

THE VOICE OF THE GREEN INDUSTRY

# **LANDSCAPE** *management*

MARCH 1997 • \$4

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**Product testing**

**Weed control**

**Safety makes 'cents'**



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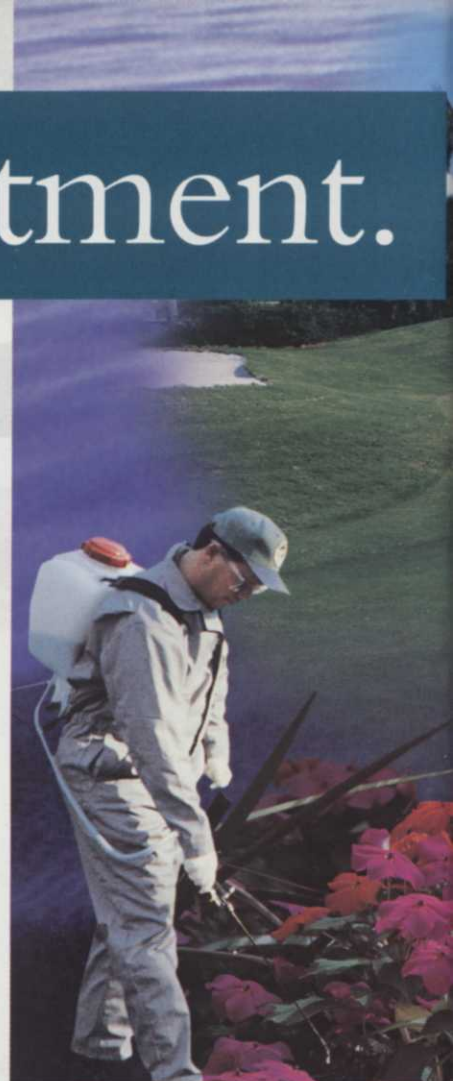
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THE VOICE OF THE GREEN INDUSTRY

# LANDSCAPE management



ON THE COVER: SOON, THE BACKYARDS WILL BE IN BLOOM, AND BUSINESS WILL BE IN FULL THROTTLE. LM WISHES YOU A PROFITABLE AND PRODUCTIVE SEASON. PHOTO BY LEFEVERGRUSHOW, FROM GRANT HEILMAN.

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LANDSCAPE MANAGEMENT (ISSN 0894-1254) is published monthly by Advanstar Communications, Inc. Corporate, editorial and advertising offices: 7500 Old Oak Blvd., Cleveland, OH 44130. Accounting, advertising production and circulation offices: 131 West First St., Duluth, MN 55802.

**Subscription rates:** one year, \$39, two years \$58 (U.S.); one year \$66, two years \$99 (Canada and Mexico); one year \$130, two years \$195 (all other countries). For air mail delivery, include an additional \$70 per order annually. Current issue single copies (pre-paid only): \$4 (U.S.); \$7 (Canada and Mexico); \$12 (elsewhere); add \$3.50 per order for shipping and handling. Back issues, if available, \$10 (U.S.); \$14 (Canada and Mexico); \$20 (other countries); add \$3.50 per order for shipping and handling (pre-paid orders only).

**Office of publication:** Advanstar Communications, Inc., 131 W. First St., Duluth, MN 55802. Periodicals postage paid at Duluth, MN 55806 and additional mailing offices.

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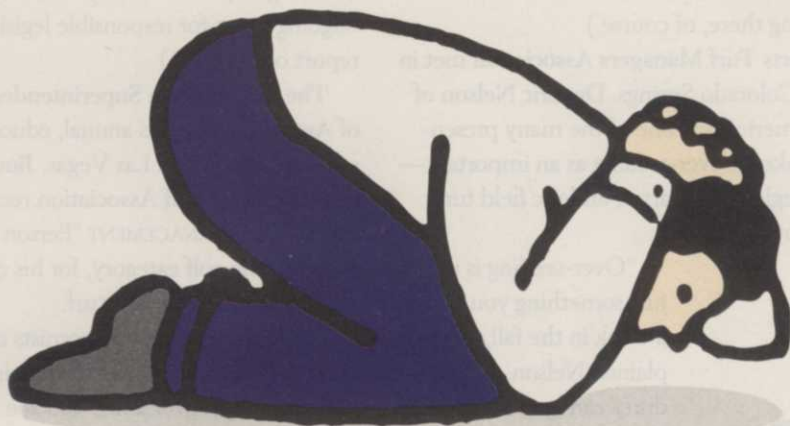
Canadian G.S.T. Number: R-124213133, IPM number: 841919

POSTMASTER: Send address changes to Landscape Management, P.O. Box 6198, Duluth, MN 55806.





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**I**n case you've missed out on some of the green industry's best shows and conferences, here's a rundown on what the industry's talking about. (Not that you should ever use this column as a substitute for being there, of course.)

The Sports Turf Managers Association met in January in Colorado Springs. Dr. Eric Nelson of Medalist America was one of the many presenters. He spoke on over-seeding as an important—but often neglected—part of athletic field turf management.

"Over-seeding is not just something you do for a week in the fall, explained Nelson. "Procedures can be done during the summer so you can prepare a seed bed that's receptive to perennial ryegrass/annual ryegrass over-seeding in the fall."

The benefits of over-seeding, said Nelson, go beyond aesthetics, to include shear tolerance; it forces you to manage bermudagrass to reduce thatch layers and decrease compaction; it keeps you

in a mind-set of wanting your fields to look their best year-round.

"There's also some people who feel there are insulation benefits to ryegrass over-seeding on bermudagrass," added Nelson, "to protect it from cold shock or winter hardiness problems."

At the same show, Dr. Whitney Cranshaw, entomologist at Colorado State University, reminded field managers to, "know your insecticides," in terms of:

- ▶ toxicity/hazard to humans;
- ▶ environmental persistence;
- ▶ hazards to non-target organisms;
- ▶ water solubility;
- ▶ affinity for organic matter.

STMA reported it will soon have a certification program, one that will help them develop an

alliance with stadium managers, athletic trainers, "any group that is allied to sports fields."

The Professional Lawn Care Association of America held its annual "Day on the Hill" in Washington, D.C. in early February, as part of its ongoing quest for responsible legislation. (See our report on page 12.)

The Golf Course Superintendents Association of America hosted its annual, educational gem of a show, this time in Las Vegas. Jim Snow of the United States Golf Association received the LANDSCAPE MANAGEMENT "Person of the Year" award in the golf category, for his career-long dedication to better golf turf.

USGA consulting agronomists made 1,788 visits to golf courses in 1996 to help superintendents solve turf problems, said Joe England, new chairman of the USGA Green Section Committee. The testing of new bentgrass and bermudagrass varieties on 15 practice greens will begin later this year, co-sponsored by GCSAA and the National Turfgrass Evaluation Program.

It's also reported that the USGA and the National Geographic Society present an environmental symposium in Washington, D.C. on May 16, to be attended by many golf and environmental agencies.

The Audubon Cooperative Sanctuary Program will expand, said England, who added that the USGA is committed "to making golf courses more accessible, easier to maintain, ecologically sensitive and environmentally safe."

The Associated Landscape Contractors of America held its "Executive Forum" Feb. 15-18. An annual retreat for business people with an affinity for improvement, the forum featured guest speakers and break-out sessions on a variety of topics, from incentive programs to communicating your company "vision" to employees.

As usual, the green industry show calendar is full of events that can help you and your people improve the way you work, at a time when standing still just doesn't cut it. **LM**

Comments? Write Terry at 7500 Old Oak Blvd., Cleveland, OH 44130; phone him at (216) 891-2709; fax him at (216) 891-2675; or e-mail to [lscape@en.com](mailto:lscape@en.com).

## Main events cover turf like a blanket



*Terry McIver*

**TERRY McIVER**  
Editor-in-Chief





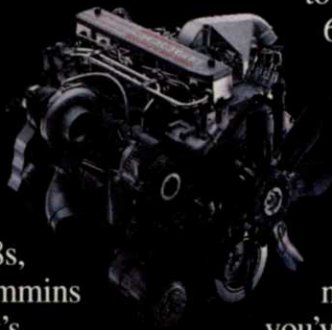
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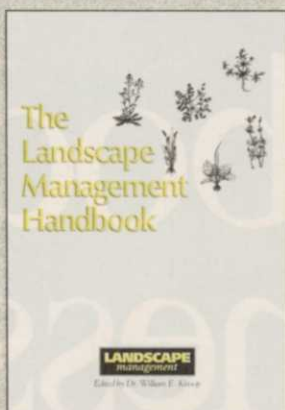


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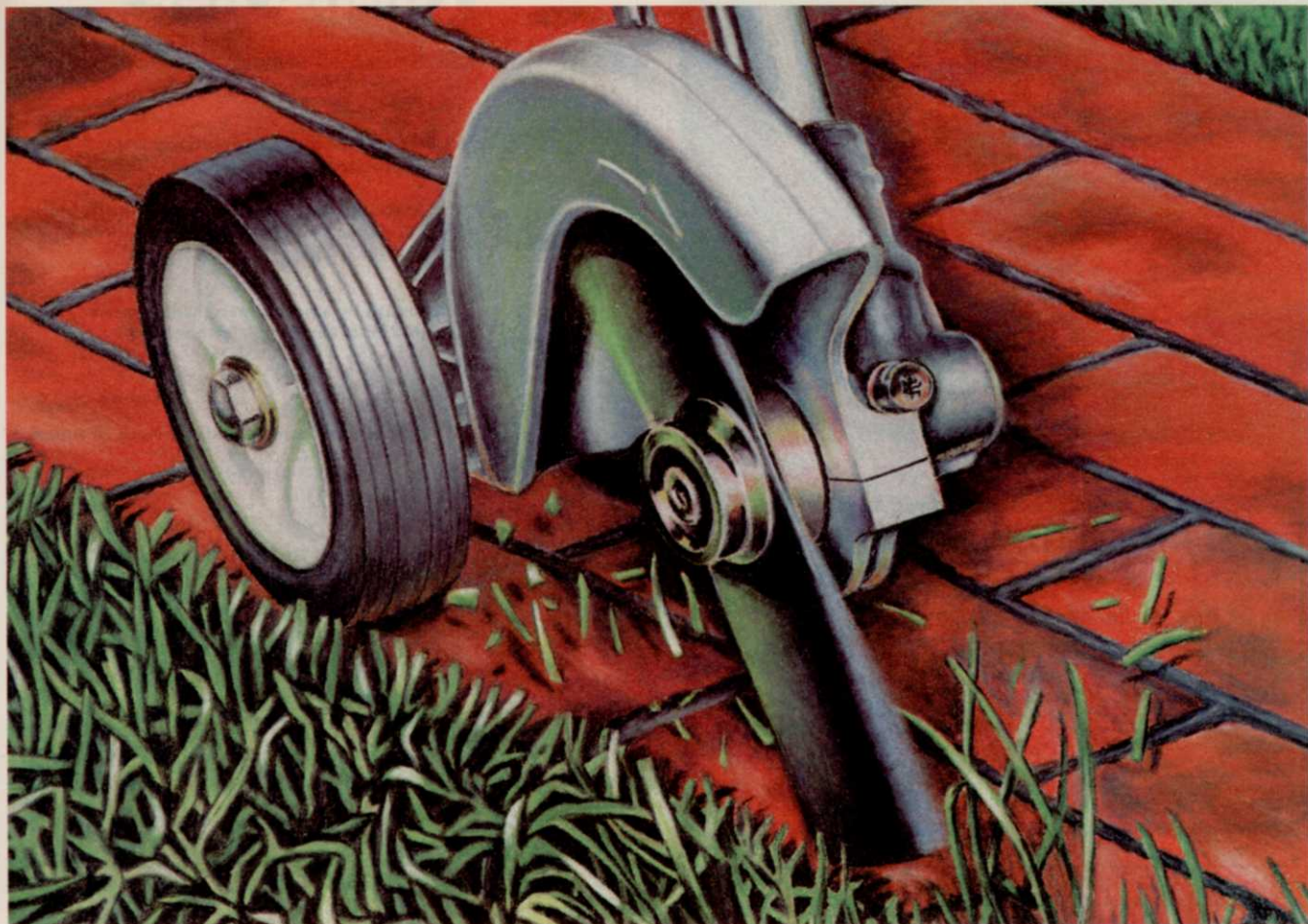
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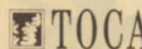
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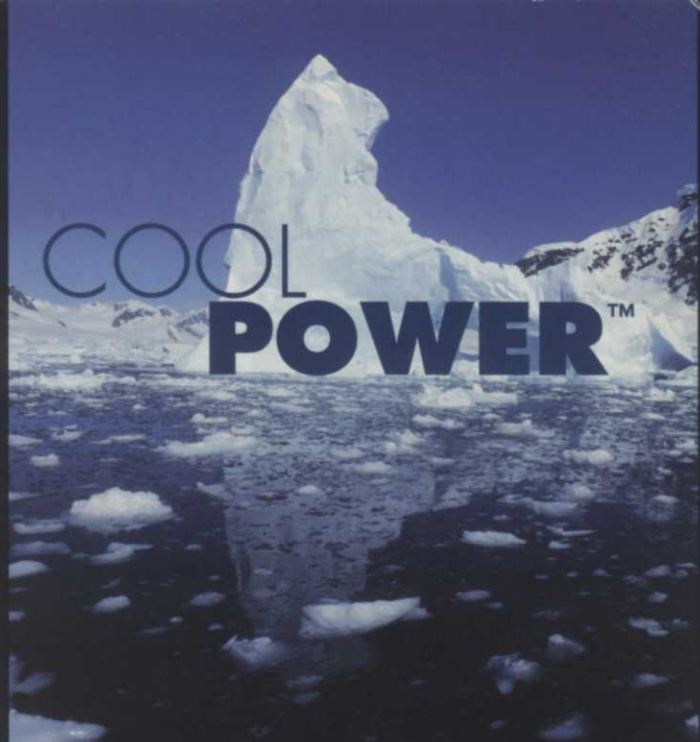
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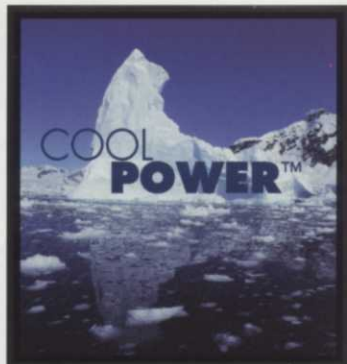
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## Container plant weeds

*We have a small nursery for container grown plants. Among many weed species, crabgrass and spurge are the most common and troublesome. We are thinking of treating the area with Princep before placing the containers in that area. What do you think about using this method to manage the weeds? Will container plant roots pick up the herbicide and injure the nursery plants?*

—OHIO

Princep has been the standard soil sterilant used in container grown ornamentals. Reports indicate that Princep can control crabgrass for more than 120 days, and control spurge for 90 days. To prevent direct contact with the treated surface, consider placing the containers on gravel or wooden structures. This should prevent possible contamination of container media and/or root absorption of herbicide.

If you have not used Princep or have not used it in the method discussed, try it on a small scale using different containerized plants. Monitor for possible herbicidal injury. If the applications and arrangements are done properly, there should not be any adverse effects. For any escapes or future problems, consider postemergent, non-selective herbicides (Roundup, Finale or Scythe). Make sure they are labeled for the plant species culture and that your license allows you to use these herbicides. Read and follow label specifications for better control.

## Roots and water pipes

*We are dealing with several new construction building sites with a number of large willow trees. Because of the close proximity of these trees to buildings, we are afraid that the tree roots may cause damage to water pipes. For this reason, we were considering using Biobarrier. Can Biobarrier be used around water pipes and sewer lines without harming the water?*

—INDIANA

A representative from Reemay, Inc.—the maker of Biobarrier—replies:

"Tree roots seek and follow the wall of the pipe because of condensation and oxygen along the wall. When they find a small hole or leaking joint, they grow through, and the problems start. A strip of Biobarrier wrapped around the joint will provide added protection from movement due to changing soil conditions or roots exerting pressure as they grow radially next to the pipe wall. You can also wrap drain lines without obstructing the flow out while still preventing root encroachment.

"Trifluralin, the active ingredient in Biobarrier, releases in vapor form and is adsorbed into the soil. Root tip elongation is blocked, and growth towards the pipe is prevented. Trifluralin is not taken up into the tree or ornamental, and has no adverse effects on other roots outside the zone."

*(Reply edited due to space limitations—ed.)*

## Hydrogel in planters?

*What is your opinion on the use of water-adsorbing polymer products, such as hydrogel, in the container production of nursery ornamental plants?*

*Would it be better to incorporate it into the planting media or dribble it beneath the liner or pots?*

—OHIO

Some reports suggest that hydrogels can reduce watering requirements of container grown plants, reduce transplant shock, increase nutrient retention of media and enhance plant growth. There are conflicting reports about their practical use, and benefits are questionable. Reports from Auburn University, as well as our own experience, suggest that hydrogel products may not be advantageous for container production. Watering frequency was not decreased by use of these products. In some instances they may reduce or not affect the shoot and root growth.

Comparatively, incorporation is better than the dribbling method. A product beneath the liner may cause the liners to force out of place, requiring repotting. If young plants did well and can produce roots into and out of growing media, forcing the plant out may not be a concern. Water-adsorbing polymers such as hydrogels may aide water use for some species of plants and not for others.

This practice may also be advantageous in drought or during water bans.



**BALAKRISHNA RAO**

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# Novartis plans 'aggressive' training, market focus

**LAS VEGAS**—Novartis—the new company formed by the merger of Ciba and Sandoz—plans to hit the ground running with "aggressive" sales training and product research, and special attention to ornamentals markets.

The merger of Ciba-Geigy and Sandoz AG to form Novartis Specialty Products was officially announced during the Golf Course Superintendents Association of America Conference and Show, held here Feb. 6-12.

Thomas McGowan, head of Novartis Specialty Products, says the company is committed to providing innovative products and technology to help customers achieve their business goals.

"We do not plan to lose ground in the marketplace during the transition year, we expect to meet our 1997 business goals, and we expect to make real changes in the near future that will soon make it possible for everybody to know who Novartis is," says McGowan, who adds that the merger will give Novartis "significantly stronger" research and development capabilities than either

company had before.

"Novartis is founded with a mindset of continuous improvement," says Gene Hintze, director of Novartis Turf & Ornamental Products.

"Our goal is more products, better service and exceeding customer expectations. We will have the most experienced turf field sales team in the business," says Hintze, "with over 20 dedicated sales representatives out in the field."

Hintze says "aggressive" sales training programs will continue through 1999.

"We also intend to provide some focus to the ornamentals business," says Hintze. "We will start off with a small, dedicated field sales force that will focus on the greenhouse and nursery business in key geographies in the U.S."

Hintze says Novartis will focus on "marketing management" rather than "product management," with market managers for the golf business, ornamentals business and professional lawn care business.

Novartis is headquartered in Greensboro, N.C., in what were previously Ciba headquarters. The company's product line includes turf and ornamental products—herbicides, fungicides, insecticides and turf management products for

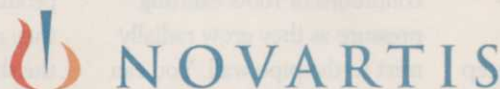
golf courses, greenhouses, nurseries, commercial lawn and landscape companies and sod farms; vegetation management products; and seed treatment products.

Products already in use by green industry professionals include Banner MAXX fungicide; Barricade preemergence herbicide; Primo plant growth regulator; Sentinel fungicide; Subdue MAXX fungicide and nine other products.

Headquarters address for Novartis is: 410 Swing Rd., Greensboro, NC 27409. □

► The Novartis logo

▼ Novartis headquarters is in Greensboro, NC.





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# PLCAA hits 'the Hill'

by TERRY MCIVER / Editor-in-chief



Terry Kurth, president of the Professional Lawn Care Association of America, addresses the crowd of volunteers during the opening ceremony for 'Renewal and Remembrance.' At left is Phil Fogarty, event organizer.



Doug Hague of Classic Lawns signs in at the office of Ohio Sen. Mike Dewine.

**WASH., D.C.**— Members of the Professional Lawn Care Association of America did their industry duty for the 8th straight year Feb. 2-3, with visits to Washington, D.C. lawmakers to lobby for common sense legislation as it relates to pesticide use and small business operations.

The "Day on the Hill" activities began when more than 100 volunteers from a variety of companies from across the U.S. fertilized and seeded 160 acres of selected areas of Arlington National Cemetery.

"We were really well-received by the grounds people at Arlington," said Gene Pool, president of Emerald Green, Van Wert, Ohio, and president of the Ohio Lawn Care Association.

"We were very blessed to have Phil Fogarty on the committee. I want to give a warm thank you to the sponsors."

Fogarty, of Crowley Lawn and Tree and Shrub Service, Cleveland, came up with the idea for the event as a gesture of goodwill to veterans, and a symbol of the lawn care industry's concern for the environment.

"We're very proud of the work done today, and hope that our efforts will make a lasting impression on the beauty and environment of our national cemetery grounds," said Fogarty.

#### Play offense, not defense

Prior to the Hill visits, lobbying expert Ed Grefe presented a seminar on the benefits of getting to know your legislators, and of getting involved in the lawmaking process.

"You have two choices," said Grefe.



Gene Pool, Emerald Green, center, and Carl Petelle, Leisure Lawns, meet with Joe Jensen, aide to Sen. Mike Dewine (R-OH).



Robert F. Kennedy, Jr., left, addressed the PLCAA crowd on issues related to environmental stewardship. 'Lawn care operators are also environmentalists,' explains Tom Diederich, Orkin Lawn Care.

"You can do something, or you can do nothing. If you do something, you may win, or you may lose. If you do nothing, you *will* lose."

Grefe stressed the need to be on the offensive.

"If you're always playing defense, you will always play by someone else's rules," explained Grefe, who has tutored groups on both sides of a variety of contentious public interest issues. □





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These 4WD mowers include many technological breakthroughs for increased turf performance. The Auto Assist 4WD with Dual-Acting-Overrunning clutch system delivers turf saving traction. In forward and reverse. It automatically transfers power to all 4 wheels when you need it. So, when the going gets tough, you get traction and reduced turf damage instead of wheel spinning. Or, you can



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choose to engage 4WD on-the-go.

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*Available with 60" or 72" side discharge mower or 60" rear discharge mower.*

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The F-60 Series includes 22, 25 and 30 horsepower 4-wheel drive mowers as well as a 25 horsepower 2-wheel drive model.

If you're looking for the ideal combination of comfort, power and efficiency for your team, you've just found a winning line-up.

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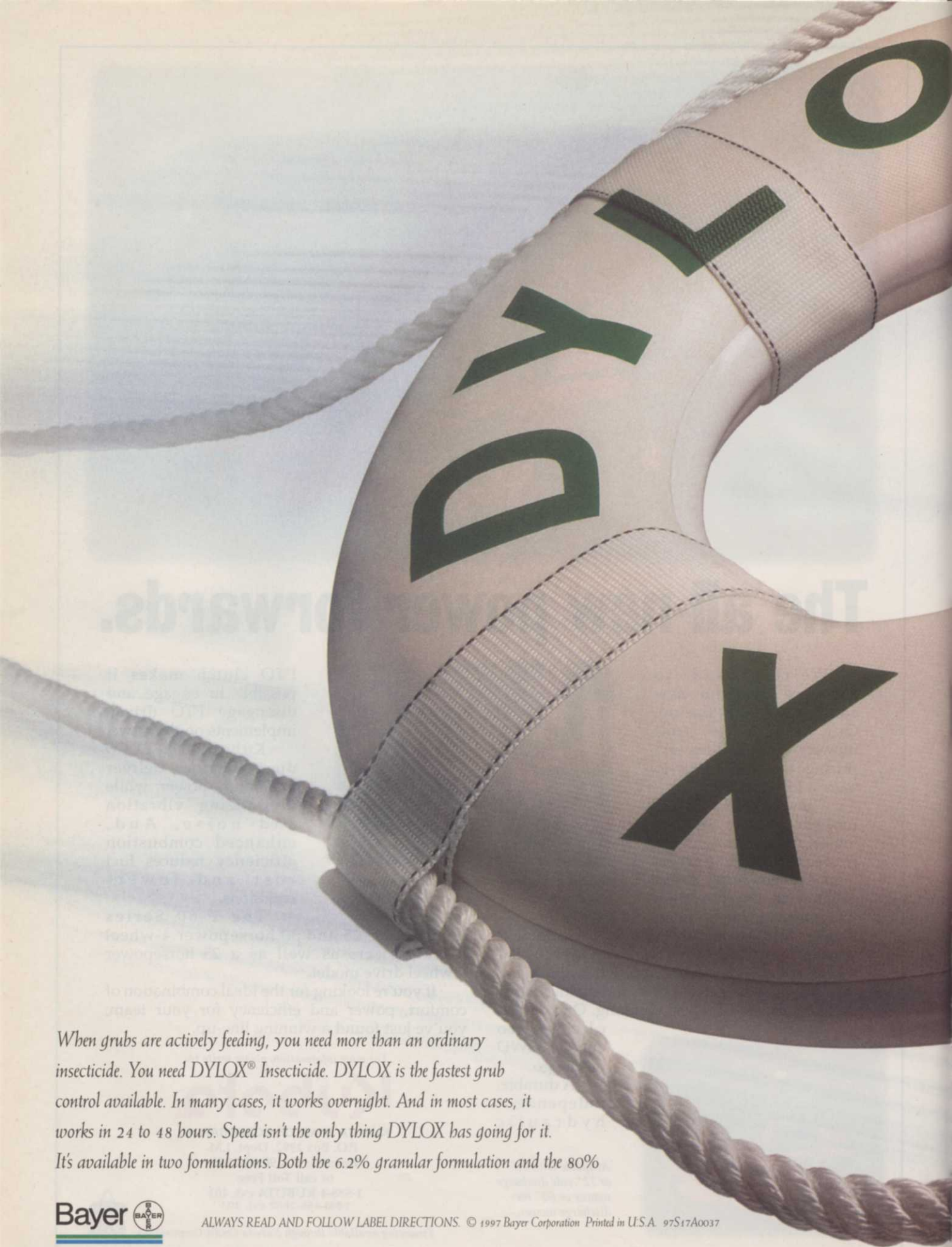
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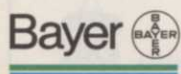
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When grubs are actively feeding, you need more than an ordinary insecticide. You need DYLOX® Insecticide. DYLOX is the fastest grub control available. In many cases, it works overnight. And in most cases, it works in 24 to 48 hours. Speed isn't the only thing DYLOX has going for it. It's available in two formulations. Both the 6.2% granular formulation and the 80%



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water-soluble powder formulation are low-odor in addition to being high-power. DYLOX. When you need it, you really need it. Isn't it nice to know it's there if you do? To find out more, contact Bayer Corporation, Specialty Products, Box 4913, Kansas City, MO 64120. (800) 842-8020.



WE DON'T JUST DELIVER  
GRUB CONTROL.  
WE OVERNIGHT IT.



## Zeneca debuts Heritage fungicide

**LAS VEGAS**—Zeneca, Inc. released its long-awaited, broad-spectrum fungicide—called Heritage—during the Golf Course Superintendents Association of America Conference and Show, held here in February.

The fungicide, azoxystrobin, is the first turf fungicide ever registered under the EPA "reduced risk" program, and the first pesticide registered under the new Food Quality Protection Act.

The EPA has approved the product for use on turfgrass to control 18 turfgrass diseases, including: brown patch; Pythium; take-all patch; summer patch; anthracnose; and snow mold.

The fungicide was inspired by highly effective natural compounds found in certain species of wood-decaying mushrooms.

"We are really excited," says Keelan Pulliam, business director for Zeneca Professional Products. "We think this has a great opportunity to change the turfgrass industry. Bottom line, it's a big event!"

Pulliam says Heritage provides golf course superintendents more flexibility, thanks to "the most extensive research and development program ever," which included many trials by university researchers and golf course superintendents.

The product enters the turfgrass plant through the leaf blade, stem or root system. It works against all four classes of fungal diseases in two ways, as a preventive and curative.

"Heritage is probably the top brown patch material we've looked at in the past three years," says Dr. Bruce Clarke, turfgrass pathologist at Rutgers University.

"For summer patch control, I'd say Heritage was definitely the best material we've looked at. We've also looked at this material for several other diseases, and I think in every case, Heritage has been one of the better materials we've looked at," says Clarke.

Distributors for Heritage are United Horticultural Supply; Terra; Lesco; and O.M. Scott. □

## Lesco, MTD to make mowers

Lesco, Inc. and MTD Products, Inc. have formed a joint venture to manufacture turf equipment. The joint venture is called Commercial Turf Products, Ltd.

Seed/fertilizer/equipment marketer Lesco, of Rocky River, Ohio, and Valley City, Ohio-based MTD—maker of Cub Cadet and MTD Yard Machine products—are predicting sales of \$80 million after three years of operation.

Lesco announced it will close its Sebring, Fla. plant. A production facility for the joint venture is being built in Streetsboro, Ohio, near Akron. □

## TurfGrass TRENDS joins with LM

TurfGrass TRENDS, a practical research digest valuable to turfgrass managers, joins LANDSCAPE MANAGEMENT magazine in serving the green industry.

Advanstar Holdings, Inc., purchased TurfGrass TRENDS from TurfGrass TRENDS of Washington, D.C. in February. The monthly subscription publication provides the most recent technical and research information about turfgrass disease and pest management, nutrients, irrigation, genetic improvement, turfgrass physiology, and ecology.

Published since 1992, the digest is written by leading turfgrass scientists. Its field advisory staff includes leading golf course superintendents and sports

facility greenskeepers, turf producers, professional landscape managers, and the coordinator of the National Turfgrass Evaluation Program.

"We are excited about adding our publishing resources to further build TurfGrass TRENDS and, at the same time, this resource of cutting-edge technical turf information will benefit readers of LANDSCAPE MANAGEMENT," said John Payne, publisher of LANDSCAPE MANAGEMENT, who will oversee the operation of TurfGrass TRENDS.

For subscription information, call (218) 723-9477; or fax to (218) 723-9437; E-mail at [fulfill@superfil.com](mailto:fulfill@superfil.com). □

## McClure to leave PLCAA

Ann McClure, executive director of the Professional Lawn Care Association of America, will step down from her post to become the managing director of the International Gas Turbine Institute located in Atlanta.

"We're bidding farewell to a great manager, and while we wish Ann the best of luck, we will miss her leadership," said PLCAA President, Terry Kurth. "The association has grown under her direction, and she will be leaving on a positive note."

"It's tough to move on, but I'm looking forward to yet another challenge," said McClure.

PLCAA President-Elect, Larry Messina, leads the Executive Search Committee to find a successor to McClure. **LM**



# *Solutions*

## **for Today & Tomorrow**



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## WITNESS PROTECTION PLAN

For some, protection can be a matter of life and death. But when it comes to protecting your ornamentals, death is not an option if you use Surflan® herbicide from DowElanco. In fact, while being safe over the top of 400 types of ornamentals, it's still tough as nails on weeds. Surflan gives you extended control of 50 weeds such as crabgrass and goosegrass. It also strong-arms small-seeded broadleaf weeds





## ORNAMENTAL PROTECTION PLAN

like chickweed and henbit — weeds that are usually untouchable. Plus Surflan can be used in many tank mixes. So when it comes to protecting ornamentals while killing weeds, let's just say we've got an offer you can't refuse. For further information on Surflan or any other product in the extensive line of DowElanco products, call 1-800-352-6778. Always read and follow label directions.



# Controlling pests while protecting our environment

## —an attainable balance

**W**ith hollow, needle-like mouths, they pierce leaves, sucking up plant-sustaining sap. Others prefer to dine on plant tissue, leaving holes, notches, and tunnels in turf and ornamentals. Some even spread plant viruses.

Whether the problem is chinch bugs, aphids, sod webworms or mole crickets, insect pests damage turf and ornamentals—and hurt business.

