

# "We Do See Eye-to-Eye on PennLinks"

Frank Gill III, Superintendent The Fields of Rosemont, LaGrange, GA

- Public 18 hole course
- Sand base greens
- Open prairie design
- Triplex-mowed greens
- Organic nutrients

"When the word was out that we had bentgrass greens, our numbers went up considerably. Players tell us our greens are fast and smooth as glass when compared with bermuda. PennLinks is the icing on the cake!" Paul Cheplick, Superintendent Highland Country Club, LaGrange, GA

- Private 18 hole course
- Soil push-up greens
- Dense trees, limited air movement
- Walk-mowed greens
- Granular and sprayable nutrients

"The members and guests at our club have raised their perception of our facility dramatically since converting to PennLinks bentgrass. And we don't go through the inconvenience or transition of Winter overseeding."

Frank W. Dill, III

Paul S. Cheplut

#### LANDSCAPE MANAGEMENT

is a proud member of these green industry professional organizations:

# ALCA

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

American Sod Producers Association, 1855-A Hicks Rd., Rolling Meadows, IL 60008; (708) 705-9898.

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 Association, 8400 Normandale Lake Blvd., Suite 500, Bloomington, MN 55437; (612) 832-5000.

### AS WE SEE IT

JERRY ROCHE, EDITOR-IN-CHIEF



## Servicing the reader: the ticket to quality in magazine publishing

My definition of quality: dedicated, informed employees consistently giving customers exactly what they want.

To that end, LANDSCAPE MANAGEMENT magazine takes its quest for quality to a new level with this month's issue.

In the past, we've conducted reader surveys—in which many of you have participated, thank you—to determine how well our magazine is being received, and if we are on target with our articles. Because of their unequalled value, these surveys will continue.

But this month, we're proud to become the first magazine in the green industry to boast a "Reader Advisory Panel" that features six of the most respected names in the industry.

These people are not suppliers. They are not researchers. They are not extension agents or other consultants. They are golf course superintendents, landscape contractors, athletic field supervisors and lawn care operators—just like you.

The panelists: Ken Gerlack, Twyla Hansen, Tim Hiers, Bill Prest, Mark Schlossberg and Brian Storm. (For more information, see "Hot Topics.")

All six have not only been around the industry for a long time, but they've been extremely active, and have probably come in contact with many of you.

With this panel, balance is the key. We've included two golf course superintendents, two landscape contractors, a lawn care operator and an athletic field manager—roughly the same proportions as our total readership. We've got a great geographical diversity, from Ken in California, to Tim in Florida, to Mark in Baltimore.

The formation of this select panel gives us a means of more efficiently delivering even more valuable information, each and every month.

For instance, in the next few days, we'll be finding out exactly how those six panelists viewed this month's cover stories on mowing, and what they think of our "LM Reports" on coated fertilizer. We'll know if our "Tech Center" section about disease control was on the mark. And we'll get reactions—especially from our two golf course superintendents—on the interesting points concerning algal scum in the "Strictly Golf" section.

In the past two years, LANDSCAPE MANAGEMENT has made some fundamental and wide-ranging changes: in the information we deliver, the way in which we deliver it, and to whom we're delivering it. We are thankful that you, readers, have embraced our renewed commitment.

The green industry is changing. Unlike other magazines serving the industry, LANDSCAPE MANAGEMENT is changing along with it.

With our new "Reader Advisory Panel," you're assured of seeing more positive changes over the ensuing months.

It's not often in this column that you read anything self-serving. But we're proud of our new "Reader Advisory Panel," and proud of our effort to provide a quality editorial product to you. So please forgive us if we take a moment to puff out our chests.



# LANDSCAPE HANDSCAPE MICROBOLING LAWIN CARE HIDUSTRY

MAY 1993 VOL. 32, NO. 5

#### COVER FEATURES

#### 8 The mowing basics

The turf type, the mower, the operator: all play vital roles in maintaining healthy grass, says Cornell University's Dr. Beth Baikan.

