

- An Elicitor® of plant health
- A proven component of nutritional IPM
- Proven to enhance plant defense mechanisms
- Proven to enhance the summer stress tolerance of turfgrasses
- Safe for the environment

Ten years of research has shown that P-K Plus® is more than just a Phosphite.





1-800-925-TURF (8873)

www.precisionturf.com



- President's Message: The Beat Goes On...
 - Paul Diegnau, CGCS
- 5 UM Turfgrass Research Update
 - Brian Horgan, Ph.D. and Eric Watkins
- **6** Funding the TROE Center Scottie Hines, CGCS
- 8 Winter Kill Brian Horgan, Ph.D.
- 11 It's in the Hole
- 11 News from Minnesota Turf and Grounds Foundation
- 14 Fun Day at Victory Links for Scholarship Scramble
- **16** Savory Supe: Rosemary-Brined Rotisserie Chicken Scottie Hines, CGCS
- 18 Peer-to-Peer: Funny and Strange Photos
- **20** MGCSA Golf Shirt Order Form
- 21 Championship Set for Aug. 15 at Ruttger's
- **22** *In Bounds: Incentives Jack MacKenzie, CGCS*

MGCSA EVENTS

AUGUST 15 MGCSA CHAMPIONSHIP Ruttger's Bay Lake Lodge Host: Joe Wollner

SEPTEMBER 15 MTGF / UM FIELD DAY TROE Center Host: Brian Horgan, Ph.D.

OCTOBER 3 WEE ONE FUNDRAISER North Oaks Golf Club Host: Jack MacKenzie, CGCS

OCTOBER 17 MGCSA FALL SHOOT Minnesota Horse & Hunt Club Host: Bill Gullicks

DECEMBER 7
MGCSA AWARDS
& RECOGNITION BANQUET
Brackett's Crossing Country Club
Host: Tom Proshek

REGISTRATION FORMS AND MORE INFORMATION CAN BE FOUND AT

www. mgcsa.org

JULY 2011 HOLE NOTES ADVERTISERS

- Precision Turf & Chemical, Inc.
- 3 MNLA / MTGF Green Expo
- 7 Gertens Wholesale
- 8 The Tessman Company
- 9 The Tessman Company
- 10 Par Aide Products Company
- 11 Country Club Turf
- 12 MTI Distributing, Inc.
- 13 MTI Distributing, Inc.
- 14 Hartman Companies, Inc.
- 15 PBI / Gordon Corporation
- 16 Turfwerks
- 17 Superior Golf Cars
- 18 Superior Tech Products
- 19 Bayer Environmental Services
- 21 Superior Turf Services Inc.
- 23 Yamaha Golf & Utility
- 24 John Deere Landscape

ABOUT THE COVER

Ruttger's Bay Lake Lodge will host the 2011 MGCSA Championship on August 15.

(See Page 21)



Highlights from the Northern Green Expo 2012 Seminar Schedule Below is a selected list of topics geared toward golf course superintendents that will be highlighted at the Northern Green Expo in January 2012!

Management

- Keynote: Radical Engagement for Greater Results
- Golf: Managing your Manager, Committee and Boards
- Time Management Techniques for the Green Industry
 - Developing a Sustainable Golf Course Model
 - Pesticides, Perception and Society
 - Should Henry Be Out There?
 - Most Common Problems
 Encountered During Golf Course Site Visits

- Uncovering the Architectural History of Your Golf Course
- Golf Course Design, Renovation, and Maintenance & Local Case Studies
- Human Resource Management: In Focus

Turf

- · Waitea Patch Management Strategies
- Turfgrass Research Update
- Identifying and Troubleshooting Turf After Cut Appearance Issues
- · Biorational Control of Dollar Spot
- Turf Weed Control: New Products
- Calibration Calculations, Equipment and Applications
- Golf Course: Growing Great Turf in the Shade
- Pesticide Recertification (A &E)

Grounds

- Stormwater Management: Reclamation & Re-Use - Target Field Case Study
- · Back to the Basics: Asphalt & Concrete
- · Raingarden Maintenance
- Creation and Protection of Wetlands
- Small Engine Repair
- Maintaining Natives

Water

- Irrigation Basics The Occasional Repair
- · Wire Locating/Tracking
- · Irrigation Troubleshooting: 2 Wire
- Weather Based Controls
- Water Conservation/Efficiency
- Aquatics Recertification (F)



A complete schedule-at-a-glance can be found online at www.NorthernGreenExpo.org.

