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April 2009

Prairie Landing Golf Club

Eric Mundt, Travis Dykstra, and Tony Kalina

Midwest Association of Golf Course Superintendents
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Prairie Landing Golf Club after the storm.
Photo Credit: Tony Kalina

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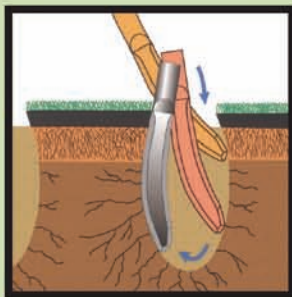
The Midwest Association of Golf Course Superintendents (MAGCS), founded December 24, 1926, is a professional organization whose goals include preservation and dissemination of scientific and practical knowledge pertaining to golf turf maintenance. We endeavor to increase efficiency and economic performance while improving and enhancing the individual and collective prestige of the members.

The MAGCS member is also an environmental steward. We strive to uphold and enhance our surroundings by promoting flora and fauna in every facet in a manner that is beneficial to the general public now and in the future.

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MAGCS Strikes Again

The Midwest Association of Golf Course Superintendents. Those words were heard a lot at the Golf Course Industry Show held in New Orleans back in February. Our Association has always been a huge part of the "biggest show on turf". Here are several examples.

Every year the MAGCS has one of the biggest voting blocks of all of the chapters across the country. This is very important due to the fact that our huge voting block helps to elect the best candidates each year. The annual golf tournament was held in the Gulf Shores, Alabama. The MAGCS had the most participants in attendance of any single chapter. Our association won the Team Championship. Tim Scott finished in second place in the championship flight. Overall, the numbers of participants were down but the Midwest still held form and performed well!

On Tuesday and Wednesday of the show a number of our members gave several hours of their time and "trade skills" towards a great organization. The aftermath of Hurricane Katrina left a lot of damage and devastation to the New Orleans area. Habitat for Humanity provided many MAGCS members a chance to help build New Orleans. I was involved in the process and would recommend this day of pitching in to all. There will be a similar project in San Diego next year. I urge you to consider it.

How about the awards won by our members? Sam MacKenzie, CGCS was named the Superintendent of the Year by Turfnet. Way to go Sam! Dan Dinelli, CGCS was named the winner of the President's Award for Environmental Stewardship. The awards just keep coming for all of Dan's environmental work, and deservedly so. Dan you the MAN!

EARLY Friday morning gave all who wanted to attend a great way to start the day. For many years the Prayer Breakfast has been presented to give all a chance to recharge their batteries with a big dose of fellowship and worship. Many members of the MAGCS play a big part in not only planning this event but

also participating in it. If you like "When the Saints Go Marching In" you missed out on a rousing rendition.

Last but not least, our Association hosted another outstanding Hospitality Reception on Thursday evening. 285 people attended "one of the best rooms yet", and many people are to thank. From Luke Cella to Sharon Riesenbeck to the all Commercial Members who donated towards this big night I say THANK YOU. Our Association's hospitality night continues to be one of the biggest and best!

By the time you read this, the Past Presidents will have met and already talked about many other accomplishments of the MAGCS. MAGCS continues to lead the industry because of all the great individuals that make our Association one of the best. I hope everyone has a great 2009 season. -OC



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Virgil Range, Aurora Country Club

Tony Kalina, Eric Mundt, -N- Travis Dykstra



Prairie Landing Golf Club (PLGC) is an upscale 18-hole public golf facility located in West Chicago, Illinois, on the site of the historic 1868 McChesney Home. It is the only Robert Trent Jones Jr. design in Chicago's west suburbs to be named a "Five Star premiere golf experience." Construction started in 1990 by G. A. Blocker and Greenscapes, Ltd., and the course opened for play in July of 1994. Its amenities include a full practice range as well as two complete par 4 practice holes. Prairie Landing features undulating, wide fairways amongst a meandering waterway and dramatic fescue-covered mounds. Bunkering is extensive and strategic, and wind is a huge factor on the mostly open layout. The greens are relatively large, offering many challenging hole locations, and the five sets of tee placements provide a variety of yardages for all levels of expertise.

Golf Course Superintendent and MAGCS president, Tony Kalina, has been patrolling the grounds at PLGC since 1991. Because he has hosted previous MAGCS events and has been featured in this segment before, I am going to introduce you to two key members of his staff—assistant superintendents **Eric Mundt** and **Travis Dykstra**.

Eric Mundt was born 37 years ago in Aurora, Illinois. His immediate family is his girlfriend of 11 years, Stephanie, his 13-year old daughter, and their pet cat. Eric is a Joliet Junior College graduate with a major in Agriculture and Turf Management. He began his career in golf course management as an intern for Jeff Brinegar at Rich Harvest Farms in 1999. Following that, he moved over to Medinah Country Club where he worked for Tom Lively. At Medinah, he was happy to have been a part of the course 3 renovation in 2003. In 2007, Eric came to Prairie Landing to work for Tony Kalina.

Eric's love of the outdoors and a deep respect for the game of golf were the keys in his choosing this career. He believes that golf's test of focus and mental fortitude are important traits to have in our profession. He carries an 8 handicap and loves playing at Prairie Landing, though he also has a soft spot in his heart for Fox Bend Golf Course where he played as a youngster. In



Eric Mundt and Travis Dykstra

addition to golf, Eric enjoys bicycling, running, fishing, woodworking, and following college football and hoops. His plans for the future include becoming a superintendent, marriage, more children, a bigger house (get one now—they're cheap!), adding a dog to the family, and improving his golf game.

Travis Dykstra was born in Sibley, Iowa and is 25 years young. He and his wife Brooke have 2 dogs—a black lab named Oakley and a German Shepherd mix named Bodhi. He graduated in May 2006 from Iowa State University with a degree in horticulture and an emphasis on Turfgrass Science. Travis got his start

in the golf business at Sibley Golf and Country Club under superintendent Stephen Roseberry. He also gained experience at Veenker Memorial in Ames, Iowa and at the Yellowstone Club in Big Sky, Montana. He then moved to The Reserve at Moonlight Basin, also in Big Sky, before coming to Prairie Landing in 2007.

