

SEPTEMBER 1995 • \$4.00

# LANDSCAPE MANAGEMENT

EASY-TO-USE

**CONTROL  
PRODUCTS**

**ALSO:**

Plants for wet ground • Street tree ratings • Athletic field products

AN ADVANSTAR PUBLICATION

From Tee-2-Green

# Penn Pals Profile:

A portfolio of creeping bentgrasses perfect for your plans... from the world's foremost marketer

Scientific name:	Growth habit:	Shade tolerance:	Heat tolerance:	Cold tolerance:	Traffic and wear tolerance:	Seeding rate, greens:	Seeding rate, fairways:
<i>Agrostis stolonifera</i>	Spread by aggressive stolons	Fair	Good	Excellent	Very good	1 to 1 1/2 lbs. per 1000 sq. ft.	Up to 50 lbs. per acre

## Penncross

For tees and greens

The standard for creeping bentgrasses since 1955 and still the most specified bentgrass for golf courses. Recovers quickly from injury and divots. Good heat and wear tolerance. First choice of golf course architects and superintendents.

A few fine courses with Penncross greens:

- PGA West Stadium Course
- The Vintage Club
- Troon North Golf Club
- Wolf Run Golf Club
- Eagle Crest Golf Course
- Kananaskis Country Golf course



## Penneagle

For fairways

The top performing fairway bentgrass. Germinates quickly. Upright, dense growth habit helps crowd out poa annua. Salt tolerant.

A few courses with Penneagle fairways:

- Oakmont Country Club
- Butler National Golf Club
- Pumpkin Ridge Golf Club
- The Merit Club
- Inverness Club (Toledo)
- DesMoines Country Club



## PennLinks

For new greens, green renovation and overseeding

The new standard for putting greens. Upright, dense growth for true putting. Fine texture and heat tolerant.

A few fine courses with PennLinks greens:

- Wilmington Country Club
- Inverness Club (Toledo)
- SandPines Resort
- Prairie Dunes Golf Club
- Baltimore Country Club
- Wild Wing Plantation



## PennWay Blend

For fairways and winter overseeding greens

Economical fairway and winter overseeding blend of Penncross, Penneagle and 50% quality creeping bentgrass. Certified PennWay contains Penncross, PennLinks and 70% Penneagle for genetically diversity meeting certification standards.

A few courses featuring PennWay:

- Wakonda Club
- Carlton Oaks Country Club
- Riverwood Golf Club (winter overseeded greens)



## PennTrio Blend

For tees, fairways, greens, and winter overseeding

Certified creeping bentgrass blend with 1/3 each Penncross, Penneagle and PennLinks. All the attributes of a blend with ready-to-seed convenience.

The increasingly popular blend for all around the course, from the world leader and foremost marketer of creeping bentgrasses.



For more information, call or fax: Tee-2-Green Corp., 1-800-547-0255 / FAX 503-651-2351

Circle No. 122 on Reader Inquiry Card

## LANDSCAPE MANAGEMENT

is a proud member of these  
green industry professional  
organizations:



Associated Landscape Contractors of America,  
12200 Sunrise Valley Dr., Suite 150, Reston,  
VA; (703) 620-6363.

American Association of Nurserymen (National  
Landscape Association), 1250 I St. NW, Suite  
500, Washington, DC 20005; (202) 789-2900.

Golf Course Superintendents Association of  
America, 1421 Research Park Dr., Lawrence, KS  
66049-3859; (913) 841-2240.

International Society of Arboriculture, P.O. Box  
908, Urbana, IL 61801; (217) 328-2032.

International Turfgrass Society, Crop & Soil  
Environmental Sciences, VPI-SU, Blacksburg, VA  
24061-0403; (703) 231-9796.



National Arborist Association, The Meeting  
Place Mall, P.O. Box 1094, Amherst, NH 03031-  
1094; (603) 673-3311.

National Golf Foundation, 1150 South U.S.  
Highway One, Jupiter, FL 33477; (407) 744-  
6006.

Ohio Turfgrass Foundation, 2021 Coffey Rd.,  
Columbus, OH 43210; (614) 292-2601.



Professional Grounds Management Society, 120  
Cockeysville Rd., Suite 104, Hunt Valley, MD  
21031; (410) 584-9754.



Professional Lawn Care Association of America,  
1000 Johnson Ferry Rd., NE, Suite C-135,  
Marietta, GA 30068-2112; (404) 977-5222.

Responsible Industry for a Sound Environment,  
1155 15th St. NW, Suite 900, Washington, D.C.  
20005; (202) 872-3860.



Sports Turf Managers Association, 401 N.  
Michigan Ave., Chicago, IL 60611-4267; (312)  
644-6610.

Turf and Ornamental Communicators Associa-  
tion, 421 West Travelers Trail, Burnsville, MN  
55337; (612) 894-2414.

## AS WE SEE IT

JERRY ROCHE, EDITOR-IN-CHIEF



## And good riddance, affirmative action?

Ward Connerly, according to an article in *Newsweek* magazine earlier this year, doesn't want to be defined as an affirmative action businessman, despite the fact that the black Californian half-owns a land-use consulting company.

"I want to be judged by the quality of my work," he told *Newsweek*.

An admirable attitude, to be sure. But, unfortunately, racial bigotry still exists in certain pockets of this country. And that's what has helped affirmative action proliferate for the last quarter-century.

The state of California will put the issue to a vote next year: Is it good and just to continue affirmative action, which has confounded many a small businessman and government contractor for 25 years? Or is it an exercise in futility?

When the Supreme Court heard *Adarand Constructors v. Peña* in June, the only clear message sent by its 5-4 decision was that racial preferences are rarely acceptable.

The once-noble idea of affirmative action, like a lot of federal legislation, has been radically abused. It has also mutated. Originally meant to assist African-Americans, the victims of 200 years of victimization and oppression in this country, its interpretation has since widened.

Now included as "protected classes" by the government are women, Hispanics, Orientals, Iranians and virtually every other minority in this country. In four cities (Minneapolis, Seattle, San Francisco and Santa Cruz, Calif.), transsexuals are even protected by affirmative action rules.

Affirmative action has led, over time, to many contractors—especially those who deal with government entities—adjusting their business practices to take advantage of the government. For instance, one contractor appointed his sister president of the company while he assumed the role of vice-president. That way, the company

qualifies as "disadvantaged" or "protected." Frankly, there's nothing wrong with this approach; it's simply a smart businessman doing some creative thinking—and a lot of people are doing it.

It's no secret, then, that our government has overcompensated. Its policies, as one pundit notes, "in the name of equality, leapfrog the less qualified over the better qualified."

Almost universally—even among minorities like Connerly—affirmative action is seen as wrong:

"So long as we continue to count by race, ethnicity and gender, and to distribute benefits and preferences accordingly, civil rights will be a hollow and corrupt substitute for equal opportunity." (Linda Chavez, writing in *Forbes* magazine)

"Many minorities and females have no definitive way to know whether, or to what extent, they got where they are by their own efforts. By and large, group quotas stigmatize even legitimate achievements." (Dr. Thomas Sowell, a black, writing in *Forbes*)

That government is now taking a closer look at affirmative action is a step in the right direction. Only time will tell, however, whether our elected political leaders have the social wisdom to—at the very least—amend the tenets of affirmative action.

As black jazz pianist Duke Ellington once said, all he ever wanted was the chance to command, rather than demand, respect. Would that it were so.

*Jerry Roche*

# LANDSCAPE MANAGEMENT

SEPTEMBER 1995 VOL. 34, NO. 9

## COVER STORY

### 8 Easy-to-use control products

Once considered only for the amount of product they contained, packages for turf and ornamental chemicals are now more environmentally- and user-friendly.

*Jerry Roche*

## FEATURES

### 12 LM Reports: Athletic field extras

After turf maintenance come field painting and other grooming chores for the final pre-game prep.

*Terry McIver*

### 14 Safe tree felling

The 'open notch and bore' method is a safer, more productive way to bring down the big trees.

*Tim Ard*

### 15 Plants that love wet ground

Proper selection is the key to long life of moisture-loving plants, no matter what other cultural conditions exist.

*Maureen Gilmer*

## GOLF & ATHLETIC TURF

### 5G Is a redesign in your future?

Is your course fair—and fun—to play? Player complaints and marathon rounds might be signs a redesign is needed.



### 8G Compost plan pays off

Northern Michigan golf resort's goal is to be 100 percent zero discharge.

*Ron Hall*

### 10G Keeping workers productive

'Good clean fun' is the way to go, says this superintendent of a course where summer days run to sub-tropical weather.

*Jerry Roche*

### 12G Athletic field balancing act

With lots to do in little time, these sports turf managers keep the turf healthy despite many extra-curricular field activities.

*Steve and Suz Trusty*

### 14G Diseases and the gridiron

Pro football is back, and with practice sessions comes all-pro turf stress. Vince Patterozzi of the Cleveland Browns fights disease pressure with control products and zoysia.

*Ron Hall*

## TECH CENTER

### 20 Micronutrients

A review of the 16 elements required for healthy plant growth and reproduction.

### 22 Treating for soil contamination

Pesticide spills, battery acid, oil and gasoline leaks can be cleaned up with specially-treated phosphate rocks.

*James E. Guyette*

### 26 Plants that thrive in shady spots

A wide variety of herbaceous plants are ideal for customers with shaded areas.

### 27 Specially-adapted plants

Beyond shade tolerance, various sources report on certain turfgrass and plant varieties that are better adapted to wet and dry areas.



## HOT TOPICS

### 30 Landscaping Rock Hall of Fame

The hot August dog days and the building design were a challenge for Phil Cavotta and his crew as they landscape the grounds around the 2.5-acre attraction.

*Jerry Roche*

### 32 Tick alert II

Here comes a new tick-borne illness. HGE symptoms are more severe than Lyme disease, and they appear sooner.

## DEPARTMENTS

**1 As We See It...**  
**6 Ask the Expert**  
**34 Events**  
**36 Info Center**

**36 Suppliers Corner**  
**38 Product Review**  
**34 Ad Index**  
**35 Classified**

*Cover photo by John Quinn.*

## READER ADVISORY PANEL

**Joe Alonzi**  
*Westchester Country Club*  
*Rye, N.Y.*

**Rod Bailey**  
*Evergreen Services*  
*Bellevue, Wash.*

**Alan Culver**  
*Mahoney Golf Course*  
*Lincoln, Neb.*

**Charlie Racusin**  
*Environmental Ldsc. Services*  
*Houston, Tex.*

**Jack Robertson**  
*Robertson Lawn Care*  
*Springfield, Ill.*

**Steve Wightman**  
*Jack Murphy Stadium*  
*San Diego, Calif.*

# LANDSCAPE MANAGEMENT

### EDITORIAL STAFF—Fax: (216) 891-2675

**JERRY ROCHE**, Editor-in-Chief: (216) 826-2830

**TERRY McIVER**, Managing Editor: (216) 891-2709

**RON HALL**, Senior Editor: (216) 891-2636

**LISA BODNAR**, Graphic Designer: (216) 891-3101

**MAUREEN HREHOICK**, Group Editor: (216) 826-2829

**LISA LEHMAN**, Group Designer: (216) 891-2785

**Contributing editor:** James E. Guyette; **Contributing writers:** Tim Ard, Maureen Gilmer, Charlie Racusin, Mike Sandburg, Steve & Suz Trusty

### BUSINESS STAFF—Fax: (216) 891-2675

**JOHN D. PAYNE**, Publisher: (216) 891-2786

**LINDA HALLIGAN**, Production Manager: (218) 723-9281

**LESLIE MONTGOMERY**, Administrative Coordinator: (216) 826-2856

**ALEX DeBARR**, Group Publisher: (216) 891-2789

**ROSY BRADLEY**, Senior Production Manager: (218) 723-9352

**DEBI HARMER**, Production Director: (218) 723-9325

### ADVERTISING OFFICES

#### HEADQUARTERS OFFICE

7500 Old Oak Blvd.  
 Cleveland, OH 44130  
 Phone: (216) 243-8100  
 Fax: (216) 891-2675

**DAVID MIETHKE**, Eastern Regional Sales Manager: (216) 891-2753

**STEPHANIE STIGGERS-SMITH**, Classified Ad Mgr.: (216) 891-2719

#### MIDWEST OFFICE

3901 52nd Ave.  
 Kenosha, WI 53144  
 Phone: (414) 653-9523  
 Fax: (414) 653-9524

**TOM GALLIGAN**, National Sales Manager

#### WEST COAST OFFICE

1333 N.W. Norcross  
 Seattle, WA 98177  
 Phone: (206) 367-5248  
 Fax: (206) 367-5367

**BOB MIEROW**, Western Sales Manager

**OTHER SERVICES:** Advanstar Marketing Services (800) 736-3665

**REPRINTS (100 minimum):** Maureen Cannon, (216) 891-2742

**CIRCULATION LIST RENTAL:** Mark Fleischer, (216) 891-3166; fax (216) 891-2727

**MICROFICHE/MICROFILM COPIES:** Advanstar Marketing: (800) 225-4569, x839

**SUBSCRIBER/CUSTOMER SERVICE:** Chris Baxter: (218) 723-9477; fax (218) 723-9437

**INTERNATIONAL LICENSING:** Mary E. Abood: (216) 826-2804



**President & CEO:** Gary R. Ingersoll  
**President, Advanstar Publishing:** Brian Naim  
**President, Advanstar Expositions:** William M. Windsor  
**Vice President/Finance, Chief Financial Officer and Secretary:** David W. Montgomery  
**Vice Presidents:** Kevin J. Condon, William J. Cooke, David S. Hakaim, Brian Langille, David Allen Shaw, Phil Stocker  
**Treasurer & Controller:** Adele D. Hartwick

LANDSCAPE MANAGEMENT (ISSN 0894-1254) is published monthly by Advanstar Communications, Inc. Corporate and editorial offices: 7500 Old Oak Blvd., Cleveland, OH 44130. Advertising, accounting, advertising production and circulation offices: 131 West First St., Duluth, MN 55802; 1333 N.W. Norcross, Seattle, WA 98177.

Subscription rates: one year, \$39, two years \$58 in the U.S.; one year \$66, two years \$99 in Canada. All other countries: one year \$130, two years \$195. Current issue single copies (pre-paid only): \$4 in the U.S.; \$7 in Canada; \$12 elsewhere; add \$3.50 per order for shipping and handling. Back issues, if available, \$10; 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. Second class postage paid at Duluth, Minnesota 55806 and additional mailing offices.

Copyright © 1995 by Advanstar Communications, Inc. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from Advanstar Marketing Services, Attn: Permissions, 7500 Old Oak Blvd., Cleveland, OH 44130 or phone (800) 225-4569 x743. Authorization to photocopy items for internal or personal use, or the internal or personal use of specific clients, is granted by Advanstar Communications for libraries and other users registered with the Copyright Clearance Center.

Canadian G.S.T. Number: R-124213133.

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



Printed in the U.S.A.

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

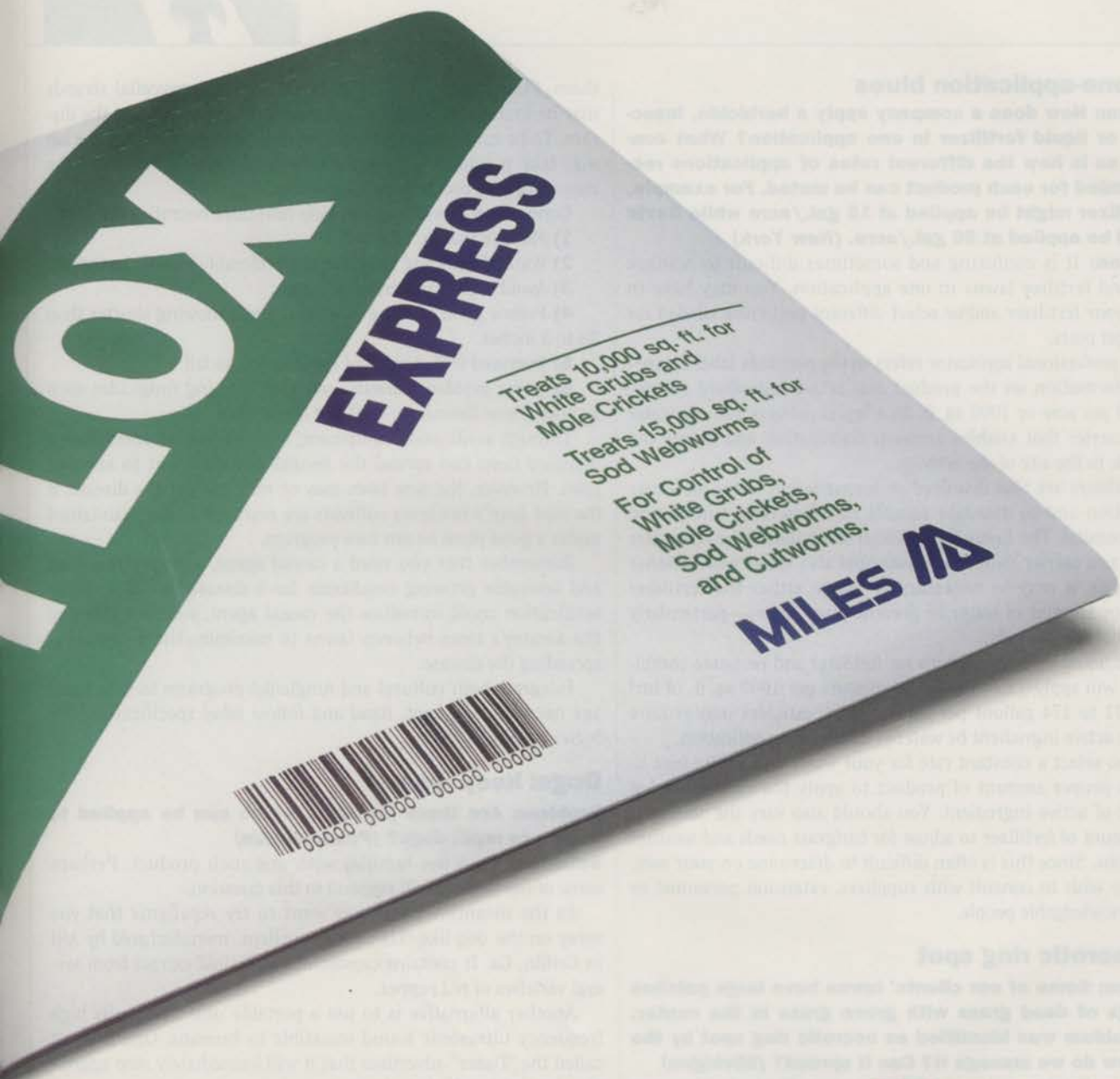


You know how much damage grubs can do once they begin feeding. So don't settle for an insecticide that stops grubs eventually. DYLOX® Insecticide delivers grub control posthaste. In other words, it's the fastest grub control available.

After grubs hatch and begin to feed, apply DYLOX. Within 24 to 48 hours, the grubs are dead. And since DYLOX has a very short soil residual, it's an insecticide you can feel good about using.

What's more, unlike other subsurface insecticides, DYLOX has no label restrictions on land-

ASK THE  
EXPERT  
DR. BALAKRISHNA RAO



scape and recreational turfgrass varieties or sites. In fact, with the 80% water soluble powder formulation, you can even spray flowers, shrubs and trees and get first-class control of ornamental insect pests.

DYLOX is a low-odor compound and is also available in a 6.2% granular formulation. To find out more, contact Miles Inc., Specialty Products, Box 4913, Kansas City, MO 64120. (800) 842-8020.

And get fast grub control signed, sealed and delivered.



# ASK THE EXPERT

DR. BALAKRISHNA RAO



## The one-application blues

**Problem:** How does a company apply a herbicide, insecticide or liquid fertilizer in one application? What confuses us is how the different rates of applications recommended for each product can be mated. For example, a fertilizer might be applied at 15 gal./acre while Sevin should be applied at 50 gal./acre. (New York)

**Solution:** It is confusing and sometimes difficult to manage pests and fertilize lawns in one application. You may have to adjust your fertilizer and/or select different pesticides labeled for the target pests.

The professional applicator refers to the pesticide label for specific information on the product and active ingredient recommended per acre or 1000 sq. ft. In a liquid delivery system, water is the carrier that enables uniform distribution and moves the pesticide to the site of the activity.

Fertilizers are also dissolved or suspended in water for easier application and to decrease soluble salts, thereby minimizing burn potential. The lower the fertilizer's salt index, the less water needed as a carrier. Since burn potential also varies with weather conditions, it may be necessary to adjust either the fertilizer source or amount of water to prevent plant injury—particularly during hot, dry periods.

Most liquid delivery systems for fertilizer and pesticide combinations will apply 3 to 4 gallons of mixture per 1000 sq. ft. of turf area (131 to 174 gallons per acre). Some pesticides may require that the active ingredient be watered in after the application.

If you select a constant rate for your water carrier, be sure to add the proper amount of product to apply the recommended amount of active ingredient. You should also vary the source(s) and amount of fertilizer to adjust for turfgrass needs and weather conditions. Since this is often difficult to determine on your own, you may wish to consult with suppliers, extension personnel or other knowledgeable people.

## On necrotic ring spot

**Problem:** Some of our clients' lawns have large patches of rings of dead grass with green grass in the center. The problem was identified as necrotic ring spot by the lab. How do we manage it? Can it spread? (Michigan)

**Solution:** Patches and rings of dead grass in Kentucky bluegrass lawns may be an indication of necrotic ring spot disease caused by *Leptosphaeria korrae*. The tillers in the affected area will be dead and brown. These patches often have a tuft of healthy grass or weeds in the center. This symptom will look like Fusarium blight disease or a "frog-eye" appearance. Affected areas may range from a few inches to one or two feet (or larger) in diameter.

Visible symptoms usually appear in April to July and again in September and October. Symptoms may not be apparent during the hottest part of the summer.

Prior identification of patch diseases is important in managing

them. Field diagnosis is difficult. Often, black mycelial strands may be found on the tillers, suggesting the possibility of the disease. To be sure, laboratory confirmation is important, but the lab may take two to three months to induce fruiting bodies. In the meantime, the problem may get worse.

Good cultural practices can help minimize necrotic ring spot:

- 1) Manage thatch.
- 2) Water deeply and infrequently, preferably in early morning.
- 3) Avoid high nitrogen fertilization.
- 4) Follow good mowing practices. Avoid mowing shorter than 2½ to 3 inches.
- 5) Overseed with perennial ryegrass in the fall.
- 6) If the problem persists, consider applying fungicides such as Rubigan or Banner in April and September.

Through aerification equipment, some of the soil cores from a diseased lawn can spread the fungal disease agent to another lawn. However, the new lawn may or may not get the disease, if the new lawn's turfgrass cultivars are resistant or are maintained under a good plant health care program.

Remember that you need a causal agent, a susceptible host and favorable growing conditions for a disease to occur. Since aerification could introduce the causal agent, consider cleaning the aerator's tines between lawns to minimize the potential of spreading the disease.

Integrate both cultural and fungicidal programs to help manage necrotic ring spot. Read and follow label specifications for better results.

## Dogs: keep away

**Problem:** Are there products which can be applied to people to repel dogs? (Pennsylvania)

**Solution:** I am not familiar with any such product. Perhaps some of our readers will respond to this question.

In the meantime, you may want to try repellents that you spray on the dog like "Halt" dog repellent, manufactured by ARI in Griffin, Ga. It contains capsaicin, an alkaloid extract from several varieties of red pepper.

Another alternative is to use a portable unit that emits high frequency ultrasonic sound inaudible to humans. One product called the "Dazer" advertises that it will immediately stop aggressive dogs within 15 feet of you.

---

*Dr. Balakrishna Rao is Manager of Research and Technical Development for the Davey Tree Co., Kent, Ohio.*

**Mail questions to "Ask the Expert," LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. Please allow two to three months for an answer to appear in the magazine.**



# The Ultimate in What a Mower Can Do.

The New Combo Mulching™ Deck\* lets you achieve superior results in varying conditions using the same deck.

Available in 44", 48", 52", 61" and 72" decks.



Quik-D-Tatch Vac® System

... to Side Discharge

... to Rear Discharge (on 61" and 72" decks)

... to Down Discharge™ Mulching

The "outfront" leader in zero-radius mowers for more than a quarter of a century.



## GRASSHOPPERABILITY

*the ability to make all the right moves for mowing quality and timesaving productivity.*

- EASY CONTROL to make all the moves you want to mow with soft-touch dual levers. You get the "feel" in no time at all because the hands-on control is so natural.
- ELIMINATE MOST SECONDARY TRIMMING using hydrostatic direct drive and zero-radius maneuverability with outfield deck reachability.
- NO TOOLS NEEDED to remove decks and add year-round attachments in minutes thanks to the new, exclusive Quik-D-Tatch® mounting system\*.
- CHOOSE YOUR POWER from nine engine models, 14 to 28 hp, gas or diesel, air-cooled or liquid-cooled — the broadest line of outfield riders in the industry.



Zero-radius Maneuverability



Outfront Reachability



Square-corner Turnability



Durability ... plus ROPS



*Grasshopper Selectability will change your mind about what a mower can do.*



New Model 928D, 28 hp diesel, with Quik-D-Tatch Vac® System and Trail Hopper™ collector.



Snowthrower



Angle Dozer Blade



Rotary Broom

### Other Attachments

- Dethatcher
- Bed Shaper
- AERA-vator
- ROPS
- Cab Enclosure
- Sunshade



First to Finish ... Built to Last

## GRASSHOPPER®

YOUR NEXT MOWER

The Grasshopper Company • One Grasshopper Trail • P.O. Box 637 • Moundridge, KS 67107 U.S.A. • Phone: (316) 345-8621 • FAX: (316) 345-2301

Circle No. 112 on Reader Inquiry Card

\*patent pending

# Easy-to-use CONTROL PRODUCTS

**Once considered only for the amount of product they contained, packages for turf and ornamental chemicals are now more environmentally- and user-friendly.**

by **Jerry Roche**  
Editor-in-Chief

**I**F YOU'RE NOT using products packaged in water soluble pouches, you might want to try them. They're much easier and safer to use than conventionally-packaged products. If you already use them, be advised that extra care is needed to get the dosage right.

Though the products contained in the pouches are generally not new, they are considered new by some marketers—solely by virtue of their packaging.

"The pouches are the next generation of broadleaf herbicide formulations," contends Sean Casey of Riverdale Chemical, which offers such packaging for four products. "The actual products are the same as our regular products, but all the user has to do is open up the packet and drop it in the tank."

Manufacturers believe the pouches solve a variety of problems.

First, there is the applicator safety issue. Some products—broadleaf herbicides, especially—are corrosive and harmful to a person's eyes, according to Casey, with water-soluble technology, the product is untouched by human hands from manufacturer to lawn. This virtually eliminates the risk of applicator or mixer/loader exposure.

Secondly, no hazardous waste disposal is involved. Since the packets dissolve completely in the tank, you don't have to worry about triple-rinsing any containers before disposing of them.

"Federal EPA, state and local regulations are definitely a consideration," notes Steve Chaney, turf & ornamental product manager at Bayer. "For instance, California has a requirement for closed systems. Minnesota has a regulation for the return of all metal containers on the agricultural side."

According to regulations, disposable pesticide containers must follow the "six-

nines" rule; that is, to avoid being categorized as hazardous waste, they must be 99.9999% clean. That is not a concern for users of water soluble packaging (WSP).

"Federally, we're being encouraged to use more user-friendly packaging," says Mark Urbanowski, marketing manager at DowElanco.

Thirdly, with the new low-dosage products, WSP is more convenient because you don't have to mess with measuring.

"The products we put in water soluble pouches are low-use chemistries," says Joe Yoder of Sandoz. He says that Barricade can be used at as little as  $\frac{1}{2}$  oz. active ingredient per 1000 sq. ft. "We didn't want users to get into mis-measurement issues." Yet Sandoz, Yoder says, won't use WSP for some products. "We want the formulation in the pouch to be an advanced product."

Finally, there is an additional option, which DowElanco chose for some of its Dursban professional product: a child-resistant outer bag that stores seven water-soluble packets. The reclosable outer bag is moisture- and odor-proof and features a zipper lock for extra safety.

**What is it?**—WSP is normally made of a chemical called polyvinyl alcohol, or PVA. It was first offered to the market by Ciba Turf & Ornamental in the late 1980s, but its popularity continues to grow.

"We made the switch to PVA packaging for Bayleton three years ago," says

Bayer's Chaney. "Sales switched almost 100 percent to the PVA packaging the first year it was available.

"However, WSP is not for everyone. Merit, for instance, is sold in packages containing enough product to cover 11,000 square foot increments. But that's not good for people treating smaller-sized areas. So there's still a market for 'bulk-type' products."

Andy Seckinger of Rhone-Poulenc agrees: "Users universally like WSP. Response has been very positive. But if the end-user doesn't calculate the dose properly, it goes from a convenience to an inconvenience."

For instance, you should consider whether the size of the tank is proper for the size of the package. You should consider whether you are using the low or medium portion of the recommended rate spec-



**You normally don't see a higher price tag when you buy water soluble pouches because the manufacturers are eating the extra cost.**

*Photo courtesy Ciba Turf & Ornamental*

trum. Otherwise, you may find yourself over- or under-dosing the property.

"We started packaging Rubigan in water soluble packets specifically because of input we solicited from golf course superintendents," says DowElanco's Urbanowski. "We're trying to take the water soluble packet to the next step: to find out what size the customers really need."