PRESIDENT'S MESSAGE



The Beat Goes On...

By Paul Diegnau, CGCS

The battle continues as I write this column in the fourth week of June. No consistent warmth or sunshine is keeping seedling vigor suppressed. I am sure many of you are as frustrated as I am. I have talked to several colleagues with damaged playing surfaces that are being raked over the coals by golfers/members at their respective clubs. But what to do?

Did you happen to read the article by Bob Vavrek in one of the latest *USGA Green Section* updates on tips for growing in damaged greens? His main point on attaining a successful re-grass of damaged putting surfaces was to raise your cutting heights to .170 - .200 inches! While I understand the advantages of establishing grass plants under higher heights of cut, I believe my golfers would vehemently oppose putting surfaces rolling five or six feet. And therein lays the problem. In the current world of golf there is a void between reality and acceptability. As the saying goes, golfers want their cake and to eat it too. Combine unreasonable golfer expectations, the current intense economic pressures in the golf market and the bizarre weather patterns and you have the makings of the perfect storm. The pressure is weighing heavily on some. I have talked to several Superintendents who would prefer to immediately fast forward to the 2012 season. I can relate. It's no fun when your golf course has a black eye for all to see.

As the 'Keeper of the Green,' our only real option is to attempt to communicate the specifics of the situation. Because of our direct involvement and proximity to these golf course management issues, our explanations tend to lose their effectiveness rather quickly. I know I am preaching to the choir, but there really needs to be a national campaign designed to temper the expectations of today's golfer. The USGA is probably the most respected, well-known golf organization in the U.S. and probably in the best position to change the expectations of today's golfer. They seem to be taking baby steps in that direction as reflected in some of their course conditioning setup for several recent events. I for one would like to see the educational process accelerated and intensified. Maybe my wishes are unrealistic. It could just be my frustrations talking.

The MGCSA Championship is drawing near. Please make plans to attend this August 15 event hosted by Superintendent Joe Wollner at Ruttger's Bay Lake Lodge in Deerwood. Our attendance at this year's Scholarship Scramble was way below average so it would be nice to see a healthy rebound for this event. Remember, the MGCSA exists for its members and it is the membership that keeps the organization socially and financially viable.

Luke Dant, our Syngenta regional representative and vendor representative on the MGCSA BOD is leaving Minnesota this fall. Luke has taken a new position within Syngenta and will be relocating to the Carolinas. He will be in charge of coordinating in-house and university turfgrass research trials for the southeastern region of the United States. I know he is excited to be moving back into the turfgrass research arena. We can only hope his research brings him back to Minnesota to visit. Congratulations, Luke and good luck in the future!

For all you gun-lovers out there, MGCSA is sponsoring a gun raffle with all proceeds going to turfgrass research at the TROE Center. The lucky winner will take home a Smith and Wesson M&P AR-15 -.223 Remington/5.56 NATO or \$400 in cash. The drawing will be held at the Fall Mixer held at the Minnesota Horse and Hunt Club on October 17. Winner need not be present to win. Tickets are \$5 each or three for \$10. More information is coming soon. I'm in for \$10 (probably more) – how about you? (See Page 6 for a raffle ticket and more information.)

Until Next Month,

Paul Diegnau, CGCS

HOLE NOTES (ISSN 108-27994) is published monthly except bi-monthly November/December, January / February for \$2 an issue or \$20 per year by the MGCSA, 217 Minnetonka Av. S., Ste. D, Wayzata, MN 55391. Scott Turtinen, publisher. Periodicals postage paid at Wayzata, MN. POSTMASTER: Send address changes to HOLE NOTES, P. O. BOX 617, WAYZATA, MN 55391.