Jerry Roche

#### 11 A mowing troubleshooter

Here are some typical mowing problems—starting with inconsistent cut and continuing through engine problems—and how you can solve them.

Robert L. Tracinski

#### FEATURES

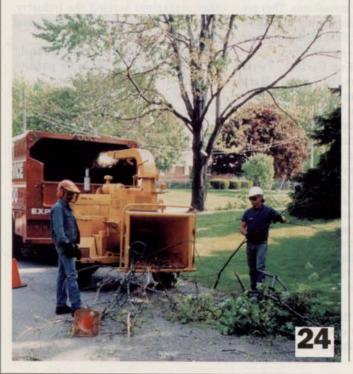
#### 16 LM Reports: Coated fertilizers

Manufacturers rely on polymers to improve and, in some cases, eliminate sulfur coating.

Ron Hall

#### 18 Watch out for OSHA citations

Mary Malotke of TechneTrain discusses the most common OSHA violations and how you can avoid getting cited by OSHA inspectors. Also: a hazardous substances checklist. Jerry Roche



#### 22 Surviving crises

Employees can be a source of strength when the company goes through an unfortunate turn of events.

Ed Wandtke

#### 24 Chipper/shredder maintenance

'It can't happen to me,' you say? Chipper/shredder accidents do happen to landscape and tree care specialists who don't follow the rules.

James E. Guyette

#### 30 Athletic field expectations

The groundskeeper must listen to views from many sources and focus on the issues, not the emotions.

Jesse Cuevas



#### TECH CENTER

#### 36 Disease control '93

Disease control measures for landscape managers in warmseason areas come from North Carolina State University. Also: a summary of cool-season disease control tactics. Leon Lucas, Ph.D.

#### STRICTLY GOLF

#### 48 Solving algal scum problems

Drainage and chemical controls are the keys to these problems on golf greens, says Carolina Country Club super Bob Rogers.

#### LAWN CARE INDUSTRY

#### 52 Making the sale

Until a customer signs the check, you really don't have a customer: this is Bio Green's philosophy in northern Virginia. *Ron Hall* 



54 The good, the bad, the ugly

Doing only what the customer expects, even if you do it well, will get your company a grade of 'C' from that customer.

Ron Hall

#### HOT TOPICS

#### 59 Scientists waver on 2,4-D

Relationship of herbicide, cancer is 'weakly suggestive' and 'weakly possible.' Report due this summer.

Ron Hall

#### DEPARTMENTS

1 As We See It 6 Ask the Expert 90 Hot Topics 62 Info-Center 62 Events 64 Product Spotlight 64 Product Review 74 Classified 76 Ad Index

On the cover: Holman Stadium, Dodgertown, Vero Beach, Fla. during spring training.

#### **LM READER ADVISORY PANEL**

Ken Gerlack

Contra Costa Landscaping Martinez, Calif.

Twyla Hansen

Nebraska Wesleyan University Lincoln, Neb.

**Tim Hiers** 

Collier's Reserve Naples, Fla. **Bill Prest** 

Springvale Country Club North Olmsted, Ohio

Mark Schlossberg

Pro-Lawn Plus Baltimore, Md.

**Brian Storm** 

Terrascaping, Inc. Birch Run, Mich.