Landscape professionals know that successful and responsible control of these damaging insects takes some extra work, but the results are well worth it.

### IPM is right for today

DowElanco supports the principles of Integrated Pest Management (IPM) as the logical, efficient, and economical approach to controlling pest problems. IPM uses the full range of control options including chemical. True IPM practices recommend the judicious use of pesticides when necessary.

Professionals can use IPM to their advantage by exercising all available options, including resistant cultivars, cultural practices, mechanical controls and pesticides when appropriate.

Do keep in mind that insecticides continue to be the most effective means of controlling established populations of insect pests that damage turf and ornamentals.

### A closer look at IPM

There are a number of steps or "rules of thumb" to follow when establishing an IPM program. Let's take a quick look:

► Use plants that thrive in your region and mow turf properly.

► Check regularly for insects.

► When inspecting, determine if insects are beneficial or harmful.

► When damage is occurring, find a threshold level that the plant can tolerate.

► Consider all treatment options—in many cases, that means using Dursban\* insecticide for needed control.

### Maximum benefits, minimum risks

When you do choose to use pesticides, remember many factors can affect the performance. Here's what to consider to enhance their performance while still adhering to the principles of IPM:

**Fertilize regularly.** Insecticides work best if an annual fertilizer program is followed along with cultural practices to strengthen turfgrass plants before pests attack.

**Identify the pest.** Before applying an insecticide, positively identify the species of pests in the environment. Make sure the insect appears

on the insecticide label to be applied. Hard-to-control species may require repeated applications.

**Research pest life cycles.** Knowing when to control is as important as knowing what

surface-feeding insects.

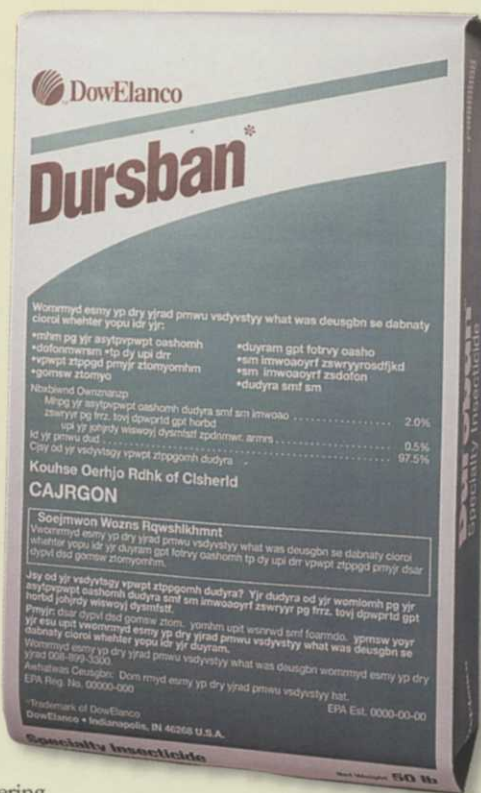
Dursban can offer control of the most detrimental insects including chinch bugs, sod webworms and aphids.

Available in liquid form as Dursban Pro, in a wettable powder in Dursban 50W in water-soluble packets, as granules, baits and on fertilizer, it provides economical control of over 140 insect pests when used according to label instructions.

Dursban can also be tank-mixed with most herbicides and fungicides for further efficiency. It binds with thatch and organic matter in soil, and resists leaching even in heavy rainfall.

Dursban fits well within the parameters of IPM to control a host of insects at low rates. For lawn care and landscape professionals, following IPM simply means more vigorous turfgrass and plants, pest identification and more efficient use of chemicals. And the first mission of any professional pest control method should be balance. Anything too strong or ineffective tips the scales. That's why Dursban strikes a perfect balance

*\*Trademark of DowElanco*



pests to control. Strike when they are most vulnerable, usually when insects are in early larval or nymphal stages. That's when they are more susceptible to treatment.

### Dursban delivers control

Professionals continually seek proven products that will economically provide broad-spectrum control of the most troublesome pests, including



**T**his time of year, landscape professionals are sizing up weed control alternatives to determine which fit best with their programs, customer preferences and bottom lines. There is, of course, no right answer that applies across the board. But the time and labor savings of pre-

pared as inferior performance, they may decrease customer satisfaction in your company. And if dissatisfied customers walk, you're faced with the cost of acquiring new ones—which could cost hundreds, maybe thousands of dollars in advertising, direct mail and good old-fashioned salesmanship.

Additionally, if clusters of call-

grass, goosegrass and annual bluegrass, and broadleaf weeds like chickweed, groundsel, henbit and knotweed are stopped below the ground's surface.

Surflan controls more than 50 common weed species and is labeled for application right over the top of more than 400 different ornamentals, such as azaleas, rhododendrons and petunias.

Available in a sprayable liquid, granule or on dry fertilizer, Surflan should be applied in late winter or early spring.

A single application of two quarts Surflan A.S. per acre provides season-long control of most annual grasses and some broadleaf weeds. Also, Surflan controls *Poa annua* when used at labeled rates.

While tough on germinating weeds, Surflan is mild enough to be applied over the top of foliage without discoloration, leaf spots or burning when used according to label directions. It resists leaching out of the germination zone, even in heavy rainfall, and resists staining.

So if callbacks are something you'd like to avoid this season, consider preemergent weed control as a part of your '97 program. And remember, when it comes to preemergents, Surflan offers more protection than any competitive product.

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## Preemergent weed control —good for your bottom line



emergents are worth considering.

### The callback concern

Turf and ornamental professionals are busy. Days are long, schedules tight and good employees scarce. Inefficiencies are more than just hassles, they can be costly to the bottom line.

Consider the cost of an average callback for weeds—approximately \$50, according to several lawn care and landscape professionals surveyed.

Even more importantly, because callbacks are often inter-

backs occur during peak season, you have labor concerns to contend with. Remember last year? Hiring good employees was difficult, even during slow times. Industry experts predict labor shortages to be even more severe this season.

### Weed control options

There is an alternative. Preemergent weed control can help professionals avoid the callback dilemma by stopping weeds before they emerge. For example, Surflan\* preemergence herbicide is applied before annual grassy and broadleaf weeds germinate in ornamental plantings and warm-season turfgrasses—typically in early spring.

### How Surflan works

Surflan stops weed germination by interfering with mitosis, or cell division in the germinating roots. Grassy weeds like crab-

## PROPER TIMING FOR BEST CONTROL

It's important to apply a preemergent like Surflan\* herbicide one to two weeks before problem weeds germinate. A soil thermometer can help determine the onset of germination, along with these general guidelines:

— Warmer conditions typically

exist on south-facing slopes.

— Dark soil warms up faster than light soil.

— Thin grass areas warm up faster than thick grass.

— Wet clay soils may require up to three to four times more heat for

germination than dry clay soils.

— Dry, sandy areas should be treated in early spring.

— The treatment of poorly drained lawns can be delayed until mid to late spring.

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Every lawn and landscape has thousands of tiny time bombs hiding in the soil. Broadleaf weed seeds. And the best time to stop the explosion

is before they emerge. A preemergent herbicide application creates a zone of protection where weeds get whacked as fast as they germinate.

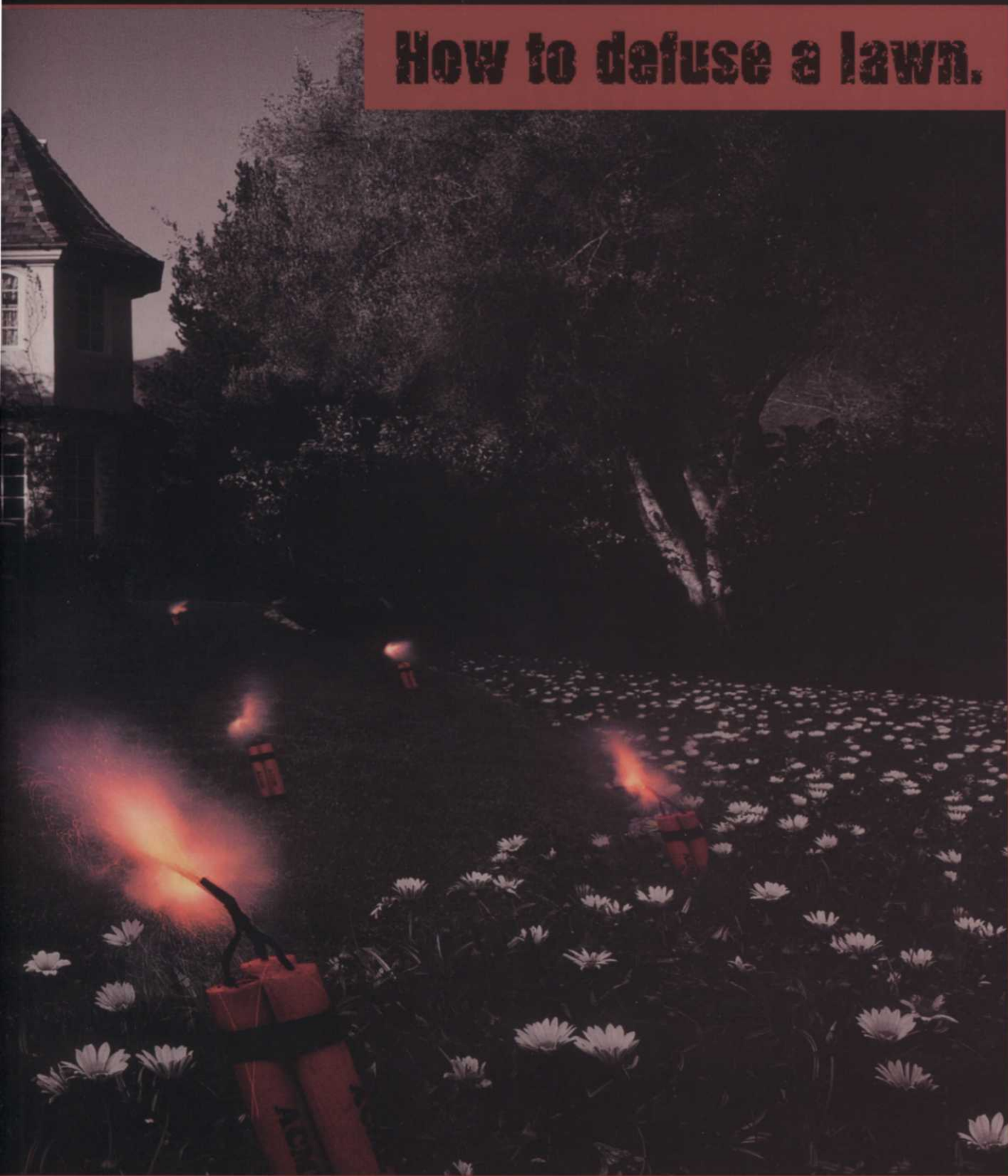
So your customers never see any weeds, and the turfgrass gets off to a fast, healthy start. It works so well, it can eliminate a lot of callbacks and



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# How to defuse a lawn.



maybe two or three postemergence herbicide applications. One treatment of Gallery<sup>®</sup> preemergent herbicide is all it takes. Use it spring or fall on

turf or ornamentals to prevent more than 95 kinds of broadleaf weeds for up to eight months. Now, Gallery is even labeled for use in

California. Always read and follow label directions. For more information, call us toll-free at 1-800-352-6776.

 DowElanco

**Gallery<sup>®</sup>**



# The best crabgrass preventer just got better

## The facts on Team Pro:

- ▶ More consistent on everything from crabgrass to spurge and oxalis.
- ▶ Proven, consistent performance of Balan\* herbicide and Treflan\* herbicide.
- ▶ Offers an easy-to-use fertilizer formulation which covers great at 4 pounds per 1000 square feet.
- ▶ Is effective in single or split-application programs.
- ▶ Won't harm nearby ornamentals and is non-staining.
- ▶ Provides excellent turf-grass tolerance and can be used on warm- or cool-season turf.
- ▶ Economical, dependable, great value.



For years, lawn and landscape professionals have looked to Team\* preemergence herbicide as the most proven consistent product for preemergence control of grassy weeds.

But what is it about Team that sets it apart?

Team is the only preemergence herbicide that combines two powerful active ingredients—Balan\* and Treflan\* herbicides—which together provide unsurpassed control of grassy weeds like crabgrass and goosegrass for up to 20 weeks, even when infestations are heavy.

And now these same proven attributes that have made Team the most consistent performing product for grassy weeds is taken one step further with the launch of DowElanco's new product—Team Pro preemergence herbicide. Team Pro is a unique combination of Balan and Treflan which combines the quick activity of Balan with the long residual rates and broadleaf weed control spectrum of Treflan.

While it still consistently prevents crabgrass, goosegrass and other bothersome grassy weeds, Team Pro is also more consistent on broadleaf weeds such as spurge and oxalis.

Team Pro can be applied on warm-season turf and used around most ornamentals according to label directions. Also, it stays where it's applied, resisting leaching even in heavy rainfall.

"Basically, we've made a great product even better," says Jim Parker, Product Marketing Manager for DowElanco herbicides.

"Because this new formulation is more consistent on everything from crabgrass to spurge and oxalis, it offers the best overall weed prevention a professional can get," says Parker.

Team Pro, available on fertilizer, allows for excellent coverage and performance at four pounds per 1000 square feet, yet it remains gentle on turf and safe for nearby ornamentals. In addition, it's non-staining and can be used on cool or warm-season turfgrass.

Team Pro effectively controls problem weeds by setting up a "weed prevention zone" beneath the soil surface. This zone inhibits cell division in weed seeds, stopping them before they ever break the surface.

Team Pro should be applied approximately one week before weed seeds germinate. Generally, this is when the soil temperature (not the air) reaches 52 degrees Fahrenheit.

For more information about the new Team Pro, call the DowElanco Customer Information Center at 1-800-352-6776.

*\*Trademark of DowElanco*



# Keeping dandelions down

**W**hile there are numerous arguments to support preemergence weed control methods, there is perhaps none as persuasive as the dandelion. A perennial, this broadleaf weed is the bane of lawn care operators and customers everywhere.

The thick taproot of the dandelion, often several feet deep, is so extensive that to stop the plant from growing, it is necessary to destroy the root—making it very difficult to control the weed postemergently.

In the past, dandelions and other broadleaf weeds were controlled by postemergence herbicides. Unfortunately, this method has its limitations. For one thing, timing is critical; failing to spray weeds at the correct time during the growing season can reduce control. Postemergence herbicides are also ineffective at certain times of the year and tend to be less effective as the weeds mature. Postemergence control often leaves a dying weed and, eventually, a bare spot in the turfgrass, which allows room for more weeds.

Technology in recent years has introduced the option of a preemergence broadleaf weed control. This offers several advantages. Preemergence control:

► Stops weeds from emerging, so homeowners don't com-

plain about uncontrolled weeds.

► Can save turf and ornamental professionals money by reducing "callbacks" for weed breakthroughs which cost approximately \$50 per callback.

► Reduces herbicide application trips across the turf—possibly saving up to two or three applications otherwise used for postemergence application.

► Partial or season-long control provided by the preemergence option can reduce labor and allow lawn care professionals to shift work to other tasks.

► Reduces weed seed populations by controlling weeds before flowering and seeding. Eliminating seed populations before they have a chance to develop means fewer weeds to worry about in the future.

► Contributes to turf vigor because protected turf no longer competes with aggressive, broadleaf weeds for water and nutrients. In addition, it remains unmarred by repeated postemergent spraying.

For the most consistent, proven preemergent broadleaf weed control, there really is only one choice: Gallery\* herbicide from DowElanco. What makes Gallery unique is isoxaben, a new class of chemistry approved for use on most established cool-season and warm-season turfgrasses, as well as 400 ornamentals. Once isoxaben is activated, it sets up a "weed prevention zone" in the top few inches of soil, controlling weeds before they break the surface.

A single application at .66 to 1.33 pounds of product per acre provides up to eight months of control against stubborn broadleaf weeds like chickweed,

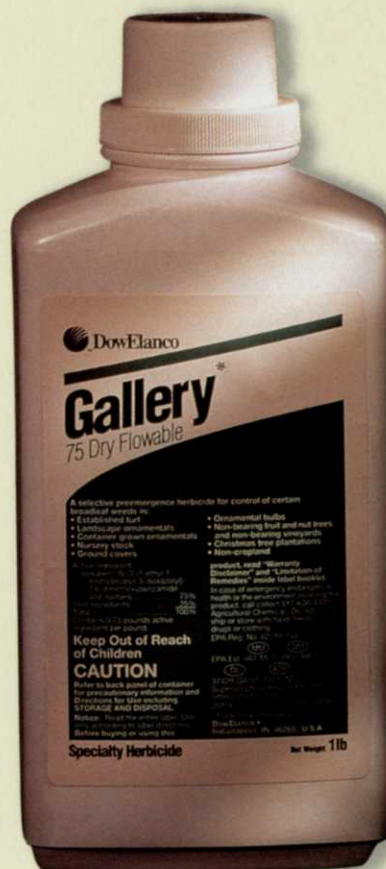
henbit and even the dreaded dandelion. One fall application of Gallery before weed germination prevents the growth of 95 species of broadleaf weeds for up to eight months.

Gallery can be applied in either spring or fall depending on the desired weed(s) to be controlled.

Apply Gallery two to three weeks before weed seeds germinate. Since soil temperature determines germination times, a soil thermometer can be a helpful indicator.

Once weeds germinate and begin to grow, they waste no time robbing turf of moisture, sunlight and nutrients. That's why lawn care and landscape professionals increasingly rely on Gallery herbicide to stop broadleaf weeds across the country.

*\*Trademark of DowElanco*





# *At least she insists*

There are times when it is critical  
to know that you're getting the real thing.  
Like when you're buying Dursban® insecticide.

No Dursban wannabe can give you  
the same level of  
confidence, performance and support  
that you get from DowElanco.

Not to mention the superior control  
of over 140 insects, including  
worms, ants, fleas, ticks, mole crickets,  
aphids and chinch bugs.

The only way to get the real Dursban  
is to buy Dursban.

So always look for the Dursban trademark  
on the label, whether you buy from DowElanco  
or one of our formulator partners.

For more information,  
call us toll-free at 1-800-352-6776.

Always read and follow  
label directions.

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*fake Ferrari*



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*on Dursban.*



DowElanco

**Dursban®**

*If it doesn't say Dursban, it's not.*



# Sensitive site weed control

**L**ook around you. Sensitive sites exist almost everywhere, in any part of the turf and ornamental business. Sometimes sites are sensitive because they're located in frequently used public areas, such as golf courses or parks. Sometimes members of the public are apprehensive about the use of herbicides.

Sensitive sites require special considerations when you choose an herbicide. Keep in mind too, you can reduce the amount of herbicide you use by selecting

one that gets the job done the first time you apply it.

Confront\* postemergence herbicide, which is practically odorless, is ideal for use in such sensitive sites as residential areas, schools and commercial grounds. It contains the active ingredients triclopyr and clopyralid and controls 35 species of annual and perennial broadleaf weeds.

Confront has become the new standard of control for tough broadleaf weeds because it controls even some of the most difficult including dandelion, clover, plaintain, spurge and oxalis. Confront is applied after broadleaf weeds emerge. Unlike other products that burn back foliage and provide only short-term control, Confront works by penetrating the tough outer leaf coating before moving through the plant to the roots. Once in the plant system, it quickly stimulates the weeds to outgrow their food reserve.

Extensive university studies and private cooperator trials confirm that Confront is close to 100 percent effective on these tough-to-control species with just one application.

Applications of Confront are permitted on such established warm-season turf species as bahiagrass, bermudagrass, buffalograss, centipedegrass, zoysiagrass and warm season tall fescue.

These turf species join a list of already permitted cool-season grasses such as bentgrass, perennial bluegrass, tall fescue, and perennial ryegrass.

At the recommended application rate of 1.5 pints active ingre-

dient per acre, Confront will go twice as far as a standard three-way herbicide applied at three pints active ingredient per acre.

Furthermore, single or multiple application per season creates little risk of discoloring or damaging turf when used according to label directions.

As with all products, Confront must be applied according to label directions for maximum results. It works immediately on weeds such as clover, and within a few days on other broadleaf weeds. It can be used as a broadcast application or for spot treatment and can be tank-mixed with other products such as Gallery\* herbicide.

For the best results, Confront should be applied to well-established turf when weeds are actively growing so that the active ingredients can translocate or move throughout the plant. This process results in high efficacy—virtually total control. And Confront stays where it's applied and won't drift to nontarget plants and areas—a bonus for sensitive sites.

Weed control at sensitive sites can be challenging. More and more, professional turf managers who want premium control of broadleaf weeds are turning from traditional postemergents to Confront.

*\*Trademark of DowElanco*





# Preemergence weed control —the way to go for ornamentals

**T**ime is money. It's a cliché, but it's also an adage with merit. For turf and ornamental professionals, time spent handweeding ornamentals is simply time taken from other tasks.

Free up some of that valuable time with Snapshot® 2.5TG pre-emergence herbicide, a top-per-

forming, competitively-priced herbicide that makes it seem like there's another crew member on-site. Except Snapshot doesn't punch a time clock. Actually, it works 'round the clock—for up to six to eight months.

Snapshot is ideal for landscape ornamentals and prevents 111 broadleaf weeds and annual grasses. Snapshot can be used over the top of ornamentals, and is non-staining.

After activation by one-half inch of rainfall or irrigation, Snapshot sets up a solid control area around weed seedlings. As the weed seeds germinate, Snapshot disrupts their development and seedlings gradually die before they ever break the soil surface.

Snapshot contains the active ingredients isoxaben (the same

ingredient in Gallery® herbicide) for the prevention of broadleaf weeds, and trifluralin, (the active ingredient in Treflan® herbicide) for the prevention of grassy weeds. These two ingredients form an unbeatable team for controlling weeds.

Always apply Snapshot prior to germination of target weeds, which generally occurs when the soil temperature, not the air, reaches 52 degrees Fahrenheit.

So for weed-free ornamentals there really is only one choice—Snapshot preemergence herbicide.

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**Team\*** Pro

# Customer driven through the next century

by DICK HOLZSCHU/General Manager, Urban Pest Management

**A**s the old song goes, "The times they are a changin'." In fact, everything changes, even the rate of change changes—or more precisely, accelerates. It's simply a fact of life.

At DowElanco, we want to do more than just keep up with change. We want to stay ahead of it. We know that thriving in today's business world means exceeding customers' needs not just today, but well into the future. That requires a total commitment to the turf and ornamental industry while embracing the changes taking place within it.

Our total commitment to the industry focuses on three areas: supporting current products, developing innovative new products, and providing accurate, up-to-the-minute information to the industry.

## **Current workhorses**

Support of our current products is ongoing and includes continual testing and research, both in the laboratory and in the field. Our goal—ensure our products meet efficacy standards and satisfy customers' needs.

One of the products we remain committed to is Dursban® insecticide. Dursban has been a mainstay in thousands of insect pest control programs for years. We don't take that kind of loyalty for granted. Because our customers rely on Dursban, we support it through research, development of improved formulations and packaging, and educational seminars designed to help customers get the maximum benefit from their insect pest control programs.

Another product we remain committed to is Surflan® herbicide. Because Surflan offers season-long control of over 40 grasses and broadleaf weeds and is safe on more than 400 ornamentals, it offers greater protection than any competitive product, and therefore continues to be the backbone of weed control programs for

thousands of professionals throughout the country. With this in mind, we're happy to report our Surflan plant expansion is complete and we fully expect to meet current demands for the product throughout 1997 and beyond.

## **New horizons**

In the effort to meet tomorrow's needs, DowElanco continues to funnel resources to new product development. Our commitment is large. In fact, our Research and Development Building contains more than 612,000 square feet and 15 individual greenhouses employing approximately 400 scientists and other employees. It's the world's largest single plant breeding and agricultural research center under one roof.

Along with the research conducted at the world headquarters in Indianapolis, major research stations are maintained in 19 additional areas around the world. With this global perspective, we've secured a place as a leader in the discovery and development of new pest control technologies.

In this vein, I'm pleased to announce one of our newest products, Team® Pro herbicide, is now available. Team Pro is more consistent on everything from crabgrass to spurge and oxalis, and it's the only crabgrass preventer available with a unique blend of the two active ingredients Balan® herbicide and Treflan® herbicide. This combination provides the quick activity of Balan with the long residual rates and broadleaf weed control spectrum of Treflan.

## **Information age**

Of course, research and development triumphs aren't enough to carry us into the 21st century. Real success comes from a commitment to information—the information our customers and their clients need.

With that in mind, we strive to be an industry leader in education, support and environmental stewardship. In fact, we



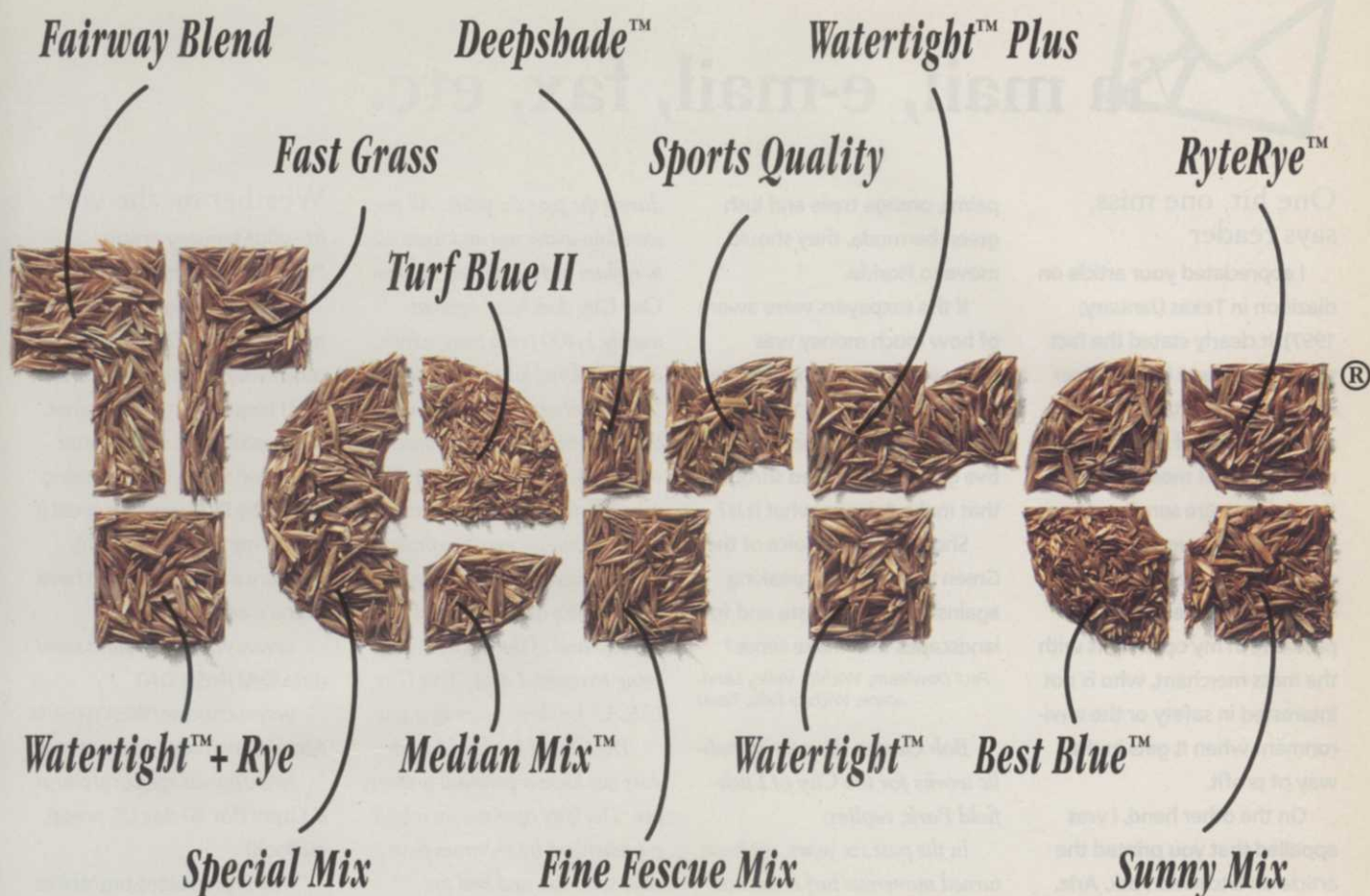
have over 20 sales and technical support representatives dedicated to the turf and ornamental marketplace.

We believe teaching our customers about using pest control products responsibly is important. As a part of that we provide educational materials and speakers to seminars and associations, we promote IPM practices and responsible use of our products, and we maintain a leadership role in associations such as Responsible Industry for a Sound Environment (RISE), The Professional Lawn Care Association of America (PLCAA), Golf Course Superintendents Association of America (GCSAA) as well as many other state and local associations that work to educate the public and the government about the use of specialty pesticides in the environment.

In the end, it comes down to not only recognizing, but promoting change and growth within our industry. And through commitment, dedication and unwavering support, DowElanco plans to continue to be the leading manufacturer of turf and ornamental specialty products through whatever changes the next century may bring.

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## Via mail, e-mail, fax, etc.

One hit, one miss,  
says reader

I appreciated your article on diazinon in Texas (January, 1997). It clearly stated the fact that the average homeowner does not understand how to use or dispose of toxic products. I feel that most of us in the industry are sensitive to environmental issues, and most of us do take the time to educate our customers. The real problem, in my opinion, is with the mass merchant, who is not interested in safety or the environment when it gets in the way of profit.

On the other hand, I was appalled that you printed the article on Litchfield Park, Ariz. (January issue). This is an example of landscaping that should not be used in an area that is having problems with water resources. If the people of this community feel the need for

palms, orange trees and lush green bermuda, they should move to Florida.

If the taxpayers were aware of how much money was being wasted, they might hire a new city manager. What is wrong with using the many native grasses, trees and shrubs that make Arizona what it is?

Shouldn't "The Voice of the Green Industry" be speaking against needless waste and for landscapes that make sense?

*Paul Dowlearn, Wichita Valley Landscape, Wichita Falls, Texas*

**Bob Gaunt, director of public works for the City of Litchfield Park, replies:**

*In the past six years, we have turned numerous turf areas into xeriscape landscaping. We also have one, five-acre park that is totally landscaped with native desert plants.*

*The City has received five tree grants (about 40 trees per grant)*

*during the past six years. All trees were low-water use and were used to replace high-water use on trees.*

*Our City does have approximately 1,400 palm trees, which are considered low-water users.*

*We are very much aware of the importance of water conservation. Watering is done in the most efficient and cost effective manner and all feasible conservation procedures are implemented. We are very proud of our city and of the distinction of being recognized as a "Tree City, U.S.A." for three years in a row.*

*The City of Litchfield Park does not have a personal property tax. The City operates on a budget generated by revenues from state sales tax and bed tax.*

*The article incorrectly gave the population of Litchfield Park as 38,000. The correct population of our small community is 3,800.*

## Weather on the web

Re: your January article, "Weather smarts":

I started using PC Weatherman back in 1992. Then, the FAA took away the free data service, and I began using the Internet. Map updating is much better now than when I started using it, but the DTN service is great (I put up my dish this month). Here are a few URLs that I have found most useful:

[www.wunderground.com/data/DAT/MSN.DAT](http://www.wunderground.com/data/DAT/MSN.DAT)

[www.cnn.com/WEATHER/NAmerica/nc/radar\\_image.html](http://www.cnn.com/WEATHER/NAmerica/nc/radar_image.html)

<http://grads.iges.org/pix/prec1.html> (for 10-day US precip. outlook)

<http://grads.iges.org/pix/tem1.html> (for 10-day US temp. outlook)

Some have been customized for Wisconsin; use them to get to the main pages.

*Kendall Marquardt, CGCS, Lake Wisconsin Country Club*

## January cover a winter wonder!

Congratulations on the cover photo of the January, 1997 issue. It is beautiful!