HOLE NOTES

Official publication of the MGCSA

Editor

Jack MacKenzie, CGCS jmackenzie426@msn.com

2011 Board of Directors

OFFICERS

President Paul Diegnau CGCS Keller GC 651-766-4174

Vice President Scottie Hines CGCS Windsong Farm GC 763-479-6524

Secretary Brian Brown Chisago Lakes GC 651-257-8734

Treasurer E. Paul Eckholm CGCS Heritage Links GC 952-440-6494

> Ex-Officio Rick Traver CGCS Monticello CC 763-271-0167

DIRECTORS

Joe Churchill Reinders, Inc. 612-790-7333

Eric Counselman Somerby GC 507-775-3743

Luke Dant Syngenta Professional Products 515-708-0762

> Bill Gullicks Bellwood Oaks GC 651-438-3839

Jeff Ische Golden Valley G&CC 763-732-4150

Matt McKinnon The Legacy Courses at Cragun's 218-825-2751

> Jacob Ryan Northland CC 218-525-1422

Jake Schmitz Olympic Hills Golf Club 952-941-6139

Roger Stewart, Jr. CGCS TPC Twin Cities 763-785-0696

MGCSA Chapter Delegate Kevin Clunis CGCS Tanner's Brook GC 651-464-4118

MGCSA OFFICE AND HOLE NOTES OFFICE

Executive Director Scott Turtinen P. O. Box 617 Wayzata, MN 55391 952-473-2582 Fax: 952-473-2586 Toll Free: 1-800-642-7227 scott@mgcsa.org

University of Minnesota Turfgrass Research Program Update

By Brian Horgan, Ph.D. and Eric Watkins

University of Minnesota Department of Horticultural Science

The University of Minnesota Turfgrass Science program has had another successful year. Our research program has conducted research in three primary areas: (1) Environmental Protection, (2) Production and Management of Turfgrasses and (3) Turfgrass Breeding and Genetics. At the end of this article, we have listed peer-reviewed scientific publications from 2010 and also a list of current research projects that are being funded at our research center. As you can see, our team of students and researchers has been very successful in conducting important research that will benefit turfgrass professionals in both the short-term and the long-term.

When interacting with stakeholders, we often are asked how the University of Minnesota financial situation affects our research and education program. Unfortunately, the declining financial resources available within the University are beginning to impact our program; in the past, the college was able to help support our field facility manager position, which is no longer the case. In the near future, we expect to see severe reductions, or even elimination, of funds dedicated towards personnel that help keep the TROE Center operational. Fortunately, the turfgrass science program has been wellsupported by the turf and grounds industry in Minnesota. When we talk to colleagues throughout the country, we realize how fortunate we are to have a great relationship with industry partners such as MGCSA and MTGF. The funding we receive from these organizations has allowed us to successfully compete for a number of large grants (see list at end of this article).

Typically, industry groups, such as the MGCSA and MTGF, can support research in one of two ways. The first model supports research by funding the infrastructure necessary for longer-term, impactful research projects. The second model supports specific research projects but does not provide funding for critical infrastructure and personnel. One advantage to the project-specific funding model is industry professionals can quickly use the research results. For instance, a trial that evaluates a series of plant growth regulators for use on annual bluegrass would provide research results within a short time frame and lead to changes in turf



management.

For these types of research projects, we are endowing a graduate student fellowship and are happy to report that we have commitments for \$240,000 (goal is \$400,000). We appreciate the MGCSA's support of this fellowship.

The first model allows us to confidently present research proposals to outside funding agencies because we know that the infrastructure and personnel costs associated with maintaining our facility are in place. Most funding agencies want to fund graduate student research and related supplies and are not interested in funding infrastructure or long-term research personnel. This model provides industry a significant return on investment since a graduate student costs our program approximately \$40,000/yr (same amount granted by MTGF to our program in 2011).

In summary, our program relies on general funding for infrastructure and personnel (TROE Center and people to run it). This allows us to invest in longterm research projects that will have implications for turf management throughout the region and country for decades to come. At the same time, a fully-funded research center allows us to perform readily-applied research. It is our desire that MTGF and the allied organization, such as the MGCSA, will continue to support the TROE Center and the personnel necessary for the continuation of a nationally recognized, impactful turfgrass research program.

We hope that MGCSA members will be able to join us for the 2011 Turf and Grounds Field which will be held on Thursday, September 15 on the St. Paul campus. Details will be provided later this summer at www.mtgf.org.

Peer-Reviewed Publications in 2010

Bierman, P.M., B.P. Horgan, C.J. Rosen, A.B. Hollman

Bierman, P.M., B.P. Horgan, C.J. Rosen, A.B. Hollman and P.H. Pagliari. 2010. Phosphorus runoff from turfgrass as affected by phosphorus fertilization and clipping management. J. Environ. Qual. 39:282-292. Clark, M.D., and E. Watkins. 2010. Seed production characteristics of prairie junegrass germplasm accessions. Crop Science 50:1057-1065.

