

June 2018

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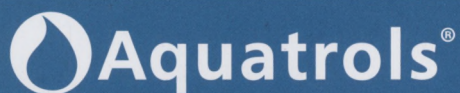


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PRESIDENT'S MESSAGE



By Cory Janzen
OGSA President

Spring was more hectic than usual for much of Ontario. A massive three-day mid-April storm closed schools and delayed course openings across the province. Once the snow and ice melted, it was a race to get everything back in shape and ready for opening day. The next hurdle was a massive wind storm that effected many courses in Southern Ontario. A gust of 122km/h was recorded at the Waterloo Airport so needless to say we were back to spring cleanup mode which delayed all of our course preparations yet again. As things slowly get back to normal and we settle into the routine of early mornings and weekends, be sure to take the time to enjoy your surroundings.

Working outdoors can certainly have its challenges but it also provides many rewards. We are lucky to work in an environment that people seek as a location to relax and appreciate nature while enjoying a leisure activity.

There are many great things about our profession, but also some negative ones. The weather, early mornings, the weekends, the difficult customers and on and on. One of the things that has helped me through the years is simply meeting with some fellow superintendents on a semi-regular basis throughout the golf season. It doesn't even need to revolve around playing golf; lunch meetings work well if you can make the time. If we don't get together, we sometimes allow ourselves to become isolated and negative thoughts can start to take over. Taking the time to meet with like minded individuals to talk about our challenges and frustrations can be as good as going to therapy! Try it, you'll be glad you did.

I also have the following famous quotation framed on my office wall and it is a great read when I get a little stressed or frustrated at work:

"It is not the critic who counts; not the man who points out how the strong man stumbles, or where the doer of deeds could have done them better. The credit belongs to the man who is actually in the arena, whose face is marred by dust and sweat and blood; who strives valiantly; who errs, who comes short again and again, because there is no effort without error and shortcoming; but who does actually strive to do the deeds; who knows the great enthusiasms, the great devotions; who spends himself in a worthy cause; who at the best knows in the end the triumph of high achievement, and who at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who neither know victory nor defeat."

— Theodore Roosevelt, Paris, April 23, 1910 ■

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Mississauga Golf & Country Club
#11 greenside during construction.
Photo courtesy of Matt Eastman.

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EDITORIAL MESSAGE



By Courtney White,
OGSA.

Welcome to spring! Or is it still winter? Maybe by now it feels more like summer. Despite my calendar's claim that four seasons exist, I'm not convinced. I read a funny meme online the other day that stated, "Canada is the only place in the world where you can get sunburn and frostbite all on the same day" which made me laugh, but for our members I suspect the giggles were few when April threw a temper tantrum and dumped piles of ice and snow on newly exposed greens. That's right, I saw you on twitter rolling up your tarps just moments before. Meanwhile our colleagues to the South are posting and boasting about their blooming annuals, their freshly cut greens and the first rounds of the day.

I find myself in awe over the seasonal challenges our superintendents, assistant superintendents and grounds crew face while preparing to open Ontario's courses. Yet, in

the face of delayed course openings – so many of you had fun turning this obstacle into opportunity. Whether that meant spending time with family or having fun with the snow, I enjoyed reading your twitter posts. Always tag us in your twitter posts @OntarioGSA because we love to see what's happening on and off the course! It's an honour to bring you a special tribute in this issue's Member Moments, to celebrate the life of the late David S. Gourlay, an OGSA past president, William Sansom Distinguished Service Award winner and a legend within the industry.

This issue is heavy with projects on the go and recently completed. So, if spring fever has you motivated to take on a new challenge, open these pages to see how your colleagues have fared with their endeavors. Mississauga Golf and Country Club battle bunker washouts in their floodplains with a full-scale bunker renovation, and The Toronto Golf Club devised and executed a plan to create a new course and practice facilities with a vintage look. Of course, any project might be a little easier to tackle with the right turf apps! So, before you begin planning – check out Bill

Brown's favorites. While you're busy sprucing up Ontario's courses, the GTI is busy with their ongoing turf research and we've featured updates on their take-all-patch initiative.

Spring is a busy time of year, full of new beginnings, exciting projects, best laid plans and hopefully progress but if at the end of the day you're feeling frustrated with life's curveballs – Doug Breen shares his secret to success.

Best of luck as you launch the 2018 season! Thanks for taking time to read this issue of ONCourse! ■

MARK YOUR CALENDARS UPCOMING 2018 OGSA Tournaments

OGSA/WOGSA Joint Event

Lookout Point Country Club
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Assistant's Tournament

Listowel Golf Club
September 18, 2018

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Sutton Creek Golf Club

Sutton Creek
Photos courtesy of: Jessica Aytoun

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Member Since 2011

Jessica Aytoun

Superintendent, Sutton Creek Golf Club

*By Lacy Droste, University of Guelph
Turfgrass Management Graduate,
Current BSc Agr Turfgrass Science Major*

About the Course

Sutton Creek Golf Club is located just minutes south of Windsor in Essex County. Sutton Creek is nestled in the county plains, surrounded by natural forest and wildlife. In the short time since the course has been under new ownership in 2011, Sutton Creek is in excellent condition, has challenging playability and suited for players of all ability.

Private, semi-private, public, municipal, resort: Semi-Private

Number of holes: 18 Holes

Practice Facility: Driving Range and a Practice Green

Number of Staff: Usually 12-15 seasonal staff in the Turf Department

Jessica Aytoun's career path to her current role as golf course superintendent at Sutton Creek Golf Club began 18 years ago. Aytoun, like many, started her career as a general labourer at a local golf club; which has since been converted into a park. After five years at Lakewood Golf Club, Aytoun moved to Ambassador Golf Club for different experiences and learning opportunities while attending the University of Guelph. After graduation, Aytoun applied for the assistant superintendent position at Sutton Creek Golf Club. Following two successful years as an assistant superintendent, Aytoun was given the opportunity to be in her current role as Sutton Creek Golf Club Superintendent.

Becoming a golf course superintendent was not always a definite career path for Aytoun. Prior to working in the turfgrass industry, Aytoun found herself running



*Jessica Aytoun, Superintendent,
Sutton Creek Golf Club.*

summer programs at a community centre. While pursuing different fields of education, Aytoun always kept her summer job on the golf course. "After about seven years in the industry, it finally clicked in. "This is what I should be doing for the rest of my life," says Aytoun. She was quick to add that her wonderful mother and father have always supported her various education and career pursuits, while

In the Hot Seat

Q: Favourite Piece of Turf Equipment?

A: Walk-behind Greens Mowers

Q: Ultimate Foursome?

A: Jimmy Fallon, Amy Schumer and Jamie Foxx

Q: Favourite Band?

A: Hilltop Hoods

Q: Lowest Round Ever and Where?

A: (Laughs) Any round I didn't play in at any course

Q: Favourite Movie?

A: Gone in 60 Seconds

Q: Favourite Meal?

A: Fish and Chips from Kildare House

Q: Favourite Golf Course?

A: I haven't been, but I would love to experience Tarland Golf Club in Scotland. The photos and course layout look amazing

Q: Favourite Golf Course Designer(s)?

A: Tom Morris and Jeff Mingay

everything was falling into place. There was a moment while studying at the University of Guelph when Aytoun knew being a superintendent was what she wanted. "All of the professors were in the room with us discussing what our current employment situations were, followed by what problems and/or roadblocks we had overcome. It was at that point I knew I could strive to be a superintendent."

Ms. Aytoun is quick to recognize Tom Bryden and Greig Barker as having the greatest influence in her career. Bryden provided Aytoun with support surrounding the logistics behind managing a crew and managing her time both effectively and efficiently. Barker was able to influence Aytoun not only by being her older cousin, but by the steps he took to strive towards his own dreams within the golf course industry.

