

The GRASS ROOTS

AN OFFICIAL PUBLICATION OF THE WISCONSIN GOLF COURSE SUPERINTENDENTS ASSOCIATION

VOL. XLII
ISSUE 2
MARCH/APRIL 2013





“I’ll make dollar spot pay.”



“Even the best turf can fall victim to disease. But with **Honor® Intrinsic™ brand fungicide**, I won’t go down easily. On top of unsurpassed disease control, research shows that **Honor Intrinsic’s plant health benefits** give me a better root system so I can stand up to stresses like drought and moisture events, extreme temperatures, and aerification—better than ever.”

Intrinsic brand fungicides don’t just fight disease; they give turf the resilience to endure stress. Find out more by contacting Randy Lusher, 630.810.1832, randy.lusher@basf.com.



The Chemical Company

TABLE OF CONTENTS

THE PRESIDENTS MESSAGE
What is Important 4

WISCONSIN SOILS REPORT
Soils Under the Microscope 6

TURFGRASS DIAGNOSTIC LAB
New Fungicides For The Turfgrass Market in 2013. 10

WISCONSIN ENTOMOLOGY REPORT
Billbugs? 12

STUDENT ARTICLE
Surviving An Icy Winter 16

WGCSAA
Tom Harrison Receives Distinguished Service Award .. 20

WGCSA
2013 Spring Business Meeting 22

MADTOWN MUZINGS
Growing The Game 30

GOLF SHOP
What is Happening Inside The PGA? Golf 2.0 Continues 32

GCSAA
2013 Golf Industry Show 33

BADGER STATE TURF CLIPPINGS
News and Notes From WGCSA Members 46

EVENT SCHEDULE 47

EDITORS NOETBOOK
Spring at Last? 48

ABOUT THE COVER

The San Diego Conference Center from the harbor. Petco Field is visible on the right side. San Diego's famous Gaslamp District starts right across the street from the field.

“Three things in human life are important: the first is to be kind; the second is to be kind; and the third is to be kind.”

By American Writer Henry James, 1843-1916

This quote by James was used by WGCSA Historian Monroe Miller to describe the career of DSA recipient Tom Harrison and can be considered by all of us to improve our lives and communities.

Visit our Website at
www.wgcsa.com

THE GRASS ROOTS

is the bi-monthly publication of the Wisconsin Golf Course Superintendents Association. No part of the THE GRASS ROOTS may 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



2013 WGCSA OFFICERS AND DIRECTORS

Front Row: Chad Harrington, Colin Seaburg, Jim Van Herwynen, Jon Canavan. Back Row: Brett Grams, Jeff Millies, Jeff Barlow, Josh LePine, Jake Schneider, Scott Bushman, Kevin Knudtson. (Not pictured Steve Wasser.)

PRESIDENT

Chad Harrington
Autumn Ridge GC
335 Berge Street
Valders, WI 54245
putter@lakefield.net

DIRECTORS

Scott Bushman
Fox Valley GC
W1759 CTH UU
Kaukauna, WI 54130
foxvalleygolf@netzero.com

VICE PRESIDENT

Jim Van Herwynen, CGCS
South Hills Golf & CC
1175 Fond du Lac Ave.
Fond du Lac, WI 54935
jkvanherwynen@charter.net

Josh Lepine, CGCS
Maple Bluff CC
500 Kensington Drive
Madison, WI 53704
mripiner@aol.com

TREASURER

Colin Seaburg
Ozaukee CC
1175 N River Road
Mequon, WI 53092
colin@auzaukeecc.com

Kevin Knudtson
Geneva National GC
2200 Petrie Rd.
Lake Geneva, WI 53125
kknudtson@gnresort.com

SECRETARY

Jon Canavan
Milwaukee County Parks
9480 Watertown Plank Rd
Wauwatosa, WI 53226
jon.canavan@milwcnty.com

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

VENDOR LIAISON

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

PAST PRESIDENT

Jeff Millies, CGCS
Edgeweod GC
W238 S9560 Kuzendorf Ct
Big Bend, WI 53103
jmillies@wi.rr.com

Class C Representative

Jake Schneider
Blackhawk CC
3606 Blackhawk Dr.
Madison, WI 53705
[Email: jake@blackhawkcc.com](mailto:Email:jake@blackhawkcc.com)

CHAPTER MANAGER

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

What is Important?


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

With the hustle and bustle of today, it is hard to believe that this time of year is considered the “off season.” I often get asked by golfers and others that are not in the golf industry, what do you do this time of year, it must be nice with all of that time off? My wife tells me to say “nothing”...it would be a much easier answer. I must be doing something really wrong, because I sure don't seem to get the all of the time to reflect that the general public thinks we get in our field. I will admit much of the pace is of my own doing. There are the obvious distractions of trying to get a Golf Course ready for the upcoming season with equipment needs, golf shows, event planning, and let's not forget snow removal this year. When it is time away from the course, with two young boys at home, there is never a shortage of something to do and be a part of. If it isn't coaching football, it is the school board, or maybe it is the wrestling club meetings and the weekly tournaments, and maybe a little downhill skiing on the side. Between all of the golf course projects and extra activities we

give ourselves, it can be very easy to forget what is really important. For a lot of us, that is family. During the Golf Season I hate to admit that there may be days that I don't get to even see my boys unless they come out to the course. I think that is why I try to get involved in a coaching, tutoring, or a leadership role in everything they do. Our time is in short supply and I don't want to miss what is important.

The topic of what is important for our profession in our State was offered to us at our Spring Business meeting this year by our newest recipient of the Wisconsin Golf Course Superintendent Association Distinguished Service Award, Tom Harrison. It is a great honor to be member of WGCSA board during this time and I would like to thank Tom and congratulate him on joining an extremely elite group of individuals to receive this award. Tom has been extremely active member of our Association for many years and has been an advocate for turfgrass research and the O.J. Noer Center in Madison. I especially appreciated his sentiment about remembering what is important in our profes-

sion.

As Tom gave his inspiring acceptance speech, I could help but think about everything that the previous leaders of our association have done to build and promote the turfgrass profession in our State. The fact that we have research facility with the quality of the O.J. Noer Center could be easy for us to take advantage of. Some of us probably think it has always been there and always will, but the reality is that there are many individuals that worked and gave of themselves tirelessly to insure that we would have access to some of the best testing and research in the country. They had the vision to know what was important for our industry. It is now up to each and every one of us to help make sure that the Turfgrass Research tradition of excellence in Wisconsin continue and be recognized by others in the golf community. Be an advocate of what we have. Make sure that your members, board of directors, owners, and fellow employees know about the facilities we have in Wisconsin and how important it is to our profession that we keep them. 

WGCSA MISSION STATEMENT

The Wisconsin Golf Course Superintendents Association is committed to serve each member by promoting the profession and enhancing the growth of the game of golf through education, communication and research.

WGCSA VISION STATEMENT

The Wisconsin Golf Course Superintendents Association 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.

THE MOWER THEY DON'T WANT YOU TO SEE.



The competition doesn't want you to see the Jacobsen ECLIPSE®322 riding greens mower. They can't match its **ZERO leak points**. They can't provide **individual reel control** to vary cut patterns. They can't offer **programmable frequency-of-clip** from an LED screen. And they can't get anywhere near the **true hybrid fuel savings** or **legendary quality-of-cut**. When it comes to the ECLIPSE® 322, the competition can't do *anything* except hope you don't see it. I guess we just ruined that for them, too.



Phone: 800-279-2341
Fax: 920-849-9576

www.horstdistributing.com
HORST DISTRIBUTING, INC.
CHILTON, WI

JACOBSEN

1.888.922.TURF | www.jacobsen.com

Soils Under The Microscope

By Dr. Doug Soldat, Department of Soil Science, University of Wisconsin - Madison

Did you know there are between ten and one hundred times more bacterial cells in your body than your own cells? The composition of these organisms play a huge role in everything from how nutrients are absorbed in your body, to whether or not you get ulcers, or how susceptible you are to ear infections. Microbiology is one of the most active and exciting research areas in science today and scientists are making new discoveries everyday that are shedding light on how much influence those little critters have on our lives. The award for the most interesting and disgusting advance goes to the practice of “fecal transplanting” where the doctor, well... you can imagine. Fecal transplanting has been used with great success to cure or treat some intestinal disorders because the composition of the bacterial community in your gut has a large effect on how your plumbing works (or doesn't).

The point here is that microbiology is a poorly understood, but hugely important aspect of our lives. It is not a stretch to imagine the same applies to your soil and the turf that you grow on it. You are likely to encounter an increasing number of products that claim to alter or improve the microbiology of the soil to the benefit of “plant health”, whatever that means. I hope to share some information with you that will help you make good decisions and keep your expectations realistic.

Your Soil is Not Sterile

Biological additives (i.e. compost tea) are often marketed to turf areas using the idea that the fertilizers and pesticides applied to the soil sterilize it, and disrupt important functions of the soil. Below is a figure I grabbed off the internet that shows one incarnation of this idea. But in fact, even in sandy soils that have been fertilized and treated with pesticides, researchers have consistently found high populations of microbial activity (Zuberer, 2012; Elliot et al., 2007; Bigelow, 2000). The scientific consensus is that fertilizer (synthetic or organic) actually increases microbial



Figure 1. A marketing figure from a soil biological testing laboratory showing the mistaken idea that fertilizers and fungicides lead to a sterile soil.

activity because the fertilizers stimulate plant growth, which in turn stimulates soil microorganisms (Bunemann et al., 2006). In terms of the impact of pesticides on microbial activity, Dr. Eric Nelson and colleagues at Cornell University studied the effects of repeated fungicide applications to soil organisms on a golf green. They hypothesized that the fungicide applications would dramatically change the soil microbial community, but that turned out not to be the case at all (Harman et al., 2006). Bacteria and fungi in the soil were similar regardless if fungicides were applied or not.

Not only is your soil not sterile, but is the most diverse microbiological habitat on earth. There are approximately 4,500 mammal species, 20,000 birds species, maybe 250,000 plant species, and somewhere around 1,000,000 insect species. In a spoonful of soil there are estimated to be 8,000,000 species of bacteria (Gans et al., 2005), and maybe as many as one billion species in the soils around the world. That is an incredible amount of diversity. As you might guess, we have very little understanding of the function of the majority of these species let alone names for

them. But in general, we know bacteria are responsible for the cycling of nutrients by converting one form of nitrogen, or sulfur, or carbon, etc. to another; but we would be stretching the facts to say that we know exactly what each of those millions of species are doing and which ones we should be promoting and which ones we should be discouraging.

Testing for Microbes

Unfortunately, you will likely come across a person who will try to tell you just that. There are a growing number of laboratories that test for the amount of bacteria, fungi, protozoa, and nematodes in your soil and give interpretations telling you if levels are “high” or “low”. I like to use this quote from O.J. Noer’s ABC of Turf Culture (1928) on the utility of testing for nutrients in the soil:

“There is a tendency to place undue emphasis upon the value of chemical soil tests. This is true of some technical workers as well as salesmen. These methods have a promising future but their present usefulness is limited by imperfect [methods] and for a lack of definite correlation with field experience.”

Just replace the word “chemical” with “biological”, and you’ll be up-to-date. Soil testing for anything requires a great deal of time and effort. We are still working to refine nutrient soil tests 85 years after O.J.’s statement. So until we can look to research that can validate the interpretations of “low” bacteria or protozoa, I consider these new biological soil tests simply a gimmick or a novelty designed to sell you something you probably don’t need.

The Dilution Problem

Microbial products are designed to change the community of organisms in the soil by adding “beneficial” organisms. This sounds great. However, let’s take a minute to address the amount of product added in comparison to the native communities. We’ll start with a compost tea that might have 40,000,000,000 colony forming bacterial units per gallon. That sounds like a lot!

A SMOOTH TRANSITION

TRANSITION HC HIGH CONCENTRATE DARK TURF COLORANT

Transition HC colorant provides economical, 30-day color to help manage turf color throughout fall and spring transitions of overseeding programs. Find out more at beckerunderwood.com.



No chameleons were harmed in the making of this ad.



Scan to learn more.

800-232-5907 • beckerunderwood.com

BECKER 
UNDERWOOD
Inventing the Future

You might apply this compost tea solution at a rate of 1 gallon per thousand square feet. Even though you are adding 40 billion or so bacteria, you're adding them to a soil that likely has about one quadrillion (10¹⁵) bacteria per thousand square feet. That is one bacterial cell from compost tea for every 250 million native cells. Not very good odds for changing the microbial make-up. Here is another example of a bacterial additive that we've tested at the O.J. Noer (which had no visual effects). The label says to apply 0.8 oz/1000 sq. ft. The product contains about 80,000,000 bacteria per oz. This means we are adding 64 million bacteria per thousand sq. ft. which is about one applied bacterial cell per 156 million native cells. These products might have pronounced effects if we apply them at levels where the added amounts can begin to compete with the native levels. But this is not going to happen at labeled rates.

A Promising Future?

This is where Dr. Jenny Kao-Kniffin comes in. Jenny is an assistant professor in Horticulture at Cornell University with a doctorate in Soil Science from UW-Madison. At Cornell, she is working on using artificial selection to breed microbial communities (called microbiomes) that can improve turf growth. She does this by growing dozens of genetically identical turf plants in pots, then selecting the few pots that have the best and those with the worst growth. Since the grass is identical, and the physical and chemical properties of the soil are identical, the growth difference is related to the biological properties of the soil. She then extracts the microbes from the best and worst soils and adds them separately to a sterilized soil with turf seeds. She waits until those plants grow and again selects the best and worst looking pots and extracts the microbes and inoculates a new set of soils. Over time the poor performing selections get worse, and the good performing selection get better. This is similar to how grass breeder would develop new grass varieties, but in this case, Dr. Kao-Kniffin is breeding the soil. After several "generations" she can get differences in growth shown in **Figure 2**.

