

on 07/2015

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front cover

The 9th hole at Flagg Creek Golf Course, site of the Midwest's Nine Holer. The toughest hole on the Martin designed track is 403 yards in length with water right and OB left and more OB right.

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Doug Davis, Superintendent at Flagg Creek Golf Course uses bluebird boxes in the rough to mark 100, 150 and 200 yards to the center of the green. Read about Doug and Flagg Creek in this month's Super-n-Site.

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2015 MIDWEST EVENTS

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8/25	Midwest Golf Championship, Prairie Landing GC
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12/9	Midwest Turf Clinic, Medinah Country Club

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MAGCS Summertime Update



*Matt Kregel
The Club at Straweberry Creek*

Hello MAGCS members. I thought that I would use this opportunity to update the membership on issues that the board is currently working on.


First off I would like to announce that funds raised from our inaugural Rounds 4 Research in 2014 were put to good use. The Board gifted Ron Townsend, CDGA Turf Research Manager, money to help cover costs of continuing his education and research at the University of Wisconsin working under Dr. Paul Koch. His research (Ron's proposal is presented on page 4) will focus on the effect of nitrogen sources on foliar pH, dollar spot severity and oxalic acid production by *Sclerotinia homoeocarpa*. Research will be conducted both in Madison and Chicago with this project. The benefits will directly help the MAGCS membership in dealing with our number one disease.

The MAGCS will be continuing participation in the Rounds 4 Research program this year. The next auction dates coincide with the PGA Championship in August held at Whistling Straits in Kohler, Wisconsin. Please talk to your club management team, owners or Board of Directors about donating a foursome to the cause of raising money for research that directly benefits the members of the MAGCS. The donation is fairly straight forward but if you need help do not hesitate to contact Luke or myself. This link will take you to the donation page - <http://www.rounds4research.com/donate-a-round/>.

The Board also has been busy reviewing and updating the MAGCS logo. Feeling is that it was just time to look at the existing logo. It's a very busy logo and embroidery and printing costs keep on going up. The Board realizes the acceptance and recognition of the GCSAA logo and will be starting to use a local chapter edition of this logo on a more regular basis.



A friendly reminder is to please extend the courtesy to the host superintendent if you will be playing or visiting the course where they are employed. Make contact via phone, voicemail, text or email and please leave your contact information. It's common courtesy that all should extend to others in the profession. Make the time and take care of this prior to arrival.

The MAGCS is one of the largest and strongest chapters in the country. We are fortunate to have great leaders past and present to guide and direct the association. Our executive director, Luke Cella is second to none in association management. We are very fortunate to have Luke. With that being said, it is the members of the MAGCS that make the association what it is. If you haven't had a chance to attend a meeting recently or for that matter at all, why? What is stopping you from taking part? I encourage you, no I challenge you to make the time and commitment to attend at least one monthly meeting during the second half of 2015. Education is offered prior to all golf meetings with the exception of the July 9-hole event. I know that I am not the only one that would enjoy seeing new faces at monthly meetings. It's okay to sign up as an individual. The golf committee will pair you with other great MAGCS members. Remember, it's your association. Get involved and participate. 



Nitrogen Fertility & Dollar Spot

Ron Townsend, CDGA

Recently, the Midwest Association of Golf Course Superintendents and the Illinois Turfgrass Foundation committed funds for a study: "Evaluation of nitrogen fertilizers and their effect on the production of Oxalic acid by *Sclerotinia homoeocarpa*". Ron Townsend, Manager of Turfgrass Research for the CDGA will complete this study as he begins a Master's program at the University of Wisconsin. The following outlines the study Townsend will use for his thesis.

Introduction

Dollar spot which is caused by the pathogen *Sclerotinia homoeocarpa* is one of the most common diseases found on golf courses in North America. This is especially true in the great lakes region of the United States. Golf courses in the region primarily grow cool-season grasses such as bentgrass (*Agrostis stolonifera*), and members of the bluegrass family (*Poa* spp.), these grasses are susceptible to this pathogen throughout the growing season. Golf courses spend the majority of their chemical budget on fungicides which inhibit the growth of *S. homoeocarpa*. Recently state governments and other environmental agencies have begun to limit the use of certain fungicides which provided excellent control of the pathogen. This, in combination with resistance to certain chemical families, golf course superintendents and turf managers have begun to look for new options for controlling this disease.

Dollar spot has long been associated as a low nitrogen disease. The work done by Dernoeden (2011) may show that the disease is not only a low nitrogen disease but rather the source of nitrogen which may be inhibiting *S. homoeocarpa* from infecting the host.