Travis started young in the business and has been hooked ever since. He finds pleasure in seeing golfers enjoying themselves on the course that he works so hard to prepare. Of the many difficulties he faces in his job, Travis feels that striving to be more efficient each day is one of the greatest challenges, especially in our current economy. His plans for the immediate

(continued on page 6)



Prairie Landing Golf Course, with the striking clubhouse in the background, was one of the first links style courses to be constructed in Chicagoland in the modern era.

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future are to build a house in Montgomery that he and Brooke will share for many years to come.

There are several planned upgrades and projects at Prairie Landing. These include the renovation of all bunkers and experimenting with *Poa annua* eradication on greens. Several new products and cultural methods are being tested, and the staff looks forward to the results this spring. Also in the plans are new irrigation satellites, cart path renovations, clubhouse improvements, and replacement of the entire fleet of golf cars.

Tony, Eric, and Travis look forward to hosting the April MAGCS meeting and hope for a big turnout. We thank them in advance for their generosity and hard work in preparing the course for us this month. **-OC**



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USGA Foliar Product Evaluation for Greens

Back to the Basics is a Good Thing

During winter 2007, I was involved in a phone conversation with the United States Golf Association (USGA) Green Section Staff and other turfgrass scientists. The topic at hand was whether more information might be needed with respect to 'spoon feeding,' a common liquid fertilization method utilized for sand-based putting greens. An idea from the USGA had just surfaced...and I was invited to be part of a team.

I was to help develop a protocol for replicated field experiment. This USGA study would establish a regular USGA product testing initiative. At the time, the view I expressed on the phone was that nitrogen levels in Chicago area had gotten lower than most had ever expected on golf greens. Fertility to promote healthy turf had given up some ground – and that ground was faster than ever before. That ground is known by golfers as the putting surface, which they simply call the green. The current issue is this: When greens aren't so green maybe they might become more prone to abiotic abnormalities during peak heat stress (e.g., midsummer decline) and experience more disease outbreaks (i.e., we have recent evidence that anthracnose basal stem rot gets worse - Uddin et al., 2009).

Today's fertility programs for golf greens must both compliment a superintendent's effort to provide plant health and provide adequate ball roll speed for golfers. As a result, foliar fertility and/or biostimulant programs that can and do allow judicious application of nitrogen have become increasingly popular. The question was..."How do we figure out which products to recommend to golf course superintendents?" Science would help provide that answer.

The Idea

The idea was that a head-to-head product test for foliar fertility of golf greens could greatly help golf course superintendents in their fertility decision making. This project was the brain-child of Jim Moore, USGA, who felt that liquid biostimulants were increasing in number and had not been adequately tested. He was right, and there continues to be limited data on how biostimulants influence plant health and disease outbreaks. Did someone say disease? So, I was teamed up with another

plant pathologist, Dr. Peter Dernoeden, University of Maryland. Both Maryland and Chicago have similar cool and humid environments. We felt that the two sites would be complimentary in the study of both issues – health and disease. Both sites would follow exactly the same protocol. We aimed to test about six products that were common in the trade in the northern U.S. Region. If similar research results were obtained from both locations, it would strengthen the findings.

Trial and Error

In 2007, the first year of the study, we learned that the development of dollar spot disease was not greatly influenced by the products being tested. The levels of dollar spot we experienced were unacceptable for a green – infection center levels could quickly exceed 5% damage. Therefore, in 2008 we changed our direction, and controlled plant disease completely. We decided to make the USGA study focus solely on comparison of products to influence plant health. Plant pathologists would become plant physiologists. We would keep measurements simple, but valuable. Two aboveground plant health indicators were used, visual quality and an electronic method known as NDVI (normalized difference index). NDVI quantifies reflectance of red and infrared light from the turfgrass canopy. We expected both methods would provide similar results, but NDVI provides a useful tool because it is not subjective. Unbiased information on turfgrass health is sometimes necessary in order to aid in difficult decisions about golf green health, such as tree removal (Settle, 2008). In this case, NDVI provided a second opinion, an electronic eye's view of golf green health (chlorophyll levels). If in agreement, it would validate the visual

(continued on next page)

quality ratings of a trained turfgrass scientist and bolster the results of both.

Defining a Biostimulant

Our aim was to test three commonly used foliar products thought to enhance green health. We included cytokinin plant extract biostimulants, iron, and nitrogen products. While the latter two represent macro-nutrients, cytokinins are plant hormones that have received increasing attention from plant physiologists. Biostimulant is actually a broad term that would define many ingredients on a 2.5-gallon jug's label.

Looking at a label you will find an ingredient list that may be long or short (**Figure 1**). The list may include cytokinins, humates, nutrients, organic acids, hormones, vitamins, microbial inoculants, plant extracts, and more (Ervin and Zhang, 2008). Frequently, as it turns out, a biostimulant product can contain iron (Fe) and/or nitrogen (N). This fact has consequence because nitrogen effects are known to be the dominant player that stimulates plant health and growth. It makes it hard to understand the effects of most other biostimulants, when they are delivered in combination with nitrogen. In short, we know what nitrogen fertility does when applied to a green (i.e., bentgrass gets greener, denser, and grows longer). We can also 'see' the foliar effects of iron when microscopic metallic flakes paint leaf blades (i.e., a darker color occurs immediately).

Six Products Tested

In 2008, the summer quality of creeping bentgrass research greens in Lemont, IL (**Figure 2**) and College Park, MD was



Figure 1. Five products that were tested on research putting greens in IL and MD that contain cytokinins and other plant extracts, N, Fe, and/or various combinations of ingredients.



Figure 2. Dr. Mike Kenna, USGA's Director of Research, photographs field plots of biostimulant products on Sunshine Course's number 2 green in Lemont IL on 28 June, 2007.



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monitored in response to six liquid fertilizer and biostimulant products and to urea (Table 1). The products tested were Iron-Roots, Roots Concentrate, Knife, PanaSea Plus, Lesco's 12-0-0 Chelated Iron Plus Micronutrients (hereafter Lesco 12-0-0), Ultraplex, and urea. Three of these products did not contain nitrogen as a primary nutrient, so they were also mixed with urea. Those treatments were IronRoots + urea, Roots Concentrate + urea, and PanaSea Plus + urea. All products were tested at label application rates and intervals. All treatments were applied at a 14-day interval, except Knife which was evaluated, as the label recommends, at two rates either every 14 or 28 days.

