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LANDSCAPE *management*

NOVEMBER 1997 • \$4

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Ground clearing
tools**

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OF THE
Year

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ON THE COVER: SPRINGWOOD GOLF CLUB, YORK, PA, IS DUE TO OPEN MEMORIAL DAY WEEKEND, 1998. SUPERINTENDENT IS KENNETH M. PEPPLER, CGCS. COURSE DESIGNED BY AULT CLARK & ASSOCIATES. PHOTO BY JOHN R. JOHNSON OF JOHNSON DESIGN.

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THE VOICE OF THE GREEN INDUSTRY

LANDSCAPE management

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MEANS BUSINESS

'People of the Year' have always led the charge



Terry McIver

TERRY McIVER
Editor-in-Chief

This month, we present to the Green Industry our "People of the Year" recipients for 1997.

What an excellent quartet of Green Industry leaders: Tom Lied; Jeff Bourne; Dr. Roger Funk; and Paul Latshaw, Sr.

The criteria for the "People of the Year" award is that a Green Industry professional exhibits a history of contributions to the Green Industry during the course of a career or during a significant portion of that career.

Our winners have done just that, and show no sign of slowing down. They're long-ball hitters. Team players. Coaches. Managers.

Tom Lied, president of Lied's Landscape Design and Development, has been a regular contributor to the Associated Landscape Contractors of America, including being a co-founder of the group in 1962. He learned the business from his father, Delmar, and is one of those people who never looked back. He knew his career path and interests, and attacked his work with excitement and vigor.

Jeff Bourne, our grounds management winner, is in charge of about 6000 acres of property and 3000 parcels of dedicated open space in Howard County, Md. He is responsible for an operating budget of \$13 million, including 600 employees (career, part time and contractual).

Paul Latshaw—his son is also Paul—could be called a "Tournament Specialist" in the superintendent ranks. Throughout his career, he has prepared several country clubs for championship play, with great results. His most recent was the U.S. Open Championship at Congressional CC, where he has been superintendent since 1993.

Dr. Roger Funk of the Davey Tree Expert Co., has been a leader in horticultural science and plant health care for Davey since 1973.

He has authored numerous papers on horticultural topics, and has brought some very good ideas to the table in the interest of reduced product use and "plant health care."

Besides a definite tendency towards excellence, our "People of the Year" share something else in common. Each one entered the Green Industry at a very early age, and knew early on that this was where they wanted to be; where they wanted to make their marks; where they wanted to make a difference.

Lied started in his father Delmar's nursery company as a young boy. After earning a degree in horticulture, Lied went back to serve the company, and began his career full throttle. He was also a co-founder of ALCA.

Latshaw was fresh out of the Navy, and had turned from a potential occupation of poultry farmer when in 1962 he started at a Pennsylvania golf course.

Bourne's involvement with grounds began as a student of Community and Outdoor Recreation at Springfield College, Springfield, Mass.

Roger Funk joined the Davey Tree Expert Co. in 1973 as a horticulturist. He's been there ever since, and has been the technical force behind it's initiatives into the concept of Plant Health Care and other lawn care/tree care-related programs.

We congratulate our "People of the Year" for 1997. We know we could find four times that number on any given day, because there are many committed Green Industry Professionals out there who have made life-long contributions.

The "People of the Year" will receive their awards during the Green Industry Expo in November and GCSAA show in February. To learn more about them, see the story that begins on page 17. **LM**

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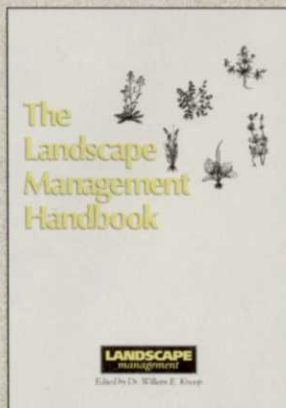
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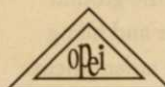
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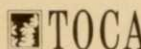
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Circle 112

Va. buttonweed in bentgrass, fescue

Virginia buttonweed has become established on bentgrass skirts and fescue fairways on our golf course. We applied Confront to areas around the green; it appeared to have killed the weed, but one year later we noticed it had returned. In addition, Confront killed the bentgrass. We have tried weeding, but with little effect. Nothing has been applied to fescue areas fearing that the applied product may kill the grass there also. And these areas have a great deal of Virginia buttonweed.

—KENTUCKY

The confront herbicide is labeled for use on both bentgrass and fescue. It is a postemergent herbicide. In my opinion, it helps manage the Virginia buttonweed present at the time of application. Recognize the fact that this is a difficult weed to manage. Often, repeat applications at two- to three-week intervals may be needed to help manage this weed.

You say that you noticed weeds a year later. It is possible that the new weeds might have appeared from seeds which can remain viable for 10-15 years in the soil. New seeds can also be introduced from adjacent areas.

Since Confront is labeled for bentgrass use at 1 pt./acre, it is unlikely that is caused this problem at the recommended rate. However, if it was not used according to label guidelines, problems may occur.

Check your records for mixing and gallonage application

rates. The bentgrass kill you mentioned also could be related to a disease like Pythium blight or some insect damage.

As far as fescue, you may be referring to coarse fescue or tall fescue. Confront is also labeled for use on fescue. There should not be any problem if it is used according to label guidelines.

Tall fescue clumps a problem

How late can we apply Lesco-TFC to manage tall fescue as a weed in Kentucky bluegrass lawns?

—PENNSYLVANIA

A Lesco representative says Lesco-TFC herbicide can be applied as long as the soil is not frozen. After treatments are applied, tall fescue plants may not show severe declining symptoms or die during the fall season of the treated year. Instead, the tall fescue plants usually disappear the following spring. Reports indicate that fall applications are better than spring because during the fall season root absorption increases.

Also, tall fescue would be more susceptible to TFC herbicide because of decreasing temperature.

Treating tall fescue in the fall can allow Kentucky bluegrass and other desirable turfgrasses to fill in during spring.

Avoid treating areas that have ryegrass as a component of turfgrass in the lawn. Lesco-TFC herbicide will remove perennial ryegrass from Kentucky bluegrass.

Another option for the tall fescue clumps is to dig them

out. These areas can then be seeded with certified seed mixes. Where this is not practical and chemical approach is highly desirable.

Read and follow label specifications for better results.

Tree soil compaction

Older trees on the town commons are suffering from years of soil compaction. What can we do?

—OHIO

There are only a few things that can be done to relieve compacted soils. Where practical, try to correct compaction with hydraulic pressure. Soil injecting, root feeding tools can be used. The key is to get the water pressure deep into the root zone to break up the compacted soil. In most situations, the active roots of plants will be in the top 18-24 inches.

Another approach is to drill vertical holes in the ground using a soil auger and filling them with loose amendments like mulch or peat moss. If poor drainage appears to be a problem, filling these holes with pea gravel would be useful. Reports also indicate that radial trenching within the dripline of trees and filling with amendments will allow good drainage and aeration for the root systems.

The best way is to recognize the potential for compaction from traffic or construction, and provide corrective measures and treatments before the anticipated compaction occurs. **LM**



BALAKRISHNA RAO

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

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Please allow two to three months for an answer to appear in the magazine.

[A 'DEER' DILEMMA]

Deer are common in north-eastern Ohio. They stroll across the landscaped grounds here at Advanstar Communications on a regular basis. They are a beautiful sight, but each winter and early spring they eat and damage many of the ornamentals that beautify our corporate headquarters. In fact, our Grounds Manager Tom Sprague no longer plants spring bulbs. Once the tulips break ground and prepare to blossom, the deer nip them off.

They damage evergreens too. This past winter we covered many of the smaller evergreens with burlap. This seemed to work. But burlap isn't such a pretty sight.

In an adjacent Cleveland suburb about 140 people crowded into a city hall. They wanted something done about the hungry deer eating their landscape plants. One man, the owner of a 16-acre horticultural park, said he put up a 7-foot-high fence to keep them out. They just jumped over it, he said.

A wildlife official told the group that there are over 8,000 deer in Cuyahoga County. Most live in and around our scenic Metro Park system. He suggested a bow hunting season to reduce the deer population.

Judging from comments we often receive here at LANDSCAPE MANAGEMENT,

deer are a big problem for landscape plants just about everywhere in the United States.

Occasionally we get product releases claiming success for deer repellents—products made from lion dung and coyote urine. Mesh netting. Electric fences. Ultrasonic devices that scare deer away.

Tell us about your experiences. If you've had success keeping deer from damaging your, or clients', landscapes our readers really want to hear from you.

Until we do, consider this list of plants rarely or seldom

severely damaged by deer: Barberry, Redosier Dogwood, Forsythia, Honeylocust, Beautybush, Norway Spruce, White Spruce, Colorado Spruce, Mugo Pine, Austrian Pine, Scotch Pine, and Common Lilac. The list was compiled several years ago by horticulturists and wildlife specialists at Cornell University.

The list of plants "occasionally severely damaged" by deer is much longer: White Fir, Red Maple, Silver Maple, Sugar Maple, Common Horsechestnut, Serviceberry, Cottoneaster, Common Witchhazel, Rose-of-Sharon,

Hydrangea, Privet, Eastern White Pine, Potentilla, Douglas Fir, White Oak, Northern Red Oak, Willows, Anthony Waterer Spirea.

Bridalwreath Spirea, Persian Lilac, Japanese Tree Lilac, American Linden, Canadian Hemlock, Old-Fashioned Weigela, Norway Maple, Eastern Redbud, Clematis, Corneliancherry Dogwood, Winged Euonymus, Apples, Crabapples, Cherries, Plums, Rhododendrons, Hybrid Tea Rose, Yews, American Arborvitae.

Your turn

We like to report what readers think about current topics in LANDSCAPE MANAGEMENT. Tell us what you've done to reduce or eliminate DEER landscape damage. Tear out or photocopy this page, and fax or mail your response to: LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, Ohio 44130 • Fax: 216/891-2675.

Are deer a landscape problem either for you or your customers?

Yes COMMENTS _____
 No _____

Do you use any particular products to discourage deer damage?

Yes COMMENTS _____
 No _____

What strategies have you used to avoid or limit deer damage?

COMMENTS _____

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All comparisons based on data available at time of printing.

†Excludes Crew Cabs. ††Always use seat belts. Remember a backseat is the safest place for children. Rearward-facing child seats can be used in the front seat only with the passenger airbag turned off. *Based on Strategic Vision's 1995, 1996 and 1997 Vehicle Experience Studies™ of 31,440 ('95), 35,652 ('96) and 31,521 ('97) Oct.-Nov. new vehicle buyers of 170+ ('95) and 200+ ('96 and '97) models after the first 90 days of ownership.



Scotts buys Emerald Green

Acquisitions in the lawn care industry featured a couple new faces in October, as the Scotts Company, Marysville, Ohio, purchased a majority interest in Emerald Green Lawn Care.

Emerald Green serves 29,000 Midwest customers, and now anchors Scotts' efforts to grow its new Scotts Lawn Service Division. Specifically, Scotts says it wants to fill a void in the "premium" lawn care market, after the TruGreen/ChemLawn buy of Barefoot Grass.

"[TruGreen/ChemLawn's] strengths have always been in the broader lawn service market, not the premium end where Barefoot competed so successfully," says Mark Long, vice president of Scotts Lawn Service.

Scotts reports there is a 10.5 million-household market for lawn care, and any company that can satisfy customers will keep them for awhile.

"People usually don't shift back and forth between a lawn care service and do-it-yourself lawn care," believes Long. "They use a service for an average of five years, because they either don't have time or don't want to worry about caring for their lawn."

Great name recognition

Scotts also may benefit from the familiarity of having its products in virtually every garden center in America. It spends \$30 million in consumer advertising, and Scotts and Miracle-Gro products will be used to service customers' lawns.

Scotts reports that for the next two years it will establish and refine its marketing and operational strategies in several new markets, with a special focus on customer retention.

The strategy does not rule out further acquisitions, Scotts reports.

"Longer term, we believe Scotts is very well positioned to fill the premium segment of the lawn service industry and establish itself as the number one, premium national player in the market," says Long.

"Select company stores are switching over in 1998, to be called Scotts Lawn Care," says Gene Pool, owner of the Emerald Green franchise in Van Wert, Ohio. "The franchises, people like myself and 26 others, will continue to be called 'Emerald Green, Featuring Scotts Products.'"

Pool says he met with Mark Long recently, and believes the Scotts plan will work.

"I'm impressed with [Long]. I think he's a man of integrity and I think he's got the drive to make Scotts number 1 in 10 years," says Pool.

Jacklin patents endophyte

POST FALLS, ID.— Jacklin Seed Company has acquired the first patent for endophyte in all varieties of Kentucky bluegrass and related species, as well as creeping bentgrass, and says it expects to market an endophyte-enhanced product on the market within two years.

Endophyte is a natural plant protectant that exists in perennial ryegrass the fescues. Until recently, it has not occurred in Kentucky bluegrass or creeping bentgrass.

"Endophyte enables turfgrass to better reduce insects and diseases naturally, greatly reducing the need for chemical inputs on golf courses and other turf," reports the company.

The technique for introducing endophyte into these species through inoculation and hybridization was developed by researchers Doug Brede and Suichang Sun of Jacklin.

"This endophyte patent will completely change the way the turfgrass and turf maintenance business is conducted," says Doyle Jacklin, president of Jacklin Seed of Post Falls, Id. "It will greatly reduce the chemical applications turf professionals use to maintain a healthy, disease-free turf."

Jacklin reports it studied hundreds of thousands of genetic variations to develop the Kentucky bluegrass and creeping bentgrass endophytes. The new varieties were the result of more than 11 years of research.

Creeping bentgrass is used for the majority of golf course turf around the world. Kentucky bluegrass is the prime lawn grass throughout temperate regions.

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Toro to build Dingo Digger

Dingo Digging Systems of Fort Mill, S.C. and The Toro Company of Bloomington, Minn., have announced a strategic partnership under which Toro will manufacture Dingo Digging System's landscape products under the Toro brand name for the North and South American markets. This partnership establishes the Toro SiteWork Systems product line. The Dingo name will remain on the flagship product under the Toro SiteWork Systems banner.

Dingo Digging Systems began to distribute its products in North America in 1995 under an agreement with Dingo MiniDiggers of Australia. The partnership with Toro allows for increased manufacturing and product availability in the Americas.

"I believe this agreement will have tremendous impact on the landscape contracting industry and I'm excited about its potential," says Roger Braswell, president of Dingo Digging Systems and Southern Tree and Landscape Companies, Charlotte, N.C.

"Toro's quality and excellence in manufacturing and distribution will quickly make this machine a mainstay of every contractor's business," says Braswell.

The Dingo is a compact utility machine with more than 30 attachments. Its compact size and maneuverability allows it to landscape areas that previously had to be done by hand. The 42-inch frame sits atop a four-wheeled base and can turn within its own radius. The operator stands on the rear of the machine and uses hand controls to power the attachments. The bucket is a standard attachment and other attachment options include an auger, trencher, tiller, leveler, cement mixer, rotary broom and back hoe.

The Dingo 220 will be manufactured at Toro's ISO 9000 certified facility in Tomah, Wisc. and offered through Toro's distributor partners. Dingo Digging Systems will continue to provide sales and marketing support.

The investment by Toro is the latest in the company's strategy to increase its market reach, says Chairman and CEO, Kendrick B. Melrose.

"We expect the partnership with Dingo," says Melrose, "combined with our existing business and the planned acquisition of Exmark Manufacturing and earlier alliances with Maruyama manufacturing for hand-held products and Bluebird International for aerators and other walk-behind products, to send a clear message to our customers that Toro is committed to being the leader in providing innovative equipment to landscape contractors to help increase their productivity."

[CLIPPINGS]

Minn. soil scientists need state o.k.

Soil scientists practicing certain procedures in Minnesota must now be licensed by the state.

Licenses are required to perform mapping; environmental cleanup projects; some land application projects; and septic system projects. Basic soil fertility testing is not included. Applications for licenses made before August 5, 1998 will be grandfathered and no exam will be required, provided that the applicant meets certain education and work experience criteria. For an application packet, call 612/296-2388.

Extension agents study issues

The first Urban Horticulture/Turf Study Tour, sponsored by RISE, PLCAA and TruGreen/Chem-Lawn through the National Association of County Agricultural Agents took place Oct. 4-9 in Delaware, Maryland, New Jersey and New York. RISE reports 20 agents participated in the tour. RISE's Allen James, Elizabeth Lawder and Fred Langley addressed the group on state legislative issues, media relations and industry issues. American Cyanamid hosted the group and presented a tour of its New Jersey facility.

Record quarter for Lesco

Lesco, Inc. reports record sales and earnings for the third quarter of 1997. Net income for the quarter ended Sept. 30 was a record \$4.4 million, an increase of 23.4 percent over third quarter 1996. Chairman William Foley credited West Coast expansion and the purchase of Tri Delta Fertilizer, and "positive growth in all channels of business" as key element in the improved earnings.

Md. turf council establishes fund

The Maryland Turfgrass Council Board of Directors has established the Maryland Turfgrass Fund in cooperation with the University of Maryland Foundation. The move is meant to invest the Council's funds for the best return, given the government's apathy toward turf programs. The Council established the fund with a \$100,000 donation. "In these days of decreased Federal and State funding, reports the Council, "it is becoming increasingly important for industry to meet the needs of research and advancements in our field. We are increasingly being asked to help fund research, scholarship programs and meet other educational needs."

People OF THE Year

Our 1997 recipients—Tom Lied; Roger Funk; Paul Latshaw; and Jeff Bourne—have established, and often redefined, standards of excellence in their Green Industry occupations. They serve as ideal role models for fellow professionals.

LANDSCAPE CONTRACTING CATEGORY

Tom Lied, president of Lied's Landscape Design and Development, Sussex, Wisc.

Tom Lied has shown over and over his dedication to improving the standards of the landscape industry. He's done this through his work in the Associated Landscape Contractors of America and Wisconsin landscape associations, and through his continuing commitment to excellence.

Lied's first exposure to the business was working in his father Delmar's company, then known as Lied's Nursery, founded in 1945. Tom "officially" joined his father's firm after graduating from Michigan State University.

"He had a desire and flair for the design end of it," says son Robb, "and ultimately spent a majority of his time in sales."

Lied's career took off from there, and so did his willingness to contribute to the industry. In 1962, he helped form the Associated Landscape Contractors of America.

Gary Thornton, president of Thornton's Gardens, Maineville, Ohio, and Lied worked together on the ALCA *Certification Program* in the late 1980s.

"I was the chairman, and I picked past presidents with lots of years of experience to be on the Certification Program Board of Governors," recalls Thornton. "The Board of Governors were going to be the ones to write the test and choose the topics. We had a vision of several different tiers of certification, and Tom became one of the sparkplugs for certification for technicians, the CLT Program.

"Tom was instrumental in providing the long-range look at where that program could lead."

Thornton has also served with Lied for 20 years on the ALCA "Crystal Ball" committee, which is ALCA's annual "report card" on industry standards of quality, service and business excellence.

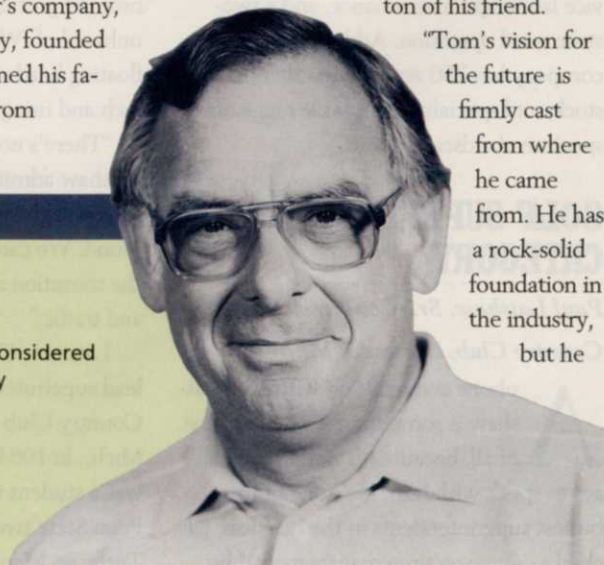
Loyal to his peers

"He certainly is dedicated," says Thornton of his friend.

"Tom's vision for the future is firmly cast from where he came from. He has a rock-solid foundation in the industry, but he

TOM LIED'S CAREER HIGHLIGHTS

- ▶ **1962:** Helps form Associated Landscape Contractors of America
- ▶ **1969:** President of ALCA
- ▶ **1979-present:** Leader of the ALCA "Crystal Ball Committee Reports, considered to be barometers of quality and service improvements within the industry
- ▶ **1989:** Helps to author ALCA Certification Program
- ▶ **1993:** Receives ALCA Landscape Service Award
- ▶ Member, Wisconsin Landscape Federation; past president, Wisconsin Landscape Contractors Association



really has a look forward to where this industry is going. He sees the big picture, but is intricately involved in the details."

Thornton says Lied has also been highly instrumental, mostly through the "Crystal Ball", in bringing the "Total Quality" concept into the landscape industry.

"There were always various aspects of Total Quality in the industry, but nobody categorized it as such. I would say it's really taken hold."

"Tom started the Crystal Ball committee as a way to look for future trends and try to be cutting edge for our industry, which was not necessarily on the cutting edge," says colleague Joe Skelton, president of Lifescapes, Inc., Canton, Ga.

"The effect Total Quality has had on my company is immeasurable."

"Tom exemplifies a strong leader who has strong personal beliefs and values and has the fortitude and strength to stand behind his beliefs, and lead the team," says Skelton. "But at the same time, he will listen to the ideas of everyone around him."

Lied's son Robb credits his father with teaching him to carry a "commitment to upholding the principles of what we stand for, our reputation and client service."

The company has grown and diversified under Tom's leadership to the point where Lied's is now a multi-disciplined company that employs more than 300 people with offices in landscape architecture, full-service landscape maintenance, and a two-store retail operation. Additionally, the company has 250 acres of quality nursery stock, and specializes in a wide range of specimen landscape plants.

GOLF SUPERINTENDENT CATEGORY

Paul Latshaw, Sr., Congressional Country Club, Bethesda, Md.

A phone conversation with Paul Latshaw is something to cherish. First of all, because it's not often you get to speak with him. He's one of the busiest superintendents in the business. ("I need a course on time management!" he

joked when we called.)

Secondly, he's always got something interesting to say.

Latshaw, our "Person of the Year" in the golf category has led the management teams at some of the country's finest golf courses: Wilmington CC; Augusta National; Oakmont; Shaker Heights CC. Currently, he's in charge at Congressional CC, Bethesda, Md., site of the 1997 U.S. Open Championship and 1995 Senior Open.

Latshaw began his career at Frosty Valley CC, in Danville, Pennsylvania, a recruit of superintendent Bruce Denning.

Latshaw credits Denning (now at Trumbull CC, Warren, Ohio) as being a major influence on his career.

"Bruce got me in the business," says Latshaw, who at the time was just out of the Navy and ready to go into the poultry farming business.