The package itself is coming under closer scrutiny. According to Urbanowski, a new brand of PBA being used for Rubigan WSP has a faster dissolve time than before, dissolves completely in the tank, and it still has good tensile strength.

You should know, too, that PBA/WSP is more expensive to the manufacturer than standard bags, cans or drums. Yet you normally don't see a higher price tag when you buy them. That's because manufacturers are eating the extra cost and accepting lower profit margins—a plus for the end-user, who gets a safer, easier-to-use product at the same price per-1000 as conventional products.

"We don't get any of the costs back," says Derrell Kelso, product manager at Valent. "But it's not a cost issue. It's a stewardship and worker exposure issue, and it's the way to go."

The pouches also lend themselves to some nice extra advantages. For instance, AgrEvo offers its Prostar Plus as part of a "twin-pack" with Bayleton.

"Through our research, we found that a certain ratio of Bayleton to Prostar provided some good benefits, particularly on brown patch," says AgrEvo product manager George Raymond. "All you have to know is that one box (containing one pouch of Bayleton and one of Prostar) covers 'x' square feet.

"This type of arrangement also saves us the cost of doing a toxicological report on a premix."

And American Cyanamid says that Pendulum herbicide can be used with Roundup's pre-measured drypack.

"Our water dispersible Pendulum granules come in a 1.2-ounce pouch for 1000 square feet that is hard to use in backpack sprayers," says AmCy senior marketing manager Gary Curl. "It's designed with the landscape person in mind, and fits very well with Roundup's drypack. There's one bag of each; Roundup provides the total kill and

Pendulum provides the residual action."

Manufacturers, especially, like this opportunity. "There are people going to water soluble bags packaged within water soluble bags like a co-pack for certain combinations," Riverdale's Casey observes. "That way, the manufacturer doesn't need to apply for a new EPA label, which we have to do if we put two (or more) different control products in the same package."

**Other innovations**—WSP, however, is not the alpha and the omega in easy-to-use control products.

"We're working toward closed systems, but the market still may not be ready for this approach," says DowElanco's Urbanowski. "The feedback we get from the customer will be the driving factor."

However, at the 1996 International Golf Course Conference and Show in Orlando, Ciba T&O will unveil its new "LinkPak" unit, which transports product and charges it directly into a spray tank.

"The LinkPak is very portable," says Ciba fungicide manager Jerry Osborne. "Users can fill the LinkPak and then load the product in the field via a closed system (called the turfPak, see below).

Here are some other technological advances from the manufacturers:

- Ciba offers its returnable, refillable micro-bulk turfPak system, which contains 15 gal. of product and dispenses its contents via a computer-assisted pump. Users simply hook it up directly to a spray tank and program the proper product dosage into the computer.

"The turfPak reduced the amount of waste returned to the environment, [the equivalent of] 15 one-gallon jugs going into a landfill," says Ciba's Osborne. "There is no need to triple-rinse used containers, either."

- Last year, Ciba also introduced a closed-system microinjection unit for its Alamo tree fungicide. The units are inserted into small drilled holes in the flare root and tapped lightly with a hammer to release Alamo directly into the tree.

- "Tip'n'measure" containers are being used by Terra for its Maxon root activator/stimulator. Terra, incidentally, was a pioneer in developing dry flowable technology, and markets Terramark spray pattern indicator and lake colorant in a water soluble package.

## Some control products available in water-soluble packaging

- **AGREVO: Prostar, Prostar Plus** (fungicides)
- **AMERICAN CYANAMID: Pendulum** (herbicide)
- **BAYER: Bayleton** (fungicide); **Merit, Tempo** (insecticides)
- **CIBA T&O: Primo** (growth regulator); **Pace** (fungicide)
- **DOWELANCO: Rubigan** (fungicide); **Dursban** (insecticide)
- **RHONE-POULENC: Chipco Sevin** (insecticide)
- **RIVERDALE: Dissolve, Triplet, Solution, Tri-Power** (herbicides)
- **SANDOZ: Sentinel** (fungicide); **Barricade** (herbicide)
- **TERRA: Thalonil** (fungicide)
- **VALENT: Orthene** (insecticide)

- Valent will release Pinpoint (a granular form of Orthene for the turf & ornamental market) in a recyclable 8-lb. bottle next year.

- Growth Products is now selling its liquid fertilizers, micronutrients and natural organic products in a 275-gallon mini-bulk packages. When emptied, the package can be broken down into a corrugated box and polyethylene bag liner for quick disposal and recycling. It gives customers the extra advantage of bulk pricing discounts plus easy disposal.

This brings us full circle: manufacturers will market whatever the government demands and whatever the green industry shows it is ready to purchase in sufficient quantities to turn a profit.

"WSP makes a lot more business sense than returnable drums," concludes Casey. "I think you'll see more products going that way if the product lends itself to it."

Rhone-Poulenc's Seckinger concurs: "A lot of what you'll see in the future in the way of new package innovations depends on what regulations are passed."

### Advantages of WSP

- Convenience
- Reduced worker exposure
- Low odor
- Accuracy of measuring
- No EPA disposal problems

# LOOK OUT FOR NUM



---

**PENDULUM<sup>®</sup>, AMDRO<sup>®</sup>  
AND IMAGE<sup>®</sup>.**  
**THE PROFESSIONAL'S CHOICE  
FOR TOP  
TURF PERFORMANCE.**

---

*Savvy professionals rely on PENDULUM, AMDRO and IMAGE for reliable, cost effective control of unwanted hazards like problem weeds and fire ants.*

And their confidence is repaid with courses that are noticeably better looking and more comfortable to play.

It's why they're the treatments of choice on the market today.

**PENDULUM Herbicide  
with pendimethalin. Now for turf!**

PENDULUM provides proven turfgrass tolerance and excellent preemergent control of crabgrass, goosegrass and other troublesome weeds. And with its superior season-long performance, people notice the difference when PENDULUM swings into action.

And although gentle enough for over-the-top application to more than 260 labeled ornamentals, 45 broadleaf and grassy weeds don't stand a chance against PENDULUM.

**AMDRO Fire Ant Bait: Kills the Queen.  
Kills the Mound.**

Fire ants may be annoying and dangerous, but they're not all that smart. That's why it's easy for AMDRO to fool worker ants into thinking it is food.

# ER ONE THIS SEASON.



The worker ants take AMDRO back to the colony and feed it to the queen. The worker ants and the queen die, and the entire colony is eliminated — often in less than a week. And with baits like AMDRO, the colony won't relocate or satellite.

AMDRO is easy, because the worker ants do the killing for you. No other fire ant bait treatment works as fast and effectively to kill the mound. Which is why AMDRO is the undisputed market leader in fire ant control.

### IMAGE Herbicide: Control the Uncontrollable.

IMAGE gets to the roots of the most troublesome weeds in warm season turfgrasses. IMAGE controls previously uncontrollable summer weeds like purple and yellow nutsedge, field sandbur, and dollarweed, as well as

winter weeds like wild onion and garlic.

Attacking below the turf line, IMAGE inhibits protein synthesis in the root, so these pesky weeds starve and die. Which means it improves the IMAGE of your course — year round.

PENDULUM®, AMDRO® and IMAGE®. The professional's choice for top turf performance. They'll leave your course looking like a million bucks.

Available from quality distributors of turf products. For more information or for the name of the Cyanamid distributor nearest you, call 1-800-545-9525.

 **CYANAMID**  
Agricultural Products Division  
Specialty Products Department  
Wayne, NJ 07470 ©1995



# Athletic field extras for fabulous final touches

**After turf maintenance come field painting and other grooming chores.**

■ Proper maintenance and feeding of athletic turf are keys to making the field look its best from a turf health point of view. Then come the necessary extras like paint and field amendments.

Improvements have been made recently to industry striping equipment, to make striping easier and more weather resistant.

**Fox Valley Systems, Inc.** of Cary, Ill. has been actively promoting its Super Striper to the green industry. The newest



**Fox Valley's Super Striper cartridges cover about 200 lineal feet.**



**There's less refilling with Pioneer's Brite Striper 2000. It carries a 12-gallon tank.**



**Smithco's Top Liner can be fitted with an optional hose and spray gun kit for paint or weed control spraying.**

model lays down a sharp, 2- to 5-inch strip thanks to a new self-orienting spade tip. Fox Valley says the Super Striper is the only striping machine with a speed indicator and weighted windscreen. Height adjustments and a side striper attachment are other innovations.

**Pioneer Manufacturing** of Cleveland, Ohio markets Quik Stripe, which is described by the company as the brightest aerosol field marking paint available to athletic field managers. When used with the company's Quik Striper machine, the paint product makes a lasting, eye-catching line that holds up to heavy traffic and severe weather. The company also produces custom stencils.

**Smithco's Top Liner** field marker is a riding model that handles tight turns and requires low maintenance. The Top Liner carries a 30-gallon tank, enough to line three football fields, which can come in handy for managers with multiple field chores.

**Weather beaters**—Pioneer's Rain Check is an athletic field absorbent the company says is a fine alternative to clay absorbents.

According to the company, the product absorbs 500 percent more water than clay absorbents. One man working with Rain Check produces the same result as five men working with clay. Less material is used, which may be a plus when it comes

to available storage room.

The all-organic absorbent firms up muddy ground for better footing during game play. Unlike clay, the company says it leaves no detectable residue.

**Infield improvements**—Drag mats are popular tools for finishing off the infield grooming. **Newstripe, Inc.'s** Drag Lite features an adjustable scarifier blade that breaks up hard packed surfaces. The attached mat then grooms the surface to a game-ready condition. Both Drag Lite models are made from tough, recycled rubber products, and carry an 18-month warranty.

The **Kromer AFM** machine is a combination line painter, groomer and sprayer. It stripes four football fields with one tank of paint. And it has a heavy duty spring tooth harrow to loosen up the hardest fields.

The leveling blade fills holes and levels high spots, and a heavy nylon bristle broom smooths the surface and picks up loose weeds. A dragmat is carried in a bracket and can be used to break up hard lumps of dirt.

Additional attachments are available for the AFM, such as a 3-gang reel mower and pull-behind aerifier. Kromer Co. is located in Mound, Minn.

**Conditioned for safety**—One field amendment which caught our eye is the Turface MVP sports field conditioner, manufactured by Aimcor of Deerfield, Ill. Turface particles have flat sides, which the company says helps to reduce bad ball hops and eliminate compaction.

When properly applied during field renovation or construction Turface provides an even, firm moisture absorbent surface.

A second Aimcor product—Turface Quick Dry—is designed to absorb infield puddles.

## For more information:

	Circle No.
<b>Fox Valley</b>	200
<b>Newstripe</b>	201
<b>Pioneer</b>	202
<b>Smithco</b>	203
<b>Turface</b>	204

—Terry McIver

You want a mower as  
unique as your needs.

As a turf care professional, you understand that your grounds have a character all their own. In size, terrain and complexity.

Toro responds with the Groundsmaster® 200/300 Series. The most complete line of trim mower configurations now available.

Including the right one to help you maneuver in any area for a superb quality of cut.



*Groundsmaster® 224 offers the extra power of a gas engine to handle challenging conditions all four seasons.*

*Groundsmaster® 325-D is available in two or four wheel drive to get the job done on all kinds of terrain.*

Choose from six diesel or gas powered traction units. Variable cutting widths from 52" to 72". Side discharge, rear discharge or Guardian® Recycler®. Plus four-season versatility for snow removal, debris cleanup and more.

The Toro Groundsmaster® 200/300 Series. Inspired by our 75 year partnership with turf care professionals.

Any other choice is groundless.

**TORO**

*Helping You Put Quality Into Play.™*

For more details, contact your Toro Distributor.  
**1-800-803-8676, ext. 176**

*The Gateway Arch in St. Louis commemorates America's westward expansion.*

# 'Open notch and bore' safer, more productive for taking trees down

by Tim Ard  
Forest Applications Training

■ No amount of experience can eliminate the risks associated with felling trees. Taking safety precautions is not only necessary, but also helps increase profits. The right safety measures do more than protect workers—they reduce fatigue and stress, making crews more productive.

When felling trees, three important safety guidelines apply: preparation, equipment operation and felling technique.

**Preparation**—A key to proper felling is planning your work. Look for hazards such as hanging branches, dead or rotted trees nearby, and vines that could pull a tree in a dangerous direction.

When choosing the direction for the tree to fall, keep in mind side, forward and back leans, wind direction and other work planned for the site. And always clean an escape route. Escape routes should be at 45-degree angles away from the felling direction.

Dress is crucial. You should take safety precautions in apparel and protective equipment, literally, from head to toe. Make sure everybody on the site has a helmet and eye, face and ear protection.

Also, make sure crew members have the right gloves and leg protection. Look for chaps and pants with a UL Classification label and made with chain saw-resistant fibers designed to bind a moving chain on contact.

Lastly, make sure crew members are wearing boots made for the task. Steel-toed boots offer the best protection. And remember to have a first aid kit on the job site.

**Equipment and operation**—Even experienced tree care professionals must take a few moments to ensure proper chain saw operation. Be sure the chain brake is engaged before starting your saw. Start the saw on the ground with the tip of your boot inside the handle as you pull the cord. Keep the chain brake in place until you're ready to begin work. Then, engage it again, should you need to walk around.

Other key points: never use a saw above your shoulders and head, and make sure



Be sure that the open notch cut is 70 degrees or more, to allow the hinge to guide the tree as it falls.

your stance is solid before you begin any cut.

**Felling method**—For maximum control, many tree care professionals opt for a felling method that incorporates a directional notch and controlling hinge.

The felling process should never begin until you collect data on the tree and formulate a plan. You must have an understanding of the tree's hazards, its leans, the operators' escape route, and how the hinge will be shaped and formed before deciding on the actual cutting techniques.

Here are recommended steps for this felling method:

(1) Begin with an open notch cut on the side of the tree in the direction of the planned fall. Cut the notch at 70 degrees or more, which will allow the hinge to work and guide the tree as it falls.

(2) Make a bore cut, beginning from the side of the tree, parallel with the face

notch. Never begin a cut with the upper tip of the bar. It is likely to kick back, creating the potential for an accident. Ask your chain saw dealer or consult your owner's manual about the reactive forces of the guide bar and saw chain.

Consider the tree's lean now. If you can reach through the tree with your guide bar, do so from the up-lean or preferred side of the tree to complete the back cut. If the tree is wider than the total length of your guide bar, you should cut no more than half the tree from the leaning side first and then finish the cut from the preferred side.

The bottom tip of your bar should be several inches from the back of the notch on the right side of the trunk as you face. Cut into the trunk using the bottom end of your bar. As you cut into the trunk, rotate toward the notch you've already cut and plunge the bar directly into the trunk so it's parallel with your notch cut.

As you make the second cut, take special precautions to enter the trunk with the bottom end of the bar. Do not cut straight into

the trunk without first rotating into the wood. Trying to plunge your bar straight in can create the danger of chain saw kick-back.

(3) Use the top of the bar—now inside the trunk—to cut toward the notch to create the hinge. Your hinge thickness should be about 10 percent of the diameter of the tree; the length of the hinge should be about 80 percent of the diameter.

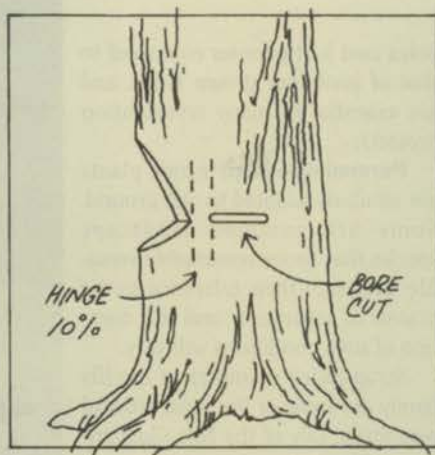
(4) Using the bottom of the bar, cut toward the back of the tree, but leave about two inches as your holding wood.

(5) Cut the remaining holding wood, moving from the back side of the tree toward the front until you have severed through. The holding wood should not be confused with the hinge wood, which should never be removed. The hinge will break when the tree is almost to the ground or can be removed if it still holds when the tree has come down.





The open notch should be cut on the side of the tree in the direction of the planned fall. It should be cut at 70 degrees or more, to allow the hinge to work and guide the falling tree.



Begin the bore cut from the side of the tree, parallel to the face notch. Do not cut without first rotating into the wood. Trying to plunge the bar straight in may cause kickback.



To finish felling the tree, cut the holding wood, moving from the back side of the tree toward the front.

Be careful of pressures and binds when working around the downed tree. That's a whole new subject within itself for later discussion.

**Stability counts**—Tree care professionals should easily see the benefits this method provides over conventional methods. Use of the holding wood in place as part of the back-release helps keep the tree stable until the final cut.

Also, the holding wood will keep the bar from getting pinched, with the holding wood acting as a support. The method also

reduces the chance you will cut all the way through the hinge before the tree begins to fall. This will reduce the chance that the tree falls so quickly that it jumps off the stump and possibly back at crew members.

Lastly, the back-release method keeps the bar at the back of the tree, rather than deep into the trunk. That makes it easier to walk away using your planned escape route when the tree falls.

All these combined will make it easier for you and your crew to come safely away, feeling less fatigue, from a job efficiently

done.

Videos of this open notch and bore cut technique are available through many local chain saw dealers and Forest Applications Training, Inc.

*—The author is president of Forest Applications Training, Inc., in Hiram, Ga., and co-creator of "Game of Logging" and "ArborGames," safety and applications training programs for tree professionals. He has been training professional chain saw operations for more than 10 years.*

## Adapted plants for wet ground

**Proper selection is the key to long life, no matter what the cultural conditions.**

by Maureen Gilmer

■ It's 100 degrees, the soil surface appears dry and cracked, the plant wilts. So you pour on the water and the plant wilts even more.

If you've struggled with a very high water table, or an impervious hardpan, or low-lying ground subjected to periodic inundation, you may have already experienced these frustrating symptoms.

The cause: root death due to anaerobic



soil conditions where water displaces vital oxygen.

In order to be sure that the plant died from poor drainage, inspect the root sys-

tem for the characteristic peeling skin, blackened roots and unpleasant smell. This will rule out nematodes and other root diseases which can display similar wilt symptoms in plants.

Once poor drainage is diagnosed, first try mechanical remedies like French drains, diversion ditches, grading alterations or constructing elevated planters. But if this isn't possible, or the problem is widespread, choose replacement

plants that won't succumb to the same fate.

Why can some plants like willow stand saturated ground, even with much of the

## ADAPTED from page 15

plant underwater? Species which reside in natural wetlands and flood plains adapt by a unique method of respiration. When the saturated roots are denied oxygen, the plant can replace it with oxygen obtained through the leaves. These hydrophytic species normally occur in swamps, bogs, marshes and riverine riparian environments. When using locally native plants, you are assured perfect adaptation to local climate and, most importantly, wet soils.

**Good trees**—Many wetland adapted



species are already part of the landscaper's palette: magnolias from high water table Southern states; maples and liquidambar from the bottomland hardwood forests; cedars, tamarack and spruce from Northern bogs; sycamore and cottonwood from seasonally dry stream beds of the West; and dogwood and birch from Eastern riparian habitats.

Other well-known genera of native wetland species include willows (*Salix*), ash (*Fraxinus*), oak (*Quercus*), alder (*Alnus*) and poplar (*Populus*).

Willows and poplars are ideal ornamental trees in high water tables; indeed, they fail to thrive except under such conditions. Both groups develop a web-like network of small roots which help secure them to the often-eroding banks of riverbank riparian habitats under high water flows. When grown in containers, they quickly become pot-bound, and when planted out have little ability to hold up even under mild flooding.

Great success has been achieved by planting these trees as unrooted cuttings or poles from 12 inches to 15 feet long during the dormant season, with about 30 percent of each pole buried in a post hole. This assures excellent stability and a massive root system in a very short time. Better yet,

poles cost just pennies compared to that of container grown stock, and are essential in many revegetation projects.

**Perennials**—Many exotic plants are similarly adapted to wet ground. Some are common landscape species that prove remarkably versatile, although their tolerance to the season of saturation and the duration of such conditions will vary.

Strap-leaved members of the lily family are some of the most colorful perennials. Lily of the Nile (*Agapanthus africanus*) and its cultivars no doubt originated on the flood plain of the Nile and have relatively shallow root systems which lie above the most saturated soils. Daylilies (*Hemerocallis spp.*) bear a similar habit with hundreds of colorful varieties. The common canna lily (*Canna generalis*) also thrives in poorly-drained conditions as its tuberous root is born high in the soil. And often overlooked, but a magnificent flower after dark, the calla lily (*Zantedeschia spp.*) will reach startling proportions with plenty of water.

Many plants like iris and ferns include both arid ground and wetland species, so it's essential that you recognize the difference. For example, Dutch iris and German iris both require fast drainage, but their



Horsetail grass (above) is becoming a popular water garden marginal plant. Below, bamboo and papyrus grow in a natural pool. At left are canna lilies. Daylilies are pictured on page 15.

With the new interest in water gardens, these and other marginal plants are now more widely available.

The enormous family of grasses and sedges contain many true native



Japanese relatives, kaempferi and Louisiana hybrids are true marginals, thriving around the edges of flooded rice paddies in their Asian countries of origin.

hydrophytes which inhabit marshes everywhere. Many are exotics so well-adapted that they have become dangerously inva-

*continued on page 18*

PREVENT CRABGRASS WITH TEAM  
AND EVEN YOUR HARDEST CUSTOMER  
WILL CRACK A SMILE.




Dependability is what lawn care and landscape professionals look for in a preemergence herbicide. And dependability is what you get with the time proven Team\* herbicide. Since 1985, Team has proven itself effective at stopping a broad spectrum of troublesome grassy weeds, especially crabgrass.

With the rock solid performance of Team, you can expect consistent, season long control.

Because nothing, pound for pound, prevents crabgrass better than Team, you know you've got a preemergent you can depend on to bring a smile to the face of any customer.

For further information on Team, or any other product in the extensive line of DowElanco products, give us a call at 1-800-352-6776. Always read and follow label directions.

 DowElanco

\*Trademark of DowElanco

 Team

## Widely available plants for wet ground

### TREES

Scientific name	Common name
Acer spp.	maples
Alnus spp.	alders
Betula spp.	birches
Casuarina spp.	beefwoods
Celtis spp.	hackberries
Cornus florida	flowering dogwood
Eucalyptus citriodora	lemon-scented gum
Eucalyptus robusta	swamp mahogany
Eucalyptus rudis	flooded gum
Fagus grandifolia	beech
Fraxinus latifolia	Oregon ash
Fraxinus pennsylvanica	green ash
Ilex opaca	American holly
Ilex verticillata	winterberry
Larix laricina	American larch
Liquidambar styraciflua	sweetgum
Magnolia grandiflora	Southern magnolia
Magnolia virginiana	sweetbay magnolia
Melaleuca quinquenervia	cajeput tree
Myoporum laetum	myoporum
Pinus elliotii	slash pine
Pinus glabra	spruce pine
Pinus strobus	white pine
Pinus taeda	loblolly pine
Platanus acerifolia	London plane tree
Platanus racemosa	California sycamore
Populus spp.	poplar, aspen
Prunus serotina	black cherry
Quercus spp.	Southern oaks
Rhus spp.	sumacs
Roystonea spp.	royal palms
Sabal palmetto	cabbage palm
Salix spp.	willows
Sambucus spp.	elderberries
Sassafras albidum	sassafras
Ulmus americana	American elm

### PERENNIALS

Scientific name	Common name
Aconitum spp.	monkshood
Agapanthus spp.	lily of the Nile
Aguga spp.	carpet bugle
Alocasia	elephant's ear
Aster spp.	Michaelmas daisy
Astilbe spp.	false goat's beard
Canna generalis	canna
Centranthus ruber	red valerian
Echinacea purpurea	purple coneflower
Hemerocallis	daylily
Hibiscus moscheutos	rose mallow
Hosta spp.	hostas
Iris spp.	Japanese/Siberian irises
Lobelia cardinalis	cardinal flower
Lythrum virgatum	purple loosestrife
Mentha spp.	mints
Myosotis scorpioides	forget-me-not
Phormium tenax	New Zealand flax
Primula spp.	primroses
Zantedeschia spp.	callas

### FERNS

Scientific name	Common name
Asplenium trichomanes	toothed wood fern
Athyrium filix-femina	lady fern
Athyrium nipponicum	Japanese painted fern
Camptosorus rhizophyllus	walking fern
Lygodium palmatum	climbing fern
Osmunda cinnamomea	cinnamon fern
Osmunda claytoniana	interrupted fern
Osumnda regalis	royal fern
Thelypteris palustris	marsh fern
Woodwardia spp.	chain ferns

Source: the author

### ADAPTED from page 16

sive in some North American wildland ecosystems. But the tenacity of pampas-grass, bamboos, papyrus, horsetail and New Zealand flax are in step with the growing popularity of ornamental grasses, and they solve drainage problems as well.

**Natives**—If you must contend with high water and wet ground during the summer growing season, solutions are all around you. Native plants provide a wealth of species in the U.S. The environmental movement to restore damaged wetlands has stimulated new sources of native plants for the landscape trade, and growers specializing in water garden plants combine to provide us with new and exciting alternatives.



As we all struggle with the recent spate of unusual weather (an abnormally wet winter and spring in the West, and record

high summer water in the Midwest and South), it's wise to pay more attention to wet ground species both native and exotic.

Until the weather settles down for a while and returns to its more benign water levels, it makes sense to plan for a wet future in order to reduce the labor demands and costs of continually replacing root-damaged plant materials.

—The author has written "Living on Flood Plains and Wetlands" (Taylor, 1995). For immediate availability of native wetland plants of North America, obtain a plant and supplies catalog from Southern Tier Consulting, 2677 Rt. 305, P.O. Box 30, West Clarksville, NY 14786; (716) 968-3120.

MOST PEOPLE ARE ECSTATIC AT HOW  
EFFECTIVE CONFRONT IS AT MAKING THEIR  
BROADLEAF WEEDS DISAPPEAR.



With Confront\* herbicide, lawn care and landscape professionals know they're covered. Because no postemergent herbicide controls broadleaf weeds better.

Confront brings you a new standard of broadleaf control on both warm and cool season turfgrasses.

For over 35 different species of broadleaves, from

dandelions and clover to oxalis and ground ivy, Confront is the one herbicide that won't let you down.

For further information on Confront, or any other product in the extensive line of DowElanco products, give us a call at 1-800-352-6776. Always read and follow label directions.

 DowElanco

\*Trademark of DowElanco



## Micronutrients take their place in feeding programs

■ Proper feeding of turf and ornamentals is like forging strong links of a chain. To grow and remain healthy, plants need air, water and nutrients.

According to the "Western Fertilizer Handbook," researchers identify 16 elements required for plant growth and reproduction:

- **Carbon, hydrogen, oxygen** and **chlorine** are provided free by air and water.

- **Nitrogen, phosphorus** and **potash** are provided by traditional NPK fertilizer.

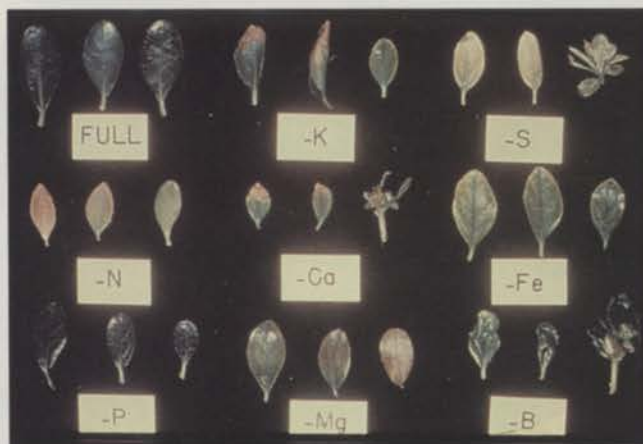
- **Calcium** can be provided by liming.

- **Sulfur** and **magnesium** (secondary nutrients); **iron, manganese, zinc, boron, molybdenum** and **copper** (micronutrients) are too often neglected by turf managers. Special micronutrient fertilizer applications are often necessary to provide these elements.

"Even though micronutrients are used by plants in very small amounts, they are just as essential for plant growth as the larger amounts of primary and secondary nutrients," says the Handbook.

Like a chain, the strength is only as good as its weakest link. If a heavy application of nitrogen or phosphorus is made, it may disturb the balance or, at best, may give the fertility chain one strong link while leaving the other links

### PLANT GROWTH LIMITED BY WEAKEST LINK



The 'nutrition chain' (top) shows the interdependents of elements. Shown below are various deficiency symptoms.

Courtesy United Horticultural Supply

wire-thin.

While major and secondary nutrients provide basic building blocks for cell reproduction, water transportation and root development, micronutrients allow

the synthesis of chlorophyll and activation of enzymes in the growth process. They are essential for the plant to use nitrogen and synthesize proteins.

**Iron**—The most common micronutrient deficiency is a lack of iron, which often results in the decreased ability of turf to produce the chlorophyll that gives plants their green color. Iron can also enhance a plant's ability to tolerate drought, resist disease and develop a stronger root system.

Even though iron is found in substantial amounts in soils all across the U.S., it is often in a chemical form that makes it unavailable to the plant. Therefore, soil tests alone are inadequate to determine plant deficiency. An assay process which determines the iron in the plant itself is a better (but much more expensive and still not reliable) way to determine iron deficiency. Even this tissue analysis only measures the amount—not type—of iron in the plant.