Dernoeden (2011) was able to demonstrate that "spoonfeeding" with certain inorganic nitrogen sources reduced dollar spot severity. Upon further evaluation only one form of nitrogen ammonium sulfate was able to reduce dollar spot severity over the season both years the trial was conducted. Dernoeden was also able to collect foliar nitrogen content which showed a decrease in dollar spot severity when the leaf tissue contained

five percent nitrogen. This has also been shown by Garling (2000) in which the trial was looking at organic sources of nitrogen.

Dernoeden suggested soil pH when acidified was a factor in dollar spot suppression although; soil pH was not monitored during the trial. However, foliar pH may provide a better understanding as to why certain nitrogen sources were able to suppress dollar spot severity better than others.

Maxwell and Lumsden (1970) looked at the *Sclerotinia sclerotiorum* and the pathogen's ability to produce oxalic acid. This research measured foliar pH of bean hypocotyls and correlated those results to the production of oxalic acid produced in infected plant tissue. Understanding the foliar pH levels on day 0 were greater than those on day 6 where oxalate was detected at lower levels on day 0 than day 6. The data also shows that oxalic acid content of the foliar tissue directly relates to lower foliar pH in infected tissue. Lowering the foliar pH may provide greater protection against pathogens which produce oxalic acid.

Sclerotinia homoeocarpa produces oxalic acid and recent research has been done looking at the interaction acid production has on turfgrass. *Agrostis stolonifera* has been shown to produce oxalic acid as a result of drought stress (Merewitz 2011). As described by both Boehm (2009) and Rioux (2014) oxalic acid is shown to be a key component in dollar spot pathogenicity to affect its host. Boehm (2009) looked at the relationship between temperature, pH, mycelial growth and oxalic acid production. Boehm was able to show there was reduced oxalic acid production at a lower pH than a higher pH. Since the pathogen directly infects the leaf tissue of the plant, pH of the leaf tissue

may play a part in reducing the production of oxalic acid by *Sclerotinia homoeocarpa*.

Research has been conducted with foliar pH of plants in a collaborative effort by the University of Amsterdam and the University of Sheffield. Cornelissen, Van Logtestijn, Broekman and Thompson (2011) looked at the difference in foliar pH and soil pH, one species that they tested included colonial bentgrass (*Agrostis capillaris*). Using the methodology which was used to obtain foliar pH in this study, can also be done on other turfgrass species.

Objective

To determine the effect of nitrogen sources on foliar pH, dollar spot severity and oxalic acid production by *Sclerotinia homoeocarpa*.

Project Description

The design of the project is to look at the effect of nitrogen sources and the impact these sources have on dollar spot severity. The project will be two parts, a field trial and looking at this relationship in a laboratory setting. The field trial will look at three different sources of nitrogen with three different pH values. Using acidic, neutral, and basic pH sources of nitrogen at various “spoonfeeding” rates will provide comparable data as to foliar pH impact by using these sources.

The laboratory experiment will be using the foliar pH sampling method of healthy leaf tissue as described in Cornelissen et. al (2006) understanding how these nitrogen sources effect and comparing these results to dollar spot severity will provide data to correlate the effect pH has on the production of oxalic acid. Sampling foliar pH will be done by taking both fresh and dried plant material from plants that have been fertilized with the different sources and rates of nitrogen. Once pH readings have been taken the nitrogen sources will then be compared in solution (assuming there is an acidifying effect from the nitrogen sources) to a hydrochloric acid solution and buffered to the same pH. Looking at this comparison conclusions will be drawn as to if the nitrogen source is directly playing a role in oxalic acid production rather than just the pH.

Oxalic acid will be assessed using the methodology described in Rioux (2014). Assay kits will be used to measure the production of oxalic acid at intervals to measure the production and to see if there are differences between the media solutions. Radial measurements of *S. homoeocarpa* in vitro will also be taken at set intervals where they will be compared to the sources of nitrogen and pH.

Materials and Methods

Trials will be conducted in Lemont at Midwest Golf House and

in Madison Wisconsin on greens height creeping bentgrass. Nitrogen from Ammonium sulfate, Urea, and Calcium nitrate will be applied at different rates at a frequency of two weeks throughout the trial.

Field Trial Assessments

Turf Quality

Turf will be assessed visually for turf quality using a 1-10 scale. Assessments will be carried out before treatment application and at two week intervals.

Turf Color

Turf will be assessed visually for turf quality using a 1-10 scale. Assessments will be carried out before treatment application and at two week intervals.

Normalized Difference Vegetation Index (NDVI)

Using a FieldScout TCM 500 NDVI Color Meter plots will be subjected to three readings per plot where they will be averaged together for a final number per plot.

Infection Sites

Plots will be counted for total number of infection sites. Each .5cm in diameter of infected turf will be counted as one infection site.