"It wasn't going well, and I needed a job," Latshaw remembers. An ad for help at Frosty Valley CC brought Latshaw into Denning's company.

"It was the first time I ever saw a golf course," Latshaw reveals. But it certainly was not the last.

No complacency here

Latshaw has often experimented with management tactics, with positive results.

"When I went to Oakmont, they told me they wanted fast greens. My question was, Are we going to keep them alive? We brought greens speed to a level that was unheard of. We were using Toro floating head mowers set at $\frac{3}{4}$ of an inch and using Wylie rollers.

"There's no doubt about it," Latshaw admits, "it's hard to keep greens at championship level year round. We can't do it year round in the transition zone, due to the heat and traffic."

Latshaw, 57, held his first job as lead superintendent at Jackson Country Club in Jackson Mich., in 1964. He was a student in the Penn State two-year Turfgrass Manage-

ment Program, and studied under Dr. Joe Duich of Penncross fame.

Passing on the knowledge

As Latshaw grew in his career experience, he himself became a mentor to others.

Matt Shaffer worked under Latshaw for two years at Augusta National. He now manages the Country Club of Cleveland, Pepper Pike, Ohio.

"He taught me a lot, and we created a lifetime friendship," says Shaffer, "which is more valuable for me than the things he's taught me. Paul is always leading edge. He was the first person to cut fairways by hand, probably the first person to aerify fairways with walk-behind aerifiers at Oakmont, and I'm sure he was one of the first people to really cut greens down to low

PAUL LATSHAW, SR. CAREER HIGHLIGHTS

- ▶ **1961:** Assistant at Frosty Valley CC, Danville, Pa.
- ▶ **1965:** First superintendent post, Jackson CC, Jackson, Mich.
- ▶ **1969:** Superintendent at Shaker Heights CC, Shaker Hts., Ohio
- ▶ **1974:** Superintendent at Oakmont CC, Oakmont, Pa.
- ▶ **1978:** Hosts PGA Championship at Oakmont
- ▶ **1983:** Hosts U.S. Open Championship at Oakmont
- ▶ **1993:** Begins stint at Congressional CC. Hosts Senior Open there in 1995.
- ▶ **1997:** Hosts U.S. Open Championship at Congressional CC



heights. "You would think he would be set in his ways, but he's not," says Shaffer.

Latshaw looks forward to the golf management industry with eagerness, and a "wish" that he were younger, like his son Paul B. Latshaw, 31, who is superintendent at Merion in Ardmore, Pa.

"We're in an exciting time right now," says Latshaw, as he searches for the words to describe some recent developments in course management.

"We've started using biostimulants, humates, doing lots more foliar feeding, plus taking a harder look at biological controls," says Latshaw.

"It's a whole new area for me, and it's exciting. Four or five years from now we're going to be [managing courses] entirely different," says Latshaw, with an emphasis on more natural and less chemical additives to turf.

Latshaw has continued in the role of mentor, helping to shape the career training of many of today's best superintendents.

"I get the most satisfaction out of that," says Latshaw, who adds that he will soon lose another assistant to another course. "He's interviewing right now" Latshaw reports.

Latshaw says he plans to retire after three more years at Congressional.

GROUNDS CARE CATEGORY

Jeffrey A. Bourne, whose expertise extends way beyond horticulture, is a model for today's grounds professional.

Today's grounds professional must be proficient in more than grounds care although that's certainly one skill he or she must have.

They must also be good at budgeting, possess excellent "people" skills, meaning they're effective as either team members (but more often as leaders), and they're increasingly being required to be masters of time management too.

Jeffrey A. Bourne, Director of the Department of Recreation and Parks, Howard County, Md., possesses all of these skills. And more. He is our "1997 Grounds Person of the Year".

JEFFREY A. BOURNE'S CAREER HIGHLIGHTS

▶ **1972:** Community Center Director, Columbia Parks and Recreation Association, Columbia, Md.

▶ **1975:** Chief, Bureau of Parks, Howard County Maryland

▶ **1977:** North Carolina State University/N.R.P.A. Management School.

▶ **1982-1989:** Board of directors of PGMS

▶ **1985:** President of Free State Branch—PGMS

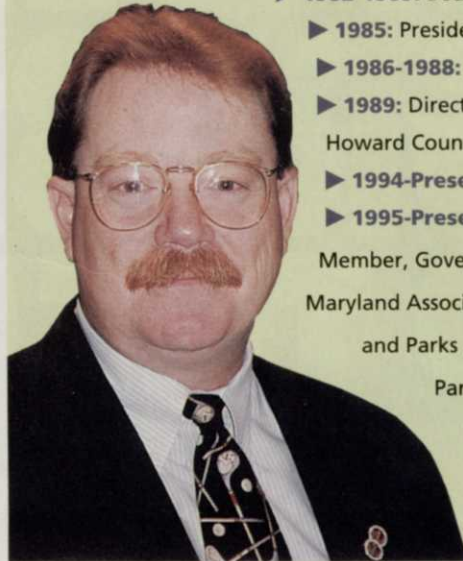
▶ **1986-1988:** President PGMS

▶ **1989:** Director, Department of Recreation and Parks, Howard County Maryland

▶ **1994-Present:** Treasurer PGMS

▶ **1995-Present:** Board of directors GIE

Member, Governor's Commission on Greenways, Maryland Association of Counties, Maryland Recreation and Parks Association, National Recreation and Parks Association, PGMS-Free State Branch, PGMS-National, Maryland Turfgrass Council, Catonsville Community College.



"He just has a positive way about him, and he gets people to do positive things," says George Gaumer, National Sales Manager for The Davey Tree Expert Company who serves with Bourne on the Green Industry Expo Board. The two men represent the Professional Grounds Management Society on the Board.

"His dedication to his industry and to the PGMS is amazing," adds Gaumer. "And he keeps everything in perspective. He has the ability to look at all sides of an issue and evaluate it. He has some very rare qualities."

Since 1989 Bourne has directed the Department of Recreation and Parks, Howard County, Md. The department's Bureau of Parks is responsible for operations, maintenance and law enforcement for 6,000 acres of park land and open space, while the Bureau of Recreation offers 4400 programs annually to the county's 230,000 residents. All comes under Bourne's direction. He is responsible for an operating budget of \$13 million, including 600 employees (career, part time and contractual).

"He's a grounds guy who has made

good, and is making good," says John Gillan, executive director of the PGMS. "He was in charge of grounds and was promoted to director of the whole shebang, and I think they're very fortunate to have him."

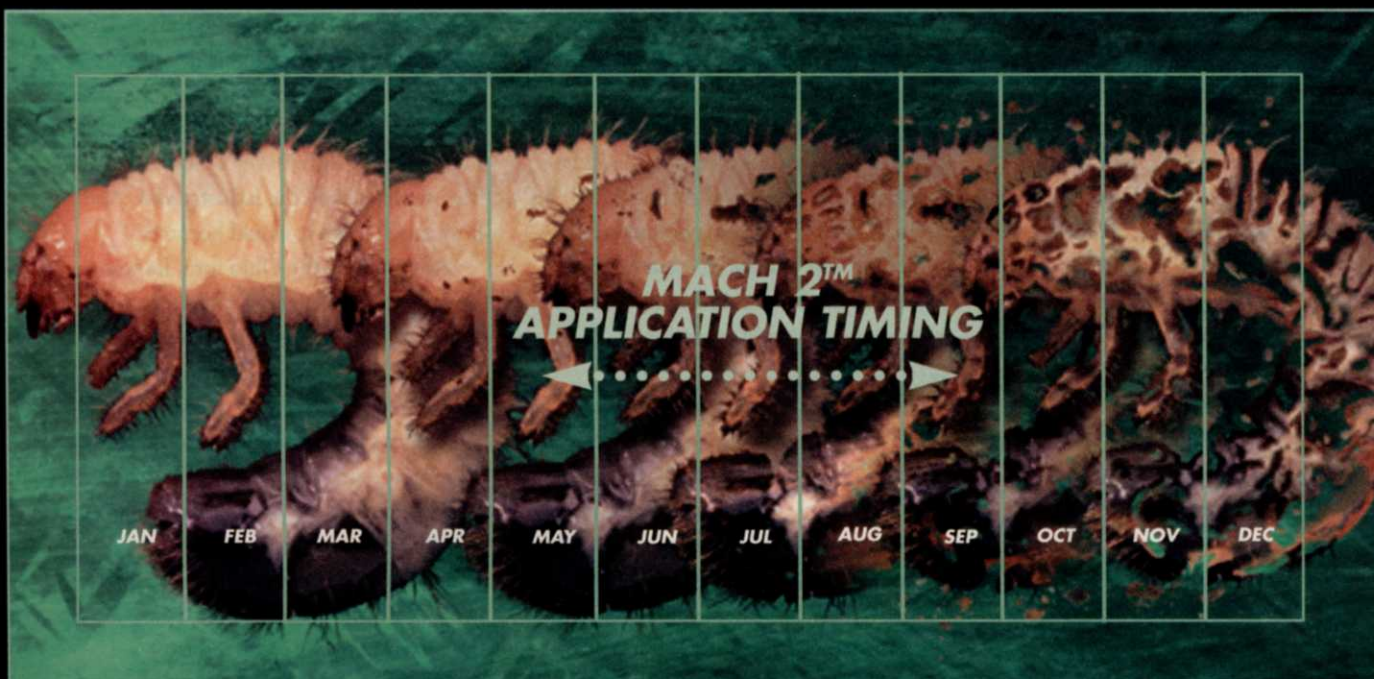
Bourne has been active with PGMS since 1982 when he was asked to chair its National Education Committee. He served on the PGMS board for seven years, and as president of the organization for two terms, 1986-1988. He's been the PGMS national treasurer since 1994.

Concern for member benefits

Gillan credits Bourne with helping make the PGMS more efficient and member responsive. "We owe him a lot," says Gillan. "I think the board would have him on indefinitely if his schedule would allow that."

Bourne's involvement with grounds began as a student of Community and Outdoor Recreation at Springfield College, Springfield, MA. He assisted the park manager in operating and maintaining a 100-acre Outdoor Education Center at the college. Following graduation, he became community center director in Columbia, MD. In July 1975 he was named chief Bu-

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reau of Parks in Howard County, MD, a post he held until being named director Department Recreation and Parks.

Bourne, who graduated from the NRPA Park Management School at North Carolina State University, received PGMS's highest honor, its Gold Medal, in 1996. Only 14 people have received one since the first was given in 1926.

"He (Jeff Bourne) is a very conscientious person, and a person that does an excellent job with whatever he sets out to do," says Earl Wilson, Loveland, Ohio, a fellow PGMS Gold Medal honoree.

Jeff is married to Barbara Jacob Bourne, and they have two sons, Nathaniel and Evan.

LAWN CARE CATEGORY

Dr. Roger C. Funk, architect of The Davey Institute of Lawn Sciences, says lawn care's future is bright.

Dr. Roger C. Funk celebrates 25 years with The Davey Tree Expert Company next year. Starting his career as a horticulturist, last year he was named vice president and general manager of The Davey Institute, the company's impressive R&D division. His career with Davey coincides with the rise of lawn care as an industry.

"I watched lawn care become an organized, focused professional industry," recalls Roger. "I watched the pesticide issue become a major concern. I watched the public's perceptions change. And I watched the organic trend."

Dr. Funk, a scientist, has greatly contributed to the success and professionalism of lawn care through, both, his activities at Davey Tree and by his willingness to share what's he learned with fellow professionals. He's been a frequent speaker at lawn care conferences, and he's written extensively on a variety of horticultural topics.

In addition to managing The Davey Institute, he directs the arboricultural and horticultural consulting division, Davey Resource Group.

During his career with the Ohio-based

firm, Dr. Funk developed Plant Health Care, a holistic approach to plant care that's been widely adopted by the green industry. He researched and designed Davey's lawn care program, developed and patented Arbor Green slow-release tree fertilizer, and developed and patented the Davey Customizer pesticide metering system. Dr. Funk's research focus has been environmental issues, including soils, fertilization and pesticide reduction.

Shares knowledge with others

"He's extremely thorough in everything he does," says Dr. Elton Smith, professor of horticulture (retired) at The Ohio State University. "He's done a lot for his company, but an awful lot for the green industry in general. He's written many articles and he's been extremely willing to share his knowledge with others."

Dr. Funk joined Davey in 1973 as a horticulturist after receiving his Ph.D. in Plant Physiology from the University of West Virginia.

"I had never seen a Davey truck and my perception of a tree company was pickup trucks and chain saws," Roger recalls of his school days in rural West Virginia. But his

mentor, Dr. Eion Scott, chairman at plant physiology at UWV, urged him to join private industry over academia in spite of more lucrative job research/teaching offers from Penn State and Tuskegee, AL. "Until I interviewed with Davey I didn't realize how sophisticated the industry was. And how much more it would become."

After joining the Ohio firm, he was named technical advisor and director of The Davey Institute of Lawn Sciences in 1975, director of research in 1976, vice president of research and development in 1979, vice president of human and technical resources in 1985. In 1996 he was named vice president and general manager of The Davey Institute.

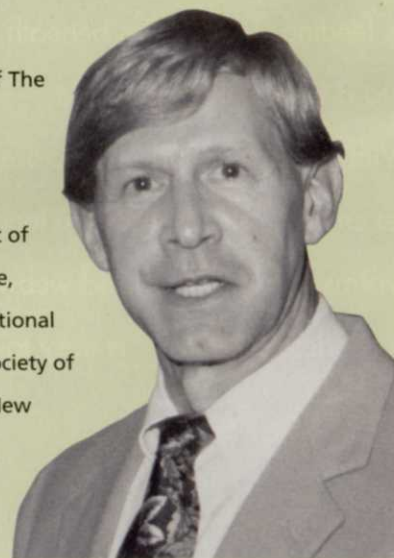
His research and teaching have helped keep The Davey Tree Expert Company at the forefront of the green industry.

"He is an excellent communicator and speaker," says co-worker and fellow scientist Dr. Balakrishna Rao.

"He's always been a big help to me. Whenever I've had questions, or needed second opinions, he's always offered useful, problem-solving solutions." **LM**

DR. ROGER FUNK'S CAREER HIGHLIGHTS

- ▶ **1973:** Joins The Davey Tree Expert Company as a horticulturist
 - ▶ **1975:** Technical advisor and director of The Davey Institute of Lawn Sciences
 - ▶ **1979:** Vice president of research and development
 - ▶ **1985:** Vice president of human and technical resources
 - ▶ **1996:** Vice president and general manager of The Davey Institute
 - ▶ **1996:** Honored with the J. Sterling Morton Award by The National Arbor Day Foundation
- Member, American Association for Advancement of Science, American Society for Horticulture Science, American Institute of Biological Sciences, International Society for Horticultural Science, International Society of Arboriculture, National Arbor Day Foundation, New York Academy of Sciences, Ohio Academy of Sciences, Professional Lawn Care Association of America, Strathmore's Who's Who.





Melroe Bobcat offers two sizes of Bobcat landscape rakes.

GROUND-WORKING TOOLS

These heavy-duty workers save hundreds of hours of hard, dusty labor when used to prepare a landscape site for project installation.



An 8-foot-wide leveler from Purdy Manufacturing.

By CURT HARLER

Rock pickers, scarifiers and rakes are like football linemen. They do the tough dirty work up front, preparing the way for the pretty boys to finish the job.

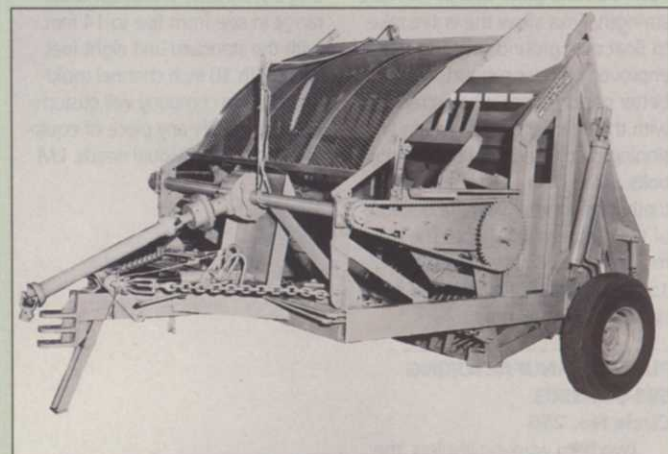
When choosing a rock-picking machine, keep in mind that PTO-driven machines are generally more versatile and will give outstanding results in severe rock or debris conditions. According to Armor Metal Products President Lee Andrews, a good PTO-driven machine will pick to depths of three-to-five inches in dry, worked soil.

Ground-driven machines are primarily for surface work and work best where rock is brought to the surface, Andrews says.

There are several ways to determine the correct operating depth. One is to watch the reel teeth as they pass through the soil passing over the apron's leading edge. The reel arm crossbar (which holds the teeth) should not strike the soil. The apron leading edge bar sides do not run as deep as the reel teeth are picking, but do give a good gauge of depth. Don't allow too much soil to pile up on the apron.

If it is very dusty, note the position of the front hydraulic cylinder shaft to determine the amount of control used. If large quantities of dirt are coming over the top of the reel with the arms, odds are good you are running too deep. Don't let too much soil pile up on the apron, either.

Randy Purdy of Purdy Manufacturing notes that the rough ground working machines are being used by everyone from



A PTO-driven Anderson Rotary rock picker.

developers, sod farms, golf courses, cemetery builders and softball and Little League associations.

Pickers generally are a good investment. A rock picker picking up roughly 250,000 pounds per day is doing the equivalent of 30 to 35-man days of rock removal. Even the toughest football player would be hard-pressed to keep up with that kind of performance.

ARMOR METAL PRODUCTS
406-442-5560
Circle No. 250

Heavy duty, Series-E PTO (power take off) driven Anderson Rotary Rock Picker is designed to remove rock ranging from golf-ball size to 200 pounds. The machine from Armor Metal, Helena, MT features constant reel power for continuous picking throughout its speed range of 1 mph to 5 mph. Self-cleaning apron and shock-protected reel are complimented by a 4000-pound capacity hopper which can be raised to 7.5 feet for truck loading. Requires wheel-type tractor with minimum 40 hp plus PTO and double-acting hydraulics. Can move 200,000 to 300,000 pounds per day. Optional 11L-15 flotation tires are available for use in soft ground or severe conditions.

ARMOR METAL PRODUCTS
406-442-5560
Circle No. 251

Handle a 10-foot swath with the Armor Rock Windrower. The 27-inch diameter reel is PTO driven, hydraulically controlled and has two spiral rows of double-braced, hard-faced teeth. Assembly is spring-loaded to give maximum ground pressure plus shock protection. Machine, made in Helena, MT handles rock conditions from scattered to severe.

DAIRON
717-288-9360
Circle No. 252

Quartet of tough machines from Dairon, Kingston, PA, handles stones, clods, grass and debris. The RX 130, RX 180, RX 220 and RX 300 Rotadairon units give working widths from 51 inches to 120 inches. Smaller two units require 48 to 95 hp, a 540 or 1000 rpm PTO and have a single side-driven transmission with dry clutch. The larger units need a Category 2 hitch, 1000 rpm PTO and a tractor with 90 to 150 hp. They have two-side drive and hydraulic clutches. These units cultivate to a depth of 8.5 inches, burying stones and leave a clean seed bed, creating a fine soil surface for good seed-soil contact.

GLENMAC
800-437-9779
Circle No. 253

The Harley Pro-6 and Pro-8 power rakes, from Glenmac, Jamestown, ND, level ground, pulverize the soil and remove stones and other debris. These units feature twin-drive rollers, oil-bath drives, splined power shafts, height adjustable wheels, and hydraulic float control on the Pro-8. Sized for 29-55 hp tractors, these units allow for left or right raking. The rotating tooth rollers leave a dimpled subsurface in the seedbed and a granular top, creating an excellent seedbed. Also available is the Model B stone picker that handles materials from one-half to 18 inches in diameter. Two models are available, requiring 35 to 75 PTO hp and an 11 gpm hydraulic at 1500 psi.

BEN MEADOWS CO
800-241-6401
Circle No. 254

When the rough grading is done and it's time to do the finish work, check out the full line of Union and True Temper rakes and forks available through the Ben Meadows catalog. On page 101 of the Atlanta, GA, firm's free catalog is a full line of level-head, bow, aluminum landscape and chrome-moly landscape rakes. Hoes, spades, picks and shovels are among the thousands of other landscaping-related



Harley power rakes level ground, pulverize the soil and remove stones and other debris. Features include twin-drive rollers, oil-bath drives, splined power shafts, hydraulic float control.

products on the pages of this 460-page book.

MELROE BOBCAT
701-241-8700
Circle No. 255

Two sizes of Bobcat landscape rakes, Models 5B and 6B, offer several improvements over the older A line from Melroe, Fargo, ND. Top cover has one-piece design for more strength, links allow the entire rake to float over ground contours, and improved cylinder supports offer better performance when scraping with the internal bucket. Chain tensioning is adjusted with tightening bolts as the chain wears and rake teeth have longer wear-life because of their trapezoidal shape. The drive motor in the 5B rake is sized for 12-15 gpm hydraulic flow; the 6B is sized for 15 to 18 gpm.

PURDY MANUFACTURING
501-946-3503
Circle No. 256

Two hard working levelers, the

D20 and a 3-point lift model are available from Purdy Manufacturing, DeWitt, AR. The D20 center axle rides on one center axle and the tractor draw bar. Patented trip blades and self-leveling cylinder make it perfect for raw new ground or finishing work. The 3-point lift model has a front V-blade for splitting hard ridges and cleaning or cutting out shallow V-ditches. Units range in size from five to 14 feet with the standard unit eight feet wide with 10 inch channel moldboards. The company will custom-build or modify any piece of equipment to suit individual needs. **LM**

Beyond nuts and bolts

Modern equipment maintenance means you watch for use patterns, trust mechanic intuition and have an inventory system that works.

By LUKE FRANK

Equipment care runs far deeper than changing fluids and checking parts.

When dealing with a significant amount of your company's budget—which maintenance and personnel represent—organization, education, communication and respect for each other and the equipment will place a company in a preventive posture, rather than demanding crisis management in peak season.

If there's an unsung hero in the landscape industry, it's probably your mechanic. Of all the people in your operation, "knuckle busters" are arguably the most responsible for the day-to-day success of a landscape company or golf course maintenance shop. But they can't do it alone.

Good equipment maintenance depends on training, organization and communication. Profitable landscape management practices require efficient technology, communication and record-keeping.

Not your customer's problem

"A good mechanic is essential for your business," says Eric Spalsbury, general manager of Albuquerque Grounds Maintenance (AGM), Inc. in Albuquerque, NM.

"Clients don't understand or want to hear about your equipment problems," he adds. "They'll find someone else who can service them." Downtime is costly. Equip-

ment sitting idle in the shop means less productivity in the field.

Ken Graves, with Desert Princess Country Club and Resort in Cathedral City, Calif., points out that part of management's responsibility is to continually strive to complete more work in less time.