Iron may be naturally unavailable to plants or the deficiency may be induced by high soil pH or presence of calcium carbonate (around new concrete, for example). Removing the top layer of soil in development can also remove the available iron from the plants' rootzone. Excessive amounts of other nutrients, including

*continued on page 22*

### ELSEWHERE

**Phosphate rocks treat contaminated soil,**  
page 22

**Herbaceous plants for shady spots,**  
page 26

**Ground covers beat the weeds,**  
page 28

IF YOU WANT TO KNOW HOW LONG  
GALLERY WORKS TO PREVENT BROADLEAF WEEDS,  
ASK SOMEONE WITH TIME ON THEIR HANDS.



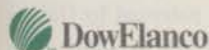
After applying Gallery\* preemergence herbicide, you've got about 6 to 8 months of good solid waiting before you'll spot the emergence of any of over 95 different broadleaf weeds. Even the tough ones like spurge, dandelion and plantain.

In fact, Gallery is the only preemergent on the market today that's designed to prevent so many broadleaf weeds, yet is safe over the top of all turfgrasses,

and over 400 different species of ornamentals.

So now that you have a little extra time on your hands, maybe you can get around to digging up even more business.

For further information on Gallery, or any other product in the extensive line of DowElanco products, give us a call at 1-800-352-6776. Always read and follow label directions.

DowElanco

\*Trademark of DowElanco

**MICRO** from page 20

phosphorus, zinc, manganese and copper, can also limit the plants' ability to take up and use the iron.

**Manganese**—Likewise, the amount of manganese available to plants is not reflected in the amount of manganese available in the soil. Soil pH, cation exchange capacity, organic matter content, drainage, temperature, soil compaction and microbial activity all limit availability of manganese. Even fertilizer packages of iron with sulfur and nitrogen were found to induce manganese deficiency. They caused growth without necessary additional manganese to fuel such processes as hydrolysis, metabolism of organic acids and oxidation reduction that produced spindly, yellow plants.

Occasionally, too much manganese can be as bad as too little. In acid or poorly-drained soils, manganese becomes extremely available and blocks out the uptake of other vital nutrients.

**Zinc**—Zinc deficiency can be determined through soil and tissue tests. Muck soils and some western, Florida and Michigan soils are naturally deficient in zinc. High soil pH and removing topsoil can also cause zinc deficiency. Unbalanced applications of phosphorus can intensify zinc deficiencies. Uptake of zinc can be more limited when soils are cold and wet during the early part of the growing season.

**Others**—Other micronutrient deficiencies are less spectacular in their symptoms and are not as often corrected.

Symptoms of boron deficiency can be

**SYMPTOMS OF SOME NUTRIENT DEFICIENCIES**

<u>Nutrient</u>	<u>Symptom</u>
<b>IRON</b> .....	Yellowing of the interveinal area of young leaves. On turf, the chlorosis is not uniform, but often appears in irregular patches.
<b>MANGANESE</b> .....	First signalled by interveinal chlorosis. As deficiency becomes more severe, leaves get brown spots and developing leaves often drop off.
<b>ZINC</b> .....	Interveinal chlorotic striping, a thin purple margin around leaf edge. For ornamentals, narrowed or reduced leaf size and internodal spacing, giving the plant a "witch's broom" appearance.
<b>COPPER</b> .....	Can cause newer leaves to die before unrolling. Older leaves may appear limp or turn gray.

confused with other deficiencies and can be more difficult to correct. Researchers have documented boron scarcity in most of the East and Midwest and in some parts of the Northwest. This lack often shows up as reduced plant quality rather than lack of growth.

Organic and very sandy soils are most likely to have copper deficiencies. Problems are fairly localized and can often be diagnosed by soil tests.

Only a small amount of molybdenum is needed for nitrogen fixation and nitrate reduction in plants. Availability may be

limited primarily in acid soils; therefore, pH can be a good indicator of a potential problem. Tissue analysis can also diagnose a scarcity. Although turfgrass scientists recognize the element's importance, little else is known about its effects.

Recent research indicates very few cases where overapplication of micronutrients can pose a problem. Balance is most important. Look for a micronutrient package that contains not only iron and manganese, but also magnesium and—depending on soil tests—zinc, copper, boron and molybdenum.

**Treating soils for dangerous contamination****Pesticide spills, battery acid, oil and gasoline leaks can be cleaned up with specially-treated rocks.**

by James E. Guyette  
Contributing Editor

■ A new technology may allow landscape managers, golf course superintendents and institutional groundskeepers to treat lead-contaminated soils more cost-effectively.

The discovery involves covering the affected soil with finely ground phosphate rocks. Research indicates that the phos-

phate rocks reduce the amount of water-soluble lead in contaminated soil by 57 percent to 100 percent.

For the landscape industry, this could drastically reduce the costs faced by business managers being forced to purify soils tainted by pesticide spills or previous power equipment maintenance activities that resulted in petroleum products soaking into the ground or leaking gasoline storage tanks. The process also will work on battery acid leaks.

In addition to cleaning their own company headquarters' yards, landscape managers may also find economic opportunities in helping other business owners clean polluted grounds.

"A combination of leaded paint and gasoline has caused soils in some urban areas to be very high in lead," explains Dr. Terry Logan, professor of natural resources and director of the Environmental Science Graduate Program at Ohio State University. The U.S. Environmental Protection Agency and the University of Florida are also participating in the project.

"We envision using our treatment and then covering the surface with a couple inches of clean soil and then planting vegetation," Logan predicts.

**Combats heavy metals**—The technology, which has been patented by OSU

*continued on page 26*



---

***“ALCA is the best  
landscape business  
resource in the  
country.”***

---

“When I started my business seven years ago I needed expert advice,” says Joe Skelton, president of Lifescapes, Inc., Canton, Georgia. “That’s when I joined ALCA.

“By attending marketing and technical seminars, using the *Operating Cost Study* to estimate projects, enrolling in ALCA’s business insurance program and simply working hard, I have been able to build my business to over four million dollars.

“ALCA is a great resource. Through their meetings, videos and publications, you can find out how to increase sales and profits, reduce costs, and learn about the latest products and technology developments.”

**Join ALCA today and meet people like Joe Skelton.**

If you are an exterior, interior or landscape management contractor or simply want to see the landscape industry grow, call 1-800-395-ALCA or (703) 620-6363 for more information or write to: ALCA, 12200 Sunrise Valley Drive, Suite 150, Reston, VA 22091. Fax (703) 620-6365.

**ALCA**

---

ASSOCIATED LANDSCAPE CONTRACTORS OF AMERICA

Circle No. 128 on Reader Inquiry Card





**Power Plant.**



*If ever this world had a source of tough and rugged power, you're looking at it. The Chevy Kodiak is pure, hard-working muscle ready to fill your needs. From a Class 5, 18,000 lbs GVWR to a Class 8 capacity of 61,000 lbs GVWR. So it's no coincidence that some of the industry's most advanced thinking lies behind Kodiak's bumper, in both regular and LoPro configurations. Underneath sits a full-depth C-channel frame, originally designed for Class 8 heavy duty applications and rated from 50,000-psi to a heat-treated 110,000-psi. Again, you decide. And when it comes to power, as it normally does, you can choose gas or diesel. Opt for Kodiak's CAT® 3116 diesel with a fully integrated turbocharger and command up to 275 horsepower with torque curve to match. See your Chevy Truck dealer or call us at 1-800-TO-CHEVY (1-800-862-4389) to inquire about a power plant of your own. Chevy. The trucks that work. The trucks that last.*

## **Chevy Trucks**



©1995 GM Corp. All rights reserved. GM, Chevrolet, Chevy, Kodiak, LoPro and the Chevrolet logo are registered trademarks of General Motors Corporation. Buckle Up, America!

Circle No. 111 on Reader Inquiry Card

**LEAD** from page 22

and the EPA, can also be used to treat soil contaminated by other heavy metals, such as zinc, aluminum, cadmium and possibly uranium. Lead is viewed as the primary health risk because it is especially harmful to young children.

With the process, lead-contaminated soil is covered with ground phosphate rocks on a ratio of two parts phosphate to one part lead. (To be most effective, the lead content has to be measured ahead of time.) In most cases, the phosphate can be applied to the surface just like fertilizer.

One application is likely to do the job, according to Logan, unless the soil has an extremely high concentration of lead.

For alkaline soils, like those found in the West, an application of liquid phosphate, such as the type found at landscape supply centers, may be the best technique, says Logan.

Using phosphate rocks to treat lead-contaminated soil is different from conventional technologies because it focuses

on managing the lead where it is. Other treatments seek to remove the lead from

---

**The technology could drastically reduce the costs faced by business managers who are being forced to purify soils.**

---

the soil, which can rob it of important nutrients, Logan points out.

"We took a different approach and focused on managing the lead where it is, which is much more cost-effective and eliminates the need to store the contaminated soil in a landfill or to incinerate it," Logan explains.

"Using this technology will cost hundreds of dollars to treat an acre of contaminated soil compared to thousands or tens of thousands of dollars to treat with any other technology," he reports.

The project began five years ago, and now trials are on tap for urban and rural sites, according to Logan. "Since phosphorous is a fertilizer, we were concerned that crops growing in the soil would take out the phosphorous, and the lead would be soluble and able to move into the groundwater and be absorbed by the crops," he recalls. "But as long as there is an excess of phosphorous, that shouldn't be a problem," Logan adds.

"Another important thing we found was that it worked regardless of what the source of the lead was, including soluble forms of lead, mineral forms, or even leaky batteries."

Phosphate is abundant and easy to mine. "The key to this technology is that it doesn't use another synthetic, man-made chemical," Logan says. "It uses a natural product that we know and understand well to treat a very serious problem in a cost-effective manner."

---

## These herbaceous plants are best for shady spots

■ Much of the gardening world hungers for the cooling pleasures of shade trees in their landscape. The rest of the world regrets they cannot plant many of the sun-loving plants which will not thrive in their shady landscapes.

Here are a few favorite plants for various levels of shade.

### Ajuga

- A spreading member of the mint family; can be showy when bright blue flowers appear;
- has many uses as a background groundcover.

### Astilbe

- Feathery flower spikes rise above the dark green dissected foliage. Astilbes give an airy look to garden borders. If flowers are deadheaded, the blooming period will be lengthened.

### Begonia

- These plants range from the widely popular wax begonia bedding plant to an exotic range of fancy hybrid tuberous begonias.

### Climbing hydrangea

- A wonderful climbing vine for along garden walls. This vine with glossy

green foliage and fine, fragrant blooms takes years to develop, but it's well worth the wait.

### Coleus

- This edging and window-box plant has a wild range of foliar colors and patterns, which seem almost incongruous with its preference for shade;
- blue flowers are not a key characteristic.

### Columbine

- Airy blossoms which come in many colors have attractive spurs as a feature;
- excellent for naturalized areas;
- may bring the columbine leaf miner insect.

### Daylilly

- More and more varieties are available each year;
- will bush out if they are cut back somewhat at transplanting. New Guinea impatiens can tolerate less shade than the standard impatiens varieties.

### Lily of the Valley

- Very aromatic, white bell-like flowers;
- multiply and spread over large areas quickly.

### Lilyturf (Liriope)

- Grasslike leaves make this an excellent border plant or groundcover for small areas.

### Primrose

- Easy spring flowers provide the promise of summer warmth with heady aroma;
- will bloom in chilly spring temperatures.

### Vinca minor

- Also known as creeping myrtle;
- a standby groundcover with lavender flowers;
- remains evenly green throughout the year.

### Violet

- An attractive range of plants with mostly heart-shaped leaves;
- attractive in clumps, but can be cultivated to serve as a groundcover.

—Source: Jim Chatfield, writing in the Northeast Ohio Forum of the Professional Grounds Management Society.

# Plants best adapted for specific conditions



Fern leaf yarrow, *Achillea Filipendulina*

■ Though it's now too late to do anything about plants lost to drought this summer, it's not too late to start planning for the 1996 growing season.

According to various growers and marketers, bermudagrass and buffalograss has excellent drought tolerance in warm-season locales. Among the cool-season grasses, perennial ryegrass and tall fescue both offer very good drought tolerance.

Dr. Balakrishna Rao of the Davey Tree Company also suggests some trees and shrubs that can be planted in droughty sites without as much danger of damage than normal plants (see accompanying chart).

"Remember, though, that these plants can survive if the dry conditions are not very severe," Dr. Rao observes. "Proper mulching and fertilizing will also help during drought conditions."

Good drought tolerance:

## TURFGRASS

bahiagrass	( <i>Paspalum notatum</i> )
bermudagrass	( <i>Cynodon sp.</i> )
buffalograss	( <i>Buchloe dactyloides</i> )
perennial ryegrass	( <i>Lolium perenne</i> )
tall fescue	( <i>Festuca arundinacea</i> )
zoysiagrass	( <i>Zoysia japonica</i> )

## TREES

black locust	( <i>Robinia pseudoacacia</i> )
amur maple	( <i>Acer ginnala</i> )



Light pink, *Dianthus Plumarus*

black oak	( <i>Quercus velutina</i> )
bur oak	( <i>Quercus macrocarpa</i> )
hardy rubber tree	( <i>Eucommia ulmoides</i> )
Scotch pine	( <i>Pinus sylvestris</i> )
Eastern white pine	( <i>Pinus strobus</i> )
bristlecone pine	( <i>Pinus aristata</i> )
hedge maple	( <i>Acer campestre</i> )
tatarian maple	( <i>Acer tataricum</i> )
Japanese pagoda tree	( <i>Sophora japonica</i> )

Austrian pine	( <i>Pinus nigra</i> )
Kentucky coffeetree	( <i>Cymnocladus dioica</i> )
goldenrain tree	( <i>Koelreuteria paniculata</i> )
amur corktree	( <i>Phellodendron amurense</i> )
callery pear	( <i>Pyrus calleryana</i> )

## SHRUBS

flowering quince	( <i>Chaenomeles sp.</i> )
purple smokebush	( <i>Cotinus coggygria</i> 'Royal Purple')
cotoneaster	( <i>Cotoneaster sp.</i> )
Northern bayberry	( <i>Myrica pennsylvanica</i> )
mugo pine	( <i>Pinus mugo var. mugo</i> )
fragrant sumac	( <i>Rhus aromatic</i> 'Gro-Low')
spirea	( <i>Spiraea sp.</i> )
barberry	( <i>Berberis sp.</i> )
meserve blue holly	( <i>Ilex x meserveae</i> 'Blue Prince' & 'Blue Princess')



Spoonleaf yucca, *Yucca Filamentosa*

meserve holly	( <i>Ilex x meserveae</i> 'China Boy' & 'China Girl')
sweet mockorange	( <i>Philadelphus coronarius</i> )
prostrate juniper	( <i>Juniperus horizontalis</i> )

## PERENNIALS

tulip, most species	( <i>Tulipa sp.</i> )
crocus	( <i>Crocus sp.</i> )
lavender	( <i>Lavandula officinalis</i> )
Basket of Gold	( <i>Aurinia saxatilis</i> )
lilyturf	( <i>Liriope muscari</i> & <i>L. spicata</i> )
Some Pinks	( <i>Dianthus sp.</i> )
thyme	( <i>Thymus vulgaris</i> , <i>T. x citriodorus</i> )
seathrift pink	( <i>Armeria sp.</i> )
gasplant	( <i>Dictamnus albus</i> )
hardy sage	( <i>Salvia officinalis</i> and cultivars)
wall flower	( <i>Cheiranthus cheiri</i> )
yarrow	( <i>Achillea filipendulina</i> )
artemisia—wormwood	( <i>Artemisia sp.</i> )
coreopsis	( <i>Coreopsis sp.</i> )
sedum	( <i>Sedum spectabile</i> )
stachys	( <i>Stachys sp.</i> )
yucca 'Bright Edge', 'Gold Sword', 'Adams Needle'	( <i>Yucca filamentosa sp.</i> )
gaillardia 'Goblin'	( <i>Gaillardia aristata</i> )

## Ground covers beat weeds, prevent soil erosion

■ Ground covers tend to be lower-growing, usually evergreen plants used in place of grass, mulching materials or stone, to beautify areas inhospitable to turf. As a living mulch, they prevent mechanical damage to trees and shrubs.

Ground covers can be used under trees where low branches prevent mowing, or to hide exposed tree roots.

Ground covers can trail close to the ground or grow as high as three feet tall. The Garden Council reports a wide variety of ground covers which prevent weed growth and soil erosion while decorating large garden areas.

The best ground covers are free of insect and disease problems; semi-evergreen to fully evergreen; widely adaptable; easily propagated, and vigorous.

Of course, the most commonly used ground cover is grass, but there are many others which come complete with flowers, berries, textures and colors.

Some ground covers flourish in shady areas, rocky slopes or hot, arid spots. When they're done blooming, they decompose to provide a permanent mulch which encourages further growth.

**How to choose**—The choice of ground cover depends on a variety of site-related factors:

- the design characteristics you seek, such as color, texture, form, shape, size, growth habit and rate of growth;
- the site—sun or shade, wet or dry, acid or alkaline, salt exposure and wind flow;
- how will they function in the landscape—as a transition zone or as area of visual interest;
- the hardiness and adaptability of the plant to the area;
- maintenance needs of the plant and the ability to care for it as needed;
- availability.

Sources: Russell Balge, Free State Nursery News; The Garden Council



Periwinkle, *Vinca Minor*

### Ground covers for shade

winter creeper (*Euonymus fortunei* & cvs.)  
English ivy (*Hedera helix* & cvs.)  
creeping lily turf (*Liriope spicata*)  
periwinkle (*Vinca minor*)

### Ground covers for sun

winter creeper (*Euonymus fortunei* & cvs.)  
edging candytuft (*Iberis sempervirens*)  
three-toothed cinquefoil (*Potentilla tridentata*)

### Ground covers for acid soils

European wild ginger (*Asarum europaeum*)  
heather (*Calluna* spp.)  
lily-of-the-valley (*Convallaria majalis*)  
barrenwort (*Epimedium* spp.)  
wintercreeper (*Euonymus fortunei* cvs.)  
sweet woodruff (*Galium odoratum*)  
wintergreen (*Gaultheria procumbens*)  
English ivy (*Hedera helix*)  
hosta (*Hosta* spp. & cvs.)  
edging candytuft (*Iberis sempervirens*)  
partridgeberry (*Mitchella repens*)  
Japanese spurge (*Pachysandra terminalis*)  
canby pachistima (*Paxistima canbyi*)

### Ground covers for moist soils

bugleweed (*Ajuga* spp. & cvs.)  
European wild ginger (*Asarum canadense*)  
heather (*Calluna vulgaris*)

### Advantages of ground covers

- can be used on steep slopes or rocky areas where mowing is not possible
- usually do not require much maintenance
- will function as living mulch
- assist and enhance soil structure by virtue of their greater root penetration that turf grasses; this improves soil aeration and water percolation;
- they may enrich the soil by adding organic matter to the soil;
- generally more resistant to insects and diseases.

### Disadvantages

- must usually be transplanted from vegetative starts;
- can not usually be weeded with selective herbicides; the exception is the elimination of grassy weeds in broadleaved ground covers with Fusilade (*fluazifop-P-butyl*) or Poast (*sethoxydim*);
- usually more susceptible to damage by pedestrians;
- the tender varieties are sometimes killed by harsh winters;
- they can sometimes be smothered by leaves;
- they may have to be treated for a wider range of insects and diseases than lawns;
- until well established, they may be difficult to keep free of weeds for 2-4 years.

# NUMBERS THAT LOOK GOOD ON ANY COURSE

Players

3235

3365

1200A

220

1800

2653

1	2	3	4	5
366	530	190	315	165
4	5	3	4	3



# TEE-TO-GREEN QUALITY

**W**e want to make your job easier. That's why we've worked hard over the last few years to expand our equipment line to literally take you from tee to green. Take time to read more about our equipment, then contact your John Deere Golf and Turf distributor for a first hand look on your course. We know you're going to like what you see.

- 1** *The 10-hp 4x2 and 18-hp 6x4 Gator® Utility Vehicles offer you a solid choice for both on-turf and off-road work.*



- 2** *Five 30-inch cutting units on the 3365 combine to deliver a quality cut over wide areas—from fairway to roughs.*



- 5** *The new 2653A Utility Mower joins the job-proved 2653 to give you solid gas and diesel choices for trim mowing.*



- 6** *The John Deere Turf System Mowers deliver ground-hugging fairway performance with your choice of standard or heavy-duty 22-inch cutting units.*



# Y FROM JOHN DEERE



**3** A wide variety of options and attachments make the 1800 Utility Vehicle well-suited for spraying, spreading, and hauling.

**4** The new 220 Walk-Behind Mower improvements include an operator-presence safety system, larger engine, 11-bladed reel, and 0.155-inch frequency-of-clip.



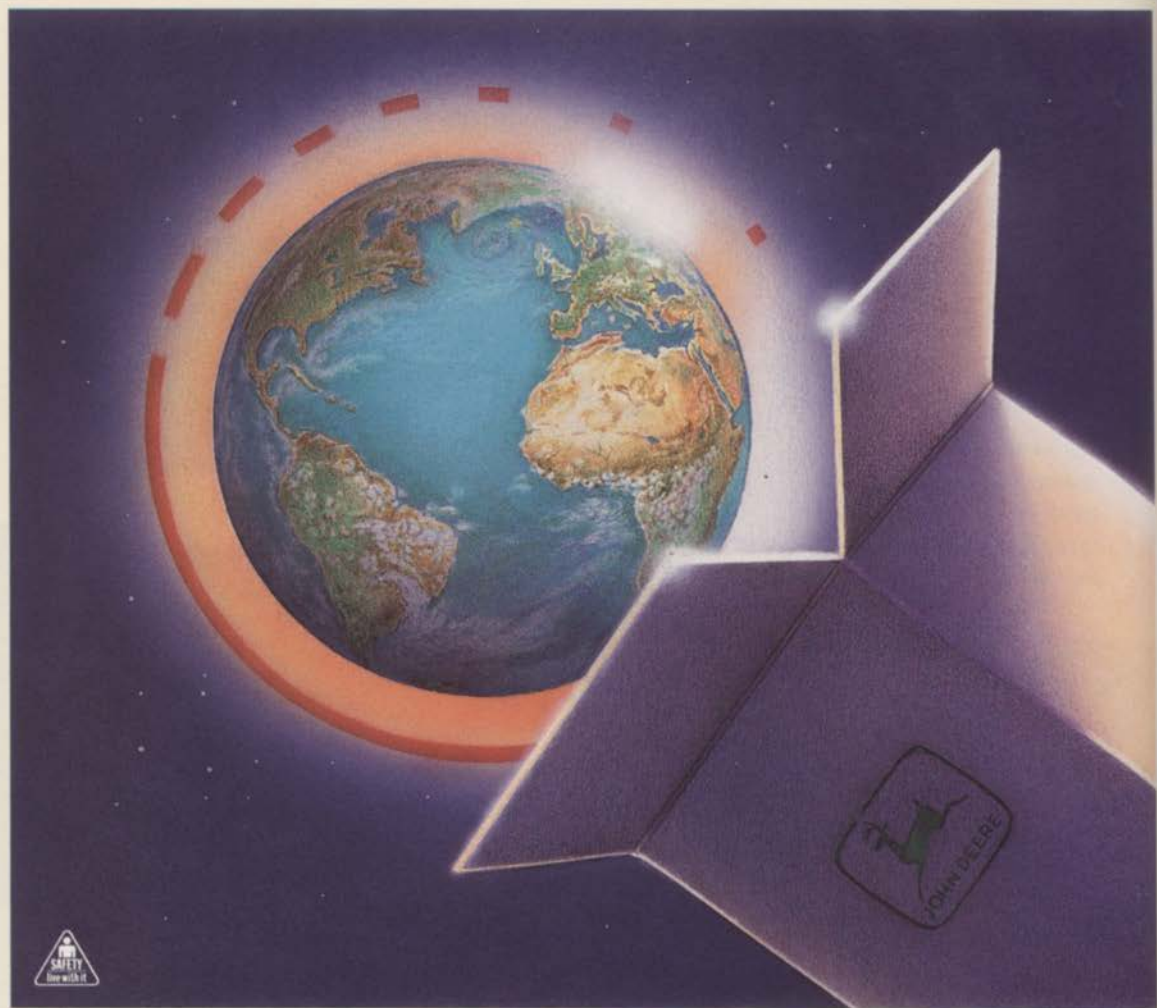
**7** The new 1200A Bunker and Field Rake features more power, more comfort, more attachments, and less noise than the popular 1200 it replaces.



**8** The same John Deere 30-inch cutting units used on the 3365 work well on the 365 gang mower. Quality cut, durable design, and a secure adjusting system still come standard.



**9** Gas and diesel versions of the 2243 Professional Mower both feature 18-hp engines and John Deere cutting units for exceptional quality of cut.



## TRUST JOHN DEERE FOR WORLD WIDE PARTS SUPPORT TOO

The grass doesn't stop growing when a machine goes down. That's why you need to know about John Deere's worldwide parts system. More than 285,000 individual part numbers are sourced and stored in John Deere distribution centers and depots around the world. Each day, more than 80,000 individual parts are shipped directly to John Deere dealers and distributors via our computerized Distribution Service Network (DNS). What does all this mean to you? Call us @ 800/537-8233 today for the location of your nearest distributor.



# GOLF & ATHLETIC TURF

## HINTS: How to tell if a redesign is near

### Is your course fair—and fun—to play? Player complaints and marathon rounds might be signs a redesign is needed.

■ Longer rounds that aren't caused by increased traffic. Slow-growing greens. Poor drainage. These are all hints that it might be time for a redesign. And it's especially true if you're hearing complaints from low and high handicappers alike.

"It's easy, for example, to attribute turtle-paced rounds to slow golfers," says Don Knott, past president of the American Society of Golf Course Architects. "But

slow rounds can result from more than just slow golfers. They may result from what is actually an outdated golf course."

**A classic reconsidered**—In 1992, ASGCA member Jeff Brauer provided design services for a complete renovation of the Great Southwest Golf Club, Grand Prairie, Texas. The course redesign was part of the club's overall renovation plan, which also called for a remodeled clubhouse, driving range and golf school. According to Michael Akeroyd, general manager of the club, Great Southwest was nearing its 30th birthday and had come to the end of its "first life."

The problems were caused by tiny greens, poor air circulation, inadequate drainage and poor greens mix. Diminished

*continued on page 6G*



This sculptured lake added to Rio Hondo separates tees from greens and provides an all-around better look.

### Redesign signs

Look for these signs that indicate it may be time to redesign:

#### GREENS

- Standing water on greens, even after minor rain showers.
- Too small to hold long shots or too big for short shots.
- Golfers complain that certain parts of the course are 'unfair.' (If you hear this from both low and high handicappers, it's probably true.)
- Speed of play is a good indicator of an outdated design. (Remember, with increased popularity of golf comes heavy traffic and an greater need for faster play.)

#### BUNKERS/OTHER HAZARDS

- Do they challenge the players? Advances in equipment used to play the game and maintain the course can make certain original design challenges obsolete.
- Do you see a major increase or decrease in the balls you find in hazards?
- Have you had to alter your irrigation program in a significant way? Is your current system meeting the course's demands?
- Do you have a decent practice facility? With more golfers using driving ranges, a practice facility can be an important source of revenue.
- Are the red tees fair to women and junior players?

#### BUDGET

- Is the maintenance budget increasing? It could be you're spending more money on routine maintenance, with more costs to come.

### ELSEWHERE

**No fuss compost plan really works, page 8G**

**Keeping workers' productivity up, page 10G**

**Watching fall athletic fields, page 12G**

**Diseases keep Patterozzi busy, page 14G**

**REDESIGN** *from page 5G*

play after the warm summers of 1991 and 1992 convinced club management to solve the problems.

Brauer advised that all greens be rebuilt according to USGA standards. Some trees were removed to improve air flow and sunlight penetration around the greens.

SR 1020 bentgrass was chosen for its heat tolerant properties.

Design changes included softer contours for faster green speeds; larger greens to allow for more varied pin placements and a larger target area; and larger, more visually appealing bunkers for easier maintenance, more challenging shots and aesthetics.

Greens banks and shoulders now allow easier access from the cart paths, and are in line with federally-mandated ADA (Americans with Disabilities Act) guidelines.

Both membership and income at the course have increased since the redesign.

**Traffic tells a tale**—Rio Hondo Golf Course, another classic from the 1920s, was host to more than 100,000 rounds of golf in 1992.

That's when superintendent John Rodriguez noticed that the greens were too small and were not draining well. Tee boxes were also very close, which hinted at a potential safety problem.

Jerry Pirkel was hired for the redesign, and his mission was to change not only the design, but a new visual appeal and identity.

The redesign required that the course be closed for 11 months. Greens were enlarged, four lakes were installed with waterfalls, mounds were added to fairways and a new irrigation system was installed.

Between October of 1994 and March of



The large front bunker at the 191-yard, par 3 sixth at Great Southwest was converted to white sand and mounds were added to the periphery. The back-to-front slope of the green makes the hole play more fairly.

1995, the course was well on its way to paying off the initial redesign cost.

—For a free copy of the ASGCA's Golf Course Development Planning Guide, write them at 221 N. LaSalle St., Suite 3500, Chicago, IL 60601.

## GCSAA joins pesticide partnership program

■ The Golf Course Superintendents Association of America (GCSAA) will participate in the federal government's new Pesticide Environmental Stewardship Program. Under the program, the GCSAA will work with the U.S. EPA, the Department of Agriculture and the Food and Drug Administration to develop a strategy that further reduces the risks from using pesticides on golf courses.

