

Photo taken at Tobacco Road G.C., Sanford, NC



**WHEN YOU'RE RESPONSIBLE FOR THE MOST IMPORTANT ASSET ON THE COURSE,
YOU NEED A PARTNER YOU CAN COUNT ON.**



For every job on your course, there's a John Deere made especially for it. A full-line of quality equipment, born out of the suggestions and critiques of thousands of superintendents and technicians. From quality mowers and tractors to aerators and utility vehicles. But it doesn't end there. We supply you with the industry's best operator manuals, tech literature, and support hotline. We deliver quality parts 365 days a year, with a 99.5% fill-rate overnight. And we offer the JDC™ MasterLease, the most cost-effective way to acquire golf and turf equipment. To see how John Deere can make a difference on your course, call your local John Deere distributor.



www.JohnDeere.com

GREENIMAGE

12040 POINT DOUGLAS DR. S., HASTINGS, MN 55033
CALL US TODAY! 800-950-4180



JOHN DEERE

NOTHING RUNS LIKE A DEERE®

HOLE NOTES

Official Publication
of the MGCSA

Editor

Jack MacKenzie, CGCS
jmackenzie426@msn.com

MGCSA Board of Directors

OFFICERS

PRESIDENT

Robert Panuska
Waseca Lakeside Club
Waseca, MN 56093
507/837-5996 Fax: 507/835-3472

VICE PRESIDENT

James Bade
Somerset Country Club
Mendota Heights, MN 55118
651/457-1161 Fax: 651/455-2282

SECRETARY

Richard Traver, Jr., CGCS
Monticello Country Club
Monticello, MN 55362
763/295-3323 Fax: 763/271-0124

TREASURER

Jeff Johnson
The Minikahda Club
Minneapolis, MN 55416
612/926-4167 Fax: 612/926-0602

EX-OFFICIO

Rick Fredericksen, CGCS
Woodhill Country Club
Wayzata, MN 55391
952/473-5811 Fax: 952/473-0113

DIRECTORS

Jon Almquist

MTI Distributing, Inc.
Brooklyn Center, MN 55429
763/592-5721 Fax: 763/592-5700

E. Paul Eckholm, CGCS

Heritage Links Golf Club
Lakeville, MN 55044
952/440-6494 Fax: 952/440-4655

James Gardner, CGCS

The Wilds GC, Indian Hills GC
Prior Lake, MN 55372
952/496-0037

Mike Kelly

Edina Country Club
Edina, MN 55424
952/922-9012 Fax: 952/922-3206

Jack MacKenzie, CGCS

North Oaks Golf Club
St. Paul, MN 55127
651/484-1024 Fax: 651/484-5411

Mike Nelson

Dacotah Ridge Golf Club
Morton, MN 56270
507/644-7844 Fax: 507/644-7053

Dave Oberle

BASF Corporation
Eagan, MN 55123
651-681-8050 Fax: 651-681-1969

Barry Provo

Deer Run Golf Club
Victoria, MN 55386
952/443-3358 Fax: 952/443-3358

Brad Zimmerman

Boulder Point Golf Course
Elko, MN 55020
952/461-4909 Fax: 952/461-4910

BUSINESS OFFICE

AND HOLE NOTES OFFICE

EXECUTIVE DIRECTOR

Scott Turtinen

11900 Wayzata Blvd., Suite 130
Minnetonka, MN 55305
952/473-0557 Fax: 952/546-1652
Toll Free: 1-800-642-7227
E-mail: scott@mgcsa.org

www.mgcsa.org

PRESIDENT'S MESSAGE

Are You Ready for Spring?

By Robert Panuska



Having just returned from the GCSAA national convention in San Diego, I am ready for Spring! There is something about the smell of freshly cut grass that activates that desire to "get back in the saddle" and get out on the course. The weather was perfect and the educational sessions, networking, social gatherings and trade show were excellent. Our "informal" MGCSA gathering in the historic gas lamp district was a great success. Thanks to everyone who was able to attend. We will repeat this format at the conference in Orlando next year.