Living in the north, we often let the dismal effects of winter get the best of us. How refreshing

to see a national magazine champion the beauty of northern winters with such a picture. Though we often spend many of our days plowing snow, it does not make it any less beautiful.

Ironically, most of us who have to work with it love to play in it (skiing, snowmobiling and an occasional snowball fight). Great picture!

*Rob McCartney, grounds manager, Sea World of Ohio*

Thanks, Rob. We want our covers to display the green industry at its best. January's cover was certainly a 'best of' in the category of winter landscape photography. And we're certain our readers who profit from snow removal can relate! —ed.



## Ga. turfsters on-line

I wanted to let you know of the Georgia Turfgrass Foundation Trust's new website. We are still refining it, but it is available to folks interested in turfgrass, both professionals and consumers.

We try to add important links as they arise, and welcome your comments.

Try: [www.turfgrass.org](http://www.turfgrass.org).

*Doug Moody, executive director, Georgia Turfgrass Foundation, Norcross, Ga.*



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# SAFETY MAKES 'CENTS'

*There are a lot of good reasons to build  
a culture of safety into your green  
industry operation, but the most obvious  
one involves money.*

by RON HALL/ Managing Editor

**I**t amazes Bill Sisley that green industry professionals put themselves or employees at risk by ignoring basic safety rules, particularly involving power equipment. But they do. Much too often they do.

Sisley is manager technical support/equipment for Lesco, a major industry manufacturer and supplier. He's often called to work with Lesco's legal department when a claim arises from a worker injured using power equipment, a power mower usually.

These injuries can be avoided, says Sisley, practically all of them.

"We see switches that are disconnected or inoperable," says Sisley. Sometimes an operator removes a discharge chute. Operators sometimes bypass or ignore safety features on power equipment because:

- a) they're in too much of a hurry,
- b) they haven't been properly trained to run the equipment, or to recognize the consequences of their actions,
- c) they're allowed to—probably the greatest of the three sins.

"That person who tapes the handles down (disabling the mower's operator presence control system) is not looking at a huge time savings. He's probably just looking at a few seconds," says Sisley.

"There are all kinds of ways to defeat the safety features on a professional mower if an operator wants to take the time and effort to do it," he adds.

But, the real question is why?

Gary Hansen insists that allowing employees to use power equipment in an unsafe manner is just bad business. And, that's apart from any lawsuits or claims arising from accidents.



**Lesco's Bill Sisley says today's mowing equipment is engineered for safety, but equipment operators still need training.**

## **It's bad business**

"Safety makes good financial sense," says Hansen with American Safety and Health Management Consultants, Inc., Canal Fulton, Ohio. "Many people don't realize that until you sit down with them and go through it. They have a misconception that there is an insurance policy out there that covers them. What they don't realize is that that insurance policy is controlled by

their individual efforts, and their experience.

"For instance, getting in a group rating can save them 70 percent of workers comp premiums. That's money they can use or put on their bottom line right now.

"But, if they've had bad experiences (worker injuries and claims) over the past four years, they can be penalty rated. Workers compensation is going to charge them a high premium," says Hansen whose firm advises other companies and associations on safety issues. "That's why one person can be paying \$5,000 a year and somebody else in the same business can be paying \$20,000 for basically the same coverage."

## **The right thing**

There's a humanitarian reason for protecting your workers, adds Kate Goewey, corporate safety director for W.A. Natorp Co., Cincinnati.

"Imagine that someone that you care about personally, perhaps a son or a daughter, will be doing a task, or using a specific piece of equipment. Are you uneasy?" she asks. "If you are, don't let your employees do it either." W.A. Natorp, like most successful green industry operations, has a working safety program. The emphasis here is on "working".

"Every person who becomes an employee goes through a safety orientation," says Goewey. "Each new employee gets a company safety manual. But, we don't just tell the employee to take the manual home and read it, we go over it with them word for word. This takes 45 to 60 minutes.

"This lets employees know up front that we're serious about safety."

Each division of W. A. Natorp meets regularly to discuss safety issues—tree and



landscape crews weekly, and nursery and garden store employees twice a month.

"We encourage discussions and questions. The topics are geared to the work and the conditions at the time," says Goewey. "Many times we present a problem and ask for solutions. Our people have come up with some fantastic ideas that turned out to be simple to implement. They know the work and its hazards best."

#### No compromises

Safety expert Hansen says green industry organizations should insist that employees follow safety rules 100 percent of the time.

"The function of safety training is to get employees to do a task or operate a piece of machinery the right way consistently, no matter what," he says. "There always has to be follow-up by management, correction by management. When it comes to safety there can be no deviations, no excuses."

As for safety training? Keep it simple, make it applicable to the type of work you're doing. And do it regularly.

"It can be basic. It can be fairly easy," says Hansen, "but it has to be a formal part of your mission, like your corporate mission. It makes sense. Isn't one of your missions to protect your most vital assets? Your employees? Your equipment? Your property? Your sales or production capabilities? Your company's good name?"

Corey Eastwood's golf course maintenance crew meets every other Monday to review safety issues. The meetings last about 15-30 minutes each.

"Sometimes we review safety apparel, and we have general discussions too," says Eastwood. "Often we discuss equipment. We want to make sure all of our equipment is operating properly. About once a year we go over every piece of equipment. We get the manuals, we involve the mechanics and we review all the safety features of the equipment."

Eastwood's 18-member crew at the Stockdale Coun-

try Club, Bakersfield, CA, is proud of not having a lost-time accident in three years.

#### A safety culture

"At the Morrell Group we look at safety as being, not just a program, but a part of our everyday operation," adds George Morrell, owner of the Atlanta-based landscape company. That's one reason why safety training begins immediately for new hires during their initial 1½-2 day orientation programs. "Each step along the way we dis-



▲ An operator's hands must be at the controls for modern machines to keep operating.

▼ Long pants and work boots show that this operator is dressed for a day's work.



cuss safety with them," says Morrell.

The 20-year landscape veteran knows that safety goes beyond manuals, videos and bi-weekly worker meetings. It includes having first aid kits and fire extinguishers on all company trucks. Of equipping employees with proper protective gear, including, in the Morrell Group's case, bright orange company shirts. Of insisting that employees report all accidents, then reviewing why they happened.

The Morrell Group's safety committee meets regularly and provides managers with four or five suggestions to pass on to front-line workers. The company also has a "Safety Bucks" program that rewards accident-free workers with a little extra compensation.

Even if you have a strong program, you'll probably have to revise and update it to meet changing conditions.

"Every year we get our employees more involved with the idea of safety, and we're asking them to tell us what topics they need," says Sandy French, Human Resource/Safety Manager for Hillenmeyer Nursery, Lexington, KY. "We want them to actually participate in the demonstrations. This year we want to be out in the

nursery or in the shop. We realize that these people have chosen to work outdoors so it's hard for them to always sit inside and listen to me talk."

Even so, French insists that Hillenmeyer employees hear the most important safety instructions over and over.

"They might be sick of hearing about some of this material, but we all learn by repetition. Eventually all of us must realize how important this is," says French. □



George Morrell,  
The Morrell  
Group, Atlanta:  
'Safety should be  
a part of every-  
thing you do.'





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Evaluating preemergence turf herbicides can be like comparing apples and oranges. True, all of them control weeds. (To some degree, at least.) But a closer look reveals big differences. When you consider all the products on the market, you'll find:

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- Altogether, Dimension takes care of more than 20 tough weeds.
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# ATTACHMENTS GALORE

The Golf Course Superintendents Association of America Trade Show in Las Vegas last month showcased several acres of bright new equipment—tractors, mowers, and all of their related implements and attachments.

The next opportunity to see that much turf and landscape hardware, including a galaxy of attachments, is at Expo 97, the International Lawn, Garden & Power Equipment Expo, July 26-28 in Louisville, Ky.

Last year over 30,000 people checked out the equipment that filled 50,000 sq. ft. of inside floor space, and 20 acres outside where turf pros put all types of professional equipment

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## Honda Commercial Equipment

(910) 578-5300

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Get double duty from your Honda mid-size mower with the SB7038, 38-inch, two-stage snowblower and the FS7054 54-inch commercial grade sweeper. The attachments fit all 7013K, 7018Z and 7020Z commercial power units.

## Howard Price Turf Equipment

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mower: snowblower & cab, barrel collector, grass box, and ROPS.

## Jacobsen

(414) 637-6711

Circle No. 266

Accessories for the LF-3810 lightweight fairway and heavy-duty rough mower include ROPS, grass catchers, solid front rollers, grooved front rollers, front roller scrapers, real roller scrapers, vertical mowers, and all weather cab. Similar accessories for Tri-King 3WD Triplex Mower. The Greens King V can also be fitted with a fine bristle brush, spiker attachment and front and rear roller brushes.

## John Deere

(919) 850-0123

Circle No. 267

Tractors and turf mowers, attachments and accessories. Attachments for the F1145 Four-Wheel-Drive Front Mower, for instance, include armrest kit, auxiliary hydraulic kit, 60-inch rear or side-discharge mowers, 47-inch snow blower, rotary broom, cruise control kit, headlight kit. Rotary brooms, rotary tillers, post hole diggers, backhoes and hydraulic dumps for John Deere compact utility tractors.

## Kubota

(209) 931-5051

Circle No. 268

Tractors in the 12.5 to 91-PTO-hp range. Performance-matched implements and attachments. For the B-Series tractors (17 to 24 gross hp) include rotary tillers, front loaders, mid- and rear-mount mowers, grass catchers, box scrapers, rear blade, post hole digger and snowblower.

## Landpride

(913) 823-3276

Circle No. 269

Tractor-mounted grooming mowers, all-flex mowers, rotary cutters, rotary tillers, loaders, post hold diggers, seeders, overseeders, broadcast spreaders, powered rakes, disc mowers, rear blade, landscape rakes, box scrapers, soil pulverizers.

## Massey Ferguson

(414) 284-8669

Circle No. 270

Three series of MF Turf Tractors. MF 1200 Series (models from 17 to 40-engine-hp) can be used with MF mid-mount mowers, rotary cutters, Quick-Attach loaders and backhoe, dozer blades, box scrapers, rotary

tiller, landscape rake, disc harrows.

## New Holland North America

(717) 355-1371

Circle No. 271

New 25 and 30 Series "Boomer" compact tractors (25 & 34-engine-hp respectively), full range of implements: front loaders, rotary cutters, mid-mount finishing mowers, tillers, box scrapers, blades, rear scoops, backhoes, rakes.

## Nunes Manufacturing, Inc.

(209) 892-8773

Circle No. 272

Tractor attachments include Pull-Type Rotary Mower, Finish Cut Mower (models from 11 to 15-foot cutting widths), and vacuums.

## Power Trac (PWTI, Inc.)

(800) 843-9273

Circle No. 273

Power Trac PT-1430 with 30-hp Deutz diesel engine. Design allows tractor to articulate 45 degrees in each direction. Over 25 front-mounted attachments that can be changed quickly using quick-change pins and hydraulic couplers.

## Ransomes America Corp.

(402) 475-9581

Circle No. 274

Ransomes rotary mower "family" includes new 951D wing rotary powered with Perkins 50-hp diesel

## Scag Power Equipment

(414) 387-0100

Circle No. 275

Zero-Turn Riders, Hydro Riders, Walk-Behinds. Options include grass catcher, sully (for walk-behinds), mulching plate, traction plus.

## Steiner Turf Equipment

(216) 828-0200

Circle No. 276

The company offers the green industry professional five tractor/mower models that can be matched with Steiner turf and landscape implements, including aerators, blades, chippers/shredders, edgers, power blowers, scoops, snowblowers, sweepers, rakes, tillers, trenchers.

## Toro

(612) 888-8801

Circle No. 277

Full line of turf and landscape care equipment to be used with Toro mowers and vehicles. Toro Multi Pro 5500 work vehicle, for instance, can be easily fitted with a spreader, sprayers, topdresser or cargo carrier. Air conditioning is standard with the 5500 operator enclosure.

## Walker Manufacturing

(970) 221-5614

Circle No. 278

Walker offers rugged Quick-



Walker mowers can be fitted with a rotary broom attachment.

engine and cutting swath up to 127 inches. By removing the deck(s) and installing a specialized adapter kit and optional accessories, the 951D, and Front Line mowers, can be used for leaf mulching and snow removal. Also feature sweeper attachments, Ransomes Core Destroyer.

Change implements for its tractors—42-inch snow blower, 46-inch dozer blade, 47-inch rotary broom. The hitch assembly replaces the mower deck and clips onto the tractor in less than a minute. **LM**

newell walking lawn lawn back



# NORTHERN WEED CONTROL

## combines cultural/chemical tools

*Once you understand your most serious weed problems you can develop a multi-pronged program, using your experience, to control them.*

by TOM FERMANIAN, Ph. D./University of Illinois



White clover can be controlled by most broadleaf herbicides



Wood sorrel with yellow flowers

Winter will soon be a memory. It's time to plan your strategies for the annual battle against weeds. Wouldn't it be great to not see a weed all season? There's really not much of a chance for that. A more practical goal would be to hold the weed populations down to minimal levels. Weed control depends on your management intensity. Even in the most highly managed turfs, maintaining weeds to about 1-2 percent of the turf is usually the best you can strive for. For many turfs, larger populations (4-10 percent) are more practical.

Experience is usually your best tool. Once you recognize your most serious weed problems, you can design a strategy to hold each species to targeted populations. Fortunately, most weeds with similar growth habits can be managed with a single strategy. This will allow you to manage a diverse population of weeds with only a few strategies.

### IPM

Integrated Pest Management (IPM) combines sound cultural practices with the occasional application of herbicides to manage weeds. Mowing, fertilization, and irrigation should be designed to maximize the turf's competitive potential. Cultivation, mechanical control, and sanitation can also be used to reduce or manage the expansion of weeds. IPM is generally more consistent at maintaining tar-

geted weed populations because it keeps constant pressure on weeds through competition. However, it has less margin for error because the effects of cultural practices are more subtle and long term. Consistency is the hallmark of a good IPM program.

### Mowing

Depending on the weed species, mowing can affect the development of its population. A limited number of species are generally found in turfs, particularly well established turfs, because mowing pressures reduce weeds' recuperative potential. However, some weeds, like annual grasses have adapted to low mowing heights and frequent mowing. They can often be managed by raising the cutting when possible. Adjust and sharpen mower blades to reduce potential stress on the turf. Don't remove less than one third of the leaf blade surfaces.

Timely mowing can also reduce the production of weed seeds. This can also be accomplished using plant growth regulators or collecting clippings when seedheads are present. Plant growth regulators like mefluidide are particularly effective in reducing annual grass seed production.

### Irrigation

Irrigation also affects the growth of many weeds. High soil moisture favors nutsedges, annual bluegrass, crabgrass, goosegrass and many other weeds. Drying out the turf or



# PENDULUM

When it comes to season-long control of crabgrass, goosegrass, oxalis, spurge and many other troublesome weeds, PENDULUM®



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herbicide gets down to business. No other preemergent turf herbicide can match its spectrum of weeds controlled and cost-effectiveness. • PENDULUM brand Pendimethalin also offers greater flexibility than ever before, with a complete preemergent product line that includes sprayable formulations, combination fertilizer products and now a 2% granular formulation. • When you consider cash rebates available to you from American Cyanamid, it's easy to see that PENDULUM really does mean business. Smart Business. • To learn more about the rebate offer or for the name of the PENDULUM distributor nearest you, call 1-800-545-9525, Ext. 931.



**CYANAMID**

Agricultural Products Division  
Specialty Products Department  
One Cyanamid Plaza, Wayne, NJ 07470

# MEANS BUSINESS



**TABLE 1 HERBICIDES FOR BROADLEAF WEED CONTROL IN TURF**

COMMON NAME	TRADE NAMES (PRODUCERS)	USES
2,4-D	AM-40, 2,4-D Granules, 2,4-D L. V. Ester, Solution ; (Riverdale) 2,4-D Amine 4, 2,4-D LV4, SEE 2, 4-D LV4 (Riverside/Terra International) Weedone LV4 (Rhone Poulenc)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
2,4-D + dicamba	81 Selective Weedkiller (Riverdale) Four Power Plus (Turfgo/United Horticultural Supply) Lawn Weed Killer (Bonide) Triple D Lawn Weed Killer (Rockland)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
2,4-D + dichlorprop	2D + 2DP Amine, Turf D + DP (Riverdale) Fluid Broadleaf Weed Control (The Scotts Co.) Weedone DPC Ester, Weedone Amine (Rhone Poulenc)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
2,4-D + dichlorprop + dicamba	Strike 3 (Riverside/Terra International) Super Trimec (PBI/Gordon)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
2,4-D + mecoprop	2D Amine + 2 MCPP (Riverdale) 2 Plus 2 (ISK Biosciences) MCPP-2-4D (Cleary)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
2,4-D + MCPP + dicamba	Bentgrass Selective Weed Killer (LESCO) Brushfire, Brush-out, Brush-Whacker, HS-130, SNS-2000 (NCH) Granular Broadleaf Weed Killer (Lebanon) Mec-Amine-D (Turfgo/United Horticultural Supply) Three-Way Lawn Weed Killer (Rockland) Three-Way Selective, Three-Way DG (LESCO) Trimec Bentgrass Formula, Trimec Classic, Trimec Southern (PBI/Gordon) Triplet Selective, Triplet Water Soluble (Riverdale)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
2,4-D + MCPP + dichlorprop	Dissolve, Triamine, Triamine Granular, Triamine Jet-Spray, Tri-Ester (Riverdale) Jet-Spray 3-Way Weed Control (The ScottsCo.) Three-Way Ester (LESCO)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
2,4-D + MCPP + MSMA + dicamba	Trimec Plus (PBI/Gordon)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
2,4-D + triclopyr	Chaser (Turfgo/United Horticultural Supply) Turflon II, Turflon II Amine (LESCO)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
DCPA	Dacthal (ISK Biosciences) Garden, Turf & Ornamental Herbicide 5G, Turf & Ornamental Herbicide (Bonide) HS-110 (NCH) Super Dacthal 686 (Rockland)	Selective, post-emergence control of creeping speedwell and preemergence control of selected broadleaf species.
Dicamba	Vanquish (Sandoz) K-O-G Weed Control (The Scotts Co.)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
Isoxaben	Gallery (DowElanco)	Selective, preemergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
Triclopyr	Turflon Ester (DowElanco, Monterey)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.
Triclopyr + clopyralid	Confront (DowElanco)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled.

irrigating less frequently will give the turf a competitive edge over these water-loving weeds. Carpetweed and sand-burr compete well in dry open soils. If these weeds are a problem, increase irrigation.

#### Fertilization

The availability of nutrients in the soil affects the development of several weed species. While accurate timely fertilizations make turf a good competitor, too much fertilization can promote greater growth for some weeds. High levels of nitrogen cause annual bluegrass, crabgrass, and many other species to grow rapidly. Also, excessive fertilizations, particularly with soluble sources, can potentially injure turf foliage allowing weed invasion. Opportunistic weeds can develop before the turf has a chance to replenish the canopy. Be aware of other soil properties. Low pH or acidic soils can reduce the vigor of many turf species while encouraging the development of weeds such as red sorrel or annual bluegrass.

#### Cultivation/sanitation

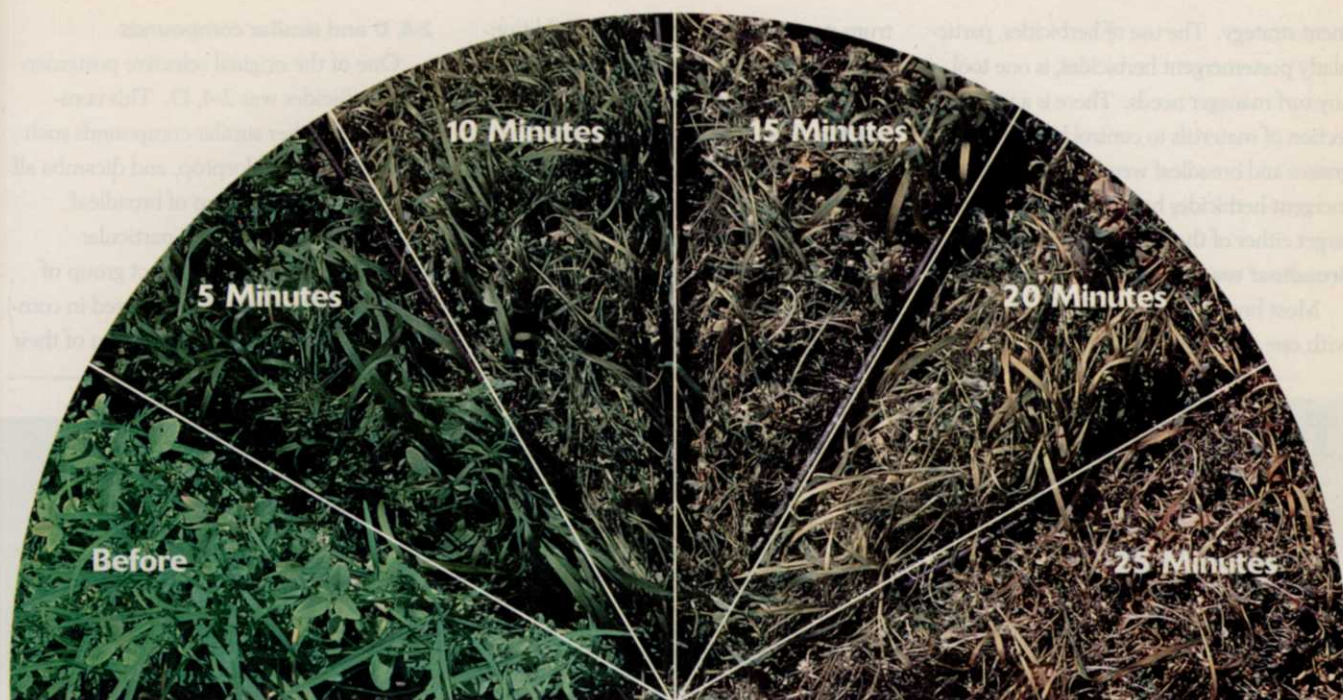
Generally cultivation—core aeration, vertical mowing, spiking, or slicing—is beneficial for turf growth. These same practices, however, can also move buried weed seeds to the surface allowing them to germinate. Topdressing might also introduce foreign seed.

Inspect mechanical devices or materials such as topdressing, mulches, or similar items for any plant parts, particularly weed seed that might be introduced into the turf.

#### Herbicides

Some weeds will always survive your best intended manage-





# Weeds? What Weeds?

- Scythe® is an amazingly fast-acting herbicide that lets you see results in minutes or hours, instead of days or weeks.
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ment strategy. The use of herbicides, particularly postemergent herbicides, is one tool any turf manager needs. There is a wide selection of materials to control both annual grasses and broadleaf weeds. Most postemergent herbicides have been developed to target either of these two large groups.

#### Broadleaf weeds

Most broadleaf weeds can be controlled with one of a large group of broad spec-

trum postemergent herbicides. Additionally, some narrowly focused or single species postemergent herbicides are available for difficult to control or unusual weed species. When all else fails, spot control is available through the use of a non-selective herbicide. Carefully check the turf tolerance of any selective herbicide. Some of the postemergent herbicides have a narrow range of tolerant turf species.

#### 2-4, D and similar compounds

One of the original selective postemergent herbicides was 2-4, D. This compound and other similar compounds such as mecoprop, dichlorprop, and dicamba all control a wide spectrum of broadleaf weeds. Each material has particular strengths in controlling a select group of species. Often times they are used in combination allowing for the reduction of their

## Temperature tip

Postemergent herbicides should be used when temperatures are moderate (<85° F) and growing conditions are good for both weed species and turf. Early fall applications are most effective. This is a time when weed species are actively transporting materials to below ground portions of the plant. Late spring/early summer applications can also be effective. Apply when soils are moist and weeds are actively growing. With summer heat and possibly drought, efficacy of postemergent herbicides will be much reduced. Most postemergent herbicides—and in particular phenoxy-containing materials—should be applied judiciously around sensitive ornamental plantings. In spring and fall, many sensitive species can be injured through drift or volatilization. Follow manufacturers labeled instructions closely. Cultural programs reduce the potential for weed invasion and population expansion. Integrate herbicides into a comprehensive turf care program. Follow manufacturers' labeled instructions.

T.F.

## CLARIFICATION

DowElanco's new Team Pro preemergence herbicide provides consistent prevention of crabgrass, goosegrass and other troublesome grassy weeds, and unsurpassed control of broadleaf weeds such as spurge and oxalis. Our reference to Team Pro in our Feb. cover story may have given the impression that the product was strictly for broadleaf weeds. -ed.

## New low odor technology...



Look for the  
TRIMEC® seal



Your guarantee  
of professional  
quality

in liquid...

**TRIMEC CLASSIC**  
BRAND  
**BROADLEAF HERBICIDE**

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027/197



individual single use rates through a synergistic action. Double and triple combinations of these materials provide effective control for almost any broadleaf species found in turf. Likewise the materials are formulated either as esters or amine based compounds to provide either greater control or greater turf safety, respectively. Specific combinations of these materials are presented in Table 1. While this table

is not an exhaustive listing of products, it provides a large number of the currently available herbicides.

#### Non-phenoxy broad spectrum herbicides

Two particular materials, Triclopyr and Clopyralid, are broad spectrum postemergent herbicides that can be targeted towards a wide range of weeds in many turfs. Triclopyr is often found in formulations by itself or in combinations with 2-4, D to

broaden its effectiveness across a wider group of weeds. Confront is a combination of both Triclopyr and Clopyralid which is particularly effective with many tough to control broadleaf weeds such as wild violets and creeping charlie.

#### Other postemergent broadleaf herbicides

Several additional materials are available for a smaller group of weeds or for special uses. Bromoxynil will not injure seedling turfgrasses and is often used as the initial material for cleaning up newly seeded turfs. Several materials such as Basagran, Vantage, and DCPA are targeted towards a small group of species. Manage and Basagran can be used effectively for controlling yellow and purple nutsedge.

#### Grassy weeds

For grassy weeds, particularly annual grasses, several products are available for selective control. Additionally non-selective herbicides can be used for spot control of both annual and perennial weeds.

Ethofumesate, fenoxaprop, and dithiopyr can all be used to control annual grasses after they have emerged. Each material has its own unique spectrum of species it is effective on. In general each of these herbicides is most effective when ap-

## Same outstanding weed control!



or in water soluble bags

**TRIMEC CLASSIC**  
BRAND  
**DSC BROADLEAF HERBICIDE**

ALWAYS READ AND  
FOLLOW LABEL  
DIRECTIONS

**G** pbi/gordon  
CORPORATION  
An Employee-Owned Company



The tall fescue on the right was cut at one inch; it contains crabgrass. The turf on left was cut at two inches.



**TABLE 2 HERBICIDES FOR POSTEMERGENCE GRASSY WEED CONTROL IN TURF AND NON-SELECTIVE APPLICATIONS**

COMMON NAME	TRADE NAMES (PRODUCERS)	USES
Bentazon	Basagran T/O (BASF)	Selective, post-emergence control of nut-sedges and some broadleaf weeds
Chlorsulfuron	Lescogran (LESCO)	Selective, post-emergence control of tall fescue in Kentucky bluegrass, fine fescues and bentgrasses
DCPA	Dacthal (ISK Biosciences) Garden, Turf & Ornamental Herbicide 5G, Turf & Ornamental Herbicide (Bonide) HS-110 (NCH) Super Dacthal 686 (Rockland)	Selective, post-emergence control of creeping speedwell and preemergence control of selected broadleaf species
Diquat	Aquatate, HNS-210, Vegetrol, Watrol (NCH) Reward (Zeneca)	Non-selective, post emergence contact herbicide
Dithiopyr	Dimension (LESCO, Rohm and Haas)	Selective, post-emergence control of annual grasses and preemergence control of selected broadleaf species.
DSMA	DSMA 4 (Riverside/Terra International) DSMA Slurry (Drexel) Methar 30 (Cleary)	Selective, post-emergence control of annual grasses
Ethofumesate	Prograss (AgrEvo)	Selective, pre & post-emergence control of selected annual grasses and broadleaf species
Fenoxaprop	Acclaim (AgrEvo)	Selective, post-emergence control of annual grasses
Glufosinate-ammonium	Finale (AgrEvo)	Non-selective, post emergence herbicide
Glyphosate	Avail (LESCO) HNS-220, Hoedown, Quick Claim, Trailblazer (NCH) Roundup DryPak Roundup Pro (Monsanto)	Non-selective, post emergence herbicide
Halosulfuron	Manage (Monsanto)	Selective, post-emergence control of sedges, such as yellow & purple nutsedge
MCPA	MCPA-4 Amine (Riverdale)	Selective, post-emergence control of annual grasses
MCPA + MCPP + dicamba	Eliminate (LESCO) Hat Trick (Turfgo/United Horticultural Supply) Tri-Power Dry, Tri-Power Selective Herbicide (Riverdale)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled
MCPA + MCPP + dichlorprop	Triamine II, Tri-Ester II (Riverdale)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled
Mecoprop (MCPP)	Certi-CM, Chemweed 265, HS-t67 Milpro 360 (NCH) MCPP (Cleary) MCPP-4 Amine (Riverdale) MCPP-4K (Tudgo/United Horticultural Supply) Mecomec (PBI/Gordon)	Selective, post-emergence control of broadleaf weeds. See label for tolerant turfgrasses and species controlled
MSMA	Crabgrass Killer (Bonide) Daconate 6, Daconate Super (ISK Biosciences) Drexar 530 (Drexel) MSMA (Bonide, LESCO) MSMA Turf (Turfgo United Horticultural Supply) 912 Herbicide, 120 Herbicide (Riverside/Terra International) Super Crabgrass Killer (Rockland) Weed Hoe (Monterey)	Selective, post-emergence control of annual grasses
2,4-D + MCPP + MSMA + dicamba	Trimec Plus (PBI/Gordon)	Selective, post-emergence control of annual grasses. See label for tolerant turfgrasses and species controlled
MSMA + cacodylic acid	Broadside, Monicide (Monterey)	Selective, post-emergence control of annual grasses.
Sethoxydim	Vantage (BASF)	Selective, post-emergence control of annual grasses in fine fescues.

plied to young grass seedlings. As with the broadleaf herbicides, the grass seedlings should be actively growing under good conditions.

#### Non-selective herbicide

For tough to control weeds or perennial grasses non-selective materials such as Roundup Pro, or Finale can be used effectively. These applications will remove both the unwanted weeds and any underlying turf. They should be made only during periods of the year when the weeds are actively growing and ample opportunity is available for renovation or re-establishment of the turf.

#### Potential new herbicides

At the time this article was written, there did not appear to be any new postemergent herbicides for the turf landscape. This might change as spring arrives. One potential new herbicide is from AgrEvo. It has been evaluated under the name of Preclaim for a range of formulations collectively known as AGR 40500. This herbicide is a new formulation containing both fenoxaprop and pendimethalin. With both Acclaim and pendimethalin one application might control existing crabgrass plants and prevent the development of a new population. I have evaluated these materials over the past two seasons and have observed excellent control of between 90-100 percent of the crabgrass population. **LM**

—Tom Fermanian is Associate Professor of Turfgrass Science, Dept. of Natural Resources and Environmental Sciences, University of Illinois



# Changing the Course of Disease Control.

.....

New  
HERITAGE<sup>™</sup>  
FUNGICIDE

.....

**ZENECA**  
Professional Products



# Changing the Course.

## New HERITAGE™ Fungicide. Changing the Course of Disease Control.

**N**ow, golf course superintendents can change the course of turfgrass disease control with HERITAGE, a completely new fungicide with a novel mode of action.

HERITAGE will give your golf course round-the-clock protection against devastating diseases. With its powerful combination of preventative and curative activity and its high level of effectiveness against 18 of the toughest turf diseases, HERITAGE will make an outstanding difference in the quality and health of your turfgrass.

The active ingredient in HERITAGE is based on naturally occurring fungicides, called strobilurins, which are found in certain mushrooms.