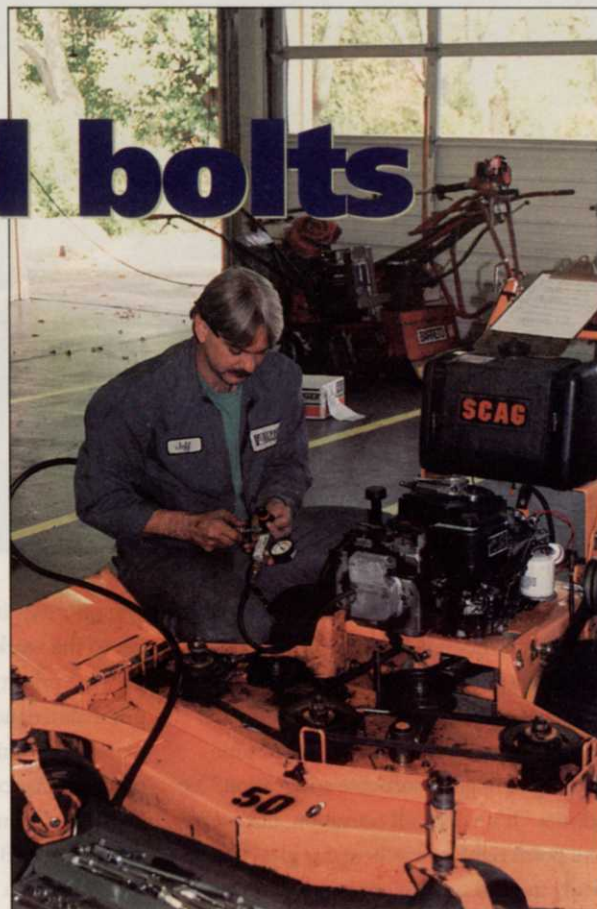
"And to a point, technology enables that to happen," he adds. "But with that philosophy, maintenance becomes increasingly important." His operation cultivates 400 acres of landscape and golf courses that sport consistent year-round traffic.

Ken Railey, who oversees \$3.5 million in equipment for Ruppert Landscape Co. Inc. in Maryland, offers that, although productivity is clearly important, safety is first in the proper maintenance of equipment. Of the 1,500-plus pieces of equipment under his domain, Railey reminds his seven shop managers that "safety is most important, then productivity, then image."

Take inventory now!

A stringent and current inventory system serves the mechanic, the crew and the company at every level. You must keep consistent and effective maintenance schedules. This keeps equipment performing the way manufacturers intended, which equates to properly performing, safe equipment.

Unfortunately, in the crush of a punishing season, common sense can elude us.



Maintenance schedules change because of what the crew learns about equipment.

The key? Having enough equipment to serve an expanding clientele without sitting on equipment that's not being used. It's an oscillating balance, but an inventory system, *any* system, will help.

Look for use, wear 'patterns'

Railey started with Ruppert about 15 years ago, tracking equipment with a binder and loose leaf paper. "I graduated to an index card system, then as the company continued to grow, I recognized the opportunity to log, analyze and compare maintenance procedures to find common denominators," he relates.

With the help of a computer software program, Railey compares shop activities for maintenance techniques, parts demands, equipment turnover and more. Patterns in equipment wear and failure begin to emerge.

PHOTO COURTESY RUPPERT LANDSCAPE CO.



◀ The Desert Princess crew keeps an eye on mower blades, in use 80 hours a week.

Interstate or inner city, your equipment needs to be documented. Spalsbury is looking for a turnkey software program to document equipment acquisition and maintenance. "We've spent a lot of time looking for a good software application," he admits. "It's a difficult transition, but we're at a point right now where our growth can really use the convenience and accuracy of computerized equipment maintenance."

"We track individual pieces of equipment by year, make and model," explains AGM's Fleet Manager George Cortez. "We log all maintenance and repairs for each machine, then we can see the history, which helps determine whether to repair or replace, and what to replace when we start tearing into a piece of equipment." New equipment is immediately added to the master list. Anything sold or retired is labeled accordingly, but records are kept to compare with similar pieces of equipment acquired down the road.

Train to maintain, retain

The link between inventory and maintenance is evident. Having the history of equipment quickly accessible will help you to repeat the positive, while preparing for past problems. Most agree that fleet vehicles are the most important equipment to the organization. "We have to have our trucks running or we can't do business," says Cortez. "Fleet trucks are our number-

one priority," insists Railey. "We have to get to the work site."

That priority manifests itself in the rigorous maintenance schedules assigned to Rupert's sales vehicles. "Our work trucks are on maintenance time schedules 'A,' 'B' and 'C,'" he explains. Twice during the landscape season 'B' and 'C' schedules are performed, which include washing the engine compartment, minor tune-up, oil change, lubrication, and a check of lights, tire pressure, belts, hoses, cables and cooling system. 'A' maintenance, performed once a season, includes washing the engine, frame and underbody, replacing all filters and fluids, a major tune-up, tightening all wheel lugs and axle flanges, and paint the vehicle's body, boards and wheels. In addition, each fleet vehicle gets a total reconditioning every year. "We're very thorough, and as a result, our work trucks usually perform to about 300,000 miles or around 20 years," he asserts.

How do you keep 1,543 pieces of small equipment running? Besides the basics, fluid and filter changes, it takes constant training and education, and a true team effort. Involve the crew, Railey asserts.

"Crew leaders and assistants perform the regular maintenance, and the mechanics handle all major repairs," he points out. "Our crews leaders clean and inspect all their equipment, change the oil, clean the filters, lubricate and sharpen blades twice weekly." Railey says that each crew spends about six hours a week on maintenance.

Graves bases his maintenance schedules strictly on manufacturer recommendations. "In the desert," he begins, "we really have to keep up, due to the heat and the stress placed on mowers churning through bermudagrass in the summer and ryegrass in the winter. We really have to watch the quality of the cut we get from our mowers. We go nonstop about 80 hours a week for maintenance on our golf turf equipment. Most of that is sharpening blades." His personal tip — use compressed air for daily cleaning. "When you use water everyday on a machine, it gets into the bearings and the fittings," he advises. "Water every day is just not good for equipment."

Railey begins with manufacturer recommendations, but then maintenance schedules are adjusted according to experience. "If there's a trick," he suggests, "it's

having an open mind. Every year our maintenance schedules change because of the input from crew members working with the equipment daily."

"That's the whole key," agrees Graves. "The operators have to communicate with the mechanics. There's no problem too small, because ultimately, small problems unaddressed lead to big problems."

Getting the crews to care seems to be a matter of generating respect among all members. Involve the entire crew in regular maintenance. Send them to distributor demonstrations and promotions, trade shows and association meetings. Encourage them to read trade journals. Get them involved. "You have to take care



PHOTO COURTESY RUPPERT LANDSCAPE CO.

Railey: repair logs went from index cards to computer programs.

Achieve Single Application Control with MERIT



Joe Prisco
Site Manager
Carmine Labriola
Contracting Corporation

Imagine an insecticide that only takes a single application to provide control for a broad spectrum of insects on turf, trees and ornamentals. This same insecticide would greatly reduce the time and expense of multiple applications you're currently making with other products to attain the same control.

Sound too good to be true?

Lawn care operators and golf course superintendents alike use only those products they can depend on. And many depend on MERIT® Insecticide, a product of Bayer Corporation.

Like Joe Prisco of Carmine Labriola Contracting Corporation in Scarsdale, N.Y.

"Since we began using the product three years ago, MERIT has saved us."

The Ultimate Grub Control

Prisco started using MERIT when several of his clients had terrible grub problems. "The grub controls that we were using just weren't working," says Prisco. "So we had to take curative measures, and ended up putting down a lot of product. It was taking two or more applications to knock them down."

The problem was so bad in some areas, Carmine Labriola Contracting Corporation had to replace sod. "At some of the apartment complexes we treated, we basically had to remove the damaged sod and bring in pallet loads of new sod to replace the areas that had been damaged," says Prisco. "This whole

process took a couple of years and was very costly."

So now, they use MERIT. "We like MERIT because its timing is great," he says. "The one-time application definitely is a savings, and not having to worry about whether the product is performing the rest of the season takes a lot of weight off your shoulders."

As a result, Carmine Labriola Contracting Corporation has seen a reduction in the number of call-backs. "Since we began using the product three years ago, MERIT has saved us."



Carmine Labriola
Contracting Corporation
treats the turf and ornamentals with MERIT at Boulder Ridge, a condominium complex in Scarsdale, N.Y.



of your people. A 'hire-for-life' philosophy, training, benefits," insists Railey.

"If we do our job well in the winter," Railey concludes, "then maintenance is slow in the summer."

Cortez agrees. "The real maintenance

occurs in the winter," he adds. "We go through every machine from top to bottom. We check the history of each piece of equipment, and how it performed during the summer, then move into checking engine compression to determine whether to

short-block or rebuild. We change all of the belts, tires, fittings, nuts, bearings and so forth."

—Luke Frank is a freelance writer for the landscape industry, based in Albuquerque, NM.

11 tips for winterizing outdoor power equipment

By PETE FERNALD

Anybody who uses power equipment and has changing seasons to deal with worries about the effects of winter layoffs, and with good reason. If your approach is just to throw your saw or trimmer on a shelf and figure you'll deal with it later, you can be pretty sure it'll be cranky, if not dead, when you pick it up again. And you'll face substantial service bills.

If you don't want the hassle (or cost) of rehabilitating your power equipment next spring, there are some quick and simple steps you can take now to make sure your equipment starts easy and performs well the next time you need it. Here are some useful winterizing tips:

1 PAY ATTENTION TO THE FUEL. You have two choices: drain it or stabilize it. The problem is that today's unleaded fuel has a shelf life of about 30 days. After that it starts to break down, build up varnishes and do all sorts of engine-choking things.

If you drain the fuel, make sure you get it out of all the carburetors and lines so they're dry. Taking the little extra time to do a complete job will pay off.

An even simpler approach is to add gas stabilizer to the fuel in the tank before you store the tool. That easy step goes a long way toward eliminating problems with fuel. You can buy stabilizer anywhere, and it's the single most important thing you can do to winterize power equipment.

2 IS AIR CLEANER CLEAN? The filter element in the equipment's air cleaner should be clean and free from dust buildup. More important, it should be intact. If neither is

the case, either blow it out with compressed air or go get a new one.

3 REGREASE GEAR CASE. Even people who remember engines sometimes forget about gear cases. Any trimmer, brushcutter or PowerBroom needs its gear case serviced periodically, and now is a good time. It's a simple process. Remove the collar underneath the blade holder(s), then remove the plug on the case to pump new, clean grease in and push the old out. Then turn the head a couple of times to distribute it.

4 EXAMINE FUEL PICKUP TUBE. It's important to give the fuel pickup tube a hard look because it relates directly to engine performance. For the external tube, look for signs of weather checking and cracking. For the internal tube, look for deterioration. Even tiny holes allow air to get in, disturbing fuel flow. If you see anything suspicious, replace it.

5 CLEAN CYLINDER FINS. Most outdoor power equipment engines are air-cooled, and the fins around the cylinders do the cooling. If they're loaded with debris, they can't do their job. Take a minute to scrape off the fins with a piece of scrap wood.

6 UNCLOG MUFFLER/SPARK ARRESTER. Pull the cover/heat shield off the muffler assembly and make sure it's clear of grass, dirt and dust. If that stuff builds up too much in there, poor engine performance will be the least of your worries. Left untended, dirty muffler temperatures can get hot enough to light anything flammable. And dry grass burns.

7 REPLACE SPARK PLUG. Replacing a

spark plug is easy, so why wait? Do it now, not later.

8 CHECK WEAR, DAMAGE. It makes good sense, depending on how hard you use your gear, to inspect all the cables, gear cases, switches, etc. for signs of wear or damage. If you find a problem that will affect performance, control or safety—fix it. And do that every year at this time.

9 PROTECT EXPOSED SURFACES. If you store equipment where it's exposed to moisture, it's a good idea to coat exposed areas—especially wear surfaces—with a film of grease or oil. If it's a complicated piece, spray it with WD-40 at least. Do this and rust won't be a problem.

10 STORE PROPERLY. Now that you've gone through your gear and performed all the winterizing necessities, take a minute to think about how you're going to store it. Even carefully serviced equipment is going to suffer if it's dumped in a pile on the end of the bench, or kicked around the shop floor for a month or two. Our advice: shelves and hangers. Hang shafted tools up. You can get the heavy prongs at any hardware store. Store saws and hedge trimmers on high shelves, on plastic trays in case any oil or grease drops off. If it's a dusty space, cover the engines.

11 NEXT SPRING'S TASK. There's only one thing left, and you should wait until next spring to do it. That's checking, and possibly replacing, the fuel filter. If it's hard or dirty, get a new one.

—The author is technical services manager, Shindaiwa, Inc.

Superintendents Depend on MERIT

Jim Loke, CGCS, was sold on MERIT even before he tried it on his course at Bent Creek Country Club in Lititz, Pa., because of the latest university research.

"In 1996, the entomologists from Pennsylvania State University came out and did test plots," he says. "That's when we saw the significant differences in the turf treated with MERIT as opposed to the untreated areas."

Loke first used MERIT in 1996 after seeing high populations of Japanese beetles and black turfgrass atenioides the previous year. "The results were dramatic," he says.

The larvae of black turfgrass atenioides are a common problem on golf courses with

a predominance of annual bluegrass (*Poa annua*) mixed with Kentucky bluegrass or bentgrass. The larvae feed on the grass roots, resulting in wilting and eventual death of infested turf.

Loke particularly likes the application flexibility and the length of residual activity of MERIT. "The unique thing about MERIT is that I started spraying in late June with my last application in July. The lateness and the timing didn't seem to matter," explains Loke. "MERIT performed throughout with only one application. We have seen great preventative control and suppression of damaging insects."



Jim Loke
CGCS
Bent Creek Country Club



Bent Creek Country Club
has been open for
play since 1993 and
has approximately
340 golfing members.



Liz Caudill
Co-Owner
Green Season Inc.



This homeowner's lawn
was protected from
grub damage with one
application of MERIT
early in the season.

LCOs Experience Fewer Call-backs

Ever since Green Season Inc. in Harrisburg, Pa., started using MERIT in their lawn, tree and shrub care service, Liz Caudill's phone doesn't ring as much.

"I'm on the receiving end of complaint calls, so I know if something is working or not," says Caudill, one of the company's three owners. "And if our clients aren't happy, I hear about it. The phone isn't ringing as much thank goodness to MERIT. MERIT has tremendously reduced my service calls."

Green Season Inc. prefers to sell preventative methods for their clients with grub problems as much as possible. "We always sell preventative methods," she says. "It's an insurance policy that if the beetles lay their eggs, we will have had it covered. We don't want to see replacement costs. It's such a waste of time and money if you can prevent it with something like MERIT."

One of the neighborhoods Green Season services was recently hit very hard with grubs. The next year, they applied MERIT as a preventative to every customer's lawn and were pleased with the results.

Less damage with dormant pruning

Proper tree and shrub pruning removes the dead, weakened, diseased or insect-infested branches. It prolongs plant life and improves plant health and appearance.

Pruning is important for landscape plants, which are often subject to stressful growing conditions.

Although maintenance pruning of most shade trees can be done year-round, intensive pruning should be done in the dormant season.

Late winter to early spring, just prior to the start of new growth, is a good time for pruning trees.

Pruning cuts made in the dormant season close rapidly during the flush of growth in the spring.

In trees that lose their leaves, it is easier to spot problem areas during the dormant season. Also, new leaves that emerge the following spring mask cuts made in winter. Pruning in late fall and

To prevent stripping bark, prune large limbs in three cuts. Make the first cut under the limb, the second on top to remove the majority of the limb, then the third to remove the stub.

"It worked," she says. "No more grubs. And the broad spectrum control is definitely a key benefit. We have been controlling Japanese beetle grubs in those same neighborhoods ever since."

The control that MERIT provides has proven itself to Caudill in more ways than one. "We have been on properties treated with MERIT next to neighboring lots that were not," she explains. "In some instances the untreated lawn would have

damage right up to the lawn treated with MERIT."

MERIT has also saved Green Season time and money since it performs with only one application. "We have had a zero fail rate and no call-backs," says Caudill.

"I swear by MERIT. I never want to use anything else again."

Effective Control on Ornamentals

Charlie King, owner of King Green, a lawn care company in Atlanta, began using MERIT in small quantities on his clients' ornamentals. "We tend to start real slow with new products because of the kind of investment," says King. "But since we tried MERIT, we've used more and more every year—now we're into even more usage. The more we use it, the more we like it."

King Green services the entire metro Atlanta area, from Dalton, Ga., to about 20 miles south of the city. In this region of the country, King's customers experience problems with insects such as lacebugs and aphids on ornamentals. And he depends on MERIT for control.

The company treats a prominent property management company in Atlanta, which includes 35 apartment complexes throughout the city. King applies MERIT to protect the ornamentals at each complex.

MERIT is effective against a variety of ornamental pests, including Japanese beetles, leafminers, scale insects and whiteflies, as well as aphids and lacebugs.

"The key is that we don't have to respray where we put MERIT down," he says. "One application will do the job."

MERIT also fits in with King Green's Integrated Pest Management (IPM) philosophy. "Our job isn't to load the country down with pesticides, it's to keep plants pretty and healthy," explains King. MERIT helps King and his company do that with only one, low-rate soil application per season for control, versus multiple applications of a curative product.

Lawn care operators and golf course superintendents agree—for control of insects on turf and ornamentals, MERIT is



Charlie King
Owner
King Green



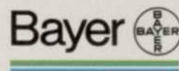
The ornamentals at this apartment complex are protected from lacebugs, aphids and other insects with one application of MERIT.

the insecticide they can depend on for effective, single application control.

For more information on MERIT, contact:

Bayer Corporation
Garden & Professional Care
Box 4913, Kansas City, MO 64120
(800) 842-8020
<http://usagri.bayer.com>

ALWAYS READ AND
FOLLOW LABEL DIRECTIONS



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early winter reduces sap flow from pruning cuts on trees such as conifers, maple, birch and walnut. Winter pruning minimizes damage to some tree species. The bark of some trees, such as maple and ash, can eas-

Cutting tips

✂ Proper cuts in late winter compartmentalize more rapidly with faster woundwood response. Good winter pruning cuts produce circular "doughnut" callus response in late spring on a relatively healthy tree. The callus develops over the pruning wound margin and differentiates into true wood (woundwood) as the growing season progresses.

✂ When hand pruning, cuts on smaller branches and twigs in the dormant season should be slightly higher at nodes (bud/branch junctions) than cuts at nodes in the growing season.

✂ Winter cuts should start about $\frac{1}{8}$ of an inch above the bud and slant away at a 45 degree angle to avoid low temperature injury to bud tissues.

ily tear loose during climbing and pruning during the spring flush of growth.

Don't confuse proper tree pruning with topping. Topping is the indiscriminate removal of a tree's main leader and branches, resulting in stubs. Topping severely disfigures trees and results in "watersprouts" which are weak limbs susceptible to damage from high winds or other adverse weather. Thinning is the correct method of branch removal. Branches are removed from their point of attachment to the trunk or another branch. This method eliminates unhealthy and unsightly stubs. Thinning the canopy reduces the amount of high wind damage.

Professional arborists also consider the tree's branch structure, growth structure and growth habits to produce the strongest, most attractive plant.

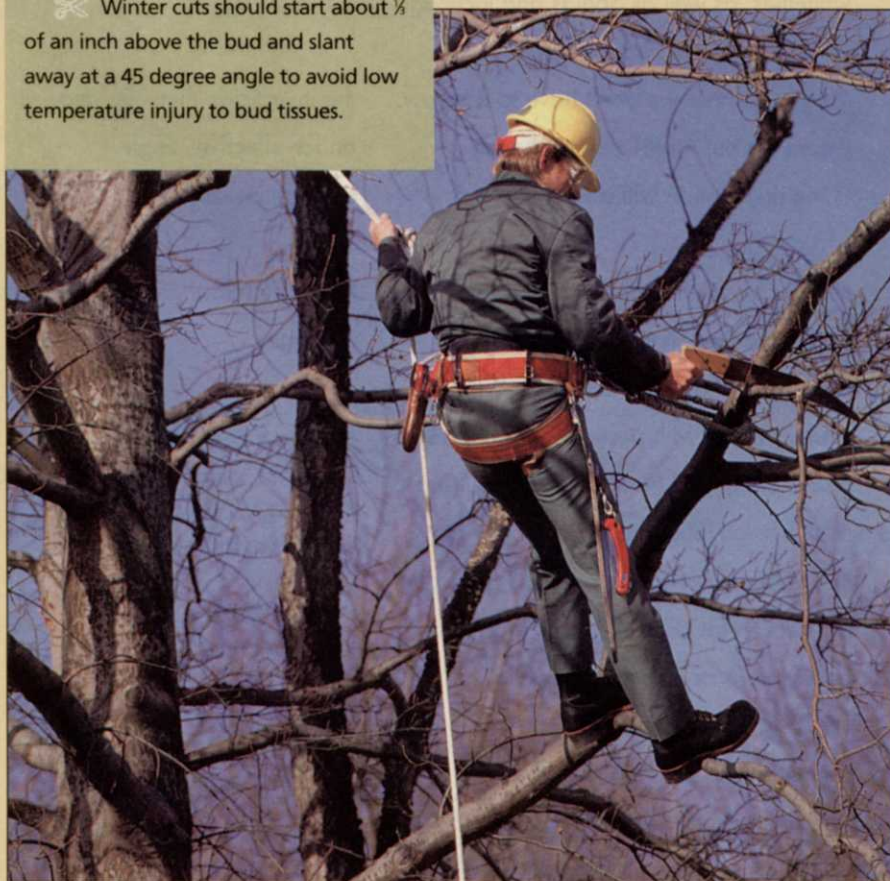
When shrubs flower a key

The best time to prune shrubs depends on the plant's flowering habit. Spring flow-

Fast growers

Some trees need very little pruning. Their natural habit is symmetrical and balanced; and they have little tendency to sprout unwanted shoots along their branches. These trees only need attention when they develop diseased or damaged limbs which need to be removed. Trees that need more attention are the fast growers; those that may be only marginally cold hardy in your area; and those that have weak wood or produce narrow crotches where the branches grow from the trunk. Trees planted in the wrong spot under utility lines, crowding walls and hanging over roofs and gutters need frequent pruning. If a tree is too large for its location, judicious pruning can reduce the size of the tree without destroying its attractive, natural shape.

*Courtesy Technic Tool Corporation,
Lewiston, Id.*



ering shrubs should not be pruned heavily in the winter. Although winter pruning does not damage the plant, it can remove flower buds produced during the previous growing season, resulting in fewer blossoms next spring. The best time to prune these is immediately after late spring petal fall.

Though summer flowering shrubs can be pruned at any time of the year until close to the time of bloom, late in the dormant season is the best time.

