, it doesn't mean walk-behinds are becoming the dinosaur of the lawn maintenance field, said Dave Fondrie, vice president, Ransomes, Johnson Creek, Wis. About 80 percent of Ransomes sales are walk-behinds.

"There have been a lot of changes in the market over the last several years, and one has been a larger move toward riders," he said. "But that doesn't mean walk-behinds are — or even face the possibility of — becoming obsolete. It is evidence of an ever fragmenting market."

As the market grew, so did the needs. That's why you now can find large and small riders as well as walk-behinds along with zero-turning radius, hydrostatic, mulching and other mowers, Fondrie said.

"The rise in one in no way means the demise of another," he said. "It means there are more operators buying mowers or just a small shift in the market share by type."

There are instances and sites that demand one type and are not open to choice or personal preference.

Ronnie Ray, a grounds super-



visor with the Dallas Independent School District, Dallas, Texas, has found himself in that position and uses all riding equipment — mostly mowers with 52-inch decks.

With his 18-member crew recently cut by four workers, Ray said he can't imagine trying to run the department with anything but large riders.

"We haven't been running with 14 guys for very long yet, but most of the complaints have always been about long hours and so much grass to mow," he said. "With these latest cuts, it's only going to get worse. I doubt we'd have one person in the whole department if they weren't riding."

Ray and his crews are responsible for more than 50 of the district's 227 facilities.

The district actually works two different grounds crews. The "custodial" department is responsible for the front lawns of all schools. Because the frontage takes in much less acreage, these crews can do many more sites in a day.

The grounds department, where Ray works, mows the back areas of the sites and does weeding and edging in both the front and back. His crews work on 17-day cycles. The sites he's responsible for have turf ranging from five to 20 acres.

"Often the grass gets a little longer than what most people would consider desirable, but these are pretty much areas that aren't used all that often," he said. "It would take a lot more manpower and a great deal more money to keep these areas manicured like the front areas. And there really isn't a need for that."

The district began using Grasshopper mowers several years ago and, Ray said, it's a move many of the operators approve.

"Most of the feedback has been about them being quicker and easier to turn being equipped with zero-turning radius," he said. "That has allowed us to eliminate a good amount of our trimming because you can get so much closer to trees and shrubs and ground cover — almost right up to it."

Another fan of riders — the Walkers to be exact — is Curt Peterson of Prestige Landscape & Maintenance, Phoenix, Ariz. He formerly used 48-inch walk-behinds.

"The biggest difference with the Walkers — and probably all riders in general — is lessening operator fatigue," he said. "Everyone prefers operating these — especially folks who come to work for us from other companies. They tell us a day's work is by far less taxing. And

Although the move toward riders is on, walk-behinds will never become obsolete.

it's obvious to me. I don't see crews coming in dog-tired at the end of the day literally dragging themselves to their cars or the bus stop."

Peterson called the switch from walk-behinds good business sense.

"When using walk-behinds, I really didn't get that many complaints from workers about being tired or overworked, but as a good manager I saw it for myself," he said. "After switching, my turnover is not as high as it used to be, laborers generally seem more 'alive' at the end of the day and they don't seem to dread coming to work in the morning the way they used to."

He claims that attitude comes from him moving into landscaping from another career.

"Different firms have quite different ideas what this industry is all about," he said. "My way of looking at it is that it's people-driven. You can have as many accounts as you want, but if you don't have motivated and satisfied workers to put on the sites every day, then you have nothing. I'm always looking for ways to make the job of my laborers easier, more rewarding and more satisfying. Switching from walk-behinds was a major step in that area."

He also employs another tactic in keeping his all maintenance firm on solid ground. Prestige's account base is diverse and spread out. No one account makes up more than 5 percent of the company's total receipts.

NEEDING A VARIETY. "A lot of maintenance companies get too impressed when they're doing this swank hotel or that Fortune 500 corporate headquarters," he said. "When I hear someone talking like that, I want to ask what would happen if that account dropped him the next day. Does he have enough other accounts to sustain the company or have all the resources, manpower been poured into one account?"

A lot of maintenance work requires a less rigid loyalty to one machine or another. Often letting the two complement each other is the way to go, according

(continued on page 30)

SOMETIMES BIG ISN'T BETTER

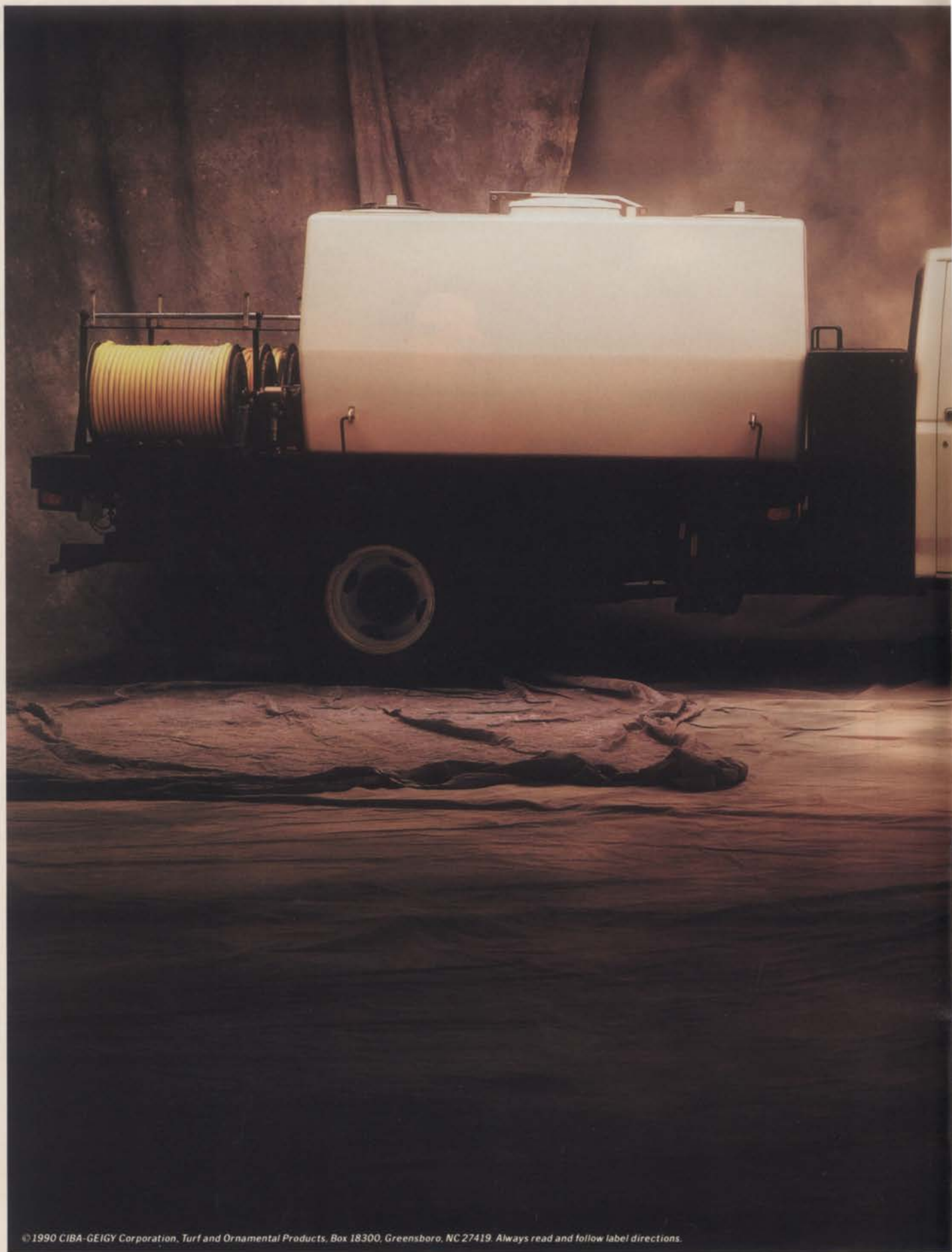
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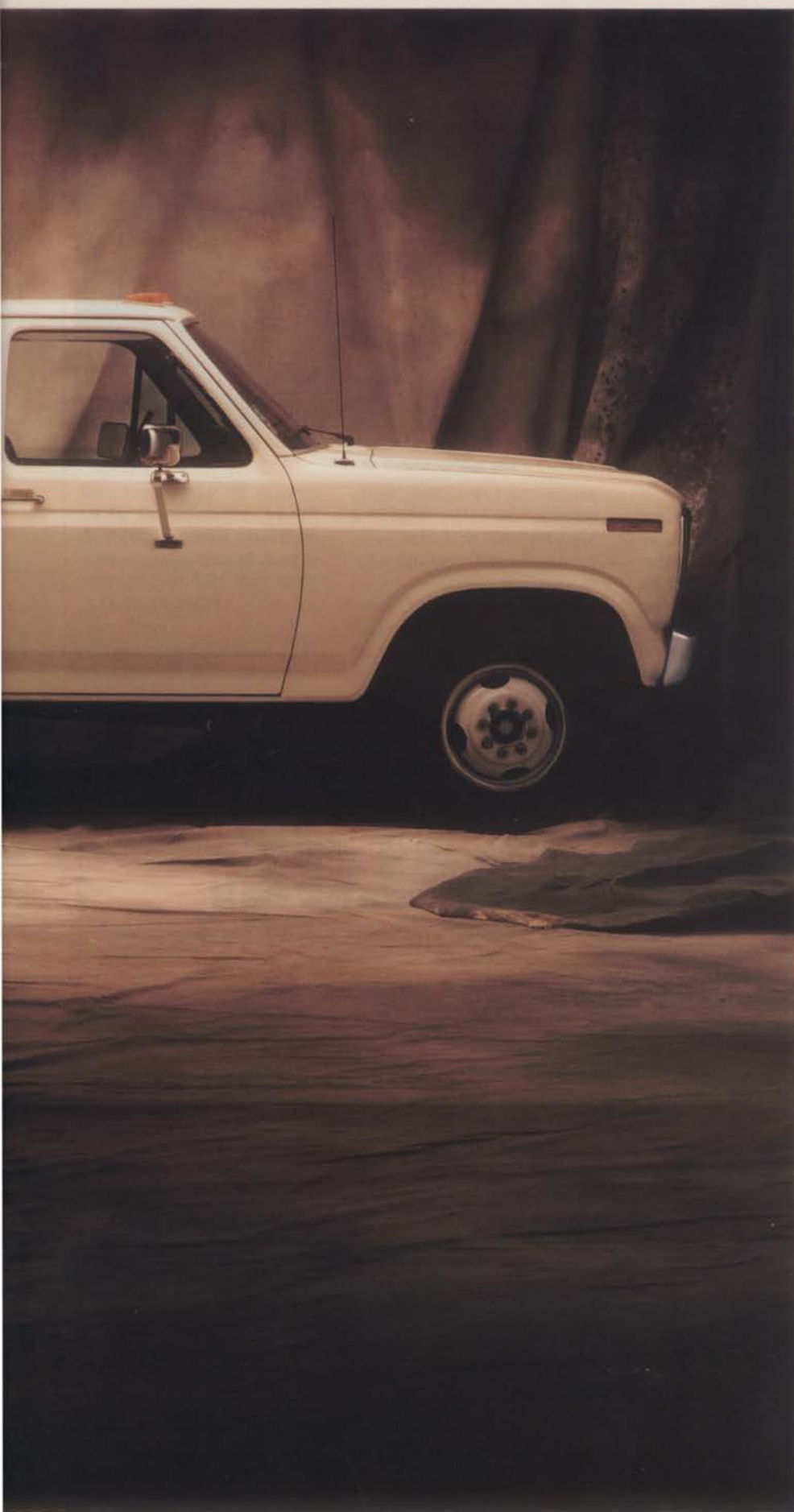
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Mowers

(continued from page 26)

to Richard Glass, owner, R. Glass Landscape Co., Roselle, Ill.