HERITAGE has a novel mode of action which is different than any other fungicide now on the market.

It has both preventative and curative activity and is absorbed into the leaf blades and stems

as well as taken up by the roots. This ensures that your golf course is protected from the devastating effects of turfgrass diseases.

**HERITAGE is the only fungicide available that controls both brown patch and Pythium, as well as take-all patch, summer patch, anthracnose and snow mold—an unprecedented advantage for the turf professional's disease program.** HERITAGE is also effective against certain fungicide-resistant pathogens, making it an extremely useful tool in resistance management strategies.







Superintendents will find that HERITAGE is exceptionally compatible with the environmental balance of their courses. HERITAGE poses minimal risk to birds, mammals and fish, and its low use rates and extended application intervals mean less active ingredient is released into the surroundings.

For more information on HERITAGE Fungicide and how it's changing the course of disease control, contact your Zeneca Sales

Representative or call Zeneca Professional Products  
Toll Free at 1-888-617-7690.

Once you learn about the powerful, round-the-clock protection this new fungicide offers, you'll agree that it's time to change the course of your turfgrass disease management program with HERITAGE.

*Heritage*<sup>™</sup>  
FUNGICIDE



# Presenting HERITAGE™

## For a Totally New Spectrum of Disease Control

*HERITAGE Fungicide provides golf course superintendents with a totally new spectrum of disease control for their turfgrass management programs. With its novel class of chemistry and powerful mode of action, HERITAGE controls most major turfgrass diseases. More importantly, it is the only fungicide available to turf managers that controls brown patch, Pythium, take-all patch, summer patch, anthracnose and snow mold. Superintendents across the country are discovering that HERITAGE delivers exceptional results by maintaining, and significantly improving, the quality and health of their turfgrass.*

### INDEX

1. The Fundamentals of HERITAGE
2. Spectrum of Control
3. Handling and Application
4. A Good Environmental Fit
5. To Learn More About HERITAGE



## The Fundamentals of HERITAGE

### IT'S A NATURAL

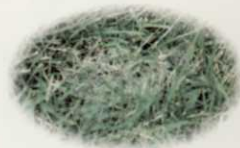
When it came to the development of HERITAGE, Mother Nature and chemistry joined forces. The active ingredient in HERITAGE, azoxystrobin, is synthetically derived from naturally occurring fungicides called strobilurins. These anti-fungal compounds are found in nature in several species of wood-decaying mushrooms. Realizing the power of strobilurins, Zeneca—after years of testing and research—developed this unique class of chemistry into an effective fungicide.

### UNIQUE ACTION

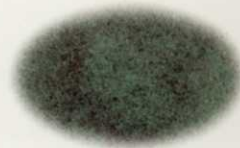
The novel mode of action of HERITAGE clearly separates it from other fungicides. HERITAGE can enter the turfgrass plant through the leaf blade, stem or root system. HERITAGE delivers double action against all four classes of fungal diseases. Its preventative activity keeps diseases from occurring, while its curative activity works against diseases *after* infection has occurred.



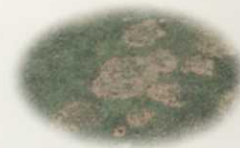
**Brown Patch**



**Pythium**



**Take-all Patch**



**Summer Patch**



**Anthracnose**



**Snow Mold**





# Fungicide

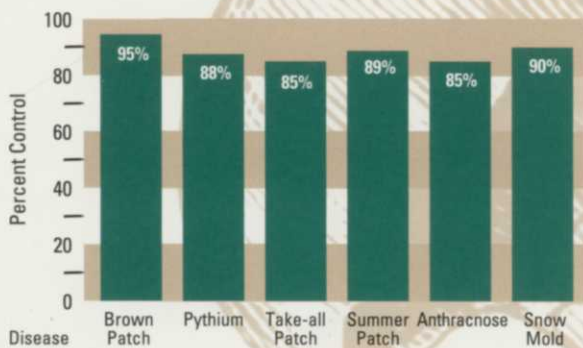
## TOTALLY NEW CONTROL SPECTRUM

HERITAGE offers golf course superintendents a totally new spectrum of control for their disease management programs. University trials consistently show that HERITAGE is the only fungicide that controls all six of the toughest turfgrass diseases—brown patch, Pythium, take-all patch, summer patch, anthracnose and snow mold.

## WINNING SCORES AGAINST THE SEVERE SIX

Efficacy trials prove the outstanding activity of HERITAGE against these six hard-to-control diseases. In more than 140 field trials nationwide, from 1993 to 1996, HERITAGE delivered impressive control against the severe six.

Four-Year Average Percent Control (1993–1996\*)

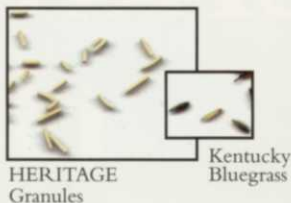


\* Data in the above table is the average of all treatments where HERITAGE was evaluated for turfgrass disease control when tested according to the label recommendations (i.e. label rates and intervals for a particular disease). This included all trials from 1993–1996, except anthracnose, 1994–1996.

## UNIQUE FORMULATION

HERITAGE is a 50 percent active ingredient, water-dispersible granular formulation that makes mixing both easy and fast. Because the granules have superior

### Actual Size



The extruded HERITAGE granules are similar in size to Kentucky Bluegrass seed.



dispersal properties, they break apart and form a stable suspension in one to two minutes. Plus, HERITAGE is proven to have tankmix compatibility with a wide assortment of other turf management products.

## PACKAGING

Packaged six to a case, the 1-pound, plastic HERITAGE container comes capped with it's own measuring cup. Superintendents will find that the compact container makes storage easy and disposal simple.



## Spectrum of Control

With excellent activity against 18 major diseases, HERITAGE can provide a solid foundation for any turfgrass disease control program. (See chart on right.)



## Handling and Application

Considering the superintendent's demand for convenience and ease, Zeneca developed HERITAGE as a product that allows for simple mixing and application with no special handling requirements.



## TURFGRASS DISEASES CONTROLLED BY HERITAGE

Target Diseases	Use Rate (oz. of product) per 1000 sq. ft.	Application Interval (days)
Anthracnose	0.2-0.4	14-28
Brown Patch	0.2-0.4	14-28
Cool Weather Brown Patch	0.4	28
Fusarium Patch	0.2-0.4	14-28
Gray Snow Mold	0.4	14*
Leafspot	0.2-0.4	14-21
Melting Out	0.2-0.4	14-21
Necrotic Ring Spot	0.4	14-28
Pink Snow Mold	0.4	14*
Pythium Blight	0.4	10-14
Pythium Root Rot	0.4	10-14
Red Thread	0.2-0.4	14-28
Rhizoctonia Large Patch	0.4	28
Spring Dead Spot	0.4	28
Summer Patch	0.2-0.4	14-28
Take-all Patch	0.4	28
Yellow Patch	0.4	28
Zoysia Patch	0.4	28

*HERITAGE alone effectively controls most cases of gray or pink snow mold. A severe snow mold infection, however, may require a tankmix of HERITAGE and another labeled fungicide for enhanced control.*

\*Two applications, 14 days apart.

## A FIRST-RATE, REDUCED-RATE FUNGICIDE

HERITAGE demonstrates a consistently high level of efficacy against turfgrass diseases at one of the lowest rates of any fungicide on the market—just 0.2 to 0.4 ounce of product per 1,000 square feet. Remember to always consult the label for appropriate use rates, conversion charts and application recommendations.

## MIXING, SPRAYING AND TANKMIXING

Mixing HERITAGE consists of a simple, three-step process: **1.** Partially fill the spray tank with clean water and begin agitation. **2.** Add HERITAGE followed by an adjuvant, if desired. **3.** Finish filling the tank with water.

Once in the spray tank, HERITAGE disperses quickly in water. You'll also find it's easy to both apply and tankmix. HERITAGE is compatible with a wide variety of fungicides, insecticides, herbicides, fertilizers and other additives.

## APPLICATION INTERVALS

The residual activity of HERITAGE allows for extended application intervals from 10 to 28 days, depending on the disease and level of pressure.



## A Good Environmental Fit

HERITAGE offers superintendents the assurance of an outstanding environmental profile that fits the diverse surroundings of a golf course.

## FAST DEGRADATION

Azoxystrobin, the active ingredient in HERITAGE, has a relatively short soil half-life, is degraded by sunlight and breaks down primarily into CO<sub>2</sub>.





## LESS IS MORE

The lower rates of HERITAGE mean a high comfort level for the superintendent and golfer alike. The product's use rates minimize the amount of chemical applied, which translates into a greater degree of environmental compatibility.

## A FRIENDLY PRODUCT

Extensive research repeatedly shows that HERITAGE exhibits low mammalian toxicity. In addition, its low use rates and extended application intervals significantly decrease the amount of product handling for the worker. **The signal word for HERITAGE is CAUTION.**

## LOW RISK TO NON-TARGET ORGANISMS

HERITAGE, used at labeled application rates, exhibits low risk to non-target species. Also, since it's not harmful to honeybees and other beneficial insects, HERITAGE is a good fit in your integrated pest management program.



## To Learn More About HERITAGE

Now that you have an idea of how HERITAGE meets the needs of the superintendent's turfgrass management approach, we invite you to learn more about this new fungicide and what it can bring to your disease control program.

**For more information on HERITAGE Fungicide, contact your authorized Zeneca Distributor, or call Zeneca Professional Products Toll Free at 1-888-617-7690.**

## A Bird's-eye View of HERITAGE from Tee to Green

At a glance, you can see the advantages that HERITAGE can bring to your golf course disease control program.

- *Combines a new class of chemistry and powerful mode of action for outstanding control of most major turfgrass diseases.*
- *Effectively controls brown patch, Pythium, take-all patch, summer patch, anthracnose and snow mold.*
- *Demonstrates preventative and curative activity against diseases.*
- *Has low use rates and extended spray intervals.*
- *Fits well in the environmental balance of a golf course disease control program.*





# HERITAGE™ Fungicide

## Changing the Course of Disease Control

- Effective against 18 of the toughest turfgrass diseases
- Controls brown patch, Pythium, take-all patch, summer patch, anthracnose and snow mold
- Preventative and curative activity
- Low rates, extended spray intervals
- Novel mode of action
- Low risk toxicological and environmental profile

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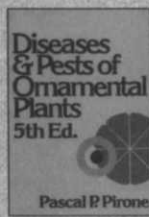
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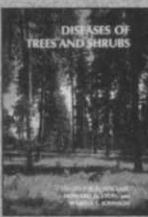
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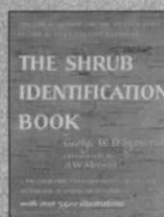
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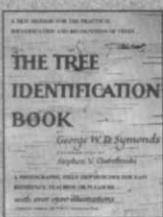
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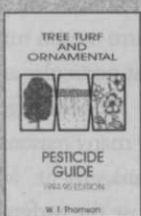
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# IN THE SOUTH, only strongest weeds survive

*Proper selection and management practices give warm-season turfgrasses the 'competitive' edge in the turfgrass manager's battle against weeds.*

by FRED YELVERTON, Ph.D./University of North Carolina

**W**arm-season turf species are ideally adapted to the lower-tier states in the US. Cold tolerance usually determines how far north a particular warm-season turf species is used. In many areas of the transition zone where both cool- and warm-season can be successfully grown, cool-season turf species are often preferred in the commercial and residential landscape because warm-season species go dormant in the winter. However, in many cases, a warm-season turfgrass would be better adapted to that particular area.

Proper turfgrass selection is critically important for many reasons, not the least of which is weed management. Most weed problems originate because the turfgrass is not growing vigorously and is therefore unable to successfully compete with many weed species. Therefore, proper turfgrass manage-

ment is the best way to prevent weed problems. Good turfgrass weed management begins with proper selection of a turfgrass species. Attempting to grow tall fescue in many southern states can result in unnecessary weed problems because the turfgrass is not competitive.

Other common management problems that lead to weed problems include attempting to grow a particular turfgrass species where; 1) there is too much shade, 2) drainage is poor resulting in water-logged soils, 3) improper fertility and liming schedules are utilized, 4) consistent use of improper mowing heights, and 5) where soil compaction exists. Each of these situations can lead to significant weed management problems that result in unnecessary herbicide applications, additional costs, and a less than desirable appearance in the landscape.

Think of weeds and the turfgrass as competitors for space in the landscape. Weeds are opportunistic. When the turfgrass is not healthy, weeds gain a competitive edge. For instance, wet soils from poor drainage can result in poor performance of turf but it also opens the door for water-loving plants such as the sedges (yellow and purple nutsedge, annual sedge, green kyllinga, etc.). Improper mowing heights or irregular mowing schedules can open the turfgrass canopy and allow sunlight to reach the soil

surface. This can open the door to infestation of many weed species including crabgrass, goosegrass, etc. Certain weeds also thrive in compacted soils. Prostrate knotweed and goosegrass are two such species. The presence of these weed species are often indicators that aeration is needed.

While many weed problems are brought on as a result of the above-

## Weed Control with Preemergence Herbicides



**Herbicides do not prevent weeds from germinating, they kill weeds as they grow through the herbicide treated zone.**

Herbicides kill weeds as they germinate and grow through the herbicide-treated zone. They do not prevent weed seed germination.



mentioned problems, weeds can also be a present where the turfgrass is competitive and being managed properly. A good example in warm-season turf is crabgrass and goosegrass. Both of these weeds can germinate prior to breaking dormancy of the warm-season turf species. In this case, it is impossible for the turf to have a competitive edge early in the spring because it is still dormant.

Large and smooth crabgrass can germinate when soil temperatures near the soil surface average about 52 to 55 degrees F. over several consecutive days. In many areas of the South, this can be as early as February through April. Goosegrass germinates when soil temperatures are approximately 60 degrees F., which is usually a minimum of two to three weeks later. Depending on the area, many warm-season turf species may not reach the maximum growth potential until late April until mid-June. Where crabgrass and goosegrass problems exist, the use of appropriate preemergence or postemergence herbicides are generally required.

For maximum control with preemergence crabgrass/goosegrass herbicides, application must occur prior to any weed seed germination. Probably the most common cause of poor control with preemergence herbicides is application after crabgrass germination. Not only must these herbicides be applied prior to any germination for maximum control, they must also be watered in to set up a chemical barrier. For proper application and maximum control, it is helpful to understand how these herbicides work.

It is a fairly common misconception that these preemergence herbicides prevent weed seed germination. They do not prevent weed seed germination!

The germinating weed seedlings die as they grow through the herbicide treated zone. With the case of dinitroaniline herbicides such as Barricade, pendimethalin, Team, Balan, Surflan, and XL the herbicide is absorbed into young roots and shoots of emerging weeds. Cell division is inhibited and the weed seedling dies.

A common question regarding preemergence control of crabgrass and goosegrass is "Can I enhance control by splitting the herbicide application?"

The answer to this question depends on where you are at geographically. As a general rule, the

longer frost-free season, the more advantage there will be to splitting the herbicide application. For instance, in North Carolina, we often see enhanced crabgrass control by splitting the application in the eastern part of the state but seldom see an advantage in the western part of the state.

Again, this is due to the difference in the length of the season. In the far eastern part of the state, crabgrass can germinate as early as early March and the first frost is usually in November, whereas in the western part of the state, crabgrass may not germinate until early April and first frost is in October.



(This excludes the mountain regions where climate prevents the use of warm-season grasses).

Compare these dates to crabgrass germination and first frost for your geographical area to get an indication on whether you should consider split applications. For goosegrass control, we almost always see an advantage to splitting the application with dinitroaniline herbicides, regardless of where we are in the state. The reason for this is goosegrass is not as easily controlled by these herbicides as is crabgrass.

By splitting the application of a dinitroaniline herbicide, generally half of the full herbicide rate is applied at the recommended time prior to any crabgrass germination. The remaining half is then applied about eight weeks later. One exception is with Barricade. For this product, it is generally recommended that two-thirds of the rate be applied at

cont. on page 64

**Stolon rooting by 'Tifway' bermudagrass is inhibited by certain pre-emergence herbicides. Note clubbed roots of bermudagrass plant which prevent it from pegging down.**



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**GRUBS, CUTWORMS AND SOD WEBWORMS WILL.**



Good weed control during establishment can result in more rapid establishment. Note more rapid establishment of 'Tifway' bermudagrass on left side of picture as opposed to right side where there is poor weed control.



*cont. from page 61*

the initial application date and the remaining one-third be applied about eight weeks later.

When considering the use of dinitroaniline herbicides for weed control, it is generally not recommended that they be used where additional grow-in is needed. This is because these herbicides also affect root growth of the turfgrass plants. Therefore, if there are bare areas from excessive wear, or if for whatever reason the warm-season turf species is not well established (recently established, etc.), these

important during establishment because weeds slow down establishment and poor control during this time can lead to weed seed buildup in the soil which leads to weed problems in the future.

Any new planting of turf should include a carefully planned weed management program during the establishment phase. As previously mentioned, sound turf management practices will assist in the establishment phase. Proper soil preparation, optimum soil pH, and proper soil fertility are all critical

because they will allow more rapid growth of the turfgrass which shifts the competitive edge to the turf and away from weeds. If the warm-season turf species is vegetatively planted, care should be taken to keep sprigs moist after proper planting procedures. This means light watering immediately after planting and subsequent light watering at least a couple of times daily to keep sprigs from drying out.

For centipedegrass, atrazine can be used after sprigs or plugs are actively growing and stolon

herbicides can slow down the spread of the turf into these thin areas. The photograph on page 61 illustrates root injury from a dinitroaniline herbicide on 'Tifway' bermudagrass that is not well established. In these situations, it is generally recommended that weeds be controlled with the appropriate postemergence herbicide registered for use on the particular turfgrass species.

#### **Control during establishment**

During establishment, good weed control during establishment is often the most difficult to obtain. This is because sunlight is directly contacting the soil surface because the turf is not yet competitive. In addition, most turfgrass species are more sensitive to herbicides and can easily be injured during the establishment phase. Good weed control is extremely

growth has begun. There are many atrazine labels and application guidelines differ significantly depending on which product you use. Therefore, make sure you follow label directions for the particular atrazine product used. Atrazine can also be applied in November to December to provide control of many winter annual weeds. Vantage can be used to control many grassy weeds in centipede once there is a minimum of three inches of new stolon growth.

Vantage and atrazine can also be used once centipede becomes well established. On established centipede, care should be taken when using 2,4-D contained products for weed control. Centipede is sensitive to 2,4-D and should only be used at ex-

*cont. on page 66*



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Contains Midnight, Blacksburg, and Unique. Very good heat, wear, and drought tolerance. Very good sod strength. Very good resistance to leaf spot, stem rust, dollar spot, stripe smut, Fusarium blight, and powdery mildew.

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## **BLUESTAR**

KENTUCKY BLUEGRASS

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## **CHALLENGER**

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## **COLUMBIA**

KENTUCKY BLUEGRASS

Excellent winter color and spring green-up. Very good seedling vigor. Very good heat, drought, and wear tolerance. Very good resistance to Fusarium blight, dollar spot, stem rust, leaf spot, and stripe smut.

## **LIVINGSTON**

KENTUCKY BLUEGRASS

A new hybrid variety that has shown excellent performance and persistence in mid-Atlantic area trials. Has improved resistance to leaf spot, summer patch and tolerance to summer insect problems. Mixes well with tall fescues.

## **MARQUIS**

KENTUCKY BLUEGRASS

Excellent color, drought resistance, and sod-forming ability. Marquis shows excellent resistance to common lawn diseases such as patch disease, stem rust, melting out, and dollar spot.

## **MIDNIGHT**

KENTUCKY BLUEGRASS

Very dark blue-green color. Very dwarf growth habit. Very good heat tolerance. Very good resistance to leaf spot, dollar spot, and stripe smut. The standard for dark bluegrass and the top performer in national bluegrass trials.

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A medium dark-green variety with very good density and a moderately dwarf growth habit. Tested as PST-B8-106. A new hybrid Kentucky bluegrass derived from a cross between Sydsport and mid-Atlantic types.

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**Think of weeds and the turfgrass as competitors for space in the landscape. Weeds are opportunistic. When the turfgrass is not healthy, weeds gain the competitive edge**

tremely low rates if at all. A better choice for control of miscellaneous broadleaf weeds in centipede is Confront. Confront offers good control of many broadleaf weed species and centipede has good tolerance to this herbicide when

used according to label directions.

As with centipedegrass, certain atrazine labels allow its use on zoysiagrass and St. Augustinegrass after plugs or sprigs are actively growing. Again, check individual labels for guidelines. Certain labels also allow its use on hybrid bermudagrass. When sprigging bermudagrass or zoysiagrass, Ronstar can be used at time of sprigging. The use of this product at sprigging has shown to be very effective in controlling many grassy weeds as well as other annual weeds and does not have a negative effect on growth

of sprigs. In fact, more rapid establishment is usually realized due to reduced competition from weeds. Unfortunately, Ronstar cannot be used in home lawns.

Good weed management in warm-season turf begins at establishment. Weed control during establishment should be planned prior to planting. Failure to plan for weeds during the establishment phase can result in failure. Remember, the best way to prevent weed problems is to properly manage the turfgrass. If herbicides are needed, make sure you check for turfgrass and weed sensitivity to the particular herbicide in question. **LM**

*The author is Assistant Professor & Extension Specialist  
Turfgrass Weed Management at North Carolina  
State University.*

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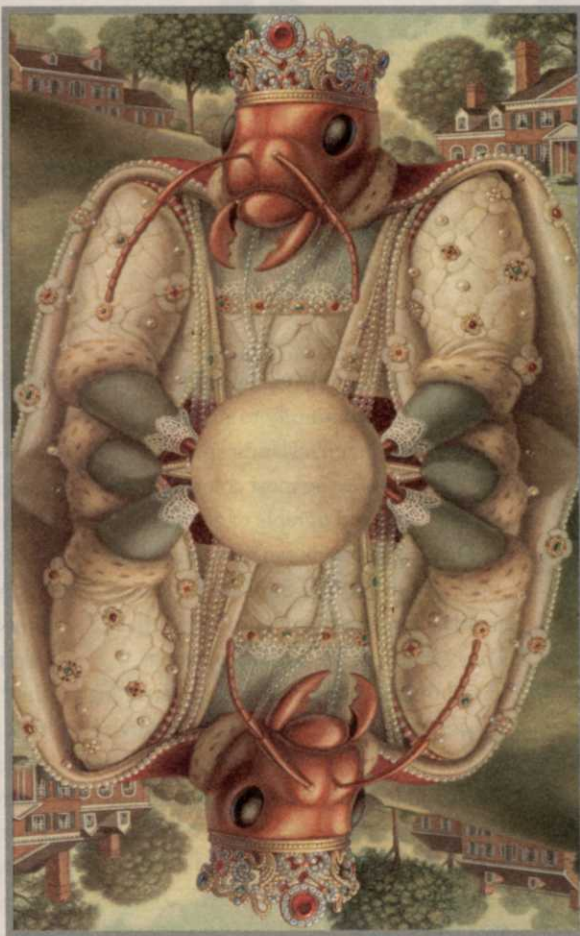
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New varieties of daylilies bloom all season.

## Sites need sun, drainage

In preparing a bed for perennials, remember that the plants can be left in place for several years. For this reason good site selection and soil preparation are extremely important.

► Select an area that provides at least morning sun and good drainage. Some species that like full sun in northern states will appreciate dappled afternoon shade when planted in the south.

► Avoid low places in the yard where water may stand after heavy rains.

► In poorly drained soils, plant on raised beds or incorporate a large amount of organic matter into the soil before planting, to improve drainage and aeration.

► A small amount of a balanced, slow-release fertilizer can be added if the soil nutrient level is poor.

H.S.S.

# Southern perennials versatile, lasting

*Throughout the south, herbaceous perennials are gaining in popularity faster than any other group of plants.*

by H.S. STEVENS

**S**outhern perennials add stability and continuity to the home or commercial landscape, and are among the most colorful, versatile and durable of all plants.

Due to their wide range of heights, textures, bloom times and colors, perennials are ideal for almost any purpose or effect. They can be used in massed plantings, mixed beds or borders or even as screening or background plants. Add in their durability and relatively low maintenance requirements and it is easy to see why perennials are playing an increasingly important role in the plans of homeowners and landscape professionals.

### Plan your work

The best perennial beds start out on paper. Measure the area to be planted and draw it to scale. On another sheet, list the plants you want to grow. Now you're ready to arrange them in their proper places on your plan.

Consider mature size, color and texture combinations, bloom time and height. By selecting varieties that bloom at different times, you can have flowers throughout the entire season.

### Ten that will thrive

When selecting specific perennials for

southern landscapes, there are many factors to consider. Between the eastern and western boundaries of what we call the South, there are wide variances in temperatures, rainfall and soil types, and each of these conditions must be taken into account when matching the plant to its proposed site. Fortunately, many of the best perennial plants are not too picky about their surroundings. With minimal care, they will thrive in any reasonable soil type, survive winter cold and summer heat, and still reward us with beautiful foliage and flowers. The ten perennials described below meet each of these criteria, and were chosen with input from Tom Brinda, vice-president of the Dallas Arboretum and Botanical Gardens, and Ruth Baumgardner, southeast regional director of the Perennial Plant Association and owner of Mouse Creek Nursery in Riceville, Tenn.

**Bearded iris (*Iris* sp.).** Irises were a mainstay in southern gardens when low maintenance gardening was a necessity instead of a philosophy. Their graceful beauty, dependability and easy care made them popular at a time when water was pumped from a well and pesticides were few in number and rarely used. These same qualities make irises popular today.





#### Hosta, 'Royal Standard'

Plant Association Plant of the Year for 1995. Silvery-gray aromatic foliage provides the background for masses of violet-blue flowers. Russian sage makes a striking specimen plant or mass display.

*Zones 5 to 9; sun; height, 4 to 5 feet.*

**Purple coneflower (*Echinacea purpurea*):** Highly adaptable, easy to grow and

free-flowering, purple coneflowers will not only brighten the garden throughout late spring and summer, but are great for cutting or drying. White cultivars are also available.

*Zones 3 to 9; sun to part sun; height, 24 to 30 inches.*

**Hostas:** A fixture in northern landscapes for many years, hostas are now enjoying increased popularity in southern gardens. For shaded areas, they are among the most attractive and care-free plants we can grow. Hundreds of varieties are now available in a wide variety of sizes, shapes and colors. Some are ideal for use as low-care, shade-loving ground covers. Others make ideal borders for semi-shaded pathways or around shrubs and flower beds. Large growing varieties can be used as accent or specimen plants. Their uses are virtually unlimited. Check with local horticulturists for the best varieties for your area.

*Zones 3 to 8; shade to semi-shade; height, 8 to 36 inches.*

**Louisiana iris:** One of the few perennials that is tolerant of wet, poorly-drained soils, Louisiana iris can turn a low but sunny wet spot into a beautiful flower bed. Also adapted to drier soils, Louisiana iris are available in shades of red, yellow, purple and white.

*Zones 4 to 9; sun to mostly sun; height, 24 inches.*

**Cannas:** With cannas, new is definitely better. Im-

proved varieties, such as the 1992 All-America Selection 'Tropical Rose', are more compact and versatile than older types. Best used in a massed planting, cannas will provide non-stop color from late spring until fall frost. Available colors include red, pink and yellow.

*Zones 7 to 11; sun to part sun; height, 2 to 6 feet, depending on variety.*

**Ornamental grasses:** These provide year-round interest in any landscape. Grown both for their attractive foliage and unique feathery plumes, clumps of these grasses make outstanding accents or focal points in the landscape. *Cortaderia selloana* 'Pumila' and *Miscanthus sinensis* 'Gracilimus' are excellent cultivars with wide adaptability, but it is good to check with local growers for your area's best varieties.

*Although hardiness of different species varies, most are hardy to zone 5; sun to part sun; height, 1 to 6 feet or more, depending on variety.*

Many other southern perennials would fit southern gardens. Some, however, such as coreopsis, columbine, salvia and phlox, are more variety sensitive. When choosing species or specific cultivars for a particular locale, it is wise to check with your nearest cooperative extension office, plant society or other authoritative source for their recommendations.

*H.S. Stevens is a former instructor for the Texas Agricultural Extension Service. He writes a weekly garden column for the Dallas Morning News. Photos by Bobbi Benson.*

Tolerant of heat, cold and drought, irises provide unexcelled beauty both in the garden and as cut flowers.

*Zones 3 to 9; sun to half-sun; height, 12 to 30 inches, depending on variety.*

**Daylily (*hemerocallis*):** One of the easiest and most rewarding of all perennials, each plant can produce 50 or more blossoms. By choosing several different varieties, you can have non-stop color all summer long. Recently-developed hybrids are far superior to older varieties, and provide more and larger flowers, a longer bloom time and a wide selection of colors. Check with a local daylily society or grower for the best cultivars for your area.

*Zones 4 to 9; full to part sun; height, 12 to 48 inches, depending on variety.*

**'Goldsturm' coneflower (*Rudbeckia fulgida sultanii* 'Goldsturm'):** A tough, persistent perennial whose golden yellow blossoms will light up the landscape throughout the entire summer and fall. Beautiful in the garden or as long-lasting cut flowers.

*Zones 4 to 9; full sun; height, 18 to 24 inches.*

**Yarrow (*Achillea* sp.):** Attractive, fern-like foliage and masses of yellow, red or white flowers will delight you all summer long. The flowers are excellent as cut flowers or for drying. Coronation Gold and *Achillea* 'Anthea' are outstanding cultivars.

*Zones 3 to 9; sun; height, 12 to 36 inches, depending on variety.*

**Russian sage (*Perovskia atriplicifolia*):** Called one of the great garden plants of all time, Russian sage was selected as Perennial



Mixed iris bed brightens this southern garden.





# Color schemes in flower change-outs

*The seasons point the way to the best color choices for planting beds that are changed out regularly.*

by LEAH ROTTKE

Instead of trimming a winding pathway with a non-stop, strident blast of color, invite a stroll with subtle highlights at key points: the entry, the inside curves, and position a warm color planting at the end to draw the viewer along. Using cool colors is the age-old way to make a small space seem larger.

## Customer preference counts

Customers prefer some colors more than others. If the customer dislikes yellow, that narrows your choices. If the customer dislikes yellow and loves red, that narrows your selection even further.

Many blue flowers fade in strong sunlight, and regardless of the pigment's strength, they seem to disappear altogether when viewed from a distance. Stick to good performers, and accent far-off blues with white. For commercial clients, start with "company colors," as well as colors used in the interior landscaping.

## Seasons a guide

The seasons point the way to the best color choices for planting beds changed out regularly:

- ▶ browned reds, yellows and oranges signify autumn, an echo to falling leaves;
- ▶ spring typically calls for a show of clean, clear hues and an abundance of pastels.
- ▶ at any time, white is the essential focus sharpener and color brightener.

## Four color schemes

The four basic color schemes can be cre-

**S**pring color, when used with precision, can be the crowning touch to a landscaping project. Accurate color design and placement builds a landscape that sparkles with surprise, season after season.

## Warm or cool colors

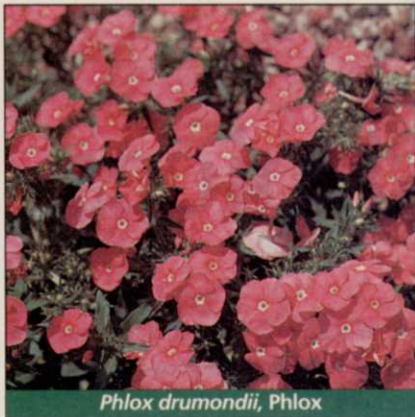
Red, orange and yellow fall on the warm side of the color divider. Blues, purples and greens are the cool colors. What matters most is the different effects the warm and cool colors have on people.

Cool colors appear to *recede*; warm colors *advance*. That's why "hot" colors seem to leap out at us. Use these optical tendencies to steer attention through the land-



*Nemesia strumosa*, Nemesia





*Phlox drummondii*, Phlox

ated with warm or cool colors, or a combination of both.