Improper pruning practices can harm trees and shrubs. Pruning cuts that violate branch and trunk collars—natural barriers to disease-causing organisms—can leave trees and shrubs vulnerable to disease.

To ensure tree and shrub health, professional arboricultural standards should be followed when pruning.

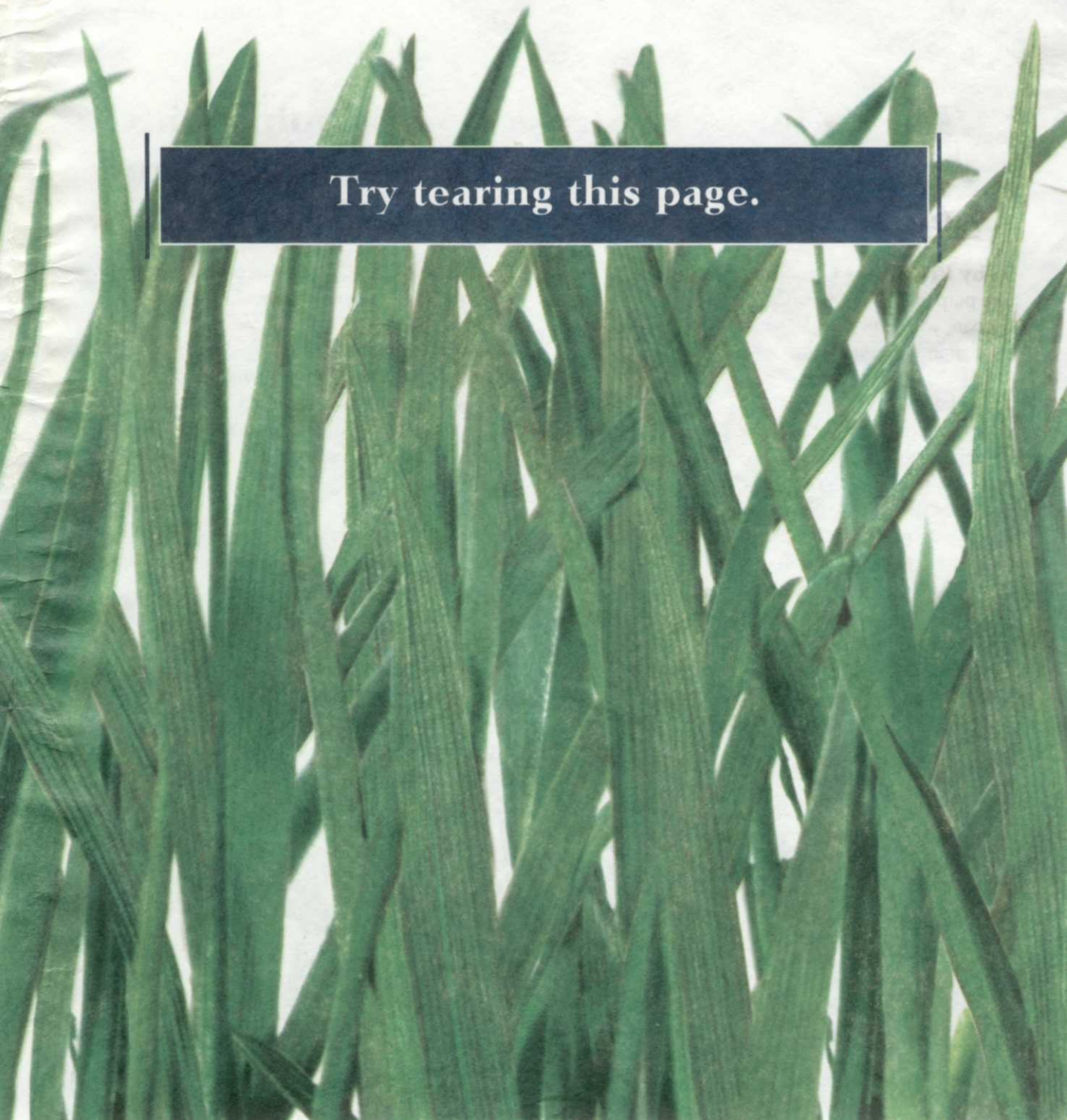
Correct pruning produces healthier, stronger trees that live longer.

—*This information Courtesy the Davey Tree Expert Co., Kent, Ohio.*

Proper pruning improves the health and appearance of trees. Winter is an excellent time for most pruning.

**There's a simple way to
understand the benefits of using Primo[®]
for Pre-Stress Conditioning
on your golf course.**

Try tearing this page.





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Primo®



**For Pre-Stress
Conditioning.**

This is how Pre-Stress Conditioning with Primo strengthens and beautifies your turf before the onset of another difficult season.

Why Pre-Stress Conditioning?

The purpose of Pre-Stress Conditioning is to help you prepare your golf course ahead of time to cope with the extreme conditions that make up a typical season.

As you know, it's difficult to manage the harmful effects of heat, drought, disease and traffic once they occur. But now extensive research has proven that a program that includes applying Primo prior to the onset of stress can strengthen the structure of turfgrass to greater withstand these ongoing stresses throughout the season.

How Primo Achieves Remarkable Results.

The advantage of Primo versus other plant growth regulators is that it only targets the part of the plant which inhibits vertical growth. So Primo, unlike other

PGR's, still enables rich turf color, bigger root systems, lateral stems and root mass development.

The End Results.

On turf treated with Primo, the end result is a healthier, more durable blade with a higher tolerance to extreme elements. This new, stronger grass will also be more disease resistant and have a faster divot-recovery time.

And essentially, a healthier, stress-resistant turf means a more beautiful, better playing golf course all season long.

To start your Primo Pre-Stress Conditioning Program, call 800 395 - TURF for the name of your Novartis sales representative or your nearest Novartis distributor.



The green grass of summer is now dormant, and you're probably starting to take stock of your season, and *plan your vacation!* We hope you were able to accomplish at least one or two of the projects you had lined up. We know there were probably a few drawbacks. People quit, equipment breaks down, and the weather is always a big question mark...and how!

From the internet: from June to July, Randy Zidik, CGCS at Rolling Hills CC, McMurray, Pa., had 1.9 inches of rainfall. While 250 miles to

the south, John Cummings, Berry Hills CC, Charleston, W.Va., had eight inches of July rain.

"This lack of rainfall has been compounded by the fact that we have had numerous sunny days with very low humidity in the area of 30 percent," wrote Zidik.

David Moore reported on-line that more than seven inches of rain had fallen at Thousand Hills

Golf Course & Resort, Branson, Mo., in August, compounded by cloud cover.

"And we are having a very cool August," wrote Moore. "And looking at my radar it will be raining here again in about an hour and it looks like at least another inch [will fall]."

David Fearis, CGCS, Blue Hills CC, Kansas City, said temperatures varied all summer.

"On July 4th it was 78 degrees," wrote Fearis. "However, during the week of June 23-27, it reached 100 degrees three times...I am ready for snow!"

"Like all things, you learn to adapt," wrote Bruce Williams, CGCS, who this year completed a move to Los Angeles Country Club from his long-time digs at Bob O' Link, Highland Park, Ill.

"When I interviewed for the job at LACC it rained all day. I thought that was nice, except for the slowdown of traffic during the rain. Little did I know that the last measurable rain here would be .19-inches in February. They tell me the next

Was summer all you hoped it would be?



Terry McIVER

TERRY McIVER
Editor-in-chief

GOLF

PAGE 6 G ▶

Sage Meadows a full-service course

PAGE 9 G ▶

Innovations at Springfield

PAGE 13 G ▶

Stone tries, likes new fungicide

PAGE 18 G ▶

Nursery for 'replacement parts'

PAGE 18 G ▶

Bentgrass varieties well-tested

best chance for rain is in November.

"I do enjoy controlling the water rather than having it control me," wrote Williams, who has wall-to-wall irrigation at LACC.

"Too many times in Chicago we had an 85 percent chance of rain and did not water, only to find a 95 degree day with full sun in place of forecast rain."

We wish Williams well as he nears the end of his first year at LACC.

How's your equipment maintenance program going? Our article on page 25 goes "beyond the nuts and bolts" of equipment, to some basic truths that are becoming more evident as the labor pool continues to drain.

Ken Graves, Desert Princess Country Club and Resort in Cathedral City, Calif., points out that part of management's responsibility is to strive to complete more work in less time. His operation cultivates 400 acres of landscape and golf traffic.

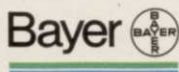
This fall and winter is your time to take a vacation, do some delayed studying, and plan for next year. If you can fit it in, please send us some of your ideas on how you are going to plan ahead for the new year. We'd love to hear from you. **LM**



GOOD HELP THAT STICKS AROUND

Like we need to tell you. We realize that grubs are just one more item on the long list of things you deal with everyday. But MERIT® Insecticide

has such a wide window of application and long residual control, that one application is all it takes to eliminate the very thought of grubs through the fall.



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ALL SUMMER IS HARD TO FIND.



Which should be of some comfort. Because you don't need grubs trying to ruin your course. You have enough help doing that already.

For more information, contact Bayer Corporation, Garden & Professional Care, Box 4913, Kansas City, MO 64120. (800) 842-8020. <http://usagi.bayer.com>

Fungicide

Superintendent Stone is happy so far with results from new control product.

earns high 'Honors' marks



Clemson researcher Martin is also encouraged, but advises supers to keep the 'old standby' products on hand for certain control challenges.

▲ David Stone won't be fenced in by complacency. He often takes advantage of opportunities to try new control products.

The first and last questions a superintendent has when presented with a new product is, "Does it work? Will it work on my course?"

David Stone, golf course superintendent of The Honors Course, Inc. in Ooltewah, Tenn., wants to know as much as any superintendent when it comes to product efficacy.

Located in the Chattanooga area, about 100 miles north of Atlanta, the private 18-hole course of zoysiagrass fairways and bentgrass greens has an elevation of 700 feet and is nestled between hills and dense trees with little air movement during the summer when temperatures stay around 90° F. with constant high humidity. Rainfall is plentiful, an average 52 inches a year.

"In fact, we average over 5 inches in the month of July," Stone says. "That's our hottest month, and also one of our highest rainfall months. With not much wind, that's tough."

Brown patch control at low rates

Brown patch (or zoysia patch) is Stone's primary disease concern at the Honors Course. It can appear when the zoysia is weak or stressed in the fall, when

temperatures cool, and last through the spring before temperatures heat up again.

Stone always experiments with new products. When Heritage became available as an experimental product in 1995, he gave the fungicide a trial run for brown patch control and continued his tests through 1996.

Heritage fungicide, from Zeneca, is the first representative of a new class of fungicide chemistry called strobilurins. The company's claim of long-residual control of the broadest spectrum of diseases ever is of great interest. That it is highly active in small amounts—just tenths of an ounce—has prompted talk about careful application. A spill at the tank could be expensive.

Thorough on-site test

Stone first tested the product in 1995, on bentgrass. Stone installed plots of 27 different bentgrass varieties, with replications, in a partial shade with little air movement. No fungicide applications had been made on the plots, with the exception of a control material used for dollar spot. By July 5, the plots had a significant amount of brown patch disease. Stone applied Heritage at the 0.4-ounce per 1,000-square foot rate to half of the plots.

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Martin: Keep SBIs handy for dollar spot.

"The Heritage stopped and cleared up the existing brown patch on those plots," Stone says.

"And it was almost five weeks before any brown patch activity showed back up in those plots. That's very impressive. It stunned me, it really did."

Long residual, no phytotoxicity

Bruce Martin, Ph.D., turf pathologist at Clemson University, found the product lasts longer than more conventional brown patch materials.

"Heritage has given as high turf quality as any currently available materials under moderate to very high disease pressure, but without the negatives of short residual or potential phytotoxicity," he says.

"Our testing has shown good to excellent control of brown patch and summer decline in bentgrass with Fore and Fore/Aliette combinations, but residual control is poor, requiring multiple applications on short intervals when disease pressure is high," Martin says.

"Daconil is also very good and provides consistent control under moderate- to high-disease pressure, but better residual control than Fore or other products containing mancozeb. In my trials, Daconil has not quite provided the highest turf quality in very hot (100° F. and above) weather, as Fore or Fore/Aliette, but it is very close.

Turfgrass quality was a factor that Stone watched closely, as well. In his 1995 tests, Stone decided to use Heritage at the 0.2-ounce per 1000-square foot rate every two weeks on three of his average greens on the golf course.

"We rated those three greens as the best greens on the course that year," Stone says. "So Heritage could have had some turfgrass quality enhancement benefit

in addition to disease control. For sure, there's no damaging effects like we can have with the sterol inhibitors in the summer."

"Certainly there is a place for *sterol biosynthesis inhibitors* (SBIs, such as Eagle, Bayleton, Banner,

Sentinel and Rubigan)," Martin says. "They are still the best dollar spot fungicides available and some have excellent activity on other diseases. But SBIs (at least the one's currently available) can induce unacceptable plant growth regulation effects on bentgrass and Poa-dependent greens in hot weather. Heritage does not do this, even in very hot weather."

Because this fungicide does not control dollar

spot, Martin says dollar spot must be controlled through use of SBIs before hot weather becomes problematic. Or Heritage can be used in combination with chlorothalonil, iprodione, vinclozolin or some other fungicides to control dollar spot.

"Some of the latter fungicides, in combination with Heritage, provide excellent tank mix partners," Martin says.

"Superintendents with more dollar spot-susceptible cultivars, such as Crenshaw, should take note of this."

'Flexible' disease management

Martin points out that the product is the first fungicide that penetrates the plant, is upwardly mobile and controls both brown patch and Pythium blight. "This adds flexibility increases options for disease management programs," he says. The activity is a reflection of its chemistry. It is the first product in a new class of chemistry called strobilurins. Azoxystrobin, the active ingredient of Heritage, is synthetically derived from naturally occurring fungicides produced by several species of wood-decaying mushrooms.

These mushrooms produce "strobilurin" fungicides that inhibit competitive fungi while they break down dead trees. Natural strobilurins must be continually produced and excreted by the fungus, because they are unstable in the presence of light and other microbes. To form a more stable molecule, Zeneca modified the chemical structure of the strobilurin in the laboratory.

Preventive use for Stone

According to Zeneca, azoxystrobin is the only fungicide active ingredient that controls representatives of all four major classes of fungi, including the oomycetes, ascomycetes, basidiomycetes and deuteromycetes. Sterol inhibitors work by affecting a compound required by only three of the disease classes. Azoxystrobin stops the formation of ATP, a material required for metabolism in all fungi. As a result, azoxystrobin is a true fungicide. It actually kills the fungus by stopping active mycelium, preventing spore germination and inhibiting production of new spores in certain fungi.

Based on his experience, Stone believes that the product should be used on a preventative basis. Although both preventative and curative applications performed well, the preventative use was the better timing for Heritage. He plans to use it on his greens this year, under full registration, alternated with other materials to manage the potential for resistance.

Stone plans to use Heritage on his greens this year, under full registration, alternated with other products to manage the potential for resistance.

Stone will either make 0.2-ounce rate applications every couple of weeks or go with the 0.4-ounce rate at monthly intervals. He wants to review the product's activity on his zoysiagrass fairways. Last year he used Heritage at the 0.4-ounce rate on test strips located at his number 7 fairway, a hole located in a bowl with higher surrounding humidity. Number 7 is always prone to brown patch.

"We had total control for the fall and winter and through much of this spring. All the untreated strips have very high disease occurrence," Stone says. "We did make a second application in April on half of the strips. But even on the one's we didn't re-treat, there was not much disease activity."

Superintendents will find the fungicide is easy to mix and work with, Stone says. His workers have

not noticed any fumes or odors. A buffering agent is not required in water, he says, because the product is stable under a wide pH range. The Honors Course team has not noticed any phytotoxicity or negative effects on beneficial organisms, such as earthworms.

"The bottom line with Heritage is that it increases our options for disease control," says researcher Martin. Heritage is new. Although a lot of testing has been done, we still have a lot to learn."

Questions remain relative to anthracnose basal rot control or fairy ring control, for example.

Photos by Scott C. Lee.

ed. note: Inclusion of product names does not imply endorsement, nor does omission of any product does not imply criticism.

FUNGICIDES WERE FIRST USED AS SEED TREATMENTS

1915: ORGANOMERCURIAL FUNGICIDES

- ▶ Provided fungicidal and bactericidal activity
- ▶ First introduced as seed treatments
- ▶ Later became available as foliar sprays
- ▶ Diseases controlled: Snow mold
- ▶ No longer registered for turfgrass use

1930S-1940S: DITHIOCARBAMATE FUNGICIDES

- ▶ Includes mancozeb and substituted benzene (chlorothalonil, PCNB) fungicides
- ▶ Multiple-site protectant fungicides
- ▶ Active against a broad spectrum of fungi
- ▶ Short residual
- ▶ Widely used in combination or alternation with longer residual fungicides

1968: BENZIMIDAZOLE FUNGICIDES

- ▶ Includes benomyl and thiophanate-methyl
- ▶ Important breakthrough: First curative, systemic fungicides
- ▶ Could be used at lower rates with longer intervals
- ▶ Plants translocate active ingredients directly to the fungus
- ▶ Thiophanate-methyl still widely used on turfgrass

1978: PHENYLAMIDE FUNGICIDES

- ▶ Includes metalaxyl
- ▶ Especially useful against one class of fungi (Oomycetes)
- ▶ Controls Pythium, Phytophthora, etc.
- ▶ Metalaxyl remains in use on turfgrass

1980: DEMETHYLATION INHIBITOR (DMI) OR STEROL BIOSYNTHESIS INHIBITOR (SBI) FUNGICIDES

- ▶ At the time, these fungicides offered the widest range of activity
- ▶ Effective against three of the four major classes of fungi
- ▶ Not effective against Oomycetes fungi, including Pythium and Phytophthora
- ▶ Could be used with lower rates and offered long residual activity
- ▶ More fungicides marketed from the DMI's than any other group
- ▶ Widely used today on turfgrass

1997: STROBILURIN FUNGICIDES

- ▶ First fungicide to control all four major classes of fungi
- ▶ "True fungicides," strobilurins actually kill the fungus by stopping active mycelium, preventing spore germination and inhibiting production of new spores
- ▶ Preventative and curative activity
- ▶ Highly active at extremely low rates with long residual
- ▶ Does not control dollar spot
- ▶ Controls more than 18 diseases, including brown patch, Pythium, take-all patch, summer patch, anthracnose and snow mold
- ▶ Heritage fungicide, first strobilurin introduced, was registered February 7, 1997

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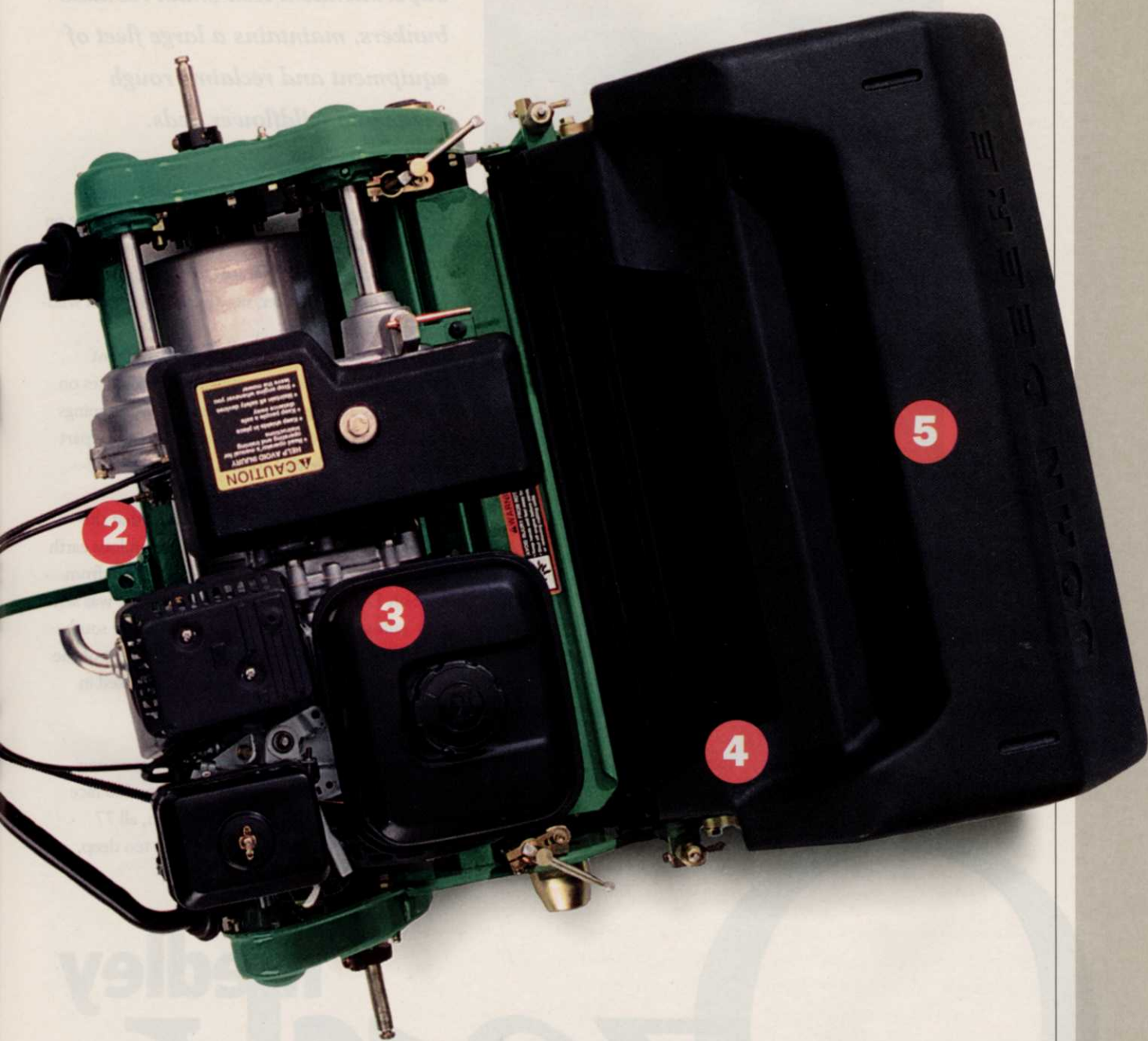
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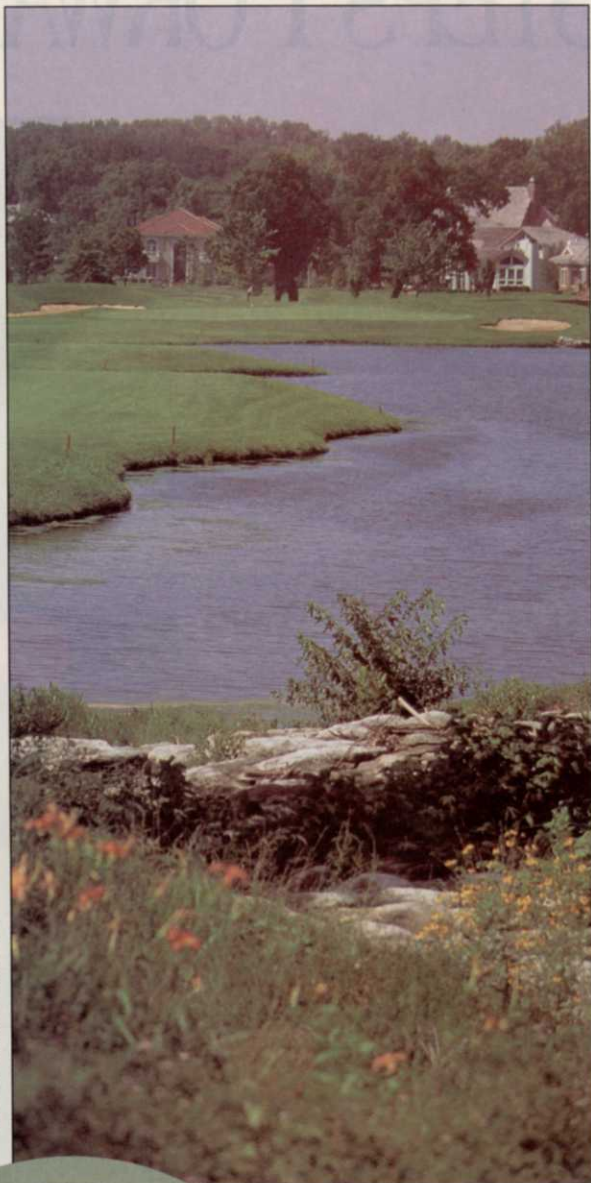
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By LESLEE JAQUETTE

Superintendent Ken Smith rebuilds bunkers, maintains a large fleet of equipment and reclaims rough areas into wildflower beds.