Glass has 140 walk-behinds to 10 riders.

"We have several riding crews that operate almost as free agents," he said. "They go from site to site mowing the large turf areas, leaving smaller areas and all the trimming, edging, weeding, etc., to the regular site crew."

The firm's accounts range from half-acre sites up to one 250-acre site. Glass personally prefers walk-behinds, but knows riders are important for staying competitive and landing big accounts.

Mike Choate, general manager, Plant Care Co., Dallas, Texas, realizes that and maintains 12 walk-behinds and three riders among his six maintenance crews.

"I want to use machines that are right for the site and get the job done," he said. "In our case it's mostly 36- and 48-inch walk-behinds because of greater versatility, but we have the riders for



Walk-behinds offer needed versatility for mowing around landscaped areas and in other tight spots, while riders lessen operator fatigue and can make slopes easier to cut.



our large accounts."

Sticking with the same size and even the same manufacturer, the company can have a standardized inventory of replacement parts and makes the job of reducing downtime much easier.

"Generally, walk-behinds don't have as many parts to break, and for the price of one rider you can

get two, maybe even three, walk-behinds," he said. "There's a place for both, but I think walk-behinds are still more adaptable to more situations."

But there are even situations that don't warrant either. Several of Plant Care's accounts are strip plazas or medical offices that have about a 20-inch stretch of grass

between the sidewalk and road. Pulling a walk-behind off the truck in those situations is a waste of time. In such cases, the company still has several push mowers. — David Westrick

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



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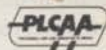
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SUCCESSING WITH MOWERS

*How does mowing enhance your service offerings?
Find out some successful maintenance operators have made mowing an
integral part of their service plans.*

COMMERCIAL MOWING services would, at first glance, seem to be a standard part of any landscape contracting package. Yet many firms that offer commercial mowing arrived at it by various, often non-traditional, paths.

In some cases, contractors started out mowing residential lawns, then branched into the commercial arena. Some started in residential, but later dropped it entirely to concentrate on commercial accounts.

Others began with landscape design and installation and added maintenance and mowing almost by chance because a customer asked them to handle it.

And, of course, there are those who aimed for the commercial segment of the market from the first day they cranked up their mower.

However they got their start, most contractors offering commercial mowing services have a number of key elements in common. These include smart scheduling with plenty of built-in flexibility to cope with unexpected shifts in the weather or surprise customer requirements; good hiring practices and incentives to help keep reliable employees on the job; and continuous marketing efforts.

Marketing is usually a combination of an energetic customer relations program involving personal contact, as well as external promotional activity such as participation in local business, community events and newsletters.

These help attract new customers for expansion or help replace those that inevitably fade away.

FOCUSED MARKET. Sam Russo of Sam Russo Landscaping, Bayville, N.J., provided almost all landscape maintenance services from the beginning, but quickly determined which services would help produce the best bottom line. Mowing turned out to be one of them.

Now, Russo specializes in mowing services for residential retirement communities. These comprise single residences within organized developments of up to several hundred homes. The communities are managed by a board of trustees, similar to a condominium homeowners' association.

Currently, Russo services communities with 9,000 residences although he's done as many as 14,000 in a single year. New Jersey, Russo said, has about 45 such retirement communities with 36,500 residences housing 65,000 senior — or at least retired —

citizens.

While Russo makes a profit on mowing services, diversification is still good business.

For example, he maintains a mower shop providing sales and service to area commercial contractors. Other plans call for him to manufacture specialized equipment for his own use and for sale to others. All this, he said, helps with the fall and winter slump in mowing activities.

Russo said he's learned it's dangerous to buy into jobs with low-ball pricing. If an opportunity doesn't fit in with his business plan or if it does, but can't be done at a profit, he lets it go.

CUSTOMER CONTACT VITAL. Customer relations is a key part of the Russo philosophy. When he takes on a new contract, he sends a letter to each homeowner in the development. Once service has started, complaints are logged on a computer and trucks are radio-dispatched.

Russo claimed 99 percent of the complaints are resolved the same day they're received.

He emphasized the importance of keeping in touch with individual homeowners as well as with decision-makers. He cited one case where trustees decided to switch to another contractor in

spite of a high level of satisfaction among residents. The new contractor's poor performance showed up quickly and Russo's firm was called back in.

"It's like handling a golf course with 1,000 people living on it," he said.

LOOK BEFORE LEAPING. Careful diversification is also working for Green Thumb Enterprises in Sterling, Va., outside Washington, D.C.

The firm handles landscape design, installation and maintenance. Though it started more than 12 years ago with residential mowing, today it's strictly commercial, according to partner Michael Daniels.

Diversifying, Daniels said, can be a two-way street. Green Thumb is often called in for landscape maintenance, then is asked to bid on a design project or to take in chemical treatment or irrigation work.

Scheduling is critical in mowing and other maintenance work, Daniels said, because of the labor-intensive nature, whereas in design and installation, material costs are the primary pricing elements.

"Weather is the complicating factor," he said. "When it's raining, you never hear from any



During intense work periods, it's not uncommon to see contractors working six-day weeks.

customers, but when the weather clears up, everybody wants everything right now."

The mowing season generally runs from May to October although preparation, including mulching, can start as early as February, said Gerry Chauvin, company president.

During the peak mowing season, crews work split shifts for the company to maintain a seven-day week. During this intense period, most employees work six-day weeks, although those who want can work seven days earning compensation at a later date.

BEING IMAGE CONSCIOUS. Green Thumb sends a periodic newsletter to customers and area managers keep a close eye on operations, including personal contact with all clients. The firm is strong on image, with uniforms and employee incentives in the form of competitive pay, benefits and, most important, Daniels said, career paths.

In a recent appearance on a local TV show, Michaels had a chance to stress the company's

philosophy of learning to make a profit while always delivering high quality services.

Green Thumb Enterprises has twice been named by *Inc.* magazine as one of the 500 fastest growing entrepreneurial companies in the United States.

Chauvin said the *Inc.* honor has been helpful in attracting attention and inquiries from prospects. The company also issues periodic news releases to local media.

The firm's good relationship with present clients like real estate developers who have projects in other areas has helped fuel Green Thumb's growth and expansion moves, Chauvin said.

He also said that he and Daniels are putting extra emphasis on new commercial maintenance accounts in the face of some slow down in new construction projects.

SINGLE CONTRACTOR GOAL. Reinhold & Vidosh, headquartered in Pontiac, Mich., is a somewhat larger firm with a wide geographic spread.

Rick Hearn heads the company's maintenance division which targets the larger high-end commercial sites who prefer that one contractor handle all details.

"We're able to meet almost all of a customer's site management requirements including site engineering," he said. "We're experienced enough to call in and work with outside specialists — a soil geologist, for example — when necessary."

The company handles many large accounts including several facilities for Ford Motor Co. It keeps a full-time staff — augmented when necessary — at what may be the largest landscape maintenance account in the country — the General Motors testing facility in Milford, Mich.

During the peak season, the company's maintenance division employs as many as 250, with snow removal helping level out winter schedules and manpower needs.

An annual exercise involves conversion of equipment from mowing to snow removal capabilities. Sometimes a snowstorm

or other surprise weather change upsets the conversion process, but the system's built-in flexibility can usually cope.

Reinhold & Vidosh was asked to handle landscape installation at two hotels in the Orlando area and this geographic reach has paid off, for the firm is now maintaining the two sites.

Hearn said that because maintenance and mowing is so labor-intensive, the company's extra effort in procedures and safety training is paying off. A current incentive program recognizes employees for outstanding performance in some specific areas such as customer relations.

It's not unusual that this particular quality is often detected in the employee when first hired.

"We work regularly with high schools and vocational schools to outline career possibilities in the landscape field, and of course, to help us attract high quality employees," he said.

Reinhold & Vidosh likes to grow its own managers and promote from within, "so we want

(continued from page 36)

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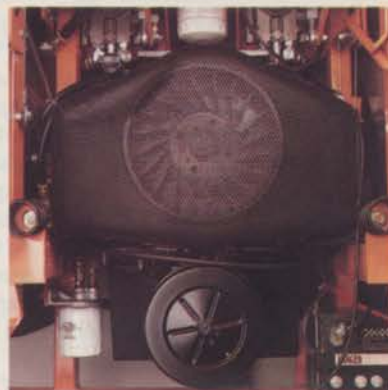
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Mowers

(continued from page 33)

to start with the right people in the first place," Hearn said.

The firm is also looking into the growing market for golf course maintenance. "We designed several courses, then won maintenance contracts for them. We see opportunities here because budget constraints are forcing many municipalities to look into privatizing some city operations," he said.

TWO GENERATIONS' EXPERIENCE. In Akron, Ohio, Frank Pugliese is operations manager for the R.B. Stout Co. which operates in a 70-mile radius of Akron and does 70 percent commercial business.

Mowing has always been part of the firm's commercial service, he said. Normal staff is about 55, including supervisors and mechanics.

"We've minimized our snowplowing service," Pugliese said, "so most employees are furlough-

ed during the winter, with supervisors staying on and helping oversee equipment refurbishing.

"Most of our people don't seem to mind, since crews work six-day weeks during much of the mowing season, going to five days once things are under control."

Crews can even be found working in the rain.

"But that's our policy," Pugliese said. "We don't say 'no' and customers know they can depend on us to handle unexpected or unscheduled jobs such as when a corporate customer has important visitors or a plant tour comes up on short notice. Consistent, dependable service and ability to respond rapidly is what customers are looking for, not the 'mow and go' operator."

Customer relations is also carried on via cards mailed out three times a year asking for comments, suggestions, even complaints. A monthly newsletter is distributed to all customers.

CLIENT CONTACT. Managers see each customer at least every other

week, although condominium and residential clients often require a more personal relationship.

"Sometimes it's harder to determine what this type of customer needs or wants, so close personal contact is especially important at the beginning of what you want to be a long-term association," he said.

The company sponsors employee incentives, with bonuses tied to meeting or exceeding goals such as hours on the job, level of customer complaints and incidents of damage to equipment.

Similar to other firms in some ways, but sharply contrasting in other ways is The Brickman Group, based in Long Grove, Ill.

In addition to three Chicago area offices, Brickman operates in the south Jersey-Philadelphia area; in northern New Jersey; in Baltimore-Washington; St. Louis; and Boca Raton, Fla., said Don Synnstedt, vice president.

While mowing was not part of the company's makeup for some years, a 1971 design-build-

maintain contract with McDonald's corporate headquarters in Oakbrook, Ill., put it back in the grass cutting business.

For maintenance work, emphasis is on commercial, multi-family residential and large single family homes. The company also handles some college campuses, including Lehigh University in Pennsylvania and George Mason University.

With such a large customer base and a correspondingly large number of crews to keep busy, scheduling is highly critical. During the peak growing season, mowing must be done every four or five days. Thus, by working a six-day week during the May/June period, schedules can be designed to provide open days so that rain, emergencies or special requests can be handled smoothly.

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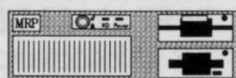
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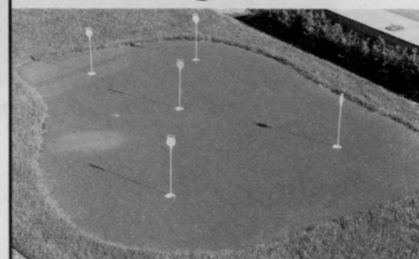
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reader service **34**

cost-effective.