**1. Monochromatic:** one color only, including its *shades* (darker than the true color) and *tints* (lighter than the true color). The monochromatic scheme can have great impact, but it demands skill in arranging shades and tints.

**2. Analogous:** it's tough to go wrong with this scheme. Three colors, as well as their shades and tints, that fall side by side on the color wheel (such as, yellow/yellow-orange/orange). This scheme is used most often.

**3. Contrasting:** two opposite colors, like blue and orange, but not in equal amounts. The minority color intensifies the other. Compare dots of blue in a field of orange, to flecks of orange in a stand of blue.

**4. Kaleidoscopic:** a multi-colored blend that must be properly balanced so no single hue appears to dominate. Wildflower meadow plantings are a common example.

#### Position and arrangement

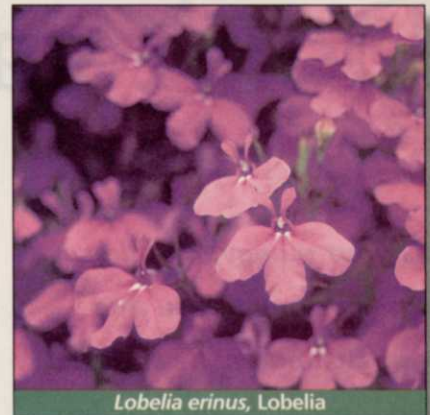
Efforts toward good color design go unseen without equally good placement through the landscape.

Placement means two things: designating the position of the entire color planting and arranging the plants within it. Flowers need to be placed where intense attention is called for, at focal points such as front doorways, water features, entry signs, monument walls, statuary or the view from a picture window. Color power lies in massing blooms in groups of the same cultivar, rather than strings or alternating, one-plant dots.

Scattering annuals below and between evergreen shrubs disrupts the textural pattern created by the foliage and shatters the impact of the color.

Use the shrubs as a backdrop and stage a color planting in front. Build bands of color, in different shades or tints, that "step" down from the back to the front of a foundation planting. □

*Leah Rotke is an irrigation/horticulture consultant based in San Diego, Calif. Watch for Part II of this 'color' series in the April LM.*



*Lobelia erinus*, Lobelia

## Beyond pansies: proven performers

Spring color ought to mean more than a carpet of pansies from coast to coast. Monocultures beckon devastation and breed boredom. The few plants mentioned below are proven spring performers anywhere, but offer a regional interest when used in plantings close to home. Natives are denoted with an asterisk.

#### NORTHEAST

***Consolida ambigua*, Larkspur:** get the delphinium look with an easier, longer blooming plant, two- to four-inches.

***Nemesia strumosa*, Nemesia:** warm-colored edger, half-hardy, summer bloom in cool climates.

#### SOUTH

***Matthiola incana*, Stock:** fragrance adds interest. Single and double flower forms.

***Heliotropium arborescens*, Heliotrope:** tender perennial grown as annual, dark purple fragrant bloom heads, carried above foliage.

#### MIDWEST

**\**Phlox drummondii*, Phlox:** widely hybridized, colors range from red to watercolor pastels; six- to 20-inches tall, six-inches on center.

**\**Linum perenne lewisii*, Blue Flax:** sky blue, 1½-inch flowers; stems go to

two-feet; leafless below blooms, tendency to self-sow.

***Linaria maroccana*, Toadflax:** mixed colors available; eight- to 12-inches tall; good edger with taller snaps.

#### PACIFIC NORTHWEST

**\**Clarkia hybrids*, Godetia:** cup-shaped flowers, one- to three-inches wide, massed atop plants 18- to 24-inches tall. pastels and bicolors available.

***Convolvulus tricolor*, Bush Morning Glory:** same flower but not a vining plant; 12-inches tall, 12-inches on center; blue, purple, pink and bicolors with yellow accent.

***Lobelia erinus*, Lobelia:** everybody's edger; blue, light blue or white, four- to eight-inches tall.

#### SOUTHWEST

**\**Eschscholzia californica*, California Poppy:** grown the world over, hybrids in yellow and other pastels, best from seed and will self-sow.

**\**Nemophila menziesii*, Baby Blue Eyes:** widely-grown native; six- to 12-inches tall, six-inches on center.

**\**Phacelia campanularia*, Desert Bluebells:** hybrids even deeper blue; six- to 18-inches tall; blooms on stems carried above foliage.

L.R.



# Don't gamble with product choices

*It's your money, and those plants belong to you and your customers. Be satisfied that a product you may buy will work as it should.*

by BILL KNOOP, PH.D.,  
Technical Editor

**N**early every day as a landscape or turf manager, you are faced with the responsibility of buying products. There are many to choose from, and lots of people want your money.

Most buying choices are made from experience. We either rely on our own experience or we may rely on the experience and advice of others. There is no question

true? When a very new product comes on the market all these questions become very important.

## **They're your plants!**

One of the problems is that many new products may not have been extensively tested before they are marketed. The manufacturer is asking you to use the product on your plants, and the product will do one of three things: it may kill the plant; it may make it grow better; or it may do nothing.

Whatever happens, it happens to your plants.

Product claims are expensive to prove. That's one reason why pesticides are so costly to develop. The formulator must prove the products will do what the formulator says they will do, and also prove that the products are safe for the environment.

The Environmental Protection Agency has established some tough requirements. Other non-pesticide products do not necessarily have to prove the claims they make to any great degree. Some can only offer their own limited testing as evidence of their claims. Others give us trial samples and hope some trial users will be willing to make some positive comments about their products.

To be sure, some very good products find their way onto the market each year, and the manufacturers or formulators may not have had the money to do the type of testing that could truly demonstrate the value of those products.

## **Climate considerations**

The hard line position taken by many managers is that any product should be able to back up any claim by irrefutable, third-party research. This simply means



**Don't be bashful about asking to test or use a piece of equipment prior to buying it.**

that experience is the best teacher but from time to time, new products are introduced, with which we have no experience at all.

With each new product usually come a variety of claims. The bottom line with any product is: will it do what the manufacturer claims it will do? Is it worth the money? Can it do any harm? Can you believe the claims that the manufacturer makes about the product? What real evidence is there that any of the claims are



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LM



that a claim should be tested by someone that does not gain in any way from the sale of that product.

There are many examples that demonstrate the need to make sure that the product claims have been adequately tested. We've had many instances of turfgrass varieties and other plants performing well in one part of the country, and not so well in other parts, even though they were both planted in the same zone. It's a fact that some plants only perform well in a very specific environment and if they were not tested in several different environments, the buyer may not have any knowledge of the plant's limits. This is one reason why the National Turfgrass Evaluation Program (NTEP) is so valuable. In this program, new turfgrass varieties are tested in a wide variety of environments over several years.

It is very possible for all kinds of products, such as fertilizers, soil amendments and other chemicals to do very well when tested by their developer and not do well for you.

Just like the example of plants performing well only in a very narrow environment, other products may present the same kind of problem. A product producer should have adequately tested his product to back up every claim, including the claim that it will work under your conditions. If the producer of the product can't present independent evidence that it has been tested under your conditions, you should beware.

This is not meant to give producers a hard time, but they should be responsible for the product claims that they make. As it has been said many times, if a product claim seems too good to be true, it may mean that it's not true.

#### **Turn to universities for help**

All states have at least one land grant university. These universities are charged to conduct agricultural research. That may include both ornamental plant and turf-

### ***When faced with a questionable new product claim, ask for a copy of an independent research study that can verify that claim.***

grass research. Your tax money pays for these activities. For years, many professionals just like you have depended on these studies to provide information such as the best plants to use, what fertilizers are best and when to apply them, all pesticide application details and so on.

Field days at your local land grant university should be a must. This is a great

Research studies must be carefully designed and the results analyzed mathematically. All this to make sure the results are really different and not due to random occurrence.

Most universities have and are going through fairly severe budget cuts and many of the research studies that we have grown to rely on are in jeopardy.

We may be close to losing our one, best source of independent product research. As the state research money decreases, many researchers have been forced to turn to the product producers for support. This could mean that these once independent research programs that we've relied on, may be driven by commercial interest.

Researchers must conduct research projects to get promotions and in the end keep their jobs. If the university can't fund the research, the researcher may have to turn to

the outside for support. Research may stop reflecting local needs but become more allied with commercial interests. I think we all lose when that happens.

When faced with a new product claim that you question, just ask for a copy of an independent research study that can verify that claim. The more a product or any kind is subjected to good, third party research over many different environmental conditions, the better the chance that it will do what it says on the label for you. **LM**



**Research must be carefully designed and results analyzed mathematically to make sure results are meaningful, accurate.** Photo courtesy DowElanco

time to review all the research work for yourself.

Many new product producers provide grant money so that their products are included in the research program. The university then publishes research results, regardless of the outcome.

All research studies have a very simple goal. That goal is to look at what a product does and determine if that it does is a random occurrence or if it is real. For example, if a fertilizer is applied to a plant and it begins to grow, research can tell us if the new growth was indeed due to the fertilizer or was a result of a change in temperature, or a change in moisture or caused by any other factor.



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Week 3



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Week 8



Week 9

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Week 6



Week 10



Week 11



Week 12

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Harborside's great, green grow-in

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Compost trials on greens, fairways

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Alpine restoration at Telluride

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Two-man teams work at Arcola

GOLF

**W**e at Lincolnshire Fields Country Club began an irrigation system replacement project in 1992. It was completed in three phases over the course of three years.

In the first year, we installed a deep well, which feeds Lake Lincolnshire, our fourteen acre irrigation lake. During the fall of 1993 and into the spring of 1994, we replaced the wet well, pump station, pumphouse, and installed all new main line piping on the golf course. In the fall of 1994 and spring of 1995, we completed the installation of secondary piping, sprinklers and controllers.

The first step in such a project is to evaluate what you currently have. Consider the age and condition of the system; determine if water supplies are adequate; and evaluate the efficiency and effectiveness of your present system.

What will you need in the future? What type of coverage will you be using, on what kind of turf? If you remodel the

course later, will the system be compatible with the redesign?

In the planning phase, involve your employer, greens committee, or whomever pays the bills. You will need their support for what you are proposing.

Consider the strength of your local distributor, consultant availability in your area, project complexity and bid requirements when choosing which way to go.

Consider the budget early in the planning process to avoid wasted time considering things that you can't possibly afford.

As you develop equipment and installation specifications, use any and all sources of information. Talk to colleagues in other areas of the country, such as the desert southwest, where

most irrigation equipment is initially tested. Consider timing, the window of opportunity for completing the project, and the exact responsibilities of the installer. You can save a lot of added expense, and a lot of confusion during the project if things are very well spelled out.

As you award contracts, check references thoroughly. Interview finalists to establish a comfort level, and consider installer/distributor relationships. Most importantly, consider cost as one of many factors. The low bid is often not the best bid!

As a golf course superintendent or professional turf manager, your most important responsibility during the installation process is communication. You will have to inform adjacent land owners of possible inconvenience to them; protect your existing facilities and features; and prepare the golfing community for course downtime or other conflicts.

After installation, involve your key staff members with hands-on training.

To sum up, when it comes to a new irrigation system, I advise you to: evaluate and plan carefully; choose your contractor and distributor cautiously; supervise thoroughly and use the system fully. **LM**

*Guest columnist Scott Werner, CGCS, leads the crew at Lincolnshire Fields Country Club, a private facility in Champaign, Ill.*

## Be complete when planning new irrigation system



*Scott Werner*

**SCOTT WERNER**  
Guest columnist



# Great, green grow-in

*Superintendent Clay Putnam didn't spare the water, fertilizer or topdressing in preparing the greens at Harborside International, one of Chicago's newest public golf jewels.*

By RON HALL/ Managing Editor

**T**he grow-in of putting greens often doesn't go as smoothly as a superintendent would like. But Clay Putnam says he'd use pretty much the same script he followed at a new public golf course just southeast of Chicago.



Putnam works to make Harborside International one of Chicago's finer public golf courses.

"We were happy with the way the greens on the golf course grew in," says Putnam. He credits a well-planned schedule of fertilization, watering and topdressing for the greens' favorable start.

Putnam works for Serviscape which manages the upscale, new public Harborside International course. (The owner and president of Serviscape, Michigan City, IN, is Pete Sinnott, former superintendent at Firestone in Akron, Ohio.) Harborside International is a two-year-old, 36-hole course bordering Lake Calumet. In fact, it's built on what was once part of Lake Calumet. For many years, until 1972, the site served as a landfill for sanitary wastes and concrete rubble. The Illinois International Port District owns property.

The Port District is self sufficient and does not receive public funds and couldn't afford to let the land sit idle. There was some discussion about using the land as a site for Chicago's third major airport. Then somebody proposed America's largest shopping center there. The Port Authority opted for a public golf course. But not just any course; it wanted one to compete with Chicago's other top public courses.

## **The work begins**

Dick Nugent got the contract to design the course and Ryan, Inc., Janesville, WI, built it. Ryan started the course in June 1993 by adding two feet of impermeable clay to cap the sludge at the site. Then workmen shaped the course in the "links" tradition, using, mostly, material already on site.

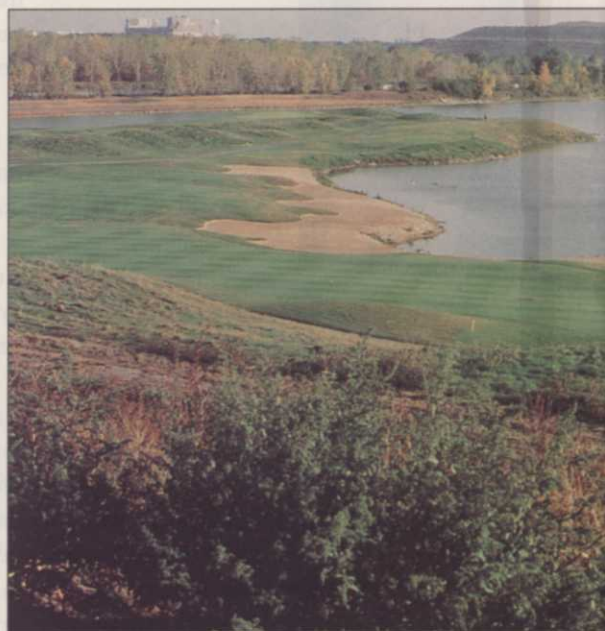
**The site of a landfill until 1972, this new links-style golf course on Lake Calumet just southeast of Chicago now generates revenue for the Illinois International Port District.**

Ryan built the greens to USGA specifications but without the "choker" layer. This was mainly to save money. It spread a four-inch layer of pea gravel over the drainage, then a 14-inch layer of 80/20 mix. The top mix had to meet exacting particle size specifications, says Putnam.

The contractor then raked in the pre-seeding fertilizer—25 lbs. per 1000 sq. ft. of 18-46-0 super phosphate, 25 lbs. of 0-0-50, and 45 lbs. of Milorganite—and seeded each green with 1 ½ lbs. per 1000 sq. ft. of Pennlinks creeping bentgrass. It seeded in two passes at half rates going in different directions for better coverage.

"Once each green was dimpled in, Ryan handed it over to us and we immediately turned on the water," says Putnam. "It took us a while to figure out what our water cycles were going to be. We did our best not to flood the greens."

Seeding began the first week of September in 1994 which turned out to be unusually warm. The







*Once the greens had a good stand, Putnam switched to deeper but less frequent irrigation, one 15-to-20 minute watering late each morning with additional syringing as needed.*

Harborside crew achieved germination in three to five days by running four-minute irrigation cycles every two hours in the morning and hourly cycles in the hot afternoons. Once the greens had a good stand, Putnam switched to deeper but less frequent irrigation, one 15-to-20 minute watering late each morning with additional syringing as conditions required.

The infant greens' first taste of additional nitrogen came from one lb. of Sustane 10-2-10 which Putnam selected be-

cause it wouldn't burn the plants. Then, through mid October, the greens received a weekly application of one lb. of 18-4-10 greens-grade material with a final application of two lbs. of Milorganite in December carrying the greens through winter.

#### **Mowing four weeks later**

Putnam began mowing the greens and tees at Harborside about four weeks after germination. Workers used Toro GM 100 walking mowers at a  $\frac{1}{4}$ -inch cutting height. When his crew resumed mowing in April 1995, Putnam started at this height. He began lowering the height and increasing mowing frequency eight weeks before the course's scheduled opening on July 1, 1995. By two weeks prior to opening the greens were down to  $\frac{13}{1000}$ ths, where they remained throughout the '95 season.

"Pennlinks did quite well at that height," says Putnam. "We were able to maintain our green speed at 9 and 9  $\frac{1}{2}$  throughout the golf course."

Putnam started topdressing the greens shortly after their first mowing. He started with a weekly topdressing of  $\frac{1}{8}$ th inch

Construction on Harborside International began in June 1993 and in September 1994 Putnam began seeding the greens. The course opened July 1, 1995 to good reviews.

with the final pass before winter applying  $\frac{3}{16}$ th inch. When the grass began growing again in mid April 1995, he began topdressing again.

"We topdressed pretty heavily until the greens were down to 135th. We did it for three reasons, to make the greens smoother, to help keep thatch in check, and to protect the turfgrass plants as we lowered the height of cut," explains Clay Putnam.

The Harborside crew dragged the greens very carefully, back and forth and not in the conventional circle pattern. Workers then hand-brushed the excess sand from the edges of the greens. "Lightly is the key word," says Putnam.

Even with the best-laid plans, not everything goes perfectly, recognizes Putnam.

#### **Seed early rather than late**

Greens seeded in September grew in better than those seeded later in the season. Also, a few broken O-rings on sprinkler heads, and the activities of "quite a few dogs" necessitated the use of some washed sod.

Favorable weather in the fall of 1994 and an application of Subdue fungicide soon after seeding forestalled any initial disease problems. Before putting Evergreen covers over the greens for the winter, Putnam's crew applied Chipco and Daconil. Even so, periodic checks under the covers discovered some grey snow mold in February 1995, prompting an application of Scotts Fungicide IX.

Also, Mother Nature, specifically the wind, wasn't always kind to the greens covers during that winter of 1994/1995. "On more than one occasion we had to fish a cover out of Lake Calumet," says Putnam.

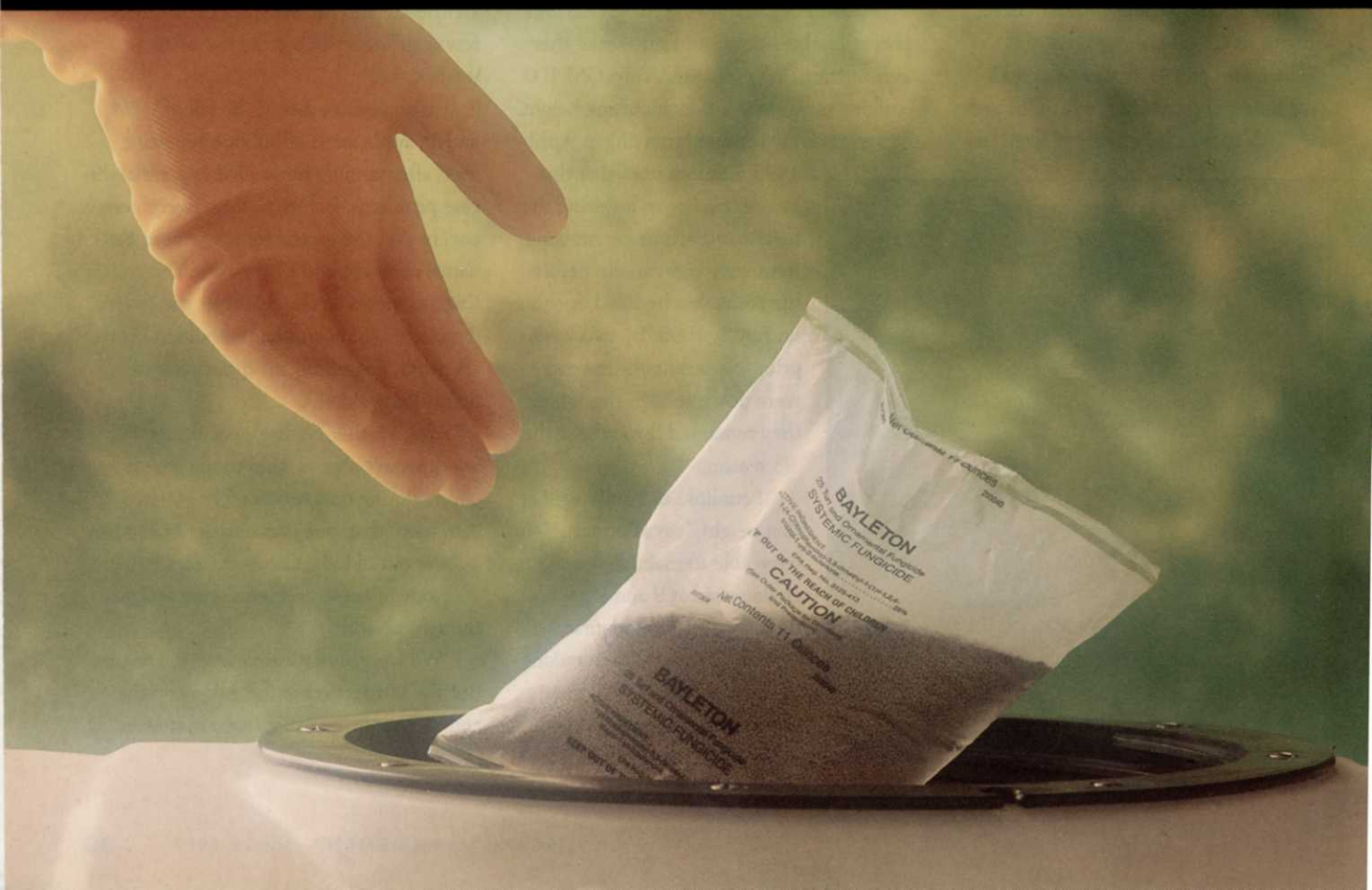
None of these problems were serious though, he adds.

"We were very pleased with the results. But the satisfaction of the golfers on the course was the test that really mattered." □





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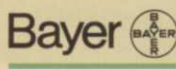
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# Compost on trial in green, fairway tests

*Enterprising golf course superintendents begin their own research to determine the value of compost as a disease fighter and waste reducer.*

**A**fter hearing for many years about compost experiments at universities, two innovative golf course superintendents are launching their own research to see if the recycled soil supplement lives up to its claims in the real world.

The courses, one in Connecticut and the other in Illinois, are working with GreenCycle, Inc., a green waste recycler, to demonstrate whether the agronomic benefits seen in lab tests of compost can be realized on their courses.

University laboratory and field tests typically show compost helps improve nutrient levels, water retention and thatch in many soils.

Evidence in recent years indicates that compost helps fight turfgrass disease by creating conditions that support high populations of beneficial microorganisms; these organisms may crowd out or directly attack

harmful fungal strains that can weaken or kill grass.

Fungal disease are especially critical in the game of golf because the grass is under severe stress. The grass, especially on putting greens, is mowed frequently, and kept very short. Further stress comes from golfers' spikes, clubs and golf carts, as well as maintenance machinery like mowers. Fungicides for prevention or cure of diseases, represent one of the largest single-budget items for golf courses.

Scientists are still trying to understand the mechanisms of natural disease suppression. A handful of biological fungicides have been labeled for the green industry, but the amount of knowledge still to be learned far exceeds today's knowledge.

"I've always looked to research to guide operations, so it's natural to take the opportunity to run our own research," says John Napier, superintendent at the 27-hole Stan-

Compost is applied to North Shore fairway with this sizable broadcast spreader.





## Sod nursery germinates quickly

ley Golf Course, a municipal course in New Britain, CT, that hosts about 75,000 18-hole rounds a year—"a golf factory that gets a lot of stress," describes Napier.

### Relying on research

"Anything we learn helps us in the future. If operations improvements come out of this project, that'll be great for us. It would also be great for the general waste disposal in this country," he adds.

Napier has built a putting green sod nursery that puts compost to the test as a soil amendment in new construction (see sidebar).

"The point is to see how the [compost] affects germination, without using the geotextile cover. We definitely saw some plots on the nursery were greener than others, with a better turf stand.

"It will be interesting to see what kind of increase in germination there is," says Napier.

"Looking at it in winter, it's tough to tell. We'll narrow it down in March and April.

"Obviously, this time of year we worry about snow mold. It's been brisk and cold lately, but I'm not seeing any type of disease at all."

Napier says spring—"when things get moving"—will reveal if there's any significant leaf spot or dollar spot control. We also took some bio-solid and topdressed our chipping green. That's going to be interesting, because we usually did get root pythium on that green."

Composts are mixtures of decomposing vegetation or other organic materials. They're manufactured from a variety of organic waste sources, many of which previously would have been hauled to landfills. Because they can be manufactured from different materials, they can vary significantly in quality and performance.

Like peats, their primary function is to add organic matter to soils. This organic matter "buffers" turf from environmental

*cont. on page 10G*

The Stanley course had a 500 sq. ft. sod nursery built in the traditional manner, with a sand/peat mixture. The research began with the initial plan of adding another 500 sq. ft. and using compost rather than peat for the organic element of the root zone mix.

"Instead of adding 500 feet, we're adding on about 6,000 square feet and trying a wide variety of different materials to see what works best," says Superintendent John Napier.

"It's well worth the effort if we find a better way to produce a green at lower overall cost, while recycling organic wastes. It will pay off in years to come, for this course and everyone in and out of the golf business."

Organic materials are added to sand-based greens soil systems to "kick start" the natural process that is seen in a mature green. On a mature green, old roots die off and slowly break down into gasses that pass out of the soil, and leave behind some organic materials.

Napier began to install a bentgrass nursery at Stanley on October 11. He seeded with Providence bent on November 7 and covered it with a geotextile.



The nursery was seeded at a rate of 1½ pounds of seed/1000 sq. ft



Napier roto-tilled the nursery with the tiller set at a depth of eight inches.

"By early December, we saw some germination," says Napier.

Napier says he has used this method of seeding in the past and wanted to know if the compost will give off enough heat to speed up germination and establishment.

Maturation of the new turf in the different soils is another issue. Also, will composts might produce something harmful to young plants?

"Initially, we used the small backhoe/loader to haul the sand and sand/soil mixes to their proper plots. Using the trap rake and grading rake, we set the bottom layers to the correct depths."

Each test bed is 10-inches deep, 6-feet wide and 20-feet long. The experiment is to run for at least three years.

The compost and bio-solid material from GreenCycle was then brought in.

"After all the plots were finished, we roto-tilled the green with the tiller set at a depth of eight inches. We then rolled the green and smoothed the surface with the trap rake."

Napier says the nursery was seeded at a rate of 1½ pounds of seed/1000 sq. ft along with starter fertilizer at a rate of one pound N/1000 sq. ft.

"Our long term goal is to put some cups in the ground and allow golfers to putt while they wait to tee off on a par 3 located a few yards away," says Napier.

"We think this will help us test the green for wear and tear and stress." □



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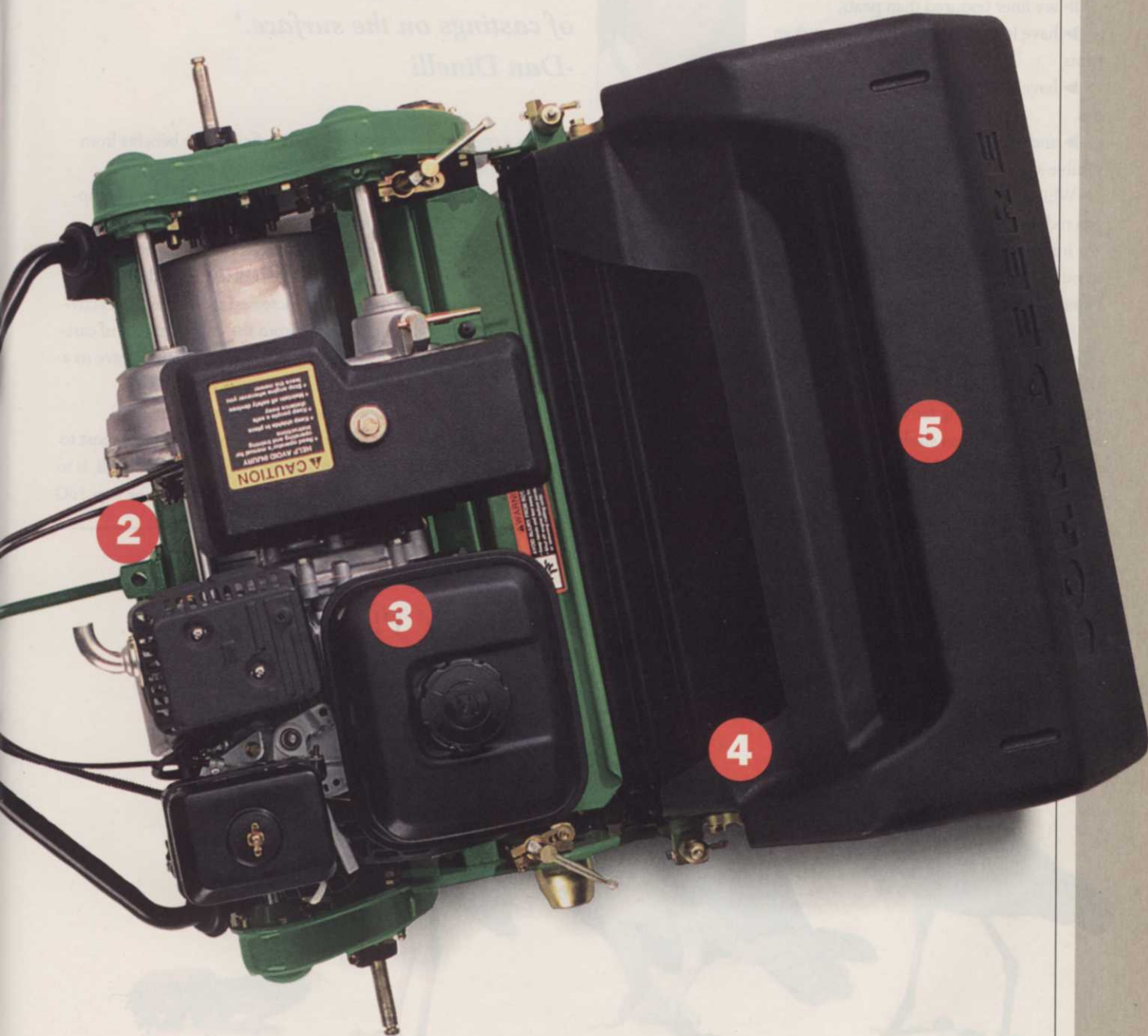
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cont. from page 7G

demands placed on it. But composts and peats are two very different substances.

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While composts have shown that they can reduce soil bulk density and increase the infiltration rate of heavy soils, their use in putting greens is still being investigated.

#### Fairway test

Dan Dinelli of North Shore Country Club, Glenview, IL, is working on fairway tests with Green Cycle composts. His course is maintaining fairway test plots for a disease suppression study started last spring by Dr. Michael Cole, University of Illinois at Urbana-Champaign.



*'The compost definitely reduced the thatch and increased the earthworm activity, judging from the concentration of castings on the surface.'*

*-Dan Dinelli*

Dinelli is using compost as a regular part of his fairway topdressing program and is researching the machinery and techniques that will make it as efficient as possible to use compost in place of peat during those maintenance operations. GreenCycle is sponsoring Dr. Cole's research and working with Dinelli to find the best screen grade and quality of compost for his needs.

"It's still too early for results about disease suppression in Dr. Cole's study," says Dinelli. "That's a long-term project that will have to be watched for in a couple of years. But from the standpoint of my course main-

tenance, I can definitely see benefits from compost applications on the fairway."

Dinelli's crews made one compost application on the North Shore fairways, with some sections left untreated as a test.

"The compost definitely reduced the thatch and increased the earthworm activity, judging from the concentration of castings on the surface. The compost gave us a denser, greener stand of turf."