Similar to most golf courses, the Turf Department is the backbone of the operation. Aytoun's typical morning during the golf season at Sutton Creek Golf Club begins by walking into the office, setting



Staff Supervisor Clinton and Aytoun's Brother in a Staff Tournament. Picture by Jessica Aytoun.

up, organizing her calendar and most importantly saying "good morning" to the staff as they walk into the lunchroom. While Aytoun acknowledges that in addition to managing disease pressure from the high humidity and heat waves, staffing will always be a challenge in the county. Despite staffing challenges, Aytoun finds herself with a very dedicated team. Her team consists of: John, her head mechanic, Clinton the staff supervisor and Theresa, her senior staff member. In addition to John, Clinton and Theresa, Aytoun's team includes a group of core seasonal employees who continue to return year to year. Aytoun

has said "I have been lucky enough to get people who have the same dedication that I do. We enjoy our days and push to create a working atmosphere that we all enjoy."

Throughout Aytoun's time as superintendent at Sutton Creek Golf Club, she has implemented several strategies that work well to maintain a healthy relationship with staff and to maximize productivity. When it comes to maximizing productivity, Aytoun enjoys working alongside staff while performing a task instead of simply telling the crew how to perform the task. She also finds that pizza days are a must and brewing

What You Need to Know

Predominate grass type: Annual Bluegrass/
Bentgrass

Predominant soil type: Clay

Course length: 6700 yards

Size of greens: 4 acres

Size of tees: 3 acres

Size of fairways: 29 acres

Major Challenges

Disease is an ongoing issue with the high humidity and heat waves.

"Jessica exudes a great work ethic, deep passion and a "no quit" attitude that a good golf course superintendent needs to have. She is always willing to go the extra mile to see through a project or a conditioning practice to get the best out of the property."

– Greig Barker, Golf Course Superintendent, Highland Country Club

Continued on page 10



coffee in the morning seems to do the trick for most staff members. In addition to pizza days and freshly brewed coffee, the Turf Department at Sutton Creek Golf Club enjoys participating in mini-tournaments.

Many of Aytoun's best memories on Sutton Creek Golf Club come from those mini-tournaments. Some of her staff understand the game of golf and play very well while others do not. Despite the gap in skill levels, everyone works well together to make it enjoyable and most importantly fun. She has also had many great moments on all the courses she has worked at. It is an accumulation of all these great moments that make the challenges and struggles worthwhile.

Aytoun likes to live by the quote "set the goal and achieve it." It is through putting these words into action, hard work and dedication Aytoun has been able to become a successful superintendent and it is by continuing to use these tools she will remain a successful superintendent.

The success as a golf course superintendent has provided Ms. Aytoun a variety of endless opportunities. She has been invited to write articles, to be a member of the Canadian Golf Superintendents Association Communication Board and to be a board member for Landscape Ontario. Additionally, Aytoun has had the opportunity to attend various seminars that allowed her to meet, communicate and

network with fantastic professionals.

As it is so often discussed, it is important to maintain a healthy work-life balance suited towards individual needs. When not working, Aytoun can often be found hanging out around the pool, curled up with

"I have been lucky enough to get people who have the same dedication that I do. We enjoy our days and push to create a working atmosphere that we all enjoy."

a good book, or catching up with friends and family. She surrounds herself with her incredible and supportive mother and father, her brother who also works at the golf course and her fantastic boyfriend and his family who provide an endless amount of support. Aytoun is also the Mom to a Border Collie named Shelby, a Border Collie/Husky mix named Niko and her newest little bundle of joy Maverick, an Australian Shepherd.

Dean Baker teaches the Human Resource Management course for second year students in the Associate Diploma in Turfgrass management at The University

of Guelph. It is there where he stresses the point that "anyone can grow grass, but not everyone can manage people". For anyone who knows Jessica Aytoun, I think they can agree that she has learned to excel at doing both of these things. ■

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WHAT'S NEW

By Sally Ross

Superintendent Recognition Program



The Weston G & CC grounds crew were presented with a plaque from the OGSA to acknowledge their hosting the U.S Open qualifier. (L-R) Weston Club President, Peter DeSimio, Golf Course Superintendent, Rob Ackermann, Senior Assistant, Matthew Legg, (Arnold Palmer), OGSA Director, Owen Russell, Junior Assistant, Nick Turner, Second Assistant, Steve Dampbousse.

JULY MEETINGS WITH THE GCSAA BOARD OF DIRECTORS AND STAFF

The OGSA will welcome the GCSAA Board of Directors and senior staff to Ontario. This rare and notable gathering will feature discussion in matters that are of interest to both stakeholder groups. The storied Toronto Golf Club will be our host for the joint meetings and we thank the club management and the members for their hospitality.

MEMBERSHIP DIRECTORY

Our membership directory accompanies this issue of ONCourse. This handy little reference guide is a complete list of our current membership including the suppliers who support you. In order to ensure that our directory is as accurate as possible, it is crucial that you log on to your OGSA account and update your contact details if you move or change roles. As always, members are also able to access the online directory at ogsa.ca.

SPRING DIRECTORS MEETING

The OGSA will welcome the GCSAA Board of Directors and senior staff to Ontario. This rare and notable gathering

will feature discussion in matters that are of interest to both stakeholder groups. The storied Toronto Golf Club will be our host for the joint meetings and we thank the club management and the members for their hospitality.

ENVIRONMENTAL VIDEO

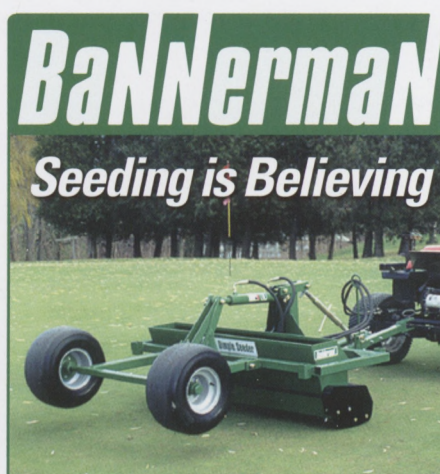
The OGSA Board of Directors has approved a contract with 'Lemonade', a video and marketing company, to create an environmental video that will promote the superintendent profession, the value of the course and its environmental benefits as well as the many benefits of the game. This video will be a key element to a marketing campaign that will launch once filming is complete. We expect that the video crew will be mobilized in June. Watch out for more on this exciting initiative.

CONFERENCE 2019

The OGSA has negotiated and signed the contract with Blue Mountain Resort in Collingwood, Ontario to host the OGCM Conference, January 15 – 17, 2019. Co-Chairs Jason Boyce and Al Schwemler are currently working on the speaker program, further details to follow! ■

WELCOME to Our New Members

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Tyler Swaine	Class C
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Gregory Sterritt	Class C
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The 42nd Annual Can/Am Challenge



(L-R) Assistant Superintendent John Caliguire and Todd Probert, Superintendent of Grosse Ile Golf & Country Club (1).



Chris Andrejicka, Essex G & CC.



Robbie Robinson, OGSA, AA member.



Kevin Doyle (GCSAA Field Service Rep) & Bill Fach representing part of team Canada.

Written by & Photo Credit:
Adam Ikamas, CGCS, MiGCSA Executive Director

The 42nd Can/Am Challenge was hosted by MiGCSA member Todd Probert, Superintendent at Grosse Ile Golf & Country Club and his Assistant John Caliguire. Special thanks to John Paul the General Manager of Grosse Ile and Head Golf Professional Eric Ganzberger for all their help making this a great event.

After a slow start to the season a perfect spring day bloomed for approximately 70 OGSA and MiGCSA members in attendance. Golfers tee'd off at 11:00am with a shotgun start followed by cocktails and a steak dinner. Team USA won the cup with a 28 to 17 win over team Canada.