* * * * *

I would like to take this opportunity to say a very heartfelt THANK YOU to everyone who sent cards, e-mails and flowers or plants to my family after the death of my mother on January 31st. While her passing was not unexpected, her sudden death did hit us hard. My dad and brothers were awestruck by the support that you showed us. Thank you again.

* * * * *

There is something about attending the national convention that sets me up for spring. I don't know if it is the warm weather and green grass or getting together with others in the business, but it is a turning point in the year for me. My assistant Seth and I were reviewing our equipment repair list with our mechanic Al and we realized that we are on the home stretch and soon the only thing left will be golf cart service! With the last few years lack of snow cover, I guess it just did not seem like I went through the "transition" from one season to the next. No problem with that "transition" this year.

* * * * *

A special thanks to everyone who has "stepped up to the plate" and volunteered their time to serve on an MGCSA committee. The strength of any organization depends on the involvement of its members. Watch future issues of *Hole Notes* for updates of activities of the various committees of the MGCSA. If you are so inclined, please do not hesitate to volunteer to serve on a committee, simply give me a call or the committee chair. This is YOUR organization and as the old saying goes, "the more you put into it the more you will get out of it".

* * * * *

I look forward to seeing many of you at the March Mini-Seminar. James Bade and the Education Committee have done an outstanding job of pulling this one together.

Until next month,
Rob

HOLE NOTES (ISSN 108-27994) is published monthly except bi-monthly December/January, February/March for \$2 an issue or \$20 per year by the Minnesota Golf Course Superintendents' Association, 11900 Wayzata Blvd., Suite 130, Minnetonka, MN 55305. Scott Turtinen, publisher. Periodicals postage paid at Wayzata, MN. POSTMASTER: Send address changes to HOLE NOTES, P.O. BOX 617, WAYZATA, MN 55391.



Inside This Issue of Hole Notes

- 3** President's Message - *Robert Panuska*
- 5** Woodward Elected GCSAA President
- 8** 2004 Chapter Delegates Recap
- *Kevin Clumis, CGCS*
- 9** Lysimeters Don't Lie
- *By Mike Bohnenstingl and Craig Paskvan*
- 13** Having Fun in San Diego
- 14** U of M Turf Talk
- 18** Insight: One Superintendents'
Perspective - *Justin Gustafson*
- 21** No Pain, No Gain
- *Jack MacKenzie, CGCS*
- 27** U of M's Classes
Without Quizzes
- 28** It's in the Hole
- 30** In Bounds - *Jack MacKenzie, CGCS*

About the Cover

This is one of the great views from the clubhouse at The Preserve Golf Club in Pequot Lakes, Minn. By Mike Bohnenstingl, Director of Golf Maintenance, The Pines at Grand View Lodge and Craig Paskvan, an independent soil consultant wrote an article (Page 9) in this issue of Hole Notes entitled "Lysimeters Never Lie, Better Analysis Helps Superintendents Meet Environmental Demands."



"Name the Caption" Contest

Beginning with this issue will be a "Name the Caption" contest. Please e-mail jmackenzie426@msn.com with a caption for the above photo and/or send in your own "unique" photo for an upcoming issue of *Hole Notes* for the MGCSEA's "Name the Caption" contest. Winning captions will be announced in the April issue of *Hole Notes*. Winners will get a surprise.

*Have You
Mailed Your
2004 Dues
to the
MGCSA Office?*

*The New
Membership
Directory
Will Be
Printed in April*

ADVERTISERS

Andersons	5
BASF Corporation	10
Bayer Environmental Science	31
Country Club Turf	6
Cushman Motor Co., Inc	14
Duinnick Brothers, Inc.	11
Gill Miller, Inc.....	30
Glenn Rehbein	23
GreenImage.....	IFC
Hartman Excavating, Inc.....	4
Hydrologic.....	BC
Leitner Company	19
MTI Distributing Co	13
MTI Distributing Co.....	16
MTI Distributing Co.....	17
Northway Irrigation	30
Par Aide Products Co.....	12
Plaisted Companies Inc.....	26
Precision Turf & Chemical	22
Premier Irrigation	20
Prinsco	8
Simplot Partners	7
Sun Turf	25
Sun Turf	29
Superior Turf Services, Inc.	15
Turf Supply Company	24
Twin City Seed	21