"We are absolutely committed to using responsible management practices that

pose little—if any—environmental risk," says GCSAA president Gary Grigg. "Through this partnership, we'll be able to work with the leading federal authorities to find innovative ways to use pesticides effectively and safely, and to minimize any potential harm to people, wildlife and the environment."

EPA administrator Carol Browner adds that congratulations are due to "the companies and grower groups that are joining with us for their forward-thinking

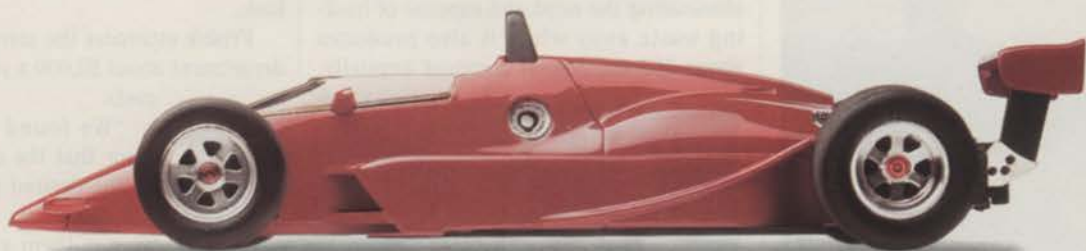
approach to environmentally sound pesticide use practices."

The EPA's Anne Leslie, coordinator of the GCSAA's strategy, says that she is looking forward to working with superintendents.

The GCSAA's plan includes education, training, research and continued careful use of pesticides. Specifics will be announced during the Environmental General Session of the GCSAA Conference and Show next February in Orlando, Fla.



### OVERSEEDING.



### OVERSEEDING WITH PRIMO.

During overseeding, speed is the name of the game.

Primo® gives you a dramatically quicker transition by doing what it does best: slowing the growth of existing turf by 50 percent.

This makes existing turf less competitive, and allows more sunlight, oxygen,

and nutrients to reach the newly seeded grass.

Which means you get a faster stand and a higher rate of germination.

And since Primo is foliar absorbed, it has no effect on new seedlings.

So this year, be sure to use Primo. It's like turbo-charging your overseeding program.



© 1995 Ciba-Geigy Corporation, Turf and Ornamental Products, Greensboro, NC 27419. Primo is a registered trademark of Ciba-Geigy Corporation. Always read and follow label directions.

# A no-fuss compost plan that pays off

## Northern Michigan golf resort's goal is to be 100 percent zero discharge.

by Ron Hall  
Senior Editor

■ The golf course management team at Michigan's Treetops Sylvan Resort turns landscape waste into valuable compost. It does it by following basic composting rules, but not with a lot of fuss.

The Treetops' effort began in earnest when Bruce Wolfrom, CGCS, arrived as golf course manager five years ago. He came from Barton Hills, Ann Arbor, Mich., where he'd been for 20 years.

"Recycling yard waste is something I've always done. This material is just too valuable to throw away," says Wolfrom.



**Golf course manager Bruce Wolfrom, CGCS, loves northern Michigan and works to preserve its beauty.**

The resort and its golf courses generate tons of landscape waste annually, mostly grass clippings, leaves, chipped limbs, spent flowers and discarded sod. But Wolfrom's management team has a plan to take care of it, and a plan for source reduction, too.

For instance, Treetops purchases its fertilizer in 200-pound bulk fabric containers that are returned to suppliers and refilled. The resort gets no price breaks, and it must use a forklift to handle the palletized shipments. But Wolfrom says it's worth the effort because it drastically reduces bag disposal.

"We have pushed manufacturers, chemical companies and fertilizer compa-

nies to help us with their packaging. We want them to be a little more responsible about what comes into the resort and what's going to happen to this packaging when we're done with it," explains Wolfrom.

The ultimate goal, he adds, is for the resort to become 100 percent zero discharge: everything that comes into the resort stays on the property.

"There are a lot of questions and answers that need to be thought out," he admits, "but that is our goal."

### Usable end product—

One of Treetop Sylvan's biggest successes so far has been green waste recycling. This benefits the resort by eliminating the need and expense of hauling waste away while it also produces about 300 cu. yds. of compost annually.



**Treetops' landscape manager Don Frisbie says the use of compost gives flowers like these astilbes and impatiens extra vigor.**

That's slightly more than the resort can use, so there's always a slight surplus on hand.

Don Frisbie, the resort's landscape manager, uses much of this compost on 8,000 sq. ft. of flower beds each spring.

"When you first put the compost down, it makes the bed richer and brings out the color of the flowers," says Frisbie. "But we don't use compost for this rea-



**Karen O'Dell, superintendent of the Robert Trent Jones, Jr., Masterpiece course at Treetops Sylvan Resort, says several smaller compost piles around her course encourage employees to use them.**

son." He feels double-processed hardwood bark mulch gives beds a more finished look.

Frisbie estimates the compost saves his department about \$2,000 a year in product costs.

"We found by trial and error that the compost gives us the desired results in our beds," he says. "Occasionally we give them a foliar feeding to give them a boost, but we don't use any granular fertilizer at all."

Also, Frisbie says the beds stand up to diseases and insect pests better since the resort began using compost. The annual beds haven't needed any pesticides in two years, he says.

**On the course—**Karen O'Dell, superintendent of the Masterpiece course, says she often uses compost to

improve or repair roughs.

"If I've got a weak spot on the course where it's been worn out by the carts, and it's sandy and I can't keep nutrients in, I have the compost mixed in," she says. "It helps out tremendously. It's a good soil additive."

Three compost sites are located around O'Dell's course, along with multiple sites

*continued on page 10G*

# PROGRASS®

Only one thing is better  
at removing *Poa*



When it comes to removing *Poa annua* from your turf, there's only one thing better than PROGRASS®. But who has that kind of time?

Having both pre- and post-emergence selective herbicide activity, PROGRASS plucks *poa* (and a host of other weeds) actively from your turf via root and shoot absorption. When timed properly and used in a continuing program,



*It's Your Move...  
Make It With*



PROGRASS protects ryegrass, Kentucky bluegrass, creeping bentgrass, tall fescue, — even dormant Bermudagrass overseeded with rye! Your AgrEvo dealer can prescribe a schedule best for you: complete renovation, gradual conversion or preventive maintenance.

**IMPORTANT:** Please remember always to read and follow carefully all label directions when applying any chemical.

A company of Hoechst and NOR-AM

Specialty Products

AgrEvo USA Company  
Little Falls Centre One, 2711 Centerville Road  
Wilmington, DE 19808

Circle No. 101 on Reader Inquiry Card

**COMPOST** from page 8G

around the other courses, too. This makes it easier for crew members at each course to bring debris to them.

Periodically, a crew member uses a front-end loader to turn and churn these piles. This is necessary to keep them aerobic. Only once did a pile go sour at the resort, recalls O'Dell. "It began stinking, so we spread it out and let it dry some. Then it was fine."

O'Dell says it takes about a season for the green wastes to turn into compost. Before it's used, it's run through a screener to remove any rocks and soda cans.

One of the prime ingredients in the resort's compost piles is grass clippings.

Before golf course equipment is washed, it's blown off with an air hose. Each course can generate over 300 lbs. of clippings a day. These are swept up and put in the piles.

Grass clippings also come from the lawns in front of the resort's hotel and guest areas. Sometimes, for appearance's sake, Frisbie's crew must bag them and add them to the piles.

But the most largest ingredient, by volume anyway, is leaves. In fact, beginning in September (maples and oaks turn early this far north), teams of workers begin blowing the leaves into windrows on the golf courses. Then leaf vacuums come along and suck them up.

These leaves, along with wood chips, are fed into the compost piles almost like ingredients measured into a cake mix. Sometimes sand and soil are also added to control moisture.

"If you have the right combination of wastes, then the compost piles seem to take care of themselves," says O'Dell. "Maybe we've been lucky, but it just hasn't been that difficult for us to compost."

Golf manager Wolfrom thinks more golf courses will be both trying to reduce the source of waste, and recycling what waste they do produce.

"I think our industry is primed for this. Being responsible for our waste is not a bad idea," he says.

## Keeping workers productive, the Sandburg/Lakeside way

**'Good clean fun' is the way to go, says this superintendent of a course where summer days run to sub-tropical weather.**

by Jerry Roche  
Editor-in-Chief

■ Sitting in the air-conditioned Houston office of Lakeside Country Club superintendent Mike Sandburg, at around 3 p.m., you can hear the muffled sounds of workers who've survived another day of 95 degree temperatures and 85 percent humidity. They're clowning around in the equipment area, winding the day down.

"Hear that?" Sandburg asks. "You wouldn't hear that at a lot of golf courses." He avoids the tired cliché of the crew that's one big happy family, but you know it's true here.

"I try to pass on the message to be happy with yourself or to find someplace where you can be happy," Sandburg asserts. And that is the key to successful personnel management at Lakeside, inarguably one of the spiffiest courses in east Texas.

"We're a good family—my wife Kelli, my son Matthew—and that includes the guys who work for me," says Sandburg.

He does many things well, as a good superintendent must. But the best thing he does is manage people. "The hardest part of this job is dealing with people," Sandburg notes, "and that's something I love to do."

He learned part of his management technique from his father, a hard-working Kansas farmer. ("This is the closest I could be to farming and still make money.") The rest he picked up during four years at ChemLawn, where he saw both the good



and the bad.

"The philosophy of Dick Duke (ChemLawn founder and CEO) was to put the customers and employees first and profits second. But by the time I left ChemLawn, he was gone and things had changed."

**Just do it!**—If there is a definition of

"working superintendent," Sandburg is that. "I can't sit in the office," he notes. "I just like to be one of the guys. And I don't ask my employees to do anything I can't or won't do.

"If you can't take employees out and show them how to do it yourself, you can't teach them. You have to break them in slowly. Only our most experienced guys mow fairways. New guys rake bunkers and work up from the bottom."

He claims that his employees would jump "a bridge, provided he asked them to, and that he jumped off with them. "They know that I do everything for a reason, and they don't question the reason." Continuing education is also a key to the happiness of the 26-person crew at Lakeside.

"I love to see people get better," Sandburg says. "My lead assistant, Chad Stearns, will make a good superintendent someday. And I want him to be a superintendent someplace, but I want him to be ready when he goes. Another employee is 19 years old, has one child and one on the way. He's finishing his GED, and I'm starting him on a training program to be a licensed pesticide applicator."

The training is reciprocal. Since superintendents are supposed to be jacks of all trades, Sandburg finds himself learning the odds and ends from his employees. "Every day's a learning process."

Most of the crew members at Lakeside are Hispanic, some Mexicans and Salvadorans with green cards, and some second-generation U.S. citizens, but Hispanic nonetheless. That makes language another potential

*continued on page 16G*



CUTWORMS. ARMYWORMS. SOIL WEBWORMS. BAGWORMS. GET BACK AT ALL OF THEM WITH ORTHENE® TURF, TREE & ORNAMENTAL SPRAY. IT CONTROLS A WIDER SPECTRUM OF WORMS THAN DURBAN® AND DEGRADES RAPIDLY — SO YOU DON'T HAVE TO WORRY ABOUT SURFACE WATER CONTAMINATION. AND OUR NEW WATER SOLUBLE PACKAGING MAKES REVENGE EVEN EASIER.

FOR THE GREENS

FOR THE TEES

FOR THE FAIRWAYS

FOR THE FLOWERBEDS

FOR KICKS

ORTHENE® TT&O IN WATER SOLUBLE POUCHES. REVENGE ON WORMS.



Professional Products Team

**FOR A FREE ONE-THIRD POUND TRIAL POUCH OF ORTHENE TT&O CALL 1-800-89-VALENT**

Sample supply is limited. This offer extends to calls made by October 1, 1995, or until supply is exhausted. One sample per golf course. Free sample is a one-third pound pouch, the amount of ORTHENE® TT&O needed to treat most greens or tee areas. Always read and follow label directions. ORTHENE is a registered trademark of Monsanto Co. for acephate insecticide. DURBAN is a registered trademark of DowElanco for chlorpyrifos insecticide. ©1995 Valent U.S.A. Corp.

Circle No. 125 on Reader Inquiry Card

# High school field care a balancing act between traffic and turf management

**With lots to do in little time, these sports turf managers keep the turf healthy despite many extra-curricular activities.**

by Steve and Suz Trusty

■ In the busy world of high school athletic field management, optimum turf growth and field playability must coincide with the turf's natural cycles of growth and recovery.

Across the U.S., athletic field managers—at what must be some of the country's busiest high school fields—rely on a variety of sure-fire techniques to ready their fields for the crunch of competition.

**Slit seed, overseed**—Lonnie Berg's work as grounds supervisor for Hinsdale



Manatee High's football field is used for football and soccer play.

(Ill.) South High School includes the extra challenge of spring activities. Varsity and junior varsity soccer, graduation ceremonies and the senior picnic are concluded by June, but football practice starts the second week in August.

Soccer play leaves distinctive wear patterns around the goal areas and at the center line of the game field. New soil was spread onto the worn sections, and the field was aerated and topdressed.

"We used a combination of slit seeding and overseeding twice; once on June 12th and once toward the end of July," says Berg. "We used the same mix of Kentucky bluegrasses and perennial ryegrass as the established turf. Each seeding was followed by an application of starter fertilizer."

Fertilization was reduced during the summer, and irrigation was increased—to twice a week for eight hours—to combat the hot, dry conditions.

The turf is reel-mowed every other day at two inches. Fertilization rates are increased and the turf is mowed every day as the first game approaches.

"During the season, we'll overseed with a blend of perennial ryegrasses and let the player's cleat it in," says Berg. "Irrigation depends on natural rainfall and the game schedule. We don't want to stress the turf, or do anything to encourage compaction."

**Deep rooting tactics**—Bill Antons, superintendent of buildings and grounds for Boone (Iowa) schools, has to shore up

the turf after a similar number of activities, and then some. The stadium is the game field for junior high and high school play, and also must endure flag football games on Saturdays. Include varsity practice and band practice, and you have more traffic than any field should endure.

"We keep the bluegrass field at 3½ inches during the summer to encourage deep rooting and for protections from the heat," says Antons. "With this year's hot, dry summer, we mowed a little less and irrigated a little more."

Antons says he will lower the mowing height gradually, starting about the first of August, to hit the game height of 1½ inches by August 20th.

Four pounds of nitrogen are applied between June and November. An overseeding of Kentucky bluegrass varieties is made every spring.

Antons' crew applies liquid chelated iron a day or two before the first game of the season to get a deeper green color. The product is also used for a boost of color for special games.

"The only problem with all this," laughs Antons, "is the field looks so good on the night of that first game that everyone wants to use it."

Washington State's North Thurston School District has one field for three high schools, South Sound Stadium. That's a total of 12 teams: boys junior varsity and varsity football and girls junior varsity/var-



**Paul Greenwell: four men mow 44 athletic fields. Aeration, topdressing, irrigation repairs and some fertilization is contracted.**

sity soccer. On Saturdays, the Thurston City Youth Football Association uses the field for seventh- and eighth-grade games.

"It's an old-style sand-based field with a crown and sub-surface drainage," says grounds supervisor Matt Johns, "though the drainage system really isn't needed. The turf is a blend of three perennial ryegrass varieties. We run an above-ground piping system for irrigation. Though rains here are usually adequate, because of the intense summer heat this season, we've had to irrigate frequently."

**Aeration**—For fall soccer, Johns' crews aerate and top-dress at the end of the school year. Three or four passes with a core aerifier are done in July and in August; cores are left on the field.

Reseeding follows those aerations. "We'll overseed with the same three-variety blend at the end of the season, too, usually in late November or early December."

Johns says his fields' fertilization program is high in potassium—to encourage deeper turf rooting and boost hardiness—and low in phosphorus, because current levels are adequate.

"We're using a slow release nitrogen at the rate of 1 lb./1000 sq. ft. per month.

"We keep the turf at 2½ inches, alternating directions each mowing to keep the grass standing upright. Before the first game, we'll mow in two directions. During the season, we mow three or four days before a game and, if temperatures warrant it, we'll irrigate up to the day before the game."

**Closed for the summer**—Paul Greenwell is grounds coordinator for Georgia's Gwinnett County Public Schools. The county has 12 high schools and 44 athletic fields, 10 of which are stadium fields.

"This region has been growing so fast," says Greenwell, "the system's practice and stadium fields have been used for PE classes at some sites. To balance wear, we



Verticutting fields helps control thatch and compaction caused by high use and heavy athletes.



Trailers make equipment transport easy for large school systems with many fields.

*Photos courtesy Paul Greenwell*

move practice areas within the available field space and combine varsity and junior varsity practices. Ninth-grade practices are held on the outfields of the baseball fields. Still, a few of the schools must practice on their stadium field."

In what some might consider a bold move, the county closes football game fields during the summer for renovation.

This year, the fields were sprigged with Tifway 419 bermudagrass in mid-June. "We generally mow three times a week, vacuuming at each mowing, and keep the turf at 1¼ inches," explains Greenwell. "The pre-game mowing is on Thursday."

It really helps that the coaches and booster clubs paint the fields before practice on Thursday, then do a touch-up painting on Friday mornings.

Greenwell applies fertilizer two or three

times a month to boost growth and strengthen the turf for the impending traffic stress.

"We'll fertilize on Thursday, one week before the first game, then go to a schedule of 1 lb. of N per month. We irrigate on Wednesday, with a follow-up irrigation after the last game of the week. If junior varsity teams play on Saturday nights, the first irrigation is Sunday.

"As temperatures cool, we'll aerate, fertilize and overseed with perennial ryegrasses. Fields must keep growing because, as soon as football is completed, soccer moves in and with both guys and gals playing. There are six soccer teams per high school."

**Time/money concerns**—Jim Corcoran, grounds manager for the Albuquerque (N.M.) Public Schools, shares responsibility for the school system's 103 fields. Forty-six of the fields are used for practices and physical education classes for the system's 11 high schools. These 11 schools also share two stadium "game" fields, both of which are artificial. The decision two years ago to forego natural surfaces was based on time and money.

"Though I'd personally prefer to have all games played on natural turf, within our current staffing and budget levels, the artificial turf stadiums are a practical solution," explains Corcoran.

"The large number of games each field must handle was definitely the greatest concern," says Corcoran about the decision to stay with artificial turf. "The two fields are used by each school's varsity and junior varsity football teams, guys and gals varsity and junior varsity soccer teams" and freshman soccer club.

Corcoran says the school district continues to grow beyond its current roster of more than 90,000 youngsters. "Our turfed fields are used for team and club practices, PE and the after-school practices and play of the city's soccer clubs. Our biggest field problem is traffic."

## Turf diseases keep Browns' chief busy

■ Vince R. Patterozzi's grandest dream is to help the Cleveland Browns professional football team get to the Super Bowl. They've never gone.

His immediate goal—and the task for which he was hired almost four years ago—is to make sure they perform on the best and safest playing surfaces possible.

Vince, the Browns' grounds manager, said that this summer presented him with a new set of grounds management challenges. Each season does. Probably the most vexing problem in 1995 has been the proliferation of turf diseases, particularly in the practice fields. Pythium, summer patch and fusarium blight—they all reared their ugly heads, he said.

Temperatures averaging 10 degrees above normal and unremitting humidity through August didn't help matters, said Vince. Nor did a 3/4-inch layer of



Vince Patterozzi, center, told Cleveland-area PGMS members that he battled turf diseases all summer at the Browns' training camp.



**Even with the daily pounding of 80 huge football players the practice fields (80 percent sand/20 percent soil) provided reliable footing.**

thatch in the turfgrass. Actually, he hadn't been displeased with the thatch prior to the disease problem. It had kept the cleats of the huge players from churning up bare earth.

"I watch people's feet, if they slip or if they don't slip," said  
*continued on page 16G*



El Toro zoysiagrass, right side of the string, tolerated mid-summer traffic better than the Kentucky bluegrass/ryegrass blend to its left.

## Zoysia gets test at training camp

■ Zoysiagrass now covers what used to be blacktop paths along the sides of the practice fields at the Cleveland Browns training facility.

Fans congregate to watch practices here. It's also where telescoping "high-boys" hoist metal buckets containing cameras and spotters high above the action.

This past off-season, grounds manager Vince Patterozzi installed 2,200 yards of El Toro zoysiagrass there.

"We have to have a grass that's very tolerant this time of the year," he told about 40 visiting PGMS members on a blistering day in August.

At least through the heat of midsummer the experiment was working. The grass, in spite of weekly thunderstorms and brutal daily pedestrian traffic, retained fine color and cover.

"Now we have to find out when it's going to go dormant and when it will come out of dormancy," Patterozzi told the other grounds pros.

"We want to find out if it encroaches on the bluegrass (the practice fields are a Kentucky bluegrass/perennial rye combo). Or, in the fall or spring, will the bluegrass encroach on it." He said Dr. Bill Pound at Ohio State University plans to introduce about six more varieties of zoysiagrass at the facility to test their wear and cold tolerance.

"Maybe we can help out schools, particularly low-budget schools. Maybe they can introduce this zoysiagrass into their sports fields," said Patterozzi.

# PROSTAR<sup>®</sup> PLUS<sup>™</sup>

For Control of Brown Patch & Dollar Spot...Up to 30 Days

- 
- CONTROLS**
- ✓ Brown patch
  - ✓ Dollar spot
  - ✓ Fairy ring
  - ✓ Anthracnose
  - ✓ Southern blight
  - ✓ Fusarium blight
  - ✓ Summer patch
  - ✓ Red thread
  - ✓ Pink patch
  - ✓ Zoysia patch

Newly approved by the EPA, PROSTAR<sup>®</sup> PLUS<sup>™</sup> Fungicide is an in-package fungicide mix for the long-term control of two of the most difficult turf diseases: Brown Patch and Dollar Spot.

Working together, these two independently-proven fungicides (PROSTAR<sup>®</sup> and Bayleton<sup>®</sup>) can result in 30-plus full days of Brown Patch/Dollar Spot residual preventive and curative control (unlike other fungicides that must be applied every 7 to 10 days). The synergistic effects between the two also mean optimum control using the lowest labeled rates! What's more, university studies show that together the two agents have a higher degree of activity than either one alone. Packaged in premeasured water-soluble film containers, PROSTAR PLUS reduces worker exposure and package disposal. Safe for use on all fine turfgrasses, PROSTAR PLUS won't interfere with growth inhibitors — a boon for turf managers who use growth regulators to increase mowing intervals.

For broad spectrum activity, rely on PROSTAR<sup>®</sup> PLUS<sup>™</sup>.



*It's Your Move...  
Make It With*



A company of Hoechst and NOR-AM

AgrEvo USA Company  
Little Falls Centre One, 2711 Centerville Road  
Wilmington, DE 19808

**IMPORTANT:** Please remember always to read and follow carefully all label directions when applying any chemical.

**BROWNS** from page 14G

Patterozzi. "I usually miss the play because I'm watching to see how the traction is."

Patterozzi battled the diseases with chemical controls. Because the practice fields are used daily by 80 highly skilled athletes, he's very careful about how and when to use them. The Browns' three-year-old practice facility has five fields and is located in the small college town of Berea about 15 miles southwest of downtown Cleveland.

This summer also generated more than its share of thunderstorms and rain. But Patterozzi's been reluctant to haul out the green tarpaulins, rolled up on the other side of the fifth practice field.

"In this disease-prone environment, you can imagine what we're doing by putting tarps on the turfgrass. We might as well put a gun to our heads," said Patterozzi. He

described tarp and disease management as his two biggest challenges so far in 1995.

Patterozzi is also responsible for the field at huge, gray Municipal Stadium that overlooks Lake Erie and is now neighbor to Cleveland's new Rock and Roll Hall of Fame and Museum.

In the summer of 1994, he directed the regrading and rebuilding of that field, including the installation of underground irrigation (Hunter sprinkler heads, Buckner controllers) and the laying of 16,000 yards of big-roll, Kentucky bluegrass/perennial ryegrass sod. He uses it in 1½ inches thick in 4-foot-wide, 40-foot-long rolls.

This is sod that's been managed on the farm with the same regimen—fertilization, mowing and watering—that it will receive on the Browns' playing or practice fields, he said.

The sod was laid over a sand/soil mix enhanced with about 88,000 pounds of Axis, a diatomaceous earth. Patterozzi felt the product, disked and rotovated into the field, substantially helped the field's drainage during last fall's season.

He used a substantial amount of Axis on one of the practice fields too. On that particular field, Field Two which contains a slightly higher percentage of soil than the other practice fields, Patterozzi used a Floyd McKay aerifier equipped with hoppers to "drill" in the diatomaceous earth.

Patterozzi and the Browns hosted about 40 Cleveland-area PGMS members at the practice facility in August. That particular day, the expansion Carolina Panthers team was also practicing there.

—Ron Hall

**SANDBURG** from page 10G

problem spot. But not here.

"It doesn't matter what language you speak, people are people," Sandburg philosophizes. "You treat everyone with respect. You learn to work around it. Those of us who speak English adapt to those of us who don't, because we're the ones in the minority."

Head mechanic Martin Muñoz, who's been at Lakeside for 25 years, is a great help. He's one of only four people on the staff who is bilingual, though Sandburg is working on his Spanish.

**Defining 'tournament level'**—

Lakeside is widely recognized as having one of the top three or four golf courses in the Houston area. It's no fluke.

"We attempt to maintain the course at a tournament level for as long as possible," notes Sandburg. "By 'tournament level,' I mean more of a clean, manicured look—not necessarily fast, hard greens and excruciating rough."

He oversees 44,000 rounds per year played on Ron Pritchard's redesign by a membership numbering 850.

With the approach of a farmer ("we learned to use what we had on hand"), the intelligence of a scholar (master's degree from Kansas State University) and help from home ("my wife Kelli has been the driving force in my life"), Sandburg keeps Lakeside beautiful, its employees content.

"I love to see people—my members, my employees—happy," Sandburg concludes. "And I love to come to work because we're all happy here."

## Another Audubon story...

by Mike Sandburg  
Lakeside Country Club

■ At Lakeside Country Club, the maintenance department—in conjunction with the Greens Committee—feels that we have to set precedents. There are times when we could say, "Let's just not do it and run with the pack," but the membership doesn't want that.

We plan on becoming the first fully New York State Audubon-certified course in Texas. At this writing, we have more certifications—three—than any course in Texas.

A lot of requirements must be met. The first thing you have to do is establish an advisory committee. Though some courses have gone into the community to recruit advisors, I've tried to limit it to members of our club, because they're the ones with the pride in the course.

Lakeside is certified in (1) water quality, (2) water conservation and (3) environmental planning. Our water district has established guidelines that we now follow, and I have a computerized irrigation controller that can time heads to the second.

Some of the Audubon program's requirements are easy to meet, because they encompass things we were doing anyway: things like planting wildflowers in place of grass and cutting down on using

mower fuel.

Even though we're practically in the middle of Houston, we have a new gray fox living on the course because we've provided a food source and habitat. Yellow finches appeared this spring because it's more of a friendly location. We do regular wildlife audits and if we start to see new things, we send the Audubon Society updates.

More people need to hear this story, and more of us have got to get involved with the Audubon program. If that were the case, Paul Harvey would not have a leg to stand on. Some of us are way ahead of Paul, and were doing it before Harvey started his campaign against the golf course industry.

We've got to look to the future. This kind of thinking is becoming the rule, as the new breed of superintendent becomes more educated. You can actually see the changes taking place.

The Audubon program costs more money to start, but the long-term benefits and savings far outweigh the costs. For instance, by planting wildflowers, we've saved money on fertilizer and pesticide costs, we've saved money on mower fuel and we've saved money on the labor it takes to maintain grass rather than the wildflowers.

The point is that golf courses can—and should—give back to the environment what others take away.

# LAWN & LANDSCAPE INDUSTRY

## Brightening those long winter nights

**Landscape lights can bring happiness to homeowners—but, more importantly, they can also brighten up your profits.**

by Ron Hall  
Senior Editor

■ Crisp, dry weather and fewer hours of daylight make autumn a good time—perhaps the best time—for landscape pros to sell landscape lighting.

Some of the reasons are obvious, like being able to do on-site demonstrations earlier each evening. But the biggest reason is that professionally installed outdoor lighting allows homeowners to enjoy their landscapes even as the long nights of winter approach, and probably even more so. After all, most working couples don't return home from their jobs until late afternoon or early evening. In late fall or winter, it's dark by then.

The proliferation of high-quality lighting products has, in fact, made it easier for landscape pros to enter this market. That's because many of these products are low voltage rather than the standard 120-volt.

These low-voltage (12-volt just like the lights on your auto) systems:

- require no special training to work with;
- are safe to install and to maintain;
- offer surprising design flexibility;
- are energy efficient.

There are four main components of a low-voltage system:

**1) A transformer** that's plugged into a standard 120-volt electrical outlet and converts it to 12 volts. The higher the wattage of the transformer, the more



**Stunning light displays complement beautiful landscape designs, and allow customers to enjoy the view well after sundown.**

*Photo courtesy Rudd Lighting*

lamps it will illuminate.

**2) Cable** that transmits electricity from the transformer to lamps housed in fixtures.

**3) Light fixtures** suitable for every landscape setting including pools and ponds. Fixtures come in an incredible array of designs, colors and finishes. (Most experienced installers offer just a few popular fixtures. Otherwise clients become confused, they say.)

**4) Lamps** to supply illumination. Lamps come in different wattages.

Although illuminating a landscape requires little special training, it does call for an eye for design, and a willingness to experiment. It also usually requires a plan. Before installing lights, it's advisable to sketch (ordinary graph paper is fine) the

property, showing the locations of buildings and any distinctive trees, plant material and other features that the client may want to light.

