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The National Night Out
At The Deck in San Diego

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Lakes Area Outreach
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Hole Notes (ISSN 108-27994) is digitally published monthly except bimonthly in November/December and January/February by the Minnesota Golf Course Superintendents’ Association, 10050 204th Street North, Forest Lake, MN 55025. Jack MacKenzie CGCS publisher. Please send any address changes, articles for publication, advertising and concerns to jack@mgcsa.org.
Connections always weigh more heavily than raw talent. We’ve all seen that time and time again, from the less qualified individual (at least in our mind’s eye) that lands the good job, to the person that always seems to fall into a good situation. Successful people have the ability to create relationships that tend to blossom into other opportunities that they never even knew existed. Their ability to network and expand their web of relationships provides recognition and the chance to do business with new groups of clientele.

The old adage of ‘It’s not what you know, it’s who you know’ holds very true in many different circumstances, and is becoming quite apparent in the work that is taking place with the MGCSA. Our relationship with the MNDNR has led to our participation in stakeholder meetings to determine thresholds for the relationship between groundwater and surface water. We continue to participate in activities with the Freshwater Society, the Pollinator Summit Initiative, the State Water Summit, and testifying before the Legislative Water Commission. Our association continues to strengthen ties with the MGA, the Mid-west chapter of the CMAA, the MNPGA, and the MWGCOA. That seems like a mouthful with a lot of verbiage, but there is something to all of this....

The MGCSA continues to promote the game for the support of superintendents and industry professionals throughout our state.

We are accomplishing this through building relationships with groups that are influential outside of our circle, which in turn allows for a better, brighter picture of golf course management to be promoted. Slowly but surely, state agencies are starting to recognize that golf course managers are highly trained professionals that are exceptional at their craft.

Little by little, state agencies are
beginning to understand that we are strong caretakers of nature’s resources, and that we give a damn about how much water, fertilizer and pesticides we are putting into the environment. The ties that have been strengthened with our allied associations like the MGA, CMAA and the MNPGA help to provide an understanding to golfers that professional course managers are highly valued employees (dare I say ‘the most important’ employee?) at facilities throughout the state. These relationships have been integral in our growth and recognition as an association.

Sometimes there are costs associated with promotion. Numerous meetings at the board level revolve around the dollars and cents that are allocated to spend time with the DNR, attend a pollinator summit, or travel to different parts of the state to strengthen our association. After lengthy discussions and healthy alternative perspectives, it all boils down to whether or not a particular event can help the MGCSA. Is there a possibility that a relationship with Group XYZ can help us down the road? Will the recognition we receive by attending meetings of the Freshwater Society actually have a positive impact in the future?

Through the inclusion and support of the MGA, MPGA and the Minnesota chapter of the CMAA, can the standing of course manager’s be elevated in the eyes of their golfers? More often than not, unanimous support of spending dollars to build relationships is a no-brainer.

The MGCSA needs to continue their efforts of advocacy and promotion for the foreseeable future. But we have it figured out: it is through relationships that opportunities arise. As stated above, “it’s not what you know, it’s who you know”. Relationships are the key to recognition and advancement, whether it is at your own golf course or at the state level. Thankfully, we have an association that understands that concept and will continue to strongly advocate on behalf of golf course professionals in the state of Minnesota.
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advocacy |ˈadvəkəsē|
noun
public support for or recommendation of a particular cause or policy: their advocacy of traditional family values.
• the profession or work of a legal advocate.

advocacy -thesaurus
his advocacy of animal rights: support for, backing of, promotion of, championing of; argument for, push for; informal boosterism of.

Whether you are aware of it or not, each and every day you practice the art of advocacy. From negotiations with your spouse or children, to subtle conversations with your key staff members, you have an opinion and share your formulation in a manner that hopefully will produce the most advantageous results. As simple as planning the dinner menu, or as complex as negotiating your employee’s compensation package, your message needs to be articulate, defined and goal oriented.

The golf industry is no different in its advocacy for water access. For the last seven years the MGCSA has been pursuing assurances of irrigation water from the Department of Natural Resources and other agencies. Like a tide, at times the discourse was free flowing, high and optimistic while in other instances it was muddling in a quagmire of low agency interest.
Throughout the process your association has been persistent, clear and purposeful in the message: “defined water use assurances in exchange for responsible environmental stewardship practices”.

Locally and outstate, at the legislative level and with our agencies, amongst private groups such as the Freshwater Society, and at public forums, the golf industry has been steadfast in sharing the idea of enhanced social responsibility in exchange for our most valuable natural resource- water. Water is a
commodity that will be unattainable should availability become a concern through drought or over use, according to the statute assigning golf to a category six “non-essential” user.

Non-essential? Really? The Minnesota Golf Industry has a great track record to be proud of. Besides supporting numerous national golf events including the PGA Championship, both US Men’s and Women’s Opens and in 2016 The Ryder Cup, the business of golf annually generates over 2.3 billion dollars in revenue and employees 35,000 individuals. Recent initiatives have included phosphorous fertilizer legislation, a license plate initiative and strong support of limiting unfair taxation and fee increases.

Roughly 500 courses on 70,000 green, green acres support wildlife and provide destinations for efficient stormwater management and groundwater recharge. A resource unto themselves, golf courses do deserve to be considered a communities’ largest rain garden.

Up until now, leading the charge advocating the extraordinary benefits of the golf course industry has been a rather lonely task. As the industries’ greatest booster boy, I have been charged by the MGCSA Board of Directors to pursue all avenues in promoting our business. With spirit and enthusiasm I have shared your message that golf, beyond recreation, is an industry to be respected as a resource in and of itself. Also, as an asset, golf deserves the tools necessary for sustainability as a business and natural amenity. As this verbiage gains momentum, your industry and I need your physical support.

In an effort to further legislative support of your businesses, the MGA, UMWCMAA, MPG and the MGCSA, is scheduling a date in March of 2016 as the Golf Industry Day On The Hill. This day, the first of its kind event, will focus upon telling the good story of our industry with a nudge, encouraging legislative support of a water conservation program with the intent to protect irrigation allocation during times of drought.
As a past participant in seven previous Day On The Hill events with the MNLA, I can assure you that individual advocacy is imperative when getting the message across. Nothing is more important to a legislature than a conversation with one of their potential votes. The development of a DOH format makes it easy to endorse your industry and create a platform for current and future issues.