The plants in Figure 2 are genetically identical, but are showing different growth characteristics because they have

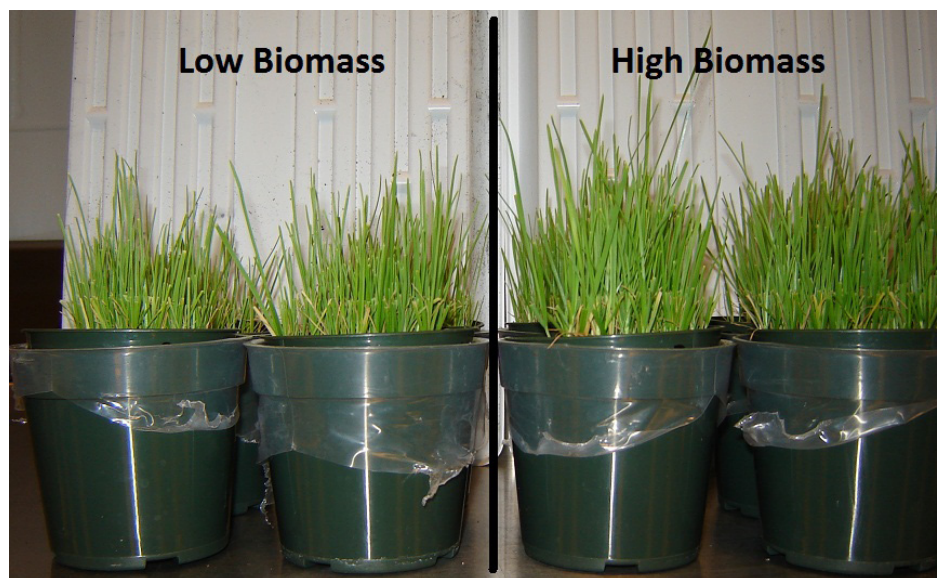



Figure 2. Two genetically identical grasses grown in pots where the only difference is the make-up of the soil microbial communities. The soil microbes on the right have been selected to positively influence grass growth, while the communities on the left interact with the grass to produce less growth. Photo courtesy of Dr. Kao-Kniffin.

different soil microbiomes. She's also using the same technique develop microbiomes that discourage weeds. She tells me this same concept can be applied to insect and disease control too. We have a long way to go before this information can be used to make a difference on your golf course, but work like Jenny's will lead to an increase in our understanding of the soil microbial community that will eventually result in something useful. The primary challenge, of course, will be translating this information from a greenhouse trial with initially sterile soils to a field setting that is already teeming with life. If it was easy, it would already have been done, but I remain optimistic.

In summary, our general increased understanding of the importance of the microbial communities in our bodies and elsewhere will likely stimulate an increase in products and services revolving around soil microbes. However, the vast diversity of microbes in the soil make or primitive tests almost useless, and products on the market seem to be too dilute to make a difference. However, advances in our understanding may one day results in new and useful approaches to managing your microbes. 

References:

- Bigelow, C. A., A. G. II Wollum, and D. C. Bowman. 2000. Soil microbial populations in sand-based root zones: Newly constructed greens may not be as sterile as once believed. *Golf Course Manage.* 68(10):65-69.
- Bunemann, E.K., G.D. Schwenke, and L. Van Zwieten. 2006. Impact of agricultural inputs on soil organisms – a review. *Australian Journal of Soil Research.* 44:379-406.
- Elliott, M. L., J. A. McInroy, K. Xiong, J. H. Kim, H. D. Skipper, and E. A. Guertal. 2007. Diversity of rhizosphere bacteria in USGA putting greens. [Online] *USGA Turfgrass Environ. Res.* 6(20):1-8.
- Gans, J., M. Wolinsky, J. Dunbar. 2005. Computational improvements reveal great bacterial diversity and high metal toxicity in soil. *Science.* 309:1387-1390.
- Harman, G. E., E. B. Nelson, and K. L. Ondik. 2006. Non-target effects of fungicide applications on microbial populations of putting greens. *USGA Green Sec. Rec.* 44(4):9-12.
- Zuberer, D. 2012. Soil microbes: Some practical perspectives for turfgrass systems. *USGA Green Sec. Rec.* 50(15):1-5.



National Golf Graphics



Terry Velour Cotton Towels

11x18 \$2.25 each
16x26 \$3.25 each



Sprinkler Head Yardage Caps

Toro, Rain Bird, Hunter



Staff Clothing

Polos, Hats, Sweats, Outerwear,
Workwear and T-Shirts



Cart Directional Signs

Hazard and Rope Stakes

Rinowood and Recycled Plastic



Flags

Embroidered, Screened
and Digitally Printed



Tee Signs

Bronze, Aluminum
Redwood, Plastic
and Granite



New Fungicides For The Turfgrass Market In 2013

By Dr. Paul Koch, Turfgrass Diagnostic Lab Manager, O.J. Noer Turfgrass Research and Education Facility

A few years back I had a conversation with a golf course superintendent where he lamented the lack of new fungicides coming to the turfgrass (ie golf) market. His frustration was along the lines that there were new herbicides coming to the market, new insecticides, even new wetting agents and plant growth regulators. But when it came to fungicides, the primary protectant applied to golf course turfgrass, all that was coming was pre-mixtures of old active ingredients. This lack of new fungicides wasn't due to any decision by the primary fungicide companies or any lack of investment in research and development. Rather, a myriad of factors inhibited new development including natural ebbs and flows in new fungicidal molecules, increased regulatory requirements and cost associated with bringing a fungicide to market, and the pressure to

make sure that a new fungicide will bring a novel addition to the fungicide industry and hence produce the hundreds of millions of dollars needed to recoup the costs of developing the fungicide.

For those left wanting for something new, something exciting, some new toys to play with... well the recent past, present, and near future will provide you with that expanded toybox. For others, however, the large influx of new products in the past couple years and the several products just hitting the market right now have led to confusion, consternation, and skepticism. For some this rather guarded view is the result of living through previous hype machines ('I just can't keep Imprelis on my shelves!' said one sales representative to me in the spring of 2011), for others it's more the belief that 'if it ain't broke, don't fix it' and the comfort in their current fun-

gicide programs. In this article I will try and satisfy both those groups, not with a hype machine or shiny pamphlets, but through research completed here at the University of Wisconsin in the past couple years. One important disclaimer: the following descriptions are NOT an endorsement of any product or company, but simply reflect our research results with mostly new active ingredients (not new pre-mixtures...a few exceptions). All the primary companies that we test with were contacted for any new fungicides they may be bringing to the market soon, and the following products are the ones those companies responded with.

The T-DMI's

Alright, so many of these products aren't terribly new, but it seems another one or two comes to the market every couple of years or so. While in the same chemical class as earlier demethylation inhibitors (DMIs) such as propiconazole and triadimefon, this new group that includes triticonazole (Trinity® or Triton FLO®), tebuconazole (Torque®), and metconazole (Tourney®) also has some distinct characteristics. First and second, they generally are quite affordable and have lower growth regulatory characteristics compared to earlier DMIs. Most importantly, they are generally more effective at managing anthracnose and snow molds than earlier DMIs (Figure 1). Unfortunately, they are also generally less effective at managing dollar spot than earlier DMIs, namely propiconazole.

Plant Defense Stimulators

While reports of natural plant defense stimulation has been around since the introduction of Chipco Signature and other related fungicides, the mechanisms behind this stimulation has been difficult to determine. However, the introduction of Daconil Action® (chlorothalonil + acibenzolar-S-methyl) and Civitas® (mineral oil) in recent years that have more well-defined plant defense stimulation mechanisms has led to increased attention to this potential disease management strategy.

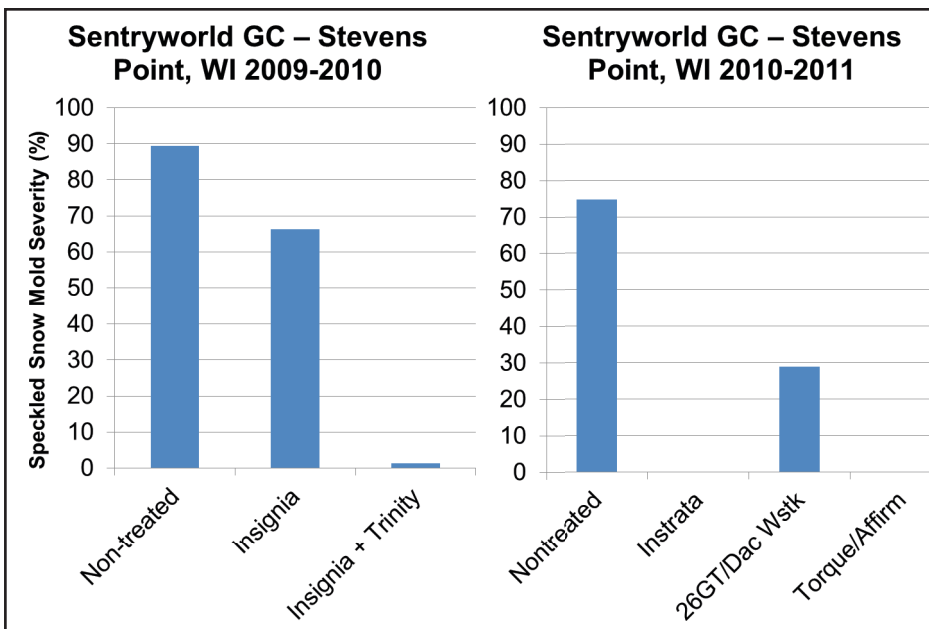


Figure 1: The graphs show speckled snow mold (*Typhula ishikariensis*) severity against a small sample of fungicide treatments from the 2009-2010 and 2010-2011 University of Wisconsin Snow Mold Fungicide Trials at Sentryworld Golf Course in Stevens Point, WI. Note the effectiveness of Trinity® and Torque® when mixed with other fungicides under this heavy disease pressure.

TURFGRASS DIAGNOSTIC LAB

The benefits are obvious, stimulating natural plant defenses can lead to reductions in the amount of fungicide introduced into the environment while maintaining acceptable levels of disease suppression. However, the reality is more complex. We have seen effective management of several diseases using Daconil Action® in our research trials with repeated Daconil Action® applications (Figure 2), but have heard some disappointing reports from the field if the product is not used repeatedly as part of a program. Civitas®, while giving excellent green color, has performed poorly as a fungicide on its own when applied to manage snow mold and should be used as part of a mixture of different active ingredients.

Syngenta has been busy

You have likely been hearing a lot from your friendly Syngenta sales representative in the past few months, and for good reason. Syngenta has brought 3 new fungicides to the golf turf market this year. Secure® (fluazinam) has been around in the agriculture world for many years, but is just now making its way into the turf market and has the potential to become a key component of many fungicide

programs for years to come. The main benefit of this product is that it's a contact, multi-site mode of action fungicide that has performed well against a broad range of pathogens (Figure 3). If this sounds similar to chlorothalonil, that's because it is, and it has the potential to replace chlorothalonil in many applications and lessen the concern about reaching the annual chlorothalonil maximums. Appear® (potassium phosphite) can basically be thought of as Syngenta's response to Chipco Signature, and is designed to be used in a similar manner. Namely, that it will provide some fungicidal activity against certain diseases (ie Pythium) but that it's primarily intended to be used repeatedly as part of a program on putting greens to reduce sum-

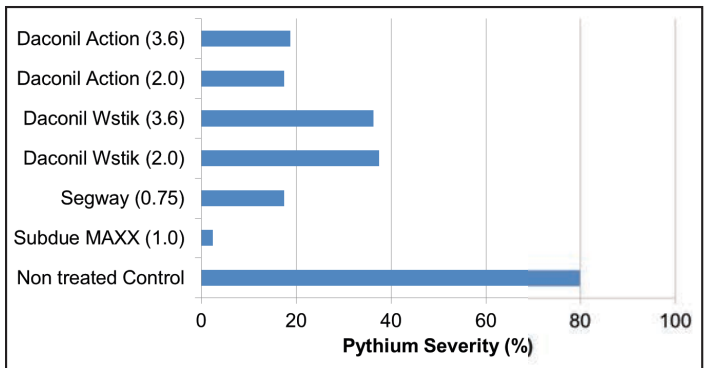


Figure 2: Pythium blight trial conducted on juvenile perennial ryegrass at the OJ Noer Turfgrass Research Facility in Madison, WI in 2011. Note the increased level of Pythium suppression with Daconil Action® versus Daconil WeatherStik®, presumably due to the effects of acibenzolar-S-methyl in Daconil Action®.

mer stresses. Briskway® (difenoconazole + azoxystrobin) contains a new DMI fungicide (along with the active ingredient in Heritage®), and can be used against a broad range of turfgrass pathogens. But the primary advancement with difenoconazole is the near absence of growth regulation, which allows its use even in stressful summer conditions.

What Makes A Good Topdressing?

CONSISTENCY - from year-to-year

COMPATIBILITY - with your rootzone

STABILITY - proper particle size

Waupaca Sand & Solutions
 715-258-8566 - www.WaupacaSand.com

TURFGRASS DIAGNOSTIC LAB

This product will likely be more popular in the transition zone, the mid-Atlantic, and the northeast, but may become popular around the Midwest if summers like 2012 become more consistent.

BASF's irons in the fire

BASF is also bringing some new fungicides to the golf turf market in the near future. Encartis® is a fungicide pre-mixture that combines boscalid (Emerald®) with chlorothalonil, expanding the spectrum of disease control beyond the dollar spot that Emerald® alone could manage (Figure 4). To my knowledge, this product has not yet been registered by the EPA for use on turfgrass, but registration is expected soon. BASF also has plans to bring a new fungicide molecule from the SDHI (succinate dehydrogenase inhibitor) class to the golf turf market. This fungicide, called

fluxapyroxad (Xzemplar®), is similar to Emerald® in some respects but will control a broader range of fungal diseases. Xzemplar is not currently registered for use on turfgrass, but registration is expected late in 2013 with a possible launch in 2014.

Bayer, Cleary, and Quali-pro aren't resting either


Though not releasing a new fungicide this year, Bayer recently started a new 'Healthy Turf, Healthy Tomorrow' initiative. This initiative will focus on plant-health related research through significant donations to the Environmental Institute for Golf. Bayer was one of the original plant defense innovators with the release of their StressGard® formulation in Chipco Signature® in the 1990's, which has since been included in many of their other recent fungicide releases including

Tartan®, Triton FLO®, and Interface®.

Cleary Chemical was recently acquired by Nufarm, which brings Cleary's broad fungicide portfolio into concert with the large herbicide and insecticide business that Nufarm already has. Cleary is working on several new fungicides that should be coming to market in the coming years that will likely expand on the successful launch of Torque® a couple years ago.

