

Searing heat. Drought. Year-round traffic. For Fred Biggers, it's all part of the job.

The Stoney Creek course at Virginia's Wintergreen Resort delivers one of the top resort golf experiences in the country. As well as serious challenges for Fred, Wintergreen superintendent and a 2003 Keeper of the Green.

To battle summertime temperatures that exceed 100 degrees, Fred turns to Floratine to help his greens come through in top condition year after year. His program includes biostimulants Astron, Knife, Per "4" Max, Perk-Up and ProteSyn™ as well as soil amendments Maxiplex, CalpHlex, Phlex-Mag and Phlex-Man. "Floratine products have delivered results as advertised," says Fred.

It seems that extreme circumstances call for a solution with one name — Floratine.

Floratine and its associates are dedicated to the success of turfgrass managers. We strive to provide environmentally conscientious, integrated turfgrass solutions through uncompromising quality and value in products, technical assistance, and customer focus.

We are invested in the success of the Keepers of the Green.



For more information, call 901-853-2898 or e-mail techinfo@floratine.com

Fred Biggers



Wintergree

Golfdom

s Your Course Accessible?



Without Wires

Can wireless irrigation systems and all their digital doodads transform the industry? By Larry Aylward

04 On the Mark

Mark Mungeam, the man behind the renovation at Olympia Fields CC, talks about what it took to ready the course for the U.S. Open. **By Geoff Shackelford**

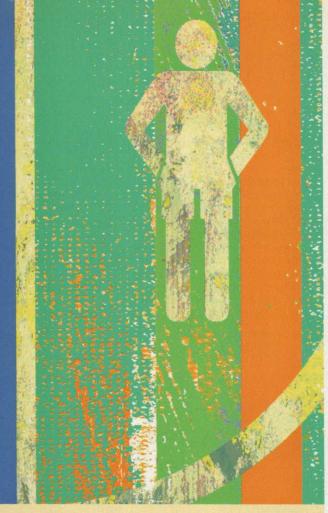


69 Inside the Fringe

SPECIAL SECTION: THE PUTTING SURFACE Golfdom reports on matters from moss control to "massaging" greens.

70 Make Mine (a Walk-Behind) Mower

The Big Three manufacturers discuss the time and effort they spend to build new walk-behind machines. By Frank H. Andorka Jr.



74 Bring on the Baking Soda

Two Ohio superintendents discovered an innovative solution to moss problems on their greens. By Frank H. Andorka Jr.

78 Just Greens

Superintendent says he's up to the peculiar turf task presented to him at a new Las Vegas putting complex. By Doug Cantor

84 Gone, But Not Forgotten

Canton Public GC will live on — literally — through its donated greens. By Anthony Pioppi

Real-Life Solutions

88 Subtle Approach Ensures Subtle Changes

Architect "massages" greens to regain lost cupping areas. By Anthony Pioppi

90 Goods for the Green

These products can help you maintain better putting surfaces.

cover story

BY BRUCE ALLAR

Golf courses face new demands to comply with the Americans with Disabilities Act.

38

About the cover Lisa Lehman and Kim Traum designed our vivid cover. Image by Artville.

Focusing on the "Little Guy"

The positive reaction to our March cover story, "Down and Dirty," inspired us to launch a new column that focuses on superintendents at low-budget courses who are doing more with less. Check out the debut entry on page 100.

News with a hook

21 Power Play 26 Work as Art

columns

- 14 Flagstick Davids Help With Goliath Problem
- 32 Pin High Give Doak Credit for Giving Back
- 37 Shades of Green Going Beyond Your Job Description
- 92 Designs On Golf What Does the Future Hold? The U\$GA
- 100 Down and Dirty Protecting Nature Is Family Affair
- 110 Mechanically Inclined Taking Care of Topdressers
- 112 It's Academic Genetic Resistance Aids Fight Against Dollar Spot

114 Out of Bounds Boats, etc.

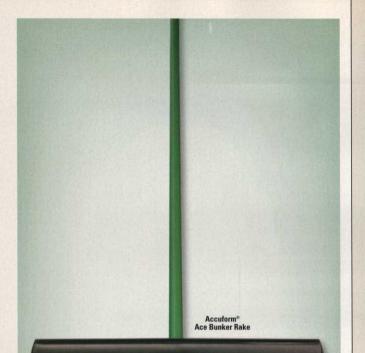
lepartments

- 8 **Events**
- 10 We've Got Mail
- 16 The Big Picture
- 21 Off the Fringe
 - 34 Hole of the Month
 - **113 Classifieds**



TurfGrass Trends

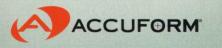
This month, *Golfdom's* practical research digest for turf managers discusses irrigation sensors and more. Pages 49-64.