JEFFREY HARTMAN, PRESIDENT
 . RENOVATION . SITE DEVELOPMENT . LANDSCAPING
 . HIGH TECH DRAINAGE TECHNIQUES . DESIGN
 . EXCAVATING . GRADING

952/443-2958
 FAX 952/443-3452

GOLF DIVISION

8011 BAVARIA ROAD
 VICTORIA, MN 55386

Woodward Elected President and Rees Jones Honored

SAN DIEGO, Calif. -- The Golf Course Superintendents Association of America's (GCSAA) 75th International Golf Course Conference and Show concluded a week-long schedule of activities with the presentation of its highest honor, the Old Tom Morris Award, to highly regarded golf course architect Rees Jones.

In addition, Mark J. Woodward, certified golf course superintendent at Dobson Ranch and Riverview golf courses in Mesa, Ariz., was elected GCSAA president. Overall attendance for the Conference and Show was 19,317, up 1,153 from last year's total of 18,164 in Atlanta. There were approximately 6,200 qualified buyers (those who make purchase decisions at a golf facility), up from the 6,045 in Atlanta. Education seminar attendance reached 6,780, again surpassing the 6,295 figure of last year. A total of 684 exhibitors covered 240,000 square feet of floor space, down slightly from the 701 exhibitors and 245,200 square feet of floor space last year.

GCSAA's International Golf Course Conference and Show is the world's largest golf course management conference/trade show, with attendance averaging more than 20,000 per year over the past nine events. Last year, according to Tradeshow Week magazine, GCSAA's trade show ranked 84th among the top 200 tradeshows (there are more than 4,500 trade shows in the U.S. annually).

At the association's annual meeting, Feb. 14, GCSAA members

elected three officers and two directors from a field of seven candidates:

President: Mark J. Woodward, CGCS at Dobson Ranch/Riverview Golf Courses in Mesa, Ariz.

Vice President: Timothy T. O'Neill, CGCS at Country Club of Darien (Conn.).

Secretary/Treasurer: Sean A. Hoolehan, CGCS at Wildhorse Resort Golf Course in Pendleton, Ore.

Directors: Gary K. Carls, CGCS at Sunnyvale/Sunken Gardens golf courses in Sunnyvale, Calif. (elected)

David S. Downing II, CGCS at Avestra in Pinehurst, N.C. (re-elected)

(Continued on Page 7)



Enjoying some food and conversation in San Diego are, from the left, Mike Ligday, Greg Hubbard, CGCS, Bonnie Hubbard and Cora Ligday.



Scott Austin, CGCS, Midland Hills Country Club, left, and MGCSA affiliate member Jeff Hartman at the Rock Bottom Brewery in San Diego at MGCSA's Hospitality get together.

More Selection...More Value!

Premium Golf Course Fertilizers
Granular & Sprayable Fungicides
Granular Combination Products
Growth Regulators & Spreaders



Andersons
GOLF PRODUCTS.

Our great lineup includes Contec[®], Nutralene[®], Poly-S[®], Poly NS-52[™], FFII[®], Extend[™], herbicides with a wide variety of active ingredients, an extensive line of granular fungicides and insecticides, growth regulators, and precision spreaders.