#### Compost fights layering

One of his goals in applying compost to the North Shore fairways, says Dinelli, is to

cont. on page 16G

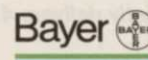
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John Napier, right, examines germination samples with Jamie Repenning, from compost supplier GreenCycle, center, and Greg Bugbee of the Connecticut Agricultural Experiment Station.

cont. from page 10G

avoid developing a troublesome layer at the surface.

Here's the procedure he used:

- He added the compost as one more step to standard aeration procedures.

- The fairway was core-aerated, and the cores pulverized with a vertical mower. Then, the compost was spread with a broadcast spreader.

- The soil-compost layer is then dragged with a section of chain link fence, which pulls the mix into the aeration holes and also helps gather up debris, such as thatch.

- After dragging, the fairway is cleaned with an air blower to move remaining debris into the rough, where it is cleaned up with rotary mowers with bagging attachments.

"We only added one step, the compost application, says Dinelli, "so we didn't need to make the composting a whole separate project."

Dinelli says disease suppression on the compost-treated fairways was hard to see. Disease pressure varies from year to year at many courses, and the summer of 1996 was a mild season.

"I don't think you can fairly evaluate a

product you apply just once during the growing season. I can't think of any product—fertilizer, pesticide, whatever—that you apply just once. I'd like to do the compost once a month and see what happens over the long term.

"But given those qualifications, with mild weather, and just one application, we spent just 38 percent of our typical fungicide

expenditure this year," Dinelli says.

Dinelli wants to limit synthetic products and increase the natural course conditions.

He has applied the Nature Safe organic fertilizer to the fairways in 1996, and uses a BioJect system to let the course irrigation water distribute two known anti-fungal biologicals—*Trichoderma harzianum*, marketed as Bio-Trek 22G, an EPA-registered biological fungicide—and the known antagonist bacteria *Pseudomonas aureofaciens*, used for disease suppression in farming.

"We're trying to bring these entities to-

gether to create a healthier environment for the turf, in the hopes that it can withstand all the stresses, one of which is disease," says Dinelli. "There's very little known about beneficial biological agents when it comes to turf; and we're trying to expand on that knowledge."

*'If operations improvements come out of this project, that'll be great for us. It would also be great for the general waste disposal in this country.'*

—John Napier

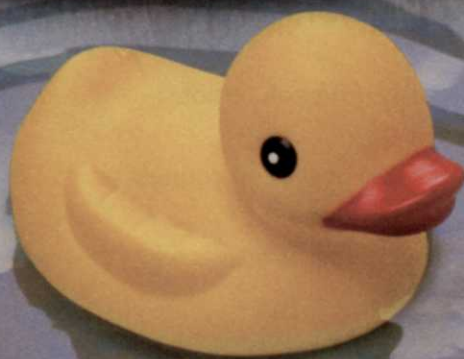
While he's learning on the job, Dinelli says there's a need for compost producers to continue refining their manufacturing processes to achieve greater physical and chemical/biological consistency in compost. **LM**



From left, Jamie Repenning, John Napier and Greg Bugbee at the Stanley Golf Course nursery site.



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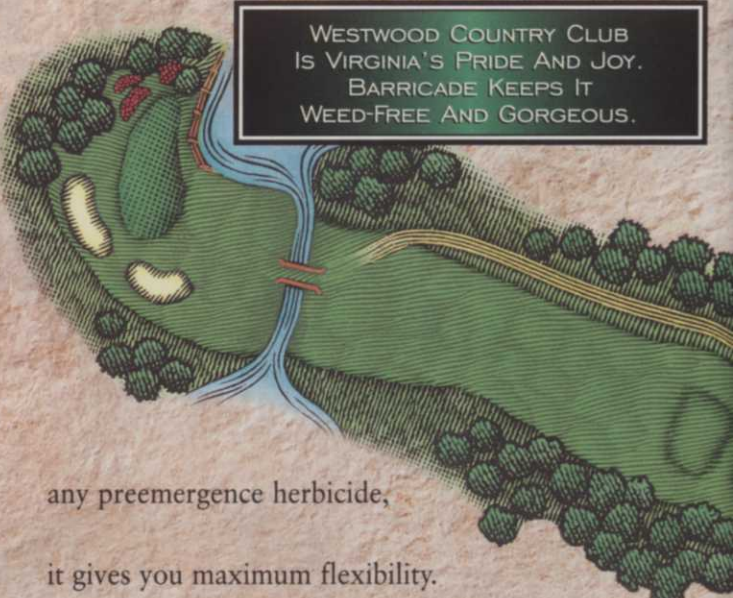
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Second prize is \$300 and third prize is \$200 in cash. To be eligible for the drawing, simply fill out the questionnaire at right and return it to LM's editorial offices.

Answers to the questions will determine our "1997 Emerald Awards" winners, to be revealed—along with the contest winner—in our August issue.



**CONTEST REQUIREMENTS:** Contestants must be owners or employees of landscape maintenance companies or lawn care companies; or maintenance employees of a golf course or country club, including superintendents and assistant superintendents; or an athletic field manager or member of an athletic field maintenance crew; or manager or member of a facility landscape management crew. Employees of Advanstar Communications and their families are not eligible.

All questions on this entry form must be completed, and all blanks filled. One entry per person. No more

than five entries from any one employer will be allowed. Entry forms will appear in the March-June, 1997 issues of LANDSCAPE MANAGEMENT.

Completed questionnaires should be mailed to: Emerald Awards, LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. They must be received by noon, July 1, 1997.

A random drawing of all eligible entry forms will be held the afternoon of July 1, 1997. Winners will be notified within 24 hours.



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# AN ALPINE RESTORATION

At over 9,000 feet in the Rocky Mountains, Telluride Golf Course is always covered with snow during the winter.

## *Staff at Telluride Golf Course prepares for the challenge of returning some of its two-mile high golf course to wetlands.*

by LESLEE JAQUETTE

**T**elluride Golf Course, located in the ski resort of Telluride, CO, must virtually start over on some of its golf course. It must rebuild fairways, greens, and tees.

Superintendent Kevin Cahalane and Assistant Superintendent Joe Distefano will oversee \$2.4 million in wetlands restoration over the next three years. At least 11 acres will be affected, including 10 holes and the driving range.

"It's very interesting for us but painful for the developers," says Distefano. "It's made us a

lot more aware of science and hydrology."

The 18-hole, 6,739-yard-long course is owned and operated by the Telluride Ski & Golf Company. It lies on a mesa at 9,300 feet and snakes through wetlands. Four holes are on the ski hill.

Developers in 1989 when they started construction, failed to heed EPA standards requiring mitigations for wetland disturbance on projects larger than one acre. That year the EPA began investigations. While a final decision is expected before summer, Cahalane and Distefano believe that

11 acres of the course (17 if you include the ski hill) will have to be restored. The company has been fined \$1.1 million and will spend five to 20 years monitoring restorations.

Starting in April or May, golf course staff will restore most of the fairways, including plugging or removing up to 25 culverts, and returning acres of fairway to creeks and flood plains. Workers at the course will also have to build 12 bridges so that golfers can get over these wetlands. Holes 12 and 13, in particular, will need a lot of work.

When these changes have been made, much of the area will be regreened with indigenous plants. The seed has already been collected, and plants are being grown in greenhouses in Denver. Sod and

large plants will be used to speed up projects. Most of this work, says Distefano, will be accomplished before play starts in late May.

However, another reconstruction project, which necessitates taking out three acres of fairway on the 11th hole, will most likely disrupt play and be quite costly. To establish a flood plain, this project entails removing part of the fairway and building a berm in a different area. It will also include changing a cart path, building a bridge and planting materials.

"In essence, we're going back to construction phase on this hole," says Distefano.

Other projects include removing five tee boxes on hole number 15. These boxes disturbed the area and will now be rebuilt five to six feet above wetlands. Retaining walls and



plant material will anchor the boxes. This could postpone opening says Distefano due to the number of heavy machines on the project. The largest restoration will re-establish Prospect Creek. It seems the creek was dredged and made into a 1.5-acre pond. As part of the mitigations, crew will re-establish the pond as a creek and riparian area.

Despite the magnitude of the projects, Distefano is not discouraged. "It's hard work but exciting. It's new for us to discover the importance of filtration of alpine areas and the ramifications of damage to alpine and sub-alpine areas," he says.

He adds that the restoration calls for a disciplined approach combining landscape architecture, hydrology, integrated pest management and irrigation. First of all, the plan calls for development of buffer zones and limited use of fertilizers and pesticides. The staff moved to

organic fertilizers on greens several years ago (products manufactured by Ringer, Milorganite and Nature Safe), and is learning to spot treat to deal with pests.

Distefano's staff will also develop a topographical plan to improve irrigation. The course now uses a Toro VT-II system that Distefano says will be upgraded to a computerized system.

Elevation made germination of the Kentucky bluegrass/perennial ryegrass fairways difficult. The staff reseeded after the initial seeding. The irrigation water is so cold and the ground temperature so low (night temperatures can plummet to the 30s even in July) that it took five years for the turf to become acceptable.

Distefano says that people thought the winters would be too cold for the ryegrass, but the snow insulates it, and it does well at elevation. Still, even under the best conditions it takes a summer to grow-in a tee box, he says. And that's using germination blankets and straw mulch.

The golf staff includes a dedicated landscape crew of three. One person works solely on the course's 10,000 square

**Assistant Superintendent Joe Distefano expects a busy season once the snow melts in April, maybe May, perhaps June.**

feet of flower beds, planted mostly with perennials like lupin, columbine, sweet Woodruff, Maltese cross, baby's breath, and Icelandic poppies. Also, the tree landscaper planted 450 trees including aspen and narrow-leaf cottonwood, the only two deciduous trees that grow at this elevation. Blue spruce and Engelman spruce block fairways from houses.

for the ski hill during the winter, giving them benefits and a month to six weeks vacation.

"This excellent rate of return makes things easier on the equipment, saves money and gives the superintendents more time on projects," says Cahalane, who works as a ski patroller in the winter.

Managers keep morale high by planning the annual mid-summer "Mow & Blow" golf



Distefano describes the course as very spread out, with each hole self-contained with many roughs. It takes a large crew and lots of equipment to manage the long-play corridors. The most important and unique piece of equipment on the Telluride Golf Course is the turbo-equipped Jacobsen LF-128 snow blower. Distefano calls it a life-saver, particularly in April and May.

As for labor, Telluride is the kind of place where folks love to live. As a result, the golf course staff remains stable. Most of the employees work

**Aspen is one of the few deciduous trees that grow at Telluride's elevation of 9,000 feet. In late summer and early fall, they turn a beautiful yellow.**

tournament and barbecue. Also, staff plays after 3:30 p.m. every day and everyone gets 2½ days off every week, with only a skeleton crew working on weekends.

"We're real flexible with crew time off because we like to travel too," says Distefano. □

—The author is based in Edmonds, Wa. Photos by Leslee Jaquette.





## Put the power of EAGLE®

### Superintendents tell why they rely on Eagle to prevent stubborn turf diseases.



**Mike Jones**  
Valley High Country Club  
Elk Grove, CA

"We go into the season with really nice greens," says Mike Jones, superintendent at Valley High Country Club in Elk Grove, CA.

"Then about July, the decline starts and it's a constant battle all through September."

Mike's solution was to intensify his preventative fungicide program with Eagle®, while raising fertility levels.

Mike's experience was no surprise to us. We've been saying all along that Eagle provides dependable, long-lasting protection against 14 major turf diseases — protection unmatched by any other systemic fungicide. Better yet, Eagle is now registered to control summer patch and spring dead patch.



**Rich Hardebeck**  
Eagle Lake Golf Club  
Farmington, MO

### Tackling dollar spot and brown patch

Rich Hardebeck is superintendent at Eagle Lake Golf Club in

Farmington, MO. When he first came to Eagle Lake, he experienced extremely heavy dollar spot on his ryegrass and bluegrass fairways.

"Last year," says Rich, "I applied Eagle preventatively in April and again in September and didn't see dollar spot all summer."



**Dave Anderson**  
Evergreen Country Club  
Haymarket, VA

Dollar spot was also Dave Anderson's problem, as well as brown patch on his ryegrass fairways.





## to work for you.

Dave is superintendent at Evergreen Country Club in Haymarket, VA.

"I used Eagle exclusively on the fairways," he says, "and they were the best fairways I've ever had, especially considering the extreme heat."

"Late in the year," Dave continues, "I alternated Eagle with a contact fungicide to control gray leaf spot and got excellent results overall."

### Effectiveness is just the beginning.

In addition to the long-lasting protection of Eagle, superintendents

appreciated its outstanding turf safety, low-use rates and water-soluble packaging.

"I don't have the safety concerns with Eagle that I do with other sterol inhibitors," says Mike Jones. "And rates are so low, I have the flexibility of using it in the fall if I need to."

The flexibility of Eagle is further enhanced by the new extended spray schedule—now up to 28 days.

Those are powerful reasons for using Eagle. Dave Anderson gives the final word.

"Considering its length of control, low-use rates and cost,"

he says, "Eagle offers the best of both worlds."

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T-O-160

2/97

Circle No. 133 on Reader Inquiry Card



# Two at a time for Arcola

*Superintendent Mike Mongon says that golfers' rising expectations have caused him and his staff to 'double team' this popular Paramus, NJ, golf course.*

**M**ike Mongon follows the "Noah's Ark" Theory of Golf Course Maintenance. Mike is superintendent of the Arcola Country Club, Paramus, NJ, and he always uses two of everything.

Arcola CC features several "runway" tees such as #12 which is 82 yards long. That's the Robert Trent Jones touch from a 1957 redesign project caused by the Parkway.

He starts each project at the beginning of the front nine and at the beginning of the back nine so that both nines finish at the same time.

"In other words, I'll have two people raking sand

traps, two people cutting tees, or two people operating Turf Tracks at the same time," says Mongon, in his ninth season at Arcola. "Theoretically, they all finish at the same time and the golf course looks even throughout. Golfers don't encounter inconsistencies such as short and high roughs on the same day. I came up with this theory in answer to the escalated level of maintenance golfers have come to expect within the past 10 years."

## **Big Apple golfers**

As a destination course for both Manhattanites and New Jersey suburbanites, Arcola lies within shouting distance of the Garden State Parkway and only 20 minutes from Wall Street.

Built in 1909, the course underwent a redesign by Robert Trent Jones when Parkway construction rerouted six holes in 1957.

## **Continuing improvements**

During the past three years, Mongon supervised a facelift by the Robert Jones Company, redoing several holes each year. The last seven holes were completed in the spring of 1996.

"We wanted to get the bunkers more into play in accordance with today's golf game," notes Mongon, who attended the Rutgers University Turf Program. "Jones' touches are large greens and long, runway tees—some of them 80 yards long.


"We built some new tees and reworked other areas, restoring ponds and bringing grass bunker faces down. I learned that bunkers have ears, noses, knobs, bays and capes as well as faces."

## **Lend a hand**

Bunker maintenance now requires a combination of intensive hand work and an intricate system of specialized equipment, including Turf Tracks for bunker edges and "Fly Mows" which ride on cushion or air to cut all the noses, ears and knobs. Mongon's crew includes a full-time staff of eight, most of whom have been at Arcola for at least nine years, a seasonal staff of seven and five summer employees. With first tee-off at 7:45 a.m. each day, the crew completes much of its work between 6 a.m. - 9 a.m.







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Originally all bentgrass greens, tees and fairways, Arcola began experiencing *Poa annua* encroachment back in the 1950s. Since Mongon began managing the turf to encourage bentgrass development, populations of the desirable grass species have increased to 70 percent throughout the course.

#### **Prescription fertilization**

He precision-times fertility applications, using 2 ½ lbs. of N per year on fairways divided into three treatments: lightly in spring, one pound in August, and heavier yet in October. He also removes clippings. As a maintenance measure, he applies Prograss herbicide in the fall, 10 days after fertilizing.

"In the spring we can see where the *Poa* was and how effectively Prograss controlled it," says Mongon. "We've been able to really increase our bentgrass populations with this program and we don't have a big problem with seedhead formation in the summer."

#### **A different approach**

Mongon uses different management techniques on the lower and upper nines at Arcola. That's because the upper nine has a well-drained, sandy-loam soil which remains relatively dry all year, the lower nine has heavier soils and restricted air circulation. He and his crew have removed and pruned a lot of trees in the lower nine to improve air circulation. Also, they have renovated ponds to lower the water table by a foot and a half, and resloped existing spillways to facilitate drainage.

"Disease is usually worse on the lower nine holes," says Mongon. "Our strategy is to keep the turf plants healthy enough to ward off diseases. We use proper irrigation



**Mike Mongon, superintendent at Arcola Country Club, Paramus, NJ, tailors his management practices to serve the precision conditions on each hole.**

and mowing techniques, and spoon-feed the turf to avoid growth surges. But pythium pressure is always there when conditions are hot and humid." He follows a rotation of products, include Fore, Alliette and Banol fungicides throughout the summer months.

While pythium prevails on Arcola's lower nine, the upper nine has more bentgrass. "And brown patch just loves bentgrass," says Mongon. "It's very predictable, brown patch always appears the first or second week of August at

Arcola. Each year I evaluate the environmental factors, and they usually indicate spraying the last week of July. So I spray just prior to when symptoms appear, treating whole fairways that are habitual offenders."

Though Mongon rotates his fungicide products throughout the summer season,

*'My main goal is to provide consistency on the course so that a golfer can use the same stroke on the same hole whenever he or she comes to play,'*

*—Mike Mongon*

he uses ProStar fungicide for brown patch control. "It allows us to eliminate some of our redundant sprays because ProStar lasts so much longer," he adds. "It's a very good material. When timed properly, an application of ProStar will last 21 to 28 days, which is usually long enough to get us through any brown patch pressure."

#### **Manage, manage, manage**

Intensive cultural practices also keep

disease, weeds and insects under control. Mongon aerifies the entire course once or twice a year, using a Hydroject on greens every three weeks. He also lightly top-dresses greens every three weeks and verticuts greens, tees and fairways twice each year. He monitors conditions constantly and follows different maintenance practices for different areas of the course.

For several years, Canada geese created severe problems for Mongon and his crew. Since five of the holes border water the geese adopted the golf course as their home. He tried balloons, grape juice, scare cartridges and cords around the ponds, but nothing worked. Last year he bought a trained border collie named McKenna to live on the course.

"The dog stalks the geese, rounds them up, and in general makes them very uncomfortable. The geese finally decided to leave after they realized that McKenna was not going to go away."

#### **What a great staff**

As government relations liaison for the New Jersey Turf Association, Mongon actively works toward better conditions for turf managers. He served on a drought task

force in 1995, devising a water conservation play for golf courses. He also publishes a newsletter for Arcola's 265 members. He regularly explains maintenance

procedures.

"I have the best staff around and a really nice membership to work with. My main goal is to provide consistency on the course so that a golfer can use the same stroke on the same hole whenever he or she comes to play," says Mongon.

"It all goes back to the Noah's Ark Theory. It seems to be working here so I think I'll continue using it." **LM**



## 31 supers awarded for environmental work

Thirty-one golf course superintendents gained distinction in the 1996-97 Environmental Steward Award program.

The Environmental Steward Award recognizes superintendents for overall course management excellence, outstanding programs to maximize pesticide and fertilizer efficacy, and irrigation and equipment efficiency, as well as wildlife preservation and enhancement.

All entries are reviewed by an independent panel of judges selected for their expertise in environmental issues and turfgrass management.

In conjunction with the program, Novartis (formerly Ciba Turf & Ornamental Products and Sandoz), Rain Bird's Golf Division, Jacobsen Division of Textron Inc., and Pursell Industries will donate more than \$23,000 to the GCSAA Foundation, which supports educational opportunities for future golf course superintendents and scientific advancements in golf course management.

The 1996-97 Environmental Steward Award winners were named in three categories: private, public and resort golf courses. The national winners are:

**Private:** Kerry Satterwhite, CGCS, Rock River Country Club, Rock Falls, IL, and Glenn Smickley, CGCS, Robert Trent Jones Golf Club, Gainesville, VA.

**Public:** Timothy Kelly, Village Links of Glen Ellyn, Gen Ellyn, IL.

**Resort:** Ron Hill, CGCS, Amelia Island Plantation, Amelia Island, FL.

Kelly earned national honors for the third consecutive year. This year he was recognized for outstanding promotion of his conservation programs and his community partnership. Satterwhite and Smickley, who tied in the private course category, and Hill are first-time national winners.

In addition to the national winners, 21 regional winners and six merit winners were selected from throughout North America.

Winners were honored Feb. 9 at the GCSAA Conference and Show in Las Vegas.

**Florida Region** winners. Private Course, Robert K. Ellis, Indian River Club, Vero Beach, FL; Public Course, Richard C. Wise, CGCS, PGA Golf Club, Port St. Lucie, FL.

**Mid-Atlantic Region.** Private Course, Scott A. Schukraft, Huntsville Golf Club, Shavertown, PA.

**Mid-Continent Region.** Private Course, Peter V. Leuzinger, CGCS, Ivanhoe Club, Ivanhoe, IL; Public Course, R. Brian Green, CGCS, Highland Park, IL, and Resort Course, Dale Miller, Barton Creek Resort, Austin, TX.

**North Central Region.** Private Course, Donald F. Ewoldt, Jr., CGCS, Sand Creek Country Club, Chesterton, IN.; Public Course, Fred E. Soller, Jr., Old Works Golf Course, Anaconda, MT; Resort Course, Steve Schumacher, Izatys Golf & Yacht Club, Onamia, MN.

**Northeast Region.** Private Course, Karl E. Olson, CGCS, National Golf Links of America, Southampton, NY; Public Course, James M. Perez, East Mountain Country Club, Westfield, MA; Resort Course, John A. Boyer, CGCS, Marriott Seaview Resort, Absecon, NJ.

**Southeast Region.** Private Course, Henry D. Kerfoot, IL, Carmel Country Club, Charlotte, NC; Public Course, Wendell T. Nealon, CGCS, The Legacy, Springfield, TN.

**Western Region.** Private Course, Bill Schilling, Wing Point Golf & Country Club, Bainbridge Island, WA.; Public Course (tie) Tom Janning, Rosewood Lakes Golf Course, Reno, NV, and Daryl D. Dinkel, River Valley Ranch, Carbondale, CO; Resort Course, Kent Nishijima, Kapalua Golf Courses, Lahaina, HI. □

## Patrick Lucas earns MetGCSA honors

Patrick Alan Lucas of Innis Arden Golf Club, Old Greenwich, CT, earned the Sherwood A. Moore (SAM) Award for 1996 from the MetGCSA.

Westchester Country Club Superintendent Joe Alonzi, immediate past president of the MetGCSA, in making the announcement said: "There is no more deserving honoree. Pat has added a new dimension to the word devotion, both in his veteran career and life in general. No one is more dedicated to the cause, welfare, and benefit of the golf course superintendent than Pat."

Patrick Lucas has been at Innis Arden since 1977. □

## NGF event focused on online services

Late in 1996, the National Golf Foundation hosted a three-day conference in Boston focusing on the "information superhighway" and its potential as a means for helping those in the golf industry grow.

The proceedings of the conference are available in the form of session audio tapes and a compilation of the papers that were submitted by those who were featured speakers.

There were 13 sessions in all including: developing a strategic plan for putting your organization online;

what to expect from your online provider;

building customers in cyberspace;

using an Intra-Net to improve communications and productivity.

NGF members can get the printed info for \$75, audio for \$145 or both for \$195. The cost to non members is \$125 for print, \$195 for audio and \$275 for both.

Contact NGF (800) 733-6006 or fax at (561) 744-9085. □



These questions came straight from the customers of lawn care operators, pest control operators and other professional pesticide applicators across the country—and probably reflect the concerns of your customers. The more your customers know about the products you use, how you use them and how much is used, the more confident they will be in you and your service.

## Communicate With Your Customers

Your customers expect you and your employees to be credible and knowledgeable sources of information about your products. Take time to talk with them about your safe and responsible use of pesticides.

Studies show that most people don't know that pesticide products are among the most highly tested products sold. The U.S. Environmental Protection Agency (EPA) registers only those uses of pesticide products that pose minimal risks.

- Emphasize that pesticide products must undergo stringent government-monitored testing before they can be sold. It is a long and costly process. For example:

- It takes a chemical manufacturer eight to 10 years to test and register a product, at an average cost of \$30 million to \$50 million.
- As many as 120 tests or more are performed, many specific to health, safety and the environment.
- Only one potential pesticide in 20,000 makes it from the research lab to the market.

- Explain Integrated Pest Management (IPM) to your customers. Most do not fully understand the concept. Point out that a successful IPM program stresses prevention, pest identification and selection of the best method of pest control, which may require the use of pesticides. Tell how you incorporate IPM into your pest management practices.

- Identify the specific pesticides you use and the pests they control.

- Indicate that professionals use an array of products, many the same as those used by homeowners.

- Assure customers of the benefits pesticides provide for turf, trees and ornamentals, and in the home. For example:

- Termites cause over \$1 billion in structural damage each year.

*"Are the pesticides you use safe?"*

*"Are the pesticides that professionals use stronger and more toxic?"*

*"When is it safe for my children and pets to return to an area after a pesticide application?"*



- One large, pest- and disease-free tree has the same cooling effect as 15 room-size air conditioners.

- A well-maintained lawn and landscape adds as much as 15 percent to a home's value.

- Discuss your safe and responsible use of pesticides as a professional applicator. Note the many steps you take to ensure that the pesticides you use are used properly.
- Advise your customers that you closely follow label instructions. The label contains instructions for only those uses approved by EPA.
- Outline the extensive training that is mandatory for professional applicators in order to apply specialty pesticides. Applicators are required by law to undergo training, certification and licensing, as well as to keep records of each job performed.

- Explain what happens to pesticide containers once a job has been completed. Note that containers are disposed of properly.

## What Else Can You Do?

Provide your customers with materials such as newsletters, brochures, fact sheets and bill stuffers that communicate these messages. Be sure that someone at your company, who has a basic knowledge of the products and application methods your company uses, is available to answer questions.

## RISE Is A Resource

RISE is the voice for the specialty pesticide industry. Its members include manufacturers, formulators, distributors and other industry leaders.

RISE works in cooperation with your national, state and local user/applicator associations and is an additional source of information regarding issues facing pesticide users. We can help you in your role as a knowledgeable and credible information source to customers and to the public. A brochure on communicating about pesticides with your customers is available. Contact RISE to receive your copy.

We urge you to take an active part in your state and national association(s). We work together to support your business.



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For more information, contact RISE, 1156 15th St., NW, Suite 400, Washington, DC 20005, or call 202/872-3860. Our Internet address: <http://www.acpa.org/rise>.



# Make present employees your first line of recruiters



*Ron Hall*

RON HALL  
Managing Editor

**L**ooking for entry-level employees? Start by letting your present employees know. They might be able to help you find some more good workers, says Dale Feinauer.

Feinauer is an instructor with the College of Business Administration, University of Wisconsin, Oshkosh. He specializes in employment issues. Recently he spent a day with about 60 lawn and landscape pros at the PLCAA Management Conference.

His comments drew several discussions. In fact, few lawn pros skipped out to play golf during his session which is saying a lot inasmuch as it took place on a cloudless, 70 F. day in Tempe, Ariz., in mid January. (Not that I noticed the weather or anything.)

Feinauer says your present employees can become good recruiters.

1) **They know your company culture**, and the type of employees that fit into it best.

2) **They will be honest** when they tell their friends or acquaintances about your company, and the job(s) that they will be expected to do.

3) **They won't recommend** a friend or acquaintance to you unless they think that the prospect has a good chance of working out. After all, their reputation is on the line and they want to stay in your good graces.

But, how do you motivate employees to bring you some more good candidates?

Some of the business owners and managers at the Conference say they give cash bonuses to anybody bringing in an employee that stays with the company, say, 90 days.

"We have the employee stand up and we hand him a \$20 bill every month for five months running for every new employee that stays with us.

We hand out the money right in front of everybody else" says one business owner.

Another says he puts a large paper pie on the wall of his company's training room, and everytime an employee brings in a new hire, he pulls off another piece of the pie. When all six are off, he says the employees get a free pizza party.

"I know it sounds hokey, but it works," claims the owner.

While your present employees can help you get recruits for those entry-level jobs, don't forget them when you need someone to fill other, more responsible, openings in your company.

Don't let the fact that you know some negative things about a qualified present employee color your decision too much. This person, warts and all, may work out better than a new employee. After all, your employee has already shown a measure of loyalty.

While we're on the subject, turn this page and read columnist and LCO Bob Andrews' seven valuable interviewing tips. **LM**

Questions? Comments? Phone Ron at 216/891-2636, fax him at 216/891-2683 or e-mail him at [lscape@en.com](mailto:lscape@en.com)

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LCOs beautify Arlington Cemetery

PAGE 10L ▶

Ideas about creative selling

PAGE 16L ▶

Expanded services suite clients

PAGE 20L ▶

Share field costs with a partner

PAGE 22L ▶

Mainscape is commercially focused



**B**efore lawn care, I worked as the employment manager at an automotive body plant in eastern Indiana for four years. One of my responsibilities was to hire a large number of seasonal workers for the busy summer months.

This experience taught me one valuable lesson: the most important interview you, as an employer, will ever conduct is the one you have with a prospective employee. Why? Because learning as much about the person before you hire them may save you a great deal of headaches.

Here are some practical hints on properly conducting an employment interview.

**(1) Know what you are hiring for.** Sounds silly, but do you actually have a written job description for the job in question? Having one, with specific duties and requirements listed, makes the interview fair to both you and the candidate. Here is what this job entails. How do your qualifications match the job? After reviewing the job requirements, do you still feel this is something you would like to do?

Having a written job description may save both of you a great deal of hassle later on because it clearly states what the perspective employee will be expected to do.

**(2) Review the application** or resume thoroughly before conducting the interview. Understand certain things about them that can help you make a better decision about the prospect.

Are there unexplained gaps in the employee's work history? Pay particular attention to times when the individual was self employed. What were they doing? Does the resume show a string of short-term jobs? Why? Don't rely on a resume alone. Require the applicant to complete an application and have them do so on your premises.

**(3) Give the candidate the full attention** he or she deserves during the interview process. Conduct it in private and do not allow yourself to be

interrupted during the interview. Give the candidate your full and undivided attention.

**(4) Make every effort to learn** as much about them as possible. Get them to talk. One of the biggest mistakes an employer can make is to spend the entire interview talking to the candidate instead of listening to the candidate.

Ask questions like: What did you like best about your last job? What are your hobbies or outside interests? What attracted you to our company? Do you enjoy working with customers? What are your career objectives?

**(5) Be up front about conditions of employment.** Make sure the candidate knows if an offer for employment is subject to such things as reference checks, drug screening, passing certification, and signing a non-compete agreement.

**(6) After the interview, make notes at once.** This is vital if you are interviewing several candidates one right after the other. Perhaps a check list would be helpful where you could rate the candidate on appearance, verbal skills, attitude, or other factors which you found distinguishing. Attach such a list to the application for later review.

**(7) Avoid on-the-spot hiring.** Panic hiring is almost always a disaster. Review the application, resume and interview notes. If applicable, discuss the results with others in your company who may supervise or otherwise deal with the new employee. They may see things that you have missed. Check any and all references or job information legally permissible. Even if it's just a day or two, take your time. Remember, a new employee may end up staying with you for several years.

Typically, the easiest vacancy to fill is at the entry level, but keep Personnel Management Rule #1 in mind: promote from within and employ from without. □

## 7 tips for better hiring



**BOB ANDREWS**  
Contributing Editor



# EVOLUTION OF A REVOLUTION



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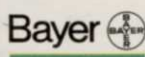
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## A thank you

"'Renewal and Remembrance' is a chance for us to do with our actions what is impossible to put into words; to say 'thank you' to the veterans of every war and armed conflict that has befallen this great nation, to the nearly 250,000 men and women who lie here under the shadow of the Capitol, in honored glory under this blessed sod.