Treatment and analysis <i>urea = 0.15 lb N/14 days</i>	Application rate/1000 ft ²	*Application cost Acre ⁻¹	Manufacturer	Additional micronutrients or other biostimulant (%)
Ultraplex 5-0-3	6.0 fl oz	\$170.00	Crigg Bros.	0.05% B, 0.05% Cu, 2.0% Fe, 0.4% Mn, 0.4% Zn
Iron Roots 0-2-4	2.0 fl oz	\$79.00	Novozymes	4.0% Fe
Knife 12-0-0	1.5 fl oz	\$43.00	Floratine	4.0% S, 6.0% Fe
Knife 12-0-0 28 days	2.5 fl oz	\$57.00	Floratine	4.0% S, 6.0% Fe
PanaSea Plus 0-2-2	3.0 fl oz	\$151.00	Emerald Isle	Unspecified sea plant extracts
urea 46-0-0	0.15 lb N	\$7.50	N/A	None
Lesco 12-0-0 + Micros	4.0 fl oz	\$29.00	Lesco	4.0% S, 6.0% Fe, 2.0% Mn Chelated Iron + Micro
Roots Concentrate 0-0-0	2.0 fl oz	\$43.00	Novozymes	4.6% humic acids, 3.9% kelp extract, 3.0% vitamin C, 1.0% amino acids, 0.5% myo-inositol, 0.3% vitamin B ₁ , 0.1% vitamin E

*Application costs are estimates based on the purchase of small amounts of product, which may vary from year to year in different markets.

Table 1. Products evaluated in IL and MD on creeping bentgrass research greens in 2007 and 2008.

Treatment and analysis <i>ranked by AUC values</i>	Rate 1000 ft ²	* 10 Oct visual quality	† AUC visual quality	Percent dates (> 6) with acceptable value
Iron Roots 0-2-4 + urea	2.0 fl oz	* 8.5 a	130 a	15 of 15 = 100%
urea 46-0-0	0.15 lb	8.5 a	129 a	15 of 15 = 100%
PanaSea Plus 0-2-2 + urea	3.0 fl oz	8.5 a	127 a	15 of 15 = 100%
Roots Concentrate + urea	2.0 fl oz	9.0 a	124 a	15 of 15 = 100%
Ultraplex 5-0-3	6.0 fl oz	6.8 b	108 b	15 of 15 = 100%
Lesco 12-0-0 + Micros	4.0 fl oz	6.8 b	105 b	14 of 15 = 93%
PanaSea Plus 0-2-2	3.0 fl oz	6.3 bc	98 bc	11 of 15 = 73%
Knife 12-0-0	1.5 fl oz	5.8 cd	88 cd	2 of 15 = 13%
Iron Roots 0-2-4	2.0 fl oz	5.3 de	87 cd	2 of 15 = 13%
Untreated	—	5.3 de	86 cd	2 of 15 = 13%
Knife 12-0-0 every 28 days	2.5 fl oz	5.3 de	85 cd	2 of 15 = 13%
Roots Concentrate 0-0-0	2.0 fl oz	4.8 e	76 d	0 of 15 = 0%

*Visual quality was assessed visually on a 0 to 10 scale where 0 = entire plot area brown or dead; 6 = minimum acceptable color and quality for a putting green; 10 = optimum greenness, texture and uniformity.

†Area Under the Curve summarizes 15 visual quality rating dates from 24 Jun to 10 Oct.

*Column means with the same letter are not significantly different according to Fisher's LSD, P < 0.05.

Table 2. The season summary for visual quality of foliar products evaluated on a bentgrass green in Lemont, IL, 2008. Final rating date was 10 Oct and last application occurred on 3 Sep.

Materials and Methods

Both study sites used preventive fungicides every two weeks at label rates to control dollar spot (*Sclerotinia homoeocarpa*) and brown patch (*Rhizoctonia solani*). Chemistries that were rotated included Chipco 26GT, Daconil Ultrex, or Emerald. The studies were conducted on mature stands of 'Penn G-2' + 'L-93' in Lemont (hereafter IL) or 'Providence' in College Park (hereafter MD). The research greens were mowed five to six times weekly to a height of 0.156 inch. Other than for green-up, at no time during 2008 did supplemental fertilization occur. The IL site received 0.5 lb N/1000 ft² during May 2008 and the MD site received 1.75 lb N/1000ft² between April and May, 2008. Treatments were applied in 50 (MD) or 87 (IL) gallons per acre of water using a CO₂ pressurized backpack sprayer equipped with two 8004 Tee Jet flat-fan nozzles. Plots were

...data showed best color/chlorophyll levels were provided by urea alone or when urea was mixed with another product in the test.

4 ft by 6 ft (IL) or 5 ft by 10 ft (MD) and arranged in a randomized complete block with four replications.

Turfgrass color and quality were assessed visually on a 0 to 10 scale where 0 = entire plot area brown or dead; 7 = minimum acceptable color and quality; and 10 = optimal greenness, texture and uniformity. Color and chlorophyll levels were estimated using normalized difference vegetation index. The small NDVI device that captured percent reflectance of red and near-infrared wavelengths from the turfgrass canopy (Figure 3) was a Field Scout TCM 500 Color Meter (Spectrum Technologies Inc., Plainfield, IL).



Figure 3. NDVI was used to capture light reflectance of red and near-infrared wavelengths to quantify chlorophyll content of a bentgrass green.

Results

Very similar results were obtained at both IL and MD with respect to urea. Suffice it to say, Dr. Dernoeden noted at study conclusion that near-identical results at two sites is "rare." Though we had expected to see similar trends, the research project was more successful than we had anticipated. Plant health data was limited in 2007. In that year we were focused on investigating disease suppression. NDVI in IL showed urea had a positive impact on plant health compared to other treatments. Using NDVI, which allowed avoidance of dollar spot infection centers, data showed best color/chlorophyll levels were provided by urea alone or when urea was mixed with another product in the test. Surprisingly, using NDVI comparisons, no other treatment in the study fared better than the untreated control. In 2007, the season long NDVI average represented 20 dates from 3 July to 13 November. Treatments similar to untreated were Ultraplex, Lesco 12-0-0, Knife, PanaSea Plus, and Iron Roots.