SMOOTHES OVER A BUNKER LIKE ROSES SMOOTH OVER A **MISSED ANNIVERSARY.**

Short tines for raking and a special surface for smoothing make this the preferred rake PAR AIDE among top superintendents. To learn more call 1-888-893-2433 or visit www.paraide.com

WHEREVER GOLF IS PLAYED.



CIRCLE NO. 104

Golfdom

EDITORIAL STAFF

Pat Jones PUBLISHER/EDITORIAL DIRECTOR 440-891-3126 pjones@advanstar.com Larry Aylward EDITOR 440-891-2770

Frank H. Andorka Jr. MANAGING EDITOR 440-891-2708 fandorka@advanstar.com Geoff Shackelford CONTRIBUTING EDITOR 310-451-5877 geoffshackelford@aol.com Inel Jackson CONTRIBUTING EDITOR 407-248-1971 Mark Luce CONTRIBUTING EDITOR 785-841-6044 Dave Wilber CONTRIBUTING EDITOR 916-630-7600 Dr. Karl Danneberger CHIEF SCIENCE EDITOR Lisa Lehman CORP. CREATIVE DIRECTOR 440-891-2785 Ilehman@advanstar.com Kim Traum SR. GRAPHIC DESIGNER 440-891-3175 Mike Klemme CHIEF PHOTO EDITOR 580-234-8284 Sue Porter EXECUTIVE EDITOR 440-891-2729 Vernon Henry CORP. EDITORIAL DIRECTOR 440-826-2829 Lynne Brakeman WEB EDITOR 440-891-2869

laylward@advanstar.com flgrn@aol.com mluce@sunflower.net dave@soil.com danneberger.1@osu.edu ktraum@advanstar.com mike@golfoto.com sporter@advanstar.com vhenry@advanstar.com Ibrakeman@advanstar.com

CLEVELAND HEADOUARTERS

7500 OLD OAK BLVD. CLEVELAND, OH 44130-3609

OFFICIAL PUBLICATION OF



American Society of Irrigation Consultants 111 E. WACKER, 18TH FLOOR, CHICAGO 60601; 312-372-7090; WWW.ASIC.ORG

GOLFDOM ADVISORY STAFF

Joe Baidy, CGCS TURNING STONE GC Jim Barrett, ASIC JAMES BARRETT ASSOCIATES Jan Beljan, ASGCA FAZIO DESIGN Pat Blum COLONIAL ACRES CC Joe Boe CORAL OAKS GC Jerry Coldiron, cacs LASSING POINTE GC Bill Coore COORE & CRENSHAW David Davis, FASIC DAVID D. DAVIS ASSOCIATES **Tripp Davis** DAVIS AND ASSOCIATES Michelle Frazier, CGCS BOSTON HILLS CC **Charlie Fultz** SHENVALEE GOLF RESORT **Paul Gillen** AERWAY **Dean Graves** CHEVY CHASE CLUB John Gurke, CGCS AURORA CC **Steve Hammon** TRAVERSE CITY G&CC

Jim Husting, CGCS, WOODBRIDGE G&CC **Tom Kastler** IACKSBORO CC Robb Dillinger, CGCS VALLEYCREST GOLF MANAGEMENT Armand LeSage LAKE ARROWHEAD CC Bob Lohmann, ASGCA LOHMANN GOLF DESIGN Jim Loke, CGCS BENT CREEK CC Walter Mattison

(IN MEMORY) Steve Merkel, CGCS LANDSCAPES UNLIMITED

Bil Montague, CGCS, MG CUYAHOGA COMMUNITY COLLEGE Don Naumann

SIERRA PACIFIC TURF

Jim Nicol, CGCS HAZELTINE NATIONAL GC **Steven Numbers**

WESTFIELD CC Joel Ratcliff, cgcs

WORLD TOUR Ken Sakai, CGCS,

GOLF PACIFIC MANAGEMENT GROUP **James Simonini** SYNCROFIO

ASSOCIATIONS



American Society of Golf Course Architects 111 E. WACKER, 18TH FLOOR, CHICAGO 60601; 312-372-7090; WWW.GOLFDESIGN.ORG

Golf Course Superintendents Association of America 1421 RESEARCH PARK DR., LAWRENCE, KS 66049-3859; 800-472-7878; WWW.GCSAA.ORG



Golf Course Builders Association of America 727 "O" STREET LINCOLN, NE 68508; 402-476-4444; WWW.GCBAA.ORG



National Golf Course Owners Association 1470 BEN SAWYER BLVD., STE. 18, MOUNT PLEASANT, SC 29464; 843-881-9956; WWW.NGCOA.ORG

Responsible Industry for a Sound Environment 1156 15TH ST. NW, SUITE 400, WASHINGTON, DC: 202-872-3860; WWW.PESTFACTS.ORG

OTHER PREEMERGENTS TALK A LOT ABOUT CRABGRASS. WITH PENDULUM, IT NEVER COMES UP.