OTHER WINNING HIGHLIGHTS FROM THE DAY WERE:

Long drives: Gregg Menard & John Alpaugh

Closest to the pins: Derrick Vergeer, Jim Higgs (x2) and John Alpaugh

Low teams: Dan Friesen and Vince Grainger from team Canada and Fritz McMullen & Clem Wolfrom from team USA

Looking forward to the 2019 Can /Am back in Canada. ■



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Take All Patch

Cam Shaw, Communications and Outreach Coordinator, Guelph Turfgrass Institute, U of G.

BACKGROUND

The soil borne pathogen *Gaeumannomyces graminis*, the causal agent of the root disease take-all patch (TAP), is well known in the agriculture community for harmful effects in wheat and oat crops. For turf managers, it is best recognized for its potentially devastating symptoms on *Agrostis* or *bentgrass* populations. Symptoms of the pathogen often appear during mid to late spring and can intensify during the summer when drought stress is increased. Visually, the symptoms are expressed as light-brown circular patches which are frequently mistaken for *Microdochium* or fusarium patch (see photos). However, TAP symptoms can vary dramatically based on the homogeneity of the affected sward. Pure bentgrass stands will often have clearly defined circular patches of stressed or dead turf. In many cases, the dead areas are recolonized by fescues, weeds and/or *Poa annua* which is considered to be a non-optimal host. In mixed stands, TAP can be much less defined and display itself in a variety of obscure forms, patterns, colours and shades of stress. This inconsistency can make field identification and diagnosis quite challenging. The good news is that TAP is quite easy to identify in a lab. The TAP pathogen is an ectotrophic, root-infecting fungus – which means its presence is visible on the exterior of the plant tissue. The external strands are called runner hyphae, which are dark, thin fungal strands running along the root structure and can clearly be seen through a microscope.

TAKE ALL PATCH RESEARCH

For researchers, TAP is an exciting area of study because when compared with other turf diseases, relatively little research has been conducted on the causal pathogen. In fact, it is difficult to find publications on TAP more recent than the 1990's, and many of the research papers that describe methods for working with the causal agent are from wheat and date back as far as the 1930's! Realising that so little is known about root diseases such as TAP, Dr. Katerina Jordan's lab has taken a keen interest in studying TAP partly because of the lack of available data on this disease, but also because of the prevalence of the disease in numerous provinces within



(L) TAP symptoms 1. (R) TAP Symptoms 2. Photos by Greg Stauth.

Canada. Dr. Jordan's lab feels that it may be a more common occurrence than many turfgrass managers realize and that managing this chronic issue is quite difficult. Part of the issue with the lack of research on TAP is the difficulty in working with the causal agent, especially when trying to inoculate turfgrass stands. Artificial inoculation in field trials that lead to a consistent display of symptoms can be very challenging. In fact, to Dr. Jordan's knowledge, most or all TAP studies published to this point have been conducted either in a controlled environment (growth chamber or green house) or on research stations and golf courses that have soils with confirmed infestations of *G. graminis*.

Below, Dr. Jordan summarizes the reason and significance of this research project and the promising results it may hold for the future on controlling this disease below.

"We know TAP is closely associated with new sand-based or newly fumigated greens, but I began to notice that I was diagnosing TAP on soil-based greens over 15 years of age. To further the mystery, some of the turf managers that were sending in samples were also sending soil to the Agriculture and Food Laboratory (formerly Laboratory Services) at the University of Guelph. Their diagnostic laboratory had developed a scan that allowed them to detect pathogens in soil samples and one of the pathogens on their scan was G. graminis. However, the turfgrass clinic was being informed that samples I had diagnosed with TAP were not coming up on the DNA multi-scan, suggesting that Lab Services was not detecting the TAP causal agent in the soil. It got me thinking that perhaps what we believed was the causal agent of TAP, G. graminis var. avenae, (now called G. avenae) may not actually be causing TAP in Canada.

Beginning in 2015, Dr. Jordan's lab group started to explore the idea that the causal pathogen for TAP may not be the historically identified *Gaeumannomyces graminis* var. *avenae* and instead might be something closely related but different. Additional lab assays and data still need to be collected on this front, but significant progress has been made since 2015. In fact, after evaluating 27 separate isolates of fungi taken from samples diagnosed with TAP in the GTI Diagnostic Lab (samples from Alberta, Manitoba and Ontario), **ZERO** were positively identified as *G. graminis* var. *avenae*! These preliminary findings may suggest answers as to why turf managers often observe uncharacteristic TAP symptoms (different colours, rings and patterns) or positive TAP diagnosis in environments or times of year not traditionally associated with the disease (ie. bentgrass green older than six years). One of the major challenges the lab group faces in this study is the lack of pure cultures of the pathogen in their possession. "Quality cultures are an important part of the research tool kit because it ensures a source of viable, healthy, and representative pathogens being observed in the field" says Karen Francisco, the lead graduate student in the current research study of the disease. There are so many opportunistic organisms present in the root tissue of turfgrass plants, it is sometimes difficult to obtain and maintain pure cultures from the submitted samples. However, the lab group has been able to successfully isolate pure cultures from root tissue of diagnosed samples, and DNA analysis has confirmed that the causal agent of the symptoms is not *G. graminis* var. *avenae*.

Using the data collected from a 2016 greenhouse study, Dr. Jordan's lab conducted a field trial during the 2017 growing season

which focused on a variety of cultural practices that could help to inhibit or reduce TAP as an alternative to chemical controls. In order to conduct this research, the lab group had to devise a method to successfully inoculate the pathogen in a field setting. According to Dr. Jordan, "This inoculation protocol is of particular importance because it is our understanding that TAP has never been successfully inoculated artificially in the field before". The notion of an effective field inoculation protocol would not only allow the lab group to conduct trials on site at the GTI but would provide a framework which could be shared with other researchers around the world to facilitate more knowledge retrieval on TAP. Dr. Jordan's lab group did achieve successful inoculation in their field trials. Once the plots of turf had been positively diagnosed with the pathogen, a variety of irrigation programs, fertilizer strategies and pesticide treatments were tested for their effect on disease development. Although one year of research does not typically generate sufficient data for conclusive evidence, there were some promising discoveries and observations. One such discovery was that plots treated with acidified irrigation water displayed reduced disease severity (not statistically lower, but definitely numerically).

Based on the results from the 2017 field trial, Dr. Jordan & Karen Francisco



Karen Francisco - Take All Trial. Photo by Cam Shaw.

have every intention of continuing their research on this important but understudied disease. A key area of interest for the project moving forward will be to confirm that the causal pathogen for TAP in Canada and the Northern US is something other than the traditionally assumed *Gaeumannomyces graminis* var. *avenae*. Additionally, the lab group intends to explore the role of key natural soil antagonists in the suppression of TAP. Developing ways to identify key roles of these antagonists and promoting their success will be a major focus along with the continued exploration of best management practices (BMPs) in controlling the disease.

Both Dr. Jordan and Karen hope that anyone who suspects they may have TAP on their property will reach out to the GTI Diagnostic Lab and submit a sample. They would also like to hear from you if there is any interest in participating in a TAP study on your property this summer. ■

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Full Scale Bunker Renovation at Mississauga Golf and Country Club



By Matt Eastman, Assistant Superintendent,
Mississauga G&CC.

The storied Mississauga Golf and Country Club (MGCC), established in 1906, is amidst completing a full bunker renovation using the latest technology available. Having hosted six Canadian Opens, history is no stranger here. MGCC is one of the premier private clubs in Canada – with golf, curling, tennis and soon fitness amongst the amenities available to its members and guests. The Credit River winds through the 220-acre property with the original clubhouse overlooking the valley floor. Having completed several major renovation projects within the last ten years (the greens and irrigation system), the greatest opportunity for improving the golfing experience was the bunkers. The most recent bunker renovation was in 2001, with only superficial changes made since, mainly in the form of adding new sand, making small drainage repairs and tinkering with different liners after major storm damage. These have been helpful measures, but after 16 years the useful life of the bunkers was over and maintaining them to a consistent and acceptable standard was requiring too much daily and seasonal maintenance.