Large customers are seeking partnership agreements with contractors who can give them a combination of quality service and cost-effectiveness, not just suppliers interested in low-bidding a job and delivering minimum service.

Bidding has also developed into a professional challenge, Synnestvedt said. He cited the three major components of a bid as:

- Items easy to specify and easy to inspect such as mowing.
- Items easy to specify, but hard to inspect such as weed spraying.
- Items hard to specify and equally hard to inspect such as proper pruning techniques.

As for incentives, Synnestvedt said, his firm found it easy enough to give bonuses based on short-term performance, but that current emphasis is on long-term goals with profit-sharing among all employees.

With that kind of incentive, employees will consistently contribute their best toward making the firm profitable.

Brickman is striving to keep a family orientation in spite of its size and is particularly proud of its success in helping develop immigrants into long-time employees or citizens who can successfully launch their own businesses.

ECONOMIC IMPACT. Two other contractors, both located in the Western U.S., also show marked contrasts. Within the past year, Ron Hutt, PermaGreen, Boise, Idaho, started up a commercial mowing operation by merging in his mowing service with the former lawn care operation.

Mowing is often the opening move with a client, followed by other services because of the widespread appeal of dealing with a single contractor.

Hutt cautioned anyone considering mowing services to analyze labor and equipment costs carefully and not try to buy into a job just to get started.

"Charge a fair price," he said, "and closely monitor how your employees are handling equipment. And let customers see that they can count on consistent, high quality service."

Hut thinks PermaGreen's Idaho location is fairly recession-proof,

citing a growing number of high technology firms starting up or moving into the area.

Denver's economy has been slow for several years, but may be starting a comeback, said Eldon Dyk of Allen Keesen Landscape. The firm has offered commercial mowing for more than 15 years and handles customers with grounds ranging from 2,000 square feet to an office park with 1.2 million square feet.

Peak summer mowing season requires about 80 people, with the staff reduced to 25 during the winter.

Mowing is often the introductory service offered a client followed by complementary services.

In many cases, Dyk said, furloughed employees come back year after year. Last year marked the lowest summer turnover ever, with more previous employees returning. He credited this at least partly to better interviewing

JUGGLING YOUR MOWING SCHEDULE

	SUN.	MON.	TUES.	WED.	THURS.	FRI.	SAT.
WEEK 1		MOW "A"		MOW "B"	MOW "C"	MOW "D"	MOW "A"
WEEK 2		MOW "B"	MOW "C"	MOW "D"	MOW "A"		MOW "B"
WEEK 3		MOW "C"	MOW "D"	MOW "A"		MOW "B"	MOW "C"
WEEK 4		MOW "D"	MOW "A"		MOW "B"	MOW "C"	MOW "D"
WEEK 5		MOW "A"		MOW "B"	MOW "C"	MOW "D"	MOW "A"

Open day for equipment repair, detail catch-up, rain make-up.

In each group of four crews, crew #1 starts on week one, crew two starts on week two, etc. Therefore one set of mowing equipment is available for repair, service or back-up daily.

Source: Brickman Group

which helps identify prospective employees most likely to be long-term workers.

As echoed by most contractors, personal contact with customers is essential. Dyk said weekly meetings are held with the primary contact at commercial ac-

counts and monthly meetings are scheduled for condominium homeowner associations or grounds or facilities committees. — Ben Warner

The author is a free-lance writer based in Sacramento, Calif.

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MAINTAINING MOWERS

Mowing maintenance managers know having a well maintained equipment fleet is vital to an efficient operation. The procedures they use for achieving that is where they differ.

ALL LANDSCAPE maintenance professionals realize the important role their equipment fleet plays in day-to-day operations.

The maintenance that mowers and other power equipment needs is the same for all landscape firms. What does differ, however, is the procedure by which equipment is maintained.

Different owners and managers have varying preferences for who is responsible for what and when they are supposed to do it.

IN-HOUSE MECHANICS? One major difference between maintenance companies is whether they have mechanics on staff or if the more involved repair work is farmed out to a service garage.

That decision is largely determined by economies of scale, said Arnie Sieg, vice president, The Bruce Company of Wisconsin, Racine, Wis.

"Typically, I would think smaller operators send their work out," he said. "But once you reach a certain volume, that's not feasible for a lot of reasons: cost, time and less company control."

Bruce operates two shops with a total of 10 mechanics.

Beyond sustaining a staff of mechanics, the company realizes the need for keeping them trained and



When turf needs cutting, it's up to the contractor to be there. A well maintained fleet is the only way to keep on schedule.



knowledgeable.

"Our shop foreman has attended quite a few schools conducted by equipment manufacturers," he said. "You really can't beat that training — straight from the people who made the equipment."

As with all maintenance operations, the No. 1 concern is keeping downtime to an absolute minimum. This can be achieved by keeping a stockpile of basic replacement parts.

"Downtime is always bad, but it's really inexcusable to have a mower out of commission because someone forgot to order oil filters or belts," Sieg said. "That kind of replacement should just be routine and the parts should always be there."

Having extra sets of blades falls into that category as well.

"We may have up to four sets of blades for each mower," he said. "This way it's not absolute-

ly crucial that they be sharpened immediately after being taken off the mower. It allows for some leeway and lets the mechanics take care of the more crucial needs first."

WORKING WITH LESS. While Sieg represents one end of the scale, Scott Wagner, owner, Landmark, Richmond, Va., operates without a staff mechanic and with a much smaller replacement inventory.

Wagner's hope is that this leaner, meaner approach will stress the need for foremen to be more attentive to and accountable for the equipment their crews use.

"We don't have an in-house mechanic because we don't want to create an outlet where foremen could simply come in, drop off a piece of equipment and say 'It's broke; fix it,'" he said. "We want a higher level of responsibility."

Wagner has devised a daily routine for crews to go through before taking equipment to a site. It involves checking the oil level, changing it once a week or every 100 hours, changing air filters every day and greasing all fittings on a daily basis.

To retain that crew and foremen accountability, specific equipment is assigned to each crew, Wagner said. Every piece of equipment has a color-coded de-

cal. One crew is green, one orange, one blue and so on.

Occasionally, because of the different account requirements, one crew needs to borrow equipment from another crew.

"The crew doing the lending has every right to expect it back in the same condition it was lent out in," Wagner said. "Operators and crews are responsible for properly using all equipment they come in contact with."

The differences between good and poor preventive maintenance are relatively easy to spot, according to Wagner.

"Typically crews that work at a more steady pace and still get work done according to specs are usually the ones who take the extra time to pay attention to the equipment," he said. "Those that end up finishing a job in a more harried, frantic pace are the ones who don't take that five or 10 minutes a day to look over the equipment and take care of the little things."

LESSEN FOREMAN LOAD. As with everything, there's more than one way to view a situation. At Lifescapes Inc., Canton, Ga., Bret Bowlin, vice president, grounds management, prefers to leave little of the maintenance concerns in the hands of his foremen.

"Everybody has a different philosophy, but ours centers around the thought that foremen have a great amount of details to deal with," he said. "They're concerned with the horticultural needs, customer requests and others. We want equipment to already be taken care of; ready and waiting for them."

What foremen are expected to do at Lifescapes, though, is follow through with the company's training and take a leadership role in properly using equipment.

When problems do occur, foremen complete a repair request form and submit it to the service department. Because the company's goal is overnight turnaround whenever possible, the mechanics usually work third-shift hours.

While that overnight mechanic work schedule is favored by many companies, Evergreen Services Corp., Bellevue, Wash., recently dropped it in favor of a more

conventional workday for its mechanic, said Greg McDonald, manager of maintenance operations.

"The idea of overnight service and reduced downtime was our motivation for doing that, but we found the lack of communication between crews and the mechanic as well as parts availability being zilch at 2 a.m. brought us back to a more conventional schedule," he said. "We were expecting the mechanic to work wonders and read our minds."

McDonald contends communication with the mechanic is crucial when setting priorities for what should be done first.

"The relationship between crews and mechanics is always adversarial; there's always finger pointing going on," he said. "It only gets worse when they never see each other."

PROPER OPERATION. Safety is a key issue everywhere. At Lifescapes, Bowlin operates on the theory that if equipment is being used safely, that means it's being used properly.

Beyond making sure equipment is used properly on the site, other steps can be taken. Crews are responsible for loading equipment on trucks in a logical way that reduces any chance of damage occurring during travel.

TRAINING, TRACKING, MONITORING. To ensure crews use equipment safely and properly, Reinhold & Vidosh, Pontiac, Mich., has developed a plan for tracking and monitoring equipment use, said Rick Hearn, vice president, administration and sales maintenance.

The first step in that process is a detailed training program that starts with videotapes and workbooks from several manufacturers and the Associated Landscape Contractors of America.

"Labor and equipment cover most of the capital investment a maintenance firm makes," he said. "If you throw them both in the field without familiarizing them with one another, you'll get a terrible return on your investment. Because workers weren't trained, equipment will be misused and require more repairs and faster replacement."

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Before Reinhold & Vidosh crews start work at a site, they have to complete a pre-operating checklist.

Likewise, at the end of the day the same things are checked again. Supervisors periodically inspect equipment for more serious needs. Routine maintenance is performed as specified and all equipment undergoes an annual inspection and upgrade.

When major problems arise and repairs are needed, the firm attempts to determine what caused the problem.

"We depend on feedback from the field supervisors and the mechanics working on the equipment to determine whether the problems were caused by blatant abuse, lack of proper training, misuse or wrong application," Hearn said. "Many of the things that go wrong with equipment can be eliminated or minimized. By identifying the origin of the problem, we can take steps to correct it."

INCENTIVES, MOTIVATORS. Having crews use good, well maintained equipment acts as a motivational tool for workers to do good jobs, Wagner said.

"Like so many other landscape contractors, we started small," he said. "But we started with new, quality equipment and continue to buy only new rather than used. You can't expect the same level of enthusiasm from workers if you hand them someone else's cast-offs."

At Kujawa Enterprises Inc., Cudahy, Wis., a "Neatest of the Fleet" award program has been devised. It applies just to vehicles, but may be expanded to include equipment as well, said Ron Ku-

Safety and training are critical before sending mowing crews out into the field.

jawa, president.

All trucks are randomly checked twice a month for appearance and safety.

Every month a neatest truck is chosen and all the workers in that truck receive coupons for area fast-food restaurants. Choosing that "prize" was quite deliberate, Kujawa said.

"Our biggest problem used to be with workers leaving fast-food garbage in the trucks, and everyone knows how bad day-old fast-food smells," he said. "This way we're telling them that as long as they keep the trucks clean we'll give them the fast-food — or at least a discount."

Names of all the monthly winners are placed in a drum for a year-end drawing. That drawing is usually for an item such as a TV, VCR or microwave.

The results have been good, Kujawa said.

Workers receive both an immediate incentive as well as a continued incentive to keep trucks neat, while the wear on the trucks has been reduced.

Realizing that keeping equipment in good shape is a constant process — and not one reserved for the beginning or end of the day or the off-season — Reinhold & Vidosh recently added decals to all equipment.