#### LANDSCAPE MANAGEMENT

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

#### **EDITORIAL STAFF**

JERRY ROCHE, Editor-in-Chief TERRY McIVER, Managing Editor RON HALL, Senior Editor MICHELLE THERRIEN, Graphic Designer KEITH FAZIO, Art Director MAUREEN HREHOCIK, Group Editor

#### **BUSINESS STAFF**

JON MIDUCKI, Publisher
ROBERT EARLEY, Group Vice President
KEVIN J. CONDON, Publishing Services Director
JUDY PAWLOWICZ, Production Manager
ROSY BRADLEY, Senior Production Manager
DEBI HARMER, Production Director
DIANE BIAS, Administrative Coordinator

#### **ADVERTISING OFFICES**

CLEVELAND (HEADQUARTERS) OFFICE

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

JON MIDUCKI, Publisher: (216) 826-2855 ROBERT EARLEY, Group Vice President ANNE LANGHENRY, Promotion/Research Mgr.: (216) 891-2739

MEG GARNER, Sales Representative: (216) 891-2723

DIANE BIAS, Administrative Coordinator: (216) 891-2750

ATLANTA OFFICE

3475 Lenox Road NE, Suite 665 Atlanta, GA 30326 Phone: (404) 233-1817 Fax: (404) 261-7422

DICK GORE, East Coast Sales Manager SEATTLE OFFICE

1333 NW Norcross Seattle, WA 98177 Phone: (206) 367-5248

Fax: (206) 367-5367 BOB MIEROW, West Coast Representative

#### SUBSCRIBER / CUSTOMER SERV.

(218) 723-9477 FAX (218) 723-9437



Chairman & CEO: Richard B. Swank:

President: Edward D. Aster

Vice President Finance/CFO: Richard D.W. Mead Vice Presidents: Kevin J. Condon, Robert E. Earley, Brian Langille, Brian Nairn, Bernard J. Rogers, Phil Stocker

Treasurer & Controller: Adele D. Hartwick Secretary & Director of Corporate Finance: David W. Montgomery

LANDSCAPE MANAGEMENT (ISSN 0894-1254) is published monthly by ADVANSTAR Communications, Inc. Corporate and editorial offices: 7500 Old Oak Blvd., Cleveland, OH 44130. Advertising offices: 3475 Lenox Rd. NE, Suite 665, Atlanta, GA 30326 and 7500 Old Oak Blvd., Cleveland, OH 44130. Accounting, advertising production and circulation offices: 1 East First Street, Duluth, Minn. 55802. Subscription rates: \$30 per year in the United States; \$55 per year in Canada. All other countries: \$100 per year. Current issue single copies (pre-paid only): \$3.00 in the U.S.; \$6.00 in Canada; elsewhere \$10.00; 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., 1 East First Street, Duluth, Minn, 55802 and additional mailing offices. Copyright © 1992 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 the publisher. Canadian G.S.T. number: R-124213133. POSTMASTER: Send address changes to Landscape Management P.O. Box 6269 Duluth, Minn, 55806. Date effective: December 27, 1990.



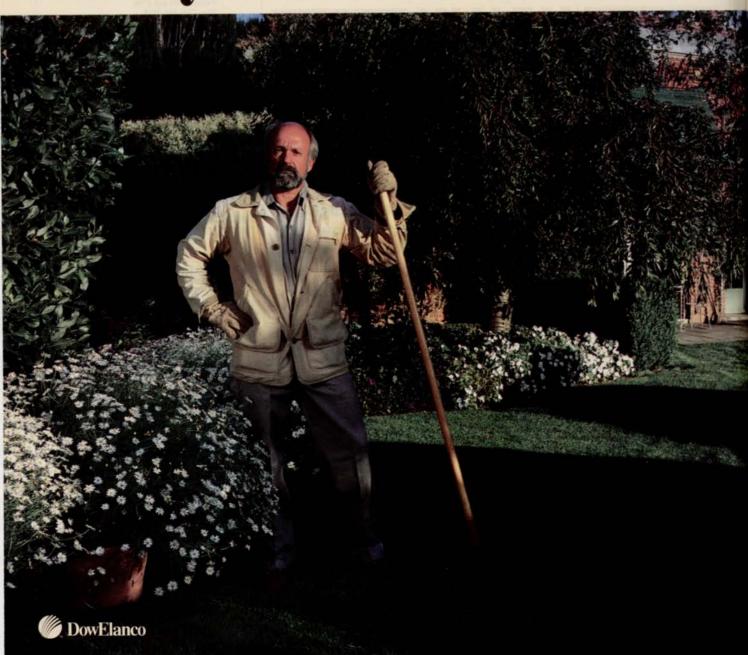
Printed in USA

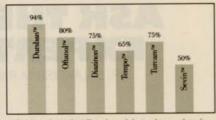
You might think using less insecticide means you'll have to put up with more insects. But that's not necessarily the case. Because how you use your insecticide is as important as how much you use. With

the right tactics, you can use a loveless and still get excellent results.