Here are some other tips for marketing and selling landscape lighting:

- Provide a **master lighting plan** in conjunction with, or in addition to, any landscape designs that you provide.
- Review your customer files and **target customers** you feel have a need for lighting. Set up **demonstrations** for them.
- Develop colorful door hangers, stuffers or even mailers for homes in the affluent neighborhoods in your market area. Make this **promotional material** visual and exciting. Words don't sell landscape

*continued on page 14L*

### ELSEWHERE

**Charlie Racusin: excellence works, page 15L**

**Encouraging risk-taking, page 18L**

**Privatization at Washington U., page 20L**

**Getting bang for your buck, page 24L**

## Demonstrations 'light up' sales

■ Nothing works better than on-site demonstrations for selling landscape lighting.

Just before dusk, Robert Lyons Jr. loads his compact car with a case containing a 500-watt transformer, about 100 feet of electrical cable, and outdoor lighting fixtures.

Bob Jr. and his father operate Lite-Scapes, Inc., an eight-year-old outdoor lighting company in Nashville, Tenn. The elder Lyons spent many years with G.E. Lighting prior to starting the company.

This particular mid-summer evening in Nashville is surprisingly cool as Bob Jr. drives through Belle Meade, a suburb of elegant but older homes about 20 minutes southwest of downtown Nashville.

He's planned three house calls. Two of the stops are to reposition lights installed several weeks before; to make sure that clients are pleased. They are.

"Generally, I believe that less is better when it comes to lights," says Lyons. "There's always a point where you can overdo lighting. My goal is to find the balance."

But his main reason for visiting this neighborhood is to give a demonstration that he's modestly confident will result in a sale.

He's calling on a couple in their mid-40s. Their ranch-style home sits on a small hill above a dark, quiet street. They're preparing an outdoor party later in the summer for about 90 guests. They want it to be special, and they're confident Bob's lighting expertise can help.

The woman is justifiably proud of a newly-installed flower garden and its rock-bordered pool. The pool, fed by a small waterfall, is about 150 sq. ft. It contains three sizable goldfish that swim lazily through water plants. She wants Bob to light her pool and its adjacent garden. She also wants uplighting on several larger trees behind the garden.

The western sky turns a deeper purple as Bob retrieves his case of fixtures from the trunk of his car. He plugs the transformer into an electrical outlet on the outside of the house near the garden. He uncoils a length of cable which he attaches to fixtures. Bob prefers copper fixtures because they won't corrode. Also, their brown color blends nicely into most landscapes, even during the day.

"Customers don't want to see the source of the light, they want to see the light itself and how it beautifies their homes and their landscapes," says Bob.

Responding to suggestions from the woman, Bob steps one, then another, of the fixtures around the garden. He uses a path light by the garden walkway, a pond light to illuminate the water plants and the small waterfall of her pool, and a wall light to scatter light through foliage and create intricate patterns on the fence bordering the garden. The fixtures contain halogen lamps and throw off a surprising amount of soft, white light, so when he uplights trees behind the home their branches and leaves come alive.

After almost an hour of experimentation, the woman seems to be pleased with the effect in her garden and trees. Bob packs away his demonstration equipment and says he'll return within a day or two with an itemized proposal.

Ray Szwec agrees that an on-site demonstration is a powerful selling tool. He and his partner Ken Nicholas operate Nite-Vision in Cleveland, Ohio. And, like Lyon, either Szwec or Nicholas (or sometimes both) arrives for demos just before sundown to walk the property, assess its main features and, just as importantly, gauge the prospect's desires.

But they also want mobility. Instead of a transformer, they use a rechargeable, 12-volt, dry-cell battery. They also, typically, demonstrate with just a fixture or two, using a 10-foot cord with clips to attach fixtures to the battery which they carry with them. This allows them to carry a light from location to location on the property and light up individual home or landscape features.

"A lot of our designing is done in conversation with the homeowner," says Szwec. "Before long, the customer is pointing me to different areas. Within about an hour, or maybe an hour and 15 minutes, we've got the whole layout done."

Szwec says not every sale necessarily results from a demonstration though. "Maybe you've already done several jobs in a development. A homeowner there might point to a neighbor's home, one that we've installed lights at, and say, 'I would like my property to look as beautiful as that.'"

—R.H.

**LIGHTING** from page 13L  
lighting, emotion does.

- Write an article about landscape lighting for the local newspaper.
- Put up an eye-catching job-site sign when installing a project.



Robert Lyons, Jr. prefers non-corrosive copper fixtures.



Szwec (left) and Nicholas: on-the-spot designing with customers.

- Donate and install a lighting project for a local church or for an important memorial or landmark.
- Put together a colorful portfolio to use in presentations to garden clubs, or at regional garden shows.
- Invite prospects to hold and touch fixtures that you offer. You want customers to understand the difference between the quality of professional compared to low-end, do-it-yourself kits.
- Be flexible. If a customer balks because of cost, devise a schedule to light a client's property in sections.
- Consider offering a temporary lighting service, say for special occasions like parties or wedding receptions.

The growth of landscape lighting, and particularly low voltage lighting, looks strong for the next five years or so. Drive into any nice neighborhood and see how many properties are still in the dark.



# Excellence:

## the standard by which all else is measured



### STRIVING FOR EXCELLENCE: What Charlie says 'you'd better do...'

- Train your people, and then re-train them.
- Make sure that everybody's on the same page, that the messages are flowing through, and that the communication channels are open between all the personnel that work with you and the personnel that work with the client.
- Make sure everything is coordinated in a fluid manner or else you're going to have a lot of glitches—and glitches mean trouble.
- Be out there: follow up with your customer. Make sure you've done what you said you'd do. Make sure you've done it the very best and that no one can do it any better.

**The cornerstone of Charlie Racusin's successful career is excellence. He wonders why more landscapers don't pick up on it.**

by Jerry Roche  
Editor-in-Chief

■ Charlie Racusin of Environmental Landscape Services in Houston, Texas, is not your typical landscaper by any stretch of the imagination. As a matter of fact, some of his cronies think he's "semi-nuts." But they respect him—and why not?

Environmental Landscape's sales were on a course to exceed \$7.5 million last fiscal year. Its key employees stick around a long time. And the company's work is equated with the excellence that Racusin demands.

"I've always believed that whatever I did, I wanted to do first class," Racusin philosophizes. "If you don't strive to be the best, then you may be delivering mediocrity, and anybody can do that. Why should customers continue to do business with you if you're like every other guy on the block?"

Back in 1972, when Racusin founded the company, he saw that niche.

"At that time, a lot of landscapers did not appear to conduct themselves as professionals in the business world. They might have been knowledgeable horticultural people, but they didn't communicate, they didn't follow up and they were unorganized. I saw an opportunity for a businessman to deliver honesty, integrity, consistency, communication and other 'buzz words' that business people relate to, especially in the service industries."

His company has selected only clients interested in projecting a positive image. Environmental Landscape allows—and even invites—customers to put their signature on the landscapes.

*continued on page 16L*

## Defining autonomy in the field

by Charlie Racusin  
Environmental Landscape Services

■ I can't tell you exactly how many trucks we have—but it's a bunch.

I can't tell you exactly how many people we have on our payroll—but it's a bunch, probably a couple of hundred.

Even though—as CEO/President of Environmental Landscape Services—I have the final say, I don't focus on the details. I have excellent people to do that, people who support my philosophy and can deliver it.

I am, however, a member of our Landscape Action Board, which runs the business. I monitor on a consistent basis the efforts of our people, even though they are capable of handling their own duties. I'm even aware of which foremen are performing better than others. So I'm still keyed in to the quality management aspects of the business. We simply cannot afford to slip with the customer.

Other members of our Landscape Action Board are the company vice president (who wears a lot of different hats), along with directors of landscape construction, landscape management, quality control/safety/field training, irrigation and landscape architecture.

All my people are in another location, and all my administrative people are in yet another location, which might seem weird: you'd think that most business people would want everything under their watchful eye. But by having this setup, it allows my people to have autonomy and to make decisions without my direct involvement on every issue. It allows them to grow individually, and to function in a healthy manner.

It also allows me to step away from the day-to-day bombardment of landscape operations and to focus on strategic planning and marketing.

As any business, we occasionally lose a key person and given our philosophy of building people's intellectual and professional abilities, that's not bad; occasion-

*continued on page 16L*

**EXCELLENCE** from page 15L

"We've been successful by delivering to clients who are more quality-conscious than price-conscious," says Racusin. "A lot of people don't want to pay for quality or don't understand it or don't know how to relate to it. The customers who consciously want to separate themselves from others—be they multi-family, office, institutional or hospitals—are the ones we've targeted."

**A mindset**—Enthusiasm and integrity come naturally to Racusin, an ebullient personality with a zest for living.

"Being in this business doesn't take rocket science," he notes. "It takes a commitment and a belief and the desire to be the best. When you have that framework in your mind, the rest of the pieces of the puzzle—the ways to achieve those results—come together. It sounds philosophical, but it's true. That commitment to excellence triggers the resourceful creativity in my mind."

Racusin also believes that the landscape business, unfortunately, has become a commodity. "Customers can get the service anywhere, so you'd better be able to deliver something better or you've got no extra sizzle on your steak."

What follows is a major industry problem. "So much mediocrity and so much competition have driven prices to rock-bottom. Many customers have intimidated some of the more unsophisticated contractors. Those companies are working at such low prices that it has stifled them from offering growth opportunities to their personnel and themselves."

Over the 24 years he's been in business, however, Racusin has seen the landscape industry grow and somewhat mature.

"Over a period of years," he says, "anyone who stays in business and has weathered the cycles has obviously become more aware, more intuitive, more intelligent, more creative at solving issues and problems. They've been able to make sure their service is better than it was the year before. Everyone has gotten better, and what used to be excellent is now normal practice."

By striving for excellence, Racusin believes, you can command a fair price for a fair day's work. With reasonable profit expectations, a landscaper can offer employees more opportunities for growth, intellectually, professionally and economically.

"Our people are paid better than our competition," Racusin observes. "But pay is not the total key. A person who has that drive for excellence wants to be associated with other people on the same page. We've

had people come to work for us for less money than they were making because they recognized the difference in the people and the working environment and the professionalism that we take to the marketplace. And they'd rather be here."

**Bull-headed**—Part of the landscape industry's current state of affairs is its inability to accept and implement new ideas.

"If you stand 10 landscapers in this room and I tell the other nine what I'm doing—even if it's the greatest idea in the world—I don't believe they will do it. Even if they think it's a great idea, they may not know how to do it, and it may not be in their realm of normal thinking.

"It's amazing that some people are so hard-headed that they're not receptive to new ideas and betterment. You've got to be open and receptive or you won't learn. And if you're not going to learn, you might as well quit."

Not so with the management and staff at Environmental. Designing and selling one program alone can take up to six months of research and brainstorming.

Environmental's owner may expand into other markets, but only cautiously and only if its caliber of service can be maintained. In the meantime:

"I'm happy with what we've achieved," Racusin concludes. "But yesterday's victory will not bring you a lot of gratification today. And what you were good at yesterday is just a steppingstone toward allowing you to have the knowledge to be better today."

**AUTONOMY** from page 15L

ally they want to go off on their own. However, we have very long—double-digit—tenure among most of our key people: five years to 22 years. One of the reasons why people stay is because they have the freedom and autonomy and to grow themselves without "Big Daddy" always looking over their shoulder.

My screening process, bundling up those people who coordinate the services, has been a key to our success. When you hire somebody who ends up not being the person you thought they'd be when they walked through the door, you've spent a lot of energy, time and money. You've gone backward instead of forward.

As for me, I bring enthusiasm and integrity to the company. I'm a visionary.

I don't call on every prospective customer, but if it's a significant situation (potential clients with multiple properties, multiple years, six-figure-type annual contracts), I'm part of the decision-making team. I always have a lot of support from my Landscape Action Board, because they're the arms and eyes and ears from the field and they have the answers. I'm just at the negotiating table to assist in finalizing the deal.

My idea is to build our organization in such a way that opportunities continue to exist for me and my employees to grow intellectually and economically.

## Audubon for home lawns

■ The Professional Lawn Care Association of America and the Audubon Society of New York State have joined forces to promote the Audubon Cooperative Sanctuary System nationwide to the lawn and landscape industry.

The partnership allows lawn and landscape professionals to provide clients with a brochure entitled "A Sanctuary for Your Backyard." The brochure provides information about achieving a "wildlife friendly" backyard.

"By encouraging customers to participate, it reinforces their decision to maintain a healthy lawn while reaping its many environmental benefits," says Ann E. McClure of PLCAA.

To receive a free sample Backyard Sanctuary brochure and order form, con-

tact: PLCAA, 1000 Johnson Ferry Road, NE, Suite C-1356, Marietta, GA 30068.

In related news, PLCAA will offer mid-term and final exams for the national turfgrass certification program at its annual conference in Fort Worth, Texas, Nov. 12-16. More than 750 people have enrolled in the course. So far, 75 have earned the Certified Turfgrass Professional (CTP) designation.

A university representative will administer the certification exams to CTP candidates who have taken part or all of the course, and are ready to take mid-term and/or final exams. Exams will take place at the Fort Worth/Tarrant County Convention Center Tuesday, Nov. 14 from 4 to 7 p.m. Pre-registration for the exams is required.

# Nobody Believes a Landscape Fabric That Claims It's 10 Times Better Than Its Competition.

## But What if 6 Leading Universities Say It?

No doubt, other landscape fabric manufacturers make all kinds of claims about their fabrics. They tell you they're the best. They tell you they're the most effective. They tell you no other fabric comes close.

But what they won't tell you is this: In independent research conducted by six leading universities across the country, only one fabric was proven to be more effective—in fact, up to 10 times more effective than its closest competitor.

The fabric? Weed-X®. And it's studies like these that explain why Weed-X is the only landscape fabric on the market today that puts its money where its mouth is, or rather, where its claims are. Weed-X offers the industry's only weed-free guarantee, and it's very clear: If weeds penetrate our fabric, we'll refund your money.

So, who are you going to believe? The advertising and packaging claims of other fabrics? Or the researchers at Virginia Polytechnic Institute and State University, Colorado State, Iowa State, the University of Kentucky, the University of Wisconsin and the University of Georgia?

Maybe it's time you graduated to Weed-X.



# WEED-X®

Dalen Products, Inc.  
11110 Gilbert Drive  
Knoxville, TN 37932  
1-800-747-3256

"(In tests of the leading fabrics) the best weed-suppression recorded occurred with the use of Weed-X."

**Landscape  
Architecture**

"(Of 8 national brands tested) highest (weed) suppression was observed in Weed-X...Weed-X reduced Bermuda Grass significantly. Fabrics such as Weed-X, which limit root penetration, should be expected to provide superior weed control over fabrics that permit greater root penetration."

**Journal of  
Environmental  
Research**

"In tests over a 2 year period, Weed-X proved itself superior to other landscaping fabrics. Weed-X consistently stopped weeds from reaching the surface more effectively than any of the other national brands."

**Iowa State  
University**

In extensive university tests to compare the effectiveness of the four leading commercial landscape fabrics in controlling Nutgrass, the most impressive results by far came from Weed-X. Tested separately under pine bark/lava rock mulches, Weed-X was found to be 97%/92% effective. In contrast (the leading commercial brand) was only 14%/32% effective against Nutgrass in these tests.

**Virginia  
Polytechnic  
Institute and  
State  
University**

In tests to evaluate landscape fabrics, Weed-X outperformed four national brands of landscape fabric in weed and root penetration.

**University of  
Georgia**

# Giving employees autonomy and encouraging risk-taking

**You can't steal second base without taking a big lead off first. If handled properly, over the long haul, the risks are worth taking.**

by Jerry Roche  
Editor-in-Chief

■ Senske Lawn & Tree Care of Kennewick, Wash. plays a symphony every day. At 7 a.m. sharp, 115 employees dash to 67 trucks at three branches and one satellite office. And it's all music to the ears of Dan Warehime, vice president of operations.

"It's a symphony orchestrated by the branch managers and their supervisors," says Warehime. "We are highly specialized within our departments at each branch. Integrating those departments is the responsibility of the branch managers."

Growth of 20 percent for each of the past five years has been the result of a loose but well-defined management style.

"We give our stores (branches) a fair amount of autonomy," says Warehime. "We try to make it a fun place to work. The corporate philosophy is to give a guy enough rope to hang himself. Everyone is encouraged to be a risk-taker and make their own decisions. There's a lot of self-confidence that comes with working here."

The owner, Chris Senske, still keeps a close eye on expansion.

"I like to have a plan with a line drawn in the sand where the idea will work and where it's not going to work," Senske explains. "When one of the stores wants to try something new, like snow removal, I need a plan. I did not support that particular idea at all, but the branch wanted to do it, so I made sure they had a good plan. So far, it's been successful."

The music has not always been sweet. But by 1994, Senske Lawn & Tree's 48th year, its revenues were more than \$5 million.

"Some things that we've tried have been very unsuccessful," admits the company's second-generation owner. "In the mid-'70s we tried energy improvement insulation contracting. It failed. In the late '70s early '80s we made our first stab at grounds maintenance, and that was a failure. But we re-evaluated it and won at it in the '90s.

"Those have been the learning experiences. Most of the things we've done, though, have been very successful—like adding tall tree pruning and aeration,

of the entire company's gross revenues.

Some of the confidence-building ideas Talkington has implemented in his four years with the company:

- He purchased route schedules from the local Post Office and built his service routes off them. If the Post Office routes are so efficient, why not copy them, he thought.

- Truck maintenance schedules are determined by hours run rather than miles travelled. Some spray trucks, he reasons, are running without moving, creating accountable wear on the engines.

- Snow service is provided like insurance. Area snowfall research showed that the company would normally plow eight times a year (snowfalls of more than two inches). Customers buy a package that pays for 10 plows, but are told that the company will plow up to 12 times if necessary. It sounds like a real deal to the customer, but the system gives Senske snow jockeys a chance to increase their margins.

Talkington and the other branch managers must divvy up work among employees in four different profit centers.

Senske's Application Division—lawn care, including weed control, and tree care—provides 55 percent of the company's \$5 million annual revenues. The Maintenance Division—pruning, mowing, irrigation repair, etc.—accounts for 18 percent. The rest of the income is from the Construction Division (14 percent) and the Pest Control Division (12 percent).

**Company thrust**—Key words—the ones the branch managers consistently hear from corporate headquarters—are "integrated grounds maintenance," "quality," and "response to the customer."

"We've also learned how to become very efficient at delivering precise amounts," says Warehime. But because the company

*continued on page 22L*



Vice-president Dan Warehime (left) gives branch managers like Tom Talkington plenty of room to innovate and grow.

which are both closely related to what we do best."

**Dominating**—Senske Lawn & Tree, thanks to a long history and the aggressive managerial style of retired Army colonel and branch manager Tom Talkington, is the "dominant player" in the Spokane market. That branch provides about 50 percent

# "Absolute Necessity."

*"I know exactly how much I make (or should be making) on every project, every customer, even by employee!"*

# "Eye Opening!"

*"When I actually saw my project costs vs. estimates, I raised my rates immediately!"*

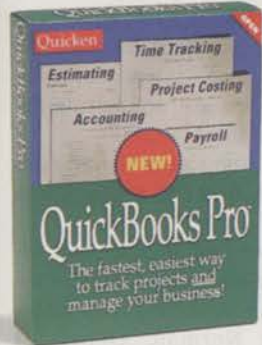
# "A Giant Leap!"

*"Integrates time tracking, estimating, and job costing with accounting and payroll. Finally, all my important business information is in one place!"*

# "Fast & Easy!"

*"Information automatically flows from my estimates and time tracking data to right where I need it when I do invoices, reports and payroll."*

## Introducing an entirely **NEW** kind of software for businesses that prepare estimates or track time!



Announcing QuickBooks® Pro™, a breakthrough program that perfectly integrates time tracking, estimating, job costing, and payroll with the number one accounting software! **Save time.**

Never enter the same information twice. Track everything from project expenses to employee hours—and

have the information appear automatically everywhere you need to use it: invoices, paychecks, vendor payments, accounting records, and more. **Knowledge is power.** You'll have incredible control over every aspect of

your business, from accounts receivables to materials expenses—take advantage of over 75 customizable reports and graphs, to always know what's going on. **It's Easy.** The screens look just like checks, invoices, and purchase orders—so you don't have

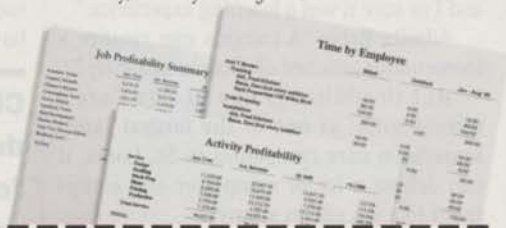
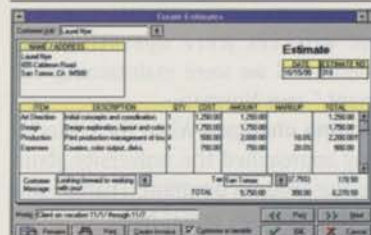
to be an accountant to use it. **Nothing gets the job done like QuickBooks Pro.**

Order today, and try it for just \$8.

### CHECK OUT WHY NEW QUICKBOOKS PRO IS RIGHT FOR YOUR BUSINESS

- Prepare professional estimates
- Track time by employee
- Track time by activity or project
- Compare estimated vs. actual costs
- Quickly find cost of last year's projects
- Create customizable invoices
- Invoice based on time sheet entries
- Invoice based on flat rates
- Track expenses by customer or project
- Write and print checks
- Prepare and print payroll checks
- Calculate payroll earnings & deductions
- Easily track A/R and A/P
- Track Inventory
- Write Purchase Orders
- Manage credit card & checking account
- Manage cash flow
- Create and track project budgets
- Maintain an audit trail
- Report tax figures easily
- Keep track of customers and vendors

**PRODUCE PROFESSIONAL ESTIMATES FAST.** Simply type in the first few letters of your customer's name on an estimate and QuickBooks Pro does the rest. When you're ready to bill, click a button to generate an easy-to-edit invoice from the estimate.



## Try QuickBooks Pro for only \$8.00!

Pay only shipping and handling now to try QuickBooks Pro. If you decide to keep using it after 30 days, pay just \$189.95.

**1-800-781-6999** Ext. 700 759

To order 24 hours a day, 7 days a week.

Credit card orders only. Please have your card ready. International shipping extra. Offer expires 12/31/95

**From the makers of Quicken**

QuickBooks Pro reads Quicken, QuickBooks, and QuickPay data. System Requirements: Windows: 100% IBM compatible 386 or higher PC. Runs on Windows® 95 and Windows 3.1. 4MB RAM minimum, 8MB recommended. Hard disk: with 15 MB free disk space. VGA or higher resolution monitor. Works with any printer supported by Windows 3.1 or higher. Mac: System 7.0 or higher and at least 6MB of RAM with a 68020 or faster processor. Recommended: 8MB RAM with a 68030-25MHz processor or faster, including IIcx, IIvx, IIfx, Centris, LC III, LC 520 or higher, Performa 450 or higher, and all Quadra and Power Macintosh machines. Hard disk with 15MB free disk space. Supports PowerBook, 12 inch or larger black and white, or 14 inch or larger color monitors with 640x400 resolution or better. Intuit, Quicken and QuickBooks are registered trademarks of Intuit Inc. QuickBooks Pro is a trademark of Intuit Inc. © 1995 Intuit Inc. All rights reserved.

# Top Care gets 'higher' education

**The grounds at Washington University of St. Louis challenge one of the city's leading landscape contractors.**

by Ron Hall  
Senior Editor

■ University grounds stretch a landscape contractor in ways that a corporate park or residential development never can.

Steve Erbe discovered this when his Top Care landscape company began caring for the 169 acres (including athletic fields) at prestigious Washington University in St. Louis.

Perhaps even Erbe didn't realize how much the university would challenge Top Care; not that he didn't get a tipoff in the infancy of his first three-year contract.

In late summer 1992, the university—and consequently Top Care—got just one week's notice to prepare the campus for nationally televised presidential debates. This included satisfying all the security requirements that the presence of a U.S. President and two challengers demanded.

**You're kidding**—"When Top Care started, they said something like, 'You've got to be kidding,' and we said, 'No, we're not kidding,'" recalls Ralph H. Thaman, Jr., director of the Department of Facilities Planning and Management at Washington U.

"We brought a whole new set of rules and uniqueness to Top Care as a contractor, and I'm sure it was a learning experience."

Admits Erbe: "A campus can require a tremendous amount of muscle instantly."

But flexibility is one of Top Care's strong suits; as one of the largest landscape/lawn care companies in St. Louis, it can deliver a lot of manpower and equipment to a job site in a hurry.

Thaman, who had come there after 30 years in private industry, saw that the grounds at the university could not remain status quo. He was also impressed with Erbe's creativity.

"He (Erbe, Top Care's president) doesn't look at a problem and say, 'I don't know how to do that.' He looks at it and asks, 'What's the best way to do it?'"

**A matter of priorities**—Thaman's mission was simple—raise the quality and the appearance of the university campus.



**Paul Norman, horticulturist at Washington University, sees a big improvement with grounds since Top Care took over.**

But it had to be done with a budget.

"Our business is teaching and research, not grounds maintenance," he says. "But our campus is an important marketing tool, and it has to be done very well and have some pizzazz."

**Challenges included developing specifications for each grounds category, and finding and partnering with an experienced private contractor.**

Washington University in St. Louis, like all colleges and universities, competes for a limited number of quality students.

"When a high school student visits our campus, the attractiveness of our grounds becomes a marketing issue," says Bill Wiley, manager of maintenance operations. "The

students get to see almost every inch of the campus."

In fact, The Carnegie Foundation for the Advancement of Teaching reported about 10 years ago that 62 percent of high school seniors stated that the appearance of the grounds and buildings influenced them "the most" during their visit to college campuses.

"But the bottom line is that there is a bottom line," added Wiley. "We have to keep expenses at the lowest practical level and still provide the necessary services."

**A contracted service**—In fact, budget cuts in the 1980s caused the university to disband its in-house grounds department. To fill the void, the university struck a deal with its contracted custodial firm to supply an 18-person grounds crew.

That didn't work well, remembers Paul M. Norman, university services supervisor for grounds care and the paint shop. "It was inefficient. We were just not getting the

productivity out of these people."

For one thing, the size of the grounds crew rarely matched the tasks it was required to do.

"Sometimes we had to find work for them to do, especially in the winter when their main responsibility was snow removal," says Norman. Once, for instance, the grounds crew spent a day moving furniture. "They weren't furniture movers. They didn't like doing it."

Also, the university's grounds and equipment maintenance had become very costly.

"The workers were operating our equipment, and we were maintaining our equipment," says Norman.

**Welcome change**—When the custodial company approached the university about revising the grounds program, Thaman saw an opportunity to get expert help.

One of his first tasks was to develop specifications for each grounds category.

*continued on page 22L*

# "WALKER" IS THE NEW EMPLOYEE'S NAME IMAGINE DOUBLING YOUR REVENUE WITHOUT HIRING ANOTHER EMPLOYEE

SID BURCHAM III, OWNER OF TERRE VISTA LANDSCAPES IN WICHITA, KANSAS, WAS MORE THAN A LITTLE EXCITED THE YEAR AFTER HE REPLACED HIS THREE INTERMEDIATE WALK-BEHIND MOWERS WITH THREE WALKER MOWERS.

HE WROTE TO TELL US WHAT HAPPENED:

*"I think you have built, quite possibly, the BEST lawn mowing machine I have ever seen. I did not own any of your machines last season. This year, I own three with plans to buy a couple more next season. Your machine has allowed us to increase our business 100% from the previous year without hiring another employee. I would not have believed that it was possible but I can assure you that it is.*

*Our quality too has increased considerably. We were able to acquire a couple of major contracts this season and these businesses could not be more pleased with our work. I hold your mowers directly responsible for our success."*



*Discover Walker  
Labor Savings  
to Help your  
Business Grow*



Circle No. 126 on Reader Inquiry Card





# Lawn & Landscape Professionals

# Don't Go It Alone!

Let PLCAA help you grow and maintain your business in the '90s and beyond.

## PROFESSIONAL LAWN CARE ASSOCIATION OF AMERICA

*"Anyone in business for the long term needs to be involved in PLCAA."*

—Jim Minkler, Minkler Lawn Care, Inc.

*"PLCAA has amazed me. I belong to two other lawn care associations but PLCAA is the best by a wide margin. In terms of professional development and consumer-oriented information pieces, they are outstanding."*

—Les Stewart, Nutri-Lawn



*"I joined PLCAA before I ever did my first lawn professionally. I believe the more information you can obtain, the better informed decisions you can make. Anyone who is someone or wants to be someone in the industry belongs to PLCAA."*

—Lou Wierichs, Jr., Pro-X Systems

Stay on the cutting edge and enhance your professional image to customers by becoming a member of the Professional Lawn Care Association of America. PLCAA equips you with the information and skills you need to excel in the green industry. Open up to a world of possibilities as a PLCAA member:

- ◆ Greater Profits and Improved Customer Confidence
- ◆ Operating Within Approved Advertising and Pesticide Transportation Guidelines
- ◆ Knowledgeable Bidding/Estimating
- ◆ More Effective Marketing
- ◆ Being Known as a Company of Well-Trained Professionals
- ◆ Strong, Positive Community Relations
- ◆ Safer Employee Practices Through Better Training and Information
- ◆ Business and Technical Resources at Your Fingertips
- ◆ 1-800 Information Hotline
- ◆ Industry Certification

To find out more about the Professional Lawn Care Association of America and how it can help you gain the competitive edge, complete the coupon and mail or FAX to:

**PLCAA**  
**1000 Johnson Ferry Road, NE**  
**Suite C-135**  
**Marietta, GA 30068**  
**Phone: 1-800-458-3466 • FAX: (404) 578-6071**

Yes! Send me more information on PLCAA.