They read: "Remember, this equipment pays your wages." — David Westrick ■

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

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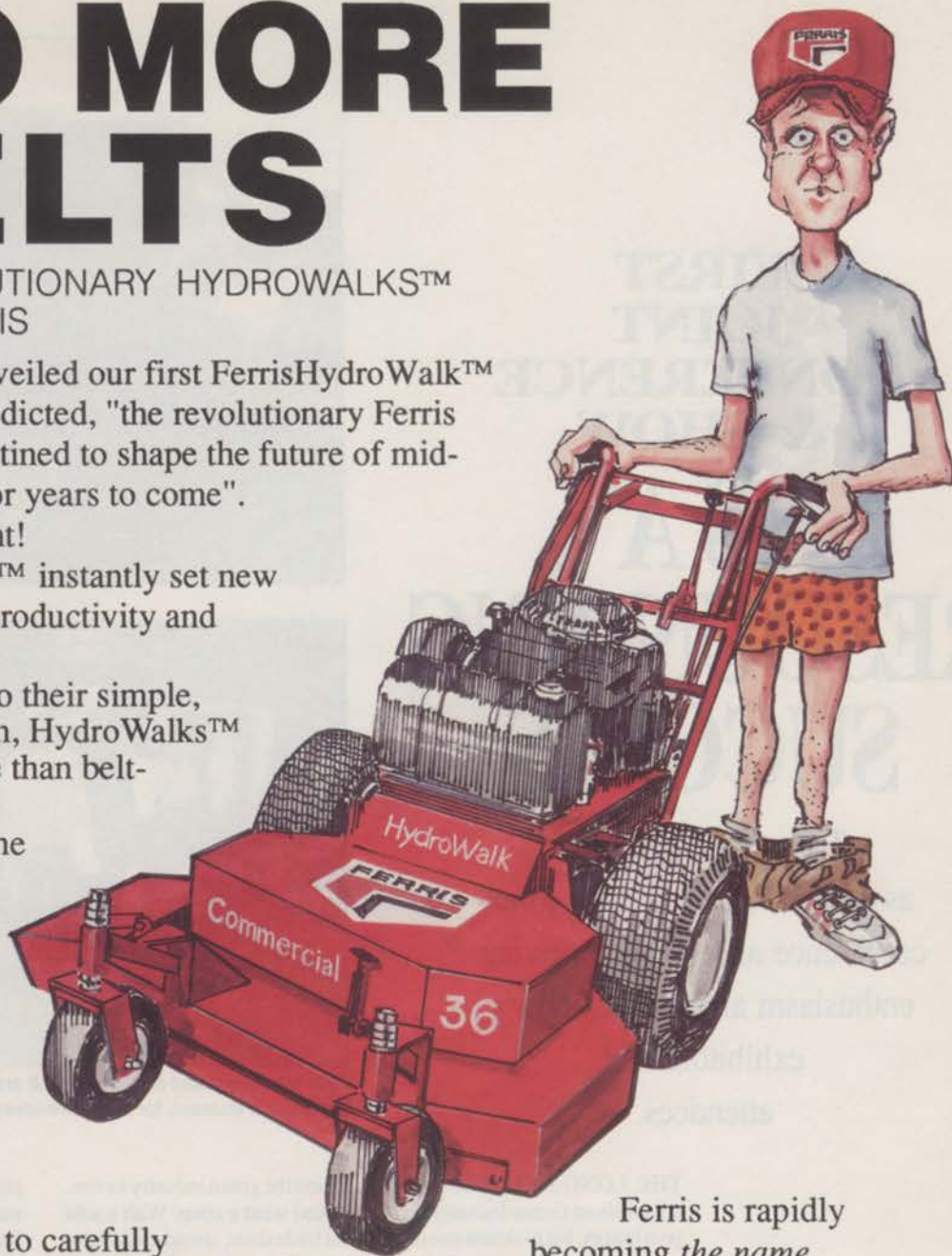
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FIRST JOINT CONFERENCE & SHOW IS A RESOUNDING SUCCESS

Three national trade associations pulled off a joint conference and show, renewing enthusiasm among the show's exhibitors and attendees.

THE LONG-AWAITED, much talked about Green Industry Expo is history, but to almost no one's surprise, the industry is still buzzing about it.

Generally feeling discouraged after the previous year's national shows, this year was a complete turnaround. More than 2,000 flocked to Nashville to enjoy the medley of seminars, product demonstrations and trade floor activities provided by the joint trade show.

Sponsored by the Professional Lawn Care Association of America, the Associated Landscape Contractors of America and the Professional Grounds Management Society, the conference and show marked the first time that three national associations repre-



Both the indoor and outdoor exhibit areas were well attended making the show a success for both attendees and exhibitors.

sented the green industry as one.

And what a coup. With a sold out trade show, attendees delighted in the number of product offerings, exhibitors were generally pleased with trade floor traffic and the associations were satisfied with first year attendance.

Many attendees commented on how the joint show renewed their enthusiasm for the annual conference and the industry in general. All three associations hope to capitalize on momentum generated by the show, and all have reported membership increases since the conference.

In all, 256 exhibitors filled more than 53,000 net square feet of floor space.

"We had an interesting market mix among user groups which

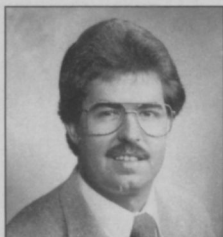
pleased most exhibitors — that was the whole intention," said Jim Brooks, GIE show director. "The show also provided a more interesting mix of products and services for attendees than ever before. It certainly enhanced the show."

Expo featured 10 exclusive trade show hours; generally considered to be enough. Although some attendees wished there had been more, most exhibitors were satisfied with the leads they received in the designated time.

Brooks added that the joint show dispelled the notion that members of PLCAA are only interested in chemical and members of ALCA and PGMS are only interested in equipment.

"Before the show, we still had a

DEANGELO HOPES TO GIVE PLCAA MEMBERS MORE FOR THEIR BUCK



DeAngelo

PLANS TO STABILIZE membership and give members more programs for their dues are top priorities for Neal DeAngelo, new president of the Professional Lawn Care Association of America.

And as if to confirm his beliefs, about a dozen green industry representatives recently held a two-day strategic planning meeting to define the association's role and lay the groundwork for the next five years.

And although 1991 is going to be a year of revamping and stabilizing the PLCAA, the mission statement of the 11-year-old association is clear: PLCAA will represent the chemical lawn care industry.

"We (strategic planning group) revisited the mission statement of the association and asked the question 'Who does PLCAA represent?' The answer came back that it wasn't any different than when the association was founded," DeAngelo said. "After a full discussion there was a consensus that PLCAA should still represent chemical lawn care. We recognize that companies probably will do many other services besides chemical lawn care, such as mowing maintenance, irrigation, landscaping, even some services outside the green industry, but we recognize and we want to represent the chemical lawn spray portion of their businesses. So PLCAA will not change who it represents."

PLCAA cannot be all things to all people. Unlike a business, an association is put together to represent an industry, DeAngelo said.

"It's goal is not to be a 10,000-member association with a \$10 million budget. It's goal is to bring together a conference and show, have education and insurance programs and develop camaraderie among members," he said. "That's the reason for an association and PLCAA can only represent the chemical lawn care portion of the industry right now."

"We would do our members and any new members a big injustice by trying to offer services to mowing maintenance firms, to landscape firms, to irrigation firms and whomever else. We don't have the right programs and services for the chemical lawn care people we're suppose to be representing and don't even represent the number of members that we can and should in this industry. We represent some 800 or so members and there's

little of the wait and see attitude among exhibitors, but we proved a lot this year and I think word will travel," he said.

All three associations are counting on the show to grow this year in Tampa, Fla.

"It was a complete turnaround from last year," said Debra Dennis, ALCA executive director. "Everyone was enthusiastic from day one. People really felt like they were a part of something special."

"I can see nothing but pluses," said Allan Shulder, PGMS executive director. "We took two entities on their way down and made a healthy patient."

Ann McClure, PLCAA executive vice president, said the show's success was a result of

synergy. "The tone was set from day one. Attendees and exhibitors realized this is where it's at," she said. "Everybody wanted it to work."

Although the show had trouble attracting exhibitors from the nursery and irrigation fields, representatives from several firms in each field were in attendance and some have already made plans to exhibit next year.

Shulder accepted responsibility for a lack of nursery representatives at the show, but said he believes there will be sizable representation this year.

"Several of them walked the show and said they would be in Tampa," he said.

According to Brooks, there's no reason why they shouldn't take an

something like 6,000 chemical lawn care companies in the United States, so to get involved in diversifying and trying to represent these other interests would be an injustice to PLCAA and its members."

A mix of suppliers and operators were involved in strategic planning. The plan is expected to be approved by the board this month.

DeAngelo's main goal as PLCAA president is to stabilize membership. Since 1987, PLCAA has lost members three years in a row.

Membership reached its peak in 1987 with 1,324 members. Currently it hovers around 1,000, although DeAngelo would eventually like to see it reach 1,500.

"If I see our membership stabilize, I will feel successful. Hopefully it will increase, but I want to at least stabilize the declining membership through a few different things," he said. "We'll have the insurance program in place, we'll have education programs, and we'll have at least one new product this year. If we can accomplish these things, it will be a good year."

Restructuring the association's dues also ranks high on DeAngelo's agenda. PLCAA raised the dues of its members in 1989 — a minimum increase of 100 percent and as much as 667 percent for some members.

Dues were doubled strictly to fund the issues management agenda which included a lobbyist in Washington, D.C. Although some plans didn't come to fruition, PLCAA did hire Tom Delaney, director of governmental affairs, and Sandy Hensel Marting, director of public relations.

Members will probably see another dues change, but it'll be a creative dues structure, maybe including a category for renewing members vs. new members, according to DeAngelo.

"My main concern is that we have the support of our members as we go through this transition because it's the only way we can keep this national association strong and continue to grow and offer more services and programs as well as lower dues," he said.

DeAngelo also hopes to strengthen the relationship between PLCAA and state chapters including coordinating education programs.

In 1991, PLCAA will offer 14 summer seminars. More will depend on whether a new director of education is selected to replace Barry Troutman who resigned last June to become director of operations for Green Up Lawns, Orlando, Fla. The position has since remained vacant.

All three associations are counting on the show to grow this year in Tampa, Fla.

interest. "About 70 percent of what is sold in the green industry rests outside the golf market, but we're not getting the publicity," he said.


In addition, representatives from the Sports Turf Managers Association and the American Sod Producers Association viewed the conference and show for possible participation, Brooks said.

"There could be some benefit both educationally and on the trade floor that we can take a look at," he said. "It could give our members additional value."

No size limit has been placed on the show, but the steering committee hopes to increase the size incrementally. Although slightly conservative, plans for next year's show call for the indoor exhibit area to reach 62,000 to 65,000 net square feet.

With all of the regional shows

(continued on page 46)



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GIE Show Coverage

(continued from page 43)

starting to compete, the Green Industry Expo needs to offer as much as possible, said Doug Moody, PLCAA deputy executive director. "It becomes like a magnet, the more things you have going on, you'll draw more people."

A number of attendees were first-timers or non-members, Dennis said. The interest was attributed to a strong educational program, larger trade show and location. Nashville is within one day's drive of more than half of the country's lawn and landscape maintenance firms.

Although attendance was up — 1,300 attended PLCAA in 1989 and 250 attended Green Team last year — single firms tended not to bring as many representatives than in the past because of the economy. Others, however, chose to register at least one person with PLCAA and one with the Landscape & Grounds Management Conference sponsored by ALCA and PGMS to gain access to both educational conferences.

As expected, there was some cross-over of attendees into concurrent sessions.

