One Sprinkler. Countless Benefits. Infinite Possibilities.



Smart Access™ provides top accessibility



Pilot valve is accessible from the top



Smart Access[™] compartment provides room to grow

The new Toro® INFINITY™ Series Sprinklers

are designed with your course's future in mind. A patented SMART ACCESS[™] design means **no digging** or unsightly turf repair scars. They are completely backward and forward compatible. You'll also dramatically reduce time spent on sprinkler service and maintenance.



- Built for expansion so no need to invest in new sprinklers as technology advances
- Lower long term cost of ownership

The INFINITY Series Sprinkler allows me to deliver the best playing conditions for our members," while managing my irrigation resources as effectively as possible within my budget." Mike Handrich, Superintendent, Racine Country Club



www.toro.com

Solutions & Supplies for the Green Industry

IRRIGATION SALES & SERVICE Aaron Goninen (414) 313-5244 Phil Zastrow (414) 313-5247

W227 N6225 Sussex Road, Sussex, WI (800) 785-3301 www.reinders.com

TABLE OF CONTENTS

THE PRESIDENTS MESSAGE WGCSA Board Hosts Strategic Planning Meeting 4
CHAPTER CONVERSATION Chapter Update
WISCONSIN ENTOMOLOGY REPORT Management of Mound Building Ants on Turf
WISCONSIN SOILS REPORT Decreased Pink Snow Mold Associated With Lower Soil Potassium
TURFGRASS DIAGNOSTIC LAB Lab Updates and Projects
WISCONSIN PATHOLOGY REPORT Summer Research Preview
BADGER STATE TURF CLIPPINGS News and Notes From WGCSA Members
NOTES FROM THE NOER State Of The Art Research And The Basics
WGCSA April Meeting At The Club At Strawberry Creek
USGA GREEN SECTION RECORD How Trees Impact USGA Course Rating™ And Slope Rating®
EVENT SCHEDULE
COVER STORY May WGCSA Meeting At West Bend Country Club
EDITORS NOTEBOOK Summer Is Here
WGCSA Fox Valley Hosts Super Pro
A DOLLE TILE COVED Hagards should be placed so that any

ABOUT THE COVER

The ninth hole at West Bend Country Club shows the slopes and contours developed by Langford in 1930.

Visit our Website at www.wgcsa.com

Hazards should be placed so that any player can avoid them if he gauges his ability correctly, so that these obstacles will make every man's game more interesting, no matter what class player he is. By Architect William Boyce Langford, Civil Engineer and Golf Course Architect 1887-1976

This quote by Langford expresses his golf course design theories.

THE GRASS ROOTS

is the bi-monthly publication of the Wisconsin Golf Course Superintendents Association. No part of the THE GRASS ROOTS my be used without the expressed written permission of the editor.

EDITOR

David A Brandenburg, CGCS Rolling Meadows Golf Course PO 314 Theresa, WI 53091 grassroots@wgcsa.com



2014 WGCSA OFFICERS AND DIRECTORS Front Row: Chad Harrington, Jim Van Herwynen, Jon Canavan, Josh Lepine. Back Row: Jeff Millies Brett Grams, Jeff Barlow, Kevin Knudtson, Mike Bremmer, Joe Sell. (Not pictured Steve Wasser and Scott Bushman.)

<u>PRESIDENT</u>

Chad Harrington Autumn Ridge GC 335 Berge Street Valders, WI 54245 autumnridgegc@gmail.com Scott Bushman
Fox Valley GC
PO Box 38
Kaukauna, WI 54130
scott@foxvalleygolfclub.com

DIRECTORS

<u>VICE PRESIDENT</u>

Jim Van Herwynen, CGCS South Hills Golf & CC 1175 Fond du Lac Ave. Fond du Lac, WI 54935 jimv@southhillsfdl.com

Mike Bremmer Wisconsin Club 5835 N Shoreland Ave Whitefish Bay, WI 53217 mikebremmer@hotmail.com