"It's been said that we honor our dead by fighting our battles as they fought the battles of their day. We honor our heroes today by doing what we do as a profession: quality lawn care. It is our green blazon of thanks!"

—Phil Fogarty



# PLCAA remembers







*More than 100 members of the Professional Lawn Care Association of America tend the grounds at Arlington National Cemetery in remembrance of those who fought our nation's wars.*

by TERRY McIVER / Editor-in-chief

Some of the 'Renewal and Remembrance' volunteers. Opposite page, clockwise, from top left: Gene Pool of Emerald Green and others from the Ohio team tend the grounds around the Kennedy Memorial; Phil Fogarty speaks by radio to a worker, with Tom Delaney, PLCAA government affairs director; a Joint Color Guard presents the flags of the United States and its military branches; Carl Petelle, Leisure Lawn. Across center of page: Tim Doppel, right, with Todd Schray and Paul Johnson; PLCAA President Terry Kurth and daughter Krista; Mike Dietrich, center, and the Lesco team check their bearings; the team of, l to r, Sean and Mike Kravitsy, Grasshopper Lawns; Mike Bolton and Larry Ellmaker, Moyer Lawn Care; Ken Fick, Green Giant Lawn Care. At bottom, the entire team of volunteers prior to getting started.

**M**ore than 100 lawn care professionals from across the U.S. volunteered manpower and equipment in the morning and afternoon hours of February 3, to enhance the beauty and vigor of the grounds of Arlington National Cemetery, Arlington, Va.

The "Renewal and Remembrance" environmental enhancement project was complete with its own

souvenir hats, a Joint Color Guard, and much time and effort by people who certainly could have spent their day doing something else.

It was all Phil Fogarty's idea, but he'd much rather point to the 100 volunteers who helped make it happen.

Fogarty, owner of Crowley's Lawn, Tree and Shrub Service of Cleveland, thought the event would be a great way to kick off the PLCAA legislative weekend on Capitol Hill, and would certainly be a fine gesture of thanks.

"This was our chance to show our appreciation to veterans everywhere," said Fogarty. "This shows the kind of commitment you have to our industry, our environment and this country.

"We're very proud of the work done today, and hope that our efforts will make a lasting impression on the beauty and environment of our national cemetery grounds," said Fogarty.

"We plan to continue to support this project at Arlington in the future."

**From one veteran to another**

"This project means a lot to me," said Vietnam veteran, Don Tannahill of Hort-Ventures, Olathe, Kan.

"I often visit Arlington, and what we're doing here today contributes to the beauty of a very reverent place."

"It was a lot easier than I thought it was going to be," said Tim Doppel, president of Atwood Lawn Care, Sterling Hts., Mich.

"It was incredibly well-organized," said Doppel "My hat's off to Phil Fogarty. It was a pleasure and an honor. You saw [while working on the grounds] the grave of a colonel, next to the grave of a major, next to the grave of a general. This was my small tribute to them. When you realize the sacrifice they made, pushing a spreader around didn't seem like a hard day at all."

**Colors and commendations**

The day began with a dedication ceremony near the Tomb of the Unknown Soldier, complete with the presenting of the colors by the Joint Color Guard.

Arlington Superintendent Jack Metzler and industry professionals, including Fogarty; PLCAA President Terry Kurth of Lawn Care of Wisconsin, Middleton, Wisc., spoke to the crowd of more than 100 workers.

"Our theme, 'Renewal and Remembrance,' captures in words what we are here to achieve: renewing the cemetery lawn in remembrance of those who gave so much to this country," said Kurth.

"While most people look around at such well-cared for places like Arlington and appreciate the beauty of a healthy lawn, especially during spring and summer, many people don't think of the benefits a healthy lawn brings to our environment."

**Pallets of supplies**

Not only was time given freely here; materials were brought in by the pallet-full. Here's what they put down:

- ▶ 40 tons of dolomitic pelletized limestone;
- ▶ 10 tons of dolomitic pelletized lime;
- ▶ 100 gallons of N-Sure;
- ▶ 2000 pounds of Falcon II turf-type tall fescue.

"Renewal and Remembrance" was co-sponsored by:

FMC Turf & Ornamentals; Bayer, Inc.; DowElanco; and Novartis Turf & Ornamental Products.

Contributors were: The Andersons; Zeneca Professional Products; American Cyanamid; Riverdale Chemical Co.; Lesco, Inc. and PBI Gordon. □



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head valve power units (13, 14 and 17 hp) with 36-, 48-, and 54-inch decks. Five-speed gear transmission with reverse. Knee- or hand-operated shift lever.



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770 Price Fighter Tractor is powered by a 24-hp, 3-cylinder diesel engine and has a sliding-gear transmission with 8 forward and 2 reverse speeds. Power steering for superb handling. Continuous live 540-rpm PTO. Plus the

quickest implement hookup in the business — just 5 minutes or less, without tools. Get your hands on one of the best values in compact tractors today — the 770.

770 TRACTOR

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Most John Deere commercial equipment dealers are participating in the 1997 Takin' Care of Business promotion. To find the one nearest you, just call the toll-free number above. All offers are good through May 31, 1997.

5200 Tractor. Lease it today with 2-wheel drive, loader, turf tires, weight box and RPM parts kit at a great low price. The 5200 has a three-cylinder, 40-PTO-hp engine and a collar-shift transmission with 9 forward and 3 reverse speeds. Plus in-line-shift capability for loader work. (Lease amounts and monthly payments do not include insurance or any applicable sales or rental taxes or fees.)





# Be creative in selling your firm's services

*Innovative ways to set your company apart. Build reciprocal deals with competitors. Increase community visibility. Tout your fine employees.*

by LARRY IORII/Down to Earth, Inc.

**A**fter 23 years in the landscape business, a large amount of practical experience adds up, with successes and failures. I strongly feel, however, that the following formula will provide a solid foundation to insure your survival.

There must be a two-pronged attack that consists of:

1. Innovative and unorthodox ideas, with
2. Old-fashioned selling principles.

This sounds like opposites, and you're right! But success is built on the diversity of your approach.

## 'Referral centers'

Let's think of our suppliers as a sales force. Back in the late 80s, when corporate America began to "downsize," and grounds care felt the crunch, I met with various suppliers—garden centers, seed companies, equipment dealers—who handled retail trade. On a typewritten sheet was a list of services I wanted them to promote for us. In addition, a stack of business cards was placed next to the cash register. When a customer requested a business reference to provide quality service that fit into our



**Iorri: consulting service opens doors.**



marketing, the sales lead came into play.

Our key referral centers are updated annually on the services we prefer to perform. In return, our suppliers, who provide our company with a steady flow of business receive:

- ▶ continued purchases of products;
- ▶ advance payment or "net 30" for products purchased;
- ▶ referrals to them from our consulting business.

Do-it-yourself homeowners receive 10

**Excellent employees are an excellent sell. Emphasize their dedication to the company.**

percent off their purchases if they mention Down to Earth, Inc. (See Table 1)

## New sales from competitors

Down to Earth sells directly to its competition.


During the winter months, I select companies—members of a professional association—and meet with them to discuss the possibilities of reciprocal referrals. The

object is to seek companies that excel in specialized services. Also, the type of equipment these companies have is another factor to consider. If they have expensive machinery that is used periodically, why invest in such costly equipment.

**TABLE 1 'REFERRAL CENTER' TRADE-OFFS**

Down to Earth		Garden Valley Nurseries	
Maintenance	\$12,000	Mulch purchases	\$3800
Lawn renovation	\$6000	Shrubbery purchases	\$2400
Consulting	\$400		
Down to Earth		Sweeney Seed Co.	
Lawn renovation	\$6000	Purchases	\$12,000
Core aeration	\$1400	Referrals	\$4000
Consulting	\$600		





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- Provides outstanding control of numerous turf and ornamental insect pests

- Controls black turfgrass atenienus and hyperodes weevil adults and stops them from laying eggs
- Allows for low use rates
- Is economical to use
- Has no annoying odor

For big worm problems in turf, nothing is better than SCIMITAR—an unbeatable tool in your turf pest management program.

For more information, contact your authorized Zeneca Distributor, or call Zeneca Professional Products Toll Free at 1-888-617-7690.



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INSECTICIDE

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**TABLE 2 'COMPETITOR REFERRALS' WORK**

<b>Down to Earth, Inc.</b>		<b>Absolute Lawn Care</b>	
Equipment rentals	\$840	Mowing subcontracting	\$27,000
Sales referrals	\$1680	Leaf removal	\$300
Landscape services	\$1500	Clean-up services	\$5000
Lawn renovation	\$2000		
Sale of used equipment	\$2200		
Clean-up services	\$3000		
<b>Down to Earth, Inc.</b>		<b>Grass Roots, Inc.</b>	
Core aeration	\$2800	Mowing subcontracting	\$55,000
Equipment rentals	\$640	Leaf removal subcontracting	\$6000
Grading work	\$1500	Mulching subcontracting	\$7000

Work out the details. Jobs will be referred to that company with that specific piece of equipment. Table 2 shows actual real-life breakdowns.

#### **Consultations work**

Did you ever consider being a consultant? A natural way to entertain this idea would be to capitalize on your field of expertise. Consulting has propelled our business into a new era. The category of consultant sets your business apart from the competition, and clients respect your opinion more readily. Naturally, when you are the consultant for the job prospect, your company will usually secure the work.

Consulting services have opened the door for multiple sales with existing clients. Also, consulting is a nice part-time job when you retire. If you are patient and excel in a specific area, this golden opportunity will be a winner for you.

#### **Speak up!**

Speaking engagements allow a business owner an avenue for excellent sales leads. When you are the guest speaker, it is safe to assume that your company is an authority on the topic. Some in the audience may want to hire you for their work. From practical experience, here are some establishments that regularly need speakers, and most will pay a fee:

- ▶ garden centers
- ▶ university extension programs
- ▶ horticultural clubs
- ▶ professional landscape associations
- ▶ suppliers
- ▶ retail stores

#### **Employee advantage**

Your employees are an excellent sell in today's marketplace. If you have superb employees, use this during your sales call. Here are the fine points about our employees we highlight during the conversation with potential customers:

- ▶ our average employee has more than 10 years experience;
- ▶ 35 is the average age of our employees;

▶ the average level of education is three years of college;

▶ absenteeism is negligible;

▶ they are technically adept, courteous and willing to please;

▶ the same employees are always assigned to the customer's property.

#### **Three year contracts**

When proposing commercial contracts, write the contract for three years. The first two years should offer services at the same prices each year. In the third year, there should be a large increase. This selling approach has worked well in securing contracts over a large number of uninterrupted years of service.

Generally, when the committee or purchasing agent looks over the proposal, they like the idea that the price will not go up from the previous year's contracts for two years.

Most importantly, this method protects landscape management companies from new, over-ambitious board members who want to change the world.

The three-year period tends to weather all changes in personnel, and provides a good backbone for your business. □

—The author is founding owner of *Down to Earth, Inc.*, Wilmington, Del., and a member of the LANDSCAPE MANAGEMENT editorial advisory panel. Look for Part II of this 'Selling' series in April's LM.



**Two crews from two different companies combine efforts to get sod down before a rain storm.**



# WIN \$500!

**Announcing:** the second annual LANDSCAPE MANAGEMENT "Emerald Awards". LANDSCAPE MANAGEMENT magazine is offering a \$500 first prize to the winner of a random drawing to be held on July 1, 1997.

Second prize is \$300 and third prize is \$200 in cash. To be eligible for the drawing, simply fill out the questionnaire at right and return it to LM's editorial offices.

Answers to the questions will determine our "1997 Emerald Awards" winners, to be revealed—along with the contest winner—in our August issue.



**CONTEST REQUIREMENTS:** Contestants must be owners or employees of landscape maintenance companies or lawn care companies; or maintenance employees of a golf course or country club, including superintendents and assistant superintendents; or an athletic field manager or member of an athletic field maintenance crew; or manager or member of a facility landscape management crew. Employees of Advanstar Communications and their families are not eligible.

All questions on this entry form must be completed, and all blanks filled. One entry per person. No more than five entries from any one employer will be allowed. Entry forms will appear in the March-June, 1997 issues of LANDSCAPE MANAGEMENT.

Completed questionnaires should be mailed to: Emerald Awards, LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. They must be received by noon, July 1, 1997.

A random drawing of all eligible entry forms will be held the afternoon of July 1, 1997. Winners will be notified within 24 hours.



## OFFICIAL ENTRY FORM

### QUESTION:

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| walk-behind mower?          | <input type="checkbox"/> |
| turf fertilizer?            | <input type="checkbox"/> |
| pre-emergence herbicide?    | <input type="checkbox"/> |
| post-emergence herbicide?   | <input type="checkbox"/> |
| turf insecticide?           | <input type="checkbox"/> |
| turf fungicide?             | <input type="checkbox"/> |
| plant growth regulator?     | <input type="checkbox"/> |
| compact tractor?            | <input type="checkbox"/> |
| turf aerator?               | <input type="checkbox"/> |
| pick-up truck?              | <input type="checkbox"/> |
| leaf blower?                | <input type="checkbox"/> |
| line trimmer?               | <input type="checkbox"/> |
| chain saw?                  | <input type="checkbox"/> |
| Kentucky bluegrass?         | <input type="checkbox"/> |
| perennial ryegrass?         | <input type="checkbox"/> |
| turf-type tall fescue?      | <input type="checkbox"/> |
| turfgrass mix or blend?     | <input type="checkbox"/> |
| biological control product? | <input type="checkbox"/> |

NAME:

EMPLOYER:

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# VIRGINIA FIRM WINS

## with expanded service



Nansemond Lawn & Garden is switching from open trailers to enclosed trailers for transporting equipment. "It provides better weather protection, as well as promoting our company appearance and serving as a mobile billboard," says owner Wayne Mansfield.

*Wayne Mansfield's company mows 5 million square feet of turf every week, but his Nansemond Lawn & Garden offers customers much more.*

by GARY F. BURCHFIELD

**W**ayne Mansfield started his lawn care business with a 10-hp John Deere riding mower and one employee, himself. That was in 1983. Today, Nansemond Lawn & Garden has 20 full-time employees and does better than \$1 million in business annually. And, Mansfield is looking for more growth next season.

Nansemond Lawn & Garden has customers all over Suffolk, from Virginia Beach to Chesapeake. (The company takes its name from a former Indian tribe that lived in the area.) Nansemond L&G offers landscape design and installation, seeding, lawn renovation, fertilizer and pesticide application and aeration, along with mowing. It has seven crews working every day, three of which do nothing but cut grass.

"We cut about 5 million square feet of turf every week," says Mansfield. That fig-

ures out to about 120 acres. "The key is that we handle complete landscape maintenance on half that area, or 2 ½ million square feet."

Next year, the company plans to expand into irrigation system maintenance and eventually into installation.

"We continue to expand our services, both to keep ahead of the competition and because our customers ask us to do more," says Mansfield. "We'll plant annual beds in the spring, clean up leaves in the fall and clear snow in the winter."

### Going commercial route

Mansfield says when he started his lawn service business, the industry was still relatively new in this area of Virginia.

"Now a lot of part-timers are getting into lawn mowing for a second income. That has increased the competition for mowing, especially in residential," he says. "So, we're focused more on commercial



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◀ Increasingly, Nansemond Lawn & Garden has been moving into fine manicured mowing, but efficiency is still vital to the Virginia company.

work because most accounts want full landscape maintenance service and are large enough to make our labor and equipment time more efficient." The company's business is about 70 percent commercial and 30 percent residential.

Nansemond employees always wear company shirts on the job, and their equipment is kept clean and well maintained. Each crew is responsible for its own preventive maintenance and equipment cleaning each week.

"When we look professional, customers perceive they are getting professional service," Mansfield says.

He also requires that each full-time employee earn the required technical license for pesticide application, even cutting crews. Explains Mansfield, "even the mowing crews generally have to apply some Roundup to beds or driveways, and we want to make sure our people are properly certified."

The quality of work done by Nansemond crews and their on-time performance leads to frequent business referrals. As a result, Mansfield says he seldom advertises the company's services. "I place ads in our local newspaper three or four times a year, just as reminders, but it's our quality and dependability that bring us new business."

#### **Speedy service**

One advantage Nansemond Lawn & Garden offers over many competitors is its response time. "When we get a call from a

customer, especially if he has some kind of landscape problem, we aim to respond immediately or as quickly as possible," Mansfield says. "Plus, our crews have weekly routes they cover and our goal is always to have the work done on time."

As his business grows, Mansfield says he's more selective in taking on new accounts. "We take on only what we're comfortable doing, and when we can be sure of delivering the quality of work that enhances our company reputation."

When it comes to bidding for a new account, Mansfield doesn't low-ball his rates. "We're certainly not the cheapest bid, but generally we fall somewhere in the mid-range. We base our bids on time and materials. Occasionally we'll bid a job with the hope of adding future work, such as landscape construction or renovation."

"We used to bid on some contracts for local government. But it seemed it was always the low bid that got the job, so we just don't go after that work."

#### **Practical experience**

Mansfield comes by his equipment knowledge from his experience as a farmer. He was involved in a family farm near Suffolk that grew 2,000 acres of peanuts, soybeans and small grains. Later, he got into the retail lawn and garden business, handling mostly seed and fertilizer. He took on some consumer power equipment lines for a year, before deciding to devote his energy to the lawn service business.

"The first couple years, I was lucky to

do \$15,000 a year," says Mansfield. Nevertheless, he saw the potential and hired his first employee the next year. "He was my trim man and blower man." The following year, he bought a second mower. "I just kept going. Those first few years, the business doubled every year."

As Nansemond's business grew, Mansfield aimed for more efficiency from his equipment investment, as well as his labor costs. Four years ago, a nearby dealer, Turf & Garden in Chesapeake, Va., convinced Mansfield to try a new riding mower. He was using walk-behinds, but Scott Dodson, Turf & Garden sales manager, convinced Mansfield to try the compact riding mowers, made by Walker Manufacturing.

Mansfield ended up selling all but one of his walk-behinds. "I keep one as sort of my security blanket," he says. Nansemond's crews now have four of the riding units.

"When we switched to the riders, it cut our mowing time by at least one-third, yet we have had no noticeable increase in our maintenance costs."

Mansfield says his operators quickly became used to the riding units.

"They quickly picked up the techniques for maneuvering the mowers, with one hand controlling both steering levers. They handle them well, and they maintain them well. "After all," says Mansfield, "the riders save them a lot of walking."

Nansemond Lawn & Garden still has a variety of power equipment and mowers in its equipment lineup, including some other riding mowers for rough cutting and large open areas where they don't have to pick up clippings. But more of their mowing today is fine "manicured" cutting. For that, Mansfield has determined that the compact riding mowers are making him money and building his business. □

*Gary F. Burchfield is a freelance writer, living and working in Lincoln, Neb.*



# Labor Saving Device

It's hard to get comfortable when you're nine months pregnant. But, Andrea Morgante, owner of Siteworks landscape services, discovered comfort is no problem with the New Holland Super Boom™ skid-steer loader.

## The Super "Baby" Boom

On a snowy evening in January, 1993, Andrea was using Super Boom to plow the driveway of her Hinesburg, Vermont business. That was nothing new—Andrea had been using Super Boom since 1990, when her work crew voted to buy it after testing all the other brands. But this particular night was different.

"I was past my due date and desperately hoping to go into labor, but Super Boom was just too smooth.

The day after the storm, I finally gave birth to my son,

Morgan," she said in a letter to New Holland.

"I used Super Boom throughout my pregnancy without a problem. The seat belt even fit, right up until the day he was born."

## This Baby Really Works

Siteworks, founded in 1978, does landscape design, building and planting throughout New England. In 1988, Andrea and her crew started testing skid-steer loaders to help increase productivity.

"We tried them all — but New Holland was by far the best. The visibility is superior, and it has the best reach and lift height to dump into our trucks. No other skid-steer could do that," she said. "And it runs smoother — it's not bouncy at all."

Now, Andrea and her crew can't live without Super Boom because it saves so much time and labor. "It boosts the crew's morale because they know they'll get done quickly and efficiently," she said.

## No More Labor Pains

So even if you're not pregnant, it's nice to know there's a skid-steer that can take care of all your labor pains. The New Holland Super Boom: this baby really gets the job done. See your New Holland dealer today.

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# Field management costs too much? Get a partner

*City parks departments and local schools can use mutually beneficial 'joint power facilities' and contracted services to make management costs more affordable for both.*

by DAVID D. MINNER, Ph. D. /  
Iowa State University

**J**oint power facilities occur most commonly when a city parks department and local school join in an agreement to share playing fields.

Fields that are idle are perceived to be a waste of city or school funds. Instead of building new fields, the teams from one association are permitted to use the other's facility. This will ease the field pressure on one partner and increase the traffic injury on the other partner.

► Before entering into a "joint power" agreement make sure that there is a clear understanding of the additional resources required to manage the increased level of activity.

► Define expectations of the field and exactly who will use the facility.

► Follow any transfer of funds and be sure that the field maintenance budget is actually increased to cover additional resources needed to manage increased activity.

## Manageable units

Proposals to upgrade a facility or purchase new equipment may often be turned down because the total cost of the request is beyond the scope of the annual budget. If possible, find out what level of additional funding is appropriate and then divide your total project into manageable units that can be purchased over more than one year. For example, your \$15,000 proposal for an automatic irrigation system has

been turned down, even though you volunteered to install it with your grounds crew at no additional labor cost. Break the project into three phases and complete one phase each year at an increased cost of only \$5,000 per year. Buy the pipe, wire, and valves the first year and install

them. Buy and install heads in the second year and charge the system. It may not be automated, but after only two years you have water where there once was none. In the third year, purchase the controller and fully automate the irrigation system. □

*David D. Minner is an associate professor in the Department of Horticulture at Iowa State University.*



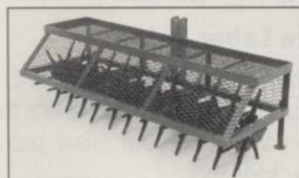
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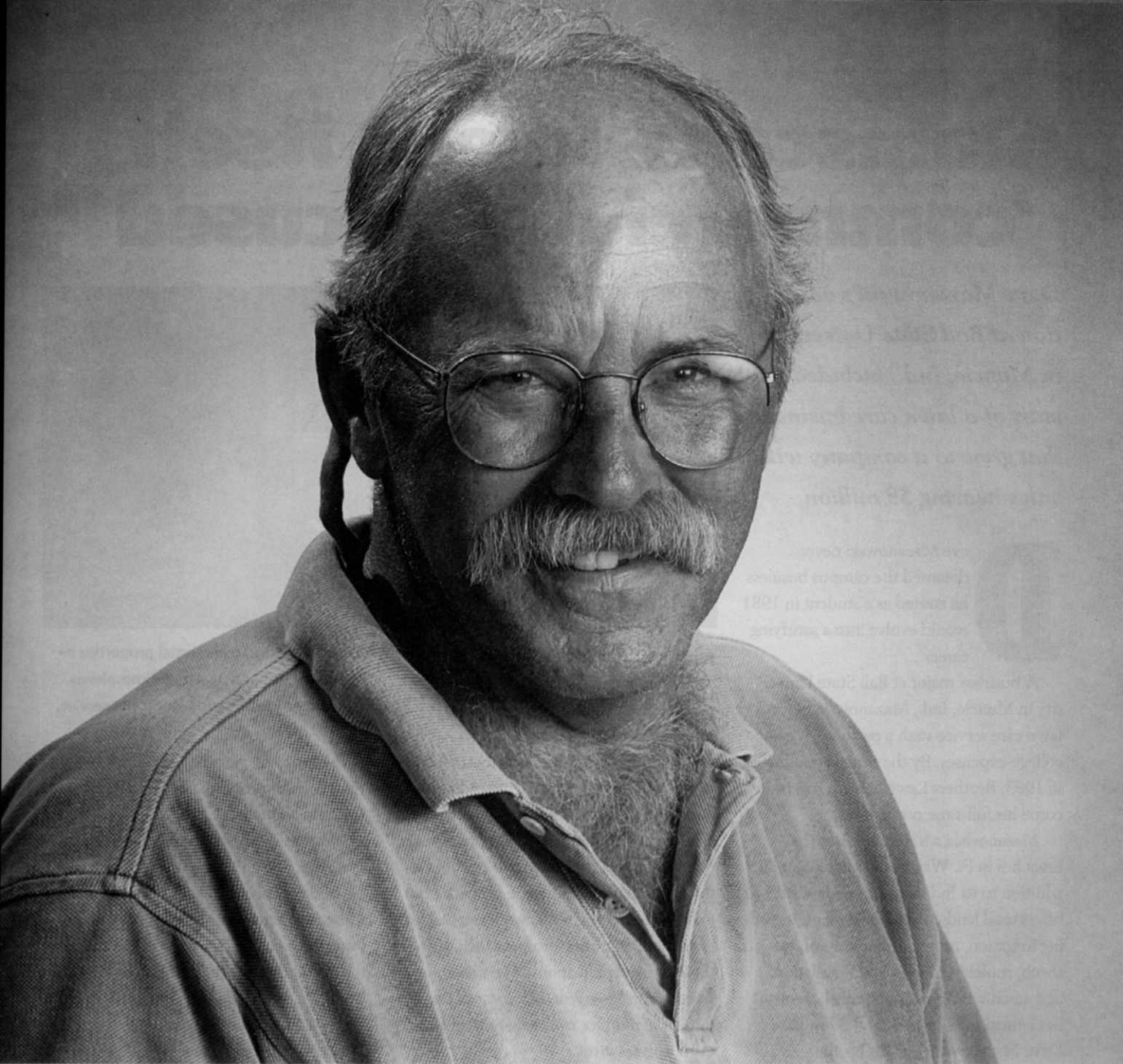
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*Graeme Justice*

Head Gardener and Groundskeeper  
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# Mainscape keeps itself 'commercially' focused

*Dave Mazanowski's education at Ball State University in Muncie, Ind., included the start of a lawn care business that grew to a company with sales nearing \$9 million.*

**D**ave Mazanowski never dreamed the campus business he started as a student in 1981 would evolve into a satisfying career.

A business major at Ball State University in Muncie, Ind., Mazanowski began a lawn care service with a partner to defray college expenses. By the time he graduated in 1983, Brothers Lawn Service had become his full-time occupation.

Mazanowski's Mainscape now has branches in Ft. Wayne and Cincinnati, in addition to its Indianapolis headquarters. It offers total landscape management, including irrigation, mowing, fertilization, tree & shrub, mulching, landscape installation, and aquatic care for commercial clients. It has annual sales of "roughly" \$9 million. Dave Mazanowski and his brother, Zyg-



munt, bought out their other partner in 1992 and recently brought their father into the business.

## **Emphasis on total care**

"We put the emphasis on total maintenance with our customers, instead of focusing on things like mowing where we can't be as competitive," says Mazanowski. "We try to be as full service as possible to the point that we visit some properties on a daily basis, doing whatever is needed on a given day. Our basic program includes three to five applications of fertilizer and weed control per year, but most of our customers sign up for much more than that."

## **Curb appeal vital**

With accounts such as hospitals, banks, industrial parks, schools, and apartment/condo complexes, Mainscape looks to provide "curb appeal" for its customers. Its mulch bed maintenance program is an essential component to this aspect

**Mainscape serves commercial properties including condos and apartment complexes. The company offers total landscape service.**

of the business, generally requiring weekly visits to each property.

## **Quick response**

"In these situations, you want a product that responds quickly, preferably in a couple of days," says Mazanowski. "We had some problems a few years ago with our previous product. We'd spray and the customer would still see green a few days later. We'd get called back to spray it again and it would still be green."

Two years ago, Mazanowski tried Finale herbicide on a limited basis. He was impressed. "Finale gave us a very quick kill. We saw results within 24 hours," he says. Last year, Mainscape used Finale almost exclusively for post-emergence nonselective weed control.

In its attempt to offer more services to its customers, Mainscape has expanded into erosion control. Many of its customers have ponds with eroding banks. Mainscape offers standard rip-wrap stones for restoring pond banks, also a more natural bio-log method. The company's aquatics program, which is growing at 20 percent annually, provides weed control and fountain maintenance.



**Dave Mazanowski, right, owner of Mainscape, a \$9 million lawn care company based in Indianapolis, and Jeff Lefton, director of marketing.**



With 60 full-time employees at Main-scape headquarters and another 120 part-timers added during the season, Mazanowski faces his biggest challenge in labor management. "Development of hourly workers in addition to management level employees is one of my major concerns," he says. "Giving people responsibility and accountability is a challenge that's easier said than done. We will be focusing more and more on labor issues in the next few years."

Though his company has experienced some growing pains since the early years on campus, Mazanowski plans to expand into even more areas in the future. He recently began selling and installing play structures in city parks and private enterprises. "We hope to continue attracting more upscale customers who look to us for quality service," he adds. "Our biggest market is companies who don't have time to take care of their own properties." **LM**

## ALCA Foundation up and running

The Board of Directors for the Associated Landscape Contractors of America (ALCA) approved the formation of the ALCA Educational Foundation as a 501(c)3 organization. Its purpose is to award scholarships and to fund educational programming for the landscape industry.

The board allocated an initial \$25,000 to the Foundation, and expects the amount to reach \$100,000 in the first six months. The goal is \$500,000. A campaign is underway to solicit corporate contributions as well as individual donations.

President of the Foundation is Chris Kujawa, Kujawa Enterprises, Inc.; Vice President is Drew St. John, St. John and Associates; Treasurer, Karen Corcoran, The Benchmark Group; Secretary, Debra Atkins, ALCA; and Director, Steven Glover, L&L Landscape Services.

ALCA also announced a pilot program for both interior and exterior contractors planned for August 21-24 at the Fairmont Hotel, Dallas. The program will focus on the mid-level and foreman-level employee. Also, ALCA CLP and CLT exams will be offered then. Contact Bob Drury at ALCA at (800) 394-2522. □

## PGMS expands membership

Membership in The Professional Grounds Management Society now extends to physical plant administrators and property managers with grounds care responsibilities.

"Increasing inquiries from physical plant administrators and property managers indi-

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cate heightened grounds-related needs of those who are not precisely grounds professionals, but have responsibilities in the grounds area," reports PGMS President, Steve Wharton.

Memberships are available at the regular rate of \$150 per year, and members enjoy full voting rights.

To obtain further information about membership in PGMS, contact the Society, at PGMS, Facilities Pro's, 120 Cockeysville Rd., Suite 104, Hunt Valley, MD 21030; (800) 609-7467. □

## Irrigation Association's site has quick-search

Looking for an IA-certified irrigation specialist in your region? The Irrigation Association's web site [www.irrigation.org](http://www.irrigation.org) offers quick-search referencing by certification type (designer, contractors and/or auditors), and by location.

Another quick-search feature is the membership guide, by member type and state. Your networking capabilities are expanding in the search for industry leaders, distributors, products, practitioners, other irrigation activists in your region affiliated with the Irrigation Association.

Education and certification schedules and sites are now accessible through e-mail addresses, [certification@irrigation.org](mailto:certification@irrigation.org) and [education@irrigation.org](mailto:education@irrigation.org).

Also, you can develop your business skills with a new course entitled The Business of Irrigation Contracting. The focus is financial and personnel management for irrigation contractors. Contact Lori Brown, education manager, at (703) 573-3551. □

## '96 PLCAA operating study ready

PLCAA's 1996 Operating Efficiency Study is a valuable decision-making tool and includes statistical information by region, company size, services provided and tips on using ratios to simplify financial statement information. The study was compiled by Lewis Browning, president of Wall-Bruning Associates, Inc., a small business consulting firm.

"Very few industries have the luxury of a scientifically prepared survey of successful practices upon which they can benchmark their results," says Browning. "The PLCAA Operating Efficiency Study provides you the same results as the Fortune 1000 companies, at a far more reasonable cost."