Whether a sign of increased competition or a sign of professionalism, most educational sessions were standing room only. The "Breakfast of Champions," sponsored by ALCA and PGMS, was a prime example as attendees had to be pried away from the valuable discussions to attend other sessions, Dennis said.

"They're getting more and more successful. Attendees said what they learn here more than paid for the cost of their trip," she said.

The breakfast meetings were held each of the three mornings. The get-togethers have been a popular function for three years.

PLCAA had success with a similar concept: business sharing sessions for growing the small and medium sized companies. Three sessions were held concurrently discussing chemical lawn care, landscape and mowing and full service offerings. A panel led off each discussion followed by a candid discussion from the audience on each of the business topics.

The sessions gave contractors an opportunity to share successes and frustrations with one another.

"Some of the new and smaller companies are timid about sharing ideas in the hallway and may feel more comfortable in an open forum discussion," Brooks said.

A strong educational program, larger trade show and location spelled success.



And while the associations tried to remain autonomous by offering two separate educational sessions, talk following the conference suggested that one joint conference will be held next year. It would end some confusion caused by two registration areas and two programs and allow for a joint opening session.

A merger of the educational sessions shouldn't threaten the individual identities of the associations because they'll each maintain their own awards banquets, business meetings and welcome receptions among other things.

"It'll take a lot of massaging, but it's doable," Dennis said.

A "Speak Easy" reception designed to attract non-members to PLCAA was a huge success. Drawing twice the crowd anticipated, the association signed up 47 members at the reception and

The real differences between equipment are found at the outdoor demo.

a total of 97 throughout the course of the show.

The Speak Easy was hosted by *Lawn & Landscape Maintenance* magazine.

The live auction to support Issues Management raised \$20,000. In previous years, PLCAA held silent auctions to support the issues management fund, but this year found success with live auction complete with auctioneer.

OUTDOOR DEMONSTRATION.

Unlike previous years, a nice day was on hand for the show's outdoor equipment demonstration. With 50 exhibitors and more than 500 attendees, maintenance operators had the chance to try out equipment they saw on the trade floor. Many demonstrations turned into sales.

For ALCA and PGMS members, this was the first time they've had the opportunity to attend an outdoor demonstration at their national show. Although many didn't attend because they weren't used to the idea, Dennis said, she expected those numbers to increase next year.

"Many of our members were enthusiastic and were making buying decisions on the field," she said.

OPENING SESSIONS. Both conferences chose motivational speakers to address show attendees and both speakers met with enormous response.

RISE PRESENTS UNITED FRONT

THE SPECIALTY pesticide industry has united to form a new organization called Responsible Industry for a Sound Environment.

RISE, formed by key basic manufacturers, formulators and distributors after a series of meetings, will function as an umbrella organization addressing the issues affecting the \$1.3 billion industry. It'll be an autonomous standing committee within the National Agricultural Chemicals Association.

The group was initiated by an industry need for a unified voice to communicate the environmental, health and safety benefits of the proper use of pesticides, according to the steering committee.

"We are constantly bombarded by federal, state and local issues, regulations, legislation and misinformation," said Bill

Liles of Ciba-Geigy. "This constant attack on our industry has cost us all valuable resources. In most cases, our defense has been weak and poorly focused due to a lack of a central, coordinated effort. Because of this fragmented effort, we have formed RISE to contend with the challenges facing our industry."

The steering committee includes: DowElance, Ciba-Geigy, Mobay, Monsanto, ICI, The Andersons, Lebanon and O.M. Scott & Sons.

The search for an executive director to manage the organization and its proposed \$440,000 budget is under way, and RISE hopes to hire someone as soon as possible. After a director is in place, a membership drive will begin immediately, according to Allen Haws of Mobay.

"It's a challenge, but the industry seems very much behind us," Haws said. "We're all in the same boat and I think we'll complement one another."

Bill Culpepper of DowElanco said the budget could change yearly depending on what the organization wants to tackle.

A key strategy of RISE is to proactively educate local and university people, the EPA, USDA, OSHA and others who play a role in the use of pesticides.

Manufacturers; formulators; distributors; associations; universities; end-users including landscape contractors, nurserymen, arborists, consumer lawn and garden marketers, lawn care operators, golf course superintendents and pest control operators; and the trade media are among those who will be asked to participate in RISE.

KMART PROMOTION GIVES GRASSCYCLING NATIONAL EXPOSURE

THE PROFESSIONAL LAWN Care Association's grasscycling program received a significant boost when Kmart Corp. announced it would support the seven-month-old program.

Kmart, the second largest U.S. retailer, will incorporate the program's logo, slogan and environmental message on package labeling for its line of Super K-Gro Lawn and Garden products.

Slated to appear early this year, the new labeling will be included on all packaged items — bottles, cans, boxes and bags — of Kmart household plant products, liquid and granular fertilizers and insecticides, according to William Chilcutt, Kmart buyer for horticulture and decorative flowers.

"It's a very important accomplishment for the association; a real step forward," said Sandy Hensel Marting, PLCAA director of public relations. "It's the first time a retailer has cooperated with us on a specific program to educate the public. It's an important step in promoting lawn care professionals as experts."

PLCAA's campaign, "Grasscycling: Today's Turf — Tomorrow's Earth," was developed to encourage the natural recycling of grass clippings by leaving them on the lawn when mowing. Not only

Alan Cimberg addressed a standing room only crowd at the opening of the Landscape & Grounds Management conference on the art of selling.

"More than 75 percent of sales calls are doomed even before a salesperson comes face to face with a buyer," Cimberg said.

Most sales will improve significantly if four goals are achieved: selling ourselves, selling our company, selling our services or product and selling our prices.

In addition to excitement, the key

to selling is finding out what the customer is looking for.

"When you face your customers and ask them 'How can I help you?' you'll triple your sales," he said. "Find out what's important to your prospect and give it to them."

Of course the customer wants the cheapest price, but they're also willing to pay for what they want. "Listen twice as much as you talk," Cimberg said.

Michael LeBoeuf, author of "How to Win Customers and



Alan Cimberg addresses a capacity crowd of landscape contractors (left). Jim Brooks receives an honorary PLCAA award (below).



Rick Steinau and Peter Machin promote grasscycling.

does this recycle important nutrients into the soil, it eliminates tons of grass clippings from filling valuable landfill space.

The Andersons, Maumee, Ohio, originally presented the concept to Kmart because they thought grasscycling and Kmart's commitment to enhance and preserve the global environment were a natural fit, according to Peter Machin, manager of sales and marketing for The Andersons' lawn fertilizer division.

PACE Membership Warehouse Clubs, a division of Kmart, will also carry the grasscycling logo and, Marting said, she expects several other retailers to follow suit.

In addition to national exposure, more than 200 PLCAA members have expressed interest in using the logo in their promotional efforts as well as on their equipment.

Members must first sign a license agreement and send samples of everything they put their logo on, Marting said.

Cities and county extension agents have also contacted PLCAA to get involved in the grasscycling campaign. Some have even decided to join the association.

Keep Them for Life," is recognized internationally as a customer service expert.

"Are nice customers ruining your business?" LeBoeuf asked those attending PLCAA's opening session. "They don't say anything to you, but leave if things aren't going their way."

A business generally hears from only 4 percent of its dissatisfied customers; 96 percent go quietly away and 91 percent never come back.

"The single greatest key to suc-

"It was a complete turnaround from last year."

cess is relative perceived quality as perceived through the eyes of your customers," he said.

Quality is often so rare because employees don't know the basics. "You mishandle a complaint and never hear from that particular customer again.

"Excellent service is a survival shell not a competitive edge," Le Boeuf said.

FUTURE GIE SHOWS. Tampa represents the second year of the two-year agreement between the three associations. However, it's expected that a contract for a third year will be signed late this month. If all goes according to plan, the 1992 show will be held in Indianapolis. — Cindy Code

The author is Editor of Lawn & Landscape Maintenance magazine.

FREEZING RESISTANCE OF SOUTHERN TURFGRASSES

While it's preferred to prevent rather than correct injury, sometimes it's impossible. Recovery can be hastened by transplanting small sod plugs, mowing at higher heights to encourage growth and regular fertilizations.



Freezing study showing greenhouse regrowth.

MANY LAWNS IN THE Southern U.S. were severely injured by temperatures at or below 0 degrees Fahrenheit during the winter of 1989-90. As a result, many lawn and landscape maintenance operators responded to numerous calls from homeowners concerned about lawns that failed to green-up in the spring.

Preventive treatment can go a long way in reducing turf stress and successful spring green-up.

Warm-season turfgrasses used on home lawns in the South include zoysiagrass, bermudagrass, centipedegrass, St. Augustinegrass, bahiagrass and carpetgrass. In areas of the South where summer night temperatures drop below 70 degrees Fahrenheit, some cool-season grasses such as tall fescue are also employed.

Because cool-season grasses generally suffer little winter injury in the Southern U.S., this discussion will focus on grasses that prefer warmer temperatures.

ADAPTATION. Warm-season turfgrasses have an air temperature optimum of 80 to 95 degrees Fahrenheit for vegetative growth. When temperatures drop below 60 degrees Fahrenheit, little growth of warm-season grasses occurs. Plants enter dormancy at about 40 degrees Fahrenheit. During cold periods of the year, dormant warm-season turfgrasses exhibit a brown or bleached appearance.

Because they are best adapted to warm climates, warm-season grasses are less tolerant of freezing temperatures than cool-season grasses such as tall fescue, Kentucky bluegrass, perennial ryegrass, creeping bentgrass and fine fescues. The relative cold tolerance of warm-season grasses is indicated in Table 1.

Killing temperatures represent the lowest reported temperatures at the tissue level that result in death. Some grasses, such as bermudagrass and zoysiagrass, form rhizomes (underground stems) that are well protected from frigid winter temperatures by the insulating effect of soil. Other grasses, such as St. Augustinegrass and centipedegrass form only stolons (aboveground stems) that are more susceptible to injury during cold winter days.

Therefore, bermudagrass is considered to have better cold tolerance than centipedegrass, although centipedegrass crowns

(continued on page 50)



Winter injury to thatchy St. Augustinegrass.



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can generally survive lower tissue temperatures.

Buffalograss and blue grama are low maintenance warm-season grasses that can be found growing in prairies as far north as North Dakota, and as far south as southern Texas. Both grasses are quite drought tolerant and are best adapted to dry climates. Neither is used extensively in home lawns.

Buffalograss forms only stolons, yet is probably the most cold tolerant warm-season turfgrass grown in the United States. Therefore, growth habit alone does not determine cold tolerance since other physiological factors are also important.

'Meyer' zoysiagrass has good cold tolerance and is often grown in the Midwestern U.S. where cool-season grasses do not perform well in the summer heat. Cold winter temperatures rarely cause injury to 'Meyer' zoysiagrass. Other zoysiagrasses, such as 'Emerald' and *Zoysia matrella*, are more susceptible to freezing injury.

Bermudagrass cold tolerance is quite variable depending upon the variety selected. For example, common bermudagrass may be severely injured when rhizomes experience a temperature of 20 degrees Fahrenheit. However, 'Midiron,' a cultivar developed at Kansas State University, has survived rhizome temperatures below 13 degrees Fahrenheit.

'Tifgreen' and 'Tifdwarf,' bermudagrass cultivars used on putting greens in the South, have only moderate freezing resistance, and injury was substantial as far south as New Orleans, La., in 1989.

Centipedegrass has poor freezing resistance, and its use is limited to the deep South. Centipedegrass freezing injury is more likely when it has been overfertilized or mowed too high causing thatch to accumulate. Preventing or removing thatch from centipede lawns will reduce the risk of winter injury.