TREASURER

Jon Canavan Milwaukee County Parks 9480 Watertown Plank Rd Wauwatosa, WI 53226 jon.canavan@milwcnty.com Kevin Knudtson Geneva National GC 2200 Petrie Rd. Lake Geneva, WI 53121 kknudtson@gnresort.com

SECRETARY

Josh Lepine, CGCS Maple Bluff CC 500 Kensington Drive Madison, WI 53147 josh@mbcc1899.com

VENDOR LIAISON

Steve Wasser
John deere Golf
1700 Peters Road
Kaukauna, WI 54130
swasser@johndeeregolf.com

Class C Representative
Joe Sell
Whistling Straits GC
1276 Meadowbrook Dr #1
Cleveland, WI, 53015
Email: jws227@gmail.com

Jeff Barlow CGCS Waupaca CC 1330 Ware St. Waupaca, WI 54981 jjbarlow@solarus.net

PAST PRESIDENT Jeff Millies, CGCS

Edgeweeod GC W238 S9560 Kuzendorf Ct Big Bend, WI 53103 jmillies@wi.rr.com

CHAPTER MANAGER

Brett Grams N9122 Virginia Dr. Waupaca, WI 54981 bgrams@wgcsa.com

PRESIDENT'S MESSAGE

WGCSA Board Hosts Strategic Planning Meeting

By Chad Harrington, Golf Course Superintendent, Autumn Ridge Golf Course

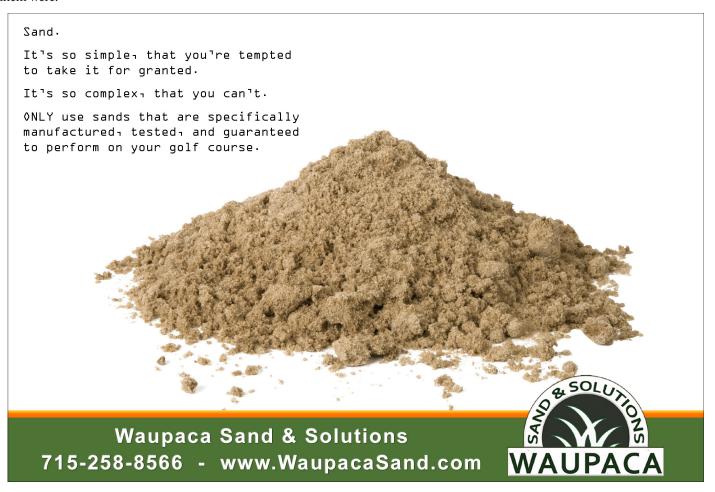
The weather seems to finally be turning for the better after one of the coldest off seasons our State has ever seen. The golf courses are slowly greening up, and the golfers are making their way to the tee. It hardly feels like we have hit the Golf Season, but we have already had two of our Summer meetings. I would like to thank our host Superintendents and courses, Matt Kregel at The Golf Club at Strawberry Creek and Bruce Worzella at West Bend Country Club. It is an honor to have such great facilities in fantastic condition to be able to hold our events at. Thanks again to all who have offered their courses to hold our events.

On March 19, 2014 members of the Wisconsin Golf Course Superintendents Association Board of Directors met and held a strategic planning session with GCSAA Associate Director of Chapter Outreach Steve Randall and Great Lakes Field Staff Representative John Miller. The mission of the session was to help the WGCSA design a roadmap of activities for the coming months and years to build additional momentum of a well-organized chapter.

The members were asked to write down ideas and expectations that we would like to accomplish during the session. Some of them were:

- Learn where we have been and where we are going
- Educate the golfers as to what we do
- Fill vacant positions from within the region
- Members understand the value of membership
- Educate public to our existence
- Increase our status as leaders within the golf industry as a whole
- Commitment to UW
- Communication and participation with allied associations
- How to keep assistants involved
- Communication between the board members, not leave it all to Brett (Chapter Manager)

The board then went into the SCOR analysis to determine the Strengths, Challenges, Opportunities and Risks of the chapter.