Pendulum herbicide consistently controls crabgrass better than other preemergent herbicides.* What more can we say? How about **Pendulum** controls a broader

spectrum of weeds than any other preemergent—more than 40 grassy and broadleaf weeds, such as oxalis and spurge. It also controls costs, to offer you greater value. But **Pendulum** puts no limits on application flexibility. It's available as **Pendulum AquaCap**[™]—an encapsulated, water-based formulation—as well as granular and liquid formulations. BASF pendimethalin is also offered on fertilizer. Visit www.turffacts.com for a list of approved fertilizer formulators. With **Pendulum**, there's just so much more to talk about than crabgrass.

To learn more about why everyone's talking about **Pendulum**, call 1-800-545-9525 or visit us at www.turffacts.com.

Always read and follow label directions.



WE DON'T MAKE THE TURF. WE MAKE IT BETTER.



BIUEGRASS BETTER THAN MIDNIGHT?

Low growing, less fertilizer, drought and disease resistant

Turf-Seed's Premium Kentucky Bluegrass

Midnight has been our top selling variety for over 20 years with many companies attempting to duplicate it. At Turf-Seed, we concentrate on the development of different varieties that complement Midnight such as North Star, Moonlight and Brilliant.



Safeco Field • Seattle, WA Contains a blend of Turf-Seed[®] Kentucky Bluegrasses

Strengthen your turf blends with varieties that offer mildew resistance, salt tolerance, rust

resistance and are adapted to low mowing heights.

North Star, Moonlight and Brilliant should be your first choice when looking for a suitable companion with Midnight.

	Mildew Resistant	Salt Resistant	Rust Resistant	Dark Color
NORTH STAR	Yes	Yes	Yes	Yes
MOONLIGHT	Yes	No	Yes	Yes
BRILLIANT	Yes	No	Yes	Yes
Midnight and Look-alikes	No	No	No	Yes

TURFSEEDINC.

800-247-6910 • www.turf-seed.com • email: info@turf-seed.com • fax: 503-651-2351



Shattertine®

AerWav[®] offers low cost, low maintenance, long lasting options for all your turf aeration needs!

A Full Family of Tines - AerWay® offers you customized aeration options for your greens, tees, fairways and roughs.

Effective Deep Tine Action - goes to the heart of soil problems by relieving compaction. This results in strong root growth and outstanding drought resistance.



AerWav

AerWay[®] - Effective Aeration When You Need It - Where You Need It!

for further information call 1-800-457-8310

Golfdom June 2003

6

Advanced Aeration Systems

www.aerway.com aerway@thehollandgroupinc.com

CIRCLE NO. 105

Golfdom

BUSINESS STAFF

Tony D'Avino GROUP PUBLISHER 440-891-2640	tdavino@advanstar.com
Mindy Moczulski ADMIN. COORDINATOR 440-891-2734	mmoczulski@advanstar.com
JIII Hood PRODUCTION MANAGER 218-723-9129	jhood@advanstar.com
Rosy Bradley PRODUCTION DIRECTOR 218-723-9720	rbradley@advanstar.com
Tracy White CIRCULATION MANAGER 218-723-9540	tracy.white@advanstar.com

ADVERTISING STAFF

CLEVELAND HEADQUARTERS 7500 OLD OAK BLVD. CLEVELAND, OH 44130-3609

Kevin Stoltman MIDWEST MANAGER 440-891-2772 FAX: 440-891-2675

Pat Roberts WESTERN MANAGER 440-891-2609 FAX: 440-891-2675

Michael Harris ACCOUNT MANAGER 440-891-3118 FAX: 440-826-2865

Laura Cieker CLASSIFIED. ACCOUNT EXECUTIVE 800-225-4569 X2670 FAX: 440-826-2865

REGIONAL OFFICES

Joseph Sosnowski EASTERN MANAGER 150 STRAFFORD AVE WAYNE, PA 19087 610-687-2356 FAX: 610-687-1419