Name \_\_\_\_\_  
 Title \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Telephone (\_\_\_\_) \_\_\_\_\_ FAX (\_\_\_\_) \_\_\_\_\_

# Getting the most **BANG** for the **BUCK**

**PLCAA board member Larry Messina got where he is by being an astute businessman—and that means watching where the dollars go.**

by Jerry Roche  
Editor-in-Chief

■ Larry Messina doesn't belong to a buyer's cooperative. He doesn't need one.

Messina, owner of Lawn Cure of Southern Indiana, does all his company's buying. His expertise at haggling has enabled the company to grow to 2500 customers in five Indiana and Kentucky counties.

"My forte is buying," says Messina. "I'm a good purchasing agent and get good value out of every dollar I spend."

Messina's secret is that he maintains "partnerships" with his key suppliers. Not surprisingly, they're all on a first-name basis with him.

"I shop around and make certain that I get a good deal," says Messina. "We just bought some Triumph for grub control and I made sure to check prices with three suppliers. I sometimes get as many as five or six different quotes and compare price and quality of products."

"I normally buy the lowest price, but not all the time. With the Triumph, I ended up getting an excellent price from the Andersons."

The bottom line, of course, is that any money lost by not making prudent purchases comes out of the owner's pocket.

"When I called up one of the suppliers about the Triumph, it was \$8.9 a gallon higher than another. And when you're buying 100 gallons, that's a substantial savings," Messina observes.

It's the same with equipment. When he needed new trucks, he immediately requested quotes from the fleet sales departments of about 20 dealers all across Indiana and northern Kentucky.

"I probably had about 20 faxes from various Ford dealers—all the new trucks we buy are Fords—and ended up buying from a dealer in Indianapolis" 100 miles to the north, Messina notes.

He says he's gotten used to the ribbing he takes from his friends on the Indiana State Lawn Care Association, of which he's a past president. "Those guys used to tease me because I shop so much, but they also

was a store manager at Diamond Centers before starting Lawn Cure in 1978.

"I wasn't all that happy in the auto business," relates Messina. "I hated retail, too, because the work is mostly on week-ends and nights. I've always wanted to own a business with repeat sales involved."

Messina's lawn, at the time, was being sprayed by his friend, Paul Decker of Louisville, who also installed and repaired sod. It didn't take long for the light to go off in Messina's head.

"I thought that if Chem-Lawn could do that, I could," he remembers. "So I took out a second mortgage on my house and bought a spray truck and I was off and running three months later. It's amazing how the thing took off."

Yet, if he had it all to do again today, things would be different.

"Another division that we started in 1987—industrial weed control—we call No-Gro Chemical Trimming. I piddled with it for three or four years before getting serious," Messina observes. Special services include weed control in fence-line gravel and—a big money-maker—treating rip-rap rock along the banks of the Ohio River.

"Now No-Gro accounts for 20 percent of our annual revenues, and we run two trucks full-time. If I moved to another part of the country, I wouldn't start a lawn care company, I'd start an industrial weed control company. There is a niche to be filled."

**Key employees**—Teresa,

Larry's wife of 28 years, has always been supportive of whatever he's done.

"I can remember back in the first year of the business when I hurt my back and couldn't walk the lawns," Messina recalls. "I had 50 lawns to do, so she volunteered to push all 50 lawns. She was a real trooper."

Today, Teresa is office and computer manager while Jeff Smith, who was



**Teresa (left), Larry Messina's wife of 28 years, pushed 50 lawns in one day by herself in the early days of Lawn Cure of Southern Indiana.**



**Jeff Smith (left), who worked part time as a student for Lawn Cure, is now in charge of all lawn care production at Lawn Cure.**

used to call me to find out where I was buying," says Messina, with a satisfied smile. "I have a good reputation among our suppliers, too, because I'm a tough sell and I'm demanding, but I also make sure I pay everything on time."

Much of Messina's early job history was in sales, so when he's talking to suppliers, he knows whereof he speaks. He spent five years working in an auto dealership and

Messina's first employee, is service manager and production manager on the lawn care side of the business.

Messina's business degree from the University of Indiana has paid handsome dividends. In 1991, he was able to buy out a competitor, Surgreen. On a hunch, he kept Surgreen's name and it has responded by growing from 235 customers to 375.

"It's like one company competing against another," says Messina, "and there are some advantages. When it comes to commercial bid work, a lot of times we can go in with two independent bids, and with Surgreen we can also have a New Albany phone number which seems to attract loyal New Albanians."

Messina now considers himself a bona fide businessman—for life.

"I see myself not ever selling my business," he says. "I see myself bringing on a general manager and I'll be like a chairman of the board and he'll be like a president. If I sold the business and paid the capital gains tax (28 percent), it wouldn't afford me enough money to live the rest of my life."

## The worst place for Kentucky blue

■ "Kentucky is the last place you should use Kentucky bluegrass," says Larry Messina of Lawn Cure of Southern Indiana, which has clients in two Kentucky counties in and around Louisville. "Now, everybody's recommending turf-type tall fescue."

His company, however, does not include seeding, sodding or mowing in its list of services. Lawn Cure personnel have to maintain whatever's on the property.

"The biggest problems in this part of the country are annual grasses like foxtail, crabgrass and goosegrass," says Messina, "so my biggest concern has always been buying pre-emergence herbicides."

Lawn Cure uses Barricade as part of its first round at its highest recommended rates. "We want to get a head start on chickweed and henbit as soon as possible, so we schedule a granular fertilizer and pre-emergence weed control

treatment around Feb. 20th because it's too early to make a liquid application for weed control at that time," Messina says.

Lawn Cure's complete five-round program:

**1) GRANULAR FERTILIZER + GRANULAR PRE-EMERGENCE WEED CONTROL**, starting Feb. 20, then to **LIQUID FERTILIZER + LIQUID PRE-EMERGENT**, March and April

**2) BROADLEAF WEED CONTROL + LIQUID FERTILIZER**, May and June

**3) GRANULAR 50% SCU WITH MICRONUTRIENTS AND IRON + spot-spray LIQUID POST-EMERGENCE WEED CONTROL**, July and August

**4) LIQUID HERBICIDE + LIQUID FERTILIZER**, September and October

**5) GRANULAR FERTILIZER**, November and December, finishing around Dec. 20th

—J.R.

Tested by Lawn Care Professionals and Homeowners

## All of the Features, None of the Hassles!

The AERATOR™ from TURFCO® offers so many valuable features it's impossible to list them all here. Like all TURFCO equipment, the AERATOR is specially designed to meet the tough demands of professional lawn care and rental operations.

Separate throttle and clutch controls, along with our unique drum-forward design, provide superb control, so even first-time users can get professional results. Sturdy bumpers on the front and sides allow operation close to fences and other objects without worry — and they're also handy for loading and tiedown.

Design features include a fully enclosed drive chain to eliminate the excessive wear that's so common with most other brands, and box-frame construction that eliminates unnecessary welds while keeping the AERATOR compact enough to fit through a 32" gate.

Aerate up to 26,000 sq ft per hour with 2<sup>3</sup>/<sub>4</sub>" deep penetration, using your choice of Honda or Briggs and Stratton power.



Converts in minutes with our exclusive sod-roller option, giving you the value of two machines at a fraction of the price!



**TURFCO**®

MFG. INC. • 1655 101st Avenue NE • Minneapolis, MN 55449-4420 • Phone: (612) 785-1000 • FAX (612) 785-0556

**AERATORS • SOD CUTTERS • EDGERS • DRILLING UNITS • POWER RAKES • PIPE PULLERS**

# Street tree suitability

## Chinese pistache was No. 1 rated tree in the south San Francisco area by arborists, landscape architects and landscape gardeners alike.

■ Arborists, landscape architects and landscape gardeners generally agree about the applicability of using certain street trees, according to a 1992 study.

Eight species were rated by 28 arborists, 20 landscape architects and 25 landscape gardeners in Sunnyvale and Redwood City, Calif. They were in general agreement that *Pistacia chinensis* (Chinese pistache) and *Magnolia grandiflora* (Southern magnolia) were excellent street tree choices.

The group ranked Southern magnolia high in visual aesthetics, shade and disease resistance and Chinese pistache high in visual aesthetics, drought tolerance and overall suitability. Interestingly, the latter

far outscored the seven other species in the rating category "overall suitability."

The trees were rated on a five-point scale with 5 being very good and 0 being very poor. In "overall suitability," Chinese pistache rated 4.1. Its closest competitor was Chinese hackberry (*Celtis sinensis*) with a 3.8 rating.

Robert Sommer, Christina L. Cecchetti and Hartmut Guenther of the Department of Environmental Design at the University of California-Davis authored the study and wrote results for the "Journal of Arboriculture." Here are other observations:

**Overall Suitability:** The Chinese pistache was rated significantly higher than five of the other species and the Chinese hackberry was rated significantly higher than four other species.

**Visual Aesthetics:** Top-rated trees were the Chinese pistache and American sweetgum, each of which was rated significantly higher than the two lowest-rated species, and the Modesto ash to four other species.

**Shade:** The American sycamore was rated significantly superior to five other

species, and the Modesto ash to four other species.

**Drought Tolerance:** The Chinese pistache was rated significantly better than two other species while the Australian willow was rated significantly better than three other species.

**Droppings, Debris:** The Australian willow was rated superior to five other species and the fern pine to three other species.

**Disease, Insect Resistance:** The American sycamore and Modesto ash were tied for last place. Each was rated significantly worse than the remaining six species.

**Pruning Requirements:** The Modesto ash had significantly more pruning requirements than three other species.

**Root Problems:** The American sweetgum and Southern magnolia fared poorly. The sweetgum had significantly more root problems than six other species and the magnolia more than five other species.

**Growth Rate of Mature Trees:** No significant differences among the species.

Interestingly enough, all three groups that participated in the survey had a high degree of agreement on most of their observations. Highest degree of agreement was in regard to shade and debris.

## STREET TREE SURVEY RESULTS

SPECIES	VISUAL AESTHET.	SHADE	DROUGHT TOLER.	DEBRIS	DISEASE RESIST.	PRUNING REQUIR.	ROOT PROB.	GROWTH RATE	OVRRLL SUIT.
Southern magnolia ( <i>Magnolia grandiflora</i> )	4.2	4.1	2.8	2.3	4.0	3.6	2.1	3.4	2.9
Chinese pistache ( <i>Pistacia chinensis</i> )	4.4	3.8	4.1	3.4	3.7	3.2	3.8	3.5	4.1
American sweetgum ( <i>Liquidambar styraciflua</i> )	4.3	3.5	2.7	2.2	3.6	3.4	1.7	3.6	2.6
Australian willow ( <i>Geijera parviflora</i> )	3.5	3.1	4.0	4.1	3.8	3.4	3.7	3.4	3.2
Fern pine ( <i>Podocarpus gracilior</i> )	3.6	3.2	3.2	3.5	3.7	3.3	3.6	3.3	2.9
American sycamore ( <i>Platanus occidentalis</i> )	4.1	4.5	3.5	2.4	2.6	3.1	3.2	3.8	3.2
Chinese hackberry ( <i>Celtis sinensis</i> )	4.0	3.8	3.8	3.4	3.6	3.3	3.5	3.6	3.8
Modesto ash ( <i>Fraxinus velutina</i> )	3.9	3.7	3.7	2.9	2.6	2.7	2.6	3.4	2.8

Sommer, Cecchetti, Guenther, 1992

# Our Commercial Mowers Are Now Easier to Operate...



## Even if You're Not All Thumbs

One good thumb is all it takes to put more mowing productivity in the palm of your hand.

The reason? New thumb latch controls on John Deere commercial walk-behind mowers.

To back up or go from one speed to another, just depress either handle-mounted latch to lock in neutral. Then shift. No more acrobatics to find neutral and engage both brake levers,

while simultaneously trying to change gears.

Seven hp/cutting width combinations—12.5, 14 or 17 hp; 38-, 48-, or 54-inch cut. All with wet-disk drive and 5 speeds.

See your dealer for thumbs-up commercial mowing performance. Or for more information, call 1-800-503-3373.



*Thumb latches on John Deere commercial walk-behind mowers make shifting from forward to reverse and between gears easier. Just depress either handle-mounted latch to lock in neutral, then shift.*

NOTHING RUNS LIKE A DEERE®



# Employee guidance, niche marketing are keys to growth in landscape biz

**There's a lot of psychology involved in success when you have to deal with other people on a daily basis.**

by Terry McIver  
Managing Editor

■ Since it doesn't look as if businesses will ever be able to run without people anytime soon, it helps to know a little something about psychology when it comes to dealing with customers and employees.

The more you know about how people will usually behave in certain situations, the more successful your company, and the easier your job, says Michael Witteveen of the Garick Corp., Cleveland, Ohio.

The more you can predict how people will react, the better your chances of winning more business by working the "system" and keeping customers and employees happy.

Witteveen tries to play to what he believes are two truths about human nature: the need for "systems" in peoples' lives, and the need to be led.

**Work the system**—People do indeed rely on systems and routines to get them through the day. We wake at a specific hour, we drive to work by a regular route, and we do our best to end the work day by 5.

When the systems concept is applied to business, it means you have to learn the systems and routines of those you're trying to service or influence.

For example, have you ever tried to get anything accomplished quickly in a government office? Even something as mundane as renewing your license plates can be a frustrating experience, because, as Witteveen says, "the people behind the counter are working a system we don't know about."

So in a bid situation, you have to learn the paperwork requirements and approval systems involved when you work with certain agencies and companies who are your customers.

**What's my job?**—Witteveen says you should work your program and crew in the same manner.

According to Witteveen, employees

want to know three things:

- what has to be done;
- how they're doing;
- their value to the company.

"When you delegate, it's up to management to make sure the work is done right," Witteveen advises. "Directions must be clear to avoid confusion and wrong decision making.

"Give employees their attainable goals. What is needed for him to be successful? What are the milestones for each job? The better you can arm people with self-correcting milestones, the better the chance of the job being done right."

**Stand out**—In days of heavy competition, Witteveen insists that a company must have a definitive niche. Being "a great company" just isn't enough.

What does your company offer that the other guy doesn't? Decide on your niche and work it to your advantage through advertising and example.

Decisions of this sort also involve how you perform the service. On the top end,



**Witteveen: There are right and wrong ways to delegate.**

says Witteveen, is ultra-high service orientation. At the bottom of the service spectrum—but not necessarily in a negative sense—is quick and efficient execution of programs. Unless you want to feel the pressure from both ends of the service

spectrum, you'd best decide which kind of service you can best provide.

"It's toughest to be in the middle, with nothing to set your company apart," says Witteveen.

Witteveen spoke during an Ohio Landscapers Association local trade show in Cleveland in July.

## Lawn care pros golf for turf scholarships

■ The Massachusetts Association of Lawn Care Professionals and Ohio Lawn Care Association braved record-breaking summer heatwaves to participate in scholarship golf outings.

The MALCP raised \$3400 for its turf scholarship fund at its fifth consecutive Golf Classic, held August 10 at Pine Oaks Golf Club in Easton.

Total monies raised for the MALCP Scholarship Foundation this year is near the \$16,000 mark.

The Lebanon Turf Products team took first place honors, followed by Prescription Turf Services of Middleton and Partners Quality Lawn Service of Easton.

Green industry sponsors included: Lesco; Bayer; Lebanon Turf Products; DowElanco; Cadwell & Jones; Ciba; PBI Gordon; Agriturf; Riverdale Chemical; Rohm & Haas; United Horticultural Supply; and the Professional Lawn Care Association of America (PLCAA).

The OLCA outing was held July 14 at Shamrock Golf Club in Powell, Ohio. Seventeen green industry companies were represented, and \$1100 was raised for the 1995 Scholarship Fund. Sponsors included The Scott's Co., Bayer; CLC Labs; Agri-Urban, Inc.; Gravely; Lesco; United Horticultural Supply and DowElanco.

The OLCA recently celebrated its fifth anniversary.



# Do It All

Write or Call  
For a Free 32-Page  
BobCatalog Buyer's Guide.  
For an Automated FAXED  
Response Call:  
**1-800-662-1907**  
(Ext. 701)



With more than 30 attachment choices, you *can* Do It All. Bobcat® attachments are designed, tested and manufactured to Melroe quality standards, and backed by our worldwide dealer network.

**Melroe Company**  
P.O. Box 6019  
Fargo, ND 58108-6019 • (701) 241-8700



# HOT TOPICS

## Working around the clock to 'Rock Around the Clock'

**CLEVELAND**—"We keep seeing Elvis," says Phil Cavotta, vice-president of Cavotta Landscape, which installed the exterior vista at the brand-new 2.5-acre Rock 'n' Roll Hall of Fame here.

"We used to see rock stars coming in and out all the time," Cavotta says. "I talked to Wolfman Jack just three weeks before he passed away."

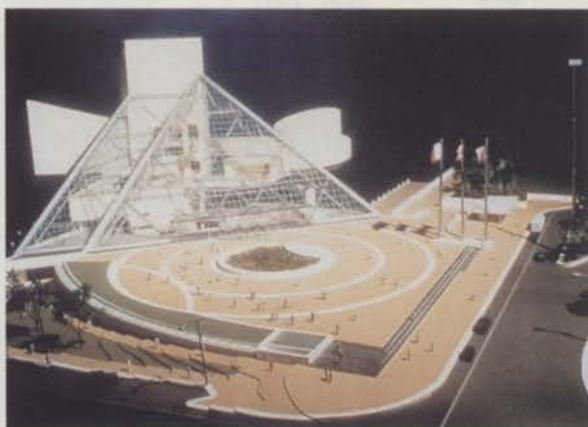
The Rock Hall was due to open Labor Day weekend, but midway through July, contractors were behind schedule.

"This is called the crunch," says Cavotta, whose company sub-contracted the earthwork and sodding. "It will be done on time. But these last weeks are going fast and everybody's push, push, pushing."

"With five weeks left, we're 75 percent done. We could have been all done if the other contractors had been done on time."

"I should be the last guy in, but that's not how it works. The schedule looks good on paper, but the city fathers get involved and something always happens. It's like a domino effect: when one contractor falls behind, we all fall behind."

Building architect I.M. Pei asked that the landscape be kept simple because he didn't want it to detract from the building itself, which features a large



**A glass roof that has been known to toast plants adorns the entryway to the new Rock 'n' Roll Hall of Fame (top). Cavotta Landscaping's installation crew still had a long way to go five weeks before the building's grand opening ceremonies.**



glass roof that slants down toward the entrance and exterior rotunda. That glass was an unexpected problem.

"The heat coming off the glass toasted some taxus plants we had put in," notes Cavotta. "The temperature off the glass, depending on the time of day, can be 30 degrees higher than the (ambient) temperature."

"We had to re-plant and re-design the sprinkler system to keep the new plants moist. We added some heads and went to a three-times-a-day watering schedule. Because the wind off the lake is so

variable, it affects the irrigation, too."

Cavotta Landscaping has a crew of six working full-time, including supervisor Tony Gabriel. After the installation is complete, at least one full-time person will be needed to maintain it. Cavotta is still trying to win the maintenance contract.

"The city and the port authority are involved in choosing the maintenance contractor," says Cavotta, "and they're looking at dollars. They can spend \$90 million on the building, but when it comes to landscape maintenance, all of a sudden they're pinching pennies."

When the Rock Hall job is done, Cavotta Landscaping will have another high-profile feather in its cap to go along with the world-renowned Cleveland Clinic, which needs a full-time crew of 12 to maintain 200 acres that include 40,000 New Guinea impatiens in six-inch pots.

"When the Rock 'n' Roll Hall of Fame is done, it'll be another feather in the city's cap, too," Cavotta concludes.

—Jerry Roche

### ELSEWHERE

**New tick-borne disease found, page 32**

**Environmental awards deadline, page 32**

**Bending Paul Harvey's ear, page 34**

**Info-Center, Supplier's Corner, page 36**



# GIE Bull's-Eye!

SPONSORS

ALCA

PLCAA

PGMS

November 12-16, 1995  
Fort Worth, Texas  
Fort Worth/Tarrant County Convention Center

## GIE Sponsors:

Associated Landscape  
Contractors of America  
(ALCA)  
(703) 620-6363

Professional Lawn Care  
Association of America  
(PLCAA)  
(404) 977-5222

Professional Grounds  
Management Society  
(PGMS)  
(410) 584-9754

## Hit a Green Industry Expo (GIE) bull's-eye on the first try.

How? Sign up for any of three educational conferences offered by the GIE sponsoring associations—ALCA, PLCAA and PGMS—and you can “shop” the green industry’s leading national trade show **FREE!** What a deal. You can mix and match sessions on management, marketing, customer service, landscaping, lawn care and grounds management techniques. Expert speakers available on all green industry topics—*you just sign up once, and pick and choose your schedule.*

All for ONE great price.

For more information on educational conferences held in conjunction with the GIE, FAX or mail your request with this coupon. We'll let you know *real quick* how you can learn and save at three national conferences during “A Show So Big, It Could Only Be Held in Texas”—GIE, that is.

Circle No. 129 on Reader Inquiry Card



## Hit a Bull's-Eye...

Request Conference & GIE information Today!

Mail or FAX coupon to: Conference Information, 120 Cockeysville Road, Suite 104, Hunt Valley, MD 21031/FAX (410) 584-9756.

Name \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Phone ( ) \_\_\_\_\_ FAX ( ) \_\_\_\_\_



# TICK ALERT II

**Here comes a new tick-borne illness. HGE symptoms are more severe than Lyme disease, and they appear sooner.**

by James E. Guyette  
Contributing Editor

■ Landscape managers are being alerted by public health officials that another tick-borne illness is being carried by deer ticks. The symptoms are similar to Lyme disease, but the sickness strikes much sooner.

So far, the ailment has struck about 60 victims in New York, Minnesota and Wisconsin. However, it is difficult to diagnose—and there may be considerably more cases that have yet to be detected, according to Dr. Yasuko Rikihisa, a professor of veterinary microbiology at Ohio State University.

"The bacteria that cause the disease have not been isolated, and they can only be identified by DNA analysis of a victim's blood," she reports. "The disease has probably existed for years, but we just haven't known how to diagnose it."

The illness—human granulocytic ehrlichiosis (HGE)—attacks victims' white blood cells like a virus, causing the immune system to weaken, Rikihisa says. A weakened immune system makes people

susceptible to other illnesses. These secondary sicknesses are what have thus far claimed four lives in the United States.

"If you have been bitten by a tick and are experiencing flu-like symptoms that your doctor cannot diagnose, have the doctor check to see if it could be HGE," Rikihisa says. "Always be sure to tell a physician that you have been bitten by a tick if flu-like symptoms arise."

The bacteria involved are similar to types that have caused illnesses in animals for years, and a customer's pet stricken with these diseases can experience fever, depression, weight loss, bleeding and even death. The dog tick can be a carrier of this.

A person coming down with HGE will become sicker much sooner than someone suffering from Lyme disease, which is the nation's leading tick-borne illness. "Lyme disease is a chronic disease and it can be present in the body for weeks, months or even years before symptoms appear," says Rikihisa. "HGE is an acute disease occurring in the blood, so symptoms will show up much more quickly."

HGE, like Lyme disease, is easily treatable with antibiotics once it is diagnosed. The sooner HGE is spotted, the better chance there is of effective treatment before a secondary illness moves in.

Standard tick treatments will defeat the deer tick, and landscape managers and their clients are advised to check themselves for ticks when in tick-infested areas.

## Environmental awards deadline is Oct. 31st

**BURNSVILLE, Minn.**—Closing date for the fourth annual Environmental Steward Awards is Oct 31, 1995, according to their four sponsors: Ciba Turf & Ornamental, Rain Bird, Jacobsen Division of Textron and Lebanon Turf Products.

Entry forms are available from any of the sponsors, program coordinator Ceres Communications or in the September issue of *Golf Course Management*, the monthly magazine of the Golf Course Superintendents Association of America.

Awards are given in three categories: public, private and resort golf courses. One national winner is selected in each, and up to 24 regional winners are also chosen. Merit winners may be selected at the judges' discretion.

Last year, 31 superintendents received the awards, which were created to recognize work in protecting and enhancing local environments.

"Promoting environmental stewardship...is the primary reason we helped create the program, and that's one of its major functions," says Bill Liles of Ciba, one of the program's founders.

## Dial One to try landscape again

**LOS ANGELES**—Dial One Inc., a property-care franchise operation, says it's ready to expand again.

Dial One says it's recruiting landscapers, plumbers, roofers, carpet cleaners and a wide variety of other established local contractors to join the franchisees now licensed under the Dial One name.

Dial One took off with a bang about 10 years ago but ran into trouble when it expanded too quickly. Its new management team, led by President and CEO Dennis Galloway, says the company has charted a course of controlled growth.

Dial One will enter the San Francisco/East Bay market early this fall. That model will then be used in other cities to build the network system into a national provider of multiple services for residential and commercial properties, says Galloway.

For more information: Dial One Inc., 1036 Taft Ave., Orange, CA 92665.

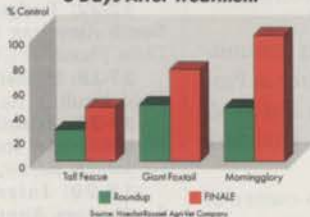
## NEW FINALE<sup>®</sup> HERBICIDE WORKS.



### FINALE. KILLS WEEDS IN 1 TO 4 DAYS

Seeing dead weeds proves its effective control. FINALE<sup>®</sup> gives results in as few as 1 to 4 days, versus the 7 to 14 days required with Roundup<sup>®</sup>. So why wait when you can use FINALE?

**Fast and Effective Weed Control  
3 Days After Treatment**



### FINALE. EFFECTIVE BROAD SPECTRUM CONTROL

A nonselective herbicide, FINALE provides effective control of broadleaves, grasses, sedges, and woody species.



**Bermudagrass Control  
4 Days After Application**

## TWICE AS FAST AS ROUNDUP<sup>®</sup>!



### FINALE. ECOLOGICAL FEATURES

FINALE degrades rapidly\* in the soil into naturally occurring compounds. It has no soil residual activity and there is no root uptake.



### FINALE. BECAUSE RESPONSIBLE VEGETATION MANAGEMENT INCLUDES THE ENVIRONMENT

IMPORTANT: Please remember always to read and follow carefully all label directions when applying any chemical.

\*Under natural conditions the half-life of FINALE in soil and water (DT50) is between 7 and 20 days, depending on temperature, aerobic conditions and microflora.

Roundup is a registered trademark of Monsanto Company.

*It's Your Move...  
Make It With*

A company of Hoechst and NOR-AM

AgrEvo USA Company  
Little Falls Centre One, 2711 Centerville Road  
Wilmington, DE 19808

# PEOPLE

## WE KNOW...

### GCSAA finally gets Paul Harvey's ear—but to little avail

**Pat Jones** of the Golf Course Superintendents Association of America had a chance to corral national radio commentator **Paul Harvey** at the most recent outdoor power equipment Expo in Louisville, Ky.

"His opinion is that golf course superintendents are 'good old boys' off the farm whose livelihood depends entirely on making golfers happy," says Jones. "Of course, that flies in the face of all our research."

Harvey has taken potshots at the golf superintendents' fraternity on several occasions during his nationally-syndicated program.

"He said that he won't back off until it's proven to him that there's no risk to birds and wildlife from the products that superintendents use on the course," says Jones. "Of course, if he really means 'no risk,' we'll never achieve that."

Jones sent Harvey some material on the GCSAA and its membership. "We hope to hear from Mr. Harvey soon and get a chance to talk to him again," says Jones.

### Landscapers get around

Landscaper **Marvin Gross** of Marvin's Gardens, Sarasota, Fla., spent five weeks in the Egyptian desert earlier this year. He helped design a landscape plan for a village, through the auspices of the International Service Executives Corps. "Third World countries are not well-versed in anything," says Gross. "They don't use any machinery; everything's done by hand, much like it was 5,000-6,000 years ago. They need a lot of help."

The city of Atlanta declared May 22nd "Post Properties Day" because of its commitment to preserving Atlanta's green environment by dedicating a bicentennial tree at Post Lenox Park Apartments. "We take great pride in our planning, construction and landscape," says Post CEO **John Williams**, "and when we can preserve historical, landmark trees in the process, that just makes our work more rewarding."

After five years of pushing for legislative reform, **John T. Hermes**, co-owner of Hermes Landscaping, Lenexa, Kans., lobbied for successful passage of a tax law change that allows nurseries in Kansas to receive the same tax considerations as other agriculture producers.

**Bill Bradshaw**, owner of Bradshaw Landscape in Houston, has been named a delegate-trustee to the Galveston Bay Foundation.

### But not forgotten...

**Don Sweda**, past president of the northern Ohio chapter of the GCSAA, passed away Aug. 7. Sweda, who was also immediate past president of the Ohio Turfgrass Foundation, was superintendent at Columbia Hills (Ohio) Country Club after having spent 16 years as super at Beechmont Country Club in Beechwood, Ohio. He suffered a stroke July 28.