Quali-pro has also recently introduced a new fungicide, Enclave®, to the turfgrass market. While this is a pre-mixture of previous active ingredients (chlorothalonil, iprodione, tebuconazole, thiophanate-methyl), to my knowledge it is the first 4-way pre-mixture on the turfgrass market. With 4 active ingredients in one product, if you see any disease except for Pythium after applying this product you did something wrong. The race for a 5-way pre-mixture begins now.

How does all this affect me?

The effect of these new fungicides will not likely be measured immediately. I highly recommend that superintendents be skeptical at first, applying one application here and there to see how it affects the turf and suppresses disease at their course. All of the products listed here have been tested in our UW Fungicide Research Reports in the past few years (<http://www.tdl.wisc.edu/research.php>), and I urge you to peruse these reports yourself. One or two of these products may become mainstays in your fungicide program for years to come, while others may struggle to find a niche and replace older, effective products. Which ones thrive and which ones fall by the wayside will depend on a number of factors including efficacy, price, technical support, and ease of use. Please don't hesitate to contact me (plkoch@wisc.edu, 608-576-2673) if you have any questions about these or other products and how they fit into your program. 

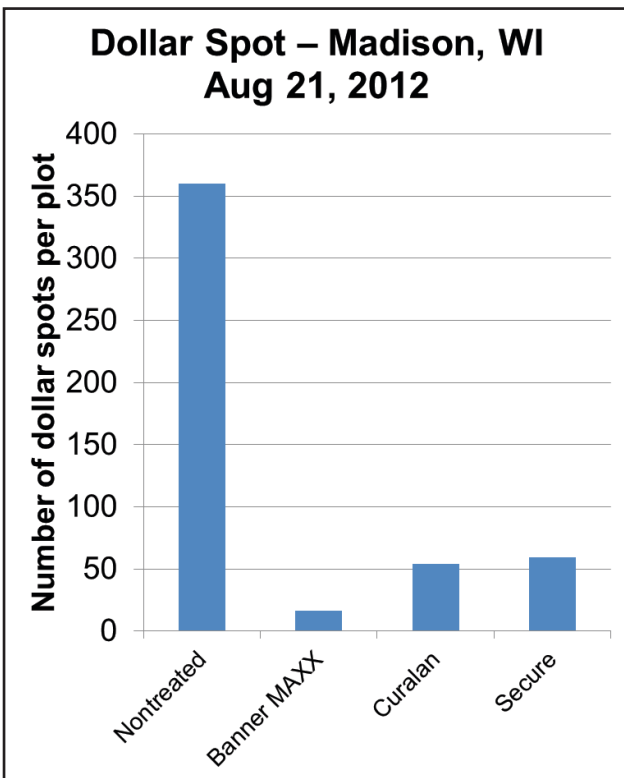


Figure 3: Small sample of treatments from a dollar spot trial conducted at the OJ Noer Turfgrass Research Facility in Madison, WI in 2012. Note the significant reductions in dollar spot seen with Secure applied on a 14 day interval despite extreme disease pressures. Because this is a contact fungicide, decreasing the reapplication interval or tank-mixing with a penetrant fungicide would likely have increased the level of suppression.

Wisconsin Turf Equipment Corp.
Established in 1956

- *Deep Tine Aeration * Core Aerification Services
- *Vibrating Tine Aeration / Seeding
- *Reel Grinding *Tune-ups * Oil Changes
- *General Maintenance * Grass Seed
- Equipment Rental * Line Marking Paints * Overseeding
- Custom made Hydraulic Hoses * Used & Demo'd Equipment



800-443-1840
sales@wisconsinturf.com
www.wisconsinturf.com



1306 West B-R Townline Rd. Beloit, WI 53511-9002

TURFGRASS DIAGNOSTIC LAB

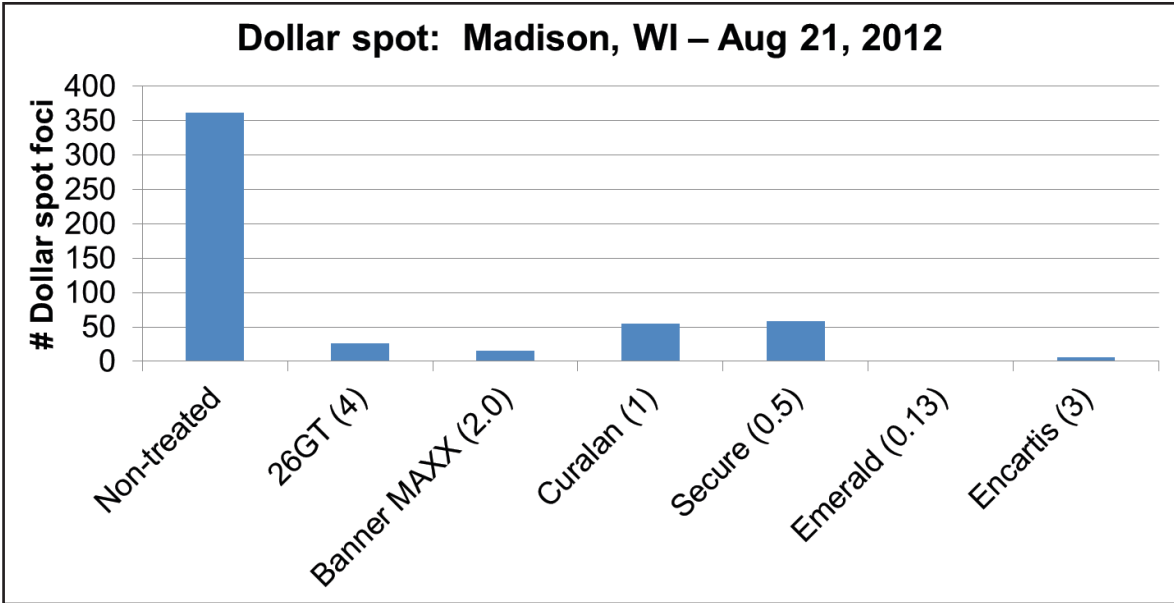


Figure 4: Small sample of treatments from a dollar spot trial conducted at the OJ Noer Turfgrass Research Facility in Madison, WI in 2012. Note the near absence of dollar spot observed in plots treated with both Encartis® and Emerald® (which both contain boscalid) despite heavy disease pressure.

Design-BUILD

- ♦ Single-point responsibility
- ♦ Full project management
- ♦ Onsite problem solving
- ♦ Continual value engineering
- ♦ No lengthy bidding process
- ♦ Efficient field modifications
- ♦ Direct client participation
- ♦ Superb results

*Chenega Country Club, #3
Hartland, Wisconsin*

www.lohmanncompanies.com

MARENGO, ILLINOIS
815.923.3400

LOHMANN COMPANIES

DESIGN, CONSTRUCTION & PROJECT MANAGEMENT

Billbugs?

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

Probably not anywhere on your radar, but billbugs very well should be an insect pest for concern. Billbugs are considered one of the most commonly misdiagnosed turf pests! Billbug damage is often mistaken for drought, disease, heat stress or damage caused by other turfgrass insect pests including white grubs, sod webworms and chinch bugs. There are several billbug species that occur in the United States, the bluegrass billbug, *Sphenophorus parvulus*, and the lesser billbug, *S. minimus*, are the two important billbugs that can be found in cool-season turfgrass. Of these, the bluegrass billbug is the more common species.

Adult billbugs are similar to most other weevils (snout beetles) in appearance, thus they have a characteristic and unique elongated snout (mouthpart) and hardened wing covers. Bluegrass billbug adults are about 5/16 inch long and the lesser billbug is slightly smaller (1/4 inch long). Unlike other white grubs such as Japanese beetle, billbug larvae (grubs) do not have legs and they are much smaller, only about 0.05 inch long while Japanese beetle larvae are about 0.4-1.3 inches long. The bluegrass and lesser billbugs prefer Kentucky bluegrass, perennial ryegrass as well as certain fescue species over most other cool season turfgrasses.

There is typically only one generation per year of billbugs, they overwinter as adults in the turf and surrounding areas. Billbug adults begin laying eggs in the leaf sheaths of turfgrass in the spring (i.e., May), the eggs hatch in 10-14 days. The larval stage is the damaging life stage, 1st instar larvae burrow up and down the leaf sheath causing plant injury/damage to the conductive plant tissues (i.e., xylem


and phloem) as well as the apical meristem (crown).

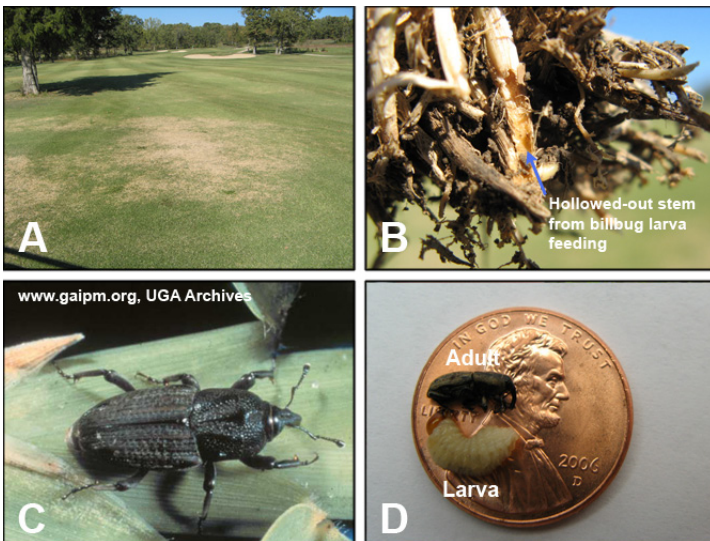
Prior to reaching physiological maturity, billbug larvae chew their way out of the turfgrass plant to feed and cause damage to roots before pupating (transforming into an adult) sometime in August. Larval feeding damage typically occurs in June and July. After pupation (i.e., August – September), adult billbugs begin to emerge to feed and prepare for overwintering, initially they are typically reddish-brown in color, but eventually turn slate. Several options for managing billbugs exist: 1) cultural control; 2) plant resistance; and chemical control (insecticides). Cultural control of billbugs consists of providing adequate fertility and irrigation to minimize or mask billbug damage.

The use of endophyte (fungi) enhanced turfgrasses including perennial ryegrass and tall fescue can provide plant resistance due to the toxic properties of the endophyte that kill billbug larvae as they feed on the endophyte enhanced turfgrass. Research has shown that stands of turfgrass that contain 40-50% endophyte infections keep damaging populations of billbugs in check. Finally, there are three chemical (insecticide) approaches to managing billbugs, they include: 1) Larval preventative, 2) Adult curative and 3) Larval curative. Of these, larval preventative and adult curative are the most effective, the larval curative management strategy does not prevent turf damage as billbug larvae have already caused turf damage.

Larval preventive insecticide treatments are most effective when applied in late April to mid-May to ensure that the insecticide can be readily absorbed and available when billbug larvae eggs hatch and larvae begin feeding within the leaf sheath in late May to early-June. To ensure maximum insecticide performance of larval preventative insecticide treatments, be sure to apply post-treatment irrigation to move the insecticide into the soil so that it can be absorbed the turfgrass roots and translocated into the leaf sheath where billbug larvae feed. It is hypothesized that this larval preventive insecticide treatment application may also kill some overwintered adults, however this has not been confirmed.

The second effective billbug management strategy is to apply an adult curative insecticide to active adults in the spring, typically in late April to early-May or at the first sign of active adult billbugs. If this billbug management strategy is used, do not apply post-treatment irrigation. To assist in the proper timing of an adult curative insecticide application, merely monitor or observe paved surfaces such as sidewalks and driveways for the presence of billbug adults.

Determining bluegrass and lesser billbug larval attack is fairly simple, use the “tug-test” to confirm the presence of billbug larvae. To carry out the tug-test, simply grab several of the affected leaf sheaths and tug upward. If the turf is or was damaged by billbug larvae, the leaf sheaths will break off easily just below the thatch level and the broken leaf sheaths will be packed with a fine sawdust-like material. This material is commonly referred to as frass or billbug fecal matter. Unfortunately, at this point, the damage is done and no insecticide treatment application will resolve the turf damage issue. Remember, when using pesticides, ALWAYS read and follow the label directions! 



A. Drought like damage from Billbug Larvae. B. The turf pulls up easily when tugged and small legless larvae are present. C. The adult Billbug does not feed on turf. D. Both adults and larvae are small and often unnoticed.
(Photo from University of Arkansas Turfgrass Science, Turfgrass Tips, Nov 1, 2007)

THERE IS NO SUBSTITUTE.

Only Jacobsen® Genuine Parts can assure you greater productivity, lower maintenance and Jacobsen's legendary quality of cut.

There's a reason Jacobsen is known for quality of cut. Our standards and expectations for the parts and accessories we use to build our machines far exceed the norm. And when it comes to replacement parts, only Jacobsen Genuine Parts provide the best performance and superior results. With a 6-month factory warranty and same-day shipping, Jacobsen Genuine Parts keep your team productive and your course in pristine condition.

More information and downloadable manuals are available 24-hours a day at www.jacobsen.com.



www.Jacobsen.com

CONTACT US AT:

**Burriss Equipment
Waukegan**
2216 N. Greenbay Rd.
Waukegan, IL 60087
(847) 336-1205 Phone
(847) 336-2697 Fax

**Burriss Equipment
Ingleside**
27939 W. Concrete Dr
Ingleside, IL 60041
(815) 363-4100
(815) 363-4109

**Burriss Equipment
Frankfort**
10351 West Laraway Rd.
Frankfort, IL 60423
(815) 464-6650
(815) 464-6951



Surviving An Icy Winter

By Brad T. DeBels, Turfgrass Diagnostic Lab Manager, O.J. Noer Turfgrass Research and Education Facility

Editors Note: Mr. Brad DeBels is a PhD student under Dr. Soldat. His research is based on water conservation and quality for turfgrass. This article is eligible for the Monroe Miller Literary Scholarship awarded to the best student written article each year.

