

2011 MGCSA March Mega-Seminar Re-Cap

The MGCSA held its 2011 Mega-Seminar at the Legends Club in Prior Lake on March 9-10. Scott Thayer, host Superintendent and the staff at Legends Club provided a great venue for the 97 members who attended the two-day Seminar.

DAY ONE

Day One focused on agronomics; soil and water testing, foliar nutrient feeding and *Poa annua* control and management.

Nick Christians, Ph.D., Professor at Iowa State University opened the day by talking about plant-soil interactions.

Elise Doucette, Minnesota Pollution Control Agency spoke on the new aquatic permit requirements and NPDES permitting.

Mike Richardson, Ph.D., University of Arkansas, discussed the basic biological concepts about foliar uptake of nutrients



MGCSA members take a break during the March Mega-Seminar in the Legends Club grille in Prior Lake.

in plants.

The day concluded with Dr. Christians speaking about *Poa annua* control and management.

DAY TWO

Day Two tackled the new technologies that are being utilized in our industry all the time, covering new data collection

facility.

Marcus Jones, Iowa State University, spoke about blog use in the turfgrass industry.

Bob Porter, Superintendent Hiawatha Golf Course gave a talk on smart phone applications for the golf course superintendent.

tools to social networking to useful smart phone applications.

Mike Richardson, Ph.D. examined several soils, plant diagnosis capabilities, underlying technology, shortcomings and cost.

Clayton Fixens, GCSAA web architect, showed us how to use social media to promote yourself and your



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MGCSA Assistants Spring Mixer Set For May 24 at New Prague Golf Club

New Prague Golf Club opened in 1931. New Prague Golf Club was designed by Don Herfort and Bob Pomije. The course was nine holes for 38 years. The back nine began construction in 1967 and opened in 1969. The par 72 course measures 6,401 and is very walkable with short distances between greens and tees.

Superintendent Jeff Pint

Superintendent Jeff Pint began working there in 1992 as a course worker. In 1998 Jeff became the Assistant Superintendent for seven years and was promoted to Superintendent in 2006. Jeff is a graduate of the University of St. Thomas in St. Paul. His hobbies include; golf, bowling and pheasant hunting with his two yellow labs, Sugar (13) and Haley (4).

Pint's challenges at the course include working with the budget and earthworms/worm casts.

Pint is a 5-time MGCSA Golf Champion and usually wins the long drive contests at the MGCSA golf outings.

Assistant Superintendent / Mechanic Sly Stocker

Sly Stocker New Prague's Assistant / mechanic is no stranger to the mechanic industry. He has been turning wrenches for the last 26 years. He has repaired a wide variety of equipment during that time, anything from heavy construction to industrial, to



THE NEW PRAGUE GOLF CLUB GROUNDS STAFF *must of had a feeling this was going to be a long winter as they did not want to put the course to rest in November 2010.*

agricultural and most recently the turf industry.

Stocker has been the mechanic at the New Prague Golf Course for the last 10 years. His main responsibilities include repairs of all equipment, and facilities. No matter what is broken at New Prague Golf Course, Sly is the person to call.

Sly has been married for 25 years and has 2 sons. His hobbies include motorcycling, working in his home shop with his son, and golfing with friends.

New Prague GC will host the May 24 Assistants' Spring Mixer.

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2011 SPRING MIXER HOST SUPERINTENDENT JEFF PINT
The 5-time MGCSA Golf Champion is probably a good bet to perform well at his home course at the May 24 Assistants' Spring Mixer. Remember, even though this event is geared toward Assistant Superintendents, ALL MGCSA members are encouraged to participate.

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CASE STUDY: A LIGHTING AUDIT

By MARK JOHNSON
GCSAA

This case study is great because it points out how something as common as a simple electrical repair can turn into a significant cost saving and environmental benefit at the same time. David Phipps, golf course Superintendent at Stone Creek Golf Club, followed through on a suggestion from an electrician to have a lighting audit done by the local utility company. What he discovered is nothing short of a remarkable savings in energy costs for a very small investment. We have all heard of the benefits of turning off lights when not in use, but this case study shows how we can do so much more to save money and reduce our carbon footprint.