The MNLA has been visiting the Hill annually for 25 years, at first introducing themselves as an industry and then, several years later after the were a spring fixture, the organization began massaging and crafting verbiage and bills to be carried into law or placed as amendments to statutes. Their physical presence as advocates, speaking one-on-one with their legislatures, enabled them to progress their association’s initiatives above and beyond what a single voice could do.

Minnesota Golf needs to emulate their success. As an individual advocate, please consider taking a day to advance golf’s cause to The Hill. Carpool with your golf professional, owner, green committee chair and or club manager and participate with your peers in a very impactful, educational and fun event.

In the weeks ahead you will be receiving flyers associated with the Golf Industry Day On The Hill. If you care about the future of golf, become a vocal advocate for your industry. As issues heat up, and as loud, repetitive and sometimes annoying as I am, my voice needs to be bolstered.

Advocacy is second nature for human beings. Please consider making one day available for your industry to support and actually change the course of history through action at the Golf Industry Day On The Hill.

My family and I wish each of you an incredible Holiday Season. Merry Christmas and a Happy New Year.
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I often hear statements like: “Young people today are not willing to work hard.” Although sometimes there is truth to this statement, it is an oversimplified analysis.

The changing workforce and, consequently, the labor market is the topic of this article. Our discussion focuses on Millennials, those born after 1980 and thus employees under 35 today. We also check out what current research tells us leads to great, engaged employees. We also look at how you can capitalize on this knowledge with more professional hiring and supervising practices.

Understanding today’s young workforce

I believe that “young people today are not willing to work hard” serves best as a symptom of Millennials attitudes about work and life. Remember that Millennials were raised in the 1970s, 1980s, and 1990s. These were decades of increased affluence, low unemployment, and before the turbulence of 9/11 and other subsequent world events. We look at two key points.

First, many employers with the “will not work hard attitude” about young people today are Baby Boomers like
me, meaning we are 50 years old or older. Although we did not experience the difficulties of two world wars and a great depression like our parents, we heard plenty about those years and grew up hoping for but not necessarily expecting a job that had meaning to us. Based on the aforementioned conditions during their childhood, many or most Millennials have the expectation that their job will provide meaning. Thus our phrase could be rewritten as “Young people today are not willing to work hard at a position that does not provide meaning to them.”

Second, as many Millennials look back at their childhood years, they recognize they were given more material things - toys, clothes, sports, music programs, etc. - than any previous generation. Referring to Millennials as the “trophy generation” recognizes this affluence and everyone receiving a trophy in competitive activities. Millennials often also recognize, however, that this affluence often resulted from their parents working so hard and long that they had little time left for their children. The result is that Millennials as a group place a higher premium on life balance than previous generations.
For some, unfortunately, the result is a feeling of entitlement and an unwillingness to work hard. Most, however, are willing to work hard, often very hard, in positions where the job provides meaning and their need for life balance is recognized and accommodated.

Creating meaningful positions

This - the vision thing - is not as difficult as you think. Think about and articulate why what you do is meaningful to you. Now communicate that continuously and especially in explaining decisions and assignments.

Articulating and engaging the workforce in a meaningful vision is essential. However, research tells us that more is required. Recent research on human behavior (psychology) and brain function (neuropsychology) sheds great light on how individuals and a workforce can have superior productivity and extraordinary job satisfaction with a desire to thrive and excel.

The answer is surprisingly sim-
ple, but challenging to implement. As with many turf research results, the answer forces us to abandon generally accepted ways of thinking.

The answer is that people are moved to be productive, engaged, and fulfilled when their psychological needs for autonomy, relatedness, and competence are fulfilled. The three needs are:

(The following descriptions are from Why Motivating People Doesn’t Work ... and What Does by Susan Fowler.)

**Autonomy**: Our human need to perceive we have choices. It is our need to feel that what we are doing is of our own volition. It is our perception that we are the source of our own actions.

**Relatedness**: Our need to care about and be cared about. It is our need to feel connected to others without concerns about ulterior motives. It is our need to feel that we are contributing to something greater than ourselves.

**Competence**: Our need to feel effective at meeting everyday challenges and opportunities. It is demonstrating skill over time. It is feeling a sense of growth and flourishing.
Supervisory and leadership training and development can assist you to implement practices that will create a golf course or club culture that will attract Millennials and workers of all ages.

Professional recruitment and selection practices

Hiring by golf courses and other small businesses, comes with good news and bad news. The bad news is that these businesses must compete for employees with large businesses with human resource departments.

The good news is that businesses like your course or club can compete for employees. Why? First, potential employees, especially Millennials, often prefer the small business atmosphere. Second, you can develop professional-looking recruitment material and conduct a professional selection process. It does, however, require making hiring a priority, perhaps with some professional help. Just as with your course activities, success requires excellent processes - recruitment and selection.

I suggest that the hiring processes revolve around the 3-5 competencies you select that will most contribute to success in the position. Competencies are the observable and measurable skills, knowledge, performance behaviors, and personal attributes that contribute to enhanced employee performance and personal success.

What should I do?

I expect at this point you are thinking: “I am a golf course superintendent; I am not an HR manager.” Actually what we are talking about is not HR
management. You can hire someone to do the HR logistics.

What we are talking about is your job as a superintendent! Your job as a superintendent is to create a golf course structure and culture where the business can thrive. In the twenty-first century acquiring and retaining an outstanding workforce is an important, perhaps the most important, part of that job.

Here are three suggestions for getting started to become the leader that your course requires. Just as you engage trusted advisors for the production and financial components of your course, you may need assistance here.

1. Develop a plan to articulate the meaning your course has for you. Now communicate that to your workforce.
2. Make recruitment and selection continuing processes. Develop a set of recruitment materials and a selection schedule including interview questions. Continually look for great prospects through word of mouth and networking.
3. Develop a plan for yourself and other owners, leaders, and managers to improve you leadership, supervision, and hiring skills.

We can now restate our initial very negative statement in a realistic, positive format: “Young people today will work hard at a position that is meaningful to them and recognizes their life balance priority.”
The MEGA Seminar
Hosted by Tom Proshek
and Brackett’s Crossing CC
Some times, if you work hard and have a good attitude, things just work out in your favor.

That seems to be the mantra of the current MGCSA President and superintendent of Olympic Hills, Jake Schmitz. Armed with an easy manner, a strong work ethic, a devotion to his family and his craft it is easy to see how Schmitz has become a successful leader in the industry. His steady leadership has helped guide the MGCSA from his election to the board in 2010 through his election as President in 2015.