Kerns, J.P., P.L. Koch, D. Cook, B.P. Horgan and F.P. Wong. 2010. First report of brown patch caused by Waitea circinata var. circinata on Poa annua in Wisconsin and Minnesota. Plant Disease. Vol. 94, No. 9:1165.

Clark, M.D., and E. Watkins. 2010. Turfgrass char-

Clark, M.D., and E. Watkins. 2010. Turfgrass characteristics of prairie junegrass germplasm accessions. Crop Science 50:2092-2102.
Rice, P.J., B.P. Horgan, C.Hapeman and L.
McConnell. 2010. In Press. Effectiveness of management practices to mitigate off-site movement and ecological risk of pesticides transported with runoff from agriculture and turf systems. In Pesticides. In-Tech. Vienna, Austria. ISBN 978-953-7619-X-X.
Hoffman, L., M. DaCosta, J.S. Ebdon, and E.
Watkins. 2010. Physiological changes during cold acclimation of perennial ryegrass accessions differing in freeze tolerance. Crop Science 50:1037-1047.
Jiang, Y., E. Watkins, S. Liu, X. Yu, and N. Luo. 2010. Antioxidative responses and candidate gene expression in prairie junegrass under drought stress. Journal of the American Society of Horticultural Science 135: 303-309.
Rice, P.J., B.P. Horgan and J.L. Rittenhouse. 2010. Pesticide transport with runoff from creeping bentgrass turf: relationship of pesticide properties to mass transport. Environ. Tax and Chem. Vol. 29. No.

grass turf: relationship of pesticide properties to mass transport. Envrion. Tox. and Chem. Vol. 29, No.

Rice, P.J., B.P. Horgan and J.L. Rittenhouse. 2010. Evaluation of core cultivation practices to reduce ecological risk of pesticides in runoff from Agrostis palustris. Environ. Tox. and Chem. Vol. 29, No. 6:1215-1223.

Watkins, E., A.B. Hollman and B.P. Horgan. 2010.

Watkins, E., A.B. Hollman and B.P. Horgan. 2010. Evaluation of alternative turfgrass species for lowinput golf course fairways. Hort. Sci. 45(1):113-118. Watkins, E, S. Fei, D. Gardner, J. Stier, S. Bughrara, D. Li, C. Bigelow, L. Schliecher, B. Horgan and K. Diesburg. 2011. Low-input turfgrass species for the north central United States. Online. Applied Turfgrass Science doi:10.1094/ATS-2011-0126-02-RS. Funded Research Ongoing Projects (does not include projects completed before 2010)

Developing alternative sod mixtures for salt and

Developing alternative sod mixtures for salt and drought affected sites. 2010-2013. Local Road Research Board (MnDOT). \$176,516.

Research Board (MnDOT). \$176,516.
Alternative turfgrass species as a pest management strategy. USDA/CSREES Pest Management Alternative Program. Watkins, E., C. Yue, B.P. Horgan, J. Kerns and M. Meyer. 2009-2012. \$179,494.
Genetic improvement of prairie junegrass. 2006-2012. United States Golf Association. Eric Watkins and Nancy Ehlke. \$50,000.
Mineralization rates of soils using the ISNT to predict nitrate leaching. 2010-2012. United States Golf Association. Brian Horgan and Dave Gardner. \$38,150.

Reducing P runoff from turf; an education and outreach approach. 2011. Minnesota Pollution Control Agency. Brian Horgan and Carl Rosen. \$30,000. Watkins, E, and N. Ehlke. 2009-2011. Expanding the potential of native turfgrass seed production. Minnesota Turf Seed Council. \$20,000. Horgan, B.P. and E. Watkins. 2009-2011. Determination best mixture and blend of cool-season grasses when exposed to acute drought. National

Determination best mixture and blend of cool-season grasses when exposed to acute drought. National Turfgrass Evaluation Program. \$15,000.
National Turfgrass Evaluation Program: Tall fescue. 2006-2011. NTEP. Eric Watkins and Brian Horgan. \$12,500.
National Turfgrass Evaluation Program: Bentgrass putting green. 2008-2013. Eric Watkins and Brian Horgan. \$12,000.
National Turfgrass Evaluation Program: Fine fescue wear tolerance. 2008-2013. Eric Watkins and Brian Horgan. \$12,000.
Alternative species for low input greens. 2008-2011. Brian Horgan, Eric Watkins, and Andrew Hollman.