PHOTOS BY LESLEE JAQUETTE

Superintendent Ken Smith of Highland Springs CC, Springfield, Mo., has “gone on the offensive”, to solve certain maintenance challenges. Solutions include a safely modified weedeater, new bunker sand and wildflower reclamation.

Designed by Gary Lynn with Robert Trent Jones, Jr., the 18-hole private course capitalizes on the Ozarks’ rolling terrain, limestone outcroppings and deep-rooted deciduous canopy. It is a key part of a 300-lot residential community that also demands substantial landscape attention.

Superintendent Ken Smith explains that the 200-acre course was opened after tremendous earth moving work in the fall of 1989. Smith hails from the Fort Dodge CC in Iowa, and admits he was sent into “culture shock” by lack of topsoil at the southwest Missouri course. Eventually, 80 percent of the topsoil at Highland Springs had to be trucked in from river beds.

Deep-lipped bunkers

Once the dirt was in place, the designers engineered the Trent Jones’ bunkers that tend to face the golfer head on. According to Smith, all 77 bunkers were built with lips that were too deep,

Ozark¹ medley

which maintenance crews have worked to correct over the years. To do this they add clay to soften the slopes and allow for a two- to three-inch sand fill contour. Currently, the bunkers need eight to 12-inches of sand to fill the void.

The silica sand looks gorgeous, but it doesn't work well, due to the shape of the sand particles. The sand does not compact much upon ball impact, says Smith.

"The result is lots of 'fried egg' lies. The ball goes 'splat!' and is buried in the sand."

The sand also tends to move downhill. Heavy rains carry the sand into drains, another maintenance headache. Even though Smith's summer crew of 20 has used a Sandpro to push the sand back up, it still gets contaminated by the rocks and soil.

A different sand

Smith's solution is to remove the old sand and start over. He estimates it will take several winters to replace the sand. This time he's using a sand with a more angular particle size. It's mined from river beds near Kansas City.



Smith's hydraulic weedeater attachment eliminates trouble when mowing around lake banks and bunkers.

His crew is also rebuilding the perimeters, checking drainage tile, ripping out old lines and using pea rock to level tiles. By the end of this winter Smith plans to rebuild half of the bunkers.

Nike Tour promoters call Highland Springs the "ultimate obstacle course," with its water and rock hazards and its six-inch roughs.

Some disease problems

Fairways and tees are zoysiagrass. Roughs are a combination of turf-type tall fescue and Kentucky bluegrass. Smith says this combination works well in the transition zone because when the bluegrass struggles with the Missouri heat, the fescue balances it out.

The fescue is prone to brown patch, however. To control the problem, Smith's crew sprays Cleary's 3336 on all green and fairway surrounds twice each summer. Typically, he sprays four weeks apart, as disease progression indicates.

Smith's most difficult disease problem has been anthracnose basil rot. The disease enters through turfgrass abrasions during the summer months.

Speed up, slow down

Not only does his crew maintain the course equipment, but it maintains a fleet of equipment used for real estate development. This includes a street sweeper and snow removal vehicle.

"The problem is the unexpected; and that people are in too much of a hurry," says Smith. "Still, it's a balancing act because we sometimes push the crew. Other times we say, 'slow the machines down.'"

To better manage mowing the severe angles caused by sand bunkers and lake perimeters, Smith got creative. He modified a walk-behind rotary mower with a hydraulic weedeater, and mounted dual tires to keep the machine from rutting. Now the machine mows the hard-to-get 18-inch strip between a bunker and the mower. One man can mow three acres of difficult



By winter's end, Smith and crew will have rebuilt many Highland Springs bunkers.

terrain, where previously three workers mowed, trimmed and raked.

Blooming beauties

Smith is changing some of Highland's turf acres into wildflowers. So far, he and Ornamentals Superintendent Linda Lindsey and her staff of two have successfully used wildflowers to beautify the numerous limestone outcroppings and ravines. People appreciate the flowers here.

Smith and Lindsey would like to reclaim 10 percent of the course for wildflowers, and to establish native grasses like big bluestem, little bluestem and love grass. This would also reduce course maintenance.

But, given the upscale, manicured nature of the development, it would be inappropriate to plant the long grasses adjacent to houses that line the course.


As members and owners become more aware of the issues, the staff hopes to eliminate difficult mowing areas and balance the intensive maintenance with plants that are easier to maintain.



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Circle No. 104 on Reader Inquiry Card

A COURSE DESIGNED FOR 'affordable' golf

Superintendent Greg McDaniel is eager to open golf course development in Arkansas for middle-class American golfer.

By GARY BURCHFIELD

Golf developments typically appeal to people with lots of money. A Jonesboro, Arkansas, development, though, is targeting the "average" person. This new approach is being embraced by Jonesboro-area golfers.

Homes are already being built as Phase I of the new Sage Meadows Golf Club, an 18-hole course aiming for a March opening. The project could grow to as large as 500 building lots.

Sage Meadows is "semi-private" but will be open

to the public on a daily fee basis. Home owners in the development can join the golf club for a one-time initiation fee of \$1,000 and a monthly fee of \$125 per individual or \$145 for a family.

Fees for public golfers are reasonable, \$25 on Fridays, weekends and holidays, plus \$10 cart fees. Weekday rates are \$22. Junior rates are \$18 on weekdays and \$22 on weekends, after 2 p.m.

Golf Course Superintendent Greg McDaniel, who has been on the job since last April, says he can't wait to get the new course open.

"We've got a new course, close to a half million dollars worth of new equipment, and some new ideas," McDaniel says. "I'm just anxious to get it open and see it busy."

Last spring, the developers planned for a November opening, but a six-inch rain in September washed out most of the seeded greens, forcing McDaniel to replant. "It actually worked out okay, because we were able to improve some of the edges when we re-seeded," he says.

The course features sodded Meyer zoysia fairways, a variety of zoysia that can stand up to winter. Greens are bentgrass, seeded with Dominant bentgrass mixture. Tees, roughs and surrounds are Tifway 419 hybrid bermuda. Secondary areas are seeded to native grasses and wildflowers, with some common bermuda to help hold soil until the native plants take hold.

Sage Meadows' 13-acre driving range has large berms on each side to contain golf balls, and protect players on holes 1 and 10. Target greens are zoysia. Approaches were sprigged with 419 hybrid bermuda. Two chipping greens near the club house and a putting green at the pro shop offer several alternatives for private lessons and practice.

"We designed large tees with up to five tee positions each to give us more room to rotate markers and reduce wear on the tees," says McDaniel.

He says the course is designed with a minimum



Sage Meadows is semi-private, with daily fee play available to the general public. Holes on the course are described as 'beautiful,' 'demanding,' 'tough,' and 'one to remember.'

Md. oceanfront course to reopen

Berlin, Md.— The Newport Bay Golf Course at Ocean City Golf & Yacht Club in Berlin, Md.—previously known as the Bayside Course—has been completely redesigned and rebuilt, and will reopen for play in Spring of 1998.

It's been nominated as one of *Golf Digest's* "Best New Courses" for 1998. Golf Course Architect Lester George, of Colonial Golf Design, Inc., Richmond, Va., completed the design and has been overseeing the project since it started in January, 1996.

"It's a totally new course, with all new tees, greens, bunkers, irrigation and cart paths," says George. "I have redesigned or renovated every hole and the practice range."

The construction was handled by Quality Grassing of Lithia, Fla. Ocean City is a 36-hole private club, which is open to the public for resort daily fee play.

number of "parallel" holes and more of a "play around" layout. "It's pretty hard to hit into a fairway other than the hole you're playing."

Sage Meadows also has a top-of-the-line Rainbird Nimbus irrigation system with the "Freedom System" radio control. The system, when complete, will have about 950 sprinkler heads.

Developers provided a good budget for both equipment and maintenance, says McDaniel. His equipment line-up is heavily Jacobsen and includes two triplex greens mowers, two midweight fairway mowers, two heavyweight rough mowers, three walk-behind aerators, a Verti-Drain aerator, and 10 utility vehicles. Most of the equipment package was leased through Textron and the Bob Ladd Company, Memphis.

McDaniel had been assistant superintendent at Old Waverly Golf Club, West Point, Mississippi. (*Golf Digest* has recognized Old Waverly as one of the "Top 100" courses in the U.S., and the course has been selected to host the 1999 U.S. Women's

Sage Meadows particulars

Sage Meadows Golf Club is being developed by three local Jonesboro, Arkansas, businessmen: Bob and Ed Trout, who own the local *Jonesboro SUN* newspaper, and Kent Arnold. The trio is developing a similar project in Florida.

Home sites on the Sage Meadows course will range from condominium to estate size, and range in price from \$30,000 to \$100,000 per lot. The club includes a pool and racquet club with three tennis courts. Pool and tennis facilities are available only to property owners and guests.

The new 5,000 sq.ft. clubhouse includes a pro shop, grill and snack bar, and a private lounge. The lounge will be available to the general public on a membership basis and nominal fee.

The Tommy Bolt Signature golf course was designed by Kevin Tucker, Nashville, Tennessee, and built by Sajo Construction of Houston, Texas. Distances range from 166 yards on the par 3 hole number 5 to 605 yards on the par 5 number 15.



McDaniel: Five position tees give more room to rotate markers, reduce wear.

Open.) He and Mike Donoghue, assistant superintendent, operated out of a mobile home office during construction of the Sage Meadows course. McDaniel says Donoghue has been a great help in getting the course ready.

Turf nursery provides 'replacement parts'

by DR. BILL KNOOP,
Technical editor

I've always suggested that a golf course have at least one turf nursery. The more I'm around bentgrass in the south, the more I'm sure a nursery is absolutely necessary. As we all know, growing bentgrass in a hot, humid climate can be a very tenuous situation. If you haven't seen just how fast bentgrass can die when the conditions are right (or, I should say, "wrong") you're lucky. Poor soil drainage, high temperatures, high humidity, poor air drainage and poor water quality, plus high traffic are some examples of the negatives that can cause bentgrass superin-



This nursery at Sandridge Golf Club, Chardon, Ohio, will provide Superintendent John Zimmers with turfgrass for green or fairway repair. The course opens in 1998.

tends some sleepless night. At times, we're going to lose some bentgrass no matter what we do.

I knew a superintendent who had 17 great bentgrass greens and one that was a real problem. It was at the bottom of a hill and had trees all around it. The result: no air drainage. The trees which should have

been cut down or at least thinned out were on someone else's property. Nearly every summer, that green began to show spike marks, and it would just about stop growing. When the green began to look and play bad, the superintendent simply, overnight, replaced the surface with turf from the nursery. Most years, the newly-sodded green stayed in fair shape until cool weather returned.

Another superintendent had three greens that were in a flood plain. It was just a fact of life that every few years those greens were going to be under water for a week or so. Since these were bentgrass greens, they don't last long under water. Even if they didn't die from the flood, the silt left behind would completely plug up the green.

Since it's nearly impossible to remove silt from a green, the only real answer seems to be to remove the whole turf surface deep enough to get rid of all the silt. Now, the nursery pays for itself. Even though sodding a green may not be the best way to establish a putting surface, if the green is top-dressed after the sod is laid, the putting surface may be acceptable. At least the green is not out of play very long.

The nursery should be constructed from the same material as the green, or it may have even a higher sand content. It should be mowed, fertilized and watered just like the rest of the greens. Consider it an "unused green".

Need to train an employee to mow greens? Why not let them learn to handle a greens mower on the nursery before you turn them loose on one of the real greens? A nursery can also be a great place to make sure the product works the way they say it does. **LM**

Three groups to test turfgrass

USGA, GCSAA and the National Turfgrass Evaluation Program (NTEP) have combined resources to evaluate grass varieties on golf course settings.

"On-site testing of turfgrass cultivars is not a new concept. However, the joint sponsorship of on-site putting green trials is new," said Dr. Robert C. Shearman, NTEP executive director.

Practice putting greens built to USGA specifications at 16 different golf courses across America, feature bermudagrass and/or bentgrass varieties. They will be monitored to provide data for golf course personnel in the building and maintenance of facilities. Northern locations will integrate bentgrass cultivars; far-south venues will use bermudagrass varieties. Both will be used in transition zone climates.

All putting greens will be used as practice greens at the facilities.

Penn State takes apps for program

Applications are being accepted for Penn State's two-year Golf Course Turfgrass Management Program for the class beginning in September 1998. There is an application fee of \$35 and the deadline for applications is Dec. 31, 1997. Call 814/863-0129.

Clarification

A survey appearing in this section in our September issue arose from questions asked of The Pacific Northwest Golf Association and the Washington State Golf Association, reports Keith Ihms, CGCS, with the North Texas GCSA. The short article incorrectly implied that Ihms was reporting the results to California superintendents..



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Anthracnose



Pythium
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PAGE 4 L ▶

Needed, a 'flow' of workers

PAGE 6 L ▶

Cemetery care opportunities

PAGE 12 L ▶

From flood to baseball overnight

PAGE 16 L ▶

Making feedback work for you

It's too late to become a professional Christmas decorator in 1997. You'll need several months to prepare before you hang your first wreath or string of lights for hire. This decorating season is already well underway. Holiday decorating, like Christmas shopping, keeps creeping forward on the calendar.

But you might want to investigate it for 1998.

A growing number of lawn/landscape companies seem to be tapping into this potential new

source of revenue. It may be a good business fit for you, particularly if your production stops with the first big snow, and you want to keep some key employees through the winter. I don't see why it wouldn't work in the South or Southwest either if you have a plan, the manpower to deliver the service, and the resources to market it.

I learned about this business opportunity at a press conference at Expo '97 in Louisville this past July. What a strange time

to be talking about Christmas. On that particular day Louisville's heat and humidity chased exhibitors and visitors from the outdoor power equipment exhibit area and into the adjacent convention center which, of course, was air conditioned.

There in a small room Blake Smith did most of the talking at the press conference. His company, Christmas Decor, Lubbock, TX, offers Christmas Decorating franchises. Smith is an energetic young man, and he was selling his idea with lots of enthusiasm.

He said lawn care businesses, in particular, are nicely set up to offer this service. They can sell holiday decorating with door hangers, mailers or with signs in yards--just like they market their lawn/landscape services. With the exception of

ladders and, of course, the decorations themselves, most already have about everything they need to deliver the service, including a pool of potential customers.

Smith said lawn/landscape companies should concentrate on their residential customers first, and build this before chasing larger commercial jobs. He said many homeowners will pay \$800 to \$1000 to have their homes and properties decorated for the holidays.

Of course Smith said franchising is the way to get into this business. He said that Christmas Decor provides member companies with hands-on training, training manuals, videos, a "starter" kit of decorations, and access to vendors offering the best and most reliable supplies of holiday decorations.

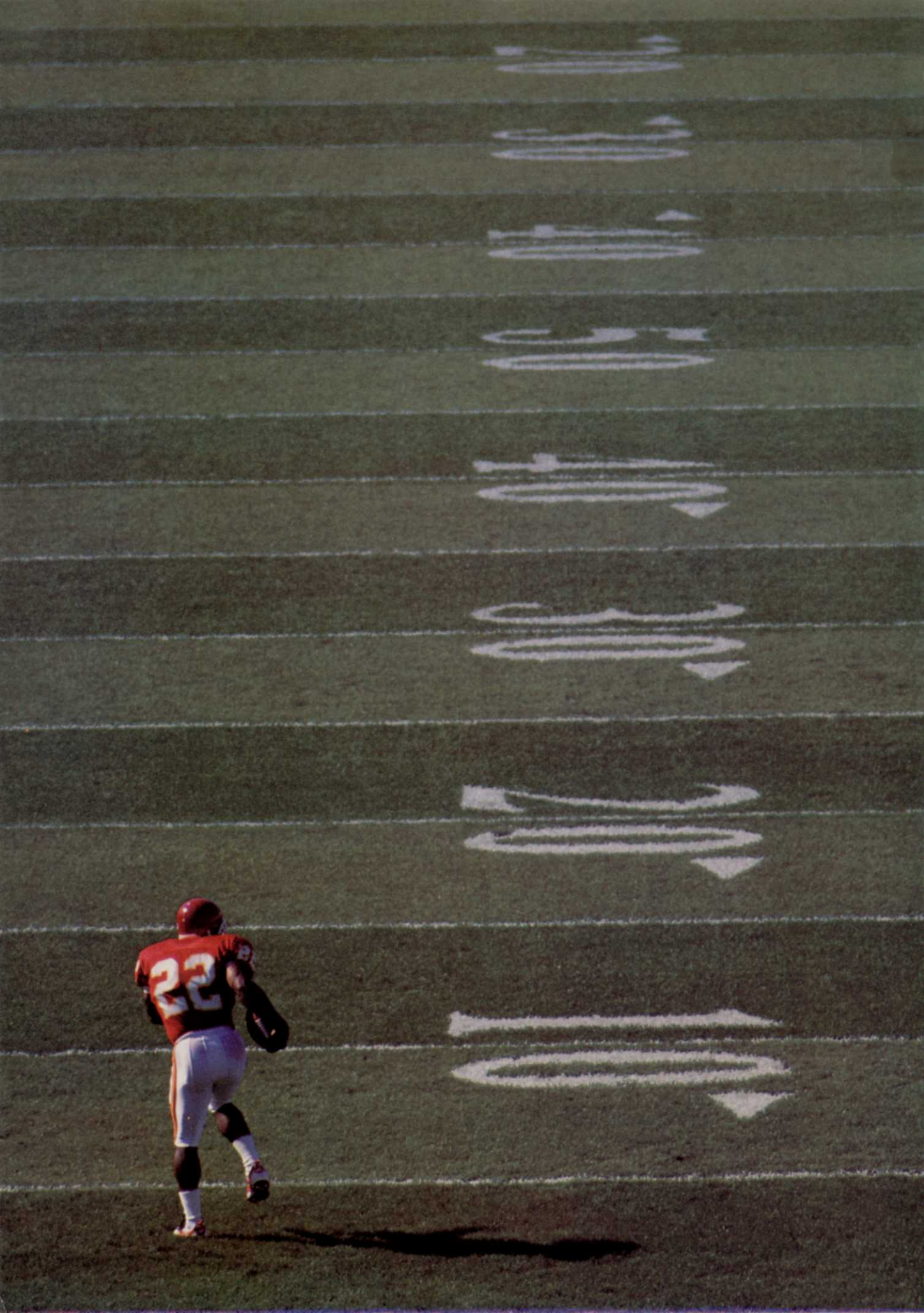
To learn more about Christmas Decor, call 800/687-9551.

Christmas decorating may offer \$\$ opportunities



Ron Hall

RON HALL
Managing Editor




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Circle No. 103 on Reader Inquiry Card

Lawn care needs a flow of workers for growth



BOB ANDREWS
Contributing Editor

Chemical lawn care is now more than 30 years old. It's a relatively young industry, and still developing. But, it's also maturing, certainly beyond the point where it tries to hire people for part-time work. Or as their second job. Or as a temporary place of employment between the last job and the next.

The chemical lawn care industry has arrived at a time when it must look, not just for employees to do today's work, but for a *flow* of employees to do tomorrow's work. It must look at creating

an on-going stream of potential employees to meet challenges that are sure to arise for each and every one of our businesses. And not just next season, but long range.

Individual companies can't do this. With consolidation of the lawn care industry, there is really no pool of major companies out there that could drive such an endeavor. No. This effort must come from groups within the industry. It must come from trade associations,

either at the national, state or regional levels. Or, perhaps, by some collaborative effort among these groups.

Each year the Indiana State Lawn Care Association holds a Winter Workshop. Its purpose is member education. Because of continued strong member support, the Association has been able to raise a considerable amount of money which is re-invested in education.

This year the investment is going to Vincennes University in southwestern Indiana. Headed by Professor James Messmer, the university's Horticultural Department has offered an excellent two-year Associate Degree program for those interested in a career in turfgrass management. This program has turned out a steady stream of excellent candidates who will someday fill management

and/or owner positions in our industry.

At Messmer's suggestion, the Indiana State Lawn Care Association will take this program one step further. With the assistance of Vincennes University's excellent Audio Visual Department, the Association will develop a recruitment video to be used by vocational education departments in every high school in the state.