While planning a full-scale bunker renovation, all available options were considered. With over five readily available technologies, we narrowed it down to two: bentonite clay liner and Better Billy Bunker (BBB), both of which are essentially barriers between the bunker sand and the subgrade. To fully understand the effectiveness of each reconstruction method, it was deemed that

trial bunkers would be built for the members to experience and help in the decision-making process. The bentonite is a heavy, artificial clay blanket that adheres to the subgrade. The Better Billy Bunker product consists of a two-inch layer of pea gravel over top of the subgrade which is then sprayed with a polymer to bind the stones together which still allows water to pass through. These trial bunkers were built in the fall of 2016, so they could live through a winter and we could see how they would react to freeze/thaw cycles and flood water which is common for many of our valley bunkers. The biggest consideration when choosing the right bunker technology for MGCC was the ability for the new bunkers within the floodplain to survive a major flood – but more on that later.

Over the course of the spring and early

May 18th, 2018. In the event we are unable to complete it by this date, we would effectively give the golf course back to the members and finish any outstanding work in the fall of 2018. The goal was to construct as many bunkers in the valley ahead of the winter. By completing these bunkers first, it would allow the contractor to work on the bunkers in the spring, in areas that have suitable ground conditions following the winter melt.

The project had three holes closed at a time for construction. This meant that the members would have access to fifteen holes at a time, and player safety has been an underlying concern as they travel the course amongst the construction. There is constant communication between the Course and Grounds leadership team and the Golf Shop

team throughout the day in addition to numerous signs on the golf course directing traffic accordingly.

There have been many highlights to the project. Namely, there were only seven lost days between September 11th and December 21st, the last day before

the Christmas break. Unfortunately this spring we have lost at least a week due to the mid-April snow and ice storm. Early returns have been impressive; rain events in the fall and winter that would have historically caused major washouts and contamination have not moved any sand from the faces. Additionally it was a fun test to use a hose and watch water flowing at 50 gallons per minute infiltrate the sand and BBB without washing away any sand. Contamination was also kept at a minimum as we have constructed the new bunkers to have a grass lip where the existing bunkers had a three to six-inch lip consisting of soil.

With the highlights came some challenges.



(L) An example of the washouts the bunkers would experience before the renovation. (R) A trial bunker constructed in the fall of 2016 in the foreground after a one-inch rain event.

summer, it was decided that BBB would be the method of choice. Other aspects considered in the decision-making process were: playability / consistency, sustainability and lifespan, ability to move water and to withstand washouts from severe rain events, and maintenance inputs. Given the low-lying valley floor and the heavy clay soils where drainage is a challenge, BBB would provide the club with the best bunker construction method to meet the goals of a full renovation.

The membership voted 78% in favour of the project in August of 2017 and we broke ground on September 11th. The projected timeline was to complete the renovation by



(L.) Applying BBB polymer in mid-December. (R) Post flood in January of 2018. This bunker required new sand, sod, and minor repairs to the sand bag edge.

The most difficult challenge was managing the bunkers post construction – particularly once the golf course closed for the season as we were still watering sod after extremely dry fall weather. Not to mention the first truck load of sod showed up on a 30-degree day in September. The irrigation system was blown out in November and we fabricated a water wagon using 1,000 litre totes, a three-inch trash pump, and a generator, to keep the sod watered throughout November and December. With the use of heavy equipment on the golf course, areas around the bunkers and heavily trafficked areas have been compacted and will need additional aeration and fertility this spring, all of which was accounted for during the planning and budgeting process.

One of the greater challenges was the unknown of any existing internal / carrier drainage. Knowing many bunkers had compromised drainage prior to the project, we were not sure how many would require new drainage. To date 52 of 69 bunkers have had drainage completed of which 19 needed sump drains and 20 needed to tie into new drainage exits; 75% of the bunkers could not tie into existing drainage networks. We are happy with everything so far, especially knowing each bunker will have the best drainage it can have. Other challenges include coyotes tearing up newly laid sod, and applying BBB polymer in mid-to-late December. The key was ensuring the pea stone had a volumetric water content of approximately 12% – meaning some days we needed tiger torches, in addition to buffalo and backpack blowers, to dry things down. On January 12th, 2018 the Credit River broke the banks on holes 7, 8 and 9. The flood damaged six newly constructed bunkers that were completed four weeks earlier. Ice blocks the size of pick-up trucks were scattered across the holes and the flow of the river caused these blocks to slowly tear across fairways and through the bunkers. Sod was displaced, sand was washed out, drip irrigation

was minorly affected, and silt was deposited, but the integrity of the BBB went unscathed. The only concern at this point with the BBB was whether the silt particles would end up settling in amongst the pore spaces of the pea stone and preventing water from infiltrating. We have since found that to be minimal and we managed to remove it with brushes and dustpans.

The project has since resumed this spring. Although the projected timeline was to complete the renovation by May 18, we continue to make excellent progress considering weather related delays. Approximately 70% of the project has been completed with various phases of construction remaining on seven holes. It has been a successful venture thus far, and we are excited to open them up to the membership. With the

new method of construction our maintenance inputs will drastically decrease. There will be less mowing and trimming along the edges on a weekly basis. Daily bunker raking will be minimized as the bunkers have been built in a way to prevent daily raking on the faces / slopes. We will be able to focus our time on the bellies as the ball will naturally end up in them. The playability and consistency of the bunkers has improved, and it will be exciting to showcase the bunkers and have them ready almost immediately following severe rain events. It will be a bonus for the members to have our operating dollars normally spent on bunkers spread across other areas of the operation. This project is a great long-term investment for the club and has improved and guaranteed the future success of one of its most important assets. ■



STEPS

The initial stages of the project were slow, but tedious. It was a new construction method to all parties involved and we wanted to take the time necessary to ensure a high-quality product. The process involved the following steps:

1. Locates
2. Strip sod / work zone around the bunker
3. Remove existing bunker sand / drainage
4. Rough the bunker in
5. Install internal/carrier drainage/sump drains
6. Build a ledge for sand bags to sit (this would help shape the overall perimeter of the bunker)
7. Finish shaping and get approval from the architect
8. Install a two-inch layer of 3/8" pea stone
9. Install drip irrigation if necessary and sod prep (most bunkers did not need irrigation)
10. Install sod
11. Apply BBB polymer – this must be completed by a licensed applicator
12. Install bunker sand

Planning for Success

Achieving Consistency Between Greens Built 100 Years Apart

On-site blend of new PFWC greens root-zone.

*By Steve Fierheller, Assistant Property Manager, Toronto Golf Club
Photos courtesy of: Jeff DeSchiffert*

OVERVIEW

When the Practice Facility and Watson Course (PF and WC) at The Toronto Golf Club were rebuilt in 2015 there were four objectives we were tasked with: replace the aging golf course infrastructure, turn the practice area and the nine hole course into a world class facility worthy of the membership, improve player safety, and achieve consistent playing conditions between the Colt course, practice facility and Watson course.

Creating consistent playing conditions between the old and new course would prove to be an interesting challenge. The Colt course greens are 100-year old Bent/Poa sandy-loam push-up style greens, modified with a 150mm topdressing layer and subsurface drainage (XGD) was added in 2009. When we talk about the Colt course greens and the new PF and WC greens being consistent, its not just about ball roll and speed. Characteristics such as firmness, receptiveness, water requirements, nutrient and water holding capacity, and feel were considered when deciding how the new greens would be constructed.