(continued on next page)

The following year, similar results were found in IL. Highest NDVI levels again were measured with urea alone or urea in combination. In 2008, the season average represented 15 dates from 24 June to 10 October (Figure 4). We also compared results in IL and MD based on visual quality, and found that urea had provided best plant health in both locations (Figure 5). Looking at weekly measurements of plant health in IL, the effect of urea was obvious (Figure 6). In fact, where visual quality ratings showed optimum plant health, the positive effect of urea lasted the entire season (Figure 7). The line graph also shows that 'spoon feeding' low amounts of urea, 0.15 lb N/1,000 ft² every 14 days, provided a relatively smooth level of visual quality.

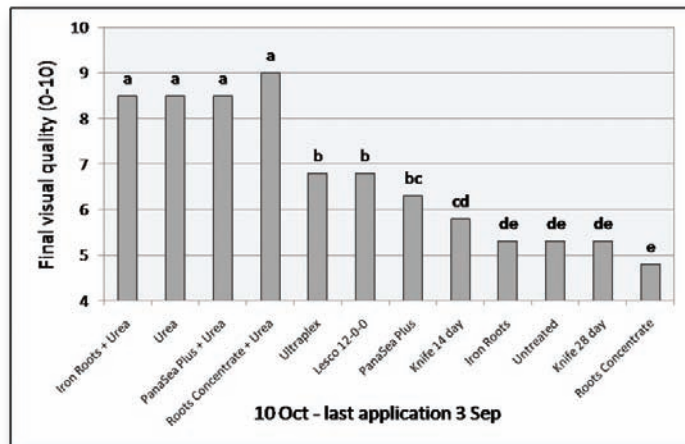


Figure 7. Residual effect of treatments in IL on visual quality when rated 10 October with last product application was 3 September, 2008.

A Lesson Learned

As one of two plant pathologists given the task of a head-to-head evaluation of several popular biostimulants and/or iron and of nitrogen products for their effect on bentgrass greens...I had learned a lot. The study provided strong evidence that there are ways to save money without sacrificing plant health. In fact, it appears that a return to urea as the primary source of nitrogen may actually improve plant health compared to the plethora of other products sometimes simply called biostimulants. As planned we had gathered plant health information from two regions – Chicago and Maryland. This suggests that urea will provide a beneficial effect for bentgrass greens in the northern U.S. region. This is real world stuff. We had used nitrogen rates that would accurately reflect current golf green fertility practices. A survey of Chicagoland Golf Course Superintendents in March of 2006 indicated that, for the season, most golf greens are limited to no more than 3 lbs of nitrogen.

Fast Forward and Back to Basics

Fast forward to 2009, declared a recession year by economists the world over. At educational meetings the talk is of "going back to basics." To me that means that we need to play our cards conservatively, we need to use our skills, our experience, and our training in the field of turfgrass science to save money. I was attending a Superintendents meeting earlier in March and heard comments by David Fearis, GCSAA Director of Membership, that were helpful. In his presentation he spotlighted the gcsaa.org website. He showed a tool that had recently been developed for the website. Several articles had been collected for reference. The tab on the pull-down menu was labeled "Economic Survival Kit." Of the dozen or so articles available online, one struck me as especially useful. The article's title was simply "Budget Crunch," and was written by David Oatis, USGA Director for the Northeast Region, on December 1, 2008. It is current information to help us during tough economic times. In the two page article he states, "So, where can dollars be cut from the budget? Perhaps the more important question is: where can corners NOT be cut? A key in working through your budget dilemma is to go back to basics." As I looked at David's nine points that might help save money... there it was, second from the end...point number 8. It read:

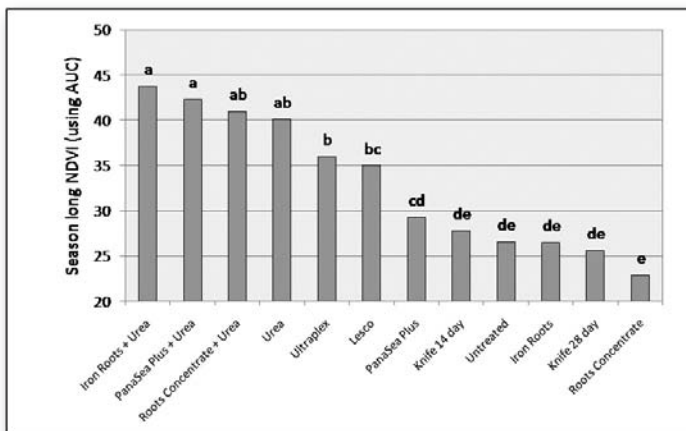


Figure 4. NDVI for all treatments when data were averaged over the 2008 season in IL.

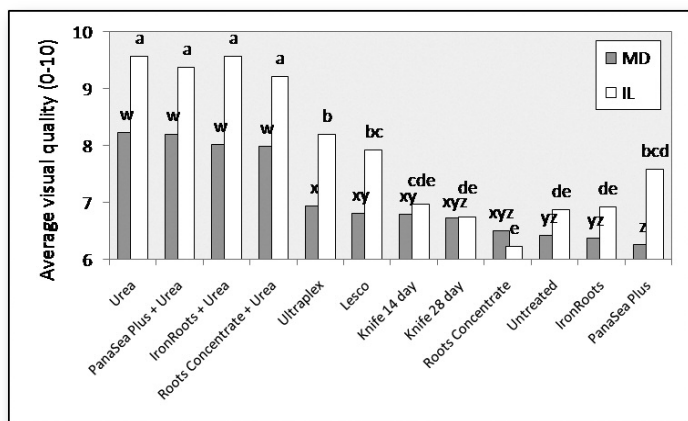


Figure 5. Visual quality ratings for all treatments when data were averaged over the 2008 season in IL and MD.

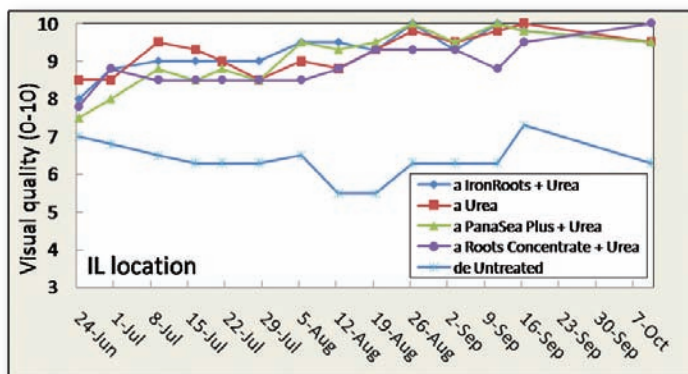


Figure 6. Weekly measurements of visual quality on a bentgrass green in Lemont, IL during 2008.