Percent infected area

Plots will be assessed using a “grid box” where individual boxes will be counted to obtain a percentage of area infected by dollar spot.

Foliar Nitrogen content

Clippings will be collected then dried and sent to A&E Labs for foliar nitrogen content. This will be done three times per season per treatment.

Laboratory Experiment Assessments Green House

Field study will be replicated under greenhouse setting where the plants will be inoculated with *S. homoeocarpa*. Using the various nitrogen sources the plants will be

fertilized and tissue samples will be collected for foliar pH and oxalate detection.

Foliar pH

Foliar pH of healthy tissue will be taken prior to inoculation, and again at designated intervals post inoculation and then determined pH content in the leaf tissue of each treatment. Method used will be as described in Cornelissen et. al (2006).

Oxalate Detection

Oxalic acid production will be collected from both healthy and infected tissue and compared to foliar pH to see the differences between treatments. Method used will be as described in Rioux (2014).

Media Testing

Media will be made and mixed with the various sources of nitrogen at different pH levels. The media plates will then be inoculated with *S. homoeocarpa* isolates and then be evaluated for oxalic acid production, radial mycelium growth and then



compared to each nitrogen source and then again to the different starting pH levels. Method used will be as described in Boehm (2009).

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Ron's advisory committee is comprised of Dr. Paul Koch, Dr. Doug Soldat, Dr. Ed Nangle and Dr. Damon Smith.



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SUPER-N-site

Doug Davis

Flagg Creek Golf Course

Kyle DeRoo, Park Ridge Country Club

PHOTO CREDITS: LUKE CELLA, DOUG DAVIS

Doug Davis began as the Superintendent at Flagg Creek Golf Course in 2001. Since his arrival he has worked tirelessly to implement improvements both internally and externally at the facility. Doug has a deep passion and a strong sense of pride for the work he has done throughout his career, a career that started much earlier down a long and winding road.

Growing up in Delmar, Iowa, Doug's first true passion was music. Since the age of seven, Doug has played the trumpet. Following his love for music, Doug eventually found his way into the golf industry. His collegiate studies took him to Hawkeye Tech in Waterloo Iowa, where he studied Instrumental Music Education. While pursuing his degree Doug began working part time at Clinton Country Club and continued this throughout his early college years. After his studies in Waterloo, Doug enrolled at the University of Iowa where he began a

work study program at Finkbine, the University golf course. Though music was something he loved, Doug began to question it as a long term career. Golf turf began to open up to him as a profession. While at the University of Iowa he started to intern at Medina Country Club, taking turf more seriously. From Medina Doug's career expanded where he spent time working at multiple courses in the Midwest including Racine Country Club, Eagle Ridge and Broken Arrow Golf Course.



Doug, Traeger, Johneed, and Russell Davis.

Much like Doug, Flagg Creek Golf Course has come a long way from where it began. It was originally constructed in the early 1920's as an 18-hole family facility under the name Maple Crest Golf Course. As the area expanded in the 1950's (more specifically the Tri-State Toll way) Maple Crest was forced to downsize to a 12-hole facility. The 1980's brought greater expansion to the area and brought with it a lot of pressure to sell off the property for condominium developments. This pressure caused the loyal patrons of Maple Crest to rise up and petition their community. Eventually, this led to the joint purchase of Maple Crest by the Pleasant Dale Park District and the City of Countryside. The new owners hired architect Greg Martin who transformed the 12-hole facility into a 9-hole course that still remains interesting to players of all levels.



even though my tasks are never done, even though my day begins before the rooster's does and even though I run around like that same rooster with his head cut off, I still don't consider what I am paid to do as work."

This upcoming July Doug and the staff of Flagg Creek Golf Course will be hosting the MAGCS annual Nine Hole event. I know Doug will be working hard to make sure Flagg Creek is in the best possible shape it can be, and I am sure none of us will be disappointed. So remember you may all have a list of 100 reasons for "not" playing the Nine Hole Event at Flagg Creek, and only one reason to play, and Doug thank you for choosing that one reason. (more images on [@](#) next page).

Like many golf course superintendents Doug admits to struggling at times during his daily routine at the course. Maintaining and operating a fully illuminated practice facility that is open to 10 p.m. daily on a course that receives 38,000 rounds annually is no easy task. However through all of this Doug keeps a positive demeanor. When asked how he handles the constant grind Doug explained it perfectly.

"I suppose what I like best about my profession is that

Title image: The 7th par 4 is 309 from the tips, but tough to drive because of the prevailing wind and elevated green complex.

Below: The 4th par 3 is a short 138 yards but the green is well protected on the left side.