The use of seashore paspalum is limited primarily to areas of the South having high soil salt levels. Research has indicated that it survives tissue temperatures no lower than about 19 degrees Fahrenheit.

COLD TOLERANCE OF WARM-SEASON TURF

Relative Cold Tolerance	Grass	Relative Killing Temp. (F)
Excellent	Buffalograss	-10
	Blue grama	-10
Very Good	Zoysiagrass ('Meyer')	6
Good	Bermudagrass	19
Poor	Centipedegrass	11
	Seashore paspalum	19
Very Poor	St. Augustinegrass	23
	Bahiagrass	23
	Carpetgrass	23

Table 1. Relative cold tolerance of warm-season turfgrasses, and the lowest estimated temperature resulting in death of the growing point.

St. Augustinegrass is a popular turfgrass throughout the Gulf Coast region of the United States. Considered the least cold tolerant of the warm-season turfgrasses, substantial losses of St. Augustinegrass occurred during the winter of 1989.

Research at Louisiana State University showed that 'Floritam' St. Augustinegrass was injured at temperatures above 20 degrees Fahrenheit when evaluated monthly between December and March. 'Raleigh,' a cultivar used extensively in Louisiana, seems

to survive cold winter temperatures.

Bahiagrass and carpetgrass are low maintenance grasses used in the deep South that also have poor freezing resistance. Although no research has been done to determine low killing temperatures for these grasses, their region of adaptation is similar to that of St. Augustinegrass.

In Louisiana, St. Augustine lawns that were injured during the 1989-90 winter had poor cover in the spring and were susceptible to invasion by weeds such as com-

mon bermudagrass, goosegrass and crabgrass.

range to encourage growth of lateral stems and fertilizing regularly with a high nitrogen fertilizer to encourage growth.

Ideally, freezing injury to turfgrasses should be prevented rather than corrected the following spring. During periods when unusually low temperatures occur, however, extensive injury to some grasses, such as St. Augustinegrass, may be inevitable.

The risk of severe freezing injury to any turf area can be reduced by employing proper cultural practices or by manipulating the turf environment. Cultural and environmental factors that influence the freezing resistance of warm-season turfgrasses include:

• **Mowing.** Although often overlooked, turf mowing practices can have a significant effect on the ability of grasses to survive cold winter temperatures. Generally, turf areas maintained at the higher end of the recommended mowing range will be at less risk of winter injury.

For example, St. Augustinegrass mowed at 2.5 inches throughout the growing season will probably exhibit greater cold tolerance than if mowed at 1.5 inches. Greater leaf area afforded by mowing high allows the plant to accumulate carbohydrate reserves during fall acclimation. Carbohydrates have been shown to serve an important role in improving the freezing resistance of some grasses.

• **Shade.** Grasses growing in shady areas are generally more susceptible to freezing injury than those in full sun. Turfgrass plants in the shade have lower carbohydrate reserves going into the fall due to lower light levels and, consequently, less photosynthesis.

Furthermore, turf in shade must compete for water and nutrients and may be suffering drought stress or a nutrient deficiency. These stresses may predispose the turf to additional injury during freezing. Thin branches or remove entire trees to reduce shade stress to turf areas.

• **Nutrition.** Turfgrass nutrition, particularly nitrogen and potassium, is important to reducing the susceptibility of warm-season grasses to freezing injury. Nitrogen promotes growth and thereby increases plant cell water content.

Plants containing more water are susceptible to freezing injury.

The risk of severe freezing injury to any turf area can be reduced by employing proper cultural practices or by manipulating the turf environment.

to have better freezing resistance than 'Floritam.'

Air temperatures during the last week of December 1989 dropped below 10 degrees Fahrenheit in southern Louisiana. Therefore, St. Augustinegrass growing in home lawns, commercial landscapes and sod fields was partially or completely lost in some cases. Research is continuing at LSU to identify St. Augustinegrass varieties that are better able

mon bermudagrass, goosegrass and crabgrass.

RESURGENCE. Spring recovery of lawns injured during winter can be hastened by: moving small sod pieces (plugs) from out-of-sight areas to fill areas that have lost, using a preemergence herbicide to prevent germination of summer annuals favored by the loss of turf cover, mowing at the higher end of the recommended

Therefore, fall nitrogen applications to warm-season turfgrasses are discouraged to allow plants to "harden off." Fertilizers high in potassium are commonly advertised in late summer and fall as "winterizers."

Turfgrasses growing on soils low in potassium, or on sites where high levels of nitrogen have been applied late in the growing season, will likely benefit from the added potassium. On sites where a soil test indicates moderate or high levels of potassium, however, application of additional potassium in the fall may have little effect on freezing resistance.

It's likely that a centipedegrass plant growing on a soil testing high in potassium will have a similar potassium level in tissue as a plant growing on a soil containing moderate levels of potassium. More research is needed to determine the effects of potassium on winter hardiness.

A good rule of thumb is to keep all essential plant nutrients at adequate levels throughout the growing season.

•**Thatch.** As discussed previously, accumulation of more than 0.5 inches of thatch in any warm-season turf area can reduce cold tolerance. Crowns of plants growing in thatch become elevated, and are more exposed to harsh environmental conditions.

A bermudagrass growing point

these sites by topdressing, vertical mowing or aerating.

•**Traffic.** Warm-season grasses growing on areas that receive heavy traffic will be more susceptible to winter injury than those on low traffic areas. Foot or vehicular traffic results in soil compaction and may also directly in-

accumulate water and turfgrass plants often pick up more water than needed, which may result in greater freezing injury.

Often, little winter damage is noticeable on hills or well drained areas, but at the base of hills, where water accumulates, severe freezing injury occurs. Improve surface and subsurface drainage to reduce the risk of winter injury to warm-season turfgrasses.

Homeowners establishing new lawns that have lost turf due to freezing injury in the past should select turfgrass species of varieties that have better tolerance to low temperatures. Specific information on the best turfgrass species and varieties for your area is available through state cooperative extension offices.

Sound cultural practices should also be manipulated to maintain vigorous, healthy turf throughout the growing season and reduce the risk of winter injury. — Jack Fry ■

The author is a member of the department of horticulture at Louisiana State University, Baton Rouge, La.

Improve surface and subsurface drainage to reduce the risk of winter injury to warm-season turfgrasses.

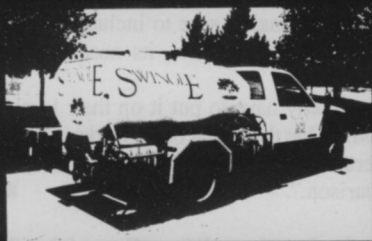
that is elevated 0.5 inches above the soil surface will be exposed to lower temperatures than one growing on the soil surface. Turf on thatchy sites is also more susceptible to scalping, drought stress, insects and diseases, all of which may predispose the turf to freezing injury. Reduce thatch on

jure plant crowns.

Both soil compaction and injury resulting from wear stress weaken the plant and increase the likelihood of winter injury. Traffic problems may be lessened or alleviated by aeration and/or controlling cart or walking patterns.

•**Drainage.** Soils that drain poorly

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Focus on Trees & Ornamentals

PERCEPTION VS. REALITY:
HOW MUCH FERTILIZER DO TREES NEED?

"IF YOU RETAIN only one thing from this seminar today, make sure it's that trees, not unlike humans, need air and nutrients to survive." So said Terry Tattar, professor of plant pathology, University of Massachusetts, Amherst, Mass., at a recent tree fertilization seminar sponsored by the National Arborists Association.

One of the biggest hurdles facing those providing tree care is the public perception that trees can survive on their own, Tattar told a group of about 70 landscape contractors and tree care professionals gathered at the Holden Arboretum outside Cleveland, Ohio.

"You've probably all faced a person claiming trees survive in the forest without fertilization or help from man," he said. "It's a common, but flawed argument."

Trees in urban and suburban landscapes differ greatly from their counterparts in the forest. They have many more stresses to withstand. Most prevalent among them are smaller growing spaces and pollution. Man-made hindrances such as these have to be answered through added attention.

Those man-made problems are compounded in situations that place trees in containers, said Elton Smith, extension horticulturist, The Ohio State University, Columbus.

An increased number of contained trees have shot up in downtown areas in the last several years as property owners and developers attempt to spruce up buildings and their surroundings.

"If the people who put trees in such restrictive environments as containers knew how hard it was to take care of them, they probably would quit doing it," he said.

Typically, trees in containers need twice the fertilizer, suffer more easily from soil compaction and leaching and are difficult to aerate, according to Smith.

When possible, Smith advised, tree care and maintenance professionals should attempt to discourage designers from such applications. In the long run they become expensive because of frequent replacements.

FOLIAR ANALYSES. Smith also advocated the use of foliar analyses to better understand what the trees you care for need.

These analyses can be used in two ways.



Plant fertilization needs vary with the region.

The first is as a diagnostic tool. This confirms the presence of deficiencies or excesses. The second use is to monitor a fertilizer program to make sure problems are not occurring.

For the most accurate results during an examination, use the most recently matured leaves. Don't pick new shoots that aren't completely developed; they won't present an accurate representation. The best time for taking leaves from deciduous trees is between June and September.

According to Smith, some basic signs indicating insect problems are: gnawed leaves, malformed young leaves, signs of borers or even loose bark and insects below the ground or on major roots.

For disease problems, you should look for tissue discoloration on leaves and dead or discolored bark and pustules on twigs and branches.

Most state extension services will provide foliar analyses at a minimal charge, Smith said.

An outside demonstration where Smith asked about 12 attendees to tell him what was wrong with several trees proved his point that scientific tests need to be run on specimens from the tree.

"You'll typically come up with about the same number of answers as the number of people asked," he said. "There are many possibilities."

Along with the task of convincing people of the need for fertilization comes the responsibility of properly fertilizing trees, Tattar said. The need varies depending on geographical regions.

To avoid confusion caused by high figures, always divide the N-P-K configuration by the lowest number, Smith advised. For example, an 18-6-9 would become a 3-1-1.5.

This makes choosing the proper fertilization easier. For example, Ohio and other parts of the Midwest need twice as much potassium as phosphorus and up to three to five times as much nitrogen as phosphorus.

Of course, another option is capsule injections. Lauren Lanphear, vice president, Forest City Tree Care, South Euclid, Ohio, demonstrated an injection process.

Micronutrients, fertilizers, fungicides, insecticides or antibiotics can be injected into tree trunks.

The capsule system provides effective pest control without spraying, but does invite other problems if not performed properly, Lanphear said. Being properly trained and following label instructions is crucial because you are pounding into the trunk. If the capsule holder is hammered in at the wrong angle, the pesticides won't find their way to the roots.

MARKETING TIPS. Lanphear also shared some of his company's marketing techniques, acquired in its 80 years in tree care, that has helped convince customers that trees in urban settings need extra attention.

Much of that effort involves simple repetition. In quarterly newsletters to customers, the company makes sure to include several references to fertilization, its need and its benefits.

"You really have to put it on their level," he said. "One thing that often works is using the 'fertilization is to trees as food is to humans' comparison." — David Westrick ■

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

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Focus on Seeding

Volatile Market to Sway Bluegrass Consumption

WHILE THE FIELD Seed Institute estimates the total U.S. crop of Kentucky bluegrass to be 71 million pounds — 60 percent common; 40 percent proprietary — predicting consumption is much more difficult, said Gayle Jacklin, marketing representative for Jacklin Seed, Post Falls, Idaho.

For the past several years, proprietary consumption has been estimated around 48 million pounds, but several factors will impact that figure.