"FERTILIZATION – going back to the basics in terms of fertilization can save some courses hundreds, and perhaps even thousands, of dollars a year." I got to thinking, and I thought ...He's right. I have some research on that point, that number 8 point.

Although frequent spray applications of nitrogen to golf greens is nothing new, we may have forgotten its roots – that in the past superintendents had dissolved urea (46-0-0) into a spray tank using a water volume of approximately 1-2 gallons per 1,000 sq. ft. and N rates that were measured in tenths of a pound. The practice, which at some point was termed "spoon feeding," dates back to the '80s, '70s, '60s and possibly beyond (according to Dr. Randy Kane). It seems we may have forgotten that urea was the N-source. This study was not about urea, instead the urea was just meant a comparison to other bio-stimulant products applied at label rates. The lesson learned – from Chicago to Maryland – to achieve healthy looking greens with good color, plant density, and vigor, urea just might be the right thing to do. Consider urea in your foliar fertility program in 2009. After all it's going to be a good year for back-to-basics, keeping it simple, and saving some money wherever we can. Urea-ka! I mean Eureka! **-OC**

Acknowledgements

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Literature cited

- Ervin, E., and X. Zhang. 2008. *Applied physiology of natural and synthetic plant growth regulators on turfgrasses.* Pp. 171-200. In M. Pessaraki (Ed.). *Handbook of Turfgrass Management and Physiology.* Taylor and Francis, London, United Kingdom. (TGIF Record 128330)
- Settle, Derek. 2008. *Tree shade exacerbates physiological decline of greens during a Chicago summer.* On Course. August. 62(4): p. 9-12. (TGIF Record 138772)
- Settle, Derek, and Peter H. Dernoeden. 2009. *Evaluation of cytokinin plant extract biostimulants, iron, and nitrogen products for their effects on creeping bentgrass summer quality.* USGA Turfgrass and Environmental Research Online. January 1. 8(1): p. [1-15]. (TGIF Record 145665)
- Uddin, W., M. Soika, and D. Livingston. 2009. *Nitrogen fertility and anthracnose basal rot in putting greens.* Golf Course Management. March. 77 (3):116-119. (TGIF Record 145955)



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FEATURE II

David Marquardt, *Dirt-n-Turf Consulting*

Economical Agronomical Thinking – Part 3 *Site Specific Fertility*



Q) What has the farming community been doing for 20 years that we in golf are just now beginning to understand?

A) Variable rate fertility.

So, what is variable rate fertility?

At its point of origin, variable rate fertility was and still is a process that farmers use in order to apply only the amount of nutrient needed to each spot in their fields. Sounds complicated but it's really not. While we in golf have only been using Global Positioning System (GPS) for a few years, the "ag" community has been using it for a long time to track yield data, soil type information, and so forth. The process begins with farmers taking soil samples in a grid pattern across their fields. They vary, but 2.5 or 5 acre grids are common. On the computer, each grid is assigned a recommend rate of application of phosphorus, potash, or lime. The prescription is loaded into a spreader which then drives across the field applying the fertilizer. As the spreader moves, flow gates are opened and closed and/or belts are slowed or sped up to increase or decrease the amount of fertilizer being applied. This entire process is controlled by GPS controllers on the spreader and the prescription loaded into the spreader from the computer.

The benefits are many. First of all, by applying what is needed, where it's needed, there is little to no waste. With 20,000 acre farms becoming the norm it is easy to see how dramatic the savings can be. Secondly, by applying only what is needed, less fertilizer (and money) is free to leach into streams and ponds. This is stewardship at its best! The other benefit is that all areas of the farm's production are optimized so that maximum yields are achieved. True, we don't harvest our courses and yield is not our objective, but the same principles apply. Our goal, no different from theirs, is to optimize the performance of every part of our course.

...by applying what is needed, where it's needed, there is little to no waste.

So, are you ready to retrofit your spreading equipment to do the same on your course? Do you want to set up 5 acre grids and send out the floater? No takers huh? So how can we learn from our cousins on the farm and apply variable rate fertility on our courses?

Let's begin by renaming it site-specific fertility. Site-specific meaning that any site we can fertilize differently is worth sampling separately. For instance, the norm in our industry is to take a few random fairway samples and apply the data to the entire course. The fact is that there are many unique soil types and chemistries across our courses that are being mismanaged. Take, for instance, a par 5 fairway that crosses a creek, moves past the pond, up a 150 yard hill to a perched green. Not so hard to imagine is it?

Typically, the soil near the creek where it regularly floods will have a unique chemistry due to such things as silt or road salts that may be flushed in. It is also common to see varying chemistries during creek projects, where cleaning and widening often deposits silts from the bottom onto the surface prior to re-grassing. Second, the area around a pond is often affected by the subsurface material that was moved during the pond construction or often from the shoreline work or periodic dredging. Third, the rise in elevation on the approach to the green often has less topsoil and more clay left during construction. It is easy to see that the chemistry in each location can,

(continued on page 15)



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and often is, affected by these construction and geographic changes.

From an application standpoint, applying the same fertilizer to this entire fairway either under-addresses the needs of one area or over-fertilizes another. Either way, money is wasted and the desired results are not achieved. This explains why so many applications do not provide the same visual or growth response across the course.

While you may not have many creeks or ponds and your course may not have great elevation changes, most courses will have a wide degree of change from hole to hole and from front to back nines so the same philosophy applies. If the 4th hole is very low on phosphorus but the 5th is not; if the 6th has high potash levels but the 7th does not; then applying a single maintenance product to the entire course will overfeed some areas and underfeed others. And, unlike many things, time will not correct this; it will only make it worse. Therein, prudent superintendents are beginning to employ both corrective and maintenance programs. One is intended to correct soil nutritional shortcomings and the other is intended to maintain turf health.

Now, before you say this is too much of a pain; before you say it's not worth it, check out a couple of examples. Club One is a large, private facility with about 70 acres of bentgrass fairways. Over a 4 or 5 year period they have employed a program that addressed the unique phosphorus and potash needs of each fairway in a fall **corrective program**. Lime is also addressed in this fashion. Throughout the growing season nitrogen is the only nutrient that is applied and no custom applications are necessary. Including dormant fertilizer and corrective potash, this club spent \$7,200 in 2008. Compare this to five years ago when fertilizers cost much less and the same club was doing a spring and fall custom app at about \$10,000 each and a summer treatment for about \$7,000. This club's fairways have never been better, and their savings allow for more intensive programs on greens or elsewhere.