MARKETING SERVICES

Marcie Nauv REPRINTS (500 MINIMUM) 440-891-2744

mnagy@advanstar.com

www.golfdom.com

kstoltman@advanstar.com

proberts@advanstar.com

mharris@advanstar.com

lcieker@advanstar.com

isosnowski@advanstar.com

Tamara Phillips CIRC. LIST RENTAL 800-225-4569, EXT. 2773 tphillips@advanstar.com

Subscriber, Customer Service 218-723-9477; 888-527-7008

Books, Directories, Current Issues, Back Issues, Photocopies, Microfiche, Film Copies, CD-Rom 800-598-6008; 218-723-9180

CORPORATE



Robert L. Krakoff CHAIRMAN AND CEO

James M. Alic VICE CHAIRMAN

Joe Loggia PRESIDENT AND COO

David W. Montgomery VP/FINANCE, CFO AND SECRETARY

Alexander S. DeBarr EXECUTIVE VICE PRESIDENT

Daniel M. Phillips EXECUTIVE VICE PRESIDENT

Scott E. Pierce EXECUTIVE VICE PRESIDENT

- Fric I Lisman EXECUTIVE VICE PRESIDENT/CORPORATE DEVELOPMENT
- Adele D. Hartwick VICE PRESIDENT, TREASURER & CONTROLLER

Rick Treese VICE PRESIDENT & CHIEF TECHNOLOGY OFFICER

Golfdom does not verify any claims or other information appearing in any of the advertisements contained in the publication, and cannot take any responsibility for any losses or other damages incurred by readers in reliance on such content.

Golfdom welcomes unsolicited articles, manuscripts, photographs, illustrations and other materials but cannot be held responsible for their safekeeping or return.

Advanstar Communications provides certain customer contact data (such as customers' names, addresses, phone numbers and e-mail addresses) to third parties who wish to promote relevant products, services and other opportunities which may be of interest to you. If you do not want Advanstar Communications to make your contact information available to third parties for market-ing purposes, simply call toll-free 888-527-7008 between the hours of 7.30 am and 5 pm CT and a customer service representative will assist you in removing your name from Advanstar's lists Outside the U.S., please phone 218-723-9477.









The Intelligent Use of Water™

Water. It's what keeps the world alive. As the world's largest manufacturer of irrigation products, we believe it is our responsibility to develop technologies that use water efficiently. Over the past seven decades, our pioneering efforts have resulted in more than 130 patents. From central control systems and automatic shut-off devices to pressure regulating components and low volume drip irrigation, Rain Bird designs products that use water wisely. And our commitment extends beyond products to education, training and services for our industry and our communities.

The need to conserve water has never been greater. We want to do even more, and with your help, we can. Visit **www.rainbird.com** for more information about The Intelligent Use of Water.[™]



www.rainbird.com

Pebble Beach Golf Links, and distinctive images of the course are trademarks, services marks and trade dress of Pebble Beach Company. Used by permission. Rain Bird is the official irrigation supplier of Pebble Beach Resorts.

© 2003 Rain Bird Corporation

Prevent damage from Canada geese. A new visual bird repeller

that uses uv light to scare geese.



Uniquely painted blades scare geese with uv light. Wind driven blades repel geese in ponds. Covers up to one acre area.

\$69each

JWB Marketing Call: (800) 555-9634 www.scarewindmill.com

CIRCLE NO. 107

Get to the root of your salt problem!



NaEx™

Reduces sodium and chloride levels 40 -60%!

NaEx[™] contains ingredients that sequesters salts and renders them unavailable to plants. Improves turf color and vigor, while protecting the roots from salts.

More Information

at

www.NaEx.us

Just the Facts!

Results where it counts, in the plant tissue! Certified plant tissue analysis of recent research results after just one application of NaEx.