Hollman.

Research Update:

FUNDING THE TROE CENTER

By Scottie Hines, CGCS Windsong Farm Golf Club

In the current economic down turn we are all seeing budget cuts. We are being asked to as much or more with less. We are finding ways to make our operations

make our operations work more efficiently. Cuts are being felt from our jobs to our homes and everywhere in between.

The MGCSA is a large contributor to the operating budget at the University of Minnesota's TROE Center. The MGCSA contributes approximately \$25,000-\$30,000 each year to fund research and operations at the center. In recent years, we have been putting out more dollars than the research account has been bringing in. Obviously, this is not a sustainable situation.

Our biggest source of research money is the annual MGCSA Turf Tourney. We set two new Turf Tourney records this year: Sold the most times ever and brought in the highest money total to date, \$18,520. The Stodola Research Scramble brings in, on average, \$3,000 for a total of approximately \$21,520.

This is \$3,480 short of our annual contribution to TROE of \$25,000.

As
Chair of the
MGCSA Research
Committee, I
have been try-

ing to come up with new ways to generate the funds to bridge that gap. At the last Research Committee meeting we decided to think outside the box a little. The committee made two funding proposals to the Board – Hole-in-One Insurance and Raffle Tickets – and they were approved.

Hole-in-One Insurance

From now on, at all MGCSA golf events, we will be selling Hole-in-One insurance. This is a voluntary program that will work like this: at all golf events you can purchase Hole-in-One insurance for \$5. If you have a hole-in-one, the insurance money will be used to offset your bar tab. If no aces are had at the event the insurance money goes directly to the

Research account.
You must buy the insurance to get the pot if you have a hole-in-one. Again, this is a voluntary program.

The money generated may be a drop in the bucket, but every drop helps.

Raffle Tickets

For the first time ever we will be conducting a Gun Raffle to benefit TROE Center research. Tickets will be out soon at all MGCSA events. Ticket prices will be one ticket for \$5 or three for \$10. We will draw the winner at the fall mixer at Minnesota Horse and Hunt Club, assuming we we have sold enough tickets. If you are not a gun fanatic you will have the option of \$400 cash. Please note that the winner of the gun must meet all state and federal requirements to take ownership of the firearm. The gun is a Smith and Wesson M&P AR-15 in .223 Remington.

If you would like to purchase tickets, contact me (Scottie Hines) directly at shines@wsfarm.com or 763-479-6524, go to www.mgcsa.org or make a copy below.



MGCSA Gun Raffle for Research

Smith and Wesson M&P AR-15
.223 Remington/5.56 NATO or \$400.00 cash
\$5.00 donation per ticket or 3 for \$10
PROCEEDS TO BENEFIT RESEARCH AT TROE CENTER



Name:		
Address:		
City:	State Zip:	
Phone:	Email:	

Winning ticket drawn at the MGCSA Fall Mixer, October 17, 2011 at Minnesota Horse and Hunt Club.

Winner need not be present to win.

** Winner MUST meet all local and federal criteria to claim firearm **

MAKE A COPY, COMPLETE FORM AND MAIL TO: MGCSA GUN RAFFLE, P. O. BOX 617, WAYZATA, MN 55391







SUPPLIER OF OVER 12 BULK MULCHES

Shredded Hardwood • Pine Bark • Super Fine & Rich New England Fine Select • Custom Colored • Western Red Cedar MN White Cedar • Cypress • Tamarack

ALSO FEATURING GERTENS CUSTOM SOIL MIXES:

General All-Purpose Gardening Mix Nursery Mix-Contains a controlled release fertilizer Special Bedding Plant Mix-Contains a controlled release fertilizer

> It's all here... under the red roof.



5500 Blaine Avenue Inver Grove Heights, MN 55076

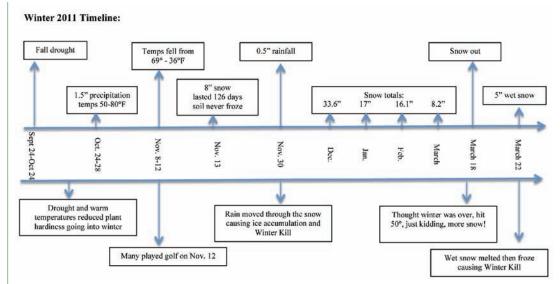
Winter Kill

By BRIAN HORGAN, Ph.D.