The original PF and WC were constructed in a similar manner to the Colt course: Sandy-loam push up greens, a modified topdressing layer with a Bent/Poa mix. These greens had no internal drainage and tended to hold water and play softer than the Colt course.

Through physical analysis, conducted by Dave Smith (DCS) and Brookside Labs, it was concluded that we could match the physical properties of Colt greens and the new PF and WC greens by blending in 50 percent Hutcheson sand and 50 percent of the existing greens rootzone. Blending in sand doubled the amount of rootzone material, which allowed for two additional practice greens and increased square footage.

LAYING THE FOUNDATION

In August of 2015, the existing PF and WC were rototilled to remove all plant material. Once this process was complete, the remaining rootzone was excavated and stockpiled on site. The time line for stripping and stockpiling was two weeks. The soil blending and screening process took eight to 10 hours per day during a three week period. Samples of the blended rootzone were collected and tested frequently to ensure quality and consistency.

While the blending was taking place, the new green sites were being prepared. Greens cavities were excavated, drainage and irrigation systems were installed, and feature shaping was completed. Drainage consisted of 50mm perforated drain tile on six-foot lateral spacing

below subgrade. Drainage channels were backfilled with coarse drainage sand which was crowned above the subgrade. Once green sites were approved by architect, Dr. Hawtree, the rootzone mix was spread to a 300 mm compacted depth and fine grading took place. Grassing commenced after final inspection and approval.

GRASSING

Turf type and aesthetics were important considerations in achieving consistency between the Colt course and PF and WC greens. Our goal was to produce a Bent/Poa surface that both performed and had a similar appearance to the 100-year-old Colt course greens. Vegetative propagation was the method we chose to achieve the desired results. The process involved taking cores from established turfgrass areas on the Colt course and laying them down on the prepared green sites. Through this process we were able to utilize perennial biotypes of *Poa annua* that seed less and have a desirable fine texture, as well as introducing a variety of creeping bentgrasses that have adapted to the micro climate at The Toronto Golf Club. Cores were pulled with a Toro Procore aerifier that was equipped with a windrow kit. The length of the cores was an important consideration in the process. The goal was to remove only a small amount of soil with the core, only enough for the plant to be able to survive transport and the grassing process. The collection of the cores was done with a Smithco Sweepstar core harvester. This unit uses a hydraulic powered brush to sweep cores into a hopper, which can then be emptied directly into a topdresser or utility vehicle for transport. This method allows efficient collection of the cores with minimal handling, ensuring that as many plants survive the process as possible.

Cores were spread evenly, directly onto the rootzone mix to a depth of two inches. Due to the irregular shape of the greens and newly grassed surrounds, cores were spread by hand to ensure even coverage, accurate tie-ins, and minimized traffic at green sites. Once the cores were spread, the green was over seeded with V8 Creeping Bentgrass at 0.5 pounds per thousand square feet. This bentgrass variety was chosen for its fine texture, disease resistant qualities, and colour. Through field trials, the V8 created the best mottled (old) look when mixed with *Poa annua*. Once seeded, the green was rolled with a Brouwer ride-on drum roller. This roller had proved to be the most effective for rolling cores, which even when wet, did not stick to the drums. Rolling immediately smooths out the green surface, and pushes seed and cores together, ensuring maximum soil to seed contact and improved germination. The next step in the process was to uniformly apply about 10mm of top-dressing sand on the first application. This immediately began smoothing out

the playing surface, protected the seedbed, and improved seed to soil contact and germination. The sand top-dressing made the surface less sticky, so equipment and fertilizer spreaders could do their work without displacing cores and seed. Next, a 10-10-8 pre-plant fertilizer was applied at 10 pounds of product / 1000 square feet. To complete this process on an average sized green (6,000 square feet), it took five staff approximately four hours to perform the grassing procedure.

GROWTH

As with all grow in situations, irrigation is the crucial step for the next 1-2 weeks. However, the vegetative propagated surface behaves much differently than one that has only been seeded. The cores behave much like a sponge, soaking up moisture and preventing new turf from drying out. Greens needed to be irrigated 2-3 times a day, typically with just one spin of the heads to keep things moist – this process requires far less water than establishment from pure seed.

In the days following grassing, the cores took root and plants began growing towards the sun (phototropism). Germination of the bentgrass took place within three to five days, and the catch throughout this process was consistently good.

ESTABLISHMENT

Rolling took place every one or two days and assisted in keeping the new greens smooth, while heavy sand topdressing was done every week to continue to smooth out the surface and protect the new plants. The first cut was done, on average, within the first two weeks. Greens were mowed with a Jacobsen Eclipse walker, set to a quarter inch. Mowing took place 3-4 times a week and allowed greens to fill in and take on a finer texture. Additional fertility applications were done as needed. If clipping yields began to slow, fertility was supplied (10-10-8 or 8-16-16 @ 1lbsN/1000 square feet). Mowing heights were brought down to 0.150" in the following weeks.

ACHIEVING CONSISTENCY

The PF and WC greens were grassed between September 14th and November 11th, 2015. The gap between the first and last green completed was significant enough to make an impact on the maturity of the turf. The greens completed late in 2015 were tarped over the winter, as well as in the spring of 2016 to generate heat and improve establishment in advance of the June 2016 opening date. The greens also received additional fertility during this time.

Once the greens were established, work began on relieving compaction created during the construction process. Little to no settling was seen,



The new 7th green on the Watson course.



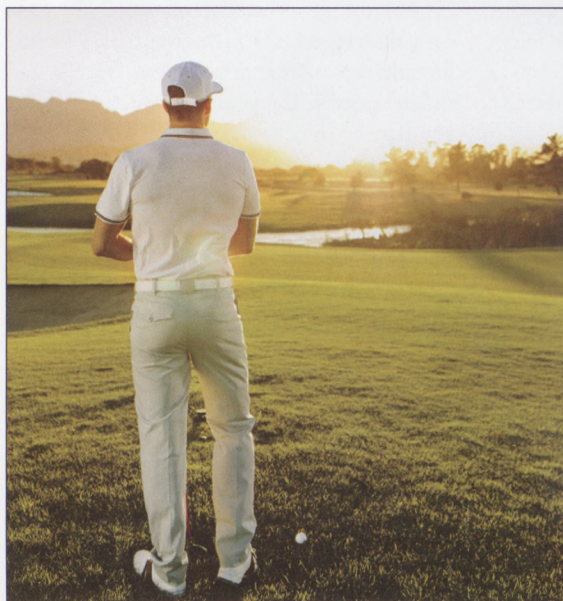
(L) Loading cores for transport. (R) Overseeding bentgrass into a propagated green.

however the greens did set up very firm. Greens were vertidraind, with ½" solid tines, to a 6" depth, prior to opening. Improved rooting, plant health benefits, and a firmness close to what we see on the Colt course were noted.

On average, the new greens are 75 % bentgrass/ 25 % Poa annua mix and the mottled appearance was achieved. We have seen minimal seed head production and ball roll is excellent. As the greens matured, they were managed more like the Colt course greens. Frequent rolling and mowing yielded similar playing conditions on both courses.

In the end, the objective to build new greens that played and looked like they were 100 years old was achieved. We have been able to utilize the same chemical, fertilizer and water management strategies on both golf courses, and in the end consistent conditions for the membership. ■

Steve has worked at The Toronto Golf Club since 2006 and is a graduate from the Professional Golf Management – Business Administration Program, (Humber College 2004) and Turfgrass Management Program, (Penn State University 2006).



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Behind the Curtains

Waste Management Phoenix Open



By Kendra Kiss, Lead Technician and Administrative Assistant, Magna Golf Club.