Contact your local distributor:

Reinders, Inc. - Western Wisconsin: 715-456-0971
Sun Turf - Minnesota and North Dakota: 651-484-8411

Or contact your Andersons Territory Manager:

Carlos Stimson: 402-697-1618
Darrin Johnson: 515-249-8980

PENNCROSS SOD

from Country Club Turf

Grown by Golf Course Professionals
for Golf Course Professionals

Supplying over 200 Golf Courses Since 1987



24317 Durant St. N.E., East Bethel, MN 55005
(763) 444-6753

"A Quality Grown Reputation"

Simplot



Delivering Total Solutions



**Programs Tailored to Fit
What You Need**

- **Agronomic Expertise to Develop Customized Programs to Meet Your Every Need**
- **Innovative Products That Include GrowthPack™, SurfPack™, NutriPack™ and SoluPack™**
- **On-Time Delivery**

Contact Simplot Partners:

Joe Churchill, Chris Hoff or Dale Parske
(888) 828-5354 or (651) 633-6251

www.simplotpartners.com

© 2002 J. R. Simplot Company. All rights reserved.

GCSAA-

(Continued from Page 5)

Robert J. Maibusch, CGCS, MG, Hinsdale Golf Club, Clarendon Hills, Ill.; Mark D. Kuhns, CGCS, Baltusrol Golf Club, Springfield, N.J.; and Ricky D. Heine, CGCS, The Golf Club Star Ranch in Austin, Texas, each have one year remaining on their two-year director terms. Jon D. Maddern, CGCS, 2003 president, will serve as immediate past president, and Michael Wallace, CGCS, will retire from the board after serving the past year as immediate past president.

New Golf Industry Show in 2005: GCSAA's 75th International Golf Course Conference and Show will take on a new format, appearing next year as the Golf Industry Show. It will be a combination of the trade shows hosted by GCSAA and the National Golf Course Owners Association (NGCOA). Both associations will operate separate education conferences that will run concurrently with the trade show, however. The 2005 Golf Industry Show is set for Feb. 10-12 in Orlando, Fla., with the GCSAA education conference Feb. 7 - 12 and the NGCOA education conference Feb. 8 - 12.

Robinson wins GCSAA Golf Championship: Tommy Robinson, golf course superintendent at Ravinia Green Country Club in Riverwoods, Ill., shot a final round 3-under-par 68 to win the 54th Golf Course Superintendents Association of America (GCSAA) National Golf Championship conducted at five San Diego - area golf courses, Feb. 9-10. Robinson carded a 36-hole total of 3-over-par 146, two strokes better than Al Pondel, certified golf course superintendent at Rockford (Ill.) Country Club, and Mike Stieler, golf course superintendent at Riverbend Golf Club in Madera, Calif. Robinson recorded a 6-over-par 78 at Madera Golf Club yesterday and followed it up with his 68 at Delmar National Golf Club today. Robinson competed in his 27th GCSAA championship and is a two-time USGA Amateur qualifier. The GCSAA Golf Championship is presented in partnership with The Toro Co.

NOTES: Jeffrey L. Gullikson, certified golf course superintendent at Spokane (Wash.) Country Club, has earned the Golf Course Superintendents Association of America's (GCSAA) 2004 President's Award for Environmental Stewardship in recognition of his involvement in the First Green of Washington Program.

Monroe S. Miller, golf course superintendent at Blackhawk Country Club in Madison, Wis., was presented the Green Section Award from the United States Golf Association at its education session. The award is given annually by a panel of experts in the turfgrass field and recognizes distinguished contributions to golf through work with turfgrass.

Rescheduled **GCSAA SEMINAR**

Dr. Houston Couch presents:

*"Maximize Turfgrass
Disease Control"*

Thursday, April 1, 2004

8:00 a.m. - 5:00 p.m.

**Park Place Doubletree Hotel
St. Louis Park, Minn.**

Call GCSAA at 1-800-472-7878 for more information.

2004 Chapter Delegates Meeting Recap

By Kevin Clunis, CGCS
MGCSA Chapter Delegate

During the GCSAA 2004 Conference and Show in San Diego, California, the Annual Business Meeting and Elections were held. On the agenda were two Article of Incorporation changes and 13 Bylaw changes. This may sound like a lot of changes, but it actually was cleaning up language. The two articles and 12 of the bylaws were passed unanimously, whereas the remaining three bylaws had a few dissenting votes.