For those of you that had the displeasure of dealing with the icy winter of 2005, you may remember the significant turf loss that ensued that spring. The discussions that arose initiated an article written by Dr. John Stier, now with the University of Tennessee, that discussed types of ice formation and damage. Since that year ice damage has been of minimal concern in the region, until this winter. As this article is being written I look out of the O.J. Noer windows and see acres of ice cover, but yet the extent of the damage will be unknown until spring. With that I think it is relevant to revisit the implications of ice cover on turf and things we may have learned.

Wisconsin Weather...Yikes!

The month of January was mildly rolling along when the Wisconsin weather pattern displayed its true colors. An arctic blast with high temperatures rarely in the double digits starting on the 20th of January, followed by a record high of 54°F with nearly 2 inches of rain on January 29th, trailed by once again freezing temperatures and more than 6 inches of snow. Even with the high temperatures, much of the soil remained frozen other than the top inch or less, leaving us with significant flooding of low lying areas and eventual ice cover and encasement of much of our landscape. So, how much should we worry about spring turf recovery and what affects the potential for regrowth?

Ice Cover

Many of our cool season grasses are relatively invulnerable to ice damage, but not all ice cover poses the same risks. Two major forms of ice damage turf; direct ice cover and ice encasement.

Direct ice cover injury results from ice acting as a barrier to gas exchange between the turf tissue and atmosphere. Turf kill will result from oxygen suffocation (anoxia) or accumulation of toxic gases such as carbon dioxide, methane and cyanide between the ice layer and turf. These gases come from oxidation of living tissue, thatch, soil organic matter and/or respiration of low temperature fungi.

Unfortunately there has not been extensive research conducted on ice cover in the last few decades, likely because ice damage is rare in the northern part of the United States, but much of the U.S. doesn't even see snowfall. Annual bluegrass has been observed to survive 60 days, Kentucky bluegrass 75 days, and creeping bentgrass more than 90 days under continual ice cover (Beard, 1964). Luckily here in Wisconsin, if we see ice cover, we rarely see more than two months of con-

sistent ice cover. Because the damage is attributed to gas exchange, it is important to consider the type of ice as well. Clear, dense ice allows for little if any gas diffusion, whereas cloudy, low density ice will allow for more gas diffusion prolonging turf survival.

Ice Encasement

The second type of ice damage is caused by ice encasement. Ice encasement is most easily defined as a situation in which the soil becomes frozen when saturated, either after a rainfall or freeze/thaw cycles, with a significant surface ice layer. This removes oxygen from the soil which is needed for plant growth, even in winter, and may also cause unneeded crown hydration. The elevated crown hydration level increases the freezing and killing temperature of the plant promoting the formation of intra- or intercellular ice crystals.



Ice damage, spring 2004. Photo courtesy of Dr. Paul Koch.



Coursewide Confidence.



For over 50 years golf course superintendents worldwide have put their trust in Aquatrols soil surfactants to optimize soil moisture, improve irrigation efficiency, and save water and energy. Our patented chemistries, Revolution and Dispatch, provide unique performance and playability advantages versus all other wetting agents.

Larry Lennert
Territory Manager
Greenfield, WI
llennert@aquatrols.com
(773) 620-2382



STUDENT ARTICLE

Intracellular ice crystal formation (ice flashing) is rare, but occurs when temperatures fall rapidly and ice crystals form in cells and destroy plant membranes causing rapid death. Intercellular ice crystal formation is when ice forms between the cells and draws water out of cell, due to the lower vapor pressure of ice, and the cell desiccates.


In a field study, Kentucky bluegrass was completely dead with no spring regrowth after 6 days of being frozen under a compacted slush layer and creeping bentgrass had 20% crown death (Beard, 1965). In a laboratory study, Tompkins et al. (2004) found living tissue to remain after 75 days of ice encasement of annual bluegrass and after 150 days for creeping bentgrass at 25 °F. The Tomkins et al. study shows a much

longer survival period of turfgrass under ice encasement conditions, but laboratory studies often have difficulty simulating the fluctuating air temperatures of winter which may reduce cold hardiness. It is also notable that the lab study occurred at 25°F, a relatively high temperature when considering cellular ice crystal formation during Wisconsin winters. Either way, this demonstrates the variability of cell death due to ice formation and cover.

Ice Prevention and Removal

While we can examine data and select more cold tolerant species, there is often little we can do to prevent ice damage aside from constructing surfaces with optimal surface drainage to allow for rapid removal of winter rainfall and snow melt. The actual removal of ice after formation is

much more problematic. I have seen sand or fertilizer being applied to speed ice melt, where the low albedo material absorbs thermal energy. Removal via aerator and shovels and the plowing of greens in late winter to expose ice to sunlight may also work. Possibly the best advancement in recent years have been related to putting green covers that are impermeable and/or have a thin insulated layer which allows for gas exchange.

With any tactic, we must consider the effects of our remedy on exceedingly early spring green up and possible damage during ice removal. Preparing our turf for winter by proper mowing, fertilization, drainage, shade management, topdressing and aeration practices can all promote cold hardiness of turf, but occasionally Mother Nature will prove that much of this management is futile. We must realize many of our turfgrass plants are extremely hardy and rarely do we see conditions that require extraordinary means to remove ice. Understanding the type of ice damage possible and resiliency of your turf is important, but a few prayers for warm weather may also go a long way. 

References

- Beard, J.B. 1964. Effects of ice, snow and water covers on Kentucky bluegrass, annual bluegrass and creeping bentgrass. *Crop Sci.* 4:638-640.
- Beard, J.B. 1965. Effects of ice covers in the field on two perennial grasses. *Crop Sci.* 5:139-140.
- Tompkins, D.K., J.B. Ross, and D.L. Moroz. 2004. Effects of ice cover on annual bluegrass and creeping bentgrass putting greens. *Crop Sci.* 44:2175-2179.



When you use the best, it shows.

With a portfolio of products unmatched in the industry, Syngenta is a necessity for every great business. From herbicides to fungicides to growth regulators, we have everything you need to maintain healthy turf.

Contact Phil Spitz to learn more about Syngenta products.
Cell: 414-429-2015 philip.spitz@syngenta.com

www.greencastonline.com



©2011 Syngenta Crop Protection, LLC, 410 Spring Road, Greensboro, NC 27409. Important: Always read and follow label instructions before buying or using Syngenta products. The label contains important conditions of sale, including limitations of remedy and warranty. Meridian®, Renown®, and Tenacity® are not currently registered for use in all states. Please check with your state or local extension service prior to buying or using these products. Scimitar® GC is a Restricted Use Pesticide. AWARD®, Banner MAXX®, Barricade®, Concert®, Deco® ULTRAD®, Deco® Weeper 80®, Deco® ZIF®, Deco® ZIF®, Fubini®, Hailway®, Heritage®, Insect®, Mosaic®, Monument®, Renown®, Renown® MACHIN®, Primo MAXX®, Princep® Liquid®, Renown®, Resistor®, Scimitar® GC, Subdue MAXX®, Tenacity®, Tonnix®, and the Syngenta logo are trademarks of a Syngenta Group Company.



Office: 847.537.2177

www.arthurclesen.com



ARTHUR
CLESEN INC

Quality Products. Quality Service. Quality People.

Fertilizers

Andersons
Grigg's
Lebanon
Redox
Shaw's
UMaxx

Chemicals

Aquatrols
Bayer
Phoenix
Syngenta
SePro
Valent

Seed

Classics
"Blue Tag"
Commercial line

Tree Care

Arborjet

Scott Bartosh, Golf Sales Representative • 262-221-5524 • s.bartosh@arthurclesen.com



John Anderson, Sales Manager • 630-669-0519 • j.anderson@arthurclesen.com

Tom Harrison Receives Distinguished Service Award

By David Brandenburg, Golf Course Manager, Rolling Meadows Golf Course

“An exceptional person who has made exceptional contributions” is how WGCSA Historian Monroe Miller chose to describe his longtime friend and colleague Tom Harrison as he listed the many contributions he has given to his community, his family and his industry. Harrison was a leader who did so many things without wanting recognition.

Tom spent a career getting things done in a professional manner as a leader for the Wisconsin Turfgrass Association, the Wisconsin Golf Course Superintendents Association and as the Golf Course Superintendent at Maple Bluff Country Club.

Tom entered the golf industry while at McFarland High School working at Nakoma Country Club. After graduation Harrison enrolled at UW-Madison as an engineering student despite enjoying his time at the golf course. As a freshman Tom was the last man cut by the basketball team and was recruited to row for the crew team before he left the Field House.

With the Vietnam war going on in the mid 1960's it was pretty much enlist or be drafted and Tom wanted to choose what he did so he enlisted in the Navy. Nearing the end of his enlistment Tom decided what he wanted was a career at the golf course and in 1968 he headed to Maple

Bluff Country Club to work as an assistant to Bill Eckert. In 1975 he took over for Bill and now after 44 years maintaining the historic golf course he has retired.

Tom served the members of the WGCSA as a board member but is better known as a founder and leader for the Wisconsin Turfgrass Association. Tom has served the WTA as a board member for over 30 years and as president from 1983-1986. Harrison was instrumental in building the O.J. Noer Turfgrass Research and Education Facility near Verona and giving it to the University of Wisconsin. Tom was there every step from buying the land, designing the layout and building the facility.



Top Left: Thomas Harrison receives the Distinguished Service Plaque from WGCSA President Chad Harrington.

Top Right: Dr. Gayle Worf, Dr. Dan Mohr and Dr. Robert Newman receive keys to a new vehicle from WTA President Tom Harrison in 1985.

1993 25-Year Members Jeff Bottensek, Wayne Otto, Larry Karel and Tom Harrison.

WGCSA

His knowledge of the slow moving university system made Tom a key negotiator when working in the best interest of the golf and turf industry.

Early on in the days of the WTA a vehicle was needed for the professors to travel and do their extension work and research but the association only had enough money for the down payment. Harrison took out a personal loan to finance the vehicle so Dr. Worf and the other university staff had it to use.

His leadership carried over to his personal life. As a member of Holy Cross Lutheran Church when a school addition was needed Harrison acted as the general contractor to provide the project on time and on budget. To allow more students to attend the school his kids attended Tom established the Lutheran Bus Company to transport them. He

bought used buses that had life left, maintained them and hired qualified drivers.

He served as a volunteer fireman in Maple Bluff for decades and as a trustee on the McFarland Village Board for three terms. Of course he chaired the Public Works Committee for the village as that was the natural place for him.

Tom married his high school sweetheart Diane in his second year of college and together they have four daughters and two adopted sons. As an example of Tom and Diane's personal contribution to the community for 20 years they were reliable foster parents to scores of children needing a home.

As Tom accepted his Distinguished Service Award he stressed that the board and members cannot let go of the ties he and Monroe built with the University Deans

and Department Heads. The school leaders need to be reminded of our presence or we will be quickly forgotten and replaced by a new cause. Every time the university has turnover we need to start the process over and remember our relationship has a lot of politics involved.

So Tom gave us a challenge for new leaders to step up to take over for the many trips he and Monroe made to the UW College of Ag and Life Science to offer a hand or bend an ear to make sure our voice was heard.

Tom Harrison was humble in his acceptance of the WGCSA's highest award just as he was his entire career. He turned a moment about him into a lesson for rest of us to improve our industry.

Congratulations Tom Harrison, Distinguished Service Award Recipient. 🌱



Tom Harrison as WTA President was busy in 1985 planning for the new O.J. Noer Turfgrass Research and Education Facility. Vendors and industry partners stepped up to donate. A few of the many donations came from (Top Left) Dave Legg, with Ransomes (Top Right) Ron Schumacher and Dennis Robinson with Horst Distributing and (Left) Monroe Miller serving as WGCSA President.

2013 Spring Business Meeting

By David Brandenburg, Golf Course Manager, Rolling Meadows Golf Course

With the Spring Business and Education Meeting a week early this year we were lucky to have good traveling weather in a late February full of snow days. Unlike 2012 the only talk of early golf course openings was there would not be an early opening.

Don Rice from John Deere Financial started us off with a talk titled "What Financing Alternative is Best To Pay For the Equipment You Need."

Early in the process purchasers need to consider both the type of equipment and the financial implications.

Equipment Considerations

- What is the useful life of the equipment? The longer the useful life the more you should look at purchasing.
- Are there rapid changes to the equipment due to technology changes? If so users should consider a lease to allow for keeping up with those changes.
- What is the maintenance required for the equipment? Don expressed we are going to pay for the maintenance of the equipment no matter what. New equipment has lease or purchase payments and older equipment has part and loss of use break down costs that could equal regular payments.

Financial Considerations

- Cash availability
- Borrowing capacity
- Tax situation

Paying cash for a piece of equipment allows the owner to reduce monthly payments and helps them survive during lean or low cash flow times because they have no debt service. The negative aspect is it can reduce liquidity because the money is tied up in the equipment.

Installment Loans and Lease Purchase Loans are similar in they reduce cash outlay and you have ownership of the equipment but they both bring an ongoing obligation. The difference is an installment loan has a down payment while the lease to purchase finances the entire amount so there is no down payment and sales tax is spread out over the entire period.

A true operating lease does not have a down payment and does affect the balance sheet as the lease is just an expense not a capital expense. The negatives are an ongoing obligation and no ownership of the equipment. True leases are not as common in Wisconsin as they are in southern states. Operators in the Midwest prefer to own things and with our off season we have the opportunity to get a longer useful life out of equipment than golf courses in the south.

Operators who believe in leasing are of the opinion owning equipment does not produce profit. Using the equipment provides a product and in turn produces a profit. Why pay for the entire "ownership" of the equipment when you only need to use it? Leasing reduces the risk of a poor resale value and provides the lowest cost of use.

Most leases have a 600 hour use per year which for a golf course in Wisconsin would be plenty and probably overkill.



Our Education Presenters
Top: Don Rice, John Deere Financial
Middle: Robert Vavrek, USGA Green Section,
with the new 2x Stimpmeter®
Bottom, John Miller, GCSAA

FINANCING COMPARISON			
For a \$100,000 equipment package and 5.5% state sales tax			
	Cash	Installment Loan/ Lease Purchase	True Operating Lease
Interest Rate	N/A	2.9%	N/A
Monthly Payment (36 Mo)	n/A	\$3,056.01	\$2,215.53
Year One Outlay	\$105,500	\$36,672.10	\$26,586.38
Year Two Outlay	N/A	\$36,672.10	\$26,586.38
Year Three Outlay	N/A	\$36,672.10	\$26,586.38
Total	\$105,500.00	\$110,016.29	\$79,759.14
Lease Savings	\$25,740.86	\$30,257.15	-----

Don Rice presented this chart showing the cash savings of the true lease. However operators need to keep in mind the value of ownership from a cash purchase, installment loan or lease purchase.