Here's a good example. By mixing insecticide with insecticidal soap, you can reduce the amount of insecticide you need on your cent. Insecticidal soap controls most soft-bodied insects and mites. By adding insecticide, you'll also take care of tougher insects, like scales and worms. University studies

# A few ways to bala with your love for the env





Studies show that Dursban delivers better chinch bug control at lower rates than other insecticides.

suggest you may get better control than you get with insec ticide alone.

Knowing exactly when to apply insecticide helps, too. For example, adult black turfgrass aetinius are

cide gives you so much control at such a low rate. It's available in water-soluble packets. And it can be bio-monitored, which can reduce the likelihood of over-exposure.

Now, we realize you probably

# nce your hate for insects

first present at the same time the black locust tree

blooms. Make your insec-

ticide application then, and you'll get the most efficient, effective control.

Your insecticide it-

have some questions. That's why we created The Turf Manager's

Guide To Responsible Pest Management. It's 44 pages packed with

information on the latest tech-



niques for controlling insects. weeds and

burf diseases. For a free copy,

the coupon, or call our toll-free telephone number.

Because when you apply a little knowledge, you don't need to apply as much insecticide.

Send me the following Management Guide(s): Cool Turf, Warm Turf. Nursery and Landscape.

Mail To: DowElanco, P.O. Box 3064. Cedar Rapids, IA 52406. Or call: 1-800-729-3693 ext. 6493

Name		
Company	AVE 1	
Address		
City		_State
200	Di	

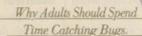
#### The chemistry is right."

Dursban is available in liquid, dry flowable, granular and fertilizer formulations. \*Trademark of DowElanco.

C1993 DowElanco.

05





If you want better results from the insecticide vou use, insect traps can help. They allow you to find out when certain pest insects are present and time your insecticide applications accordingly. Insect traps are inexpensive, easy to use, and they'll help you get greater control using less insecticide.



Pitfall Trap

self can also make a difference. After all, different insecticides work at different rates. Which is why Dursban\* insecticide could be your best choice.

Just one pound active ingredient per acre controls chinch bugs, billbugs, sod webworms and a host of other insects. No other insecti-

### **ASK THE** EXPER'

DR. BALAKRISHNA RAO

#### Home-study courses in horticulture?

Problem: Are there any schools offering home-study courses in horticulture and landscape design for which a degree can be earned? (Pennsylvania)

Solution: I am not familiar with any schools offering homestudy courses in horticulture and landscape design for a degree and/or no degree program. I will update you if I hear from our readers or other sources.

#### **Earthworms and golf greens**

Problem: How can I eliminate earthworms from penetrating my greens? The worms bore holes up through the turf, causing little mounds of dirt. When the greens are mowed, the mounds are left flat. This causes an uneven putting surface and an unattractive green. (New York)

Solution: Generally, most people—particularly those who deal with turfgrass management and farming-consider earthworms to be beneficial as their feeding activity enriches the soil. In addition, their burrowing improves soil aeration. The soil they ingest with their food becomes a good source of natural fertilizer when excreted.

The problems they create—as you indicated—are mounds of soil in the turfgrass area which can be unsightly. In your situation, this presents an uneven soil surface for playing. Also, a large number of earthworms may be found crawling or dead on sidewalks, driveways, etc. during heavy rains or saturated soil conditions.