When was the last time you thought about a lighting audit or an energy audit for your facility? I have looked into our energy audit's recommendations that would lead to larger savings only to find that some of the prescribed actions were challenging. Some of the recommendations for larger savings were only possible in areas that would become dysfunctional.

While that may still be the case for some of the recommendations, like avoiding demand charges by only irrigating between 10 p.m. and 5 a.m., people have found ways to get around some of the inconveniences. Think about the possibility of using a single timer to control golf car charging to avoid the demand charges. You could always leave three to five cars off the timer for emergency charging during the day. What about the same thing for the electric vehicles in your maintenance facility? More and more electric vehicles and equipment are being used in golf maintenance and we should be proactive in planning for the battery charging process.

That's just one possibility. That's just one avenue for change. After all, David Phipps started with one broken light fixture and look where that journey took him.

As David Phipps observes, in today's economy, local businesses are doing everything they can to control overhead and use dollars wisely. Smart businesses

are finding that doing more with less helps them keep costs in check and maintain customers without sacrificing service. Stone Creek Golf Club has done exactly that with its upgrade to high performance lighting.

With help from Energy Trust of Oregon, Stone Creek learned that a lighting improvement program is an easy first step in saving energy to control costs and results can be seen quickly often with a

"When evaluating course operations for places to find energy savings, lighting should be one of the first considerations. According to the U.S. Department of Energy, lighting uses nearly 40 percent of all electricity used in commercial buildings. And golf courses depend on good lighting both indoors and out - at driving ranges, clubhouses, pro shops, offices, storage sheds and outbuildings."

short payback period.

When evaluating course operations for places to find energy savings, lighting should be one of the first considerations. According to the U.S. Department of Energy, lighting uses nearly 40 percent of all electricity used in commercial buildings. And golf courses depend on good lighting both indoors and out - at driving ranges, clubhouses, pro shops, offices, storage sheds and outbuildings.

Thankfully, lighting technologies have advanced over the last several years with new fixtures that improve light quality and light efficiency. Stone Creek found that its existing fixtures were inefficient, outdated, and consumed too much energy. They replaced the older lamps with high performance fixtures, which produce more light and better light - making it easier for employees to do their job - and use less energy and cost less to operate. Controls were added to fixtures in several buildings to ensure that lights were on only when needed and off when spaces were unoccupied, generating further savings. Read Dave's article for a thorough outline of all the work Stone Creek did to

improve the efficiency of the lighting throughout its golf course property.

In addition to saving money on utility bills, there are other compelling reasons to think about upgrading lighting right now. New federal standards have been enacted that will put an end to the manufacture of linear fluorescent lamps including T12 and first generation T8s (along with other linear fluorescent lamps) that do not meet specific lumens per watt requirements on

July 14, 2012. The newer technology creates better light with less heat, which also reduces air conditioning cooling loads to provide additional energy savings. This type of lighting requires little to no maintenance for up to 30,000 to 35,000 hours of operation. And T8 tubes last up to twice as long as T12s, reducing maintenance costs associated with bulb changes. The new standards will go a long way toward producing continued energy savings and help reduce controllable operating costs without compromising lighting quality.

Right now is timely for all businesses to consider the transition from T12 to T8 technology to take advantage of any local incentives or promotions - such as those offered here in Oregon by Energy Trust - and before any supply and demand issues hit the market.

Stone Creek's investment in high performance lighting is consistent with their track record of making improvements in operations that are good for the environment and good for the club. The club has done a remarkable job of implementing an environmental program that addresses wildlife and habitat management, and water conservation and water quality issues. Thanks to a willingness to look for creative solutions, they can now add energy efficiency to their list of accomplishments.

(Editor's Note: This "Green Links" case study was hosted by Roger Stewart, CGCS, TPC-Twin Cities. If you have similar success stories, please send them to Mark Johnson, GCSAA's senior manager of environmental programs at mjohnson@gcsaa.org.)