Leases are more popular for high use items and in the south where equipment is used year round but it also has it's place in the Midwest.



For All Your Yamaha Golf Car and Rain Bird Golf Irrigation Needs.



Irrigation: Tom Bjornberg
 tbjornberg@yamahagu.com
 Office: 952-890-5541
 Cell: 612-718-8491
 Toll Free: 800-352-2779



Golf Cars: Greg Stoeger
 gstoeger@yamahagu.com
 Office: 952-890-5541
 Cell: 920-629-9114
 Toll Free: 800-352-2779

At the conclusion Rice quoted from a conversation he had with President Chad Harrington regarding leasing. "We lease carts on a three year basis because our owner wants the customers to see and use new equipment but the employees do not need new equipment to mow because there is no benefit to that." Like many of us Harrington turns a greensmower into a tee mower and then into a secondary or parts machine.

Overall each superintendent has to work with the board, owner and financial managers to determine if leasing, paying cash or financing equipment works best for them.

Next up was USGA Agronomist Bob Vavrek giving the always popular "2012 Year In Review". As a group we like to see anonymous problems at other courses so we realize we are not alone with our own turf struggles.

Bob started by showing how 2012 was a "Budget Buster" as March was the warmest March on record and in fact warmer than April. The early opening was great for revenue but it also was expensive as the record temperatures had seasonal grounds staff working early and turf managers applying turf products to provide good playing conditions. March was followed by the hottest July on record causing extra plant protection applications and hours of hand watering to greens, tees and fairways.

Vavrek discussed how irrigation systems were pushed to their limits and any and all system limitations were visible to players and superintendents. Water quality became an issue for the first time as wells were taxed and no rains were available to flush salts from the root zone.

Sunlight and air movement were criti-

cal to turf survival and turf decline was the result of poor growing environments. The warm winter allowed poa annua to survive into spring and the temperature stresses had it seeding out all summer. Collars and cart traffic areas were hardest hit along with any concentrated foot traffic areas. The key turf problems were usually found in the 6' around the green and 6' on the green where traffic, roots, compaction, shade and limited air movement are found.

Many of Bob's Turf Advisory Service visits were related to heat and drought problems and involved a lot of mad golfers and board members. Bob discussed how in Europe courses are able to maintain healthy, firm, fast and brown turf that turns green with rain or irrigation while here our turf dies. The difference we have in the Midwest is cart traffic, poor soils along with the heat and humidity.

Bob showed some great slides of how tree roots expand long past the tree's drip line and how regular root pruning works wonders to improve turf quality.

As pests adapt to our climate local turf managers will have to expect new and hard to control problems with goose grass already being found in much of Illinois and as far north as Minneapolis. This aggressive weed can take over a range tee and is near impossible to control. The ash borer is already in parts of the state along with Japanese beetles.

Bob finished with the new USGA Stimp-meter® that is blue and has measurements etched in the side, the traditional notch for ball release when face up along with a 2X notch on the bottom to allow for measurements with half the ball roll on greens that do not have flat areas big enough to have 9-15' roll out. The new Stimp-meter® costs \$110 with a \$35 rebate for any old Stimp-meter® traded in through June 30th.

To finish off the mornings education John Miller, CGCS, GCSAA Great Lakes Region Representative discussed "Better Turf Through Water Management".

John graduated from Ohio State and is a third generation superintendent and has worked at private, daily fee and municipal operations and gone through two construction grow-ins and recently served as the first agronomist for the LPGA Tour covering events all over the world.

Miller started with the question "If you had to cut a million gallons a month how would you do it?" Although we have not had many water restrictions in the badger state our time is coming and we are really only one drought away from major changes in how we use water. Miller pointed out that states that go through drought restrictions rarely allow free use of water amounts after the drought ends.

Considering a brand new irrigation system is 80% efficient it is important that turf managers do an audit on their systems though a catch can system to determine how much water they are putting where. With older systems head leveling and keeping up with nozzle technology or just replacing worn nozzles will help maintain a efficiency percentage

Knowing where weaknesses are in the irrigation system allows supervisors to make maps for hand watering staff on where to apply water. These maps along with the use of soil moisture meters and soil probes will help provide healthier turf without over-watering. The audit will also point out areas where special sprinklers may be needed or a re-design of an area to reduce over-watering and under-watering.

The soil profile is also important and Miller pointed out good cultural programs makes water management easier so aerification and topdressing to reduce layers is important. Along with a good soil profile a good nutrient program allows for a healthy normal green color while using less water.

Each courses putting greens respond to dry down differently so it is important for turf managers to understand their greens and how each one is different to make an informed decision on what a good amount is for soil moisture content.

Playability is key to customer satisfaction so John suggested asking your golf professional to hit a couple of 7 irons into select greens to see how the ball reacts on impact. How does it bounce, how far does it go? Then determine what is the current soil moisture level and watering regime?



Bayer Environmental Science

John M. Turner
Sr. Sales Specialist - Golf
Bayer Environmental Science

Cell Phone: (630) 215-6110
Office: (630) 443-7807
Fax: (630) 443-7839
Email: john.turner@bayercropscience.com



Top Left: Monroe Miller spells out Tom Harrison's contributions to the WGCSA and golf industry.

Top Right: Top Right: Tom Harrison accepts the WGCSA Distinguished Service Award.

Center Left: WGCSA President Chad Harrington

Center Right: WGCSA Chapter Manger Brett Grams

Below Left: Golf and Arrangements Chair Scott Bushman

There is a business adage that says you cannot manage what you do not measure and John suggested for consistent greens conditions the same is true. "Every golf course is its own environment, you need to evaluate yours." Turf managers should track nutrient levels, soil moisture and green speed to see how the desired greens speeds are reached. Creating a consistent playing surface requires an investment in time to track information, hand watering and the use of base sprinklers.

After lunch the spring business meeting was held to a reduced but enthralled audience.

First up was Monroe Miller to present information on why Tom Harrison is deserving of the WGCSA Distinguished Service Award for his years of work on behalf of the golf industry. For more on Tom and his acceptance speech for the award please see the article, "Harrison Awarded Distinguished Service Award on page 20 of this issue.

The meeting continued with the officer and committee reports. President Harrington thanked our sponsors at the Golf Industry Show Hospitality Room and reported the board of directors was going to start a new strategic planning session to renew their future goals. He also reported a change in the Legacy Awards to allow current board members children to participate but not the committee members who select the awards.

Chapter Manager Brett Grams reported that membership renewals are coming in faster this year and he is appreciative for that. He thanked all our Industry partners who support our events and make the *The Grass Roots* possible. He also said the low interest rates on CD's are causing the board to look at other investment options.

Membership Chairman Kevin Knudtson presented 25 year membership plaques to Michael Lee, Kristopher Pinkerton, Chuck Wollner, James Ceman, Mark Hjortness and Rob Udelhofen.

Kevin presented a short bio on each 25 year member. (Please see the biographical information on page 28)

Golf and Arrangements Chairman Scott Bushman went through the events for this year and offered anyone looking to host for 2014 to contact him or Brett. He expressed appreciation for this year's hosts and how much easier it is to have a full schedule early in the year. The Event Schedule can be found on page 47 of this issue.

The final business was the Monroe Miller Literary Scholarship which went to Glen Obear for his article "What Are We Missing When We Sample Putting Green Soils?" in the July August issue of *The Grass Roots*.

The Monroe Miller Literary Scholarship is given each spring to the best graduate or undergraduate student written article in *The Grass Roots* and is named in appreciation for Millers 20 years as editor of the magazine. The articles are judged on innovativeness, creativity, impact, quantity and quality.



SEEDING THIS SPRING?

Mixing grass seed with Milorganite makes it easier to accurately spread the seed, especially those expensive small seeded species like bentgrass. The standard Milorganite to grass seed mixing ratio is 4:1 by weight.



Partnering with:

1-800-785-3301



1-800-279-2341

08-27/04PR11

www.milorganite.com 1-800-287-9645

T. J. Emmerich Associates, Inc
 Irrigation Consultants
 W28620 Beverly Lane • Harland, WI 53029
262-538-2776
 Golf Course • Commercial • Master Planning
 System Evaluations • GPS Services
 Thomas J. Emmerich
 Certified Irrigation Designer

THE TORO GREENSMASTER[®] TRIFLEX[™] HYBRID

*Setting the standard
by which all other
riding greensmowers
will be measured.*

Faster Transport Speed

10mph transport speed allows you to stay ahead of golfers and get more greens cut in a shorter time.

Lift-Gate Footrest

The footrest flips up for easy access to the center cutting unit.

Double "A"-Arm Suspension

Maintains full flotation range to prevent gouging or scalping when going over undulations.

Reel Drive Motors

Available in hydraulic or the **NEW Electric Reel** motor. Each reel motor has a nominal 1½hp that can increase up to 3hp during peak load periods.

8, 11 & 14 Blade Reels

Choose the right reel for cutting heights ranging from 1/16" to 1"

Lift-in-Turn Cutting Units

The suspension system provides a slight lift to the inside of the cutting units during turns to deliver a consistently level cut.



TORO

Count on it.

www.toro.com/triflex



Reinders

Solutions & Supplies for the Green Industry

COMMERCIAL EQUIPMENT SALES

Derek Kastenschmidt 414-313-5260

Mark Robel 414-313-5296 • Scott Neary 608-220-6593

Scott Thompson 715-573-3602 • Dale Marach 920-470-0973

www.reinders.com

25-Year Members

By Kevin Knudtson, Membership Chair

Rob Udelhofen Superintendent at Platteville Golf and Country Club – Rob served in the Navy from 1982 - 1986. After the Navy, Rob started working for Howard Metcalf at Platteville Golf and Country Club. Howard is the one who inspired Rob to get involved in the turfgrass business. In 1988, Rob became the superintendent at Platteville Golf and Country Club.

During the last 25 years Rob has used his inspiration, experience and knowledge by helping out with the university's horticulture programs, and lending a hand to other courses in his area. Rob was also greatly involved with little league while his children grew up. Rob is currently an assistant golf coach at Clarke University

During Rob's free time he loves to spend time up north. Rob also enjoys golfing, fishing, hunting and bowling.

Rob was born and raised in Platteville. He is married to Ann and they have three children Jesse, Joshua, and Jamie and one granddaughter Sophia.

Mark Hjortness Certified Golf Course Superintendent at Ives Grove Golf Club-Mark attended University of Madison. Mark became the superintendent at Ives Grove golf club in 1988, before that he worked at Johnson Park, and North Shore. Being a member the last 25 years, Mark has met so many great people along with creating many friendships.

Mark was born and raised in Racine, WI and his biggest hobbies are playing golf and anything that deals with sports. Mark has been around golf most of his life. He started golfing when he was five and one of the biggest memories he has had is when his handicap was down to a two.

Chuck Wollner – Golf Course Superintendent at Christmas Mountain Club

The last 25 years Chuck has been a superintendent at Christmas Mountain Golf Club before that he was working at courses in Iowa such as Indian Hills Golf Club and Clarmond Country Club. Chuck's family has many years of golf experience. His brothers Joe and Dan are both superintendents. His parents were also managers of a golf shop.

Chuck was born and raised in Bancroft, Iowa. He resides in Wisconsin Dells with his wife Kimberly. They have two children Zeb and Sarah.

Chucks favorite hobby is taking camping trips to Northern WI. While Chuck is up there, he loves to hike and look at waterfalls

James Ceman – Golf Course Superintendent at Ironwood Golf Course

In 1988 Jim was promoted to an assistant at Silver Spring Country Club under Tom Cramer. After a few years there,

Jim decided to get into the construction business for Western Contractors. Some of the highlights were being involved with renovation projects at Brown Deer and County Stadium. Jim then became the superintendent at Ironwood and took on the responsibility to design and construct the 1st nine holes which open in 1994. He later designed and constructed the other two nines and they opened in 1998 and 2002. Jim's favorite part of his job is the construction side of it.

Jim was born and raised in Milwaukee. He resides in Richfield with his wife Jayne. They have three children Zoe, Calee, and James.

Jim's favorite hobby is he likes to design

Kris Pinkerton – Certified Golf Course Superintendent at Oshkosh Country Club


Kris attended the University of Massachusetts, Amherst, Short Course for Turfgrass Management. In 1987 - 1990 Kris was hired into his first head superintendent job at Rock River Country Club in Waupun. In 1990, he was hired as superintendent at Waupaca Country Club and worked for three years there. The last 20 years he has been the Certified Superintendent at Oshkosh Country Club. Kris wanted to thank and recognize two key individuals, Scott Schaller and David Brandenburg, who early on in his career had a significant impact and positive influence with which they so generously shared.

Kris was born and raised in Ladoga (near Waupun) on a dairy farm and resides in Oshkosh with his wife Michelle. They have two children Natasha and Hunter.

During Kris's free time he enjoys fishing and hunting.

Michael Lee – Certified Golf Course Superintendent/Manager of Golf Course Maintenance at Blackwolf Run and Whistling Straits

Manager - Golf Course Maintenance: Michael joined Kohler Co. as Blackwolf Run Golf Course Superintendent in 1993. In 1999, he was promoted to oversee golf course maintenance at both Blackwolf Run and Whistling Straits. He supervised the golf course preparations for Destination Kohler Championships beginning with the Andersen Consulting World Championship of Golf, 1995. He is a graduate of the University of Wisconsin-Madison with a degree in plant sciences, specializing in turf and grounds management. His golf course experience includes five years as assistant superintendent for Blue Mound Golf and Country Club in Wauwatosa, Wisconsin, He also worked for the UW Madison plant pathology department. Michael served on the Board of Visitors – College of Agriculture and Life sciences at UW-Madison and the Wisconsin Turfgrass Association Board.

Michael is a native of Madison, Wisconsin and currently resides in Kohler with his wife Nancy and four daughters Abigail, Annika, Laura and Catherine. 