Although these activities can be a nuisance, or objectionable to a number of people, there is no pesticide registered to manage earthworms. Reports indicate that certain soil-applied insecticides on lawns may have some adverse effects on earthworm population and activity. If any of the readers have suggestions or comments, I will pass them on in this column.

Read and follow label specifications for better results.

#### Ever see an 'umbrella' tree?

Problem: Are you familiar with the "umbrella" tree? If so, do you have any idea where I can locate one? What is its botanical name? (Pennsylvania)

Solution: In reviewing the literature from our library, the specific name of the umbrella tree to which you are probably referring is the Magnolia tripetala. In addition to this, the following names of trees were also included under that umbrella tree name:

- Australian: Brassaia actinophylla
- Ear-leaved: Magnolia frasseri
- Queens: Brassaia actinophylla
- Queensland: Brassaia actinophylla
- Texas: Melia azadarach

Among the above names and tree species, the umbrella tree most commonly refers to umbrella magnolia (Magnolia tripetala). It gets its name from the characteristic arrangement of large leaves. Unlike many other plants on which the leaves are normally arranged along the branches, the umbrella tree's leaves are | three months for an answer to appear in the magazine.

crowded at the ends of the branches, giving an umbrella effect.

The umbrella magnolia tree can be a large shrub or small tree seldom more than 40 feet tall. It is found near streams or in moist soils along the coastal plain and Piedmont plateau from Virginia to Georgia. It may also be found in mountains.

The tree has large (10- to 20-inch) broad elongated leaves, cream-colored, 10- to 12-inch wide flowers with three sepals and six or nine petals with unpleasant odor and fruits which are rose/red-colored and two- to four-inches long. Its bark is light grav and smooth.

With the above unique characteristics, it may not be very difficult to locate the tree in its growing regions, which are Pennsylvania to Alabama and Mississippi.

#### **Nutsedge control tips**

Problem: We are having problems controlling nutsedge in our clients' properties. We have used Basagran with mixed results. Is there a better product or method of managing nutsedge on warmseason grasses? (Texas)

Solution: In Texas, you are probably dealing with two types of nutsedge—the yellow and purple varieties. Of the two, purple nutsedge is reportedly common in your area. The Basagran herbicide that you used is primarily for yellow nutsedge control. You would obtain mixed results if purple nutsedge is the predominant problem, since Basagran doesn't work well in managing this.

If purple nutsedge is predominant, try using Image herbicide. This herbicide is by far the best product for purple nutsedge management. The manufacturer claims 80- to 100 percent control.

It will also help control yellow nutsedge.

Image can be used on warm-season established turfgrasses like bermudagrass, centipedegrass, St. Augustinegrass and zoysiagrass. Labels say not to use on tall fescue or mixed stand of tall fescue and bermudagrass. For better results, apply Image on actively growing weeds. It can be tank mixed with other herbicides, but check the label specifications for mixing guidelines and compatibilities.

According to the label information, Image will also help manage quite a few other monocot and dicot weeds. Refer to the label for more information.

Image is a systemic herbicide which can move throughout the foliage and roots and starve weeds by affecting plant protein production. Reportedly, weed growth stops within two weeks of application. With continued mowing and good plant health care practices for desirable turfgrass, the weed problem disappears.

Read and follow label specifications for best results.

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

# CUTTING EDGE

DISEASE CONTROL

Join the thousands of turf management professionals who have armed themselves with LESCO Touché® Flowable Fungicide.

"We use Touché as part of our guarantee, to keep customers happy."

-Jim Miller, General Manager-Emerald Green Cincinnati, OH

"Touché is very cost effective for its performance."

-Gary Tomlinson, Director Technical Services-The Morrell Group Atlanta, GA "Touché's staying power on brown patch has been very good, better than all other fungicides we've used."

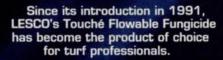
-Scott Baltz, Owner-Spring-Green Raleigh, NC

"Touché has helped boost profitability by as much as 15 percent."