PRESIDENTS MESSAGE

STRENGTHS:

- Strong board with young/savvy personalities
- Fall symposium
- Camaraderie/networking
- Strong chapter executive
- Official newsletter The Grassroots
- Financial standing (money for research, etc.
- Economics of golf industry in Wisconsin
- Strong industry partner program
- Diverse board, different regions from the state, different facilities involved
- Membership consistent from number standpoint, are leaders in the industry
- History strong group who have been influential for seasons
- Education
- Web site
- Communications
- University of Wisconsin connection

CHALLENGES

- Ensuring the younger generation sees value
- Getting more members
- Declining golf revenue/declining staff/declining time to accomplish things for the chapter
- How easy are we to do business with? Using Pay-Pal – is that the best?
- Knowing what members want...Would a survey make sense
- Geography (large)
- Communicating to allied organizations and avid golfers what we do/what our value is
- Being seen as the "voice" with issues affecting golf/golf course management
- Professional image –Branding
- Offering education that we should

OPPORTUNITIES

- Utilizing field staff
- Promote/Proactively talk to media to discuss golf
- Larger variety of education topics
- Roughly ½ of courses are members
- Fall symposium
- Schedule/Format
- Grow and make it a true regional show
- Giving back to the industry scholarship, research, industry presentations
- Volunteer work
- Using Facebook with other social media
- Tap into other associations to help portray image
 not utilizing synergy (two-way street)
- Web Site content to non-members
- Regional Education
- Using technology share documents, use for SOPs
- Developing our own foundation

RISKS

- Competing with other shows/education opportunities
- Costs
- Economy potential hyper-inflation
- Staff leaving/taking them for granted
- Being complacent
- Competition among other association
- Environmental issues/concerns



PRESIDENTS MESSAGE

Mission Statement

Following the SCOR analysis, we moved into a discussion on the mission statement. We decided to take some of their existing statement and condense it. The following before and after mission statements are below.

Was: The Wisconsin GCSA is committed to serve each member by promoting the profession and enhancing the growth of golf through education, communication and research.

New: The Wisconsin GCSA is dedicated to ensuring members have the resources to provide quality playing conditions, advocating on behalf of the golf course management profession and supporting the future of golf.

Vision Statement

Following the mission statement discussion we moved into the vision statement for the chapter. Ultimately the vision points out how the chapter should be viewed by its members. It also provides a forward-thinking thought process to uncover a bigger picture perspective. The vision statement is as follows:

Was: The Wisconsin GCSA is dedicated to increase the value provided to its members and to the profession by:

- Enhancing the professionalism of its members by strengthening our role as a leading golf organization in the state
- Growing and recognizing the benefits of a diverse membership

throughout Wisconsin

- Educating and promoting our members as leaders in environmental stewardship
- Offering affordable, high value educational programs at the forefront of technology and service
- Being key to enjoyment and the economic success of the game of golf

New: The Wisconsin GCSA is dedicated to increase the value provided to its members and to the profession by:

- Be recognized as the leading golf organization in the state
- Growing and serving a diverse membership
- Advocating environmental stewardship
- Offering valuable educational programs at the forefront of technology and communication
- Being critical to the enjoyment and economic success of the facility

I would like to thank the WGCSA Board of Directors, Executive Director Brett Grams, the Golf House of Wisconsin for hosting our meeting, and the GCSAA Team of John Miller and Steve Randall that helped to facilitate the planning session. It was obvious that a lot of thought and research had been done prior to the meeting and helped to promote a lot great discussion. I wish all of you the best of luck in the 2014 Golf Season and I hope to see each and every one of you at one of our Summer event. Thank you for your support of our Association.