It has been quite a busy couple years for Schmitz. Not only has the father of four young children had the duties of the MGCSA- Secretary Treasurer in 2013 and Vice President in 2014, but he also oversaw a total renovation of Olympic Hills Golf Club. That project started in 2013 and wrapped up in August 2015. To put it simply, there was a lot on his plate. A complete renovation takes an enormous amount of time, as does keeping up with Danny, age 11, Molly Jane, 9 Frankie, 7 and Sally Rose age 6. But Schmitz took it all in stride, with a few bumps in the road, and achieved success with the renovation and his presidency while chasing the four young athletes all over Minnesota.

Schmitz started his journey to Olympic Hills in Fond du Lac, Wisconsin. He was born and raised there and learned at an early age what it meant to take care of and nurture the land that surrounded him.

“I was raised in the country,” Schmitz said. “The best part of that was my grandfather had a hobby farm, so I basically grew up farming. I can’t imagine having my 7 year old son driving a tractor today, but that’s how my brother and I grew up.”

He started working in the industry at the ripe old age of 14 at South Hills Golf and Country Club in Fond du Lac. The job was part occupation, part family bonding, as he tagged along with his older brother Matt who would go on to become a golf course superintendent first. Schmitz recalled...
his early years involved walk mowing tees, but was not allowed to touch the greens until much later in his tenure.

“I hand mowed tees. I never touched greens, ever, until I think I was 16 in the fall, when I was given the opportunity to roll. Otherwise it was tees and we put in miles and miles of drainage. That’s what I remember the most,” Schmitz recalled.

While Schmitz would work at South Hills until his sophomore year in college during the summers, the allure of the profession didn’t grab him initially. Upon graduating high school Schmitz attended St. Olaf College where he would graduate in four years with a business degree in economics. He took a job in the financial world and lived in St. Louis Park but after about a year, he made a life changing decision.

“The office work didn’t really agree with me,” Schmitz said. “And then it just so happened my brother became interim superintendent at Milwaukee Country Club and he knew I didn’t enjoy what I was doing at the time. He offered me a position at Milwaukee and that is how the journey
began."

Schmitz quit the financial world and went to work for his brother in Milwaukee. After two years at Milwaukee CC, it was off to Penn State where Schmitz earned a two-year certificate in Turf Management, graduating in 2003. During that time he did an internship at Wilmington Country Club in Delaware in 2002. Upon graduation, he landed an assistant job at Bent Creek Country Club in Harrisburg, Pennsylvania where he would serve briefly from March to September of that year. During that time a decision was made, with strong encouragement from his girlfriend Nicole, to move back to Minnesota for good.

“I was engaged at the time and my wife said ‘we are moving back’ and that was it,” Schmitz said with a chuckle. “I moved back to Minnesota on a flier, hoping to find work.”
When he arrived, he was in the right place at the right time and landed a job with Bob Distel at Wayzata Country Club. Six months later, he was fortunate enough to be hired as the first assistant at The Minikahda Club by Jeff Johnson in the spring of 2004. It was there that he would sharpen his skills and make solid contacts leading him to Olympic Hills, where he was hired to be the Superintendent on October 16, 2006. He has led the maintenance staff there ever since. In three years, Schmitz had gone from no job and moving across country to head superintendent.

The meteoric rise is not lost on Schmitz. He recalled that during the spring of 2002 before his internship in Delaware, he went on a kind of barnstorming tour of the golf courses in the Twin Cities metro area. He visited many shops, putting his name and face in the minds of area superintendents. Schmitz persistence and perception in
finding a job was rewarded.

Upon arriving at Olympic Hills, Schmitz had his work cut out for him. Not that the course was in bad shape or had major things to overcome, he simply had the unenviable task of taking over for Orland Maenke, who was the original superintendent at Olympic Hills, dating back to its opening in 1969. To say that Maenke and his crew were a fixture there would be an understatement.

“He is a great guy. Orly stayed on for two weeks when I started just to show me the ropes. It was probably a very uncomfortable thing for him, as he was leaving a job that he truly loved. But that is the type of person he is and he is still very helpful to me today,” Schmitz said. “Any time I needed help with questions or anything he was there.”

But with Maenke’s help, Schmitz quickly adapted and gained the confidence of his crew and set forth in the creation of a different kind of Olympic Hills. The course originally started as a men’s only club in 1969, which lasted for seven years until it became a fully integrated golf club. Over the years, opportunity arose to develop the land around the golf course, as Eden Prairie grew quickly during the 80’s. This urban growth prompted changes in routing to the golf course, and various enhancements over the years left the course somewhat fragmented in terms of architecture. With necessary upgrades on the horizon, some big changes were in store for the club. In 2011, club ownership was between three different families. It was at this time that the Lu-
cided to take full ownership and purchase the club outright from the other two parties.

Specifically, Dan Luther was the driver behind the outright purchase of the club.

“Mr. Luther has a passion for the game of golf as well as golf course architecture. When the Luther family took over Olympic Hills, things really started to move quickly”, Schmitz said. “And the very first thing they invested in was an upgrade to the maintenance facility. I could not have been more excited.”

The remodel of the golf course was a high priority for Mr. Luther, as his goal was to create a legacy in memory of his father, Rudy Luther, who was one of the original founding partners.

“Mr. Luther started having discussions about upgrading our bunkers and tees, as well as replacing the irrigation system. It was during this time that he decided to do a complete overhaul of the golf course, and Ron Prichard was chosen to be his architect for the project,” Schmitz said.

With Ron Prichard on board and Landscapes Unlimited selected as the contractor, ground was broken in October of 2013 and the opening was conducted on August 5th of this year. Schmitz and his crew gained a whole lot of perspective and experience during the process. It was a massive undertaking.

“I would love the opportunity to do another major construction project,
but the kids would have to be out of the house. Working those kinds of hours are really hard on a young family,” Schmitz said. “I loved the build and all the chaos that goes along with it. Our project started very fast. We received the master plan in March of 2013, and started construction in October,” Schmitz said. “With the scope of the project growing, and not having had the experience of doing a major project, Tom Mead was brought on as a project coordinator. He was an absolute godsend for me. Working with Mead and feeding off of his experience really put the project on the right path.“

Schmitz went on to relate stories of success and failure during the project, including flooding a neighboring house and filling a neighbor’s swimming pool with mud due to torrential rains in 2014. In the end, the project was completed as intended, as every square inch of the property was touched during the project.