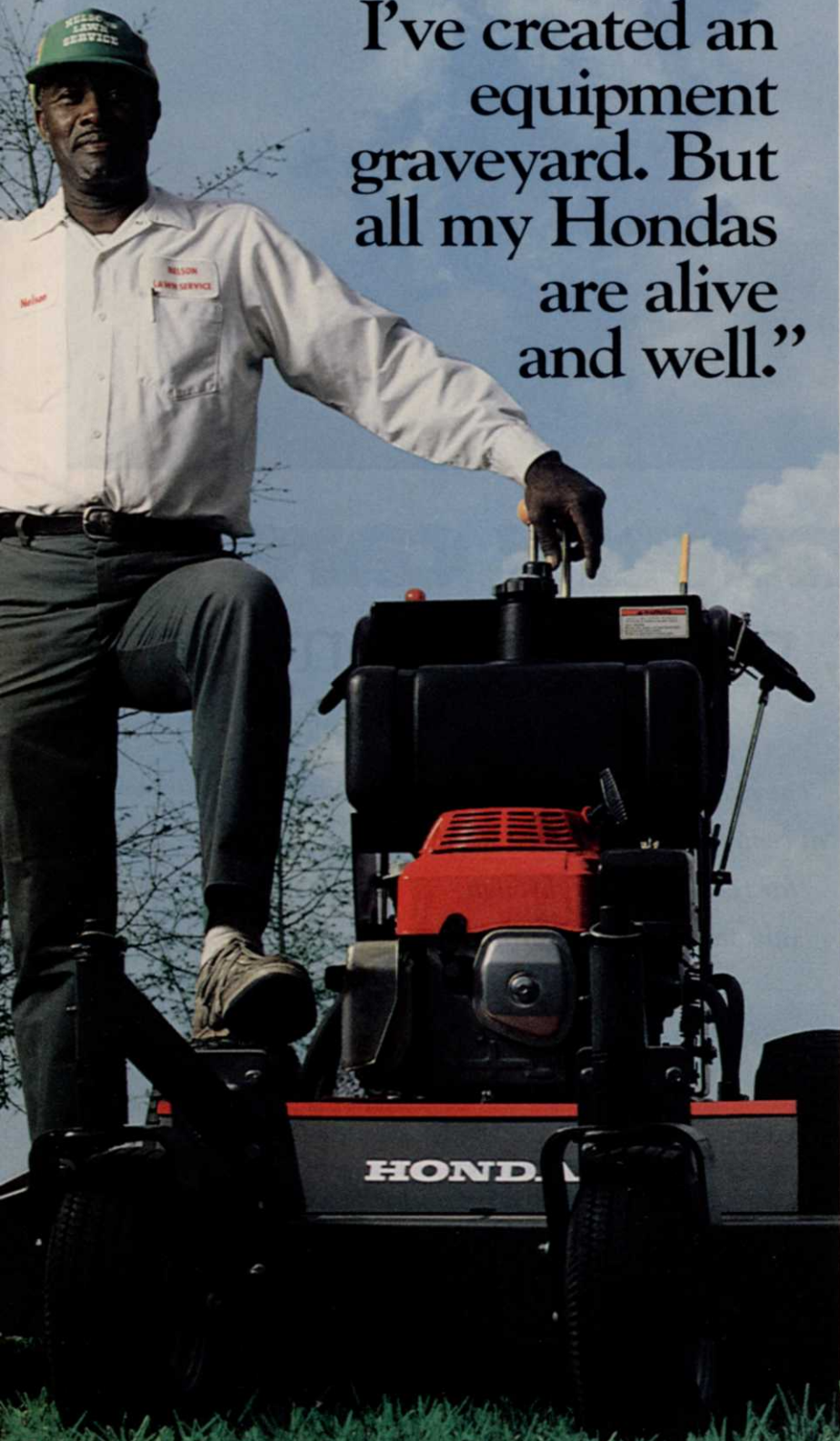
This 15-minute video will be available to any student in search of a long-term opportunity. It will focus on the importance of turfgrass in our society, how it has become a viable industry in and of itself, the many employment possibilities it offers, and the potential for personal as well as professional growth.

This video will not treat the industry with a sugar coating. It will address the physical nature of the work, weather issues, and the concerns that students may have about working with chemical products.

The Association looks at the video as another step in solidifying and building the chemical lawn care industry. It's another way of saying that we in the industry are offering opportunities to young people, and not just a "temporary stop along the way". **LM**

Only the lawn care associations--national, state or regional--can solve the industry's labor woes.

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equipment
graveyard. But
all my Hondas
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and well.”



Don Nelson
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About one-third of all cemetery managers contract out landscaping work and other aspects of cemetery management

Cemetery care smarter, more economical

The sheer volume of acreage at cemeteries dictates the need for reduced labor through subcontracting and proper plant selection.

By ROBERT E. REAVES

trust fund that exceeds \$12 million. Like Spring Grove, these cemeteries emphasize sculpture and landscape management.

Forest Lawn Memorial Parks in Southern California have set the aesthetic trends for many years in the cemetery industry. One example is the trend to use grass-level markers instead of monuments and obelisks. With five cemeteries in Los Angeles and Orange County, about 530 acres are developed under turf or under some type of landscape. Thousands of visitors come to see the outstanding examples of architecture and statuary at Forest Lawn

parks each year. An endowment care fund stands at \$175 million.

Contractor trend

About one-third of all cemeteries contract out both landscape and other aspects of cemetery management—especially where it makes good business sense. As an example, Spring Grove no longer does its own road repair. They also contract with local arborists for stump grinding and extensive tree pruning. Instead of raising its own annuals at on-site greenhouses, annuals are purchased from local greenhouses at half the cost. "Any prudent business manager must constantly ask the question whether it will cost less to do the work from the inside or outside," notes Smith.

Jon Stephenson, vice president of Greenwood Memorial Park and Mount Olivet Cemetery says before you make a decision to hire a contractor, you must completely understand what it costs for maintenance. "If you choose to contract out the landscape management, do it in increments, mowing, fertilization or tree care."

The last thing a grieving family wants to see is a loved one's grave site covered with tall weeds, and a marker that sinks into the ground.

Quality cemetery management and correct interment site preparation reduce these problems. A good plan can work for in-house crew or outside landscape contractor, at any size facility.

Spring Grove Cemetery and Arboretum of Cincinnati, Ohio, is a fine example of quality cemetery management. Chartered in 1845, it covers 730 total acres, 425 acres of which are mowed and developed. Not only does the park have a renowned arboretum, it also contains 14 lakes and 45 miles of high-crowned roads — perfect for bicycles and hiking. Tom Smith is senior vice president there.

Greenwood and Mount Olivet Cemeteries in Fort Worth, Texas, were dedicated in the early 1900s. The landscapes at both cemeteries are managed by skilled in-house crews. To ensure the perpetual care of the cemeteries, this association has a

Stephenson explains you should carefully weigh the advantages and disadvantages of contracting outside help. "With in-house workers you maintain control, but when you subcontract you eliminate employee taxes and benefits."

David Macdonald, manager of maintenance at the Hollywood Hills Forest Lawn Memorial-Park, says the skills of the in-house crew help determine whether or not to hire a contractor. Forest Lawn is fortunate to have an incredibly skilled management team, but other cemeteries could find outside contractors a big help.

Service driven, detail oriented

Environmental Care, Inc., is a national, full-service landscape management company that offers cemeteries a wide array of services. In addition to mowing, a few of its services include tree care, turf management, irrigation, pond management and pest control—along with the specialized equipment and skilled specialists needed to get the job done.

"There is a definite trend in the industry toward hiring outside landscape management companies because they help improve the bottom line. An in-house staff is very expensive and a contractor can do the job for significantly less money with trained labor," says Maureen Anami, operations manager for the Los Angeles branch of Environmental Care, Inc. Anami knows cemetery management. Prior to joining ECI, she worked at a major cemetery in Southern California.

Anami says good communication between the cemetery and the landscape management company is essential.

"Each day we check in with the cemetery foreman at 6 a.m. to get a list of memorial services for that day," says Anami. "Everything changes from day to

day, so we must be flexible, service driven and detail oriented — to do whatever it takes to get the job done."

Anami says improvement of a cemetery's bottom line is where ECI really shines. An example of this is in the area of water conservation. "We've got water consumption down to a science through ET-based irrigation. We've saved clients 20 to 30 percent in water costs and sewer charges, and in California that's a big deal."

Mowing becomes a challenge

Mowing and trimming around markers takes the greatest amount of time. Scheduling is very difficult because of the unpredictable number of services. Each day typically begins with a morning meeting attended by all the managers and supervisors to review the locations of services. The entire crew must be aware of traffic patterns and plan mowing and other management activities around the memorial services.

Spring Grove crews follow a rigorous range standard for turf height — 2 ½ to four inches at all times. "We take turf height measurements every week as benchmarks so that everyone gets a report card on their

performance," says Tom Smith. "Our mowing team uses the 90/10 theory. We may mow 90 percent of the property, but 10 percent of what we didn't mow is what 90 percent of the people see." The major turfgrass here is Kentucky bluegrass.

Monuments, markers and floral decorations are an ominous mowing obstacle at cemeteries. "Many cemeteries create their own headaches," remarks Jon Stephenson, of Greenwood Memorial Park and Mt. Olivet Cemetery in Fort Worth, TX.

"Properly maintained cemeteries must have strict guidelines on the proper placement of flowers, use approved vases and should only allow artificial flowers during the non-mowing season."

Plant growth regulators

Plant growth regulators (PGRs) should definitely be considered in a cemetery management program, since they can provide a significant reduction in mowing and trimming. "Cemeteries have obstacles that create mowing and trimming difficulty," says Joe DiPaola, Primo product manager at Novartis. "PGRs help cemeteries to grow a better turf without a sacrifice in turf

quality. Use of PGRs can mean 50 percent reduction in mowing — between mowings and actual mowing time." With less mowing time, crews are then able to pursue other tasks.

Smith agrees. "We started experimenting with PGRs in 1969, and we've tried to cooperate with every chemical company that has a product." He says that PGRs do not replace mowing and trimming, but definitely give breathing room to the maintenance team. "We make pre-green up applications of PGRs to our turfgrass through Memorial Day, as well as applications on Japanese Yew and other woody plant materials to slow growth."



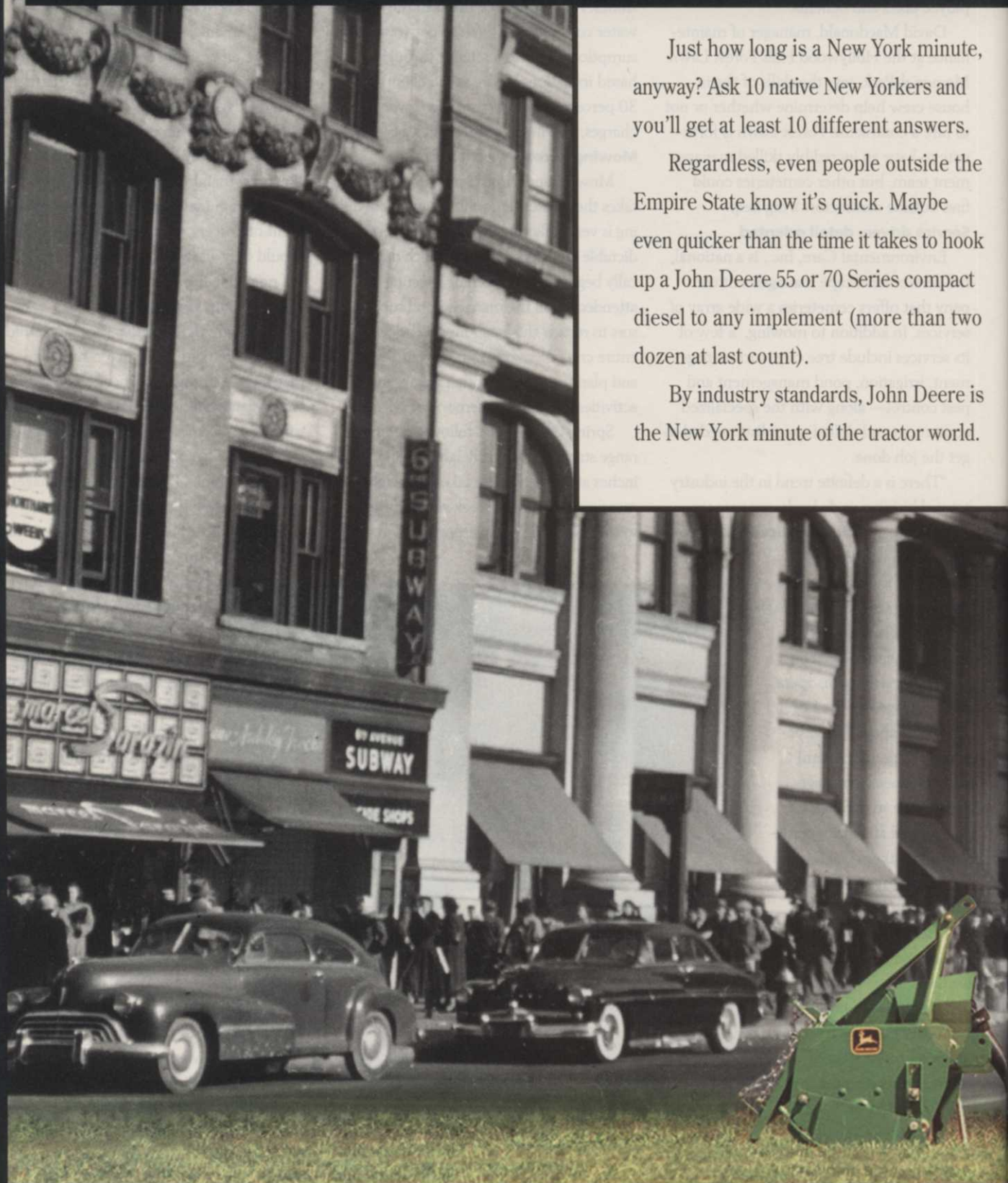
Ornamentals placed at this Spring Grove intersection add color and texture, reduce turf maintenance and are a more attractive sight for visitors.

Change Implements In a

Just how long is a New York minute, anyway? Ask 10 native New Yorkers and you'll get at least 10 different answers.

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Forest Lawn has closely looked at plant growth regulators and has even done some trials with Primo. "Although Primo does suppress growth and improves turf color, the cost associated with its use were actually higher than turfgrass management without Primo." However, Macdonald is quick to point out that the cost-effectiveness of PGRs will be different at every cemetery. He says it depends on crew size, type of turfgrass, and the goals of the cemetery.

Pea gravel firms up soil

Settling soil is a persistent problem that

away, Mount Olivet's soil has a high clay content — prone to shrinking and swelling. "For heavy clay soils, we backfill with sand around the outer container, followed by a backfill to the grade. We tamp the soil, resod and tamp again to limit settling," explains Stephenson.

Forest Lawn's crew prepares the internment site with a backhoe. After the memorial service is completed, the soil is backfilled with a backhoe that has a hydraulically-operated tamping attachment. "If tamped correctly, we only have limited settling," says Macdonald. After thorough

not damage the cemetery markers or survey pins like other aeration equipment. Hydroject has nozzles that fracture the soil with high velocity water pressure and creates channels and crevices in the soil that encourage root growth.

However, core aerators continue to be very popular. "We find that the smaller Ryan walk-behind units work better in the developed areas of a cemetery, with pull-behind units more suitable for the larger, undeveloped areas," adds Anami. Like other aspects of cemetery management, Anami says you have to do whatever it takes to provide a top quality appearance.

Training conferences help

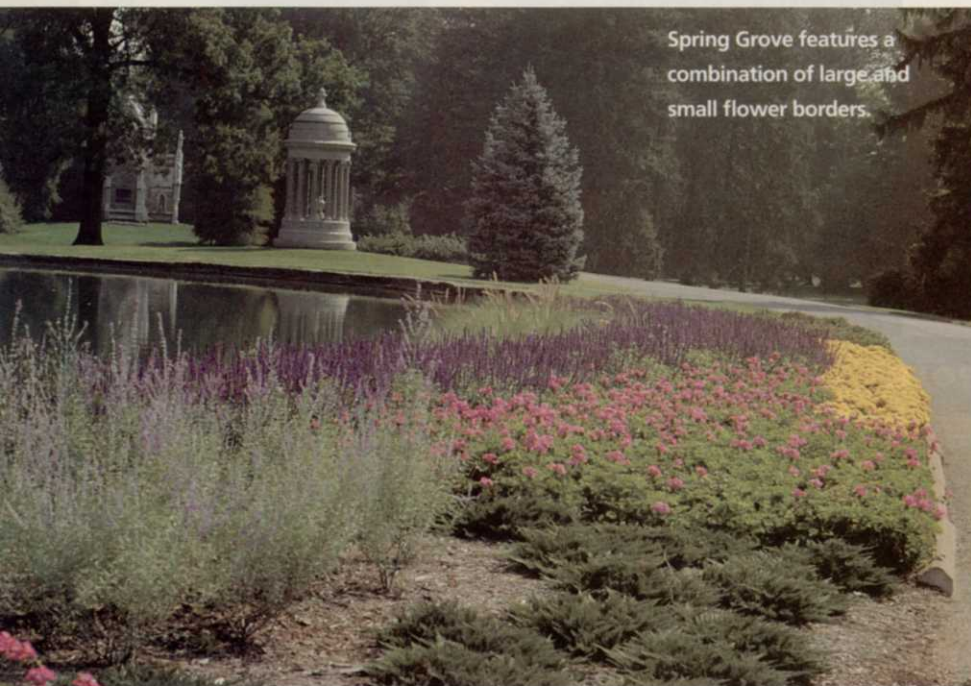
Within the cemetery industry, the commitment to ongoing training is very impressive. As an example, Greenwood/Mt. Olivet sends its crew to Texas Cemetery Association Maintenance Conferences, as well as the International Cemetery & Funeral Association University (ICFA) held at the University of Memphis.

Stephenson says ICFA University is made up of several "colleges"—week long classes on team work, new equipment, floral color in the landscape, pruning and other aspects of maintenance. "The caliber of this school demonstrates the professionalism of this industry," he remarks. ICFA University is very important in providing accreditation within the cemetery industry.

Spring Grove makes horticultural training available at no cost to its employees. "Several of our employees are going for a B.S. degree in horticulture at the new evening-only program at the University of Cincinnati," boasts Smith. "Our employees love it and we pick up the full tuition."

The author is with Irricom, a communications and public relations firm. He has an M.S. degree in horticulture from Oklahoma State University and can be reached at 512-331-2814. E-mail: irricom2@ix.netcom.com

For more information on the International Cemetery & Funeral Association University, Contact Tina Evans at the ICFA. Phone: 703/391-8400.



Spring Grove features a combination of large and small flower borders.

can be traced back to the internment preparation. "This is a very delicate matter and is the the number one concern of our customers," says Smith. To manage the problem, Spring Grove places a small aggregate pea gravel around the edge and up to the top of the concrete burial container, followed by a backfill of top soil. This method works well in areas of the country with severe winter weather and heavy soils.

Soil type has a direct impact on the degree of settling a site will experience. For example, the soil at Greenwood Memorial Park is very sandy and settling is not as much of a problem. But only a few miles

soil tamping, the sod is rolled back in place, and is immediately watered and tamped. "We experimented with sand to backfill internment sites, but noticed little difference in the amount of settling."

Soil compaction is evident

This constant disruption of the soil and heavy equipment of 22,000 pounds or more brings about the need for frequent turf aeration.

"We need an innovative aeration technique for this industry. Probably the best equipment on the market right now is Toro's Hydroject," advises Smith. He says Hydroject is noteworthy because it does



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FLOOD REPAIR

challenge for Brewers crew

"The grounds crew did the best job I've ever seen, maybe the best in the history of baseball" —KC Royals Manager Bob Boone after the flood.

By DAVID MELLOR

▼ Dave Mellor, left and Gary Vandenberg guide helicopter pilot to wet areas of the field. The copter was brought in for a four-hour dry down.



Milwaukee County Stadium is built on a 100 year flood plane. After the Brewers' game of June 20, we suffered our second "100 year flood"--in 11 years.

We manicured the field, then put on the rain tarp because grounds director Gary Vandenberg expected rain.

Early the next morning our DTN office radar showed the training effect of thunderstorms lining up one behind the other coming right over the top of us. Eight inches of rain fell in nine hours, flooding

many homes in the city and our playing field too. When the rain stopped about mid-morning, water stood in the first four rows of the box seats and most of the field was submerged by 3½ feet of muddy water.

We had two things going for us. Miller Park, which will open in 2000, was paying off already. The enormous construction

▲ Fourteen members of the grounds crew lined up to pump air under the tarp to cool the turf surface.

hole for the new stadium is between County Stadium and the river that overflowed, and took in 10 feet of water, leaving us to deal with *only* 3½ feet of water!

Secondly, County Stadium was constructed in the early 1950's on native soil. Unlike many of the newer flat sand or modified sand fields, ours has a crown through the middle axis resulting in the infield grass under the tarp and part of the infield "skin" not being submerged.

Tarp keeps in harmful heat

Even with all the water, we were confident that the field could be repaired once the water receded. We mobilized the crew to get the field ready where we could.

Around 3:00 p.m. the water was only receding one to two inches per hour, so that night's game was canceled. To make matters worse for us, the weather warmed up considerably. What about the turf under the infield tarp? The infield was like an island, and we could not remove the 16-ounce tarp, only fold in the sides. The heat built beneath the tarp, and to lift the edge of the tarp was like opening an oven door.

Getting lots of really good new customers is a pain in the you-know-what, but...

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A million dollar per year "entrepreneur of the year" says that most of his peers' and competitors' marketing is anemic, me-too-istic, dull, full of costly waste, and ineffective. Arrogant? Egotistical? Marty Grunder says: "React to me any way you like—but one thing is for sure, if you are in the landscaping business or maintenance business, whether you are small or large, my marketing methods can easily double or triple your business in just one year, provide better customers, help you target and get exactly the kind of business you want, increase profitability and stability, and absolutely mystify and trump your competitors."

Big talk? Yes, it is, but this Grunder wiseacre has been showing off—and blowing sceptics away—his entire life. As a freckle-faced, red headed Dennis-the-Menace type kid, he started his business with nothing more than a "push" lawn mower and chutzpah. That little business went to 75 regular customers almost overnight. As a full-time student at the University of Dayton, while his buddies drove to school in old "beater" cars and flipped burgers for pocket money, Marty arrived in his Grunder Landscaping Company truck and, at age 21, did over \$300,000.00 in business. Last year he was named Young Entrepreneur of the Year by the Small Business Administration's Midwest Region, in the 1 to 25 employees category. Currently, Marty oversees a staff of 30, 18 trucks, a backhoe, an assortment of other equipment, and a diversified business doing everything from basic residential lawn maintenance to complicated commercial landscaping projects—and, this year, breaking \$1.5 million in annual sales. He's also investing in land, lecturing from time to time, and working with other landscapers as their "marketing coach."

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Grunder DOES have "secrets" for building these types of businesses, too. Here are just a few examples:

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3. The 5 biggest mistakes 95% of the people in this business make when advertising and how to avoid them.
4. **How to stop the "price shopper" in his tracks. How to get good business without being the lowest bidder or offering cheapest price.**



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5. How to avoid the **fatal mistake** of confusing 'marketing' with 'selling'.
6. **Forget wasteful "name recognition" or "getting your name out there"**—learn to "target," create and deliver a "market-matched" message, and **attract exactly the type and size of clients you really want.**
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8. Powerful but simple letters and things to say to existent customers to **cause demand for a variety of additional, highly profitable services.**
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10. How to get people working for you and with you to really contribute like a championship team!
11. How to use **"automated, autopilot marketing"** to bring in new business without you or anyone else even talking with prospects on the phone!
12. Even "poor boy" **dirt cheap marketing** strategies, like what to write on a simple postcard to bring in a flood of new customers.