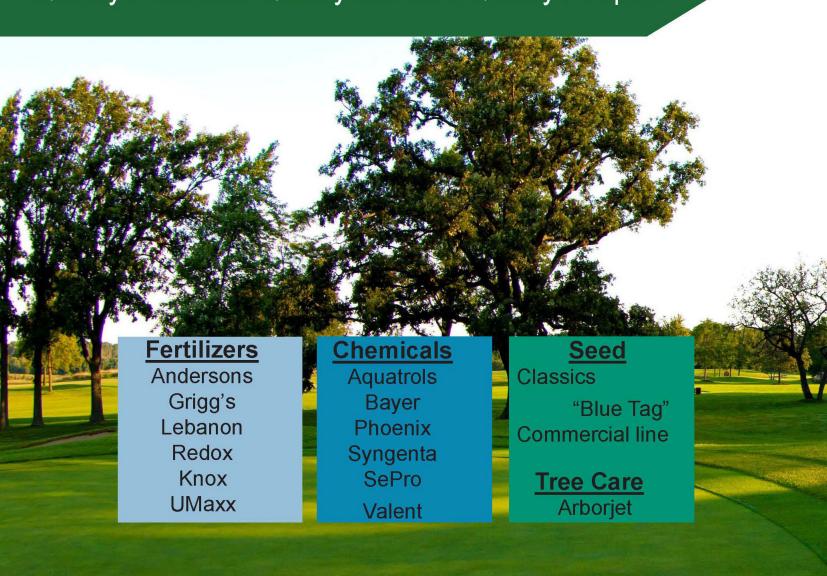


Office: 847.537.2177

www.arthurclesen.com



Quality Products. Quality Service. Quality People.



Scot Spier, Sales Manager • 847-561-3139 • s.spier@arthurclesen.com



CHAPTER CONVERSATION

Chapter Update

By Brett Grams, Chapter Manager, Wisconsin Golf Course Superintendents Association

ell it's Mid May but feels like early April. Central Wisconsin has been at least month behind in our daily temperatures. I sure hope Mother Nature provides us with some more seasonal weather as the golf season gets into full swing.

Our chapter events are off to a great start. Our April meeting in Kenosha at Strawberry Creek was a fun day for all who attended. Our May meeting at West Bend CC was a little soggy and shortened but still well attended. I challenge all members to come to our meetings as your schedule allows. Your WGCSA Leaders have put a good deal of time lining up great venues and quality education. Thanks to our generous host superintendents and facilities we are able to see some fantastic operations at very reasonable prices. Thanks to our generous vendor companies you also

have a good chance of going home with a nice flag or event prize as well. I hope to see all of you at our events in the coming months!

The WGCSA Members Directory and Handbook will soon be in your mailbox. It contains a lot of useful information for all members. Meetings, by-laws, our new mission and vision statement, and complete listing of all members, affiliated companies, and board contacts are included in the annual directory.

The member directory is the last of the larger administrative projects that I complete each off season. In addition we again ran a great PAR 4 Research Auction. I am also happy to report that we are on track for improved sponsorship by this year's Industry Partnerships. Our membership level remains steady from the past few years as well.

My summer season efforts will focus on "tweaking" our offerings on our member side of the website. We have some pages that are not as used as others. I will be making some changes to offer more information. I will also be reviewing our online payment options with the hope that it will be more user friendly and flexible to the many users who now make payments electronically with the chapter.

Do you have any issues or items that I can be of service? Please contact me if you would like my assistance. I would be happy to help as I can! Sincerely,

> **Brett Grams** WGCSA Chapter Manager 920-643-4888 bgrams@wgcsa.com

PENDELTON TURF SUPPLY edward.witkowski@pendeltonturfsupply.com

Todd Fregien

Ed Witkowski

414-640-6447

414-640-2265 todd.fregien@pendeltonturfsupply.com

> **FULL LINE OF TURF PRODUCTS** CHEMICALS • TEE & GREEN SUPPLIES TIRES & TUBES • NEW PRODUCT INFORMATION

Clark Rowles 608-228-1782

clark.rowles@pendeltonturfsupply.com



805 Ela Avenue

Waterford, WI 53185

Phone: 262-534-3334

Fax: 262-534-2990























Liquid Golf Course ख Turf Fertilizers



Lush fairways and manicured greens can also be highly water-efficient. Every Rain Bird product is a testament to that truth. From water-saving nozzles to highly efficient pumps to leading-edge Control Technology, Rain Bird products make the most of every drop, delivering superior results with less water. Keeping the world and your golf course beautiful. That's The Intelligent Use of Water.™

To learn more, contact your local sales rep today!