Have you ever experienced a moment in time when there was so much to take in that you thought, “wow, I am standing right in the middle of it all and thought I am going to miss it!” This most definitely happened to me while volunteering at the Waste Management Phoenix Open this past February. This was my first trip to Phoenix, and it will not be my last! From the moment I stepped off the plane, I was greeted by such funny and friendly people. The shuttle driver from the airport was wonderful entertainment and referred to the golf tournament as the “Trash Open” and “Wasted Open”. Great puns given the title sponsor’s name, and I would later come to find out why the terms were really used. This tournament has earned a reputation for being a BIG party with a golf tournament thrown in but don’t kid yourself, the WM Phoenix Open is a very serious tournament rich with history.

The Greatest Show on Grass has an 86-year history that began in 1932. It was discontinued in 1935, but revived in 1939 by Bob Goldwater Sr., who was a member of the Thunderbirds, a prominent civic organization in Phoenix. The host club was The Phoenix Country Club up until 1955 when it began alternating with the Arizona Country Club. In 1975 Phoenix Country Club hosted until 1987 when the tournament was moved to TPC Scottsdale-Stadium Course, where the tournament has been hosted ever since. This tournament has had many names: Western Open, Arizona Open, Ben Hogan Open,

Phoenix Open, FBR Open and now the Waste Management Phoenix Open. Professional golfers who have won this tournament include the likes of Golf Hall of Fame- Byron Nelson, Ben Hogan, Billy Casper, Arnold Palmer, Jack Nicklaus, Ben Crenshaw, Vijay Singh and Phil Mickelson. The purse has grown from \$3000 in 1932, when 1st place golfer Byron Nelson took home \$700, to \$6.9 million in 2018 with Gary Woodland taking the top prize of \$1.24 million. Not only has the purse increased,

Wideyed and gaping at the fanfare before first light, it hit me how huge this event truly is.

the attendance has sky rocketed! The WM Phoenix Open is the best attended event on the PGA Tour, and 2018 was no exception.

So how did I end up in the middle of such a huge event? Thanks to social media (Twitter in particular) I came across a post on June 26, 2017 by TPC Scottsdale AGR looking for volunteers for the Agronomy Crew. Inspired by others who were posting their fantastic experiences on social media, I figured I would apply. When I received my acceptance email the Friday of the Labour Day long weekend from Lead Assistant, Joshua Minson, I felt like I won the lottery!

January 27, 2018 arrived, and I was on a

flight out of a snowy Ontario winter and into sunny Phoenix. I arrived at the hotel later that evening to meet my roommate and the only other female volunteer, who is the assistant superintendent at Hayden Lake Country Club, Idaho. She was a seasoned volunteer and introduced me to the others. We all chatted for a while but called it an early night as we planned to hike Camelback Mountain in the morning before our orientation in the afternoon. There were between 40-50 volunteers from all over the world and I made connections with people from Scotland, Germany, England, Sweden, New Zealand, Australia, USA, France and Czech Republic. I was one of 4 Canadians in attendance.

Camelback Mountain was no ordinary hike, I might as well have scaled the side of a skyscraper! At times the only way was straight up! After just healing from a bad ankle injury in the summer, which cancelled my plans to volunteer at the LPGA US Open, reaching the top of Camelback Mountain just before the Open, felt like a metaphor for my second chance to experience working for a professional tournament. I was so excited to begin my week at TPC Scottsdale!

Feeling exhilarated, we made our way to the orientation where I finally met Joshua and was introduced to Directory of Agronomy, Roby Robertson IV. They went over all the dos/don’ts and gave us the overview of what to expect. Following that, we all hopped into carts and went for a tour of the course, filling some divots along the way. I must have looked like kid in a candy store. I was blow away by the grandeur of the entire course but arriving



at the 16th hole and walking onto the green surrounded by the stadium is something I will never forget. This main attraction, par 3 hole known as the Coliseum has become iconic on the PGA tour and is the only hole that is surrounded by a temporary stadium. The Coliseum has the capacity to hold 12,000-16,000 fans which creates an atmosphere that I can only described as electric.

We were shuttled back to the hotel where an early night was had by all. The next morning was more nerve racking than I expected. The crowds in Phoenix were unique from what you normally see on the PGA tour, and this was made clear on Saturday morning as we rolled into the shop at 4:30am. We passed the main gates to see that fans were already lining up, and the gates didn't open until 7am! With only 3700 general admission seats on the 16th hole, fans needed to have determination, stamina, and an early start. Once the gates opened the crowd made a mad dash to the coliseum to stake out their territory for the day.

Wide-eyed and gaping at the fanfare before first light, it hit me how huge this event truly is. We arrived ready for our assignments. As the morning jobs were read off, I was placed with the desert duty crew on the front 9. I had the pleasure of working with people from Bulls Bridge Golf Club in Connecticut, Quail Hollow Club in North Carolina, and TPC Scottsdale. Our diverse group made for amazing turf talks in the morning.

Desert duty was my permanent morning job and mowing fairways was my permanent afternoon job. Our shifts started at 5:00am and ended around 9:00am. We met up with

the other crews at the shop where we were fed a hot breakfast provided by event sponsors. We were given free time until around 2:00pm when we came back to the shop for an early dinner. By 3pm we were back out on the course to follow behind the mid-day crew. In the afternoon, all the equipment was lined up at the shop and ready for our police escort out onto the course. Yes, police escort! What an experience that was! As we pulled out, we had crowds of people cheering for us, thanking us, attempting to share high fives and filming us with their phones. We felt like celebrities and it was great to be appreciated by the crowds and share in some of the limelight.

With the atmosphere feeling more like a frat party at times, the tournament draws all types of fans. The 16th hole is a bit crazy and loud, but that does not mean that the rest of the course is. While walking the front 9 on Friday it was quite peaceful. Of course, we could hear the crowds in the distance and we always knew if someone hit a good shot or a bad shot. The course is well designed for tournament golf, and despite all the fans, one can still find somewhere to view some world-renowned golf!

There was a great balance between work and play for volunteers! I took in the Pro-Am on Wednesday and joined the other fans between shifts to watch the pros play. When I wanted to relax, I could stay at the shop where a large tent was set up with couches and big screen televisions for us to watch golf or play video games. Our evening shifts normally ended between 7-8pm, when we were shuttled home to enjoy a relaxing beverage and network with all the other volunteers.

1. TPC Scottsdale #16, The Coliseum. First tour before work begins. | 2. Day one, morning shift. Volunteer Tent. | 3. TPC Scottsdale Maintenance Facility. Equipment lined up, ready for police escort. | 4. PTPC Scottsdale #16, Pro Am. | 5. TPC Scottsdale, #6, morning shift. | 6. Pheonix Open Agronomy Volunteers pose for a group photo.

This incredible experience cost me my plane ticket and some spending money (although I didn't need much because the hotel and most of our food was included) and what I received in return was priceless. I worked closely with like-minded "turfies" from all over the world, I had a front row seat to world class golf and I travelled to a new place. Deciding to volunteer for this event took me far outside of my comfort zone. All the people I worked with, the volunteers, the home crew, the supervisors and even the fans made this experience easy and memorable. What an introduction to volunteering at a PGA event - something for the record books! ■



By Bill Brown, CGCS, Founder of iTurfApps.

Did you know that number of mobile apps available to consumers will soon exceed the population on the planet? So to say “there is an app for that” is probably an understatement; it’s more likely that there are two apps for that. Superintendents have also embraced technology, allowing us to effectively do more, with less.. Below are some of my favorites for the industry.

MOISTURE MANAGEMENT APPS:

The summer of 2010 brought us #WhosGotMyHose. It also brought to light the importance of accurately tracking moisture in your profiles. In 2018 there are two leaders in moisture management: **Spectrum Technologies TDR with Spec Map App** and **POGO with POGO Pro**. These apps allow you to simultaneously take moisture, temperature and salinity readings, send data/readings directly to your mobile device, view and analyze data in various types of layouts and formats, save multiple devices to one database for crowdsourced data gathering, GPS your golf course very quickly and accurately and create a quick irrigation audit.