“Our maintenance staff seeded the entire golf course, which was probably our biggest sense of accomplishment,” Schmitz said. “At the suggestion of Tom Mead, we decided to seed all the surfaces, including green surrounds and bunkers rather than sod. Our assistants, Nick Morter, Mike Mohn and Marcus Mooney really shouldered the work of pre-plants, \textit{The sand silo, a favorite tool.}
seeding and growing everything in. They were exceptional during the project. We wanted to be able to put in the grasses we desired, so seeding was the best fit for us. It wasn’t so awesome when we had to re-seed the first four holes though!”

Dealing with successes and failures seems to come naturally to the 2015 MGCSA President. During his tenure, the MGCSA has accomplished much in the area of advocacy. Schmitz has even signed on to have a bee hive hosted on his property. He is one of the lead players on the Environmental Stewardship Committee, which he intends to keep pursuing service to these causes well past his Board duties.

“I really enjoy being on the board, and the Environmental Stewardship Committee is probably what interests me the most. Being a part of the discussions with the MNDNR and the Legislative Water Commission is fascinating,” Schmitz said. “It’s very eye opening, and I am learning a great deal as we continue to advocate for golf in Minnesota.”

Along with his progression on the
executive branch of the MGCSA, Schmitz served on the arrangements, conference and education and MTGF committees.

When not tearing up and re-doing golf courses or presiding over board meetings Schmitz certainly has his hands full at home. With four kids five years apart, spare time is minimal. Schmitz has a few hobbies with pheasant hunting and ice fishing, but mostly he is a family man through and through.

“We have a gymnast and three hockey players, so we keep busy,” Schmitz related. “I used to do a lot of bow hunting, but now the kids activities take priority. I was fortunate enough to have Erin McManus hook me up with a great dog to help me get my hunting fix, but I am certainly blessed with a great family life.”

Happy on break at Sannabel with wife Nikki and in front from left to right, Danny, Molly Jane, Frankie and Sally Rose. 

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Snow and ice on roads, parking lots, driveways, and sidewalks can create hazardous conditions for people and property. Snow and ice removal is best done non-chemically with plows and shovels but, admittedly, the results are not always adequate to ensure safety. Chemical ice melters (typically chloride salts) and/or sanding is often part of a comprehensive strategy to make winter’s passage a safe one.

Impacts

Overview
Salt and sand have traditionally been perceived as the cheapest and most effective materials for de-icing driving and walking surfaces. However, many people do not realize that they have hidden impacts that can detract from their overall effectiveness.

Impacts of Salt and Sand
Even in small quantities, salt can:
- Deplete the oxygen supply needed by aquatic animals and plants;
- Leach into the ground and change soil composition, making it hard for plants to survive;
- Contaminate groundwater and surface waters; and,
- Deteriorate paved surfaces, buildings, infrastructures, and the environment.
Similarly, sand can:
Bury the aquatic floor life, fill in habitats, and cloud the water;
Cause premature deterioration of floor surfaces as it is tracked into buildings;
Lose its effectiveness after becoming embedded in snow and ice;
Enter catch basins, storm drains, and surface waters if it is not swept up each spring; and contribute to clogged storm drains, which can cause flooding.

Most Common Ice Melters
The most commonly available ice melters include one of the following compounds:
   Sodium Chloride (rock salt)
   Calcium Chloride
   Magnesium Chloride
   Potassium Chloride
   Sodium or Potassium Acetate
   Calcium Magnesium Acetate

How Ice Melters Work
Generally, all chemical ice melters work in the same way. They depress the freezing point of snow and ice and turn the mixture into a liquid or semi-liquid slush. Solid chemical salts bore through ice or snow and form a strong brine solution. This brine spreads under the ice or hard-packed snow and undercuts, breaking the bond to the surface. Once loose, the ice or snow is easily removed by mechanical means.

Choosing the Right Ice Melter
Determining which product to use depends upon the situation. It is a balancing act of performance and cost against adverse consequences. A low-cost deicer might do a great job of keeping a walkway open, but it also might kill all of the adjacent vegetation, help corrode metal, be tracked in
Comparing Temperature Ranges
The first measure of an ice melter’s effectiveness is the range of temperatures in which it can provide deicing action within 15-20 minutes of application. The materials rank as follows:

- Calcium Chloride (-25 F)
- Magnesium Chloride (5 F)
- Sodium or Potassium Acetate (5 F)
- Calcium Magnesium Acetate (5 F)
- Potassium Chloride (12 F)
- Sodium Chloride (20-22 F)

Properties of Ice Melters

**Sodium Chloride:** Also known as rock salt, it provides adequate economical performance at temperatures at or just below 32 oF; though it loses most of its effectiveness when temperatures fall below 22 oF. It can be corrosive to structural steel in bridges and cars, is harmful to roadside vegetation, and can contaminate surface water and drinking water supplies.

**Calcium Chloride:** Though it costs about three times more than rock salt, is less corrosive to metals and is less harmful to roadside vegetation. It is the most effective compound at low temperatures; but it also leaves a white residue on surfaces when it dries.

**Magnesium Chloride:** Though it costs about two times more than rock salt, it is effective at lower temperatures, is less corrosive to metals, and is...
less harmful to roadside vegetation. It also leaves a white residue on surfaces when it dries.

**Potassium Chloride:** Though it costs about ten times more than rock salt, it is effective at lower temperatures, is less corrosive to metals, and is considered to be more environmentally-friendly than other salts because of its lower chloride content.

**Sodium or Potassium Acetate:** Though they cost about 8 times more than rock salt, they are effective at lower temperatures, are not corrosive to metals since they contain no chlorides, and are safer for the environment.