Kristopher Pinkerton CGCS, Oshkosh CC receives his 25 Year Member plaque from Membership Chair Kevin Knudtson.



Chuck Wollner GCS, Christmas Mountain GC receives his 25 Year Member plaque from Membership Chair Kevin Knudtson.



James Ceman, GCS Iron Ridge GC receives his 25 Year Member plaque from Membership Chair Kevin Knudtson.



Michael Lee, CGCS Blackwolf Run / Whistling Straits receives his 25 Year Member plaque from Membership Chair Kevin Knudtson.

Growing The Game

By Jake Schneider, Assistant Golf Course Superintendent, Blackhawk Country Club

Golfers: can't get work accomplished when they're around and can't pay the bills when they aren't.

For an industry that clearly relies on attracting new participants to this great game, I am not so sure that we do enough to promote it. Sure, we provide ever-improving conditions on tracts of land that have more scenic beauty than your average piece of property, and aside from green speeds that are out of the comfort zone of most, the magic that we work on a daily basis makes golf a fair game for first timers and seasoned pros, alike. Many courses have junior golf programs, and for the most part, the success of these programs naturally relies upon golf pros' talents and enthusiasm. Just as golf pros don't develop fungicide programs, superintendents don't give lessons, and based on the games that most of us exhibit (present company included), this is most definitely a good thing. But, we can use our talents to help these programs thrive and that is exactly what we are aiming to do in 2013.

I am fortunate enough to chair the WGCSA's assistant superintendent committee, and during the 2012 spring meet-

ing that was held with the other four ambitious committee members (Joe Sell, Tim Schmidt, Brian Bonlender, and Jon Dippel), we tossed around the idea of doing a service project. Well, as you know, the rest of 2012 didn't exactly lend itself to accomplishing anything other than watching water fly from the end of a hose and nothing came of our ideas. This spring, we revisited the idea, and as I write this article, we have an exciting opportunity to help grow the game through The First Tee of South Central Wisconsin.

As the Wisconsin Golfer reported in their January/February 2013 issue, Nakoma Golf Club hosted a wildly successful fundraiser for The First Tee through the Champions 4 Kids organization. Sherri Steinhauer, Andy North, Steve Stricker, and Jerry Kelly were all in attendance, and the event raised nearly \$200,000. Obviously, this is an impressive amount of money that should go a long way toward growing golf in this area of the state, and with the momentum that this The First Tee chapter has going for it, they seemed to be a good fit for the type of project that we were looking for.

Now, we need your help. We have approval to develop a proposal for the construction of a chipping green at Monona Golf Course, where 150 kids are enrolled in the program. It is our goal to have this project entirely funded and performed by WGCSA members and affiliates. Constructing a green isn't cheap, but with our collective efforts, we can make this happen. While the exact scope and costs of the project have yet to be defined (approval came down the pipeline three days ago), Joni Dye, executive director of our local First Tee, is extremely enthusiastic about the prospects of this effort, and I hope that this grows into a yearly project.

If you or your employers are interested in being involved in this venture, please contact me at jake@blackhawkcc.com. Aside from monetary donations, we're going to need seed, sod, irrigation parts, greens mix, shapers, and everything else that goes into greens construction. Harassing phone calls will ensue if I don't hear from enough interested parties. Let's do our part to grow the game; our jobs might just depend on it.





Eliminate hydraulic leaks, Murphy's Law,
and "feedback" from members.

E-Cut™ Hybrid fairway and greens mowers.

With wires instead of hydraulic lines, these mowers virtually eliminate the possibility of a damaging hydraulic leak right before, say, the member-guest tournament. Plus they deliver a precise cut that'll leave even the pickiest players speechless. Contact your John Deere Golf rep for a demo—and discover all the other ways you can **Consider us part of your crew.**



JOHN DEERE
GOLF

J. W. TURF, INC.
14 N 937 US HWY 20
HAMPSHIRE, IL 60140
(847) 683-4653
www.jwturfinc.com

J. W. TURF, INC.
717 MAIN STREET
ALLENTON, WI 53002
(888) 959-8873
www.jwturfinc.com

What Is Happening Inside The PGA? Golf 2.0 Continues

By Jeremiah Hoffmann, PGA Golf Professional, Rolling Meadows Golf Course

The PGA's Golf 2.0 is a comprehensive plan to grow the game. The ultimate goal is to drive the number of golfers to 40 million by 2020. Golf 2.0 has many different avenues to try and drive the different segments of the population into the game. The focus right now is "Connecting with Her." Is your facility women friendly? Do you have many women golfers? Can you do anything to help get more women to play your course?

These are all questions that PGA professionals are asking themselves and in many ways so are Superintendents. By in large, women are a huge market

GET
GOLF
READY

that golf, in general, has done a poor job marketing to. Spend a few minutes talking with your golf pro about course set up for women, signage at your facility (Pretend you know nothing about the game when evaluating) and even on course restrooms (location, cleanliness and numbers). Your PGA Professional

can access the "Connecting with Her" playbook on his PGA Links account for more information.

Here are a few other programs under the Golf 2.0 Umbrella:


Get Golf Ready (www.getgolfready.com): 5 lessons that will take you from no golf experience to ready to play. The series of lessons are in a group

format and include on course instruction. Suggested price \$99.

Tee it Forward (www.playgolfforamerica.com): Playing golf from a tee box suitable to the distance a player can drive the golf ball. In most cases it means moving up a set or two of tee blocks. A shorter golf course means more fun! Some stats from 2012 on the campaign:

- 56% played faster
- 56% are likely to play golf more often
- 83% hit more lofted clubs into greens
- 85% had more fun
- 93% will TEE IT FORWARD again

PGA Junior Golf League (www.pgajrgolfleague.com): This is a chance for your course to put together a team of 8-13 year olds and play matches against other courses in your area. Matches are only 9 holes and juniors play a two person scramble. The teams will get jerseys with a number on them. The idea is to create the Little League Effect in golf.

Some of these programs may or may not work at your facility, but hopefully they will get the ball rolling to create a opportunity for new and different customers at your course. Hopefully by the time you read this we are finally into Spring! Have a great golf season! 



HARTMAN
Golf & Sports Turf
Renovation & Restoration

8099 Bavaria Rd.
Victoria, MN 55386
P - 952.443.2990
www.hartmancompanies.com

2013 Golf Industry Show

By David Brandenburg, Golf Course Manager, Rolling Meadows Golf Course



Mark Kienert, CGCS at Bulls Eye CC is recognized for 25 years of certification with outgoing GCSAA President Sandy Queen and Stephanie Schwenke, Golf Market Manager, Syngenta Turf & Landscape



Colin Seaburg, CGCS at Ozaukee CC and Garret Luck CGCS at North Shore Country Club at the Certification Luncheon. Both were recognized for achieving certification in 2012.

This was my first show in San Diego and the city did not disappoint. There was plenty to see and do within walking distance of the conference center and the weather was much better than back home although cold by San Diego standards.

San Diego is the second largest city in California and borders the Pacific Ocean and Mexico. The city encompasses hundreds of canyons and hills giving it a large number of natural areas throughout the metroplex and plenty of hills to challenge bikers and walkers.

I took the time to visit the San Diego Zoo as I have long heard it is one of the best in the world. It was worth the trip despite a few key areas being under construction. Unlike your typical zoo it is more of a parkland with a number of terrain changes and healthy walks.

The conference center was at the edge of the Gaslamp District with plenty of dining and nightlife options available. The Padres Petco Field was two blocks away. During the day the field has a park behind it so fans can hang out and watch practice from the open outfield. John Deere had a well attended nighttime hospitality event on the field.

The Navy and Marines have a huge presence in San Diego and with the many shipyards and bases the Naval presence cannot be missed. The Aircraft Carrier USS Carl Vinson came into the harbor on Tuesday and the USS Midway is permanently based as a museum on Harbor Drive just down from the conference center.

The GIS has shrunk from the boom years when attendance reached 25,000 but was still large with 13,192 attendees and 517 vendors occupying 172,900 sq.ft. of trade show space. I enjoy the trade show but for me the real benefit of the show is the education and this year they offered 89 free seminars (in English) taught by educators and researchers and 105 seminars for an extra fee. Attendance from Wisconsin Superintendents was noticeably down from a combination of the distance and San Diego being an expensive destination.

Regardless if my employer pays or I pay I am a show junkie and I take every opportunity to expand my knowledge and horizons all I can. I like to have a good time in the host city like everyone else but the show and education come first. Every year I am a little surprised and a little embarrassed at the small turnout at some of the general session events. The association and our sponsors pay a lot of money to provide great programs and speakers for us. But more importantly the events are plain outstanding.

The opening session on Tuesday night featured a brief recognition of outgoing president Sandy Queen and an inspirational talk by Major Dan Rooney, founder of the Folds of Honor Foundation and Patriot Golf Day.

It is interesting to find out more about our outgoing Presidents and their careers. Queen has been the manager of golf operations for the city of Overland Park Kansas since 1984.

Major Dan Rooney gave an entertaining and inspiring talk about his 3 tours in Iraq as a F-16 Fighter Pilot for the Oklahoma Air National Guard. He started the Patriot Golf Day 6 years ago as a way to raise funds for the Fold of Honor Foundation. To date the foundation has raised 16 million



Top Left: The USS Midway Museum is docked on Harbor Drive near the conference center. The Midway was commissioned from 1943 to 1992 and was a key component in the 1991 Operation Desert Storm

Top Right: The USS Carl Vinson came into the harbor on Tuesday. Commissioned in 1982 the Nimitz-class aircraft carrier is 1,092 feet long and 252' wide.

Bottom: The harbor was full of activity the entire week.



Prevail[®]

better. smarter. responsible.

you will love it...

...and so will your bottom line.

saves money

eco-friendly



When you choose Prevail[®], you'll achieve superior results *and* capitalize on cost advantage savings by using 20-30% less fertilizer than conventional products. Prevail appeals to a vast new audience that cares about the environment and the footprint they leave behind for future generations. With Prevail[®] you're using high quality products that will provide dependable results, and your customers will love knowing they're utilizing better products to manage their greenspace areas.

But we've just scratched the surface here, to get the full story on why your turf and your bottom line will love Prevail[®], contact Spring Valley[®]. We'll show you how these revolutionary new products work.

Available from **Reinders** 800-782-3300



Moving beyond conventional...
...for a better planet



and given away 4000 scholarships to the children of fallen or injured soldiers.

Rooney is the only fighter pilot / golf professional and has added course owner to that list as he and his dad have opened The Patriot to continue honoring our soldiers. Each day at 13:00 Taps is played throughout the course and all play stops followed by 13 rings of the bell to symbolize the 13 folds in a properly folded US Flag.

The spark for Patriot Golf Day and the Folds Foundation came when Dan was on a commercial flight on the way home from his second tour in Iraq. The pilot came on board and said “Ladies and gentlemen, we have an American hero on board, Corporal Brock Bucklin; and his twin brother, Corporal Brad Bucklin, is accompanying him home from Iraq”. Bucklin was killed in Iraq and the pilot requested “Please remain seated while Corporal Bucklin’s family receives him in his final homecoming.” Major Rooney watched through the window as the flag-draped casket was greeted by family members, including Brock’s then 4-year-old son, Jacob.

When Dan stopped watching he realized more than half of the passengers on the flight had disregarded the pilot’s request and had deboarded. Torn by this irreverent display in the light of the agony he saw in the eyes of loved ones left behind, Major Rooney decided to do something...first, to pay tribute to American soldiers and to their families; and secondly, to live as a reminder among civilians that it is our duty to appreciate and honor the ultimate sacrifices of our heroic service members who preserve the freedoms each of us so easily take for granted.

It was an incredible opening session and I urge all of you and your clubs to participate in the 2013 Golf Patriot Day Aug. 30-Sept 2 and to read Major Rooney’s book *A Patriot Calling*.

The evening finished with great food, music and fun on the balcony overlooking the harbor.



In San Diego even the monkeys at the zoo are smiling at the year round nice weather.

Top: Major Dan Rooney inspired and entertained us.
 Middle: Outgoing GCSAA President Sandy Queen receives thanks and appreciation for a well done job.
 Bottom: GCSAA CEO Rhett Evans. He would be climbing Mt. Kilimanjaro shortly after the GIS.

Col. John Morley Distinguished Service Awards

(Top) Ken Mangum, Director of Golf Courses and Grounds at Atlanta Athletic Club since 1988, has overseen two PGA Championships, including the 2011 event. Mangum, who earned an associate's degree in golf course operations from Lake City Community College, was the 2002 Georgia Superintendent of the Year. Ken has been a member of the USGA Green Section Committee for more than two decades.

(Middle) Dr. Roch Gaussoin, Department Head for Agronomy and Horticulture at the University of Nebraska, earned his bachelor's degree in agronomy and master's in crop science at New Mexico State University. Dr. Gaussoin has published more than 80 scientific research articles and at least 250 pieces for trade journals, newsletters and Extension programs. "I just did what I thought I perceived superintendents needed in terms of research and education," says Gaussoin.

(Bottom) Dennis Lyon, GCSAA President in 1989, managed the golf program for the city of Aurora, Colo., for nearly four decades. He was president of the Colorado Golf Association and was elected to that state's golf hall of fame in 2005. A 2011 USGA Green Section Award recipient, Lyon became golf course superintendent at Aurora Hills Golf Course in 1973. He helped initiate a program in Aurora called "Keep Pace" in which golfers who did not complete nine holes in 2 hours, 15 minutes, were subject to removal with a 9-hole rain check.

(Not Pictured) Frank Lamphier, 78, is a retired 51 year member of the GCSAA. He graduated from the University of Massachusetts Stockbridge School of Agriculture and was selected as the Superintendent of The Year in 1987 by the Connecticut Association of Golf Course Superintendents.

Frank is best known for reviving the GCSAA National Championship & Golf Classic in 1968 after three years of not having an event.



Old Tom Morris Award

Dr. Michael Hurdzan, received GCSAA's highest honor, the 2013 Old Tom Morris Award. Hurdzan is respected worldwide for his course design talents and has more than 400 projects to his credit.