Also from PLCAA is a new public education brochure—"Water Quality and Your Lawn." This easy-to-read brochure explains how a healthy lawn improves water quality.

The brochure gives preventive turf care tips and is supported by several environmental organizations. Supporting organization logos are prominently displayed on the back of the brochure, lending credibility and name recognition.

"We're very excited about this new brochure and encourage everyone in the industry to distribute it to their customers and in their communities," says PLCAA's Government Affairs Director Tom Delaney.

Special order pricing is available—3 cents a brochure plus shipping and handling. To order either the 1996 Operating Efficiency Study or the "Water Quality and Your Lawn" brochure (or PLCAA's Products Catalog), contact PLCAA at (800) 458-3466/Fax (779) 578-6071/E-Mail [plcaa@atlcom.net](mailto:plcaa@atlcom.net). □

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01 ☐ 250 GOLF COURSES

**CONTRACTORS/SERVICE COMPANIES**

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) \_\_\_\_\_

**INSTITUTIONAL FACILITIES**

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) \_\_\_\_\_

**SUPPLIERS & CONSULTANTS**

22 ☐ 355 Extension Agents/Consultants for Horticulture  
23 ☐ 360 Sod Growers/Turf Seed Growers/Nurseries  
24 ☐ 365 Dealers/Distributors/Formulators/Brokers

25 ☐ 370 Manufacturers  
26 ☐ Other (please specify) \_\_\_\_\_

**2. Which of the following best describes your title? (check ONE only)**

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

**3. SERVICES PERFORMED (Check ALL that apply)**

31 ☐ A Mowing  
32 ☐ B Turf Insect Control  
33 ☐ C Tree Care  
34 ☐ D Turf Aeration  
35 ☐ E Irrigation Services

36 ☐ F Turf Fertilization  
37 ☐ G Turf Disease Control  
38 ☐ H Ornamental Care  
39 ☐ I Landscape/Golf Design  
40 ☐ J Turf Weed Control

41 ☐ K Paving, Deck & Patio Installation  
42 ☐ L Pond/Lake Care  
43 ☐ M Landscape Installation  
44 ☐ N Snow Removal  
45 ☐ O Other (please specify) \_\_\_\_\_

**4a. Do you specify, purchase or influence the selection of landscape products?** ☐ Yes ☐ No

**4b. If yes, check which products you buy or specify: (check ALL that apply)**

46 ☐ 1 Aerators  
47 ☐ 2 Blowers  
48 ☐ 3 Chain Saws  
49 ☐ 4 Chipper-Shredders  
50 ☐ 5 De-icers  
51 ☐ 6 Fertilizers  
52 ☐ 7 Fungicides  
53 ☐ 8 Herbicides  
54 ☐ 9 Insecticides  
55 ☐ 10 Line Trimmers  
56 ☐ 11 Mowers (reel/rotary)  
57 ☐ 12 Snow Removal Equipment  
58 ☐ 13 Sprayers  
59 ☐ 14 Spreaders  
60 ☐ 15 Sweepers  
61 ☐ 16 Tractors  
62 ☐ 17 Truck Trailers/Attachments  
63 ☐ 18 Trucks  
64 ☐ 19 Turfseed  
65 ☐ 20 Utility Vehicles

**5. Do you have a modem?** ☐ Yes ☐ No

**6. Do you subscribe to an on-line service?** ☐ Yes ☐ No

**7. Is CD-ROM available in your workplace?** ☐ Yes ☐ No

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



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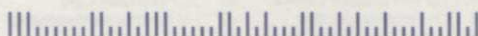
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**March 1997**

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07 ☐ 280 Land Reclamation and Erosion Control  
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Developments/Hotels/Resorts  
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Purchasing Agent, Director of Physical Plant  
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29 ☐ 30 **Government Official**- Government Commissioner, Agent, Other Government Official  
30 ☐ 40 **Specialist**- Forester, Consultant, Agronomist, Pilot, Instructor, Researcher, Horticulturist, Certified Specialist  
31 ☐ Other Titled and Non-Titled personnel (please specify) \_\_\_\_\_

**3. SERVICES PERFORMED (Check ALL that apply)**

- |   |   |   |
|---|---|---|
| 31 <input type="checkbox"/> A Mowing              | 36 <input type="checkbox"/> F Turf Fertilization    | 41 <input type="checkbox"/> K Paving, Deck & Patio Installation |
| 32 <input type="checkbox"/> B Turf Insect Control | 37 <input type="checkbox"/> G Turf Disease Control  | 42 <input type="checkbox"/> L Pond/Lake Care                    |
| 33 <input type="checkbox"/> C Tree Care           | 38 <input type="checkbox"/> H Ornamental Care       | 43 <input type="checkbox"/> M Landscape Installation            |
| 34 <input type="checkbox"/> D Turf Aeration       | 39 <input type="checkbox"/> I Landscape/Golf Design | 44 <input type="checkbox"/> N Snow Removal                      |
| 35 <input type="checkbox"/> E Irrigation Services | 40 <input type="checkbox"/> J Turf Weed Control     | 45 <input type="checkbox"/> O Other (please specify) _____      |

**4a. Do you specify, purchase or influence the selection of landscape products?** ☐ Yes ☐ No

**4b. If yes, check which products you buy or specify: (check ALL that apply)**

- |   |   |
|---|---|
| 46 <input type="checkbox"/> 1 Aerators          | 56 <input type="checkbox"/> 11 Mowers (reel/rotary)       |
| 47 <input type="checkbox"/> 2 Blowers           | 57 <input type="checkbox"/> 12 Snow Removal Equipment     |
| 48 <input type="checkbox"/> 3 Chain Saws        | 58 <input type="checkbox"/> 13 Sprayers                   |
| 49 <input type="checkbox"/> 4 Chipper-Shredders | 59 <input type="checkbox"/> 14 Spreaders                  |
| 50 <input type="checkbox"/> 5 De-icers          | 60 <input type="checkbox"/> 15 Sweepers                   |
| 51 <input type="checkbox"/> 6 Fertilizers       | 61 <input type="checkbox"/> 16 Tractors                   |
| 52 <input type="checkbox"/> 7 Fungicides        | 62 <input type="checkbox"/> 17 Truck Trailers/Attachments |
| 53 <input type="checkbox"/> 8 Herbicides        | 63 <input type="checkbox"/> 18 Trucks                     |
| 54 <input type="checkbox"/> 9 Insecticides      | 64 <input type="checkbox"/> 19 Turfseed                   |
| 55 <input type="checkbox"/> 10 Line Trimmers    | 65 <input type="checkbox"/> 20 Utility Vehicles           |

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## Bayer Specialty Products

has changed its name to **Bayer Garden & Professional Care**, and now acts as a separate worldwide business unit. The business focuses on professional pest control, lawn care, arbor and golf course markets and the formulator market. Instead of doing business in these markets on a country-by-country basis, the company reports, it will now coordinate its efforts internationally. "Any and all of Bayer's international resources will be used to improve our work in this market," says Trevor Thorley, director of Garden & Professional Care.

"We want to give our customers the best possible products for the needs they have now and in the future," says Rick Robb, manager of mar-

keting services for the Garden & Professional Care Unit. "In the past, there was a lot of overlap in research and formulations development. Now, we'll be working together more efficiently."

Elin D. Miller, director of government and public affairs for **DowElanco**, is the former director of the California Department of Conservation. Miller is a native of Arizona, and received her bachelor of science degree in agronomy and plant protection from the University of Arizona, where she was named an outstanding woman graduate. She reports to A. Charles Fischer, vice president of DowElanco North America.

Dan Teich is new president of **Ransomes America Corpo-**

**ration**, and manages operations at the company's manufacturing facilities in Lincoln, Neb.; Johnson Creek, Wisc.; and Edgewater, Fla. Teich has served with General Electric, Monarch Marketing Systems and Nashua Label Products. He is based in Lincoln.

**Hunter Industries'** top distributors for 1996 include Atlantic Specialties, Holly Hill, FL; Automatic Rain Company, Menlo Park, CA; and Boston Irrigation Supply, Dedham, MA.

**Husqvarna Forest & Garden Co.** has named Don Roop director of special markets. Roop develops business for Husqvarna and its power equipment retailers within special high-growth areas, including government and commercial user markets.

Roop also manages Husqvarna's distributor relations.

**Lesco, Inc.**, Cleveland, will be the primary supplier of professional turf fertilizers and grass seed to golf courses managed by Golfturf worldwide. The following are a few of Golfturf's clients: Muirfield Village Golf Club, Dublin, Ohio; Colleton River Plantation in Hilton Head, SC; English Turn in New Orleans; Kauai Lagoons Resort in Kauai, Hawaii. In a related matter, in 1996 Lesco opened a new store format called the Lesco Superstore, directed primarily to the golf course market. Superstores operate in Myrtle Beach, Hilton Head and Pinehurst.

**Lofts Seed Inc.**, awarded academic scholarships to 14 students at Rutgers University. Dr. Richard Hurley, vice president of Lofts Seed, Inc., presented the scholarships to: Stacy Ann Bonon; Scott Fretz; Gary Gentilucci; Wendy Hill; Michael A. Holtman; Joshua A. Honig; Christine Kubik; Pradip R. Majumdar; Christina Miller; Shawn T. O'Sullivan; Pedro Perdomo; Margaret E. Secks; Saulius Vaiciunas and Yi Wang. Since 1983 the Peter Selmer Loft Fund has awarded over 100 scholarships to students studying turfgrass science at Cook College. In related news, Lofts presented a check for \$14,272 to James Snow, national director of the **United States Golf Association**. The annual donation to the USGA is based upon a royalty agreement for the release and marketing of Ram I Kentucky Bluegrass, which Lofts and **Jacklin Seed** co-market. **LM**

# Info center

## VIDEOS AND LITERATURE FOR THE GREEN INDUSTRY

**PLCAA's NEW PRODUCT CATALOG**...offers lawn and landscape pros new items and best-sellers in user-friendly sections. New items include a Containment System Design guidebook by Fredric R. Haskett. This guidebook shows how to design and construct an affordable and safe facility for storing, handling, mixing and recycling pesticides, fertilizers and other chemicals. Another featured item is PLCAA's new consumer brochure "Water Quality and Your Lawn." Some of the most popular items in the catalog are the management publications by Phil Nilsson, a green industry consultant with over 20 years experience. For a free copy of PLCAA's Products Catalog, phone (800) 458-3466; fax, (770) 578-6071; E-Mail, [plcaa@atlcom.net](mailto:plcaa@atlcom.net).

**THE BALL PEST & DISEASE MANUEL**...2nd edition is handy for producers of floriculture crops, commercial nurseries, pest control operators and professional scouts. Authors are Charles C. Powell, Ph.D., and Richard K. Lindquist, Ph.D. It's available from Grower Talks Bookshelf, 335 N. River St., P.O. Box 9, Batavia, IL 60510. Phone 1-888/888-0013; fax, 1-888/888-0014; e-mail, [Growertalk@aol.com](mailto:Growertalk@aol.com) or [gtalks@xnet.com](mailto:gtalks@xnet.com); web site is <http://www.growertalks.com>.

**THE INTERNATIONAL SOCIETY of ARBORICULTURE'S**...fall 1996 catalog can be obtained by contacting the Society at P.O. Box GG, Savoy, IL 61874-9902. Phone 217/355-9411; fax, 217/355-9516; e-mail, [isa@scorpion.ag.uiuc.edu](mailto:isa@scorpion.ag.uiuc.edu); web page, <http://www.ag.uiuc.edu/~isa/>



These questions came straight from the customers of lawn care operators, pest control operators and other professional pesticide applicators across the country—and probably reflect the concerns of your customers. The more your customers know about the products you use, how you use them and how much is used, the more confident they will be in you and your service.

## Communicate With Your Customers

Your customers expect you and your employees to be credible and knowledgeable sources of information about your products. Take time to talk with them about your safe and responsible use of pesticides.

Studies show that most people don't know that pesticide products are among the most highly tested products sold. The U.S. Environmental Protection Agency (EPA) registers only those uses of pesticide products that pose minimal risks.

- Emphasize that pesticide products must undergo stringent government-monitored testing before they can be sold. It is a long and costly process. For example:
  - It takes a chemical manufacturer eight to 10 years to test and register a product, at an average cost of \$30 million to \$50 million.
  - As many as 120 tests or more are performed, many specific to health, safety and the environment.
  - Only one potential pesticide in 20,000 makes it from the research lab to the market.
- Explain Integrated Pest Management (IPM) to your customers. Most do not fully understand the concept. Point out that a successful IPM program stresses prevention, pest identification and selection of the best method of pest control, which may require the use of pesticides. Tell how you incorporate IPM into your pest management practices.
- Identify the specific pesticides you use and the pests they control.
- Indicate that professionals use an array of products, many the same as those used by homeowners.
- Assure customers of the benefits pesticides provide for turf, trees and ornamentals, and in the home. For example:
  - Termites cause over \$1 billion in structural damage each year.

*"Are the pesticides you use safe?"*

*"Are the pesticides that professionals use stronger and more toxic?"*

*"When is it safe for my children and pets to return to an area after a pesticide application?"*



- One large, pest- and disease-free tree has the same cooling effect as 15 room-size air conditioners.

- A well-maintained lawn and landscape adds as much as 15 percent to a home's value.

- Discuss your safe and responsible use of pesticides as a professional applicator. Note the many steps you take to ensure that the pesticides you use are used properly.
- Advise your customers that you closely follow label instructions. The label contains instructions for only those uses approved by EPA.
- Outline the extensive training that is mandatory for professional applicators in order to apply specialty pesticides. Applicators are required by law to undergo training, certification and licensing, as well as to keep records of each job performed.

- Explain what happens to pesticide containers once a job has been completed. Note that containers are disposed of properly.

## What Else Can You Do?

Provide your customers with materials such as newsletters, brochures, fact sheets and bill stuffers that communicate these messages. Be sure that someone at your company, who has a basic knowledge of the products and application methods your company uses, is available to answer questions.

## RISE Is A Resource

RISE is the voice for the specialty pesticide industry. Its members include manufacturers, formulators, distributors and other industry leaders.

RISE works in cooperation with your national, state and local user/applicator associations and is an additional source of information regarding issues facing pesticide users. We can help you in your role as a knowledgeable and credible information source to customers and to the public. A brochure on communicating about pesticides with your customers is available. Contact RISE to receive your copy.

We urge you to take an active part in your state and national association(s). We work together to support your business.



Responsible Industry for a Sound Environment®

For more information, contact RISE, 1156 15th St., NW, Suite 400, Washington, DC 20005, or call 202/872-3860. Our Internet address: <http://www.acpa.org/riase>.





### Verti-Drain's new units can speed aeration

Verti-Drain's two new machines help turf professionals treat compacted areas quickly and efficiently during peak usage periods.

The high-speed 7212 and 7316 models both provide capacity increases up to 70 percent, enabling users to treat more ground in less time. The primary difference between the machines is that the 7316 has a greater working width and depth. To increase speed, the weight of the equipments' moving parts has been decreased, making the products lighter to handle. A lower hp tractor may be used with them. They are capable of coring and solid tining, as well as using the company's new needle tines which create less surface disruption.

For more information contact Emrex, Inc., at (717) 288-9360, or

Circle No. 290

### Emergency access lanes support heavy vehicles

Emergency vehicle access is an important element of commercial landscape design, says Presto Products of Appleton, Wisc. For that reason, the company now markets the Geoblock porous pavement system, for turf emergency access lanes.

The pavement system blends with the surrounding landscape and handles the most demanding load support requirements, while allowing the turf to continue to thrive.

The Geoblock system is an inert, durable polyethylene unit. It will not absorb moisture, says Presto, and is not effected by freeze/thaw cycles.

The Geoblock system is made of interlocking, high-strength blocks, which act as a flexible "bridge" within the top soil layer. The bridge provides maximum load transfer from block to block, flexing under loads that would break concrete.

For more information, call (800) 548-3424, and tell them you saw their message in LANDSCAPE MANAGEMENT, or

Circle No. 291



### John Deere walk-behind versatile

The GS-30 is the newest member of the John Deere GS series of commercial walk-behind mowers. Equipped with a 5-speed gear transmission, it's powered by a Kohler Command 13-hp, Pro Series engine.

It can be paired with a 48-inch or a new 36-inch mower deck. The 36-inch mower deck features two-spindle, timed blades for superior cut quality, a larger discharge opening and new discharge chute for better grass clipping distribution, .75- to 4.5-inch cutting height range, and a fixed, deep-deck design.

The GS-30 also features electric PTO and padded operator presence levers, and is certified to ANSI safety standards. It can take on a variety of jobs with John Deere attachments like the 3.5-bushel, side-mounted Grass Catcher; two-wheel fixed sully; two-wheel steerable sully; or a 36-inch Tricycler Mulching attachment.

Contact John Deere Inquiry Department, P.O. Box 12795, Research Triangle Park, NC 27709-2795, or

Circle No. 292



## Treat trees for diseases, insects

Abasol is a newly-registered fungicide from J.J. Mauget Company that the company lets landscape contractors systemically treat trees for both diseases and insects at once. The low-exposure, micro-injected product places long-lasting Abamectin insecticide and Fungisol fungicide in the tree's vascular system. Debacarb, the active ingredient in Fungisol, is highly effective against *Fusarium* and *Verticillium* wilts, *Ceratocystis* and *Cytospora* cankers, and anthracnose of sycamore and ash. Mauget also reports the product provides season-long control of a wide variety of insects, including spider mites, leaf miners, elm leaf beetle, fall webworm and the ycamore lace bug. For more information, call (818) 444-1057 and tell them you saw it in LM, or

Circle No. 293



## Stop spills before they happen with this product

Ultra-SpillDeck P1 features a hidden containment bladder which automatically unfurls to capture large spills or drum leaks. Bladder is housed inside the Bladder attachment which is connected to the SpillDeck with a bulkhead fitting. Total capacity 66 gallons. Meets EPA and Uniform Fire Code Spill Containment Regulations. Compact 26X30-inch footprint. Call UltraTech International, Inc., at 1-800-353-1611 or (904) 292-1611 and tell them LM informed you, or

Circle No. 294

## Arched ramps for easy equipment loading

The Ramp Master offers arched ramps for safe and easy loading of low-riding lawn mowers and other turf care equipment.

The ramps are curved to lift the back end of vehicles for a smooth ride into pickups. Load capacity is 2,000 lbs., yet the ramps weigh only 39 lbs.

Safety cables prevent you from flipping over while loading and unloading. Grooved cross-bars and raised side rails provide added traction and extra security.

The ramps are durable, and made of a non-corroding aluminum alloy. They will last for generations, says Ramp Master.

Ramps are 12-inches wide and 78-inches long, and are available for \$168.95, including shipping. For more information, call (800) 231-8999 and tell them you saw the message in LM, or

Circle No. 295



## Spray boom shield eliminates drift

Spraying Devices, Inc., of Visalia, Calif., now offers the "Drift Eliminator" shielded spray boom for what the company calls, "drift-free spraying in windy conditions."

The boom is 16½ feet long, with replaceable 20-foot poly hood sections, drip-free nozzle bodies with extended range stainless steel spray tips. All three boom sections ride on large turf tires and follow the ground contour to maintain perfect spray height. Optional electric lift actuators raise and lower the wing sections from travel to spray positions.

SDI also makes hydraulic power systems for its 100- to 500-gallon trailer models of the Turf n' Tree line of sprayers.

For more information, call SDI at (209) 734-5555 and say you heard about it in LANDSCAPE MANAGEMENT, or

Circle No. 296



## Husqvarna's new 288XP is lighter

Husqvarna Forest & Garden offers the 288XP chain saw for professional users. It's a lighter weight version of the powerful Husqvarna 288XP. Responsible for the weight re-



duction are a low profile top cover, compact front anti-vibration system and light weight clutch. Call (704) 597-5000 to inquire about the 288XP. Tell them you read about it in LM, or

Circle No. 297

## Store pesticides behind self-latching doors

Cabinets for storage of pesticides and flammable liquids, with self-latching doors and English/Spanish caution messages are available from Protectoseal.

These cabinets feature a liquid-tight bottom well with an optional polyethylene tray to contain spills. Three sizes are offered, to hold up to 12, 30 or 45 gallons. All cabinets have adjustable shelves for easy storage of various shaped containers.

The cabinets are made from 18 gauge steel, using a "Z" bar, reinforced double wall construction, with 1½ inches of air space between the inner and outer walls.

A continuous door hinge is built in for maximum reliability, four leveling feet—to prevent wobble—and a spark-proof/tamper-proof three-point closure with a lock.

For more information, call (800) 323-2268 and tell them you read about it in LM, or

Circle No. 298

## Low-smoke oils stabilize fuel, reduce carbon

Endurolube lubricants, now available from Commercial Landscape Supply, Irvine, Calif., include 2-cycle and bar and chain oil. These lubricants are reported to be low-smoke oils that contain fuel stabilizers, and help reduce carbon in engines.

Endurolube is a 50:1 ratio mix formula, and is available by the case, in the 2.6 oz. and 12.8 oz. bottle size, or one-gallon, 5-gallon or 55-gallon drum sizes.

Endurolub received the dural top quality rating (EGD/FC), as issued by the International Organization of Standardization and the Japanese Automobile Standards Organization, which the company says ensure that a warranty will not be voided based on quality of 2-cycle oil.

For more information on this new lubricant, call Commercial Landscape Supply, Inc. at (800) 635-8686 and tell them you read about this product in LANDSCAPE MANAGEMENT, or

Circle No. 299

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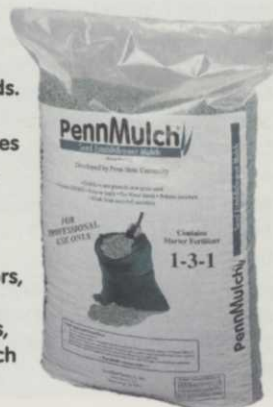
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Photo courtesy of D. Read

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**BRANCH SALES MANAGER** National Lawn Equipment, Parts & Accessories Supplier expanding into the Northeast, Mid Atlantic and Southeast. Need articulate individual with retail management experience. Computer literate. Several markets available. Send resume with salary history & requirements to: **Landscapers Supply, P.O. Box 459, Spring Valley, NY 10977-0459.** 8/97

**Great Opportunity - Operations Manager.** Showcase Landscape, a leader in Minneapolis, St. Paul has a great opportunity for the position of Operations Manager. The qualified applicant should have good organization skills, and a solid background in Grounds Management. Responsibilities include: Grounds Maintenance, Landscape, Irrigation, and Snowplowing. Solid support staff and sales staff already in place. We need a leader who is committed to customer satisfaction and is able to actively find ways to lower costs. Please send resume and salary requirements to **Showcase Landscape 7086 Quantico Lane, Maple Grove, MN 55311, or call Steve st (612)425-5296.** 3/97

**NORTHWESTERN LANDSCAPE COMPANY** The Northwest's fastest growing commercial landscape and maintenance organization. 15+ years of continuous growth. We are currently looking to fill key management and supervisory positions. Must be committed to integrity, professionalism, the pursuit of industry excellence and have a desire to make a difference in a growing company. Company vision and mission statement will be provided upon request. Excellent pay and benefits. 401K- profit sharing. Send or fax resume (Attn: President) to (206)848-8187 P.O. Box 1118, Puyallup, WA 98371. 3/97

**FRANCHISE SUPPORT** Join Illinois based leader in lawn and tree care franchising since 1977. Spring-Green seeks individual with green industry background to train and support franchise owners in the use of our marketing and operating systems. Qualified candidate must have college degree, be self-motivated and people-oriented. Excellent compensation package includes company car, medical, life, 401K and bonus opportunities. Fax resume to: Franchise Support 815-436-9056. 3/97

**FLORAPERSONNEL, INC.** In our second decade of performing confidential key employee searches for the landscape/horticulture industry and allied trades worldwide. Retained basis only. Candidate contact welcome, confidential, and always free. 1740 Lake Markham Road, Sanford, FL 32771. PHONE (407)320-8177. FAX (407)320-8083. 12/97

**HELP WANTED RELOCATE TO PORTLAND, OREGON** and join our growing, full service landscape business dedicated to quality since 1964. Experienced arborists, applicators, construction and maintenance crew leaders desiring to join our team should contact our office below. Drug testing, drivers license and good driving record are required. Tree Care Unlimited, Inc., PO Box 1566, 5600 SW Rosewood St., Lake Oswego, OR 97035, 503-635-3165 (office), 503-635-1549 (fax). 4/97

### LANDSCAPE MAINTENANCE SALESPERSON

Well established full service company in the Washington D.C. area seeks highly motivated, well organized person to join our team. The right individual must have a minimum of three years experience in the industry with a strong track record in sales, a horticultural degree a plus. Excellent compensation, benefits, opportunities and reasonable hours. Please mail or fax resume to **Professional Grounds, Inc., P.O. Box 1454, Newington, VA 22079; fax (703)339-0600.** 3/97

### LANDSCAPE DESIGN/ESTIMATING POSITION-

Estimating, design and limited on-site supervision of commercial, industrial and municipal L/S construction projects. Must have minimum (5) yrs. exp., competitive salary based on experience, benefit package and paid vacation. Company based in Bristol, PA. Send resume to **S.L.I., 2076 County Line Rd.-#239, Huntingdon Valley, PA 19006.** 3/97



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**BUCKET TRUCK:** Hi Ranger 65', 57', 50'. Sky-workers with chip boxes. Asplundh brush chippers. Bean 55 gal. sprayers. Pete Mainka Enterprises, 633 Cecilia Drive, Pewaukee, WI 53072. 800-597-8283. 12/97

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## LANDSCAPE management

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Denise Zappola, **LANDSCAPE MANAGEMENT**,  
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For more information call: 1-800-225-4569 or  
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(Please include box  
number in address)



# Grab Bag

## Nicklaus: common golf ball would help designers

With the really big hitters on the professional golf tour like John Daly and Tiger Woods, some of the longer holes don't play so long anymore. Golfer Jack Nicklaus again suggested that the pros be required to use a standardized golf ball that doesn't travel as far. He said the big hitters are causing designers to de-



sign ever longer courses and more and more tee boxes. This isn't necessarily good for club or recreational golfers, said Nicklaus, wearing the plaid jacket of the American Society of Golf Course Architects at the GCSAA Conference in February.

## Ever-green grass?

Sometimes, new discoveries turn up in nature itself. Scientists at the Institute of Grassland and Environmental Research at Aberystwyth, Wales, report in "New Scientist" magazine that they had found the key to keeping grass green.

Seems they found a strain of meadow fescue grass that stayed green when surrounding grass turned yellow from drought. They discovered that the green grass was a natural mutant which lacks the enzyme that breaks down chlorophyll. Plant breeders at the institute have been able to transfer the characteristic to other grasses.

The scientists believe it could help reduce costs for maintaining golf courses, parks and sports fields, and perhaps even help farmers produce higher protein forage for livestock.



## 'They're decoys, ma'am'

When Tom Sprague, grounds superintendent, put the goose decoys into the pond here at Advanstar Communications headquarters this past fall, he didn't expect some of the phone calls he's been getting.

You see, the necks of the decoys have been twisted so that the decoys look like dead Canada geese. The idea is to scare away the real Canada geese that make a mess here at the Landscape Management offices just southwest of Cleveland.

Tom says the decoys worked pretty good this past fall and winter, but the pond froze early and he couldn't retrieve them. By mid winter six people had telephoned Tom to complain about the "dead" geese in the pond. As spring approached, the number of calls grew.

"Usually it's a mother who has driven by with their little son or daughter, and the kid got upset," says Tom. "I explain to them that they're really only decoys, and they're there to keep the real geese away."

## Plant any *Gunnera tinctoria*, lately?

The *New York Times* reports a growing interest in 'weird and exotic' plants in home gardens. Horticulturists from Chicago, Denver, North Carolina, Massachusetts, and elsewhere are visiting China, Siberia and other far-flung locales to bring back exotic ferns, salvia, oaks, ice plants, fuchsias and other plants, all suited to particular American climates.

"Weird is in," says garden writer/photographer, Ken Druse.

Grab Bag features brief observations and prognostications throughout the green industry. If you have an unusual photo or comment you'd like to share with us, please send it in...



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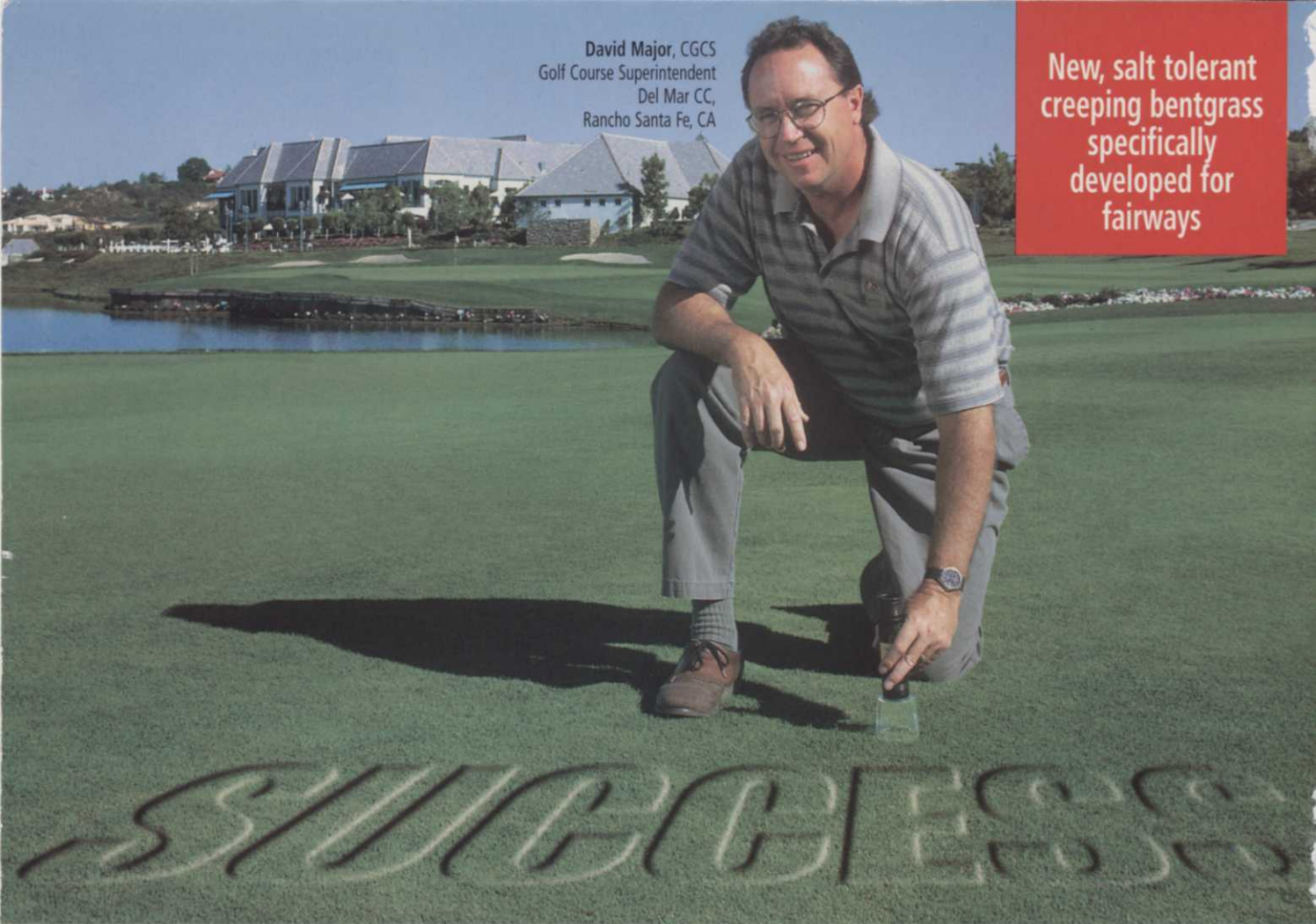
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*Ninth hole, Del Mar CC; Joe Lee, architect*

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