Kevin West

Outside Sales (708) 341-1687

kwest@rainbird.com

Dustin Peterson

Outside Sales (309) 314-1937 dpeterson@rainbird.com

Jason Westmoreland

Inside Customer Support (888) 907-5535 rbiservices@rainbird.com



WISCONSIN ENTOMOLOGY REPORT

Management of Mound Building Ants in Turf

By Dr. R. Chris Williamson, Department of Entomology, University of Wisconsin - Madison

nts can be quite annoying pests on Agolf courses, especially in high-profile areas, such as putting greens, tees, and fairways. Because of the wide use of sandbased putting greens and tees, empirical evidence suggests that ants are a growing problem. This is not to say that they are uncommon in roughs; however, they are considerably less noticeable there. Worker ants excavate underground nest chambers, pushing up soil that creates volcanoshaped mounds. Mounds not only disrupt the smoothness and uniformity of putting-green surfaces, but also smother patches of turf and dull mower blades. As a result, golf-course superintendents often make surface applications of fast-acting (i.e., quick knockdown) conventional insecticides to eliminate this nuisance pest. However, this approach may not be the best solution for managing mound building ants!

Lasius neoniger is native throughout the United States and Canada. It is a relatively small ant and is commonly referred to by golf-course superintendents as the "turfgrass ant" (which is not a common name officially recognized by the Entomological Society of America). This ant species is a social insect that lives in colonies that comprise thousands of sterile female workers and typically only one reproductive queen. An individual ant nest is commonly composed of multiple interconnected chambers approximately 2-3 feet deep. Each passage to the surface is capped with a mound. Depending on the time of year (i.e., spring vs. summer), there can be a considerable fluctuation in the number of ant mounds per nest, ranging from 2 to 10. Generally, the number of ant mounds steadily increases from early spring to late summer, as the colony grows. Previously conducted research has revealed that as food resources become more abundant in the spring, the queen steadily increases egg production; however, once peak production occurs, the offspring

from this brood develop relatively slowly, starting in May and continuing into July. Soon after, new adult workers (all females) begin to emerge, after which moundbuilding activities intensify. Finally, as the ant colonies begin to mature, by late summer and even into early autumn (late August-October), a sizable portion of the colony develops into winged reproductives (swarmers) consisting of reproductive females and drones.

Once the colony reaches this stage, reproductive females and drones typically swarm by the thou-

sands, typically in the late afternoon on warm days. This event is especially common after rain and thunderstorms. During this swarming process, the reproductive females and drones partake in a nuptial flight in which they mate while flying. Soon after, the queens seek out new locations to build chambers, but before constructing a new chamber, the new queens chew off their wings. Oddly enough, most queens die before making a chamber; however, those that do survive typically construct a small chamber in the soil. Surviving queens typically lay a relatively small number of eggs in the chamber. Within several weeks (<6), new worker ants (which are typically about half the size of normal workers) break open the chamber to forage for food. At this point, colony activity ceases as winter weather arrives. The ant colonies that survive the winter typically resume activity in



Ant mounds on a closely mown putting green can disrupt playability and dull mowers.

the spring as the temperatures become favorable and food sources available.

Research at the University of Kentucky (Potter Lab) suggests that each nest has only one queen, and the future of the colony is largely dependent on her. This is not to downplay the importance of workers; they too serve a crucial role both by protecting the colony and foraging for food for the colony. Different ant species have various food preferences, Lasius neoniger appears to prefer foods that contain the three primary nutritional components: protein, carbohydrate (sugar), and fat. In turf, ants commonly forage on the surface for small insects and insect eggs, but they also feed on subterranean root aphids to obtain the sugary honeydew that the aphids produce. Because these mound-building ants are important predators of the eggs and small larvae of sod webworms, white grubs, and other insect pests, they are also considered beneficial insects.