MUSING THE MINUTES

By **BRIAN BROWN**
MGCSA Secretary

The MGCSA Board of Directors met on March 25, 2011 at Keller Golf Club.

After President Paul Diegnau, CGCS, called the Meeting to order he stated that he is working with Jack Mackenzie, CGCS, on the Water Management Program. They are looking for photos from members for the document.

Treasurer Paul Eckholm, CGCS reported that 2010 financially finished as expected. 2011 membership is coming in slowly and the budget for 2011 shows a projected net income of \$3,200.

Executive Director Scott Turtinen reported that The Turfgrass Information Center (TIC) is scanning and archiving all of the past *Hole Notes*. These archives will be available through the TIC site. The GCSAA spoke to the chapter executives about getting all of the chapters onto the AVECtra software system. Dues paid to date by Superintendents are 444 and affiliates are 103. Not paid yet by Superintendents are 142 and affiliates are

19. The MTGF will go through the MGCSA for credit card charges for TROE Field Day registration.

Conference/Education: The Mega-Seminar went well with a net profit of \$3,800. (Income \$9,985, expenses \$9,178.52, Syngenta sponsorship \$3,000.) Ninety seven people attended with 87 on the first day and 57 for day two. The Mega-Seminar for 2012 is set for Feb. 8-9. The location for the Northern Green Expo at the Convention Center will move back to the west end to reduce rent costs. The Thursday Casino Night will be eliminated. The resources used on the Casino Night will be used for a Thursday Lunch on the Trade Show floor. The Trade Show will be open until 5:30pm.

Minnesota Turf/Government Affairs: There have been bills introduced that would put all pesticide and recycled water under the Department of Agriculture. The MN Pesticide License Cards may not show the recertification attended at the

Green Expo. Department of Agriculture stated that due to staffing all recertification didn't get inputted before the cards were printed. Current recertification dates for applicators can be found on the Departments website. EPA will assign a staff person to each state to oversee non-point source pollution.

MTGF: The MTGF-sponsored Super Tuesday Seminar on January 4 profited \$145. For next year, topics will include tree care, soil fertility, new herbicides, and a topic to be determined. The MTGF profited \$92,500 from the Green Expo which is down from \$120,000. For 2012 research funding is allocated to: TROE Center \$40,000, Emerald Ash Borer research \$12,000 and White Mold on Annuals \$2,000.

Research: There are 69 tee times that are now available for the Turf Tourney. Using an online auction service was discussed. The Board decided not to change the way the tee times are sold for the Turf Tourney. The additional service of allowing for online payment through the website will be offered.

U of M Report: A snow mold field day is scheduled at the Les Bolstad UM golf course on April 12. The tests came out

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Hole 5 - 536 Yard Par 3, Photo by Peter Wong.

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Musing the Minutes-

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revealing and will give good insight to the products used. Dr. Brian Horgan stated that his budget is getting hit vary hard, just as all departments are at the University. He has been writing many grants with some good prospects for funding to try to offset some of the cuts. The UM Monograph will be finished this spring and will be available for purchase. The Monograph covers the past 20 years of research.

Old Business: Luke Dant and Turtinen will coordinate an email to offer MGCSA logo shirts to our members. The MGCSA will use online service software Epaperflip for Hole Notes starting September with Beta testing starting ASAP.

New Business: Iowa Golf Course Superintendents Association is raising money for The Wee One Foundation. They do not host an event yet are fundraising for it. Paul Diegnau, CGCS will contact them about our event. The MN Golf Hall of Fame Committee is looking for volunteers to serve on their committee. Paul Diegnau, CGCS will contact the MGCSA Past Presidents to see if any of them are interested in serving on the committee. A semi-permanent Board of Director meeting schedule is being created to take into account typical golf course maintenance activities. \$5,000 was allocated to be used this year for printing costs of the State Water Stewardship Document. These documents will be of a quality production and given to important regulators and legislators.