Hurdzan was named among the five most powerful architects by Golf Digest and Architect of the Year by Golfworld; he has received the Donald Ross Award (AS-GCA), the Donald Rossi Award (GCBAA), and the Distinguished Alumni Award (Ohio State University); and is a member of the Ohio Golf Association Hall of Fame.





Dr. Frank Rossi, Cornell University presenting “PGR’s and Green Speed: What’s The Deal?” at the Answers on The Hour Session Wednesday on the show floor.



Dr. Chris Williamson, University of Wisconsin Madison was part of a panel at Monday’s Agronomic Solutions I: Successfully Managing Insect Pests.

Daconil Action™ Fungicide, A New Era in Turfgrass Management

The power of the active ingredient contained in Daconil® fungicide combined with a revolutionary Turf Protein Booster results in longer, more efficient, and broader spectrum turfgrass disease control.

- Boosts turfgrass natural defense proteins (PR proteins)
- Enhances overall plant health
- Increases tolerance to environmental stresses, like drought
- Suppresses activity of fungi, bacteria, viruses, and abiotic diseases

To learn more about Daconil Action, visit DaconilAction.com or contact:

Phil Spitz
Cell: 414-429-2015
phillip.spitz@syngenta.com



Daconil Action™
Fungicide

syngenta.

©2011 Syngenta. **Important: Always read and follow label instructions before buying or using these products. The instructions contain important conditions of sale, including limitations of warranty and remedy. Daconil Action is not currently registered for sale or use in all states. Please check with your state or local extension service before buying or using this product.** Daconil®, Daconil Action™, the Purpose icon and the Syngenta logo are trademarks of a Syngenta Group Company. Syngenta Customer Center: 1-800-SYNGENT(A) (796-4368).

TM



The GCSAA Conference and GIS is not inexpensive but is a great value for the investment of time and money when you consider the educational benefit alone. Some of the hot topics were plant health through product applications or regular rolling along with water quality and regulations. After last years drought the common theme was “it is not if your course will see water use restrictions but when.”

I could fill a entire issue with the different talks I attended but a recap of my “take home” points are:

Technology Solutions For Your Turf – Regular soil moisture measuring will reduce overall water use and provide consistent playing conditions. Supplemental water can be applied only where needed rather than a broad area. The session covered different moisture probes and proper calibrating of each. A hand held weather station can be implemented during weather extremes to measure wind, temperature and relative humidity close to the turf canopy. This along with infrared thermometers to measure the surface temperature can alert staff when to cool the turf with a light syringing of water.

Tree Care Best Management Practices – Provided training on pruning both mature and young trees with concentration on the importance of young trees and properly eliminating competing leader branches early for long term tree health.

Successfully Managing Insect Pests – 5 Professors including our very own Dr. Williamson discussed different pests, the best time to control with insecticides based on growing degree days, cultural practices to reduce pests and identification tips for proper control.

Agronomic Solutions: To Roll or Not To Roll – 5 researchers led by Dr. Tom Nikoli, Michigan State University, the king of rolling research presented their research showing the increasing benefits of regularly rolling sand based putting greens besides smoother putting surfaces. What was the key point? Roll!

Some of the many benefits included dollar spot reduction as it promotes soil bacteria counts and increased soil moisture holding capacity. Rolling every day and mowing every other day promotes plant health by providing more leaf surface and increased photosynthesis without reducing putting green speed. Research has also shown rolling putting greens reduces moss and increases wear tolerance of turf while reducing the diseases anthracnose and brown patch.

Making Your Course Accessible to Individuals With Disabilities – Although we have not had a call for catering to disabled golfers at Rolling Meadows other states have started successful programs for quality of life promotion more than income generation. The session was taught by a John Klein, PGA Golf Professional from San Diego who has started youth and adult programs and Anthony Netto a Para-Golfer who has a specialized wheel chair to allow him to stand semi-upright. A few years ago there was a promotion for courses to offer specialized golf carts but that has shifted to allowing individually owned wheel chairs designed for upright outdoor activities.

Managing Your Online Brand – With Facebook, Twitter, websites and other social media the session covered ways to organize personal and business messages easily and quickly. It also covered ways to track what others say or post that could effect your online brand or reputation. It closed with methods of website optimization to increase your odds of being found in internet searches.



Top: David Smith, Abbey Springs Golf Course finds a friend on the show floor!

Bottom: Dustin Riley, Oconomowoc CC and Chad Harrington discuss business on the show floor.

Attracting Women to The Golf Course – Put on by the Pam Swenson CEO of the Executive Women's Golf Association this session focused on keeping women in the game. Golf has done a good job attracting them but has struggled to compete with other life and recreational activities. The speakers expressed while men want to know how a product works, women want to know what a product does for them. It is not so much about golf but the setting and how they are treated. As a general rule women are concerned with touch points and are they made to feel welcome with signage, friendliness, pictures of women playing, and clean welcoming facilities.

Many of the powerpoints from different presentations are on the GCSAA website as a refresher for attendees or to teach those who were not able to make it to the show.

The trade show floor was busy both days and the focus was on GPS guided sprayers with individual nozzle control, electric walking greensmowers and rollers for greens and fairways.


Thanks to BASF I was able to get a signed copy of Dr. Pat Vittum's book *Turfgrass Insects of the U.S. and Canada*. I had Dr. Vittum while I attended the short course at U-Mass back in 1989.

Elections we held on Friday and as expected Patrick R. Finlen, CGCS, Director of Golf Maintenance Operations at the Olympic Club in San Francisco since 2002, was chosen president. Keith A. Ihms, CGCS at Country Club of Little Rock (Ark.) was elected vice president, and John J. O'Keefe, CGCS, director of golf course management at Preakness Hills Country Club in Wayne, N.J., was elected secretary/treasurer.

Peter J. Grass, CGCS at Hilands Golf Club in Billings, Mont., and Darren J. Davis, GCSAA Class A member at Olde Florida Golf Club in Naples, Fla., were elected to two-year terms. Newly elected to the board was John R. Fulling Jr., CGCS at Kalamazoo (Mich.) Country Club.

Bill H. Maynard, CGCS, Country Club of St. Albans in St. Louis, Mo., and Rafael Barajas, CGCS, Hacienda Golf Club in La Habra Heights, Calif., remain on the board with one year remaining in their two-year director terms. Sandy G. Queen, CGCS, manager of golf operations for the city of Overland Park, Kan., will serve on the board for one year as immediate past president.

A dues increase of \$25 for Class A and Superintendent (SM) members, and \$15 for Class C members was approved.

Next year the show moves back to the well attended Orlando venue and once again the golf tournament will be held in the same location as the GIS to reduce travel costs for members. See you there! 



Fertilizers • Plant Protection Products • Seed



**Agrium
Advanced
Technologies®**

DIRECT SOLUTIONS

Shawn Hilliard
Cell: 608-516-4006
email: shilliard@agriumat.com

N125 Co. Hwy. C, DeForest, WI 53532
Toll Free: 800-362-8049 • Fax: 608-846-1115

© Agrium Inc. 2013. All Rights Reserved.

Top: Chad Grimm, Blackhawk Country Club has his book signed by Major Dan Rooney.

Bottom: Anthony Netto was injured in the first Gulf War and then again when hit by a drunk driver. He is a spokesperson for paraplegic golf and activities and has shot a 68 from his chair.



The UW Madison Turf Team placed 22nd out of 68 teams competing. In the photo is (from left to right): Ryan Berezowitz, Ryan Czaplewski, Patrick Reuteman, Jens Arneson, and Adam Wepfer.

The Team from the University of Massachusetts won the 19th annual event with a score of 431 beating the University of Arkansas and The University of Maryland who had teams in third and fourth place while perennial favorite Iowa State took 5th. (photo courtesy of Jens Arneson)



The Turfgrass Talk Show was hosted by Dr. Tom Nikolai and featured Tim Hiers, (Old Collier Golf Club, FL) David Davies, (TPC Stonbrae, CA), Nick Bright, (Daufuskie Island Club, SC), Greg Lyman, (GCSAA Director of Environmental Programs) and Michael Morris, (Crystal Downs Country Club).

This fun fast moving event featured discussions on sustainability and affordable environmentally friendly maintenance practices.



Thursday's Golf Industry Show General Session featured the Golf Channels Brandel Chamblee and Tim Rosaforte.

These two experts in the game discussed the tour, rules, performance enhancement drugs and equipment. They received applause when they said we should gather up all the stimpeters and blow them all up.

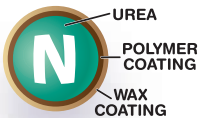


Left: Club Cars New 4 passenger golf carts are being promoted to help make golf fun!

Right: New easy to use big cups and cutters allow courses to host big cup events for regular and beginning players. These shown are from Par Aid but other vendors have them as well.



The patented microthin polymer coating consistently releases nitrogen, according to temperature.



You work hard to maintain the quality and color of your turf. But now it's become just a little bit easier, with SURFCOTE®-4 extended-release fertilizer.

SURFCOTE-4 uses innovative polymer resin to provide a temperature-dependent nutrient release. As temperatures warm, urea nitrogen is released at a consistent rate, to match the nutrient demand of the turf.

By extending nutrient release by up to 120 days, SURFCOTE-4 helps turf achieve its full potential for growth and vigor.

Brett Ziegler - 847.302.9673
brett@progro-solutions.com

Mike Werth - 608.214.7011
mike@progro-solutions.com

www.progro-solutions.com

www.shawsknoxfert.com

GET THE ADVANTAGE WITH SURFCOTE®-4.

GCSAA CONFERENCE AND SHOW SITES

1927 - Chicago IL, Hotel Sherman	1977 - Portland, OR, Memorial Coliseum Complex
1928 - Detroit, MI, Fort Shelby Hotel	1978 - San Antonio, TX, San Antonio Convention Center
1929 - Buffalo, NY, Hotel Statler	1979 - Atlanta, GA, Georgia World Congress Center
1930 - Louisville, KY, Kentucky Hotel and Armory	1980 - St Louis, MO, Gateway Convention & Expo Center
1931 - Columbus, OH, Deshler Watlick Hotel and Amory	1981 - Anaheim, CA, Anaheim Convention Center
1932 - New York, NY, Pennsylvania Hotel	1982 - New Orleans, LA, The Rivergate
1934 - Pittsburg, PA, Hotel William Penn	1983 - Atlanta, GA, Georgia World Congress Center
1935 - Toronto, Ontario, Royal York Hotel	1984 - Las Vegas, NV, Las Vegas Convention Center
1936 - Cleveland, OH, Carter Hotel	1985 - Washington, DC, Washington Convention Center
1937 - Washington, D.C., Wardman Park Hotel	1986 - San Francisco, CA, Moscone Convention Center
1938 - Cincinnati, Ohio, Netherland Plaza Hotel	1987 - Phoenix, AZ, Phoenix Civic Plaza
1939 - Kansas City, MO, Hotel President & Municipal Aud.	1988 - Houston, TX, George R Brown Convention Center
1940 - New York, NY, Hotel New Yorker	1989 - Anaheim, CA, Anaheim Convention Center
1941 - Detroit, MI, Book Cadillac Hotel	1990 - Orlando, FL, Orange County Convention Center
1942 - Chicago, IL, Hotel Sherman	1991 - Las Vegas, NV, Las Vegas Convention Center
1943, 1944, 1945 - No show due to WWII	1992 - New Orleans, LA, New Orleans, LA
1946 - Cleveland OH, Carter Hotel	1993 - Anaheim, CA, Anaheim Convention Center
1947 - New York, NY, Hotel New Yorker	1994 - Dallas, TX, Dallas Convention Center
1948 - Detroit, MI, Book Cadillac Hotel	1995 - San Francisco, CA, Moscone Convention Center
1949 - Los Angeles, CA, Alexandria Hotel & Coliseum	1996 - Orlando, FL, Orange County Convention Center
1950 - Boston, MA, Hotel Statler	1997 - Las Vegas, NV, Las Vegas Convention Center
1951 - Chicago IL, Hotel Sherman	1998 - Anaheim, CA, Anaheim Convention Center
1952 - Columbus, OH, The Neil House	1999 - Orlando, FL, Orange County Convention Center
1953 - Atlantic City, NJ, The Ambassador	2000 - New Orleans, LA, Morial Convention Center
1954 - Miami, FL, McAllister Hotel and Municipal	2001 - Dallas TX, Dallas Convention Center
1955 - St Louis, MO, Jefferson Hotel	2002 - Orlando, FL, Orange County Convention Center
1956 - Long Beach, CA, Wilton Hotel & Municipal Aud.	2003 - Atlanta, GA, Georgia World Congress Center
1957 - Louisville, KY, Kentucky Hotel	2004 - San Diego, CA, San Diego Convention Center
1958 - Washington D.C., Shoreham Hotel	2005 - Orlando, FL, Orange County Convention Center
1959 - Chicago, IL, Sherman Hotel	*First GIS format with GCSAA/NGCOA.
1960 - Houston TX, Shamrock-Hilton Hotel	2006 - Atlanta GA, Georgia World Congress Center
1961 - Toronto, Ontario, Royal York Hotel	(moved from New Orleans due to Hurricane Katrina)
1962 - Miami Beach, FL, Deauville Hotel	2007 - Anaheim, CA, Anaheim Convention Center
1963 - San Diego, CA, El Cortez Hotel	*CMAA joins the GIS format.
1964 - Philadelphia, PA, Deauville Hotel	2008 - Orlando, FL, Orange County Convention Center
1965 - Cleveland, OH, Shereaton-Cleveland Hotel	2009 - New Orleans, LA, New Orleans Morial Convention Ctr
1966 - Kansas City, MO, Muehlebach Hotel and Aud.	2010 - San Diego, CA, San Diego Convention Center
1967 - Washington D.C., Washington Hilton Hotel	*CMAA left the GIS after this show.
1968 - San Francisco CA, San Francisco Hilton Hotel	2011 - Orlando, FL, Orange County Convention Center
1969 - Miami Beach, FL, Fontainebleu Hotel	2012 - Las Vegas, NV, Las Vegas Convention Center
1970 - Houston, TX, Rice Hotel & Convention Center	2013 - San Diego, CA, San Diego Convention Center
1971 - Denver, CO, Denver Hilton, Hotel & Convention Ctr.	Future sites
1972 - Cincinnati, OH, Cincinnati Convention-Expo Center	2014 - Orlando, FL, Orange County Convention Center
1973 - Boston, MA, John B Hynes Civic Auditorium	2015 - San Antonio, TX, Henry B Ganzales Convention Ctr
1974 - Anaheim, CA, Anaheim Convention Center	2016 - San Diego, CA, San Diego Convention Center
1975 - New Orleans, LA, The Rivergate	2017 - Orlando, FL, Orange County Convention Center
1976 - Minneapolis MN, Minneapolis Auditorium and Convention Hall	2018 - San Antonio, TX, Henry B Ganzales Convention Ctr



Top Left: Toro and Jacobsen featured electric walking greensmowers.