Golf course architect **James G. (Jim) Harrison**, whose career began with the legendary Donald Ross at Pinehurst in 1921 and spanned 60 years, died July 21 in Monroeville, Pa. Harrison, 95, was one of the few to serve two terms as president of the American Society of Golf Course Architects. During his career, he designed more than 70 courses, about 45 of which are in Pennsylvania.

*Have we got a surprise for you...*

Watch for it in our gala November issue spotlighting the lawn and landscape industries and the Green Industry Expo.

## GREEN INDUSTRY EVENTS

### OCTOBER

**1-Nov. 15: Club Operations and Golf & Country Club Management certificate course**, Pan Pacific Glenmarie Resort, Kuala Lumpur, Malaysia. Phone: +(603) 443-7000.

**2-10: Scotland's Fabled Courses Tour**. Phone: United States Country Club Association, (616) 949-9411.

**3-4: Vegetation Management for Rights-of-Way Workshop**, Southern Illinois Univ., Carbondale, Ill. Phone: Jane Evers, (618) 453-5683.

**5-6: North Texas Turf Irrigation Association convention and trade show**, Grapevine Convention Center. Phone: Carl Causey, (817) 598-0907.

**7-9: American Society of Landscape Architects Annual Meeting**, Cleveland, Ohio. Phone: (202) 686-2752.

**9-12: Northwest Turfgrass Conference**, Skamania Lodge, Stevenson, Wash. Phone: (206) 754-0825.

**11-14: Family Firm (business) Institute Conference**, Adam's Mark Hotel, St. Louis. Phone: FFI '95, (617) 738-1591.

**12-13: Managing Snow & Ice Control Operations seminar**, Madison, Wis. Phone: (800) 462-0876 or (608) 265-3448.

**12-13: South Texas Turf Irrigation Association convention and trade show**, San Antonio Municipal Auditorium. Phone: Carl Causey, (817) 598-0907.

**12-22: Turfgrass Producers International South American Study Tour**, Argentina and Chile. Phone: TPI, (708) 705-9898.

**17-19: Sunbelt Agricultural Expo**, Spence Field, Moultrie, Ga. Phone: (912) 387-7088.

**18-20: Atlantic Seedsman's Convention**, Fort MaGruder Inn, Williamsburg, Va. Phone: Dr. John E. Baylor, (814) 237-0330.

**18-20: Interstate Professional Pest Applicators Annual Convention and Trade Show**, Skamania Lodge, Stevenson, Wash. Phone: Greg Doering, (503) 635-3916.

**18-20: Mid-Pacific Horticultural Trade Show & Conference**, Hilo Hawaiian Hotel. Phone: Jo Ann Johnston, (808) 969-2088.

**18-20: Southwest Turfgrass Association Annual Convention**, Albuquerque (N.M.) Convention Center. Phone: Curtis W. Smit, (505) 275-2576.

**20-22: New Jersey Shade Tree Federation Annual Meeting & Tree Expo**, Sheraton Inn, Cherry Hill, N.J. Phone: Bill Porter, (908) 246-3210.

**21: Women in Horticulture Conference**, Meydenbauer Center, Bellevue, Wash. Phone: Kim Hayes, (206) 367-1836.

**25-28: International Trade Fair for Design, Equipping and Care of Amenity Areas/International Trade Fair for Leisure, Sports and Pool Facilities**, Cologne, Germany. Phone: (0221) 821-2494.

**27: Environmental Initiatives for Horticulture seminar**, Walt Disney World, Orlando, Fla. Phone: Jennifer Nelis, (405) 345-8137.

**29-Nov. 3: Turfgrass Science Division, Crop Science Society of American anniversary celebration**, St. Louis. Phone: Dr. Keith Karnok, (706) 542-0931.

**30-31: Fertilizer Outlook '96**, Hyatt Regency Washington (D.C.). Phone: Robin Hailer, The Fertilizer Institute, (202) 675-8250.

# American Cyanamid And I Want to Give You \$10,000.

*Details October 1st.*

# INFO CENTER

Books, literature and videos for the green industry

**SPORTS TURF...**Lofts Seed has just released a free, 22-page guide to the selection of turfgrasses for sports turf. The guide is geographically arranged, and encompasses a full range of recommendations on turfgrass use for leisure activities (tennis, croquet), athletics (football, soccer) and non-athletic areas (campgrounds, parking areas). To get your copy, write Lofts Seed, 347 Elizabeth Ave., Somerset, NJ 08873 or phone (800) 526-3890, x250.

**FLOWER REFERENCE...**The 1995-96 Garden Plant Book is the Flower Council of Holland's latest full-color photo reference guide. The handy 92-page book is a guide to 394 garden plant varieties. Its cost is \$9.95. Orders must include a check or money order payable to Public Relations Marketing. Mail payment to Public Relations Marketing, Holland Plants Dept., P.O. Box 749, Glenwood Landing, NY 11547. For more information, phone Joan Hahn or Bob Perilla at (516) 621-3625.

**GOLF GREENS...**"Diagnostic Turfgrass Management for Golf Greens" by Tom Mascaro is a textbook outlining the tests that can be performed on under-performing greens, how to monitor greens, and recording information on specially-designed record charts. The text has 106 color photographs. For more information, contact Turfgrass Products Publications, 4740 NW 12th Ave., Oakland Park, FL 33334; (800) 258-7477.

**STARTING A BUSINESS...**The Associated Landscape Contractors of America has updated its popular "Guide to Developing a Landscape Maintenance Business," with 19 chapters on customer service, total quality, banks and banking, financing, pricing, market potential, estimating, costing and site specifications. Price is \$55 for ALCA members and \$80 for non-members. Send your order to ALCA, 12200 Sunrise Valley Dr., Suite 150, Reston, VA 22091 or phone (800) 395-2522.

**IMPATIENS REFERENCE...**Ball Publishing now has "New Guinea Impatiens: A Ball Guide" that features a 16-page color section containing 84 color photographs of key pests and diseases and new cultivars of New Guinea impatiens. For more information, phone (800) 456-5380; outside U.S. (708) 208-9089.

**SMALL BUSINESS...**"The Legal Guide to Starting and Running a Small Business" is published by attorney Fred Steingold. The 8½"x11" paperback retails for \$24.95. Information included: raising money for a new business, limited liability companies, handling business debts and small business bankruptcy. For more information, phone (800) 992-6656.

**WOMEN'S TEES...**Alice Dye, a respected member of the American Society of Golf Course Architecture, reviews current research on a two-tee golf system for women, explains why the system is gaining momentum, illustrates how to create the tees and breaks out typical construction costs. The poster is available from the ASGCA for \$5. Send payment and your name and address to: ASGCA, 221 N. LaSalle St., Chicago, IL 60601.

## SUPPLIERS CORNER

■ **DowElanco** has launched a public relations campaign to counter adverse national publicity about the safety of Dursban products.

The company is cooperating with the Environmental Protection Agency "charged with the regulation of both existing products and new technology which we hope to bring into your marketplace in the near future," says a DowElanco press release.

"DowElanco has an exemplary record when it comes to defending its products in court," says the release. "Extensive scientific data and 30 years of toxicological history establishes that Dursban is not going to cause injury when used appropriately. Using these facts, combined with an aggressive litigation approach, we have never lost a lawsuit involving Dursban products."

■ The **John Deere** Team Championship Golf Tournament will be held at Wild Wing

Plantation in Myrtle Beach, S.C. on Oct. 26-28. Thirty-six competing teams have already won their local qualifying tournaments. Finalist teams are composed of the golf course superintendent, golf professional, club manager and club president.

■ **Zeneca Ag Products** will spend \$34 million to complete manufacturing facilities for a major fungicide, coded 5504, by the third quarter of 1996.

According to Vern Hawkins of Zeneca, 5504 is a very broad-spectrum, low-rate product that will have applications in turf. It represents a new class of chemistry.

■ **Redexim**, the company that developed the Verti-Drain deep-tine soil aeration machine, is pursuing litigation in the this country against a former distributor, Southern Green, that markets the "Soil Reliever" aerator. Redexim is bringing suit for infringement of its patent and trademark rights. The Verti-Drain product line is represented by North American

distributor **Emrex, Inc.**

■ **Lesco** reported record second-quarter sales of more than \$71.4 million, an increase of 18.1 percent over the same 1994 period.

Cool, wet weather in the Northeast and Midwest in the spring of 1995 were responsible for the record sales, according to President, Chairman and CEO William A. Foley. The company also opened 11 additional service centers to bring its total of 169.

■ Dr. Michael Kely has been named senior vice president, Professional Business Group, at the **Scotts Company**. He replaces Dick Stahl, who retired. Kely joined the company in 1979 as a regulatory environmental advisor.

■ **Vermeer Manufacturing** recently opened a seventh manufacturing plant for its rubber tire trencher products and directional boring equipment. The plant will add 200,000 square feet to the company's production capacity for a total of 1.4 million square feet—33 acres under one roof.

Also, Doug Hundt is Vermeer's new national sales manager, in charge of all North American product sales.



# ALL THE ANSWERS FROM KUBOTA



When the question is how to work smarter, Kubota gives you multiple choices!

Kubota's new L-35 has performance features that include a GST transmission for clutchless shifting on the go through all 8 forward and reverse speeds, hydrostatic power steering, and a roomy ISO-mounted operator's platform that reduces vibration. An optional hydraulic port offers the versatility to use hydraulic breakers and other tools.

The rugged B-20 offers a liquid-cooled 20 HP diesel engine with hydrostatic transmission, integral power steering, and standard 4WD for greater traction and power.

Both the B-20 and L-35 feature a loader-integrated reinforced frame that withstands rigorous work. Loader operation is simplified with a single-lever control, and the durable backhoe can be attached or detached in just a few minutes without the use of any tools. For even more versatility, a Rear-PTO and 3-point hitch capacity allow you to till, scrape, mow, and more.

When the question is how to work smarter, Kubota responds to your needs with tractors that are at the top of their class!



Feature	B20	New L35
Kubota Diesel Engine, (gross HP)	20	35.1
Hydraulic Pump Capacity, (gpm)	12.7	17.3
Loader Lift Capacity, (lbs)	926	1,653
Loader Breakout Force, (lbs)	1,543	2,744
Loader Maximum Lift Height, (in)	85"	105.5"
Backhoe Digging Depth, (in)	92.9"	111.3"

# Kubota



**KUBOTA TRACTOR CORPORATION**  
 P.O. Box 2992, Dept. LM  
 Torrance, CA 90509-2992

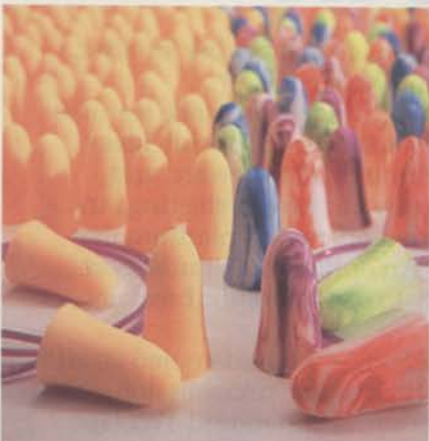
Financing available through Kubota Credit Corporation

# PRODUCT REVIEW

## Ear plugs feature bright colors and soft surface

Two foam ear plugs from Moldex-Metric, Inc. feature a new shape and extra-soft, extra-light foam.

The ear plugs—Softies and SparkPlugs—were designed for easy insertion and a comfortable fit. They feature a flared base that makes removal simple. The smooth foam is non-irritating and non-



allergic, and requires less pressure to seal the ear canal, according to the company.

SparkPlugs come in a variety of bright colors in order to make compliance checks quick and simple. Softies are bright gold. Both ear plugs are available on a cord.

Softies and SparkPlugs are packaged one pair per paper pouch, 200 pairs per dispenser box and 10 dispenser boxes per case. Plugs with a cord are packaged one pair per polybag, 100 pairs per dispenser box and 20 dispenser boxes per case.

**Circle No. 191 on Reader Inquiry Card**

## Respirator offers dust and mist protection

A dust and mist particulate respirator from 3M is designed for workers with smaller facial features.

The 3M brand No. 8110 dust and mist respirator has a smaller shell size that is 20 percent smaller than the standard 3M brand No. 8710 respirator.

The respirator features a lightweight filtering face piece that should increase potential wear time. A padded nose foam strip and an adjustable metal nose clip offer both comfort and a secure fit, according to 3M. The respirator was designed



with a low profile so it would be compatible with eye and hearing protection.

The respirator is NIOSH/MSHA approved for dusts and mists. It offers protection to mists and particulate substances that do not produce harmful vapors. It is not intended to be used for protection against paint spray, welding fumes, gases, vapors, asbestos or sandblasting.

**Circle No. 192 on Reader Inquiry Card**

## Four micronutrients in one handy product

A new line of turf and ornamental micronutrient fertilizers under the Turfgo label are called "FEature" and "Double FEature." They are a unique combination



of fully-chelated elements, according to United Horticultural Supply.

Both products contain 12 percent nitrogen, six percent iron, five percent sulfur and one-half percent magnesium. FEature has two percent manganese and Double FEature has one percent manganese and one percent zinc.

Double FEature is formulated specifically for soils deficient in zinc, particularly those west of the Mississippi River.

The products, the result of almost 20 years research and development of micronutrients, help supply turf and ornamentals with liquid magnesium.

"Magnesium is the central ion in the chlorophyll molecule and is essential in the synthesis of chlorophyll, which gives turf and ornamentals their dark green color," says Neal Howell, who developed the products for UHS.

**Circle No. 193 on Reader Inquiry Card**

## Wide-brimmed hats give greater sun protection

The American Horticultural Society is promoting Headhunter's Ultimate Life-guard Hat for sun protection.

The hat features a five-inch brim that



provides ample shade for the head, face, ears, nose and neck, according to Headhunter. The tightly woven palm weave does not allow UV rays to penetrate to the wearers skin.

An interior sweatband was added to provide a snug fit, and six ventilation holes help cool the wearer's head.

A portion of all sales benefit the American Horticultural Society and the Skin Cancer Foundation.

**Circle No. 194 on Reader Inquiry Card**



## Tackifying agent meets environmental standards

RMBplus tackifier replaces asphalt emulsions as an environmentally safe, easy-to-apply fixative and bonding agent for holding seed and mulch in place.

The product is blended to comply with state and federal EPA, SCS, DEP and DOT agency standards. It is an effective, low-cost solution when used with hay, straw, paper and wood fiber during hydraulic seeding and power mulching. After use, a



simple water cleanup is all that is needed.

RMBplus contains a polymer that prevents breakdown or softening during rain and is an effective soil stabilizer, growth stimulator, soil moisture retaining agent and fiber mulch lubricant. It does not encourage mold or bacteria growth.

**Circle No. 195 on Reader Inquiry Card**

## Software package designed exclusively for golf courses

GCS for Windows, by Incircuit Development Corp., is the only true Microsoft Windows software package specifically for golf course applications.

The system combines several management functions, including chemical and fertilizer data, personnel data and financial information. Other features include:

- weather/irrigation;

- inventory/preventive maintenance;
- calendar; math; vegetation library;
- references and work orders.

Sections are easy to use and understand. Data can be automatically shared to minimize data entry.

**Circle No. 196 on Reader Inquiry Card**

## Three low-voltage lights are safe and effective

Malibu offers three new low-voltage light fixtures for outdoor use: a low-profile well light, a low-profile tier light and a low-profile flare light.

The well light features a shade that conceals the light source while creating highlights and shadows on the undersides of leaves and branches. The shade can be removed in order to disperse light over a broader area.

The light is also smaller than typical well lights, allowing it to be used in locations where large well lights would be impractical, according to the company.

The tier light features a contemporary design and a four-inch diameter shade that directs light downward. Illumination is projected to the base of the fixture and eliminates the possibility of glare striking the user's eyes.

The low-profile flare light was designed to accent gardens, driveways, sidewalks and decks. It features a wide shade and base, plus a translucent, flared lens.

All three components are constructed of a weather-resistant, high-impact, non-



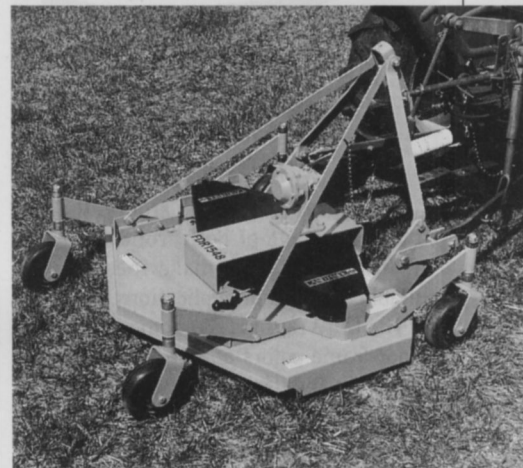
corrosive polymer. They are installed with seven-watt bulbs and use Intermatic's Fast Lock II cable connector.

**Circle No. 197 on Reader Inquiry Card**

## Rear discharge mower designed for safety and side-discharge benefits

Land Pride has attempted to combine the benefits of a side-discharge mower with the safety of rear-discharge in their new 15 Series rear discharge grooming mower.

The mowers come in 48-, 60- and 72-inch widths and provide a cut comparable to a walk behind mower, the company



says. The mowers also feature clevis point hitch points for easy hookup. A three-point feature and four-gauge wheel design were added to allow the mower to hug contours.

The rear discharge feature allows for safer mowing, Land Pride says. Clippings and debris are thrown close behind the mower, avoiding streets, sidewalks and landscaping.

**Circle No. 198 on Reader Inquiry Card**

## Rain gauge combines accuracy and simplicity

A compact electric rain gauge from Innoquest provides accurate indoor readings to 0.01-inch resolution.

The gauge provides a record of each rainfall as well as a cumulative total on a battery-operated display. Memory can be reset with the touch of a button without having to empty the unit. The collector was designed to be rugged enough to withstand the elements year round.

The rain gauge was designed to provide the accuracy that professionals require while still allowing simple installation.

Model DRG-6VB comes complete with mounting hardware and 40 feet of connecting wire.

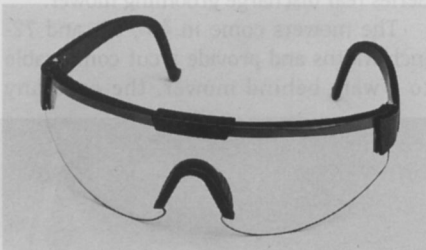
**Circle No. 199 on Reader Inquiry Card**

*continued on page 40*

PRODUCTS from page 39

**Safety glasses look sporty, offer UV, debris protection**

Elves UniWraps are designed to look and feel like sports glasses, but have the features of an ANSI-tested safety glass.



The polycarbonate lens is molded to a base six curve and curves around the face to give coverage of both front and sides. UV-absorbing lenses make these glasses suitable for outdoor applications.

The UniWraps glasses come in a variety of hot frame colors and are available with clear, gray and flash mirror lenses.

**Circle No. 206 on Reader Inquiry Card**

**Digital plan measure has many new features**

Calculated Industries, Inc., has a new, more powerful version of its Scale Master multi-scale, digital plan measure.

The Scale Master II was designed to simplify take-offs from architectural and engineering drawings. Its new features include 50 Imperial and 41 metric scales, custom scaling so users can define their own scale and an auto-count value that enables users to know how many times a specific distance has been rolled.

A constant key allows users to add or subtract a constant value to the distance



**Buildings have fire rating, safety**

FireShield two-hour fire-rated buildings from Safety Storage, Inc., are available for the storage and dispensing of chemicals and hazardous materials.

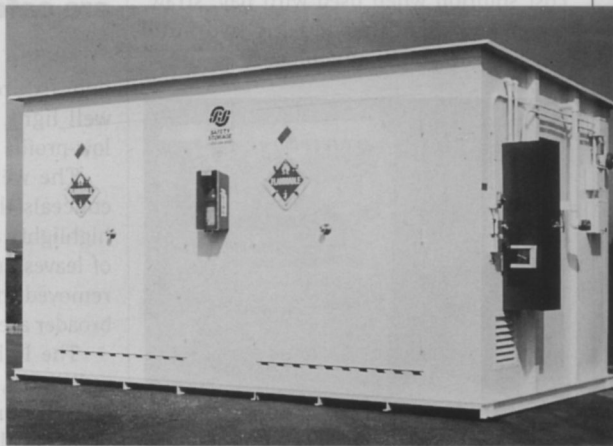
The prefabricated, relocatable FS Series includes eight different models in sizes ranging from 44 to 400 square feet of floor space, with storage capacities of up to one hundred 55-gallon drums or 200,000 lbs. of bulk materials.

Standard features include welded, unitized construction, up to 1,675 gallon spill containment sump, removable steel floor grating and chemical resistant coating inside and out. Air inlet vents are equipped with 1 1/2-hour UL-classified fire dampers.

A full range of options is available including heating

and air conditioning, exhaust ventilation, stainless steel interior lining, interior and exterior lighting, dry chemical fire suppression system, interior walls and shelving.

**Circle No. 207 on Reader Inquiry Card**



measured. With an optional PC interface, data can be entered directly into spreadsheets and estimating programs.

This model also features a larger LCD with easier-to-read digits than past models. Additional features include 40 percent more choices in available units, a memory function, the ability to display larger values and a dedicated metric mode switch.

**Circle No. 208 on Reader Inquiry Card**

**IGR shown to work on variety of ornamentals**

Citation, Ciba Turf & Ornamental Products' insect growth regulator, has been shown in tests to effectively control shore flies and fungus gnats on a wide variety of ornamentals, according to the company.

Citation's recently expanded label now permits growers to control Dipterous leafminers and fungus gnats in landscape ornamentals; container-grown ornamentals; greenhouse- and shade-house-grown ornamental bedding plants; and ornamental crops and interiorscapes.

The product may also be used to control shore flies on greenhouse-grown ornamental crops and interiorscapes.

The old label only included control recommendations for leafminers on container-grown chrysanthemums in greenhouses.

**Circle No. 209 on Reader Service Card**

**New generation of creeping bent is now available**

Tee-2-Green Corp. will release in 1995 a new generation of creeping bentgrasses developed by Dr. Joseph M. Duich, formerly of Penn State University.

Unlike Tee-2-Green's earlier bentgrass releases (Penncross, Pennlinks, etc.) the six new cultivars will all bear letter/number codes. They have been developed exclusively for use on golf course greens.

The varieties are A-1, A-2, A-4, G-1, G-2, and G-6; and they are typically lower growing and must be maintained at a cutting height of 1/8-inch or less.

These new varieties are dense and fine-leaved, with an upright growth habit to meet the demands of quality and image-conscious superintendents.

This new generation of creeping bents—from parental clones collected in the Southeastern U.S., have low fungicide and nitrogen requirements. Their fine, dense putting surfaces strangle *Poa annua* before it has a chance to take hold, says Tee-2-Green.

**Circle No. 210 on Reader Inquiry Card**

## New rider is powerful, stable

The Toro Company's Groundsmaster 3000 riding mower combines a 33-horsepower gas or diesel engine, designed to run noticeably quieter than previous engines, with greater hillside stability and easily-connected attachments.

The rotary mower is economical, stable and durable enough to handle numerous mowing needs, according to Toro. It features a larger wheelbase, lower center of gravity and larger tires.

The Guardian 84-inch Recycler mulching deck, also from Toro, is now available for the Groundsmaster 3000. It comes with an hydraulic counterbalance, soft-ride castor wheels and a deck design adjustable to extreme turf contours.

Three versions of the mower will be offered by spring of 1996.

**Circle No. 211 on Reader Inquiry Card**



## Rain gauge combines accuracy and simplicity

A compact electric rain gauge from Innoquest provides accurate indoor readings to 0.01-inch resolution.

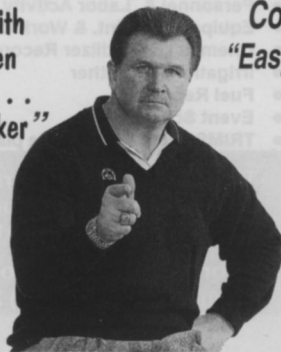


The easy-to-install gauge records each rainfall as well as a cumulative total on a battery-operated display. Memory can be reset with the touch of a button, without having to empty the unit. The collector was designed to be rugged enough to withstand the elements all year round.

Model DRG-6VB comes complete with mounting hardware and 40 feet of connecting wire.

**Circle No. 212 on Reader Inquiry Card**

"Go with a proven winner . . . Easy Marker"



Mike Ditka

Coaching Great Mike Ditka says, "Easy Marker is the perfect tool for your temporary marking needs!"

### easy marker®

"Meets temporary marking needs for special events, construction and utility projects, golf course and landscape work. Saves money by clearly marking work sites with instructions to avoid costly mistakes."

### SOME USES . . .

- Construction
- Utility Companies
- Landscaping
- Golf Courses



Also from FOX VALLEY SYSTEMS

### SUPER STRIPER® \$49<sup>95</sup>

- STRIPE . . .
- Parking Lots!
  - Warehouse Floors!
  - Athletic Fields!

**SUPER STRIPE® TRAFFIC POWER PAINT CARTRIDGES** Perfect for either covering old faded lines or for striping new ones. Paint is fast drying, offers one coat coverage even on a variety of surfaces and comes in eight choices of colors. One case will cover about 2,400 linear feet of bright crisp 3" lines.

12 (18 oz.) cans per case \$49<sup>95</sup>

**SUPER SUPREME® TRAFFIC POWER PAINT CARTRIDGES** Our best paint is specially formulated with modified acrylic for a harder finish. Ideal for heavy traffic areas.

\$69<sup>95</sup>  
12 (18 oz.) cans per case

U.S. patent numbers 4126273, 4895304, 4940184, 4943008, 4946104, D320757, D324053

### GREAT FEATURES . . .

**SPRAY CAN** - specially designed with the patented EASY MARKER/TRIG-A-CAP nozzle for consistent paint flow, easily inserted into the holder

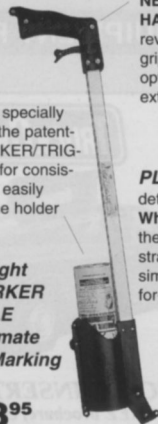
Lightweight EASY MARKER HANDLE is the Ultimate Temporary Marking Tool!

Only \$8<sup>95</sup>

© 1995 FOX VALLEY SYSTEMS, INC.  
U.S. and foreign patents pending

**NEW COMFORT HANDLE** - revised plastic grip with locking option for extended use

**PLUS . . .** detachable Wheel to aid in the application of straight lines - simply remove for freehand use!



### easy marker® / trig-a-cap® POWER PAINT CARTRIDGES

Best paint on the market because it's loaded with pigment which means you get more marks from every can, about 2 1/2 miles per case! Available in paint cartridges or in chalk for less permanent marking. Can be used out of the holder for hand marking. Made *exclusively* for use in easy markers and for handheld applications. Call for the full selection of colors.



12 (17 oz.) cans per case \$28<sup>50</sup>

See your local dealer for product information or call:

**1-800-MARKERS**  
1-800-627-5377  
DEALER INQUIRIES INVITED

## FOX VALLEY SYSTEMS, INC.

DEPT. 4222 • 640 INDUSTRIAL DRIVE • CARY, ILLINOIS 60013  
The Old Fashioned Company with Old Fashioned Values

Every month the Market Showcase offers the readers of Landscape Management a complete and up-to-date section of the products and services you're looking for. Check it out every month, or you might miss out.

# LANDSCAPE MANAGEMENT

"WE KNOW YOUR TURF"

FOR ADVERTISING INFORMATION AND AD PLACEMENT, CONTACT:  
**Stephanie Stiggers-Smith**, 216-891-2719  
 1-800-225-4569 (ext. 719)  
 Fax 216-826-2865

For all ads under \$250, payment must be received by the classified closing date. VISA, MASTERCARD, & AMERICAN EXPRESS accepted. Send to: Advanstar Marketing Services, 7500 Old Oak Blvd., Cleveland, OH 44130.

Send blind box replies to: Landscape Management, 131 W. First St., Duluth, MN 55802 (Include box number in address.)

## FOR SALE



**LANDSCAPE DESIGN KIT 3**  
 48 rubber stamp trees, shrub, & plant symbols & more  
 1/8" scale. Stamp sizes range 1/4" to 1 3/4"  
 \$77.50 + \$5 s/h VISA/MasterCard, or mo's shipped  
 next day. Checks delay shipment 3 weeks. No cod's  
 CA add 7.75% Sales Tax.

**AMERICAN STAMP CO.**  
 12290 Rising Rd., Dept. LM955  
 Wilton, CA 95693  
 Voice/FAX (916) 687-7102

**FREE**  
 LANDSCAPE  
 DESIGNBOOK  
 WITH YOUR  
 LDK 3 ORDER!

**FREE** Landscape Design Book with your LDK order.

### COMMERCIAL INSURANCE FOR LAWN CARE FIRMS "GREEN INDUSTRY SPECIALISTS"

M.F.P. Insurance Agency is dedicated to providing comprehensive insurance programs to the Green Industry at competitive prices. We back up this dedication with a staff of professionals who understand every facet of your business, from marketing to customer service. We know how to properly insure your company whether you're a sole proprietor or a multi-state operation.

Just as your customers look to you for lawn care advice, people come to us for insurance advice because they do not want to become insurance experts themselves. If you want good advice, the right coverage, and competitive rates, please contact:

Richard P. Bersnak, President

Jill A. Leonard, V.P.