- Submitted by Brian Brown
MGCSA Secretary

HOSPITALITY NIGHT IN ORLANDO



Jerame Gossman, Superintendent at Southview Country Club, left, converses with Somerset Country Club Superintendent James Bade, at the GIS Hospitality Night in Orlando on February 9, 2011.

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Water Stewardship

By JACK MacKENZIE, CGCS
North Oaks Golf Club
MGCSA Editor

"Water, the liquid that means life." I don't recall who coined this phrase, but truer words could not have ever been expressed. Taken for granted all too often, this combination of elements is a priceless commodity. Beyond human sustenance, it is the life blood of our American golf economy.

So what would happen if Minnesota golf courses were mandated to not only a reduction in the amount of water legally permitted, but also limited to specific times for irrigation? Perhaps in the short term and during an average season not much. However, these restrictions would most likely only come up if there were a severe water crisis; a time when our turf probably needs the water most. Unlike water used for industry, agriculture and consumption golf course irrigation is unfortunately perceived as a luxury. As turf professionals we know this is not the case.

We already know that healthy turf acts as a filter of dust and controls erosion. It mitigates pollution, abates noise and reduces glare. Destinations for wildlife, golf courses are often the largest home for indigenous creatures in many communities. And economically our managed venues contribute over 2 billion dollars annually to the Minnesota economy.

Do the general public, state agencies or governing bodies understand the role we play in all of the aspects of the state environment? Nope...and why should they. We never toot our own horn or protect our interests, our product and our livelihood. Well, we never used too!

Several MGCSA Presidents ago, the rally cry for water management was brought to the attention of our Board of Directors. It led to the creation last year of a 'loosely-organized' Minnesota Turfgrass Government Affairs Committee who began working on the concept of a document intended to 'sell' the benefits of golf courses the importance of turf irrigation and the responsible attitude we as golf course managers have toward the most valuable resource, water. Where are we today?

Over the course of the winter, several other State water management documents were evaluated for their content including Connecticut, Georgia, Florida and Pennsylvania. The best of these reports was massaged and adapted to reflect the specific idiosyncrasies of Minnesota golf courses. Seventeen clubs or vendors' generated Best Management Programs relevant to water quality and use. Technical articles were reviewed for their merit and inclusion and partnerships established with parties interested in our industry and how we manage our resources. The end

result is the framework for the *Minnesota Golf Course Water Stewardship Guidelines*.

Throughout the project I have learned that we have a good message to share. No, we have an AWESOME story to tell. From using reclaimed water, establishing natural areas, maintaining our systems and using the latest technologies to maximize our irrigation efficiencies our attitude toward preserving water, a resource respected by all golf course personnel is well-documented and needs to be promoted.

The Minnesota Golf Course Water Stewardship Guideline is a long (over 150 pages) essay. It needed the length to first define for our partners and adversaries what a golf course really is. Secondly, emphasize the complexities involved in managing the unique aspect of a golf course that is so beneficial to our environment and economy. And thirdly, educate everyone as to our inherent interest in water stewardship including a series of locally-generated Best Management Practices that emphasize through example our responsible intentions.

The thrust of the project is to, assure Minnesota agencies and public representatives we are committed to quality control and responsible water use, provide our state courses a conservation resource and of utmost importance, and define our own future regarding water management. This goal requires an incredible amount of promotion, education and forward thinking.

The final chapter needs to be written.

Do we offer a plan, when mandated, to cut back our water use dependent upon a schedule out of our control? For example, we could be forced to irrigate only every odd day or even just Tuesdays and Saturdays.

Do we create a systematic 'phased' approach of each club reviewing their water use from source to destination and creating individual plans incorporating a five,

nine and 14 percent cut back? Perhaps each club left using their own independent

analysis could develop a plan to cut percentage-wise according to what they can do in a time of crisis without compromising their product. Or should we wait and see what plan our state agencies come up with according to their perception of our needs?