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Dates to Remember

July 2015

July 10-12 – Encompass Championship at North Shore Country Club in Glenview, IL, Dan Dinelli, CGCS and Jerry Dinelli hosts.

July 14 – MAGCS Nine Hole Golf Outing at Flagg Creek Golf Course in Countryside, IL, Doug Davis host.

July 29 – 15th Annual John Buck Memorial Golf Outing and Scholarship Fundraiser at Marengo Ridge Golf Club in Marengo, IL

July 31 – Deadline to nominate your dog for an appearance in the 2016 TurfNet Superintendent's Best Friend Calendar presented by Syngenta. Go to www.turfnet.com and click on the "We're Going to the Dogs" thing for details.

August 1 – Deadline for submissions for the Lebanon Turf Dog Days of Golf calendar. Go to www.gcsaa.org/dogcalendar for this one.

August 3 – 5th Annual "World's Largest Golf Outing" from Billy Casper Golf benefitting the Wounded Warrior Project.

August 3-8 – 113th Western Amateur Championship at Rich Harvest Farms in Sugar Grove, IL, Jeff VerCautren host. By the way, Jeff would be more than happy to hear from you about volunteering to help out with the event.

August 12 – 9th Annual Sunshine Through Golf Foundation White Sox Fundraiser at U.S. Cellular Field in Chicago, IL. Contact Alex Nolly at anolly@cdga.org for info.

August 17-23 – U.S. Amateur Championship at Olympia Fields Country Club, Sam MacKenzie, CGCS host.

August 18 – Deadline for applications to attend the Syngenta Business Institute in North Carolina from December 7-10.

August 25 – MAGCS monthly meeting and Annual Golf Championship at Prairie Landing Golf Club in West Chicago, IL, Tony Kalina host.

September 10 – CDGA Turfgrass Field Day at Midwest Golf House in Lemont, IL, Dr. Ed Nangle, Ron Townsend, and Chris Painter hosts.

September 21 – 12th Annual Wee One Foundation Golf Outing at Pine Hills Country Club in Sheboygan, WI, Rod Johnson, CGCS host.

September 17-20 – BMW Championship at Conway Farms Golf Club in Lake Forest, IL, Connor Healy and Chad Ball hosts.

Welcome to the following newest MAGCS members, and the best of luck to them:

Brian Chasensky, Class C, Chicago Golf Club
Tony Halun, Class E, American Underwater Services

Never like to report these things, but our deepest sympathies go out to the family and friends of **Larry Chirico**, longtime MAGCS member who served as superintendent at Rolling Green Country Club, Medinah Country Club, and Itasca Country Club, who passed away on June 20 after a long and hard-fought battle with cancer.



Larry Chirico will be missed by all who knew him.

Another of our brethren has taken the plunge into golf course ownership. **Bob Maibusch**, CGCS, MG (retired but not anymore) closed on the purchase of a nine-hole golf course in New Hampshire called Pine Grove Springs Country Club on June 22nd. Bob and his family will be moving to New Hampshire very soon, where they found a house directly across the street from the course, which is situated in the beautiful southwest corner of the state near the town of Keene, and just ten minutes from Vermont and twenty minutes from Massachusetts. Good luck to Bob on his new adventure!

Congratulations to **Brian Moore**, former assistant superintendent at Chicago Golf Club on being named the Director of Agronomy at Forest Dunes Golf Club in Roscommon, MI. Brian's first order of business is overseeing the seeding and grow-in of the highly-anticipated and yet-to-be-named Tom Doak-designed golf course that will be able to be played in both directions. Interesting. Good luck Brian!



Brian Moore moves on to Forest Dunes Golf Club in Roscommon, Michigan.

As you may recall, June was a tad on the damp side. Some

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of us were forced to resort to some "outside the box" thinking in order to get seemingly normal tasks done, like constantly checking the radar to decide when to run the sprayer out to stem the dollar spot that had morphed into basketball spot. Others of us had to break out pumps and hose that hadn't seen the light of day since Noah built his ark to rid ourselves of that excess dampness. In **Andy Weadge's** case at Morris Country club, where over 15 inches fell in a two-week span, the thinking went MILES outside of the box. Here we have a trash pump with insufficient discharge hose connected to PVC pipe (lifted at the connection so the water wouldn't flow backward) which is connected to another section of pipe with a tee fitting (all that was available) whose open tee hole has been sealed with a Gatorade bottle. Pure genius!