Turf Technology for 2018 and Beyond

RADAR APPS:

Gone are the days of having to run into the clubhouse to watch the weather report or to your office to review the latest updates. Several professional level radar apps allow you to quickly review the latest radar echoes to make accurate turf management and safety decisions. Some apps will alert your current location in the event of severe weather. If you don’t already have a favorite, I recommend one of these: **Radarscope**, **MyRadar**, **Storm Radar**, **NOAA Weather**.

PHOTOGRAPHY APPS:

Turf managers experience their properties during some of the most photogenic times of the day. You are hands down the best marketers for your course and your mobile device provides you with one of the world’s most powerful cameras so take a picture! After taking a picture use one of these apps to enhance the experience for viewers: **Layouts**, **Snapspeed**, **Plotaverse**. Depending on which app you like best, you’ll be able to layout, crop, zoom animate and share like a professional photographer.

MEASUREMENT APPS:

“Precision turf management” has become a catchy marketing term in our industry: precision spraying, precision fertilizing and even precision topdressing. Many of us want this type of technology, but just can’t afford it.

MeasureMap Pro:

For a couple dollars and some sweat equity, you can GPS your entire property with **MeasureMap Pro**. You’ll be able to create IPM maps for tracking insects, weeds and supplemental irrigation, accurately measure your course features for budgeting purposes, share maps with your staff for better on course communications.

Past apps and hardware have made attempts to allow you to measure areas by opening your phone’s camera and pointing at objects. The recent iPhone X and Galaxy S9 showcase breakthroughs in Augmented

Reality (AR) capabilities that provide new and exciting tools for turf managers that will allow measurement to be completed with precise accuracy.

MeasureKit:

The first of (probably) many new apps to arrive is **MeasureKit**. Turf managers can measure many odd shapes around the golf course; bunkers, flower beds, greens, etc. **MeasureKit** allows you to accurately measure these areas by simply pointing your device and tapping on your screen. Save these measurements for future reference or share via email or text message.

SHOP AUTOMATION APPS:

Need to find a few more dollars in your budget? They may be somewhere you haven’t thought to look, shop automation. Home automation devices have come a long way in just the last two years. Once a novelty technology can now be used to remotely secure your shop and save some dollars. There are several different platforms for automation to get your started. I have personally found **WINK shop automation** to be the most compatible with devices. You can automate interior and exterior lights, implement smart thermostats to ensure you are only heating or cooling when needed, view security cameras, alert intruders directly from your smartphone and activate door locks and garage door openers from your smartphone.

It is exciting to see the how far technology has come. What will the future bring us? I see drones becoming less of a novelty, turf diagnostics technology will become more of a commodity and affordable to the courses and properties that truly need the innovations and lastly, 3D printing will become commonplace in shops to print hose nozzles, irrigation parts, small equipment pieces and even tools. ■

Have any questions or want to share your favorite app, let me know on twitter @TurfTechGuy.

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Water Management in the Gardens



There are many factors to be aware of when making a conscious decision to prioritize efficient water management. For the most part it's a fairly simple task to be efficient with water usage in gardens as long as you have knowledge of some of the basic principles of gardening like understanding your local climate and weather, the soil types you do have, the soil type you should have, and understanding your plant material and their individual water needs.

Water management really starts at the design stage of a planting. This means choosing plant material that will perform very well within the conditions of the site. For example, if the conditions are sunny and dry you don't want to plant species like Ligularia or Astilbe that prefer shade and moist soils. Although these plants could likely survive in these conditions, to do well they will require a ton of water just to keep them alive and that is not good water management. It's important to know your plant materials' limits; will it require more maintenance to achieve desired performance verses making a different selection that can perform just as well with less inputs?

Another consideration at the planning stage and before planting, is determining what is going to be done with the existing soil. Getting your soils right is probably the most effective and important way to managing how much water you're going to use or need. It should be part of your practices to amend your soils annually by adding a minimum 3" of high quality compost to your soils. How does amending your soils help with water management? Adding organic matter or compost grow mixes help sandy soils with water retention. If soils are too sandy, you'll water often in times of drought. The organic matter holds moisture and helps cool the soil by slowly releasing moisture after it's been soaked. Adding the same mixes and material mentioned above to clay type soils helps break down compaction by adding pore space. This adds oxygen to the soil which in turn allows

water to penetrate heavy clay soils preventing them from becoming too firm to even take water. If water can't penetrate the soil as a result of heavy clay you'll be left with shallow rooted plants resulting in more frequent watering during times of high heat and low precipitation. Adding organic matter to your soils will also attract microorganisms and worms into the area. Once you provide food for these creatures, their movements through the soils help to aerate and mix the compost into the clay and sandy soils. The best type of soils for almost all types of beds is a deep, rich, well draining loamy soil. There is another benefit to adding compost and fixing your soils that will indirectly help you with water management, that is nutrition and over all plant health. Healthy plants grow quickly and fill space quickly which means they are providing their own shade and wind protection to the soils and their rootzones. All this information about water management practices and we haven't even touched a hose or turned on a tap yet. OK, one more way to help reduce watering and again it's at the soil level - add mulch. Now most people might think of mulch as wood chips or shredded bark. Mulch is actually any type of material placed over top of the soil. It can be wood material like the aforementioned, or stone chips, pebbles, crushed stone or any type of stone aggregate, there are crushed rubber materials available, crushed old bricks etc., etc. The point is that a mulch is used to prevent bare soil exposure to the elements resulting in a cooler surface temperature preventing evaporation, water runoff and soil erosion, allowing for water to slowly penetrate the soil below the mulch.

Now we turn on the tap, because even though our soils are perfect and our plant selection for the site is also perfect Mother Nature decided she doesn't want to water our gardens for us and they will be thirsty in the very near future. Did anyone notice what I said there? The gardens *will be* thirsty in the very

near future? Water your plant material before they show any signs of really needing water. Pay attention to how long it's been since they've had a significant drink and water before any wilting occurs. Consider this: when you get a headache from dehydration how long does it take for that headache to go away? As soon as you drink one glass of water? Not likely, and how well do you perform dehydrated? Plants are similar so keep them from suffering any weakness.

Always water where the plant needs it, at the root zone. I don't know how many times I've seen an irrigation system setup and it blasts water all over everything everyday but it never really penetrates the soil due to issues like sprinkler heads blocked by plants, incorrect nozzles or the watering cycle isn't long enough. Use drip irrigation where you can! Design your system around what you're growing, design your system to put water into the ground in the most efficient way possible. Blasting water all over canopies and leaves will create disease, shallow rooted plants, and a lot of evaporated water. The rule of thumb is 1-2" of water per week and all in one day if you can. Don't spread that out over 5 or 7 days. This is a lot of water so be sure to pay attention to runoff when putting that much water out in one sitting and try to get your system set up to ensure that the water gets to where it needs to be in the shortest period of time as possible without runoff. If you do have areas where run off is an issue, take the time to study the site to see how long you can leave the water on until the point of runoff. Turn the system off at the point of run off, let it saturate for 20 minutes and then water again. Repeat and repeat until you get the water to soak as deep into the soil as possible. ■



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Five Years Ago Today

OGSA BOARD OF DIRECTORS



The 2013 Board of Directors were (L-R): president **Rob Gatto** (King's Forest GC), **Mark Prieur** (Trafalgar G&CC), **Rod Speake** (Mill Run GC), secretary/treasurer **John McLinden** (Ladies GC of Toronto), **David Kuypers** (Cuttan Fields), vice president **Phil Scully** (Granite GC), **Cory Janzen** (Westmount G&CC), past president **Doug Breen** (Brookfield CC), **Chad Vibert** (Mad River GC), **Jason Boyce** (Smuggler's Glen GC), and **Scott White** (Donalda Club).