The elections were held next and, as expected, the office of President and Vice-President were unanimously voted on to Mark Woodward, CGCS, and Timothy O'Neill, CGCS, respectively. The Minnesota GCSA had 282 votes to cast which represents the 3rd highest vote total to any of the individual chapters. For the office of Secretary/Treasurer, the candidates Ricky Heine, CGCS and Sean Hoolehan, CGCS, both had great credentials to fill the office. I felt that Sean was done with his Director's term and Ricky still had a year to serve in his term, that

we support Sean this year and give full support to Ricky next year. The final result was that Sean did win, but by less than 200 votes! Our vote does make a difference.

In the race for Director, the incumbent was David Downing, CGCS, returning

candidate Gary Carls, CGCS, and first time candidate James Fitzroy, CGCS. I supported fully the incumbent David and second timer Gary. These two candidates won handily over James. All of the chapter voting results will be published in *Newsline* in April.

MGCSA EVENTS

Thursday, April 1
GCSAA SEMINAR

"Maximizing Turfgrass Disease Control"
Park Place Doubletree
St. Louis Park, Minn.
Speaker: Dr. Houston Couch

Monday, May 17
SPRING MIXER

Glencoe Country Club
Glencoe, Minn.
Host Superintendent: Jeff Vinkemeier

Monday, June 7
SCHOLARSHIP SCRAMBLE

White Bear Yacht Club
White Bear Lake, Minn.
Host Superintendent: John Steiner, CGCS

Monday, August 16
STODOLA SCRAMBLE

Somerset Country Club
Mendota Heights, Minn.
Host Superintendent: James Bade

Monday, September 13
MGCSA CHAMPIONSHIP

Edina Country Club
Edina, Minn.
Host Superintendent: Mike Kelly

Monday, October 11
FALL MIXER

The Crossings at Montevideo
Montevideo, Minn.
Host Superintendent: Terry Nigen

Eco friendly. GOLDFLO strong.



If your golf course has made environmentally-friendly products a priority, consider the advantages of ECOFLO WT.

It utilizes post-industrial recycled polyethylene in its manufacturing process. Like other GOLDFLO WT® Dual Wall pipe products, ECOFLO WT has a

smooth interior, corrugated exterior, integral bell coupling system, along with maximum hydraulics, durability, strength and flow rates.

For eco friendly and GOLDFLO strong,

ask about ECOFLO WT, the newest addition to our full line of drainage tile and accessories.



ECOFLO WT
Eco friendly. GOLDFLO strong.



PRINSCO
The pipe with the gold stripe.

MN Corporate Headquarters: (800) 992-1725 • Web Site: www.prinsco.com

Lysimeters Never Lie!

Better Analysis Helps Superintendents Meet Environmental Demands

By Mike Bohmenstingl, Director of Golf Maintenance, The Pines at Grand View Lodge,
and Craig Paskvan, Independent Soil Consultant

Minnesota's new environmental protection law (state law S.F. 1555) imposes strict new limits on phosphorus use in fertilizers. Golf course superintendents, who have always tried to be good stewards of the environment, now face even more rigorous requirements in the use of fertilizers on the links. Moreover, the stakes for golf club investors have been raised, for in some instances environmental tests can dictate whether a golf course can use fertilizer at all.

The three main fertilizer nutrients -- nitrogen, phosphorus and potassium -- of course, occur naturally in soils. Fertilizer use raises the level of these nutrients in the soil, which can result in these chemicals leaching through ground water. Nitrogen is often cited for polluting underground water systems, phosphorus is the lead nutrient associated with algae

"Environmental tests can dictate whether a golf course can use fertilizer at all."

blooms in surface waters and potassium affects the pH level and dissolved salt levels. When this occurs, it is the fertilizer that is most often blamed for nutrient runoff.

The superintendent's job is made more difficult because to satisfy the more stringent requirements the law impose, there is no easy way to determine how much phosphorus or nitrogen in the runoff is coming from fertilizer applications, and how much may be naturally occurring.