Associate Professor and Extension Turfgrass Specialist University of Minnesota

Each year, golf courses across Minnesota experience varying levels of damage due to Winter Kill. Winter 2011 was an especially challenging year for our golf courses and many lost grass due to Winter Kill. Couple winter injury with poor spring growing conditions and this is why some golf courses are struggling with playing conditions. After visiting many Minnesota golf courses, working with the golf course Superintendents and studying the weather conditions, we can draw some conclusions about what is happening.

(Continued on Page 9)





Turf Establishment Products from Profile & the Tessman Company



- Futerra Environet is created for slopes and environmentally sensitive sites
- Works great on new construction for golf courses and sports fields
- 2 sizes, 40" x 135' Natural (32 rolls/pallet) or 82" x 135' Natural (16 rolls/pallet)

FUTETILESS

- Fast germination means F4
 Netless excels at vegetation
 establishment
- Provides high levels of slope protection
- F4 Netless weighs much less than any other blanket on market, installs quickly with less manhours per square yard
- Size 39" x 90' Natural (32 rolls per pallet) or 78" x 90' Natural (16 rolls per pallet)

Seed Aide

- Expanding cellulose/ wood fiber mulch granules enhance germination and seedling emergence by holding seed in place and absorbing water
- Organic tackifier reduces soil erosion, water runoff and seed wash out.
- Can be applied by hand, with high volume drop spreader or large opening broadcast spreader.

Ask about our 1/2 pallet and pallet pricing on grass seed!

The Tessman Company | St. Paul — 652.487.3850 | Fargo — 701.232.7238 | Sioux Falls — 605.368.2586

Winter Kill-

(Continued from Page 8)

So what happened?

- 1) Warm fall with extended drought periods reduced hardiness, making plants more susceptible to winter stresses.
- 2) Length of time the turfgrass was under snow and ice when the soil was not frozen caused toxic gasses to build up and suffocated the grass. This is called anoxia. The hardiest grass can last 120 days under ice. Some golf courses held ice cover for 126 days.
- 3) Damage occurred on putting greens with and without different types of winter covers.
- 4) The heavy snow that fell on March 22 melted and refroze at night causing crown hydration. This damage tends to follow drainage patterns on the putting surface and is not a uniform kill.

It is summer, why hasn't the turf recovered?

Golf course Superintendents across Minnesota have overseeded, punched holes, verticut, topdressed and fertilized. Unfortunately, this has been an exceptionally cool and wet spring. Soil temperatures have remained below average. Grasses that have germinated are struggling to develop due to the cool nights and excessive rainfall.

To put this into perspective, scientists look at growing degree-days (defined as heat accumulation to predict plant development rates).

Growing degree-days for April 1 – June 24 totaled 748; the same period in 2010 totaled 1086. In other words, we are 30% behind compared to last year.

No One to Blame!

Winter Kill is not something that could have been predicted. No two golf courses had the same conditions nor do they have the same grasses, soil types, surface drainage, number of trees, or management programs. Remember, there is no "normal" winter. Mother Nature always wins!





Discover Phoenix Environmental Care. A new generation of quality products.

The complete line of advanced fungicides, herbicides, insecticides and plant growth regulators from Phoenix Environmental Care provides superintendents with superior quality, resistance management tools and guaranteed performance.

To learn how Phoenix's value-enhanced pesticides can benefit your golf course, contact your Phoenix Environmental Care representative **Rick Grant at 317.501.2395**, visit www.PhoenixEnvCare.com or contact your local distributor:



St. Paul:

651-487-3850 • 800-882-5704

Fargo:

701-232-7238 • 800-474-7238

Sioux Falls:

605-368-2586 • 800-234-1965



©2010 Phoenix Environmental Care, LLC. The Phoenix logo is a registered trademark of Phoenix Environmental Care, LLC. Always read and follow label directions:



Thanks for being a part of who we are.

At Par Aide, we never forget it's your dedication to the course that constantly drives us to provide new, more innovative products. Products that save you time and deliver superior value. So from Par Aide, a sincere thank you for being our valued partner.



Wherever golf is played.