13. **The "4-Page" marketing tool used 6 to 10x a year that is guaranteed to increase your business by at least 30% year after year...automatically!**
14. How to position yourself as a "famous expert" in your area, get a ton of free advertising and **"fry" the competition.**

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Marty asks that you call for his free Report **ONLY if:** (1) you own your own business or are the President, CEO, manager or marketing manager for the business; (2) you make the decisions about advertising, marketing, and customer service investments; (3) you are currently unhappy with some aspect(s) of your business; (4) you recognize that in today's competitive environment, just "doing a great job" isn't enough to sustain a business; and (5) you are willing to make progressive innovative changes in your business if convinced, even reasonably assured that doing so will dramatically improve sales, profits, customer satisfaction, referrals, growth, and community prominence. (Please do NOT waste your time or Marty's money getting this Special Report if you are close-minded, change resistance, fully satisfied with your income, or just a curiosity-seeker without sincere interest in changing your business for the better.)

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Simply write "Report" on your business card or a sheet of your letterhead and FAX it to 937-847-8067 or, for even more information and to get your Report, call 1-800-399-7135, listen to a brief free recorded message, then leave your name, company name, and address as instructed. You can FAX or call anytime, 24 hours a day, 7 days a week. If you prefer having your report sent confidentially to your home address, just let us know. Incidentally, requesting your free Report does not obligate you in any way; no salesperson will call to follow-up, nothing of the sort. However, this is a limited free offer, so please take care of it right now, while it's fresh in your mind.

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Fourteen members of the grounds crew lined up side by side and pumped air under the tarp for 10 to 15 minutes at a time to cool it down. They did this for 4½ hours, working around all four sides of the tarp.

The grass survived, with no scorching or pathogen damage.

Waiting on drainage

By 8:30 p.m. we had done all we could until the remaining two feet of water was gone. It took all night for it to drain, and by daybreak the only remaining water was in the dugouts and camera pits.

Still we had to get the field ready to play. Everybody on the crew went to work.

► The top one inch of the entire warning track was contaminated with scum and sediment so it was removed and replaced with all new material.

► The 90,000 square feet of the field had to be hand raked.

► A helicopter was brought in for 4 hours to help dry the surface.



PHOTO BY JOE VOPAL

The Miller Park construction site filled up with 10 feet of water. It helped save the Brewers field from further flooding.

► We were mowing the field by 8 a.m.

► We were watering the infield "skin" or dirt by 9 a.m.

► The teams took infield practice by 11:30 a.m. and the game against the Kansas City Royals started as scheduled at 1:07 p.m. The players, coaches and team

owner Bud Selig were truly amazed with how wonderful the field played. The pride and hard work by the crew provided a safe and playable field under tough conditions.

—The author is assistant director of grounds, Milwaukee Brewers baseball club.

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Prototype circa 1979

Walker 1997

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It's getting confusing out there with new brands of "Z" riding mowers popping on the market like bunnies (30 different brands shown at EXPO '96). Some of the major brand names are even beginning to introduce their "versions." When the first Walker Mower rolled out of our workshop twenty years ago, we had an "original" that has set a standard in commercial riding mowers for **fast, easy, beautiful mowing™**. It helps cut the confusion when you compare an **original** with the copies, imitations, me-too's, Johnnie-come-lately's. When you compare them with the Walker Original, we think you'll agree, **"it's still not a Walker."**

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Feasting on feedback

Greenscapes in Naples, FL, goes to great lengths to 'talk' to its clients and its employees. Then it 'listens' to what they say so that it can give them what they want.

By RON HALL/ Managing Editor

Your company delivers excellent landscape services at a competitive price. But do your clients know that? You think your employees are well trained and efficient. But how do you know for sure?

You really can't answer either of these questions until you develop channels of communication that generate "useful" feedback.

Greenscapes, a 36-year-old landscape services firm in Naples, FL, has procedures to encourage feedback on all fronts. President Steven Pruchansky likens the process

to radar on an aircraft. It guides his company toward its goals as it corrects—from day to day even—the company's service delivery.

Greenscapes seeks feedback from within the company, from supervisors, team captains and employees; externally too, particularly from customers. Pruchansky and Linda Nelson, vice president of operations, (her mother, Ethel Rae Nelson founded the company, then known as Rae's Sod, in 1961) are convinced their focus on feedback aids Greenscapes' continued profitable growth.

Competition? You bet!

And, growth, particularly sustained growth, is no mean accomplishment in a tough market like Naples which already has plenty of solid competitors without the startups and part-timers. There are about 4,500 licensed lawn care companies on Florida's southern Gulf Coast. There may be another 2,000 or more unlicensed operators performing lawn or landscape care for hire.

"It's like a joke around here that every time it rains, one or two more companies spring up," says Linda Nelson.

"It's a very easy entry with little capital. If you have a pickup and a lawn mower, you're in business," adds Pruchansky.

Most newcomers, however, wither as the sun gets hotter, the days longer and the turfgrass and ornaments erupt in a riot of growth in spring and early summer. Landscape services here, in spite of Naples' south Florida location, are seasonal just as they are elsewhere. Just more intense.

The combination of Steve's administrative skills (he bought the company in 1992) and Linda Nelson's energy and knowledge of the local conditions have re-energized Greenscapes. While it continues to offer sod installation (it's primary business for decades), it now also provides full-service landscape management including irrigation and exterior chemical applica-



tions. It initiated tree pruning and trimming in 1996.

"We want everything on the landscape under our care," says Pruchansky. Having one company provide all landscape services is attractive to many customers, but an equally big reason for the "do all" approach is quality control.

"We provide customers with a guarantee that if anything dies while it's under our care, we'll replace it for free," he explains. "If somebody else is doing the fertilization or pest control and the grass is turning yellow, the applicator might point to the irrigation guy. Everybody is blaming somebody else. We don't want that. We want total responsibility."

The greatest demand for Greenscapes' services comes from homeowner associations. But acquiring them as clients isn't as simple as knocking on a door and asking for the business. Associations, by Florida state law, have to put property maintenance out to bid. Steve says his company approaches each bid with "sophisticated" job costing.

"We really don't have an aggressive sales presence," he adds. "We've relied mostly on referrals. We feel that if we do a superior job and present a quality image, people will want to have us on their properties."

"We're looking for controlled growth for a superior-quality product. We've had enough referrals that we haven't had to hit the phones."

Reliable workers a big plus

A reliable and seasoned Hispanic labor force plays a big part in Greenscapes' continued growth. Mexican workers have been a common sight in the south Florida labor market for decades, working in its resort hotels, on its construction crews, in its vegetable fields. Steve says he has great admiration for the stamina and dedication of Greenscapes' Mexican workers.

"They work very hard and they have been loyal to the company," he says. "Now, some of them are starting to buy houses here, and we're thrilled."

While Steve is the administrator, Linda concentrates on operations. She says on-

going communication is vital to operations, particularly since she speaks little Spanish. She leaves that up to her bilingual supervisors and team captains. Most have worked side-by-side with her for 10 years or more.

Linda's always on the go

First thing each Monday morning Linda meets with the team captains. "The meeting is crucial for the week. It reintroduces everybody to what we're going to be doing that week," she says. Team captains and Linda review job site reports. "Then we dis-



cuss the best ways to manage each job in the time we've allocated for it. We have to have feedback so we know how much time we need for each job on each property."

Linda also meets regularly with the entire staff of each division—sod, management, irrigation, spraying, tree—to discuss "time and job management." She also sits down each week with the company's two fulltime mechanics to discuss equipment and assess its productivity.

These meetings (not to mention regular on-going employee training meetings) seem to keep everybody working in the right direction, says Linda. Even so, Greenscapes still relies on "quality control inspectors" to conduct regular on-site property inspections.

"This feedback goes right back to the crews," says Pruchansky. "It gives us a check other than a field person. It gives us another eye. Our quality control people



Team captain Amador Martinez, above, and skilled workers, allow Linda Nelson, left, to keep homeowners' associations in Naples, FL, proud of their colorful landscapes.

are not production people. We want our production people to concentrate on performing the tasks they're assigned."

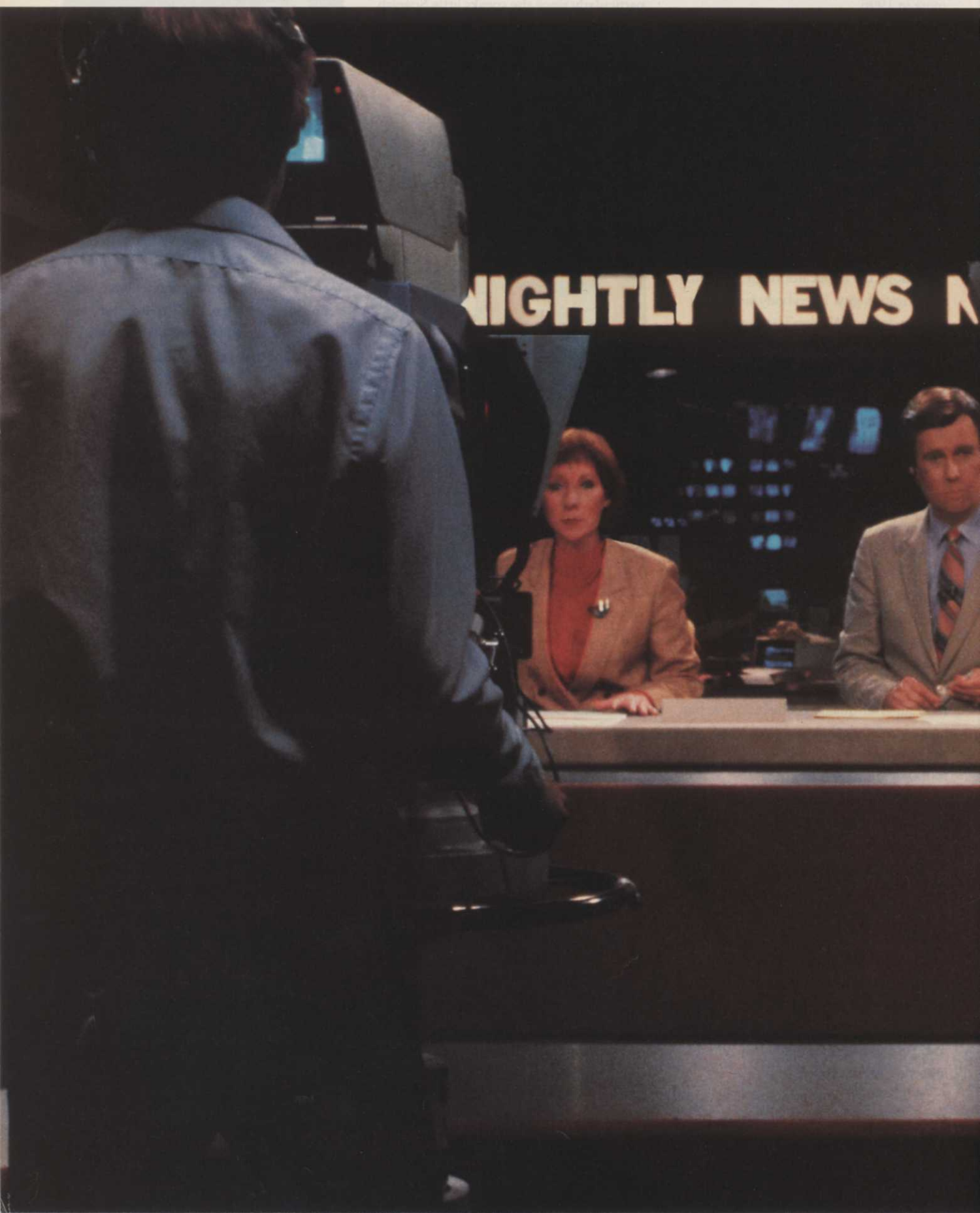
While internal communication keeps all employees aware of their roles, Greenscapes' interaction with clients is even more pro-active. Greenscapes regularly sends newsletters to every property owner in every association that it manages. It also provides clients with a schedule of the work it will be performing the next month. But, it's the face-to-face interaction that Linda says she enjoys.

She goes to each client site and confers with landscape managers, or members of landscape committees regularly, most of them once a week. She walks the property with them. They talk.

"We point out areas of concern and what needs to be addressed. They tell us what they want. We keep a strong line of communication with board members," she says. It also gives Linda an opportunity to suggest landscape extras and changes that will delight property owners.

"Sometimes you have to suggest changes to a property because people get tired of the same plants and the same schedule year after year," says Linda. "We never want them to get bored with us." **LM**

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Events

NOVEMBER

15-18: Green Industry Expo ALCA, PLCAA, PGMS Annual Conferences, Charlotte Convention Center; ALCA 800/395-2522, PLCAA 800/458-3466 and PGMS 410/584-9754.

17: Biological Control for the Green Industry Seminar, University of Massachusetts Campus Center, Amherst, MA; Kathleen Carroll, 413/545-0895 or Tina Smith 413/545-5306.

DECEMBER

1-4: North Central Turfgrass Expo, Pheasant Run Resort, St. Charles, IL. Call

ITF/NCTE 312/201-0101.

8-11: Ohio Turfgrass Foundation Regional Conference and Show, Columbus Convention Center, Columbus, Ohio. Contact OTF at 614/760-5442.

9-11: New Jersey Turfgrass & Landscape Expo '97, Trump Taj Mahal Casino/Resort, Atlantic City, NJ. Call 908/821-7134.

9-11: Georgia Turfgrass Conference & Show, Georgia International Convention Center, Atlanta, GA. Call 770/975-4123.

10: Indiana State Lawn Care Assoc. Winter Education Workshop, Oak Hill Mansion, Carmel, IN. Contact Robert E. Andrews at (317) 575-9010.

10-12: Rocky Mountain Regional Turfgrass Conference and Trade Show, Currihan Hall, Denver, CO. Contact Anita Hutner 303/770-2220.

JANUARY

5-7: MANTS, Baltimore Convention Center. Call 410/882-5300.

6-8: Eastern PA Turf Conference & Trade Show, Valley Forge Convention Center, King of Prussia, PA. Call 610/828-0253.

6-8: Ontario Turfgrass

Symposium, Regal Constellation Hotel, Toronto. Call 519/824-4132 (ext. 3814).

7: PLCAA Management Seminar, Charlotte Convention Center, Charlotte, NC. Call 800/458-3466.

7-9: North Carolina Turfgrass Conference & Show, Charlotte Convention Center, Charlotte, NC. Call 910/695-1333.

9-10: ALCA Masters in Management Seminar, Hyatt Orlando (Kissimmee, FL). Call 703/736-9666.

14: SC Landscape Contractors'/Turfgrass Conference, Sheraton Columbia Northwest, Columbia, SC. Call 803/790-2798.

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B. Paid and/or Requested Circulation		
1. Sales through dealers and carriers, street vendors and counter sales (Not mailed)	—	—
2. Paid or Requested Mail Subscriptions (include advertiser's proof copies and exchange copies)	47,561	47,309
C. Total Paid and/or Requested Circulation	47,561	47,309
D. Free Distribution by Mail (Samples, complimentary, and other free)	4,193	3,595
E. Free Distribution Outside the Mail (Carriers or Other means)	1,879	1,532
F. Total Free Distribution	6,072	5,127
G. Total Distribution	53,633	52,436
H. Copies Not Distributed:		
1. Office use, leftovers, spoiled	78	79
2. Return from News Agents	—	—
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Date: 9/15/97

I certify that the statements made by me above are correct and complete.

IMC Vigoro has formed a new business alliance with **United Horticultural Supply** of Tampa Florida. UHS will represent IMC's turf fertilizer products in Florida. UHS will market Par-ex fertilizers and V-Cote controlled-release nitrogen and potash to golf course superintendents and lawn care/landscape companies. Steve Jackson of UHS leads the sales team. Bill Foster, director of IMC Vigoro's Professional Business Unit, says "the alliance will strengthen our distribution capabilities in Florida."

Turf managers can help support turfgrass research when they use natural organic **Milorganite** fertilizer this fall, announced Larry Lennert, manager of research and product development at Milorganite. For each ton purchased

and delivered between Aug. 1 and Nov. 30, 1997, Milorganite will donate \$10 to the turf manager's favorite research organization. This is the third year that Milorganite sponsored the Turfgrass Research Donation Program. Through the program it has donated about \$40,000 to turfgrass research in the U.S. and Canada.

The **Toro Company** named Stephen P. Wolfe to become vice president finance, treasurer and chief financial officer. Wolfe, 48, will replace Gerald T. Knight who resigned his position to become senior vice president and chief financial officer of Fingerhut Companies, Inc. Wolfe came to Toro as part of the acquisition of Wheel Horse Products, Inc., in 1986, where he was vice president of finance and treasurer.

Mountain West Products and Colorado Aggregate have merged to form **Mountain West Colorado Aggregate**.

The new company is reported to be the largest producer of western bark and lava rock products in the country. MWCA mines and harvests a diverse selection of 100 percent natural bark and decorative lava rock, along with a line of soil, river rock pebbles, white marble and decorative boulders. The company is based in Rexburg, Idaho.

The John Deere Worldwide Commercial & Consumer Division (www.deere.com) is building a major mowing equipment assembly plant in Fuquay-Varina, NC. The \$30 million plant will employ about 250 people when it

reaches full production. The site of the plant is about 15 miles from Deere Division headquarters in Raleigh, NC.

Zeneca Professional Products named Mark Brazinski as Turf & Ornamental Territory sales representative for the Mid-South/Southwest Region. Other Zeneca appointments include: Larry G. Feller as sales rep for the turf line for Alabama, Georgia, North and South Carolinas; James F. Petta as senior product service rep for the Western Region; Matt S. Giese as product service rep for the Northeast; Daniel J. P. Wickham as sales rep for the Western Region; and Tony Rademaker as market manager for Zeneca's turf line. He is responsible for the launch of Heritage Fungicide into the golf course market.

Eight golf courses in the Myrtle Beach, SC, area owned and operated by the Myrtle Beach National Company chose **Ransomes, Cushman and Ryan** turf maintenance equipment as their equipment of choice. The company purchased the extensive package of new equipment to eliminate the cost inefficiencies associated with maintaining the courses' old machinery.

American Cyanamid named Mike Toce senior sales manager for the Turf, Ornamental and Pest Control groups. Concurrently, the company realigned its sales territories to better manage increased product sales and the introduction of several new products into these two markets. Toce joined the company in 1981. **LM**

Info center

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PLANT HEALTH CARE INFO...The manual entitled *Plant Health Care for Woody Ornamentals; a Professional's Guide to Preventing and Managing Environmental Stresses and Pests* available from the International Society of Arboriculture (ISA). This 223-page book features 150 color photos and a variety of easy-to-use tables and charts. Cost \$45 (\$36 for ISA members). Add \$7 S&H in the U.S., 15 percent elsewhere. Contact ISA publication hotline at 1-888-472-8733.

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LESCO adds Curtis snow plow to line

LESCO added the Curtis snow plow to its line of winter equipment. This new snow plow, with the widest and strongest push frame on the market, minimizes stress to the vehicle frame. It also features a trip frame which stops in both directions to prevent overstretching the trip springs.

Hide away hydraulics protect components from wind chill, and provide improved vehicle engine cooling due to less radiator obstruction. An 18-inch cutting edge angle offers a softer trip, cleaner scraping and excellent back dragging capabilities.

For more information, contact your local LESCO sales rep, or call 800/321-5325.

Circle No. 257

It gives turf managers preemergent control of crabgrass, *Poa annua*, goosegrass, and other annual grassy and broadleaf weeds, plus extended feeding with Scotts' methylene urea controlled-release fertilizer.

"With KANSEL+, Scotts is delivering a new, proprietary approach to weed control and feeding," says Dan Paradiso, director of marketing of Scotts' ProTurf division. "Scotts' technological expertise with Pendimethalin and methylene urea controlled-release fertilizer, combined with Ronstar's proven results make an excellent product."

The product can be ordered for the 1998 season. It is also available as part of a Scotts Custom Application Service. To learn more about the product call 800/543-0006, or

Circle No. 258

Scotts' new weed control/fert. combo

KANSEL+ is The Scotts Company's new combination weed control and fertilizer with Pendimethalin and Ron-



bottom of the container, reducing the effort needed to rinse containers before disposal.

A wet flowable means the product is suspended in an aqueous material. This eliminates the dustiness associated with wettable powders and makes handling and measuring easier. The new formulation is available in 2.5-gallon containers.

FORE FloXL fungicide is a broad-spectrum protectant labeled for use on turf, including golf course greens and fairways. For a copy of the new flowable label and use directions, call 800/987-0467 and mention LANDSCAPE MANAGEMENT; visit the website www.rohmhaas.com, or

Circle No. 259

Hand trucks for nurserymen/landscapers

R. B. Manufacturing offers 15 new types of "Bucko Cart" hand trucks for the nursery and landscape industry. They were designed in cooperation with landscapers and tree & shrub growers. Bucko



Carts will handle tree balls up to 44 inches in diameter and 1,500 lbs. capacity. Other carts in the line handle boulders, large pots, drums, fencing materials, stone & brick and concrete bags with ease. For a brochure, contact R. B. Manufacturing at 800/863-5817 and mention LANDSCAPE MANAGEMENT, visit the company's website at www.RBM-FGCO.com, or

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Software to improve customer service

TRIMS Software International, Inc., says its new Trimmer Software for the Service Contractor is designed for lawn care, tree care, pool maintenance, snow plowing, and other service care professionals. It will help to improve customer service, employee productivity, and company image by simplifying scheduling, routing, billing and customer tracking.

Information and product demonstration diskettes are available by contacting TRIMS Software at 800/608-7467 or demos may be downloaded from TRIMS web site at www.trims.com.

Circle No. 261

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Circle 109

Converts big trees to wood chips

Bandit Industries' Model 1850 Track Bandit is an 18-inch-diameter capacity, self-propelled whole tree chipper. It is equipped with a powerful hydraulic feed system and a wide chipper opening, which allows it to chip very limby whole trees, tree tops and piles of brush.

The Model 1850 is powered by a 250-hp Cummins of John Deere diesel engine. The unit is equipped with a 220° swivel discharge spout, which enables the operator to discharge chips in virtually in any direction. An intertractor B-2, 2-speed track undercarriage provides power to handle rough terrain.

The Model 1850 Will convert an 80-foot tree to chips in under a minute. This machine can be driven to the trees, eliminating the need to forward or skid. The Model 1850 (available as either a self-propelled or towable unit) is the mid-sized model in Bandit's line of self-propelled, whole tree chippers.

Call Bandit at 517/561-2273, and say you read about their product in *LANDSCAPE MANAGEMENT*, visit website www.banditchippers.com, or

Circle No.262



Lots of choices from Bunton

Bunton's Variable Speed Walk-Behind Mowers are come in 28-, 32-, 36-, 48- and 52-inch cutting widths. They are powered by a choice of engines ranging from the 8-hp Briggs & Stratton I/C to the 14-hp Kawasaki FC420V and 16-hp Briggs Vanguard.

Bunton's variable speed control lever lets the operator adjust to changing mowing conditions by varying the ground speed independently of blade speed. In addition, the contoured, fingertip steering levers provide zero-turning-radius precision and greater ease of handling for the operator.