It was 40 years ago last month when a severe thunderstorm hit Medinah Country Club during the final round of the 1975 U.S. Open. Lee Trevino, the "Merry Mex," delivered his famous quote when asked if he had any advice for golfers caught out in such a storm: "Hold up a one iron—Not even God can hit a one iron." One week later, on June 27th, during the second round of the Western Open at Butler National Golf Club, lightning struck and changed the lives of three PGA Tour golfers, including Trevino. A great article in Chicago District Golfer by Adam Schupak brings those memories back in vivid detail. When Trevino and playing partner Jerry Heard decided to wait out a weather delay alongside the 13th green....under umbrellas....next to water.... leaning on their golf bags full of metal.....a bolt of lightning struck the ground and bounced across Teal Lake, striking the two. It also hit Bobby Nichols who was on the fourth fairway, putting the three of them in the hospital and changing their lives forever. Trevino and Heard both required back surgery, resulting in chronic pain for both. Trevino went on to have some success on Tour, but Heard, an up-and-comer, only finished better than 127th on the money list twice, and Nichols, a 12-time winner including a major, never won on Tour again. The lesson here? Don't tell God what he can and can't hit or he'll prove you wrong. Check out the article on page 34 of the July issue.

Congratulations to Zachary and Beth Duschack, who welcomed Noah William Duschack into the world on June 2nd. Noah and his very full head of hair arrived at 7 pounds and 7 ounces, and is

keeping mom and dad on their toes as they try to figure out his daily schedule.

Q: If the bar at Eric Swanson's course were called "Cheers," who'd play the bartender?

A: GlenWoodie Harrelson.



The Duschack Family.

Assistants take note! The deadline for applications to the Bayer CropScience and John Deere Golf 10th Annual Green Start Academy is the 12th of this month. Fifty attendees will be selected from the applications, and will receive an all-expense paid trip to the Bayer Development and Training Center in Clayton, North Carolina and at the John Deere Turf Care manufacturing facility in Fuquay-Varina, N.C. from October 7th through the 10th. Go to www.backedbybayer.com/golf-course-management/green-start-academy to apply.

Superintendents take note! The Syngenta Business Institute brings together a group of about two dozen of us to North Carolina for an intensive four-day educational program that provides graduate school-level instruction in areas such as financial management, human resource management, negotiating, impact hiring and other leadership- and professional-development skills. Applications are being accepted through August 18th, and can be found at www.GreenCastonline.com/SBI.

We've FINALLY figured out where Vence Zolman takes all those soil and water samples he collects for analysis—it's in the lab down through the trap door in the Munsters' house.

MIDWEST Doppelgänger



Vence Zolman or Al Lewis aka Grandpa Munster.

Good news! The National Golf Foundation (NGF) says that U.S. golf interest is on the rise. In the 2014 edition of its annual participation numbers, overall participation stayed the same, but Baby Boomer (ages 50 to 64) and Millennial (ages 18 to 34) figures showed promise, with the impact of both groups gaining momentum after the recent recession. Beats a kick in the head.

GCSAA has announced that J. D.

continued on next page

Dockstader, who was named chief business development officer in 2014, has added the role of chief operating officer.

Having a shotgun start for an outing at your club? Just call Steve VanAcker—he'll take good care of you.




Also available for shotgun weddings - Steve VanAcker

If you are a reader of the many other trade publications, you may have noticed a few of your MAGCS colleagues' contributions. In TurfNet's Blog Aggregator, Park Ridge Country Club Assistant Superintendent Bill Meyer chimed in on the vegetable garden that the grounds department helped create for the club's chef; while Steve Cook at Oakland Hills Country Club blogged about the minimal use of his irrigation system thus far this season due to the prolific rain. In the June GCM, Ross Page of Glen Flora Country Club submitted a photo (below) of a tree they had cut down that had a dedication plaque inside it that had been engulfed by the tree. Ross salvaged the trunk portion along with the two halves of the plaque that had been inadvertently chainsawed, and transformed it into an end table for the clubhouse patio, where many current members of the club can view the plaque and remember their old friend. Neat story.



Bronze plaques are great because they don't rust or spark when you cut them with a chainsaw.

Flossmoor Country Club and superintendent **Derek Weber** hosted our June meeting on the 22nd—a day that threatened to be wet but turned out to be pretty darn OK. It was steamy outside, but inside the clubhouse, **Dr. Rick Latin** of Purdue University gave an engaging presentation on summer disease control before the main event, which included the Dom Grotti Superintendent-Assistant Championship and the Class C Championship. The golf course was unanimously agreed upon as a freakshow of superbitude, the epitome of extraordination. And so forth. Derek and his crew did an incredible job of providing such a stupendulous course after all the rain that had fallen as recently as the day before. And how ironic was it that the Dom Grotti Cup was won by longtime Flossmoor superintendent **Ray Schmitz** and his assistant **Dan McDonald**?!! In keeping with the family nature, Derek Weber and **Bob Lively** took second, with **Matt Harstad** and **Bret Jons** picking up the third place