**Calcium Magnesium Acetate:** Though it cost about 5 times more than rock salt, it is effective at lower temperatures, it is not corrosive to metals, and is one of the most environmentally-friendly ice melting compounds.
# Recommendations for Deicer Usage from *Performance Rating of De-icing Chemicals for Winter Operations*. Barbara M. Gerbino-Bevins University of Nebraska

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<th>Temperature Range, °F</th>
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</tr>
<tr>
<td>Rain</td>
<td>Pre-treat with road salt prewet with 8-10 gal/ton NaCl at less than 100 lbs/lane-mile.</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Freezing Rain</td>
<td>Use Road Salt prewet with 8-10 gal/ton NaCl.</td>
<td>Use Road Salt prewet with 8-10 gal/ton NaCl.</td>
</tr>
<tr>
<td>Sleet</td>
<td>During event, prewet is not necessary.</td>
<td>Using MgCl₂ or CaCl₂ could cause slippery conditions.</td>
</tr>
<tr>
<td>Ice</td>
<td>If not preceded by any of the above, pre-treat with liquid NaCl 20-50 gal/lane-mile. Post-treat with road salt prewet with 8-10 gal/ton NaCl.</td>
<td>If liquids must be used, retreat every 1.5-2hrs to prevent refreeze</td>
</tr>
<tr>
<td>Light Snow (less than 0.5 in/hr)</td>
<td>Use Road Salt prewet with 8-10 gal/ton. Use MgCl₂ or CaCl₂ if humidity is low.</td>
<td>Using MgCl₂ or CaCl₂ could cause slippery conditions.</td>
</tr>
<tr>
<td></td>
<td>Use Road Salt prewet with 8-10 gal/ton. Use MgCl₂ or CaCl₂ if humidity is low.</td>
<td>Do not use Beet Juice in a liquid application unless it is a sunny day.</td>
</tr>
<tr>
<td>Moderate to Heavy Snow (greater than 0.5 in/hr)</td>
<td>Pre-treat with liquid NaCl 20-50 gal/lane-mile. A mix of 15/85 Beet Juice/NaCl can be used.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use road salt during and after the event.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prewet is not necessary during the event.</td>
<td></td>
</tr>
<tr>
<td>Compacted Snow</td>
<td>Use Road Salt if Necessary</td>
<td>Use Road Salt prewet with 8-10 gal/ton NaCl</td>
</tr>
<tr>
<td></td>
<td>A prewet mix of 15/85 Beet Juice/NaCl is recommended on sunny days</td>
<td>Use Road Salt prewet with 8-10 gal/ton. Use MgCl₂ or CaCl₂ if humidity is low.</td>
</tr>
<tr>
<td>Winds Greater than 15 mph</td>
<td>Treatment may cause blowing snow to stick to roadway. Beet Juice is NOT recommended on overcast days.</td>
<td>No Treatment</td>
</tr>
</tbody>
</table>
Thank You

We value your business and your friendship and thank you for choosing Plaisted Companies as your Soil Experts.

You are the reason we’re committed to providing consistent quality products and reliable delivery.

The Plaisted family wishes each of you a joyous holiday season and all the best in the coming year.

THE SOIL EXPERTS.

Elk River, MN • plaistedcompanies.com • 763.441.1100
What if I told you that you could reduce your environmental impact while at the same time saving on labor associated with dollar spot management? Early in 2015, we set out to explore the use of Environmental Impact Quotients (EIQ) in designing dollar spot management programs on golf greens. EIQ ratings were developed by a group of researchers working on fruit (Kovach et al. 1992). The EIQ values incorporate the toxicity data submitted to the EPA as part of the registration process. An equation that incorporates toxicity data was developed to incorporate risks to workers and consumers (dermal toxicity, half-life, reproductive and teratogenic effects to name a few) as well as the environment (leaching potential, aquatic toxicity, persistence, pollinator effects).

The resulting equation is:

$$EIQ = \frac{[C(\text{DT} \times 5) + (\text{DT} \times P)] + [(C \times ((S+P)/2) \times SY) + (L)] + [(F \times R) + (D \times ((S+P)/2) \times 3) + (Z \times P \times 3) + (B \times P \times 5)]}{3}$$

Where: DT = dermal toxicity, C = chronic toxicity, SY = systemicity, F = fish toxicity, L = leaching potential, R = surface loss potential, D = bird toxicity, S = soil half-life, Z = bee toxicity, B = beneficial arthropod toxicity, P = plant surface half-life (Kovach et al., 1992).

Importantly, the EIQ value is very much meaningless on its own. For
example, you could have a very high EIQ but only apply a minute amount to your greens compared to applying 100 times the amount of a product

Table 1: Experimental Programs

<table>
<thead>
<tr>
<th></th>
<th>Rate/1000 ft²</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Banner Maxx + 26GT 1 fl oz + 3 fl oz 14</td>
<td>31.6 + 24.2 12.3 + 46.1</td>
</tr>
<tr>
<td></td>
<td>Emerald 0.18 oz</td>
<td>26.4 9.1</td>
</tr>
<tr>
<td></td>
<td>3336F + Insignia SC 3 fl oz + 0.7 fl oz</td>
<td>23.8 + 27 80.3 + 10.3</td>
</tr>
<tr>
<td>2</td>
<td>Banner Maxx + 26GT 1 fl oz + 3 fl oz 14</td>
<td>31.6 + 24.2 12.3 + 46.1</td>
</tr>
<tr>
<td></td>
<td>Velista 0.5 oz</td>
<td>. 18.2</td>
</tr>
<tr>
<td></td>
<td>3336F + Insignia SC 3 fl oz + 0.7 fl oz</td>
<td>23.8 + 27 80.3 + 10.3</td>
</tr>
<tr>
<td>3</td>
<td>Mirage + Secure 1 fl oz + 0.5 fl oz 14</td>
<td>40.3 + 23.3 23.5 + 12.7</td>
</tr>
<tr>
<td></td>
<td>Emerald 0.18 oz</td>
<td>26.4 9.1</td>
</tr>
<tr>
<td></td>
<td>Tartan 2 fl oz</td>
<td>36.6 57.6</td>
</tr>
<tr>
<td>4</td>
<td>Mirage + Daconil WS 1 fl oz + 2 fl oz 14</td>
<td>40.3 + 37.4 23.5 + 110</td>
</tr>
<tr>
<td></td>
<td>Emerald 0.18 oz</td>
<td>26.4 9.1</td>
</tr>
<tr>
<td></td>
<td>Tartan 2 fl oz</td>
<td>36.6 57.6</td>
</tr>
<tr>
<td>5</td>
<td>Banner Maxx + 26GT 1 fl oz + 3 fl oz 21</td>
<td>31.6 + 24.2 12.3 + 46.1</td>
</tr>
<tr>
<td></td>
<td>Emerald 0.18 oz</td>
<td>26.4 9.1</td>
</tr>
<tr>
<td></td>
<td>3336F + Insignia SC 3 fl oz + 0.7 fl oz</td>
<td>23.8 + 27 80.3 + 10.3</td>
</tr>
<tr>
<td>6</td>
<td>Banner Maxx + 26GT 1 fl oz + 3 fl oz 21</td>
<td>31.6 + 24.2 12.3 + 46.1</td>
</tr>
<tr>
<td></td>
<td>Velista 0.5 oz</td>
<td>. 18.2</td>
</tr>
<tr>
<td></td>
<td>3336F + Insignia SC 3 fl oz + 0.7 fl oz</td>
<td>23.8 + 27 80.3 + 10.3</td>
</tr>
<tr>
<td>7</td>
<td>Mirage + Secure 1 fl oz + 0.5 fl oz 21</td>
<td>40.3 + 23.3 23.5 + 12.7</td>
</tr>
<tr>
<td></td>
<td>Emerald 0.18 oz</td>
<td>26.4 9.1</td>
</tr>
<tr>
<td></td>
<td>Tartan 2 fl oz</td>
<td>36.6 57.6</td>
</tr>
</tbody>
</table>
with a lower EIQ value.