> Jeff Oravec, Branch Manager-All Green Raleigh, NC

"We're very satisfied with Touché's broad spectrum effectiveness."

-Jim Sobek, Owner-Lawn Specialists Rocky River, OH



Lawn care operators, golf course superintendents and university researchers have proven Touché's effectiveness against major turf diseases. Touché offers preventive and curative control of leaf spot, brown patch, dollar spot, red thread and both pink and gray snow mold. Touché offers extended residual control — up to 28 days from a single application.

Touché is available in gallon and pint size containers. Its concentrated flowable formulation simplifies mixing and measuring, reduces container handling, and makes storage and disposal easier.

For more information on Touché, contact your LESCO Sales Representative, stop in at one of LESCO's 90 Service Centers, or call (800) 321-5325 (In Cleveland, 333-9250).

**LESCO** 

Touche

Flowable Fungicide

For the Control of Dollar Spot, Leaf Spot, Melting Out, Brown Patch, Red Thread, Fusarium Patch (Pink Snow Mold) and Gray Snow Mold.

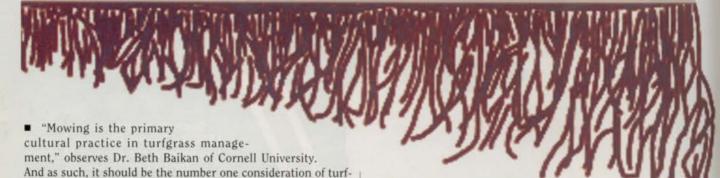
Alter Gray Snow Mold.

20005 Lake Road, Rocky River, Ohio 44116 Circle No. 141 on Reader Inquiry Card

## LANDSCAPE MANAGEMENT

# Do you know the mowing basics?

The turf type, the mower, the operator: all play vital roles in maintaining healthy grass.



grass managers who want a healthy, attractive stand of turf.

She defines mowing as: "removal of photosynthetically active tissue that temporarily reduces the food-making process and

weakens the plant."

In one sentence: if you're not mowing correctly, chances are that you're creating more problems for yourself.

Mowing height, Baikan says, is determined by:

- turfgrass species;
- · intensity of maintenance; and
- how the turf is being used.

"All species have a mowing tolerance range," she says. Bermudagrass should be mowed at 0.2-0.5 inches; St. Augustine, carpetgrass, centipedegrass at 1.5-2 inches; turf-type tall fescue and bahiagrass at 2-3 inches.

"The shorter the grass is mowed, the more frequently it needs to be mowed," Baikan further observes. "You can compromise mowing height and frequency on less highly-maintained turf, but not on intensely-maintained turf like golf greens."

Also, grasses which grow in shade typically lack vigor; its leaves are weaker than grasses growing in sunlight. So mowing heights should be raised 30-50 percent of the normal recommended height.

Other factors-"Selection of equipment is critical," she says.

"And adjustment of blades is also important." She suggests adjusting the mower blades before every mowing.

Rotary blades cut in a horizontal mode, reel blades in a circular mode. Rotary blades use a suction-effect to stand the grass up straight and then rip the tip of the plant off in a scythe-like manner. Reel blades, on the other hand, use a cleaner, more efficient scissors-type action with the blade slicing off the turfgrass tips against the bedknife.

"Season, time and temperature also play an important role in mowing practices," Baikan notes.

In cool, wet periods, you should use a higher cut to promote deep rooting. When it's hot and dry, a shorter cut means less water evapotranspiration loss. "You have to see where the line is," she says.

**Problems**—Common problems which arise from improper mowing practices include:

- 1) At lower heights, the plant is stressed more, meaning more opportunity for weed encroachment.
  - 2) Dull blades will rip the plant, causing injury.
- **3)** When the mower is travelling at an excessive forward speed, the turf tends to show a wavy appearance.