honors (all south siders you may have noticed)(whatever that means). In the Class C Championship, the Gross winner was **Chase Bonnell** with a 77, followed by **Drew Paxton** in second with an 84 and **Peter Killian** with a 91. In the Net division, Peter Killian took first with a 71, while Dan McDonald grabbed second at 74 and **David Johnson** took third with a net 74. Many thanks to Derek for hosting a great day on a splendiferous golf course. Also thank you to the staff at Flossmoor, the MAGCS volunteers who helped make the day and the awesome vendors who sponsored the day who were **Burris Equipment Company**, **Chicagoland Turf**, **EZ-GO Textron**, **Healthy Grow**, **Layne Christensen Company**, **Nels J. Johnson Tree Experts**, **Reinders, Inc.**, **Shoreline Sand Solutions**, and **Syngenta Professional Products**. 



2015 Dom Grotti Champions Dan McDonald and Ray Schmitz.



The clean shaved head seating section: (r to l) Jeff Mazur, Dan Lopez and Steve Bychowski.



Mark Norville of Shoreline Sand Solutions donated 4 tickets to a Sox game for our scholarship raffle and commented, "it's harder to give those things away than to sell sand!" Thanks Mark.



2015 Class C Champion Chase Bonnell. Has anyone seen the cup cutter trophy? We need to present it to Chase and get his name on it.



Thanks to our host Derek Weber (l) and Bob Lively who originally stepped up and offered Flossmoor Country Club for a Midwest Meeting.



Ryan Gilmore of JW Turf and Brian Winkel of Syngenta discussing something.



Erwin.

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Gang Mowing in a Lightweight World

Chuck Barber, St. Charles Country Club

Much of what I like to write about has nothing to do with our strategies here at St. Charles Country Club. In reality what others are doing is much more interesting and I find that I like to write about interesting things in the hopes that you, the reader, find them interesting as well.

In my fiddling around on Turfnet or GCSAA discussion forums I occasionally come across something that is worth writing about. One of those topics was modern day golf course architecture and management that utilized gang mowing fairways.

I remember mowing the driving range field at Butler National Golf Club with a 9-gang, ground driven, pull-behind reel mower. I

also mowed my first fairway ever at Belmont Golf Course in Richmond, Virginia in 1995 with a Jacobsen F10 (above) which was as hard to park in the building as it was to mow a cleanup lap.



One could mow a lot of grass in a short time with the Jacobson F10

The industry has clearly moved in a different direction with the development of the lightweight fairway mower. The reasoning for the shift AWAY from gang mowing was the improved quality of cut, lighter footprint, greater control, and the resulting reduction in compaction. Gang mowing may have fallen out of favor in most parts of our industry. However, a couple of holdouts still exist.

Brian Netz, CGCS at Presidio Golf Club in San Francisco, California shifted away from lightweight fairway mowing in favor of gang mowing fairways in 2013.

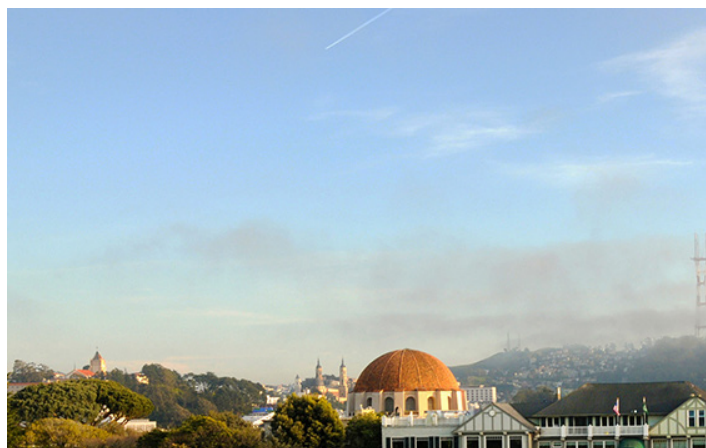
"We used Toro RM6500 five-plexes. We had 4 to

get everything mowed allowing for play. They were fabulous machines; easily over powered for our purposes, however when we can get rains we were unable to mow for significant periods of time. They were very reliable, durable machines. When he needed to replace these units, it made him think how some modern expectations have shifted golf away from its roots," explained Netz.

Netz considered many factors when choosing how to best replace the Toro units at Presidio Golf Club. "Diesel emission regulations, total replacement cost, capital expenditure funding, employee efficiency, deductive reasoning and logic all played a part in choosing gang mowing over lightweight mowing," he said.

Don Mahaffey is the Golf Course Superintendent at Wolf

PHOTO CREDIT: PRESIDIOGOLF.COM



The Presidio Golf Course, inside the Presidio Post opened for play to the public in 1995 and is included on the National Historic Landmark records.