1-800-886-2398  
 FAX: 614-221-2203

**M.F.P. Insurance Agency, Inc.**  
 50 West Broad Street, Suite 3200  
 Columbus, OH 43215-5917

Circle No. 301 on Reader Inquiry Card

### Classified Advertising is

- EASY
- EFFECTIVE
- and
- ECONOMICAL

## MISCELLANEOUS



**Creative curb**  
 Concrete Curb & Landscape Border Equipment

Create Beautiful Concrete Borders & Curbs for Less than Half the Cost of Conventional Methods!

- Add on to your services/profits
- Low maintenance/easy to use
- Self-propelled, electric or gas powered
- Create various shapes and sizes
- Durable curbing is freeze/thaw tolerant

23042 Alcalde #C • Laguna Hills, CA 92653  
 (714) 587-8488 • (800) 292-3488 • FAX: (714) 951-2656




**60'x100'x10'**  
**\$13,981**

Build it yourself and save MONEY. 5,000 sizes, all bolt-together ALL STEEL BUILDINGS. Call today for a price quote and a brochure.

**HERITAGE BUILDING SYSTEMS**  
 800-643-5555

## SOFTWARE



**TRIMS for Windows**

The World's Most Popular Grounds Management Software is now available for Microsoft Windows.

### TRIMS for Windows Includes:

- Budgets & Expenses Tracking
- Inventory & Purchase Orders
- Personnel & Labor Activity Records
- Equipment Maint. & Work Orders
- Chemical & Fertilizer Records
- Irrigation & Weather
- Fuel Reporting
- Event Scheduling
- TRIMS DrawView for site plans

**TRIMS Software International**  
 3110 N. 19th Ave. - Suite 190  
 Phoenix, AZ 85015

For More Information Call:  
 (800) 708-7467 or (602) 277-0067



**YOU CAN STAKE UP TO 20 TREES PER HOUR WITH THE TREE SAVER™ TREE STAKE KITS**

Our unique rubberized tree anchoring system saves time & money, grows stronger root systems and helps protect you from injury liability. Call today for a **FREE** product sample.

**1-800-833-5323**

Lawson Landscape Products,  
 A Division of  
 Lawson & Lawson, Inc.  
 35 Industrial Drive,  
 P.O. Box 1784,  
 Martinsville, IN 46151

**TREE STAKE KITS**

## EQUIPMENT FOR SALE



**TRUCKCRAFT**

**PICKUP INSERT DUMPER**  
 For FREE brochure, call toll free 24 hr.  
 1-800-755-3867  
 WE SHIP NATIONWIDE

Reserve Ad Space in the next issue of

## Landscape Management

Call Stephanie Stiggers-Smith:  
 216-891-2719  
 or fax your copy to her at  
 216-826-2865

Subscription Information:  
 800-346-0085, ext 477

For all ads under \$250, payment must be received by the classified closing date. We accept Visa, Mastercard & American Express. Credit card orders are accepted by phone. Send ad copy with payment to **Stephanie Stiggers-Smith, LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130** or call **216-891-2719**. Fax Number 216-826-2865.

**BOX NUMBER REPLIES:** Mail box number replies to: LANDSCAPE MANAGEMENT, Classified Ad Department, 131 W. 1st St., Duluth, MN 55802-2065. Please include box number in address.

## HELP WANTED

**Atlantic Landscapes Opportunities:** We are currently seeking key people to work interior and/or exterior. We offer competitive salary, excellent benefits and unlimited opportunities in our: Richmond, VA; Hampton Road, Virginia Beach, VA; and Research Triangle, Raleigh, NC offices. Please call, fax or mail us a resume. Atlantic Landscapes, 1400B Nowell Rd., Raleigh, NC 26717. Phone 919-233-2930. Fax 919-233-2941. 11/95

**MAINTENANCE MANAGERS & SUPERVISORS:** One of the nation's largest and fastest growing full service landscape companies has an immediate need for experienced maintenance managers and superintendents, as well as entry level maintenance supervisors in the Midwest, Southwest, Mid-Atlantic, Northeast and Southeast states. The company seeks energetic, team oriented college graduates with proven leadership, communication and interpersonal skills. The company offers full-time positions, excellent advancement opportunities and exceptional compensation and benefits with an industry leader celebrating more than 50 years of uncompromising customer service. For immediate confidential consideration, please send or fax your resume to: The Brickman Group, Ltd., Corporate Office, 375 S. Flowers Mill Road, Langhorne, PA 19047, 215-757-9630, EOE 9/95

**Sales Manager:** Growing company is looking for a Sales Manager with Design and Estimating experience. Send resume with salary history to: Mr. Bo's Inc., 955 Blesterfield Road, Elk Grove, IL 60007. 9/95

**Searching for the right employee? Time for a new position?** Contact **Florapersonnel, Inc.**, international search and placement firm for the landscape, irrigation industries and allied trades. **Confidential. Fee paid by employer.** Florapersonnel, Inc., 2180 W. 434, Suite 6152, Longwood, FL 32779-5008. Phone: (407)682-5151 Fax: (407)682-2318. TF

**SOUTHERN TREE NEEDS YOU!!** North Carolina commercial landscape firm is seeking qualified personnel for Charlotte, Greensboro, and Raleigh: **IRRIGATION MANAGER/SALES** Manager to start up Irrigation Division in Raleigh. Strong irrigation background essential. **LANDSCAPE MAINTENANCE FOREMEN** Two foremen with solid maintenance experience. Irrigation, sales, landscaping experience preferred. **HORTICULTURIST** Plant identification and pruning experience. **CHEMICAL APPLICATOR** Plant, insect, and disease identification. Pesticide license or ability to obtain. Respond to: HR Manager, Southern Tree & Landscape Companies, PO Box 7067, Charlotte, NC 28241. (704)375-7555 or Fax (803)548-4792. 9/95

**SALES/MARKETING PROFESSIONAL-** Landscaping firm with long term reputation for exceptional quality seeks an experienced salesperson with knowledge in landscaping maintenance, installation and estimating. Horticultural degree preferred. Position is based in Boca Raton, Florida. Call 407-997-0696 or fax resume to Human Resources Attn: Pat 407-997-0971. 10/95

**MAINTENANCE SUPERVISORS, ACCOUNT MANAGERS:** One of the nation's largest landscape management companies looking for experienced maintenance and irrigation supervisors in No. California market. We're seeking energetic, creative, team oriented people. Excellent growth opportunities and benefits package. Please mail or fax resume to: Environmental Care, Inc., 825 Mabury Rd., San Jose, CA 95133. Fax (408)437-1817. 11/95

**Landscape Installation and Maintenance** Award winning regional based company seeking quality supervisors and foremen with leadership skills for our Columbus branch. Experience in grounds maintenance and/or installation a must. Small engine repair knowledge, lawn and tree care license, or irrigation experience a plus. These year round positions are available for immediate start. We offer top pay, medical and dental benefits, 401k and more. Send resume to **PROLAWN PROSCAPE**, 11488 Deerfield Rd., Blue Ash, Ohio 45424. 11/95

**ENVIROMENTAL CARE, INC.,** Nations' largest full service landscape maintenance company is currently accepting applications for experienced maintenance supervisors. Proven horticultural knowledge and communication skills required. Company provides medical, dental, life insurance and 401K plan. For immediate consideration FX resume to 602-276-8191 or mail to 2902 E. Illini, Phoenix AZ 85040. Phone 602-276-5900. Attn: Bill Rademacher. 10/95

## BUSINESS FOR SALE

Landscape design & maintenance company. Established for 10 years servicing Metro Detroit. Excellent growth potential. Well established accounts. Includes all equipment. Gross sales in 1994 over 390,000.00. Asking 140,000.00. Write Landscaping Services, P.O. Box 24015, Detroit, MI 48224-0015. 12/95

Chicago; SW suburbs, growing Landscape and Maintenance company. Good profits, newer equipment. Grossing 600K plus, Commercial/Residential contracts. Owner willing to help with transition. Call PC Commercial 708-361-9000. 10/95

## BUSINESS OPPORTUNITIES

**FREE! LAWN AND PEST CONTROL SURVIVAL CATALOG.** Non-Compete Agreements, Equipment Assignment, Office Forms, Contracts, Sales Letters, **A+BB** 1505 S.E. Elm St., High Springs, Florida 32643. Voice-24HRS. **1-800-308-4522** ext. 3 12/95

## POSITIONS WANTED

**LANDSCAPE MANAGEMENT CONSULTANT** Consider an alternative to hiring a senior-level manager. Reduce costs and ensure employee loyalty through training in systems and procedures that will best help your business succeed. With nineteen years experience in landscape maintenance in Texas, Florida and the Midwest, I've helped companies grow, stabilize their work force, increase profits, and develop processes to enhance the company's performance. Estimating, scheduling, budgeting, crew organization and effectiveness, profitability and job quality are evaluated and a plan for improvement developed. T.D. MORLAND/HBMC (608)832-6401 9/95

## EDUCATIONAL OPPORTUNITIES

**NOW...LEARN PROFESSIONAL LANDSCAPING AND GARDENING AT HOME!** Accredited program provides thorough training in all phases of commercial and residential landscaping. Diploma awarded. Free brochure describes program and opportunities in detail. Call 1-800-326-9221 or write Lifetime Career Schools, Dept: LF0115, 101 Harrison Street, Archbald, PA 18403. 12/95

## FOR SALE

**BUCKET TRUCK:** Hi Ranger 65', 57', 50'. Skyworkers with chip boxes. Asplundh bucket trucks with chip boxes. Asplundh brush chippers. Bean 55 gal. sprayers. Pete Mainka Enterprises, 633 Cecilia Drive, Pewaukee, WI 53072. 800-597-8283. 12/95

Mail Blind Box  
Replies to:  
**LANDSCAPE  
MANAGEMENT**

Classified Ad Dept.,  
131 W. First St.,  
Duluth, MN 55802

*Please include box number in address!*

# ADVERTISER INDEX

- 101 AgrEvo USA Co. .... 9G  
 102 AgrEvo USA Co. .... 9G  
 103 AgrEvo USA Co. .... 15G  
 104 AgrEvo USA Co. .... 33  
 128 ALCA ..... 23  
 105 American Cyanamid ..... 35  
 106 American Cyanamid ..... 10-11  
 107 American Cyanamid ..... 10-11  
 127 Ciba ..... 7G  
 109 Dalen ..... 17L  
 Dow Elanco ..... 17  
 Dow Elanco ..... 19  
 Dow Elanco ..... 21  
 Dow Elanco ..... 23  
 110 Fox Valley Systems ... 41  
 111 General Motors Corp. .... 24-25  
 129 Green Industry Expo ..... 31  
 112 Grasshopper Co. .... 7  
 Intuit ..... 19L  
 113 John Deere ..... 1G-4G  
 114 John Deere ..... 1L-12L  
 115 John Deere ..... 27L  
 116 Kubota Tractor ..... 37  
 117 Lofts Seed ..... Cv4  
 118 Lofts Seed ..... Cv4  
 119 Melroe Bobcat ..... 29  
 108 Miles ..... 4-5  
 120 Nextel Communications ..... 31  
 121 Oregon Tall Fescue .. Cv3  
 130 PLCAA ..... 23L  
 122 Tee 2 Green ..... Cv2  
 123 Toro Co. .... 13  
 124 Turfco Mfg. .... 25L  
 125 Valent USA Corp. .... 11G  
 126 Walker Mfg. .... 21L

This index is provided as an additional service. The publisher does not assume any liability for errors or omissions.

## EQUIPMENT FOR SALE

2 Low profile fiberglass chelmlawn bodies 1200 gal. tank split 400/800 w/200 gal. torpedo tank, 3 hose reels complete with dual pumps, excellent condition. \$2,950.00 each. Call Cavalier Equipment 703-992-3355, Fax 703-992-2150. 10/95

**SPYDERS-** New/Used/Rebuilt. Full line of replacement parts and update kits. Kubota, Ruggerini, and Kohler engines & parts. Nichols-Fairfield torque hubs. We repair and rebuild Spyder hydraulic pumps and motors. **FAST SERVICE.** Call or write: Mobile Lift Parts Inc., 5402 Edgewood Rd., Crystal Lake, IL 60012. (800)397-7509, FAX (815)455-7366. 12/95

**REINCO HYDROGRASSERS** and power mulchers in stock. Opdyke Inc., (Philadelphia Area) 215-721-4444. 12/95

**BUCKET TRUCKS:** Straight Stick, Corner Mount and Knuckle Boom Cranes. Brush Chippers: New Morbark Disc and Drum Style. New Rayco Stump grinders. Best prices anywhere. Used Chippers: Asplundh, Morbark, etc. 2 to 8 usually in stock. Sprayers, Dumps, Stakes, Log Loaders, Crew Cab Chip Box Dumps, Railroad Trucks, 50 in stock. Sold as-is or reconditioned. We also buy your surplus equipment. Opdyke's, Hatfield (Philadelphia Area). 215-721-4444. 12/95

**FOR SALE:** Tree Spade, Vermeer Model 84, Mounted on Chev Truck. 30,000 Miles - Excellent Condition. Call (903)893-9657. Ask for Read. 9/95

## LEASE FINANCING

**LEASE** any type equipment for your business. Call AmeriNet Financial (216)543-3800. 9/95

## WHOLESALE DISTRIBUTOR

Needed to market environmentally friendly, liquid, slow-release fertilizer products direct from manufacturer. Ken Franke, P.O. Box 123, Plato, MN 55370; 800-832-9635. 9/95

## MARKET SHOWCASE & CLASSIFIED ADVERTISING

For all ads under \$250, payment must be received by the classified closing date. We accept VISA, MASTERCARD & AMERICAN EXPRESS. Credit card orders are accepted by phone.

ISSUES	CLOSING DATES
November	10-10
December	11-10

(Call rep for date confirmation.)

**SEND AD COPY WITH PREPAYMENT TO:**  
 Stephanie Stiggers-Smith  
 Landscape Management  
 7500 Old Oak Blvd.  
 Cleveland, OH 44310

for more information, call Stephanie:  
 1-800-225-4569 or 216-891-2719  
 Fax: 216-826-2865

## LANDSCAPE MANAGEMENT BOOKSTORE



### Compendium of Ornamental Foliage Plant Diseases

by A.R. Chase

92 pages, softcover

LSM-BK-415

\$30.00



### Turf Managers' Handbook

by W.H. Daniel & R.P. Freeborg

437 pages, hardcover

LSM-BK-110

\$39.95

## Call 1-800-598-6008

Outside the U.S. call 216-826-2839

Advanstar Marketing Services

7500 Old Oak Blvd. • Cleveland, OH 44130

CODE: 949095

# BUSINESS REPLY MAIL

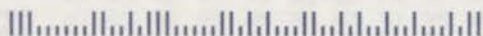
FIRST CLASS MAIL PERMIT NO 950 PITTSFIELD MA

POSTAGE WILL BE PAID BY ADDRESSEE

## LANDSCAPE MANAGEMENT

ADVANSTAR COMMUNICATIONS INC  
PO BOX 5054  
PITTSFIELD MA 01203-9698

NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES



NAME \_\_\_\_\_  
TITLE \_\_\_\_\_  
FIRM \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_  
STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TELEPHONE ( \_\_\_\_\_ ) \_\_\_\_\_  
FAX NUMBER ( \_\_\_\_\_ ) \_\_\_\_\_

HAVE A SALES REP CALL ME 18  (A)

101	118	135	152	169	186	203	220	237	254	271	288	305	322
102	119	136	153	170	187	204	221	238	255	272	289	306	323
103	120	137	154	171	188	205	222	239	256	273	290	307	324
104	121	138	155	172	189	206	223	240	257	274	291	308	325
105	122	139	156	173	190	207	224	241	258	275	292	309	326
106	123	140	157	174	191	208	225	242	259	276	293	310	327
107	124	141	158	175	192	209	226	243	260	277	294	311	328
108	125	142	159	176	193	210	227	244	261	278	295	312	329
109	126	143	160	177	194	211	228	245	262	279	296	313	330
110	127	144	161	178	195	212	229	246	263	280	297	314	331
111	128	145	162	179	196	213	230	247	264	281	298	315	332
112	129	146	163	180	197	214	231	248	265	282	299	316	333
113	130	147	164	181	198	215	232	249	266	283	300	317	334
114	131	148	165	182	199	216	233	250	267	284	301	318	335
115	132	149	166	183	200	217	234	251	268	285	302	319	336
116	133	150	167	184	201	218	235	252	269	286	303	320	337
117	134	151	168	185	202	219	236	253	270	287	304	321	338

## LANDSCAPE MANAGEMENT

SEPTEMBER 1995

This card is void  
after November 15, 1995

### 1. BUSINESS & INDUSTRY

MY PRIMARY BUSINESS AT THIS LOCATION IS:  
(PLEASE MARK ONLY ONE IN EITHER A, B OR C)

#### A. Landscaping/Ground Care at one of the following types of facilities:

- 01  0005 Golf courses  
02  0010 Sports Complexes  
03  0015 Parks  
04  0025 Schools, colleges, & universities  
05  Other type of facility (please specify) \_\_\_\_\_

#### B. Contractors/Service Companies/Consultants:

- 06  0105 Landscape contractors (installation & maintenance)  
07  0110 Lawn care service companies  
08  0112 Custom chemical applicators  
09  0135 Extension agents/consultants for horticulture  
10  Other contractor or service (please specify) \_\_\_\_\_

#### C. Suppliers:

- 11  0205 Sod growers  
12  Other supplier (specify) \_\_\_\_\_

Which of the following best describes your title:  
(mark only one)

- 13  10 EXECUTIVE/ADMINISTRATOR  
14  20 MANAGER/SUPERINTENDENT  
15  30 GOVERNMENT OFFICIAL  
16  40 SPECIALIST  
17  50 OTHER TITLED AND NON-TITLED PERSONNEL (specify) \_\_\_\_\_

I would like to receive (continue receiving)

LANDSCAPE MANAGEMENT each month: YES  NO

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## LANDSCAPE MANAGEMENT

SEPTEMBER 1995

This card is void  
after November 15, 1995

### 1. BUSINESS & INDUSTRY

MY PRIMARY BUSINESS AT THIS LOCATION IS:  
(PLEASE MARK ONLY ONE IN EITHER A, B OR C)

#### A. Landscaping/Ground Care at one of the following types of facilities:

- 01  0005 Golf courses  
02  0010 Sports Complexes  
03  0015 Parks  
04  0025 Schools, colleges, & universities  
05  Other type of facility (please specify) \_\_\_\_\_

#### B. Contractors/Service Companies/Consultants:

- 06  0105 Landscape contractors (installation & maintenance)  
07  0110 Lawn care service companies  
08  0112 Custom chemical applicators  
09  0135 Extension agents/consultants for horticulture  
10  Other contractor or service (please specify) \_\_\_\_\_

#### C. Suppliers:

- 11  0205 Sod growers  
12  Other supplier (specify) \_\_\_\_\_

Which of the following best describes your title:  
(mark only one)

- 13  10 EXECUTIVE/ADMINISTRATOR  
14  20 MANAGER/SUPERINTENDENT  
15  30 GOVERNMENT OFFICIAL  
16  40 SPECIALIST  
17  50 OTHER TITLED AND NON-TITLED PERSONNEL (specify) \_\_\_\_\_

I would like to receive (continue receiving)

LANDSCAPE MANAGEMENT each month: YES  NO

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

NAME \_\_\_\_\_  
TITLE \_\_\_\_\_  
FIRM \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_  
STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TELEPHONE ( \_\_\_\_\_ ) \_\_\_\_\_  
FAX NUMBER ( \_\_\_\_\_ ) \_\_\_\_\_

HAVE A SALES REP CALL ME 18  (A)

101	118	135	152	169	186	203	220	237	254	271	288	305	322
102	119	136	153	170	187	204	221	238	255	272	289	306	323
103	120	137	154	171	188	205	222	239	256	273	290	307	324
104	121	138	155	172	189	206	223	240	257	274	291	308	325
105	122	139	156	173	190	207	224	241	258	275	292	309	326
106	123	140	157	174	191	208	225	242	259	276	293	310	327
107	124	141	158	175	192	209	226	243	260	277	294	311	328
108	125	142	159	176	193	210	227	244	261	278	295	312	329
109	126	143	160	177	194	211	228	245	262	279	296	313	330
110	127	144	161	178	195	212	229	246	263	280	297	314	331
111	128	145	162	179	196	213	230	247	264	281	298	315	332
112	129	146	163	180	197	214	231	248	265	282	299	316	333
113	130	147	164	181	198	215	232	249	266	283	300	317	334
114	131	148	165	182	199	216	233	250	267	284	301	318	335
115	132	149	166	183	200	217	234	251	268	285	302	319	336
116	133	150	167	184	201	218	235	252	269	286	303	320	337
117	134	151	168	185	202	219	236	253	270	287	304	321	338

Use Your New  
LANDSCAPE  
MANAGEMENT  
Reader Service  
Card to receive  
**FREE**  
information on  
products  
and services  
advertised  
in this issue.

NAME \_\_\_\_\_  
 TITLE \_\_\_\_\_  
 FIRM \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 CITY \_\_\_\_\_  
 STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TELEPHONE ( \_\_\_\_\_ ) \_\_\_\_\_  
 FAX NUMBER ( \_\_\_\_\_ ) \_\_\_\_\_

HAVE A SALES REP CALL ME 18  (A)

101	118	135	152	169	186	203	220	237	254	271	288	305	322
102	119	136	153	170	187	204	221	238	255	272	289	306	323
103	120	137	154	171	188	205	222	239	256	273	290	307	324
104	121	138	155	172	189	206	223	240	257	274	291	308	325
105	122	139	156	173	190	207	224	241	258	275	292	309	326
106	123	140	157	174	191	208	225	242	259	276	293	310	327
107	124	141	158	175	192	209	226	243	260	277	294	311	328
108	125	142	159	176	193	210	227	244	261	278	295	312	329
109	126	143	160	177	194	211	228	245	262	279	296	313	330
110	127	144	161	178	195	212	229	246	263	280	297	314	331
111	128	145	162	179	196	213	230	247	264	281	298	315	332
112	129	146	163	180	197	214	231	248	265	282	299	316	333
113	130	147	164	181	198	215	232	249	266	283	300	317	334
114	131	148	165	182	199	216	233	250	267	284	301	318	335
115	132	149	166	183	200	217	234	251	268	285	302	319	336
116	133	150	167	184	201	218	235	252	269	286	303	320	337
117	134	151	168	185	202	219	236	253	270	287	304	321	338

**LANDSCAPE MANAGEMENT**

SEPTEMBER 1995  
 This card is void after November 15, 1995

**1. BUSINESS & INDUSTRY**  
 MY PRIMARY BUSINESS AT THIS LOCATION IS:  
 (PLEASE MARK ONLY ONE IN EITHER A, B OR C)  
**A. Landscaping/Ground Care at one of the following types of facilities:**  
 01  0005 Golf courses  
 02  0010 Sports Complexes  
 03  0015 Parks  
 04  0025 Schools, colleges, & universities  
 05  Other type of facility (please specify) \_\_\_\_\_

**B. Contractors/Service Companies/Consultants:**  
 06  0105 Landscape contractors (installation & maintenance)  
 07  0110 Lawn care service companies  
 08  0112 Custom chemical applicators  
 09  0135 Extension agents/consultants for horticulture  
 10  Other contractor or service (please specify) \_\_\_\_\_

**C. Suppliers:**  
 11  0205 Sod growers  
 12  Other supplier (specify) \_\_\_\_\_

Which of the following best describes your title:  
 (mark only one)  
 13  10 EXECUTIVE/ADMINISTRATOR  
 14  20 MANAGER/SUPERINTENDENT  
 15  30 GOVERNMENT OFFICIAL  
 16  40 SPECIALIST  
 17  50 OTHER TITLED AND NON-TITLED PERSONNEL (specify) \_\_\_\_\_

I would like to receive (continue receiving)  
 LANDSCAPE MANAGEMENT each month: YES  NO   
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**BUSINESS REPLY MAIL**  
 FIRST CLASS MAIL PERMIT NO 950 PITTSFIELD MA

POSTAGE WILL BE PAID BY ADDRESSEE

**LANDSCAPE MANAGEMENT**

ADVANSTAR COMMUNICATIONS INC  
 PO BOX 5054  
 PITTSFIELD MA 01203-9698



NO POSTAGE  
 NECESSARY  
 IF MAILED  
 IN THE  
 UNITED STATES

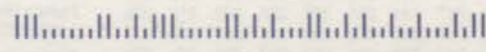


**BUSINESS REPLY MAIL**  
 FIRST CLASS MAIL PERMIT NO 950 PITTSFIELD MA

POSTAGE WILL BE PAID BY ADDRESSEE

**LANDSCAPE MANAGEMENT**

ADVANSTAR COMMUNICATIONS INC  
 PO BOX 5054  
 PITTSFIELD MA 01203-9698



Use Your New  
**LANDSCAPE  
 MANAGEMENT**  
 Reader Service  
 Card to receive  
**FREE**  
 information on  
 products  
 and services  
 advertised  
 in this issue.





*your good judgment*

Will tell you to select

*turf type*

Tall Fescue seed from Oregon

*the beauty*

of the blades

*the strength*

and durability

*the tolerance*

to drought & disease

*the quality!*

Look for the grown in Oregon label. It puts all others in a lower class. A lush, healthy, deep green turf is your reward for selecting superior seed. The world's leading turf grass breeders have been perfecting it for more than 20 years. The tough, vibrant turf will not only tolerate drought, but survive cold winters.

When you select Turf Type Tall Fescue seed from Oregon you can be sure you will enjoy your "good judgment" decision year after year.

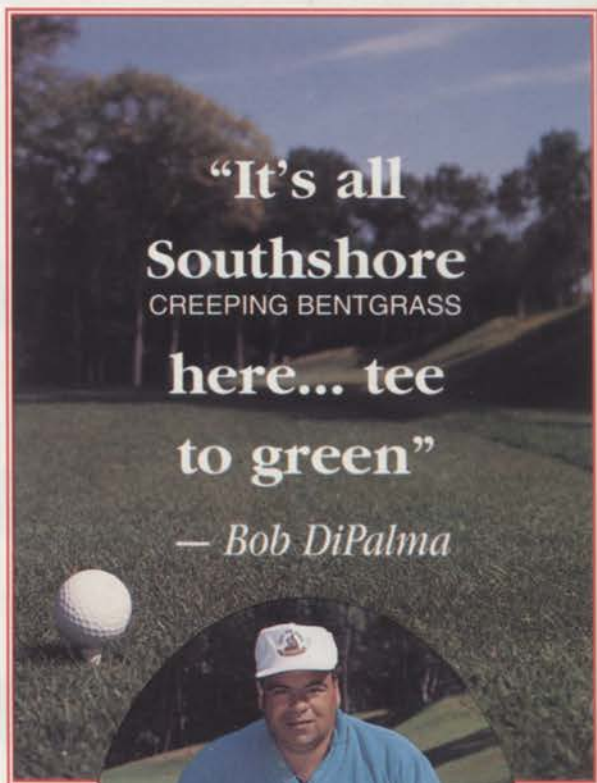
**TURF  
TYPE  
TALL  
FESCUE**

**SEED FROM OREGON**

Oregon Tall  
Fescue Commission  
1193 Royvonne, Suite 11  
Salem, OR 97302  
503-585-1157

**“The specs called for tee to green bentgrass. I compared and saw how much better Southshore was. Now in less than a year, these greens are the best in the area.”**

*Bob DiPalma, Superintendent  
Minisceongo Golf Club  
Pomona, New York*



**M**inisceongo Golf Club, the dream of developer Eric Bergstol, is tucked into the scenic hills of Rockland County, New York. Roy Case, as architect, began carving into the heavily-wooded, challenging landscape in March 1993 with Bob DiPalma already on board as superintendent.



*Owner/developer, Eric Bergstol imagined a unique golf course when he purchased the land for Minisceongo Golf Club.*

The specs called for bentgrass — tee to green — with bluegrass banks and fescue roughs.

With so many new bentgrasses on the market competing with the old-time favorites,



*The out-of-play roughs at Minisceongo Golf Club are seeded with Rellani Hard Fescue for low-maintenance, natural beauty.*

Bob DiPalma thought it wise to visit some test plots.

“I saw the darker color and upright growth of Southshore compared to some of the others. That did it! We placed the order...enough Southshore for every tee, fairway and green.

“Look at these greens! They were seeded in September 1993 and all 18 holes were opened for play July 1, 1994. Now, less than one year later, the greens are the best in the entire area, bar none! Even with the severe winter and extremely hot summer we had, they came through beautifully. No disease problems and we used very little chemical. We’re already seeing 12” roots on most of these greens.

“The tees and fairways are coming in nicely despite some washout problems. By next season this entire course is going to be top-notch. Eric is so pleased with what Southshore has done here, he’s already considering it for his next project,” — Bob DiPalma.



*This double green at Minisceongo Golf Club serves the sixth and fifteenth holes. Photos were taken less than one year after seeding.*



**Lofts Seed Inc.**  
World's largest marketer of turfgrass seed  
Bound Brook, NJ 08805

**Lofts/Great Western**  
Albany, OR  
(503) 928-3100  
(800) 547-4063

**Lofts/Ohio**  
Wilmington, OH  
(513) 382-1127  
(800) 328-1127

**Lofts/Maryland**  
Beltsville, MD  
(301) 937-9292  
(800) 732-3332

**Lofts/Pennsylvania**  
Allentown, PA  
(610) 266-6612  
(800) 708-8873

**Lofts/New England**  
Arlington, MA  
(617) 648-7550  
(800) 648-7333

**Sunbelt Seeds, Inc.**  
Norcross, GA  
(404) 448-9932  
(800) 522-7333