These include: An increased use of common varieties, a decline in housing starts from what was predicted, excellent Midwest growing conditions that lead to less overseeding, a booming Japanese market with new golf course construction and a 20-million pound carry over from last year.

For operators, much of this is good news because Jacklin also reports the price has dropped from \$130 per hundred pounds of seed four years ago to the mid-\$30s today.

Early indications show this year's crop should yield a good amount of seed if the existing acres produce an average crop, she reported.

Adikes Bought By Dutch Firm VanderHave

J & L Adikes Inc., owners of Adelphi Kentucky bluegrass and All*Star perennial ryegrass, was sold in mid-December to VanderHave USA Inc., a division of Royal VanderHave Group, Kapelle, The Netherlands.

"There are immediate benefits for the firm in regard to research and development," said Bob Russell, former owner and CEO. "VanderHave has an expansive research facility in Holland."

Russell will remain with the company for one year as a consultant.

VanderHave purchased Adikes to enter the Northeastern turf market, said Mike Hughes, executive vice president.

VanderHave's U.S. arm is headquartered in North Dakota. Its turf and forage division includes four other seed companies in the Midwest and West.

Hughes said new seed varieties will be developed by Vanderhave exclusively for Adikes, but 1992 will be the earliest they'll be widely available.



Green Seal Marks Superior Genetic Traits

Jacklin Seed is launching new quality standards in the grass seed industry by singling out turfgrass varieties that have superior genetic characteristics and those with diminished environmental impact. Jacklin's Green Seal of Quality will mark each variety that meets both the genetic standards and new elevated seed analysis standards that are higher than certified, said Doyle Jacklin, company marketing director.

All such Jacklin products will be identified with a new trademarked Green Seal. Superior genetic characteristics, higher seed purity, germination and better disease resistance translates into fewer chemicals and less maintenance.

"Our research department has concentrated for some time on developing seed with superior genetic characteristics to meet these higher standards," Jacklin said. "We've made significant progress and we now have a number of turfgrass seed varieties that meet our criteria."

Chateau Bluegrass Low In Seedhead Production

In tests conducted at The Ohio State University last year, Chateau bluegrass manufactured by Fine Lawn Research, Columbus, Ohio, was named the best bluegrass for low seedhead production.

The OSU researchers let their bluegrass plots grow for two weeks without mowing to determine which cultivars produced the least seedheads and provided the most attractive spring lawns.

Chateau finished ahead of the pack with just 10 percent seedheads. Ram I and Eclipse both came in with 20 percent seedheads and Julia finished the tests with 25 percent seedheads.

Field day Focuses On Kikuygrass Control

Research progress reports on kikuygrass, the bane of many California turf producers and managers, were among the morning program highlights of the 1990 Turfgrass Research Conference and Field Day at the University of California, Riverside.

Presentations on kikuygrass plus reports on spring dead spot disease management alternatives, winter color on bermudagrasses and traffic effects on overseeded grasses made up the morning program.

A tour of turf plots at UCR included field studies of zoysiagrass improvements, bermudagrass cultivar performance, nitrogen leaching, tall fescue and Kentucky bluegrass mix comparisons, long-term white grub control, ground cover management and sports traffic on turf.

Kikuygrass has been a serious weed problem in turf along the coastal and intermountain valleys of California from San Francisco to San Diego.

It's well adapted to those areas and invades both cool- and warm-season grasses. The invasion is so rapid and complete that the grass has become the major weed control problem for many producers and managers.

Lofts Seed Contributes \$380,000 for Research

Each year, Lofts Seed Inc. pays royalties to Rutgers University for sales of turfgrass varieties jointly developed by the two. This year's check totaled nearly \$364,000.

Rutgers co-developed 13 of Lofts' proprietary turfgrass varieties. This year's check represents the 1989 production and sales of these varieties.

The company also presented a \$17,000 check to the University of Rhode Island.

The check represented profits from three proprietary varieties. ■

People

AT WOODS, DIVISION of Hesston Corp., **Clair Brown** has been named the new marketing manager.

Brown has served as a sales manager since joining Woods in 1982. As marketing manager, his duties include direct OEM and distributor sales for Canada, Europe and the Western United States.

The direct sales operation includes 36 field sales people. He will also oversee marketing managers responsible for national sales, OEM sales, service and advertising.

James Shearer has been promoted to vice president, operations at Rain Bird Sprinkler. His new duties include product design and development, engineering and plant operations.

Shearer joined Lyntone Engineering in 1987 as director of engineering and most recently served as vice president for the firm which serves as engineering consultants to Rain Bird.

At Century Rain Aid, **Jerry Wagner** has been hired as a customer financial ser-

moving on to manager of product development where he expanded the company's line of herbicides and fungicides.

Trailmate, the makers of Kee and E-Z Roll mowers and edgers, has hired **Ken Lyons** as its new vice president of sales and marketing.

He brings more than 15 years of mar-

keting experience to the position. Most recently he headed marketing for Pursley Turf and Grass Plugs.

Other promotions and additions at Trailmate include **Paul Smith** now a national distributor representative. He will work directly with distributors nationally and oversee Florida dealers on a statewide basis. ■



Yarborough



Wagner

vices manager.

He will work closely with contractors in assisting them in fiscal policies concerning credit approval and payment of their services.

Wagner has 18 years of experience in the financial field, including a job as corporate credit manager with a building materials wholesaler.

RedMax has a new vice president of sales and marketing with the promotion of **John Keeler** to the position.

Responsibilities in the new post include continued development of the RedMax distribution network, as well as overseeing all marketing, merchandising and sales service support programs for the company.

Keeler's most recent job with the company was national sales manager.

Robert Yarborough has been named vice president, control products for LESCO Inc.

With the company since 1984, he first was a project leader for research and development of special products before



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Products

LESCO-WET non-ionic turf wetting agent is now available in 4-ounce tablets.

The product increases the ability of water to penetrate compacted soil or dense thatch. It can be used to eliminate localized dry spots, help drain standing water, enhance pesticide penetration and en-



courage deeper plant rooting. **LESCO-WET** can be sprayed directly on turf without burning fine turfgrass.

Tablets eliminate the need for measuring or mixing before spraying, and fit standard hose-end applicators. Water flow rate, pressure, water temperature and the

type of nozzle used determine the rate at which a tablet dissolves.

LESCO-WET is available in granular formulation for spreader applications and in a liquid concentrate for spraying or injecting through an irrigation system.

Circle 125 on reader service card

THE AQUAMISER microelectronic moisture sensor is available from **Rain Bird**. It can eliminate water waste, soil erosion and plant damage caused by overwatering.

It automatically measures the relative change in soil moisture at the plant root zone, comparing it to the desired moisture levels set by the operator. These methods prevent the sprinkler system from operating once the required moisture levels have been met.

It adjusts to most types of soil and can be installed with either new or existing irrigation systems.

Circle 126 on reader service card

Saturn, from **Garfield Williamson** is now being blended into the company's Proform Triple Classic Turf Rye Blend.

Saturn is noted for its seedling vigor, genetic color, winter color and resistance to blotch and brown patch. It can also tolerate mowings as close as 3/8-inch.

The ryegrass blend is made up of Saturn, Omega II and Manhattan II or Competitor perennial ryegrasses.

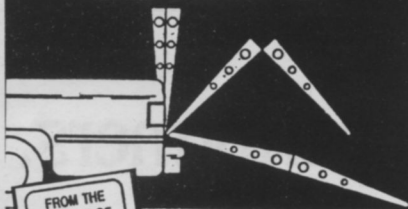
Circle 127 on reader service card

Excel Industries is offering an incentive program for buyers of selected products through March 31.

With the purchase of a Hustler 251K with Bac-Pac™ or 260K with Bac-Pac, buyers will receive their choice of two specially selected packages — each with a retail value of more than \$550.

Both models feature the Turbo Shredder™ mower deck. When combined with the Bac-Pac attachment, they make a complete multi-season turf maintenance

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reader service **61**

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The 12 inch by 32 inch tray can be

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reader service **62**

machine.

For increased productivity, the accessory package contains an edger attachment and rear weight kit. The manually controlled edger is operated from the driver's seat and features a self-sharpening blade and sealed bearing.

The maintenance package contains items needed for normal maintenance — belts, filters and blades. This package also includes the rear weight kit as well as the seat/armrest extension kit for greater operator comfort.

Circle 128 on reader service card

A new hydrostatic option has been introduced by **Toro** for its 14- and 18-h.p. midsize walk-behinds. This addition is part of an expansion that included 12 new



products in Toro's ProLine.

The hydrostatic drive improves traction because it has no belts to slip. Other key benefits include zero-radius turning, instant reverse and lower maintenance.

The drive system features two Sundstrand pumps and two Ross wheel motors with ball bearings and tapered output shafts for increased durability. The unit also features a hydraulic oil cooling system for longer life.

Another development for the midsize walk-behinds is a new operator-presence control that automatically places the traction system in neutral and disengages the blade.

Circle 130 on reader service card

The model 182 brush chipper from **Olathe** is a compact yet powerful trailer mounted hydraulic disc chipper designed to quietly, efficiently and safely reduce branches, limbs and brush up to six inches in diameter.

Features include a powerful Onan 20- or 24-h.p. engine and is now available with a 21.5-h.p. Kubota diesel engine, 170-degree chipper head rotation with 360-degree discharge, 30-inch diameter cutter disc and a 12- by 20-inch infeed opening.

Optional equipment includes hour meter and Donaldson Air Cleaner.

Circle 131 on reader service card

Product Spotlight

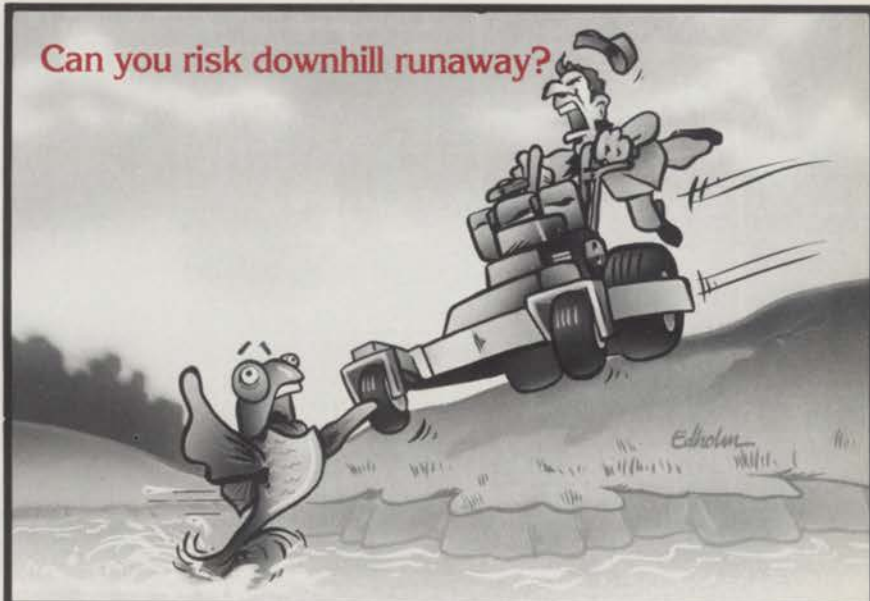
A STEERABLE SULKY is a new accessory for the **Encore** Pro-Line of commercial walk-behind mowers. The sulky is an efficient and economical way to convert any size mower in the line into a rider.

Sulky features include advance tracking to keep the mower's controls within the operator's reach and eliminate scuffing of turf; the ability for it to adjust to terrain independent from the mower; and large pneumatic tires that provide commercial durability and give operators a comfortable ride.