	Control	Treated with NaEx
Sodium	0.20%	0.11%
Nitrogen	3.08%	4.22%
Phosphorus	0.31%	0.29%
Potassium	1.80%	1.70%
Calcium	0.75%	0.77%
Chlorides	16010ppm	8900ppm
Iron	92ppm	116ppm

POULENGER USA. Inc. Science in Sunc with Nature

1-866-709-8102 or 863-709-8102 www.poulengerusa.com

Events

SEMINARS & CONFERENCES

TUNE

15-19 American Society of Agronomy's Western Chapter Soil Science Meeting San Francisco www.agronomy.org

15-16 Midwest Golf Course Owners Association Summer Getaway Breezy Point, Minn. www.ngcoa.org

16 Alabama GCSA Monthly Meeting Birmingham, Ala. www.agcsa.org

16 Central Illinois GCSA Vendors Day Pontiac, III. www.ci-gcsa.com

16 Central Florida GCSA **Monthly Meeting** Deland, Fla. www.cfgcsa.com

17 Cornell University Turfgrass and **Ornamentals Field Day** Ithaca, N.Y. www.hort.cornell.edu

17 Golf Course Managers of Cape Cod **Monthly Meeting** Kingston, Miss. www.gcmacc.com

18 Gulf Coast GCSA **Turfgrass Field Day and Expo** Jay, Fla. www.gcgcsa.com

18 University of Massachusetts **Turf Research Field Day** South Deerfield, Mass. www.umassturf.org

18 Everglades GCSA Chapter Meeting Estero, Fla. www.floridagcsa.com

19 Piedmont Turfgrass Association **Monthly Meeting** Stoneville, N.C. www.cgcsa.org

24 Maine GCSA Monthly Meeting Cumberland, Maine www.mgcsa.com

27 Calusa GCSA Annual Meeting Fort Meyers, Fla. www.floridagcsa.com

30 Minnesota GCSA Monthly Meeting New Richmond, Wis. www.mgcsa.org

30-July 1 Alabama GCSA Monthly Meeting West Point, Miss. www.agcsa.org

JULY

7 Central IIIlinois GCSA **Monthly Meeting** Danville, III. www.ci-gcsa.com

9 Central Florida GCSA **Monthly Meeting** Debary, Fla. www.cfgcsa.com

10 Kansas GCSA Monthly Meeting Witchita, Kan. www.kgcsa.org

11 Calusa GCSA Chapter Meeting Fort Meyers, Fla. www.floridagcsa.com

15 Rocky Mountain GCSA Monthly Meeting Larkspur, Colo. www.rmgcsa.org

23-25 TPI Summer Convention and Field Days Dayton, Ohio www.turfgrasssod.org

23 Treasure Coast GCSA **Annual Meeting** North Palm Beach, Fla. www.floridagcsa.com

24 Metropolitan GCSA **Educational Seminar** Scarsdale, N.Y. www.metgcsa.org

24 Minnesota GCSA Field Day St. Paul, Minn. www.mgcsa.org

Let us know about your events. Send information to Frank Andorka at 7500 Old Oak Blvd., Cleveland, 44130. Fax information to 440-891-2675 or e-mail to fandorka@advanstar.com.

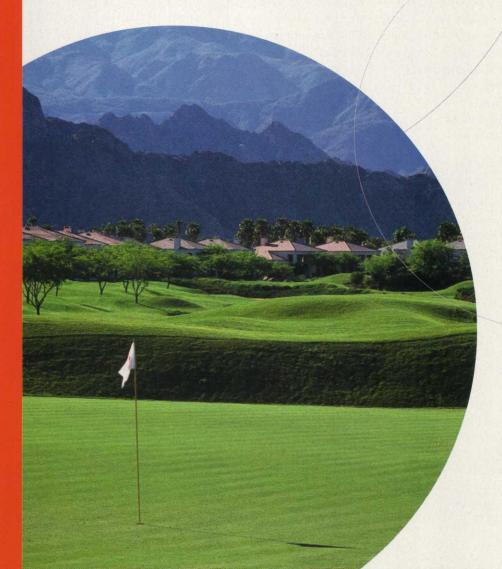
Golfdom June 2003 8

Declare your



Independence Creeping Bentgrass is a completely new, cutting edge creeping bentgrass developed by LebanonTurf. It has been bred for improved overall turf quality and disease resistance, specifically to exhibit improved dollar spot resistance. Its medium density and upright aggressive growth habit make it the perfect choice for fairways,

The next generation is here and it is called Independence.



greens, and tees. Independence is the top performing commercially available creeping bentgrass in recent university trials. Declare your Independence. Call your LebanonTurf distributor, or call 1-800-233-0628, or visit www.LebanonTurf.com, and find out more about Independence, the next generation in creeping bentgrass.



1-800-233-0628 • www.LebanonTurf.com

CIRCLE NO. 109

We've Got Mail

LETTERS FROM THE FIELD

Good Nutrition Fuels Good Health

Joel Jackson wrote of his concern for the health of the many dedicated people in this profession (Shades of Green, February). I wholeheartedly agree with his statements regarding our propensity to place our health second to our jobs.