Options, always options, but one thing is for certain, if we do not create our own destiny one will be created for us. Sure, we cannot control those clubs who operate beyond the scope of the MGCSA, but we can create a paper trail of responsibility to assure our member clubs will be able to determine their own future regarding our greatest resource - water.

In the upcoming months, should you so choose, you will have the opportunity to review the material for your own personal input. In fact I encourage, but bear in mind that the document is expansive and encompasses many concepts already incorporated in turf management today so that the general public, allied green industries, state agencies and elected representatives can rest assured we are doing our very best to preserve and maintain the quality of the water we utilize in providing a benefit for our communities.

"The thrust of the project is to assure Minnesota agencies and public representatives we are committed to quality control and responsible water use; provide our state courses a conservation resource and of utmost importance, and define our own future regarding water management. This goal requires an incredible amount of promotion, education and forward thinking."

-Jack MacKenzie, CGCS

BMP #2: Knowing When and Where to Irrigate

Use irrigation controllers and automated devices combined with weather predictions and site conditions to improve efficiency.

Use drip irrigation for trees, shrubs, and other out of play areas requiring water. Choose landscaping plants that are drought resistant and mulch to conserve moisture.

Many older, timer-controlled irrigation systems are still in use. Irrigation should not be based on a time or calendar schedule but rather on site-specific conditions. This means your staff must monitor soil and weather conditions and operate the system accordingly. Take the time you need to evaluate your golf course. Consider the soils, topography, course layout, grass species, acreage, and the irrigation system design.

Consider, too, cultural practices such as mowing height, proper fertilization, and aeration that can reduce plant stress and, therefore, water needs.

Armed with this information, you can then begin to identify areas with similar water needs and irrigate each region accordingly. Prioritize areas to irrigate, making reductions in the fairways, roughs, and driving ranges.

Benefits of knowing when and where to irrigate:

- Reduces runoff and nutrient and chemical leaching.
- Conserves water.
- Protects surface and ground water from pesticide and nutrient contamination.
- Efficient water use reduces stress on streams and ground water levels.

Other Considerations

- Consider factors that affect plant water needs including evapotranspiration rates, recent rainfall, temperatures, exposure to prevailing winds, and soil moisture.
- Irrigate when wind speeds are minimal. Higher winds increase evaporation and blow water into non-targeted areas, both of which are a waste of water.
- Plant native species that are better adapted to local conditions, and whenever feasible, select drought-tolerant species.
- Spot water whenever possible to limit water use to those plants that truly need the water. Over-watering can cause nutrients to leach below the root zone where they are useless to the turf.
- Be aware of existing local and state regulations for ground water and surface water withdrawals.
- Document actual watering practices and set goals for yearly reductions. You might want to make this part of your monitoring program.
- When chemicals require water, try to plan irrigation times to coincide with chemical applications and synchronize fertilizer application with light irrigation.

Continued on Page 30

Wayzata Country Club uses a centrally controlled irrigation system that is connected to a weather station in order to determine site specific ET rates that are used to maximize irrigation efficiency. The ET rates are a major component in determining irrigation schedules and practices. A weather station equipped with a rain collection bucket will allow an immediate shutdown of an irrigation cycle during rain events, preventing unnecessary watering.



Constant scouting/inspection of turf and soils will help you to better understand what the irrigation needs are for all areas of a golf course, allowing for proper levels of irrigation. Hand watering, while a more labor intensive process provides the delivery of water in a more precise manner preventing the unnecessary use of overhead sprinklers.

Selection of nozzle size and head type will also greatly impact the efficiency of an irrigation system. Selecting sprinklers with adjustable margins to prevent unnecessary or over watering and using misting systems on steep slopes such as severe bunker faces will help keep water where it needs to be rather than creating irrigation runoff by using too large of a sprinkler head.

Wayzata Country Club
200 Wayzata Blvd W
Wayzata, MN 55319

Jesse Trcka, Golf Course Superintendent
(952) 475-9761
j_trcka@hotmail.com

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