A stable spring suspension further ensures a comfortable ride, while a quick release hitch system permits fast conversion back to a walk-behind. For increased safety and security, flange bushings are used at all major pivot points and grease zerks are used at all high-wear points.

Circle 129 on reader service card

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A new spray tank cleaner that removes pesticide, adjuvant and additive residues from spray tanks has been developed by **Precision Laboratories.**

The new cleaner, INCIDE-OUT,™ is concentrated and neutralizes residues of pesticides. It's said to be compatible with all spray tank components, and contains corrosion inhibitors to enhance spray tank maintenance.

It can be used with hard water and will counteract the mineral buildup and rinse deposits from the tank.

Circle 132 on reader service card

A new addition to the **Neary Manufacturing** line of reel mower sharpening equipment is now available.

Built to industrial machining center standards, the Model 170 gives its owners decades of precision operation. It aligns a wheel to within 0.002-inch, both vertically and horizontally, before the automatic sharpening process begins.

This one time set-up is good for both spin and relief grinds.

The sharpener's features have been developed with the operator in mind. A fully pivoting winch makes the cumbersome

task of mounting and removing even the largest reels a simple job.

A precise dial indicator quickly tells you when a reel is accurately mounted and ready to sharpen. An easy-to-read, comprehensive operator's manual gets you up and running quickly.

Circle 133 on reader service card

Goossen Industries' new Super Rake 'n' Vac provides vac, brush and flail capabilities that can be operated individually or in any combination for power raking and preparing ground for overseeding, mowing and clean-up, mulching leaves and other large-area grounds maintenance functions.

The machine's adjustability and combination of functions make it ideal for picking up thatch and root material after aeration — plugs are pulverized and valuable soil stays on the ground while roots are vacuumed away.



Hydraulic controls operate lift cylinders for the deck and the trailer, as well as brush engagement. The unit is powered by an 11-h.p. Honda OHV engine while the flail head is PTO-driven.

Circle 134 on reader service card

Bio Groundskeeper Plus from **KLM Bio Systems Inc.** is a new concept in natural thatch reduction. It contains Booster biologicals for faster thatch reduction and easier applications.

These biologicals contain millions of colony forming units of microorganisms that help to create an optimum of biological activity in the soil.

Circle 135 on reader service card

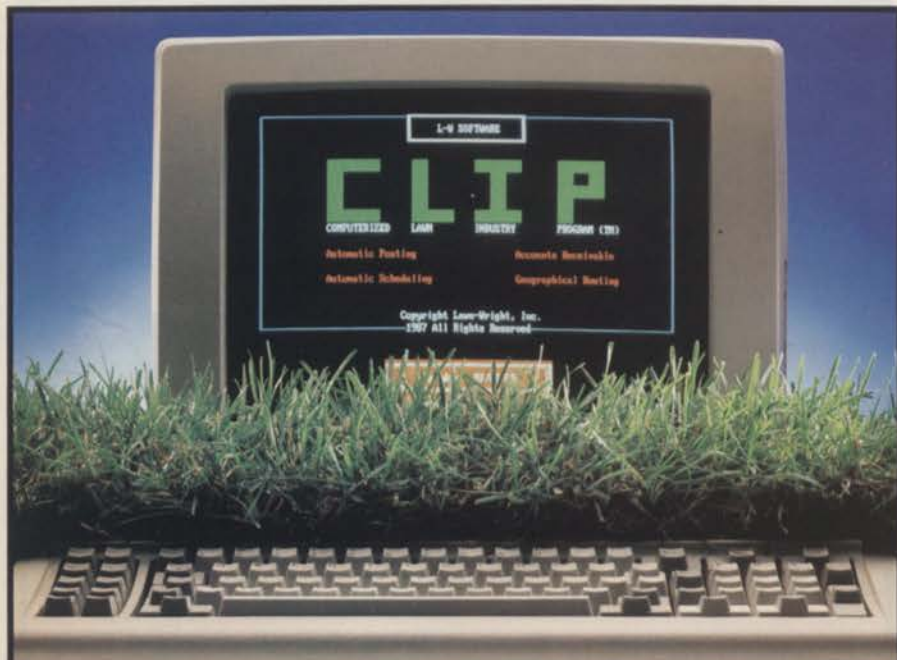
The difficulty of transporting broadcast spreaders has been eased with the introduction of the **External Spreader Carrier.**

The new carrier eliminates the problem of carrying a full pickup of fertilizer, lime and spray tanks while still finding room to carry a spreader safely and securely.

The attachments are built for LESCO, Spyker and EV-N-SPRED spreaders. While weighing only 21 pounds, they can carry more than 200 pounds.

To install, drill three 3/8-inch holes in your bumper, align the pins up with the holes and insert the clevis pins.

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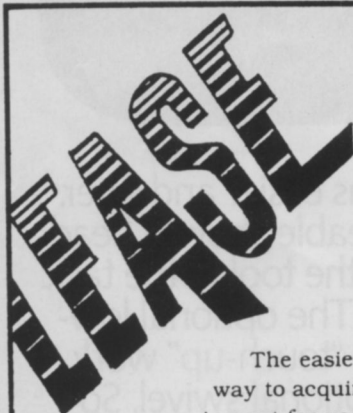
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JAN. 23-25

27th Annual Turf & Landscape Exposition for Northern California, Santa Clara Convention Center, Santa Clara, Calif. Contact: Northern California Turfgrass Council, 425 Oak St., Brentwood, Calif. 94513; 415/516-0146.

JAN. 23-25

American Sod Producers Association Midwinter Conference and Exposition, San Antonio, Texas. Contact: ASPA, 1855-A Hicks Rd., Rolling Meadows, Ill. 60008; 708/705-9898 or Fax 708/705-8347.

JAN. 24-26

Idaho Horticulture Convention and Trade Show, Boise Convention Center, Boise, Idaho. Contact: Carla Nakano, 2350 Hill Road, Boise, Idaho 83702; 800/462-4769.

JAN. 25

Tree care for the 21st Century featuring Alex Shigo, Minneapolis, Minn. Cost is \$30; \$45 with catered lunch. Contact: Tom Prosser, Rainbow Tree Care, 612/922-3810.

JAN. 28-29

Sixth Annual Think Trees Short Course sponsored by the New Mexico Association of Nursery Industries, Holiday Inn Pyramid, Albuquerque, N.M. Contact: Lynn Ellen Daxon at 505/275-2576 or Linda McLain at 505/384-2726.

FEB. 1

1991 Northern California Xeriscape Conference, Red Lion Inn, Sacramento, Calif. Contact: Pat Marion, 916/649-9331.

FEB. 2

Sixth Annual Women in Horticulture Conference, Bellevue Concourse, Bellevue, Wash. Contact: Susan Hanley, 206/641-1905.

FEB. 5-12

62nd International Golf Course Conference and Show, Las Vegas Convention Center and Riviera Hotel, Las Vegas, Nev. Contact: GCSAA, 1617 St. Andrews Drive, Lawrence, Kan. 66047-1707; 800/472-7878.

FEB. 7

Nursery, Landscape and Grounds Maintenance Seminar sponsored by Ohio Cooperative Extension, Cincinnati, Ohio. Contact: Nick Freeman, 11100 Winton Road, Cincinnati, Ohio 45218; 513/825-6000.

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All classified advertising is 75 cents per word. For box numbers, add \$1 plus six words. All classified ads must be received by the publisher before the first of the month preceding publication and be accompanied by cash or money order covering full payment. Submit ads to: Lawn & Landscape Maintenance magazine, 4012 Bridge Ave., Cleveland, Ohio 44113. Fax: 216/961-0364.

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After 35 years and an illness we are forced to sell our pride and joy, our well established and profitable landscape business. We are located in the fastest commercial growth area in the nation. Our business caters to commercial, industrial and corporate headquarters only. Our location is in the Northern Illinois area and we have a well established clientele of some 225 accounts. We specialize in landscape design, construction, maintenance, service to tropical plants, irrigation systems, tree service and other general related services.

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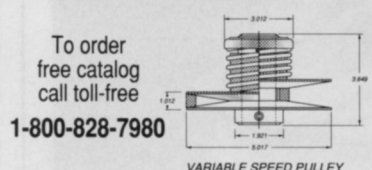
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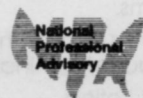
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...

LANDSCAPE ARCHITECT/DESIGNER

West suburban Chicago firm seeks individuals with thorough knowledge and background in all phases of landscape design, construction, estimating and sales. Salary plus commission. Please send resume or contact: PEZZA LANDSCAPE INC., P.O. Box 607, Berkeley, Ill. 60163; 708/544-4348.

...

LANDSCAPE MANAGEMENT ACCOUNT REPRESENTATIVE

Large Northeast Ohio firm needs account rep for existing and new accounts. Horticulture and agronomic background helpful. Be a part of a fast growing, diverse company. Send resume to: Ed Gallagher, P.O. Box 438, Painesville, Ohio 44077.

...

LANDSCAPE DIVISION MANAGER

Well established, rapidly growing company seeks individual to take over for retiring manager. Individual must be able to run both a maintenance and a planting division simultaneously. Requires exceptional organizational/management skills as well as complete command of plant materials and maintenance techniques. For consideration contact: David Gorter, 855 Skokie Highway, Lake Bluff, Ill. 60044; 708/615-0800.

...

LANDSCAPE MAINTENANCE SUPERVISORS

West suburban Chicago firm has great opportunity for individuals with horticultural degree or three years field experience. Duties would include site supervision, pesticide applications, quality control and servicing of accounts. Please send resume or contact: PEZZA LANDSCAPE INC., P.O. Box 607, Berkeley, Ill. 60163; 708/544-4348.

...

LAWN MAINTENANCE SALES MANAGER

Well established Long Island maintenance firm seeks dynamic, self motivated individual for sales position. Horticultural degree, sales experience, good organizational skills and self motivation required to supervise commercial and residential accounts. Thorough knowledge of scheduling, plant maintenance, customer relations and

SALES is necessary. Send resume to: GK, 5 Main St., 3rd Floor, Cold Spring Harbor, New York, 11724; 516/367-7569.

...

SERVICE/SALES

Rapidly growing elimination company needs reliable, experienced pest eliminator. Good salary, benefits, commission, vehicle. Call: Steve Eisenberg, Flower City Pest Elimination, Rochester. 716/467-3999. (confidential)

...

LANDSCAPE INSTALLATION CREW LEADERS

West suburban Chicago firm seeks individuals capable of managing residential and small commercial projects from start to completion. Possible year-round employment with benefits. Please send resume or contact: PEZZA LANDSCAPE INC., P.O. Box 607, Berkeley, Ill. 60163; 708/544-4348.

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Ground Control

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mesh the whole thing together like a puzzle."

Since three or four projects are under way at any one time, starting and finishing dates are staggered.

Communication is key. While some designs are detailed, others are less so allowing the crews creative opportunities. For example, if a man hole or some other prohibitive structure gets in the way, crews can compensate by altering the design flow. Similarly, if a tree has particularly good side to it, face it toward customer.

"We take care of on-site details. We have a good rapport with owners and architects," Neie said.

Four five-man crews do all installations, headed by two project managers. Smaller projects require anywhere from a three- or four-man crew or sometimes eight to 10 employees to staff a larger or

accelerated job.

When a project is done, the construction department walks through the property with the maintenance department filling them in on particular idiosyncrasies of the property. — Cindy Code ■

The author is Editor of Lawn & Landscape Maintenance magazine.

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