Course Two is a high end, daily fee club, which typically does three custom apps per year. They are now down to one custom/corrective application. The rest is addressed with sprayable urea and ammonium sulfate. The cost per acre in 2008 was half of what it was just three seasons ago when fertilizers cost half as much.

The take home is simple: Divide your fertility program into two categories, correction and maintenance. Apply corrective nutrition as needed, where needed, and make sure that your maintenance program is synergistic with your correction program and not competitive with it. The long term, year-after-year savings are well worth the site-specific efforts that are required for a few short years. **-OC**

Prudent superintendents are beginning to employ both corrective and maintenance programs.



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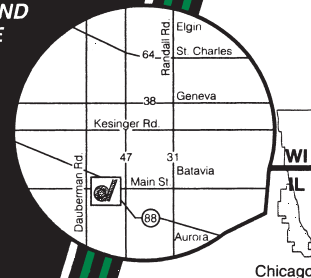
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Lapping has been around for centuries. It is a way of polishing or shaping objects to fit properly. It is used to remove rough edges or to mate two pieces to create a precision fit. Back-Lapping, as we know it, is the same as lapping two metal objects to fit. The reason we call it BACK-LAPPING is because in order to lap a cutting unit we have to spin the reel in reverse to achieve our goal. What is our GOAL? That's a good question.

Our goal when back-lapping is not so much to mate two surfaces or edges. It is to maintain the sharpness of the edges. This maintains the best quality of cut between sharpening of these cutting edges. The entire back-lapping procedure can be completed in as little as 15 minutes. Most of today's equipment comes equipped with on board back-lapping capabilities, making the job much more efficient.

There are four important factors that you need to consider before you attempt to back-lap. When these factors are met, it will assure that back-lapping will be an effective practice.

1. How dull was the reel when you made the decision to lap?

Back-lapping is intended to be a maintenance practice not a repair.

2. How much relief was left on the reel blade?

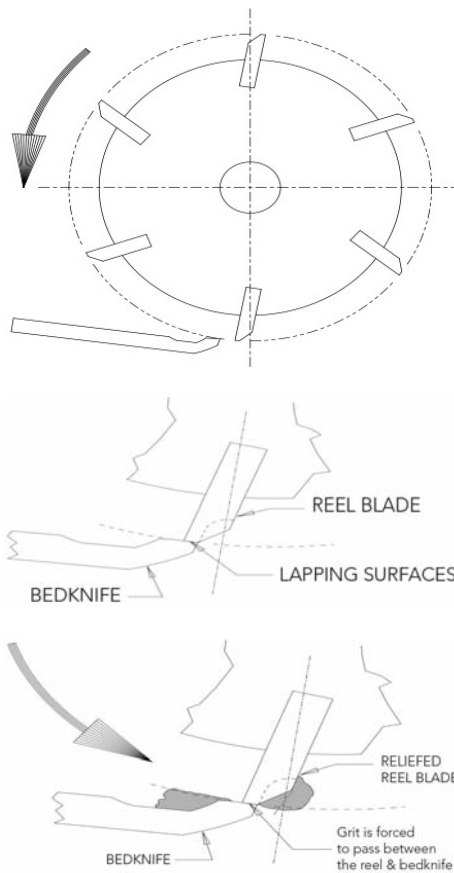
Relief is needed in order to back-lap, thus the efficiency will diminish as the relief angle diminishes.

3. How long ago did you back-lap? Did you lap long enough to effectively put an edge on?

The time needed to back-lap depends on the status of the relief angle and how often you back-lap.

4. What is your back-lapping procedure?

The effectiveness of the back-lapping process is best achieved by keeping the grit in suspension and dispersed evenly.



Once you've evaluated these factors, then you can begin your maintenance practice of back-lapping a cutting unit.

The correct procedure for back-lapping will be to make light contact between the reel and the bedknife, rotate the reel in reverse, and apply the proper grit compound.

The top face of the bedknife that lies in the path of the reel blade and the surface width of the blade is where the grit of the lapping compound will pass through. The thinner the blade width the less time it takes to back-lap, the wider, the more time is required in order for it to be effective. If the cutting edges are too rounded, this too will require more time.

Without a relief angle, back-lapping should not be considered an option as a maintenance practice. The relief area on the reel blade is where the lapping compound clings, allowing the grit to be suspended in the relief area, and then pushed between the reel blade and the bedknife, making it effective for removing metal.

To summarize, in order to have an effective BACK-LAPPING maintenance practice, you must maintain the original equipment manufacturer's specifications and maintain a relief angle. The thinner the blade width the less time is required to back-lap. As the relief angle diminishes so does the efficiency of back-lapping.

DON'T WAIT TO BACK-LAP – DO IT PERIODICALLY TO MAINTAIN QUALITY OF CUT. -OC



Luke Cella needs your help. He is participating in golf marathon to support the Sunshine Through Golf Foundation (CDGA's renamed foundation). He's going to play a 100 holes in a single day to give back to the most supportive golf association in our country. Help Luke help the Sunshine Through Golf Foundation. luke@magcs.org or 630-243-7900.

Please keep **Howie Shuck** (BTSI) and his family in your prayers while he recovers from open heart surgery following an aortic aneurism he suffered in early March. **Roger Ogalla** has been keeping us updated on Howie's progress, which we all hope will lead to a quick and full recovery.

Congratulations to MAGCS member **Dale Morrison** of Trappers Turn Golf Club on recently achieving certification with GCSAA; and to **Scot Spier, CGCS** of Arthur Clesen, Inc. on his recent recertification.

The deadlines are close at hand for 2 GCSAA programs that could be of benefit to you. The GCSAA Legacy Awards funded by Syngenta provide scholarship assistance to applicants who are children and grandchildren of GCSAA members who have been Class A, C, A-Retired, B-Retired, or AA members for five or more consecutive years. Applicants must be enrolled full time at an accredited institution of higher learning, or in the case of high school seniors, must be accepted at such an institution for the next academic year. The deadline for applications is April 15th. The GCSAA Scholars Competition rewards undergraduate students who are GCSAA members and have shown excellence in academics, work experience, extracurricular activities, and have the potential to become a leading professional in the golf course management industry. The deadline for applications is June 1st. Contact Mischia Wright, GCSAA's senior

DATES TO REMEMBER

April 6 – Illinois Golf Forum hosted by the Illinois PGA and the CDGA at Bobak's Signature Events & Conference Center at Seven Bridges.