Wolf Point Club was designed from the start to be mowed with gang mowers.

Point Club in Edna, Texas. Wolf Point was designed with gang mowing in mind. "We bought some used Jake 3800s and grew the course in with them. When we designed the course we knew we were going to gang mow. The owner of the facility was not concerned about stripes and how the course looked, but more importantly how it played. Keeping the maintenance practical and simple led us to the gang mower choice. Knowing this, we designed it for the gang mower, providing the necessary space for the mowers." The practicality of the choice allows for less equipment and a smaller crew.

Gang mowers are part of the European model where you have five guys (actually four guys and one gal) and they do everything including the equipment maintenance. "When we were using the lightweights it took 32 man-hours to mow our 80 acres of short grass. With gangs we cut that to 12 hours," said Maffey.



The cost of a 9 gang Kesmac and a new John Deere tractor is one-third the cost of replacing three lightweight fairway units.

Nettz echoes that same sentiment, "I have gained over 38 hours a week in labor I can devote to other endeavors. 32 acres of fairway can be mowed in about 3 hours with a good operator. It nearly added two part-time laborers to the staff that I was able to leverage for hand watering and doing bunker

reconstruction. The hand watering itself saved me even more money based on the reduction of irrigation (in a drought) at my irrigation rates.

"The benefits don't end with labor savings, according to Nettz. "Additionally, my equipment replacement value of the 9 gang Kesmac and new JD tractor was one-third the cost of replacing all three RM6500s. This kept my lease cost at about one-third of total replacement value of the three lightweight units. It can mow when it's wet out and when the grass can get tall. The machine cuts great - you can see a rooster tail of clippings as they move down the fairway."

Both Maffey and Nettz agree that it's not all peaches and cream. There are downsides. This hasn't discouraged them. Instead they've focused on the positives and figured out ways to make gang mowing work for them.

PHOTO CREDIT: NUZZO COURSE DESIGN, LLC



Wolf Point Club's approach to the 17th green sports no stripes.

Some of the drawbacks, "you need room, they will not mow as low, they can't really stripe, and they don't work as well when the ground/grass is wet," explained Mahaffey. He went on to say, "the biggest negative is one of perception. Some equate a gang mower with not doing things right. These are the folks that need their turf cut at or below .350, well they'll never be happy with gangs or see it the way I do," says Mahaffey.

Nettz goes on to say, "There's a learning curve. The cut isn't quite the same of a lightweight unit, but the difference isn't material compared to the cost and labor benefits. The average person can't tell the difference. Ironically, it seems the mower can be too big and too fast. You may mow into the same group several times as you whiz through the fairways forcing you to work backwards when the course becomes crowded."

As gangs moved away from golf, their use has still been strong in the sod industry. Sod producers are more concerned with acres per hour than quality of cut and the manufacturers have followed suit.

...continued on page 21



BMP for Diseases on *Poa/Bent* Greens

Chuck Anfield, Heritage Bluffs Golf Course

The MAGCS monthly meeting was held at Flossmoor Country Club. It was hosted by Derek Weber and his Staff. The education for the day featured **Dr. Rick Latin** from Purdue University speaking on "Managing Summer Diseases on Bent/Poa Greens."

The three key components of a good plant protectant program



MAGCS Member Dr. Rick Latin had no shortage of information to share with those in attendance at Flossmoor Country Club.



Brown patch on creeping bentgrass putting green.

are:

- Fungicide Selection
- Application Timing
- Resistance Risk

All of the major summer diseases begin their active pressure in late May and run through early September.

Anthracnose

- Lesions can be seen as visible black or copper spots
- It produces a "gazillion" spores

- This disease is present in all soils. It just needs the right conditions
- It attacks senescing tissues, in the crown or on the leaf
- It is considered a "reluctant pathogen". It usually only occurs on stressed turf, usually *Poa annua*

Cultural Control Options

1. Aerate and fertilize turf properly, encourage root growth
2. Spoon feed Nitrogen, maintain minimal plant growth
3. Change mowing practices, increase height.
4. Irrigate to relieve drought conditions
5. Syringe to keep cool
6. Re-direct traffic

Fungicide Effectiveness

Anthracnose is a very difficult disease to control. For overall effectiveness DMI's are near the top of the list. Velsista is very site specific and one of the best new products out there. There has been some documentation of resistance issues with Qol's, so a rotation program is recommended.

Brown Patch

- Larger issue on greens than fairways
- Disease thins out turf leaving less chance of recovery for a long time

Cultural Control Options

1. Avoid excessive nitrogen applications
2. Use fans to increase air movement
3. Shorten dew periods

Fungicide Effectiveness

Prostar and Qol's provide the best control by far. Rotate chemistries.