Dual-section wheel belts on the 36-, 48- and 52-inch models enhance belt life by eliminating slippage and increasing tractor. Operator safety is enhanced by the Bunton interlock system which allows the engine to start when the blades are disengaged and the steering levers are locked in neutral. To keep mowing operations productive and efficient, a spring-loaded discharge guard prevents the chute from being left up while mowing, yet allows for easy attachment of grass catchers.



Circle No. 263

LANDSCAPE
management

November 1997

This void after January 15, 1998

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- 1. My primary business at this location is: (fill in ONE only)**
- 01 250 **GOLF COURSES** (Also fill in questions #3 & #4)
 - 02 255 Landscape Contractors (Installation and maintenance)
 - 03 260 Lawn Care Service Companies
 - 04 265 Custom Chemical Applicators (ground and air)
 - 05 270 Tree Service Companies/Arborists
 - 06 275 Landscape Architects
 - 07 280 Land Reclamation and Erosion Control
 - 08 285 Irrigation Contractors
 - Other (please specify) _____
 - 09 290 Sports Complexes
 - 10 295 Parks
 - 11 300 Right-of-Way Maintenance for Highways, Railroads or Utilities
 - 12 305 Schools, Colleges, Universities
 - 13 310 Industrial or Office Parks/Plants
 - 14 315 Shopping Centers, Plazas or Malls
 - 15 320 Private/Public Estates or Museums
 - 16 325 Condos/Apartments/Housing Developments/Hotels/Resorts
 - 17 330 Cemeteries/Memorial Gardens
 - 18 335 Hospitals/Health Care Institutions
 - 19 340 Military Installations or Prisons
 - 20 345 Airports
 - 21 350 Multiple Government Municipal Facilities
 - Other (please specify) _____
 - 22 355 Extension Agents/Consultants for Horticulture
 - 23 360 Sod Growers/Turf Seed Growers/Nurseries
 - 24 365 Dealers/Distributors/Formulators/Brokers
 - 25 370 Manufacturers
 - Other (please specify) _____

- 2. Which of the following best describes your title? (fill in ONE only)**
- 26 10 **Executive/Administrator**- President, Owner, Partner, Director, General Manager, Chairman of the Board, Purchasing Agent, Director of Physical Plant
 - 27 20 **Manager/Superintendent**- Arborist, Architect, Landscape/Grounds Manager, Superintendent, Foreman, Supervisor
 - 28 30 **Government Official**- Government Commissioner, Agent, Other Government Official
 - 29 40 **Specialist**- Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist
 - 30 50 **Other Titled and Non-Titled Personnel** (please specify) _____

3. Is your golf course:
 31 A Public 32 B Semi Private 33 C Private 34 D Hotel/Resort 35 E Municipal

4. If you work for a golf course, how many holes are on your grounds?
 36 1 9 37 2 18 38 3 27 39 4 36+

5. How many acres are maintained at your facility? _____

- 6. SERVICES PERFORMED (fill in ALL that apply)**
- 40 A Mowing 45 F Turf Fertilization
 - 41 B Turf Insect Control 46 G Turf Disease Control 50 K Paving, Deck & Patio Installation
 - 42 C Tree Care 47 H Ornamental Care 51 L Pond/Lake Care
 - 43 D Turf Aeration 48 I Landscape/Golf Design 52 M Landscape Installation
 - 44 E Irrigation Services 49 J Turf Weed Control 53 N Snow Removal
 - 54 O Other (please specify) _____

7a. Do you specify, purchase or influence the selection of landscape products?
 Yes No

- 7b. If yes, check which products you buy or specify: (fill in ALL that apply)**
- 55 1 Aerators 62 8 Herbicides 69 15 Sweepers
 - 56 2 Blowers 63 9 Insecticides 70 16 Tractors
 - 57 3 Chain Saws 64 10 Line Trimmers 71 17 Truck Trailers/Attachments
 - 58 4 Chipper-Shredders 65 11 Mowers (reel/rotary) 72 18 Trucks
 - 59 5 De-icers 66 12 Snow Removal Equipment 73 19 Turfseed
 - 60 6 Fertilizers 67 13 Sprayers 74 20 Utility Vehicles
 - 61 7 Fungicides 68 14 Spreaders

8. Do you have a modem? Yes No

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



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November 1997

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 TITLE _____
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I would like to receive (continue receiving) LANDSCAPE MANAGEMENT free each month: Yes no

Signature: _____ Date: _____

Fill in ovals as shown: ●

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

- 01 250 GOLF COURSES (Also fill in questions #3 & #4)
- 02 255 Landscape Contractors (installation and maintenance)
- 03 260 Lawn Care Service Companies
- 04 265 Custom Chemical Applicators (ground and air)

- 05 270 Tree Service Companies/Arborists
- 06 275 Landscape Architects
- 07 280 Land Reclamation and Erosion Control
- 08 285 Irrigation Contractors
- Other (please specify) _____

- 09 290 Sports Complexes
- 10 295 Parks
- 11 300 Right-of-Way Maintenance for Highways, Railroads or Utilities
- 12 305 Schools, Colleges, Universities
- 13 310 Industrial or Office Parks/Plants
- 14 315 Shopping Centers, Plazas or Malls
- 15 320 Private/Public Estates or Museums
- 16 325 Condos/Apartments/Housing Developments/Hotels/Resorts
- 17 330 Cemeteries/Memorial Gardens
- 18 335 Hospitals/Health Care Institutions
- 19 340 Military Installations or Prisons
- 20 345 Airports
- 21 350 Multiple Government Municipal Facilities
- Other (please specify) _____
- 22 355 Extension Agents/Consultants for Horticulture
- 23 360 Sod Growers/Turf Seed Growers/Nurseries
- 24 365 Dealers/Distributors/Formulators/Brokers
- 25 370 Manufacturers
- Other (please specify) _____

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

- 26 10 Executive/Administrator- President, Owner, Partner, Director, General Manager, Chairman of the Board, Purchasing Agent, Director of Physical Plant
- 27 20 Manager/Superintendent- Arborist, Architect, Landscape/Grounds Manager, Superintendent, Foreman, Supervisor
- 28 30 Government Official- Government Commissioner, Agent, Other Government Official
- 29 40 Specialist- Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist
- 30 50 Other Titled and Non-Titled Personnel (please specify) _____

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106	118	130	142	154	166	178	190	202	214	226	238	250	262	274	286	298	310
107	119	131	143	155	167	179	191	203	215	227	239	251	263	275	287	299	311
108	120	132	144	156	168	180	192	204	216	228	240	252	264	276	288	300	312
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110	122	134	146	158	170	182	194	206	218	230	242	254	266	278	290	302	314
111	123	135	147	159	171	183	195	207	219	231	243	255	267	279	291	303	315
112	124	136	148	160	172	184	196	208	220	232	244	256	268	280	292	304	316

Deere mid-frame snow blowers loaded

John Deere's two new mid-framed snow blowers come with lots of features. The 5-hp, 24-inch 524D and the 8-hp, 26-inch 826D have new control panels that put easy-to-use controls at operators' fingertips. An easy-to-adjust snow deflector controls the angle of discharged snow from the operator's station.

Powered by Tecumseh's "Snow King" four-cycle engines, the 524D and 826D also feature an 11-inch diameter serrated steel edge auger that chews through snow and ice for maximum performance.

Other features include a fingertip-controlled chute rotator that gives easy control of snow direction and a standard fuel filter which keeps foreign material out of the carburetor for trouble-free operation. Both models come standard with a six forward and two reverse speed transmission.

Circle No. 264



Schaeff built for tough tasks

The entire line of SKL models continues to offer hydrostatic drive which automatically adjusts draw bar pull and speed. Four-wheel drive via drive shaft to front axle along with infinitely variable speed controls forward and reverse, makes these machines easy to control.

The SKL 823 has 52 hp with 8600 lbs. operating weight and 0.8 cubic yards bucket capacity. The SKL 833 with 60 hp and 10,800 lbs. operating weight has a bucket capacity of 1.0 cubic yard.

For more information call Gill Herr at 972/554-6690 and tell him you read about the Schaeff wheel loaders in LM, or

Circle No. 265

Make fertigation easy

Strong injectors announces the availability of a pre-set automatic proportioning fertilizer injector. Units range in size from as small as one pint, all the way up to a large 55-gallon capacity injector. Over 75,000 units have been installed by irrigators who understand the advantages of fertigation.

The Add-It injectors have been designed for use with either drip/sub-surface, or conventional sprinkler irrigation systems. They can be used with any liquid fertilizer. Simple to install, easy to operate, require no outside power source. Call Strong at 916/652-1088, or

Circle No. 266



Schaeff Equipment offers joy stick control on its new SKL 823 and SKL 833 wheel loader/tool carrier models. "In addition we have added 20 percent more glass in the cab for increased operator visibility," says Gil Herr, president of HAMM, the U.S. distributor. "The machines continue to feature parallelogram linkage which keeps the bucket level with the ground, even at a maximum height."

A variety of buckets are available for these machines which makes them well suited for light construction, municipal, landscape and agricultural industries. The "quick-attach" feature for the attachments allow the operator to change attachments hydraulically without leaving the cab.

(Big Deal)
Tough cutting situations? Demanding standards? Our 325E articulates three 25" decks to deliver a precision 72" cut. Low, wide and stable so it handles extreme contours without compromise - without scalping. The best use the best. Why not you?
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The new 25- and 30-series Boomer compact tractors from New Holland offers operators a versatile, reliable machine with which to mow, till, remove snow...you name it.

The Boomer offers fingertip controls, high-capacity live hydraulics, and tight-turn SuperSteer FWD front axles. All are powered by 3-cylinder



diesels, have hydrostatic power steering and are equipped with wet-disc brakes.

The 25 (engine) hp Model 1530 is available with cruise control hydrostatic or 9X3 gear-drive transmission, 2WD and FWD SuperSteer front axles, and a swivel seat to view backhoe or other rear-implement operations.

The Model 1630 is powered by a 27.3-hp engine, the Model 1725 with a 29-hp diesel, and the Model 1925 with a 34-hp diesel.

Circle No.267

Irrigation software for flexible designs

Rain Bird's new computer-aided irrigation and landscape design software is called the RainCAD Suite. It uses the Microsoft Windows operating system, and is built to give the landscape or irrigation contractor more flexible, efficient and profitable designs.

RainCAD Suite uses "pull-down" menus and point-and-click icons to designate with specific plants, fill materials, sprinklers, controllers, control valves, quick couplers, backflow devices and isolation valves. The system also generates complete material takeoffs, estimates and proposals. Other elements of the package include a lighting and drainage design add-on module, IRRICALC-EZ, and irrigation scheduling and water management and a training CD-ROM.

For more information, call Linda White at Rain Bird Sales, Inc., 818/812-3630, and mention LM, or

Circle No. 271

New Mule runs at 20 hp

The Kawasaki Mule 2510 delivers the goods at 20 hp, and has a carrying capacity of 1300 pounds, says Kawasaki. The four-wheel drive vehicle uses Kawasaki's 617cc, four-stroke, V-twin cylinder engine with overhead valves to provide ample power for hauling up to 803 pounds in the tilt bed and towing up to 1200 pounds on the hitch. Liquid cooling keeps engine temperature consistent. The engine is rubber-mounted in an isolated frame to reduce noise and wear while maximizing rider comfort.

An electronic ignition system never needs adjustment. Cranks oil level dipstick, spin-on automotive-type oil filter and coolant and battery electrolyte level sight gauges. Dual air filters clean the air from the cab frame air intake system.

For more information, contact Kawasaki at 714/770-0400 and mention LANDSCAPE MANAGEMENT, or

Circle No.268

Smaller brush cutting blade for trimming

The Beaver Mini-Blade from Saw-Tech Industries, Oklahoma City, Okla., is perfect for the wide variety of trimming tasks landscape maintenance personnel face on a daily basis.

The Blade is made with a patented clutch designed to eliminate kickback. Each blade is tested at 133 percent of recommended operating speed. Chains are subjected to the same rigorous testing.

Each Beaver Blade is engineered from twin discs of 301 grade stainless steel. They've been laminated and spot welded to prevent harmonic fracturing. Beaver Blades have a wide-cutting chain that eliminates binding while running smoothly and efficiently. Easy to resharpen in the field, too, says the company.

For more information, call Saw-Tech at 800/443-0187, and say you 'saw' it in LANDSCAPE MANAGEMENT, or

Circle No. 270

New Spraying Systems valve

Spraying Systems Co. offers the 144P boom control valve for turf sprayers. It features improvements over previous versions being all stainless steel with Viton components and having a stronger coil. Contact Spraying Systems Co. at 630/665-500, or

Circle No. 269

Catch the rising star in the landscape maintenance industry.



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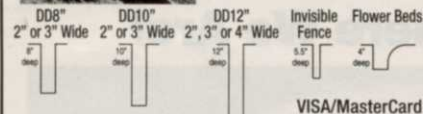
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FIELD OPERATIONS MANAGER MAINTENANCE DIVISION Are you aggressive with strong organizational and communicational skills and like challenges? Do you have 3 to 5 years experience running day-to-day field operations comprised of 75 employees or more? We are a well established full service landscape company looking for a field manager to oversee several areas supervisors and day-to-day field operations. Located in the Arizona's Greater Phoenix area, we have been in business over 23 years. If you are the right person for the job - we are offering a generous salary, company vehicle, health and dental insurance, 401 K with generous company match, and profit sharing. Our starting package is \$30,000 to \$45,000 depending on past success and experience. Please send your resume to 12629 North Tatum Blvd. Suite 236, Phoenix, AZ, 85032. 11/97

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University of California Santa Cruz seeks a professional arborist to manage 2000 acres of urban forest. Supervise tree care and some landscape maintenance. Contact: UCSC Staff Human Resources, 1156 High St., Santa Cruz, CA 95064, (408) 459-2009 (job #97-09-35) Deadline 12/1/97 EOE

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LAKE CITY COMMUNITY COLLEGE is seeking qualified candidates for an Irrigation Management Program Instructor/Coordinator (RE-ADVERTISED). Minimum requirements Bachelor's degree and two (2) years experience in irrigation design, installation and repair in golf/landscape industries. Salary Negotiable, based on degree and experience, plus benefits. Review of applications will begin on October 30, 1997. Position will remain open until filled. Applications should be submitted to: Human Resources Development, Lake City Community College, Route 19, Box 1030, Lake City, FL 32025-8703, (904)752-1822, Ext. 1314. VP/ADA/EO/EA College in Education and Employment. 11/97

Sales/Account Manager Challenging opportunity with a full-service firm for an aggressive person. Must have extensive background in sales and account management for commercial grounds maintenance and landscape clientele. Experience should include client prospecting, contract negotiations, estimating, annual budgeting for clients, excellent job management skills, and a general working knowledge of all aspects of the grounds management industry. Positions available at our Mundelein and West Chicago offices. Send resume with salary history to: Tandem Landscape Company, 33w480 Fabyan Parkway, West Chicago, IL 60185 or fax to: Mark Sorrentino (630)232-6370. 12/97

BRANCH MANAGER Industry leader, award winning, full service firm in Chicago western suburbs seeks aggressive sale and client-oriented individual to be accountable for a multi-million dollar growing branch operation and be a part of the senior management team. Responsibilities include sales growth, budgets, estimating, bidding contracts, quality control, training and staff development, motivating sales staff, client interaction, operations management and branch profitability. Horticultural/business degree or similar a must, along with working knowledge of all grounds maintenance operations and proven leadership and sales record. This is an excellent career opportunity for an energetic, goals oriented, proven leader with 3-5 years experience as a branch manager and excellent interpersonal and communication skills. Send resumes with salary requirements and references to: **Tandem Landscape Company, 33w480 Fabyan Parkway, Suite 101, West Chicago, IL 60185 or fax to (630)232-6370, Attn: Mark Sorrentino.** 12/97

Landscape Architect/Designer Opportunity for a talented professional who possesses exceptional communication skills and a love of the landscape industry. Requires residential and commercial design/build experience, plant knowledge and the ability to work in a fast paced environment. Wheeler Landscaping, Inc. has provided quality design/build/management services to the northeastern Ohio area since 1976. We offer excellent benefits and an enjoyable work atmosphere where employees and clients are valued and treated as friends. Please mail resume detailing salary history and requirements with handwritten cover letter: **John D. Wheeler, President, WHEELER LANDSCAPING, INC., P.O. Box 23068, Chagrin Falls, OH 44023.** 11/97

MAINTENANCE SUPERVISORS The Brickman Group, Ltd., one of the nation's largest and fastest growing full service landscape companies, has an immediate need in principal cities east of the Mississippi for maintenance supervisors with 2-5 years experience. Brickman seeks energetic, team oriented college graduates with proven leadership, communication and interpersonal skills. Brickman offers full-time positions, excellent advancement opportunities and exceptional compensation and benefits with an industry leader building on a 56-year tradition of uncompromising customer service. For immediate confidential consideration, please send or fax your resume with an indication of your geographic preferences and willingness to relocate to: **The Brickman Group, Ltd., Corporate Office, 375 S. Flowers Mill Road, Langhorne, PA 19047, 215-757-9630, EOE.** 12/97

EXCITING CAREER OPPORTUNITIES FOR VEGETATION MANAGERS Rapidly growing Vegetation Management Company is looking for experienced Division Managers to work out of our regional and branch locations throughout the U.S. Must have a minimum of two (2) years experience in Vegetation Management and/or a degree in horticulture/aboriculture/urban forestry or related field. Must be self-motivated, decisive, creative and have strong organizational skills. **WE OFFER:** —Excellent starting salary, —Company paid health insurance, —Excellent working environment, —Bonuses, —Vacations, —401 K Program. For career opportunity and confidential consideration, send or fax resume, including geographic preferences and willingness to relocate to: **DeANGELO BROTHERS, INC.,** Attention: Paul D. DeAngelo, 100 North Conahan Drive, Hazleton, PA 18201, Phone: (800)360-9333, Fax: (717)459-5500. EOE/AAP M-F 2/98

GreenSearch—Attention Employers...can't find good managers and supervisors? Or maybe you're a job seeker looking for a new opportunity? We can help you! Serving Green Industry company categories throughout the Southeast U.S. Call GreenSearch toll-free at 1-888-375-7787, Fax (770)392-1772. GreenSearch, 6690 Roswell Road, #310-157, Atlanta, Georgia 30328-3161. 12/97

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Sales Turf & Tree Professionals: Growth Products a manufacturer of Liquid Fertilizers, and Natural Organics seeks experienced professional in the golf and tree markets. Openings for Texas, Northcentral and Southeast territories. Salary + commissions, and company vehicle. AS or BS in turf management or related field, willing to travel, sales skills. Send/fax resume to Growth Products, PO Box 1259, White Plains, NY 10602 914-428-2780. 11/97

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OPERATIONS MANAGER Growing Cleveland, Ohio landscape company is looking for a career-oriented person to run our day-to-day operations. Responsibilities will include: purchasing, scheduling labor & equipment, hiring, training & oversee shop, vehicles & yard. Excellent potential to advance as company continues to grow. Send resume to P.O. Box 23352, Chagrin Falls, Ohio 44023 11/97

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Grab Bag

Engines take a beating

Agronomist Pat Gross, writing in the *Divot News* of the GCSAA of Southern California, says, generally, the average operating condition and engine RPMs for turf equipment is the equivalent of an automobile engine going 60 mph. A triplex greens mower used two hours a day for 624 hours a year equates to 37,440 miles per year, using the automobile analogy; and fairway mowers run more than 100,000 miles in a year. "Hopefully," writes Gross, "using these examples to justify new equipment purchases will meet with nods of agreement instead of a look of bewilderment."

Ammo plant to finally blossom

A former ammunition plant near DeSoto, Kans., is being converted into a horticultural research and education center designed to help the ornamental horticulture industry. Thomas Warner, head of horticulture at Kansas State University, said researchers will be doing a wide array of applied investigations of green industry plants and food crops. The ammunition plant, built in the 1940s provided propellant ammunition primarily during World War II. The EPA spent two years studying the site and gave it a clean bill of health.



Fine stonework for a secluded spot

This residential landscape pond was designed and installed by Urban Environments, Inc., Columbus, Ohio. The client wanted to renovate a failing patio space by using a water feature. A secondary request was to add an outdoor spa. More than 10 tons of ebony granite were used to form walls, line the pond and accent the paved areas. Glengary brick covered 1200 square feet of walkway and patio area. Silver charcoal patio stone was used to inlay the brick areas and provide a transition to the natural, rustic setting. Extra special challenges included: finding plants that were less appealing to deer; a 30-day deadline; and the need to protect large trees from root zone damage. Thanks to Laurie Macruski, Sharon Cotter and Joel Korte of Urban Environments, for the report.

"The winter of 97-98 is almost upon us. It will be a winter of great inconsistencies, mostly due to El Niño. Some of us will have tremendous record-breaking snows, and some of us may end up with little (if any) snow to work with. Such is life in our industry. Unpredictability and uncertain cash flow projections."

—JOHN ALLIN, WRITING IN THE SIMA (SNOW & ICE MANAGEMENT ASSOCIATION, INC.) NEWS.

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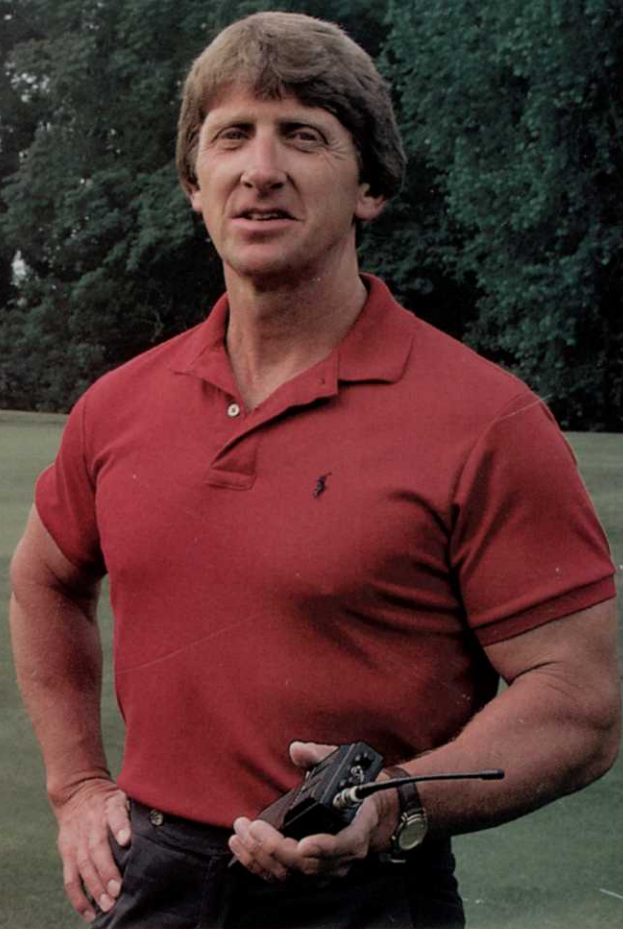
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