April 6-12 – The Masters golf tournament at Augusta National Golf Club in Augusta, Georgia. Our season has begun!

April 15 – Deadline for applications for the GCSAA Legacy Awards funded by Syngenta Professional Products.

April 28 – MAGCS monthly meeting and Annual Spring Scramble at Prairie Landing Golf Club, **Tony Kalina, Eric Mundt**, and **Travis Dykstra** hosts.

May 3 – JW Turf's Annual Equipment Auction at their headquarters in Hampshire, IL.

May 9 – North American Birdwatching Open held on International Migratory Bird Day.

May 15 – Deadline for MAGCS Scholarship Applications.

May 18 – MAGCS/ITF Spring Golf Day at Merit Club, **John Nelson** and **Scott Verdun** hosts.

May 19 – CAGCS monthly meeting at Glen View Club, **Tony Frandria** host.

June 1 – Deadline for applications for the GCSAA Scholars Competition.

June 15 – MAGCS monthly meeting at The Club at Strawberry Creek in Kenosha, WI, **Matt Kregel** host. The Dom Grotti, Class C, and Senior Championships will be contested at this event.

manager of development at 800-472-7878, ext. 4445 for more information and application forms.

While on the subject of GCSAA awards, our friend **Lee Miller**, formerly with the CDGA's Turfgrass Program, was one of the 2008 Watson Fellowship winners. The Watson Fellowship is funded by a partnership between the Toro Company and the Environmental Institute for Golf, and is

(continued on page 20)

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named after Dr. James R. Watson, a retired vice president for Toro and a pioneer in turf research. It is awarded to students working toward masters degrees and doctoral degrees who have been identified as promising future teachers and researchers in the field of golf course management. Lee is working toward his doctorate in plant pathology at North Carolina State University, and his dissertation aims to identify the fungi involved in fairy ring biology and determine the soil temperatures at which they are active and assess their sensitivity to fungicides and other management practices. For his excellent work—and we all remember what an asset he was during his time with CDGA—he received a \$5,000 grant. Congrats to Lee—our little boy is all grown up now, maw.



Lee Miller

As you may be aware, the MAGCS has its own scholarship awards program. There are three \$2,000 scholarships available for 2009 to the children of MAGCS members who are outstanding students and have demonstrated strong potential for future success. To qualify the applicant must have a parent who is a current member in good standing for at least 3 consecutive years in one of these classifications: A, SM, C, D, or E. He or she must also be enrolled full time at an accredited institution of higher learning, or in the case of high school seniors, must be accepted at such an institution for the coming academic year (I'm feeling a sense of déjà vu here). Any number of students from a single family may apply, but only one per family will be eligible to receive the scholarship. You can download an application at www.magcs.org.

On the move last month: **Jason Funderburg**, formerly co-superintendent at Rich Harvest Farms is now a sales representative for Chicagoland Turf where he will service the western and northwestern Illinois territories—all the best in your new career, Jason!

Also making a move recently were **James Chisolm**, former assistant superintendent at Naperville Country Club and **Nick Marfise**, former assistant with the Glen View Park District. James has accepted the assistant superintendent's position at White Eagle Golf Club under **Gilberto Velazquez**, while Nick has taken the second assistant's job at Park Ridge Country Club for **Joel Purpur, CGCS**. Best of luck in your new positions, guys.

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Congratulations to Aaron Reinhart, the new assistant superintendent for **Dave Behm** at Willowcrest Golf Club.

Friday the 13th of March may have been an unlucky day for the diaper services of Morris, Illinois, but it certainly was a lucky-charmed day for Wendy and **Andy Weadge** (Morris Country Club), who welcomed their 7-pound bouncing baby boy Parker into the world. Word has it that the Morris High School football and basketball coaches have already visited Parker with letters of intent in hand. Congratulations to the Weadges!



Wendy and Parker (or is it Packer?) with Moe Weadge, Larry Riesenbeck, and Curly Blomquist looking on.

Now that we've seen the last of winter with its prolonged ice cover, frigid temperatures, and wild mood swings with thaws and heavy rains causing flooding on many of our properties, we can look back and be thankful that we got through it with minimal damage (hopefully). Widespread reports of severe flooding, fish kills, erosion, and the usual famines and pestilence were popping up everywhere, and I thank the superintendents who shared their photos and stories of the havoc wreaked by Mother Nature on their courses.



A submerged bridge on a local golf course in March.



Lack of oxygen under the winter's thick and prolonged ice led to fish kills in many golf course ponds.

And now that the floodwaters have receded, it's a great time to inspect all those drain lines and catch basins and give 'em a good spring cleaning. Who says we don't have any fun working on a golf course?



Another glamorous job for the guy who showed up late.

Look for the 2010 Golf Industry Show in San Diego to have a stronger USGA presence than ever before—it was announced in February that the USGA has formalized its long-term involvement in the Golf Industry Show with an increased presence including additional programming, promotion, and sponsorship activities.

Also from the USGA, a reminder that the Green Section has regular Regional Updates on its website. These updates are designed to keep you abreast of the latest turfgrass and maintenance developments, or unusual happenings throughout the region. Go to usga.org/turf/regional_updates to see what's going on.

Congratulations to **Todd Schmitz** and the City of Aurora on the recent certification of Phillips Park Golf Course through the Audubon Cooperative Sanctuary Program for Golf Courses. The March 18th issue of the Aurora Beacon News had a very nice (and BIG) column on the certification process, including Todd's efforts to promote environmental awareness at Phillips Park, the 48th course in Illinois and the 681st in the world to achieve ASCP certification.