Last year, I sought help for what I thought was acid reflux disease. When I got into bed, my food and stomach acid would come back up. I had to sleep in a chair for two hours to three hours each night so my food could digest before I could go to bed without problems.

This worked for a while, but the problem worsened. I really didn't want to be placed on medication. I contacted a family friend who had developed a line of nutritional products. I knew that I could trust him, and I asked him if he could help me.

He asked some questions about my diet. He explained that the high amounts of sugar and soft drinks I consumed were detrimental to the natural digestive process. How often in turf do we emphasize that we should treat the problem rather than the symptom? The medications that doctors would have prescribed would have treated the symptom rather than the cause.

After changing my diet and adding some of his all-natural products to my daily routine, I totally eliminated my problem in less than a week and have not even had heartburn or reflux in more than a year. The products have also allowed me to lose 50 pounds. I now look and feel the way I should for a man my age.

Why did I share this information with you? I believe our industry has people that can understand the problems we have by using information that is available. I hope that you will help educate them so we can start using some preventative maintenance on ourselves. **Brian Sarvis**

River Hills Golf & CC Myrtle Beach, S.C.

It's All So Darn Confusing

I read with great interest your articles in February concerning generic products ("Marketing Molecules"). I've been blinded by the confusing issues associated with this topic. On one hand, the big chemical company guy says his product is better, while the little chemical company guy says his generic product is the same as the branded product.

I did learn from your information that generics are made to be virtually identical to the basic manufacturers product related to the active ingredient (as mandated by the EPA). Will the generic mix perform as well as the original? Some products fall into the "yes" category and others into the "no" category. Without university or independent testing, I maintain we just don't know how well a generic compares to a name brand for the end-user.

Who of us have not used a product and have been surprised by either how long or how short we achieved control? If one tests a generic, the same variables may enter into the evaluation of generics and may cause us to be surprised by product performance. So a generic, under this testing regime, could be grossly overrated or underrated. I realize we do have a feel for how things work for our situations, but a feel is not a good thing on which to

Golfer Education Starts on TV

To Anthony Pioppi's "A License to Drive ... and Pitch and Putt" (March), we say, "Amen." Something as simple as the PGA showing (and commenting on) the caddies repairing divots during major tournaments or a brief mention of the hours, days and months of work necessary to keep a course looking picture perfect will alert the general public that a beautiful course doesn't just happen.

Golfers, especially our young people, see damage from divots and think it's OK to walk away. The suggested commercials are great, but all of us usually tune them out. A professional or commentator discussing or mentioning something would have more impact. A cooperative effort between superintendents, the PGA and the LPGA to introduce a rule every segment would be far more effective than a commercial presenting the same information. If a professional faced the camera and explained that a golf car

base a costly and/or important chemical application.

One of the best reasons to favor nongeneric use is related to the future of turf products. Through the profits of big companies come endowments, scholarships, donations to local fundraising tournaments and the whole gamut of expenses. These promote our turf industry. We could get along without them, but it would be tough. If big companies ceased to research and develop products for the future, the ship of our profession would eventually sink - or at least run aground. **Jay Charnes** Superintendent Harmony Landing CC Goshen, Ky.

should never be near a green, golfers would listen.

Face it, owners, superintendents or their respective associations have the attention of the golfing public. Let's find a way to capitalize on that attention to promote our superintendents, their credibility and care of the courses.

Ken & Elizabeth Hobbs Owners/Greenspersons/Shop Operators/Maintenance Personnel/Tree Trimmers/Hole Diggers/Plumbers/General Flunkies The Eccentric Duffer Ada, Okla.

Keep Fighting the Good Fight

March's Flagstick (A Witch's Brew of Misinformation) was right on target. I noted that the message was effectively supplemented by Joel Jackson ("Be Part of the Vocal Majority," March).

We, through The Lawn Institute, were in the midst of this from 1982 to 1992. During these years, I lectured throughout the United States and Canada on the theme of the politics of landscape horticulture.

It's never too late for a vocal majority groundswell to smother this brew of misinformation that's out there. *Golfdom* is helping to get the word out and the process started.

Eliot Roberts Director, Rosehall Associates Sparta, Tenn.

Got a view you'd like to share? We want to hear from you. You can e-mail your letters to Frank Andorka at fandorka@advanstar.com, fax to 440-891-2675 or send them via snail-mail to: 7500 Old Oak Blvd., Cleveland, OH 44130. Make sure to include your name and phone number for verification. Letters may be edited for length or relevance.