The case of The Preserve Golf Club near Pequot Lakes, Minnesota, illustrates just how important meeting the requirement of the new law can be. Operating with a conditional use permit, the course was under close scrutiny. It would not be able to fertilize at all, had it been unable to

prove that its fertilizer programs were not increasing the level of nutrients beyond the naturally occurring levels in the soil, and therefore, were not contributing to chemical effluent in water run-off into adjacent wetlands and lakes. Had these levels been elevated, the fertility practices of the golf course would have been in jeopardy.

The 240-acre site for The Preserve Golf Club includes 40 acres of wetlands, and lies entirely within the Cullen Lakes watershed. Thus, any surface water runoff from the club flows easterly and southeasterly toward Upper Cullen Lake through many acres of wetlands. The proximity of a golf club that potentially could use large quantities of fertilizer was of great concern to The Preserve's neighbors and nearby lakeshore residents.

During planning stages for the course construction in the early 1990s, concerns were raised to the Crow Wing County Planning and Zoning Board. The board required course developers to create and implement an environmental responsibility plan (ERP) before they would issue a conditional use permit and allow construction to begin.

Concerned neighbors, members of the Cullen Lakes Association, owners that had a financial interest in The Preserve and local authorities established an environmental advisory board to monitor compliance with the plan. With recommendations from the Minnesota Pollution Control Agency, the board would help to establish guidelines for the environmental responsibility plan and the conditional use permit.

The Advisory Board was most concerned with the protection of surrounding wetland areas from construction damage and phosphorus loading. Many board members worried that the use of fertilizers and pesticides on the golf course would pollute groundwater and increase algae blooms in local lakes.

The environmental advisory board along with a local water testing lab set up

a plan to measure chemical levels in the course and neighboring areas. Initial testing required the installation of monitoring wells and piezometers (an instrument to measure underground water flow). Water from seven neighboring wells was sampled to establish water quality baselines.

When course construction began, silt fences and earthen berms were built near

"(The analysis) shows that there is more to the phosphorus issue than just not applying fertilizer."

wetland areas, as were water retention ponds to filter any runoff that might occur. As part of the conditional use permit and the ERP, The Preserve was required to install twelve lysimeters and three wetland-monitoring pipes on the property.

The lysimeters were to be used to measure leachates (nutrients captured in the soil solution) moving through the soil profile. They were to be installed on four holes of the course; one located under the green, one under the fairway, and one in an undisturbed forest site. The idea was that The Preserve should manage its turf areas in such a way as to duplicate what was being found in the undisturbed forest areas on the course.

The lysimeters consisted of a large funnel covered with landscape fabric, buried twelve inches under the soil surface, with an attached tube running to a collection bottle located in a nearby pit. The Preserve was required to test these samples every six weeks or after a one-inch

(Continued on Page 11)

WHAT OTHER FUNGICIDES DREAM OF BEING
WHEN THEY GROW UP.



Insignia[®]

F U N G I C I D E

There's a reason superintendents who've tried new **Insignia**[®] fungicide from BASF are calling it "The Outperformer."

It's because **Insignia** exceeds even their highest expectations for a strobilurin-based fungicide. **Insignia** serves as a foundation product for reliable disease control. It controls an exceptionally broad spectrum of turf diseases—far broader than Compass[™], for

instance—offering dependable control of anthracnose, brown patch, gray leaf spot and many others, without flaring other diseases like dollar spot, the way Heritage[®] does.

That means you won't aggravate one problem as you solve another. Best of all, **Insignia** controls key diseases for up to 28 days, reducing your labor and materials costs and enhancing your peace of mind. Contact your distributor or your BASF Professional Turf Sales Representative, call (800) 545-9525 or visit www.turfacts.com to learn more about how new **Insignia**[®] fungicide can outperform on your course.

BROAD SPECTRUM. LONG LASTING. SUPPRESSES DOLLAR SPOT.



We don't make the turf.
We make it better.

BASF