Todd Schmitz

(continued on page 23)

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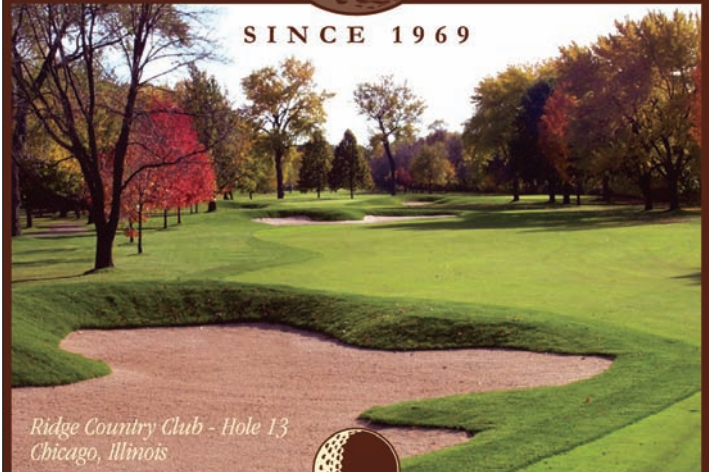


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So you might think that working for a municipality like Todd does would be too structured or regimented, right? It does have its perks, though, as the resources a village or city has are vast and can be shared. In my days at the village-owned Bartlett Hills Golf Course, many a tee was built using one of the village's big ol' honkin' endloaders. Todd took that thinking to the next level this winter—he made a bulk lime application to the Phillips Park Golf Course fairways using a City of Aurora salt truck. Saved a bunch of money, and worked like a charm. Thinking outside the box like Taco Bell is what that is.



On March 7th, the CDGA held its annual Directors Seminar at Medinah Country Club. The purpose of these events is to gather officials from golf courses throughout the region together in one venue in order to share information and exchange ideas in an open format. After the general remarks, participants break out into several subgroups that focus on more specific areas of golf club governance, such as finance, house, golf, and grounds and greens. This year, the subject for the grounds and greens group was the current economy and its effect on course conditioning. A panel consisting of moderator Sheldon Solow (green chairman at Briarwood CC), **Dr. Derek Settle** (CDGA), **Dave Esler** (Esler Golf Designs), **Ty McClellan** (USGA Green Section), and golf course superintendents **Bob Maibusch, CGCS**, MG (Hinsdale GC), **Dan Marco, CGCS** (Ruth Lake CC), **Curtis Tyrrell, CGCS** (Medinah CC), and me fielded questions from the audience of green chairmen, fellow superintendents, and various other course officials throughout a lively morning of open discourse. These seminars are a great way to bond with and educate the people that we answer to at our courses—think about attending next year's event, you won't be disappointed.

Another of our affiliate groups held its annual shindig in March as well—the Chicagoland Association of Golf Course Superintendents (CAGCS) presented the 24th Annual Chicagoland Forum at Naperville Country Club (**Tim Anderson, CGCS**) on the 11th. The morning session featured GCSAA's effervescent Lyne Tumlinson and CAGCS president **Jon Jennings, CGCS** and their "Taking Control of Your Career: Make it Magic" seminar. The afternoon was highlighted by CDGA's Director of Rules and Competitions Jodi Ciotti's talk on "Effectively Marking the Golf Course," followed by past MAGCS member Tom Brodeur of TPC Boston speaking on "Successfully Hosting

an Annual PGA Event." On a personal note, I would have better insights to offer about the presentations had I taken better notes, but I found myself distracted by the near exact similarity between the valances above the windows at Naperville and the tie I chose to wear that day. It was spooky weird knowing that I accessorize in the same manner as a banquet room at a country club. But I digress. Again. Thanks to everyone who made this another great Forum, to the guests who travelled great distances to share their knowledge, and to Tim and the staff at Naperville Country Club—yes, even the decorator who chose the damn valance material—for a great day.



Tom Brodeur nods off while reading the creed.

(continued on page 25)

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My...er, I mean this particular course's...mechanic has an ultimate set of tools, and says he can fix it.



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-OC



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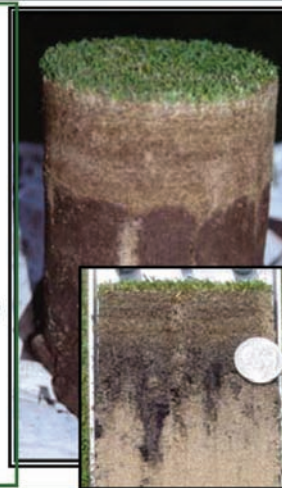


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WINTER RECAP

Nick Marfise, Park Ridge Country Club

Class C Does it Again



On behalf of the MAGCS Class C Committee I would like to thank everyone who came out to the Winter Workshop. The Winter Workshop is always geared towards career development and professional improvement. The morning's discussion featured speakers from the GCSAA: Lyne Tumlinson – Director of Career Services and Penny Mitchell - Senior Manager of Certification.

Lyne and Penny explained among other things how the GCSAA has developed new standards to become a Certified Golf Course Superintendent (CGCS). The title of CGCS is designated, as the pinnacle position in golf turf management. In order to become certified you must plan ahead. It takes time and preparation to achieve this status. The good news is that you can begin your certification process now, even as an assistant. The first step you can take is to find out where you need help.

A tailor-made tool available to members on the GCSAA website is called the Professional Development Resource or PDR. The PDR is an interactive questionnaire that assesses your past and present work experiences to help outline your skills as a superintendent. This tool was developed around core proficiencies that our peers believe make a great superintendent. The PDR shows where you excel and where you need to improve your proficiencies to learn the many different aspects of being a qualified superintendent.

The other important step to begin now is to document your work and accomplishments. One of the new requirements of certification is to create a portfolio of your career and achievements. You can do this by capturing photos of projects,

recording items in a journal and creating a living history of what you have done. This is an excellent habit to get into – it will arm you with information for your next interview and career advancement.

We switched gears in the afternoon, actually jumped gears into other professions where our turf background can be used.



*Penny Mitchell and
Lyne Tumlinson, GCSAA Staff*

Eddie Sagen - Facilities and Systems Manager for McDonalds and Eric Adkins - Director of Grounds at Toyota Park presented their professions and their start in golf. Mr. Sagen and Mr. Adkins presented together a wonderful insight into how valuable and versatile our turf degrees and knowledge have become. There are job opportunities out there that aren't focused on golf but use the same set of skills we are developing now.

Whether in golf, sports turf or another turf profession, the job market is highly competitive. The success of your facility reflects your success, so set realistic goals and accomplish those goals one at a time. Sit with your fellow co-workers and Superintendents to discuss your competitive edge, and your carrier decisions. Respect constructive feedback from your superiors and remember what you put off for tomorrow, someone else has done yesterday. **-OC**



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