This is why it is important to calculate the EIQ Field Use rate:
EIQ Field Use Rating = EIQ x % active ingredient x Rate

The goal of our preliminary study this year was to determine if we could develop dollar spot management programs that were effective, but had both reduced EIQ Field use ratings at a reasonable cost to golf courses.

Our treatment programs were designed to compare two SDHI fungicides (Velista and Emerald) as well as to compare Daconil WS to the rela-

**Figure 1:** Drone shot of EIQ study on golf green showing moderate dollar spot pressure on control plots (Photo: Erin McManus).
tively new multisite fungicide, Secure. Aside from product selection, application intervals can be modified to reduce the EIQ ratings of a program over a season. Therefore, we tried out each program (Table 1) on both a 14 day and a 21 day interval. We also tried to incorporate a reasonable number of fungicide classes as a fungicide resistance prevention practice.

The study was conducted on creeping bentgrass greens at two locations from May until September. So, how did our treatment programs fair? Figures one and two illustrate how well our treatments held up under moderate dollar spot pressure this year. Overall, no significant differences occurred among treatments at either location. All fungicide treatments decreased dollar spot severity compared to untreated controls. This is a GOOD thing that there were no differences. It means that even with a 21 day interval, these fungicide programs worked.

**Figure 1:** Tablet images of treatment plots at the end of the season (between orange paint markers). Each number corresponds to the treatment program described in Table 1.
Table 2: Reduction of EIQ Field Use Rate for the season due to a reduction in application numbers,

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Program Rotation</th>
<th>Number of Applications</th>
<th>Season EIQ Field Use Rate</th>
<th>Percent Reduction in EIQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Banner Maxx + 26GT</td>
<td>10</td>
<td>536.9</td>
<td>20.3</td>
</tr>
<tr>
<td></td>
<td>Emerald</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3336F + Insignia SC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Banner Maxx + 26GT</td>
<td>10</td>
<td>564.2</td>
<td>16.2</td>
</tr>
<tr>
<td></td>
<td>Velista</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3336F + Insignia SC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Mirage + Secure</td>
<td>10</td>
<td>284.3</td>
<td>57.8</td>
</tr>
<tr>
<td></td>
<td>Emerald</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tartan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Mirage + Daconil WS</td>
<td>10</td>
<td>673.5</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Emerald</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tartan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Banner Maxx + 26GT</td>
<td>7</td>
<td>377.4</td>
<td>44.0</td>
</tr>
<tr>
<td></td>
<td>Emerald</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3336F + Insignia SC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Banner Maxx + 26GT</td>
<td>7</td>
<td>395.6</td>
<td>41.2</td>
</tr>
<tr>
<td></td>
<td>Velista</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3336F + Insignia SC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Mirage + Secure</td>
<td>7</td>
<td>201.6</td>
<td>70.1</td>
</tr>
<tr>
<td></td>
<td>Emerald</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Tartan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Mirage + Daconil WS</td>
<td>7</td>
<td>493.5</td>
<td>26.6</td>
</tr>
</tbody>
</table>
So what is the big deal? All of the treatment programs worked just as well as each other! The big deal is that we were able to reduce EIQ field rates for dollar spot management year-round without losing control of dollar spot.

There are a number of interesting findings here. First, we were able to reduce the EIQ field use rate by 58% just by substituting Daconil WS for Secure. Both serve a similar purpose – they are contact fungicides with multisite activity – meaning that they are perfect for reducing the risk of fungicide resistance. However, when we combine the reduced EIQ field use rate of Secure over Daconil with the reduced number of applications (using a 21 day interval), we were able to reduce our seasonal EIQ field use rate by 70% without suffering dollar spot break through.

This study will be the first in a series of studies aimed at reducing environmental impact of disease management on golf course greens in Minnesota. In the next year, we plan on repeating this study at more locations, attempting at least some longer application intervals under higher dollar spot pressure, and incorporating EIQ measurements into disease trials for other diseases (leaf spot and snow molds). If you’re interested in participating in an on-site study, and you have greens or fairways with high levels of disease (dollar spot, leaf spot, snow molds) please let me know. I cannot do this research without your help!

For more information on Environmental Impact Quotients and their use in turfgrass management, visit: http://www.nysipm.cornell.edu/publications/eiq/. I would also recommend ordering “Reducing chemical use on golf course turf: Redefining IPM” available for order here: http://www.hort.cornell.edu/turf/pubs/manual.html. In this manual, Dr. Frank Rossi and collaborators have put together a wonderful set of information that will be useful to those wanting to implement reduced impact and IPM practices for disease, weed, and insect management on their course.

Cited
I first met Murph 50 years ago in November of 1965. He was the first Golf Course Superintendent that I met in Minnesota. I had come to the Twin Cities to interview for a position with The Minikahda Club. My interview began in the office of Dr. James Watson, the Head Agronomist with the Toro Company. At the end of that part of my interview he took me for a ride which ended up behind the third green of Somerset Country Club. I had no idea who the individual was working on the green but Jim and I climbed a rather high fence to visit with him. Little did I know that would be the beginning of one of the best professional and personal friendships anyone could ever hope to have.