Dollar Spot

- Most popular turf disease

- Can cause cosmetic and structural damage to plant
- Scars on greens can last a long time
- Disease is easy to kill

Cultural Control Options

1. Increase mowing heights
2. Increase nitrogen use
3. Increase rolling frequency
4. Avoid long dew periods
5. Biologicals not effective on their own...yet

Fungicide Effectiveness

Xzemplar, Emerald and Velsita are the highest ranking for control. Don't overuse and rotate to avoid resistance issues.

Pythium

- Conditions that favor disease are hot, humid and wet.
- Very aggressive disease
- Can be spread by mowers

Cultural Control Options


1. Avoid high nitrogen applications
2. Create air movement
3. Improve drainage

Fungicide Effectiveness

The highest rated fungicides for control are Stellar, Banol, Subdue and Segway.

Some final take aways from Dr. Latin

- Resistance only occurs with certain combinations of pathogen and compounds
- Control is acquired by a good selection of product, the appropriate rate (use higher rates during higher pressure and decrease intervals) and timing of the application.
- Anticipate the outbreaks and stay ahead of the disease "an ounce of prevention is worth a pound of cure."


Dr. Latin has a website at Purdue called Turfcast. It provides a weekly assessment of turf disease pressure. 

"I'd like to see the manufacturers take golf a bit more seriously and move quality of cut back to the top of their priority list. The sales person I've dealt with at Kesmac has been super overall, and I've explained to them that more people will do this, it is a no brainer," says Netz.

Both Netz and Mahaffey are also in agreement that there is still a place for lightweight units in their respective operations. Netz explains, "We'll always have a place for one (lightweight unit) to do the clean-ups around greens and some really smaller areas." Mahaffey explains his need for lightweight mowing in his operation in Texas are unique. "We use lightweights in the winter when we are mowing much less and we use them to trim out and pick up tight areas."

Gang mowing is not for everybody. Dave Schlagetter, CGCS at Indian Hill Club says, "Golf course architecture would have to change. Most of these fairway scallops on edges and tight approaches wouldn't survive a gang mower. It's an interesting dynamic how our (greenkeeper) abilities, our equipment and economies have changed course design."

Bob Lohmann wrote an article back in the early 1980's that appeared in Bullshead about contour mowing that promoted the practice for playability for all skill levels. Bob wrote, "Playability can be created or improved by the inexpensive practice of establishing new mowing patterns (attainable with lightweight fairway mowers), not by rebuilding the entire golf course as many people believe." Bob was making the point back then that, "wide, long straight-lined fairways are out of date, unimaginative, and overly expensive to maintain." He went on further to state that "target golf" could be created with contour mowing and the need to maintain large fairways would offset those costs, and more importantly the golfer "are willing to accept" this change. Contour mowing has certainly caught on and the lightweight fairway mower has indeed impacted golf course design.

When I asked Dave Schlagetter if a shift back to gang mowing could be in the future for many in golf course management he quickly answered, "I hope that never has to happen." 



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Curtis Tyrrell, CGCS MG
Director of Golf Course Operations
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Where did you grow up?

I grew up in Prince Georges County Maryland, right outside of Washington DC.

First golf course you where you worked?

The Country Club of Woodmore, Mitchelville, Maryland.

Do you have a prized possession?

I have a 50th Anniversary American Fender Stratocaster that I like to stare at, while wishing I could play it better than I do!

What do you like to drink? Cold beer! And coffee!

Favorite job task at the golf course?

I really enjoy hand watering greens. I find the process of it to be the best way to understand the greens.

Dream car?

Never really been into cars.....I love my Honda Ridgeline!

Favorite pig out food?

No doubt, Pizza! Chicago, New York, doesn't matter.

What is your favorite movie, book and actor?

I like history books. I have a degree in history from Elon University and I enjoy reading historical based fiction and non-fiction. In terms of a actor/movie, I'm going to go with Jackie Gleason and Smokey and The Bandit....some the finest in American Cinema!

What is your favorite restaurant to go to?

Who doesn't enjoy a good steakhouse! But I'm up for Buffalo Wild Wings any day of the week!

What is your favorite movie?

Top Gun.

What is your favorite sports team?

Maryland Terrapins!!! Go Terps!



Curtis in control during the 2012 Ryder Cup. He thought things would slow down at work a little after that event.

What is your best vacation or favorite destination?

Our family loves to ski, but my favorite vacation was to Kauai Hawaii. 🌴

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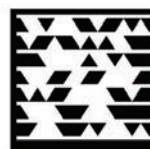
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