Left: The new Salsco Tranz-Former Fairway Roller is built for speed and to bring the same benefits of rolling greens.

Top: New Sprayer with GPS guidance and individual automatic nozzle control will reduce product overspray. Shown is Toro and Smithco.

PENDELTON TURF SUPPLY

Ed Witkowski
414-640-6447
pendeltonturf@tds.net

805 Ela Avenue
Waterford, WI 53185
Phone: 262-534-3334
Fax: 262-534-2990



Todd Fregien
414-640-2265
pendeltonturf@tds.net

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

**SATISFACTION
GUARANTEED**





2013 Wisconsin Hospitality Gathering

At the Bootlegger

February 6th, 2013

San Diego, CA

170 Attendees!



Hole In One Sponsors

Syngenta

BASF

Reinders

DHD Turf and Tree





Birdie Sponsors

Arthur Clesen

Bayer

Pendelton Turf Supply

Burris Equipment

JW Turf

Milorganite

National Golf Graphics



Par Sponsors

Horst Distributing

Rain Bird

Dow Agrosiences

John Deere Landscapes

Premier Golf & Utility

Lohmann Companies

Photos and Layout
by
Brett Grams



News and Notes From WGCSA Members

By Matt Kinnard and The DHD Team

It is March 21st as I write this and it is most definitely a different story today than as of a year ago. The Weather Channel pointed that out clearly this week using International Falls, MN as the prime example. On March 17th 2012 International Falls had a high of 77° and this year on the same date had a low of -28°. A temperature swing of 105°. Closer to home at DHD World Headquarters in Juneau, WI we had a swing of 72° the date of March 21st from one year to the next. Hard to believe, but that's what is going on. I guess that's how we get averages??? By the time you are all reading this the weather should be warming up, snow melting and if there is any winter damage it will be visible. Good luck to you all.

Career Moves

Steve Houlihan is the new golf course superintendent at Blue Mound Golf and Country Club, Milwaukee. Steve grew up in the golf industry as a nephew of the Shaw brothers and worked for his uncle Jim at Chenequa Country Club in high school. Steve attended college at UW-Madison and received his bachelors degree in 2003 before continuing on to graduate school. Under Dr. Wayne Kusow he completed his Masters degree in 2005.

Meanwhile, Steve had the opportunity to work at Merrill Hills Country Club, Blackwolf Run and the OJ Noer Turfgrass Research Foundation. In 2011, Steve moved on to the Assistants position at Blue Mound Golf and Country Club.

It's been an exciting and busy time for Steve, his wife, Kate, and 16 month old daughter, Aubrey, but he still finds time to actively support the Evans Scholar Foundation, an organization dedicated to sending deserving caddies to college. Congratulations Steve!

Nakoma Country Club, Madison, will see a new face on the golf course this year. **Mike Lemke** has accepted the golf

course superintendents position there. Mike started working at Whispering Springs Golf Course, in Fond du Lac, at age 16 and decided he wanted to make golf course management his career. He went on the graduate from Rutgers University in 2011. Mike was the Assistant Superintendent at Whispering Springs for many years and moved on to become the Assistant Superintendent at The Golf Courses of Lawsonia in 2011. Congratulations Mike!

Joshua Maladay was hired as the new Assistant Superintendent at Oconomowoc Golf Club in January. Joshua graduated from Southwest Technical College in 2006 and has past experience working at Erin Hills, Hawks Landing and Winged Foot GC (NY). Joshua was also recently engaged. Congratulations Joshua!

Gabe Lopez, formerly of Reinders, has accomplished his lifelong goal of starting his own business. Irrigation Protection Service, located in Delevan, WI recently began servicing customers in Wisconsin and the greater Midwest area and specializes in repair and maintenance of pump stations, field controls and products related to underground irrigation systems. For more information visit ips911.com. Congratulations, Gabe, on your new business!

Baby News

Ben Labarre, Superintendent at The Legends at Bristlecone, Hartland, and his wife, Jen, welcomed home a new baby boy last fall. Brady was born September 5th, weighing in at 5 lbs 20 oz and 20 inches. Big brother Jackson was excited to welcome his new brother home. Con-

gratulations to the Labarre family!

Awards

The Golf Course Owners of Wisconsin had their annual awards presentation last November. GCOW presents awards for both nine hole and eighteen hole facilities. The award for Best Golf Course Appearance and Maintenance for a 9-hole course was given to Fairfield Hills CC, Baraboo, and to Mid Vallee GC, De Pere, for an 18-hole facility. The Course of the Year award went to Missing Links GC, Mequon, for a 9-hole facility and Geneva National GC, Lake Geneva, for an 18-hole facility. Congratulations to all the winners and the staff members that make it possible!

Other News



Kristopher Pinkerton, Superintendent at Oshkosh County Club landed this 250 pound wild boar while hunting in Alabama in January.

Please pass along any significant news or happenings around the state to Danny, Mike or me. We want to spread the good news. You can also email me at m.kinnard@sbcglobal.net or call at 920-210-9059.

Coming Events!

Tue April 23rd, April Golf Meeting, The Club at Strawberry Creek, Kenosha, Host - Matt Kregel

Mon May 6th, May Golf Meeting, North Hills CC, Mequon, Host - Randal Dupont

Wed May 29th, Super/Pro, Fox Valley Golf Club, Kaukauna, Host - Scott Bushman

Mon June 17th, WGCSA Tournament Meeting, South Hills CC, Fond du Lac, Host - Jim Van Herwynen

Tue July 30th, UW - Summer Field Day, OJ Noer Facility, Verona, Host - Tom Schwab

Tue August 20th, Joint meeting w/NGL, Stevens Point CC, St. Point, Host - John Femal

Mon September 16th, Wee One, Pine Hills CC, Sheboygan, Host - Rod Johnson

Mon September 23rd, WTA Golf Fundraiser, Maple Bluff CC, Host - Josh Lepine CGCS

Sat October 5th, Couples Outing/Party, Wild Rock GC, WI Dells, Host Michael Blazich

Tues and Wed Dec 10th-11th, Wisconsin Golf Turf Symposium, American Club, Kohler



HERFORD □ **NORBY**

G o l f C o u r s e A r c h i t e c t s

Phone: 952.361.0644 Fax: 952.361.0645
e-mail: golfnorby@earthlink.net web: www.herfortnorby.com

Spring at Last?

By David Brandenburg, Golf Course Manager, Rolling Meadows Golf Course

Editors Note: Historically The Grass Roots has not promoted specific products in articles or editorial content. We do appreciate our many vendors and the support they give us but do our best to stay non-commercial. However we do find it appropriate to highlight events WGCSA members attend and employee news. In this issue we are featuring Reinders Conference and we welcome submissions from our other valuable vendor members when they have their own events.

I hope you were able to take advantage of the many educational opportunities this past winter. The WTA, GCCSA, NGLGCSA all provided some great opportunities this winter. Our vendors also provide some excellent clinics and symposiums on a variety of subjects.

Reinders hosts the states best attended conference and this year was no different with the 21st Green Industry Conference. Hosted every other year since 1973 the event has drawn over 1500 golf and facility managers in recent years.



Top Left: Dr Joe Vargas has spoke at all 21 Reinders Conferences.

Bottom Left: Craig Reinders presents Heather Henning of Racine Country Club the show grand prize, a trip to Disney World along with \$1,000 spending money! Congrats Heather!

Top Right: The bustling show floor from the balcony.

Bottom Right: "Riding the Wave" is John Jensen, Mark Robel Joe Kuta, Randy Dupont, Rod Johnson, Tom Speltz and Dean Musbach

EDITORS NOTEBOOK

No matter what the weather does from here on out we are looking at a late spring especially compared to last year. Topics on the GCSAA website and the Noernet have focused on removing ice or not removing ice and turf managers look for ways to improve the odds of turf survival.

It is hard for golfers to understand that every year is different and we have little control over when opening day is so we need to bear their repeated "are you open yet?" comments.

In Fond du Lac we had a lot of snow this year and have had our share of turf damage over the years mainly from water not being able to move in the winter due to ice and snow blocking the path.

We removed some snow in January but then had a complete thaw and the course was still green at that time but dormant. Then thinking spring was on the way we removed some snow in early March only to have it snow again and again. On March 25th using a snowblower for the deep snow but mainly our dump truck and plow we removed snow from all our greens to promote ice melt.

The entire course was frozen with a layer of ice so we could do no damage anyway. In hindsight it seems to have worked out as the ice was off the greens by Friday and they looked good with no odor.

We are somewhat nervous about fairway damage given the prolonged ice cover and freeze thaw cycles but time will tell. Good luck to all as we hopefully head out of the deep freeze soon.

	OPENINGS	CLOSURES	NET CHANGE
TOTAL 2012	13.5	154.5	-141.0
Daily Fee	8.5	130.5	-122.0
Municipal	1.5	8.5	-7.0
Private	3.5	15.5	-12.0

According the National Golf Foundation course closures outpaced openings for the 7th straight year with a net loss of 141 18-hole equivalents.

Since 1995 the industry has seen a net loss of 499.5 18-hole equivalent golf courses which sounds like a lot and is if your course was one of them shuttered but it only represents 3.3% of the market.

The late opening every course in Wisconsin is experiencing this spring will reduce cash flow and stretch reserves to the limit as new income is slow to reach the cash registers when snow is on the ground.

To save on postage costs but to still bring you paper meeting notices we are sending the meeting notices out with *The Grass Roots* to each member. We have some great venues coming up so be sure to attend our events. I can honestly say I have never been to a WGCSA golf event and not learned something both from the course and other attendees.

Be sure to register on time to allow the host club to accommodate us. The rest of the event schedule is on page 47.

The Super Pro is May 29th at Fox Valley Golf Club. Registration

is through the PGA of Wisconsin so talk to your professional today to sign up for that fun event.

One of the benefits of the long winter it the chance to stay caught up on reading the many periodicals we receive. I urge you to check out Pat Jones's article "You Gotta Believe" in the February issue of *Golf Course Industry*. The column covers the rewards and challenges young men and women should consider before they consider a career in turfgrass management.

Water use and conservation was a main topic at the Golf Industry Show and the spring WGCSA meeting. It is also a topic on the public's minds as most of the papers in the state picked up on new information out from the DNR on surface and ground water use.

Although golf is not a high user by percentage when you look at the list we are a expendable user in the eyes of the general public.

As turf mangers we do what we can to conserve water because it is the right thing for plant health, playing conditions and the environment. Turfgrass is important to a healthy environment to reduce erosion, offer green space and oxygen production.

Grass might be great in our minds but when compared to crops for food or animals and manufacturing golf takes a back seat. Golf is the 7th largest user of groundwater at 4.2 billion gallons or a mere 2% of total groundwater use in Wisconsin. Municipal water supply leads the list with 90 billion gallons while agriculture irrigation uses 74 billion.

For surface water golf uses 434 million gallons and is 11th on the list at .022% of the total used. Power generation and paper production are the two big users of surface water with 1.6 billion and 121 million respectively.

What is considered a important use of water by our industry is considered cosmetic or non-essential use in the court of public opinion. We will need to be prepared to defend our use of water and show how we limit the use of this valuable resource in the near future.

Good luck with the rest of spring and your course openings. Hopefully the delayed spring will be rewarded with good weather, gentle and timely rain at night and golf shops full of happy customers.

Wisconsin Turf Equipment Corp.
Established in 1956

*Deep Tine Aeration * Core Aerification Services
*Vibrating Tine Aeration / Seeding
*Reel Grinding *Tune-ups * Oil Changes
*General Maintenance * Grass Seed
Equipment Rental * Line Marking Paints * Overseeding
Custom made Hydraulic Hoses * Used & Demo'd Equipment



800-443-1840
sales@wisconsinturf.com
www.wisconsinturf.com

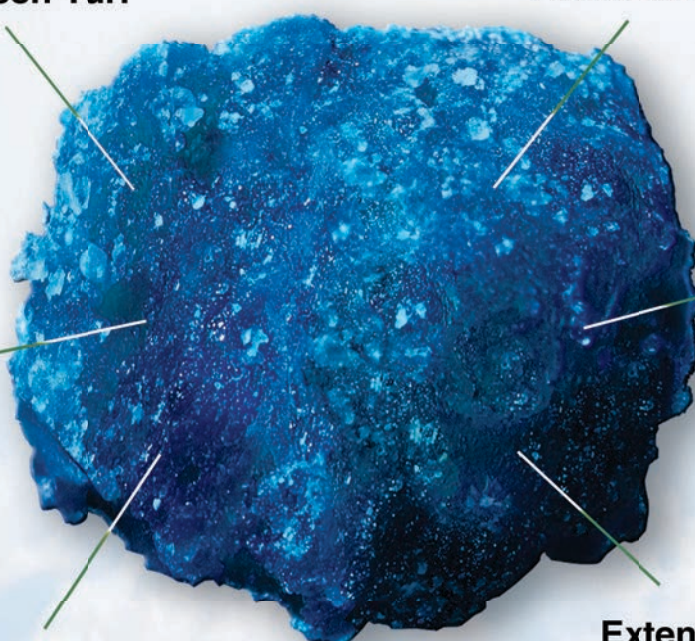


1306 West B-R Townline Rd. Beloit, WI 53511-9002

MESA[®]

Patented Controlled Release Nitrogen

A little bit of blue makes a whole lot of green



Deeper Green Turf

Faster Green-Up

More Nitrogen to the Plant

Fewer Clippings

Brilliant Color Response Even in Cooler Temperatures

Extended Color for up to 10 Weeks



More brands.
Better performance.



Best of All Worlds™

www.LebanonTurf.com 1-800-233-0628