Several months ago, Murph asked me to say a few words regarding his golf course professional activities on the day that we all hoped would not come for a long, long time. It was my honor to do so on behalf of all Golf Course Superintendents Association members and others in the industry who knew, respected and benefitted from interacting with him, along with his many, many friends and acquaintances in the turf industry. I began by expressing heart-felt condolences to his wife Marylin and the rest of the Murphy family. Very few people in the course of their lifetime will have had the impact on a profession and those around him that this phenomenal individual has had.

He was involved in turf and grounds maintenance all of his adult life, starting as a caddy and working his way up to Caddy Master and eventually Golf Course Superintendent at Aberdeen Country Club following graduation from Penn State University in Turf Management. He soon interviewed for the Superintendent’s position at Somerset Country Club in Mendota Heights and accepted that position in 1961. He held that position until being elevated to General Manager, a position he held until his retirement in
By Larry Vetter

"Back at cha my friend, back at cha",

A Tribute to Jerry Murp

吞噬 CGCS
2005. Under his guidance, Somerset provided a great venue for a number of very successful state, regional and national tournaments. In his General Manager position, he was responsible for overseeing all aspects of the operation of Somerset including the golf course, clubhouse, general grounds and the financial matters of the Club.

Over the course of his career he would mentor and guide an untold number of people in the art and science of golf course management. As an example of his mentoring, his son Marlin, who has been a golf course superintendent for some time, told me recently that when he went to school to study turf management, he already knew much of what they were teaching because his “Dad had drilled it into him”. In addition to mentoring many in turf management, he was a living example of what it meant to be a good steward of the environment, a God-fearing individual, a loyal and contributing member of professional associations and a great family man, contributing to the well-being of others in his community, his church, his family, and his many friends.
He would be the first to respond if someone was having a problem on his or her golf course. He was responsible for instigating a system for assisting Golf Course Superintendents throughout this and neighboring states by having qualified people in place that could be called upon to make personal advisory visits when one was needed throughout the area, not just in the Metro. He even saw a need to help those who were incarcerated in the Minimum Security Unit in Stillwater to transition back into society. He organized an effort to develop a few par-3 holes for their use, not only sourcing materials and volunteer labor for the construction effort but also providing guidance for maintaining the course and supplying the equipment for the inmates, including golf balls, bags, clubs, etc.

Most knew him as Murph, while others knew him as Jerry and a few knew him as The Senator, a nickname he inherited as a result of being elected to so many positions in his professional associations. He joined the MGCSA in 1960 and held a number of offices of the Association including that of President in 1971. He also was elected
as a Director of the GCSAA in 1970 and 1971. He was awarded the Distinguished Service Award of the MGCSA in 2003 and more recently was inducted into the Minnesota PGA-MGA Golf Hall of Fame in 2012.

For years MGCSA hired a Parliamentarian to oversee the Annual Meetings of the Association. This was a significant expense given that in those days association funds were scarce even to the extent that Board Members paid for their own lunches while attending their monthly Board meetings. Murph convinced the Board that instead of hiring a Parliamentarian, he would volunteer to serve as the Parliamentarian for the Annual Meetings and did so for many years because he knew Robert’s Rules of Order far better than anyone else in the association.

When the GCSAA developed a certification program in order to validate the credentials of the very best golf course superintendents, Murph, as we would expect, dove into the study materials with a vengeance and became one of the first seven people to achieve that honor. At the time of his retirement he was the longest standing certified golf course superintendent in the country.

Murph had a very close and special relationship with Toro. He did a great deal of evaluating prototypes for them, both equipment and irrigation. Due to Murph’s diligence and expertise, many new and improved tools for golf course maintenance were developed over the course of his career. Among many other improvements, the very beginnings of automatic irrigation systems were installed, tested and refined under the watchful eye of Murph at Somerset Country Club.

Anyone who ever accompanied him at a conference or trade show was quickly aware of how much he was liked and respected in the industry. He would walk a few feet and be stopped by someone wanting to visit with him, whether they were a green keeper at a par-3 somewhere, a past president of the GCSAA or a PhD at a University conducting some form of turf research. It seemed as though there was no end to the number of people who knew and respected him.

Murph volunteered many hours to help make MGCSA what it is today. He saw the need to address the accounting practices and legal structure of the association and worked diligently to modernize them. He was also involved with improving the quality of MGCSA’s publication
Jerry Murphy CGCS, committed to a better community
Hole Notes. He played a major role in MGCSA’s host chapter hospitality when the GCSAA International Conference and Show was held in Minneapolis in 1976. Some of our older members probably remember the light blue leisure suits we all wore so that attendees would know who to ask for directions or other information during their stay here. Due in large part to his input and guidance, GCSAA held up the performance of our local group for a number of years after as the goal to shoot for by local chapters hosting that event throughout the country.

In closing, I shared a couple of personal notes with the attendees to further indicate the impact that Jerry Murphy had on so many, whether they were young children or corporate presidents. Over thirty years ago, my
wife Carol and I had lunch with The Senator along with three of our children in Orlando at a GCSAA event. Throughout the course of the lunch he had our kids mesmerized with stories of his police work. For many years after that, every time I mentioned having lunch with or talking to the Senator, one or more of them would say “Is he still packing?” You need to make quite an impression to have young kids remember you over thirty years later even though that was the only time they had been with him.

Carol and I were really fortunate to have had pizza with Marylin and Murph at their house shortly before his passing. There was a lot of reminiscing during the course of the evening as you might expect. The next day I sent him a text saying I hoped we hadn’t worn him out too much staying so late. Later that day he responded with “I was so happy you and Carol were able to come over. It was a wonderful evening for me. Love you guys!!!”

Back at cha my friend. Back at cha!
Affiliate Spotlight:

Bayer Environmental Science

Bayer is a world-class innovation company with a more than 150-year history and core competencies in the fields of health care and agriculture. We develop new molecules for use in innovative products and solutions to improve the health of humans, animals and plants. Our research and development activities are based on a profound understanding of the biochemical processes in living organisms.

With our products, we are contributing to finding solutions to some of the major challenges of our time. The growing and increasingly aging world population requires improved medical care and an adequate supply of food. Bayer is improving people’s quality of life by preventing, alleviating and curing diseases. And we are helping to provide a reliable supply of high-quality food, feed and plant-based raw materials. Our strategy is designed to help solve some of the most pressing challenges facing mankind. By applying science to
the major global challenges, Bayer delivers innovations that address unmet customer and market needs.

At Environmental Science, a division of Bayer Crop Science LP, our research and development teams are constantly focused on using science to develop that next great solution. It’s the driving principle behind our strategic, operational and cultural activities. We are committed to developing products that deliver superior results in balance with consideration for our environment.

Rely on Bayer for a full line of turf and ornamental products for use on your golf course. The Bayer product portfolio ranges from trusted standards like the Stressgard® Formulation Technology product family – including its newest addition, Signature™ Xtra Stressgard – to the latest innovations in turf health, including the pre-emergent herbicide Specticle® and nematode management product Nortica®. Bayer offers a product to fit all areas of turf management, and each of its products is Backed by Bayer, meaning you get more than a product; you get dedication, superior solutions and guaranteed results.

As a company, Bayer is fully com-
mitted to helping superintendents maintain superior playing conditions all-year-round. As an extension of that promise, Bayer launched “Be Tournament Ready,” a multi-part initiative which featured five superintendents across the United States as they prepared for premier golf championships in 2015. Be Tournament Ready highlights plant health and tournament readiness within the production of eight videos and five written testimonials. Each resource outlines management and treatment experiences widely applicable to courses and superintendents, whether preparing for a major tournament, a member-guest day or keeping a course at its optimum all year round.

Bayer recognizes the Minnesota Golf Course Superintendents Association (MGCSA) as a leading association for the golf course management industry. Throughout its longstanding partnerships, Bayer will continue to be committed to trade associations that support the future of golf course management.

To learn more about the Bayer “Be Tournament Ready” initiative, please visit: www.backedbybayer.com/tournament-ready

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Equipment Managers Forum
Hosted By:
Minnesota Club Car
Oh baby what year!

That is about all you can say to sum up 2015 in Minnesota for the golf course “community”. From record-breaking warm weather in March bringing unprecedented early openings to warm morning temperatures into November, with a plethora of playable days in-between 2015 will most assuredly be the year all others will be measured by from a total rounds perspective and a revenue perspective. Perhaps that statement isn’t for all-time, but certainly since the golf boom years in the late 90’s to early 2000’s for most facilities.

The same could be said for us in the maintenance facility. Could you ask for a better year from Mother Nature? If every year was like this, I wouldn’t even mind living in this frozen wasteland. Seriously, I’ll take mid-March to mid-November and dance through what’s left for winter. We had a beautiful, warm spring-my first in the 15 years that I have been a superintendent here. Summer was warm but not hot. By my estimation we only had one little hot stretch of about five days near the end of July. We may have dragged a hose to water a hot spot once. After early April, rain was plentiful, timely but never so much that it caused too much of a problem. I used one-third of the normal amount of irrigation water I usually pump at Prestwick.

With all the extra time without snow on the ground, we were able to cross off a lot of things on the ol’ project list. With extra revenue, I could squeeze out one more guy on the fall crew, which allowed us to get more stuff done. Looking back upon this year, golf course maintenance has never been this easy!
If you are a movie buff, comedies in particular, you have seen Monty Python’s The Holy Grail. If you haven’t, there is a scene where the King Arthur pretenders come upon a bridge spanning the Gorge of Eternal Peril, guarded by a bridge keeper who will ask you “these question’s three, ere the other side ye see.” Sir Lancelot, played by John Cleese, steps right up and fields the questions: what is your name, what is your quest and what is your favorite color, and easily passes to the rickety bridge. Then, Sir Robin, the Brave Sir Robin, (who almost fought the infamous chicken of Bristol, and personally wet himself at the battle of Baden Hill) played by Eric Idle, exclaims: “That’s Easy,” and steps up to the bridge keeper. “What is your name,” growls the bridge keeper. “Sir Robin,” says Idle with a bleep-eating grin. “What is quest?” says the keeper. “I seek the grail,” says Robin. “What is the capital of Abysinnia?” the bridge keeper says quickly. “What? Well I don’t know that!” Robin exclaims in shock as he is then cast into the gorge for all eternity.

That is the thing that always flashes into my mind every time I allow myself that phrase “this is easy” to pop into my mind. I think I got a
little bit of Sir Robin working at the moment and I need to stop it. Hell, we even had three days of no wind to put the greens covers on and two members and an assistant golf pro volunteer to help! This is soooo easy! No! Stop it!

We are talking Mother Nature here. If there is one thing I am sure of, other than death and taxes, it’s that Mother Nature evens things out. We are in an incredibly strong El Nino pattern that brings this kind of weather wonderfulness to Minnesota and it isn’t going to last forever. I fully anticipate a make-up next spring. Hopefully not like 2013 when we practically didn’t open til May, but I’m not counting on a March opening. Be thankful for the year that was, and realize it is abnormal. The typical weather will return (despite the global warming fanatics) and we will deal with it, because that is what we do.

I sincerely hope each and every one of you had the “easy” year we did here at Prestwick. Having chatted with many of you throughout the year and listening to thoughts and conversations in various turfy-type places, it seems most have. Its’ refreshing and gratifying when it all goes well isn’t it? Just remember, and let your powers-that-be know, that every year isn’t going to be like 2015.

With that, I will wish you all Happy Holidays, and I will see you in a year back in this locality. I’ll be moving up the pages writing the President’s Message, God and elector willing. I’m sure I won’t be writing as freely as in this column, but will still try to inject some frivolity or at least a movie reference or two to lighten things up. In my stead, we will have a power-packed line-up of monthly editors to enlighten, entertain and inform you with their edgy, witty and, perhaps even, controversial commentary on turf, golf or whatever they want to write about. Enjoy!
What will you learn at the show for green industry pros?

- Calculating the Fertilizer Requirement for Any Turfgrass, Anywhere
- Instead of Shade, Let’s Talk About Light
- Nutrient Use by the Grass and Nutrient Supply by the Soil
- Soil Water Management: Timing, Amount and Syringing
- The (New) Fundamentals of Turfgrass Nutrition
- Preventing and Correcting Salt Damage to Turf
- Maximizing Microclimate Turf Management
- Current State of the Game of Golf
- Everything They Didn’t Teach You in Turf School: A Career Management Survivor’s Guide for the Next 15 Years of the Golf Industry
- Factors that Influence Fungicide Performance
- Turf Renovations on a Short Time Table

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- **Josh Friell**
  The Toro Company

- **Steve Keeley**
  Kansas State University

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