ON THE MOVE:

Michael Bell moved to The Maitland. **Philip Brown** left the Summit GC, and was replaced by **Dave Patterson**, assistant from Magna GC. **Sean DeSilva** left as general manager at Cedarbrae GC and returned to Coppinwood GC. The assistant from Beacon Hall GC, **Colin Young**, moved to a new course in Aurora, Lebovic GC. Allturf Ltd. was pleased to announce the hiring of **Sean Kenny** as their newest sales representative.

TOURNAMENTS:

The Can Am Challenge was held at Essex G & CC hosted by **Chris Andrejicka**. The Canadians brought the cup back to Ontario with a close victory of 26.5 to 24.5 over the Americans.

The Pro Super Challenge was held at Oviinbyrd GC hosted by **Greg Aljoe**. The winning teams were **Mike Powers** (67), National Pines GC, **Jason Winter**, Deer Ridge GC and **Jason Crawford**, Eagles Nest GC.

The Alex McClumpha Memorial Tournament was held at the Trafalgar G & CC hosted by **Mark Prieur**. **Bill Gilkes**, Scarboro G&CC, was low gross with a score of 77 and he also won the George Darou Trophy for low score for superintendents over 50. Second and third low gross scores were achieved by **Mitko**

Marinov, Lionhead GC, with a 79 and **Chris Andrejicka**, Essex G&CC, with an 80.

IN MEMORY:

Dr. Jack Eggens passed away in August at the age of 77. Jack was a graduate of the Royal Military College in 1960, and the University of Guelph in 1970. He was Professor Emeritus of the Department of Horticulture, OAC, University of Guelph (Guelph Turfgrass Institute).

The Ontario Turf Equipment Company announced that their long time employee of over 35 years, **Len Huras**, passed away in December.



Alex McClumpha Memorial Tournament: (L) OGSA vice-president **Phil Scully** presents **Mark Prieur** with Host Superintendent plaque.

AWARDS:

At the OGSA/CGSA joint conference in Toronto, **Bernie MacDonald** and **Doug Suter** were recognized as 50 year members of the OGSA. 25 year members were also recognized: **Marc Brooks**, Stone Tree, **Al Schwemler**, Toronto GC, **David Cours**, Ambassador GC, **Alex Dolensky**, Huntsville Downs GC, **Marlon Gieseler**, Brooklea G&CC, **Colin Nisbet**, Westview GC and **Tim Webb**, Sunningdale G&CC.

Retired superintendent and past president of the CGSA, **Bob Heron**, was the winner of the CGSA's John B. Steel Award.

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Pro / Super Tournament: Mark Prieur made presentations to (L) Greg Aljoe, Host Superintendent, Oviinbyrd GC, (M) Curtis Pitre, Host Golf Professional, Oviinbyrd GC, and (R) Mike Powers, Superintendent, National Pines GC.



(R) Can/ Am Challenge: OGSA president Rob Gatto presents Chris Andrejicka with the Host Superintendent plaque.



(L) OGSA president Rob Gatto and MiGCSA president Greg Pattison pose with the Can/Am cup. The Canadians won.



Dog of the year: (L) Tim Muys, Superintendent from Piper's Heath GC accepts the 'Dog of the Year' award for a photo of his dog, Maple. Presented by Randy Rogers, Lebanon Turf.

Andrew Hardy, Pheasant Run GC, received the Environmental Leader in Golf Award at the recent GCSAA conference in San Diego (for the second year in a row).

Angus Glen GC, **Douglas Erwin**, was selected to host the golf event at the upcoming Pan Am Games in 2015.

The Lebanon Turf "Dog of the Year" award went to **Tim Muys** and his dog Maple, from Piper's Heath Golf Club. The OGSA \$3000 award was used to sponsor the "Paws in the Park" event held in September by the Toronto Humane Society.

The Guelph Turfgrass Institute celebrated its 25th birthday. ■



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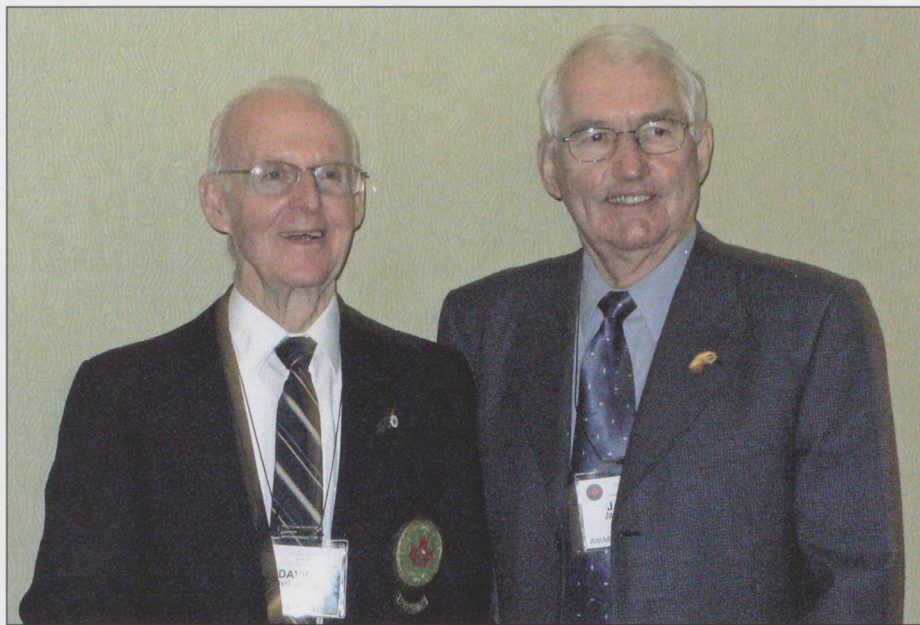
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In Memory Of David S. Gourlay

OGSA's William Sansom Distinguished Service Award presentation to David Gourlay, January 2006. Reprinted with permission from Jim Wyllie (OGSA president, 1973).



(R-L) David S. Gourlay receives the William Sansom Distinguished Service Award from Jim Wyllie.

DAVID'S MILESTONES

- OGSA President, 1968
- CGSA President, 1973
- Score Golf Superintendent of the Year Award, 1982
- GCSAA Distinguished Service Award, 1987
- CGSA John B. Steele Award, 1997
- OGSA William Sansom Distinguished Service Award, 2006

I have had the privilege of knowing David Gourlay for almost 50 years. Dave started his turf career in Hamilton at Chedoke Golf Course. From there he moved to Kapuskasing where he met his bride to be Frances, Frankie to all of us.

Dave has two families. The first one and the most important is Frankie and their children, Ian, David, Jimmy, Beth, Jean and Sheila. Dave has always been proud of his family, as I am sure they are of him today. The second family was all the young superintendents, golf superintendent associations and anyone who needed a hand or a little help. David was, and is, the eternal helper whether it was a young assistant or an older superintendent that needed some advice or a little direction. Dave was always there.

When the Canadian Association (CGSA) got in trouble with the Greenmaster, Dave stepped in and kept the magazine going until paid help was able to take it over. During that period, you could always find Dave in the Tim Horton's in Thornhill between 4:00 AM and 5:30 AM working on something pertaining to the Greenmaster, or maybe his budget from Thornhill Golf Club.

David was instrumental along with Bob Heron, Sid Puddicombe and myself in taking over the Turf conference from the RCGA and forming what is now the Canadian Turf Grass Conference and Show.

When Dave retired from Thornhill he was approached by the Summerlea Club in Montreal, could he come down and help them out. He drove back and forth every week for two years and turned the course around. Dave's son, David Junior then took over and became the Superintendent.

Dave then went to work at Beacon Hall for Bob Heron changing cups and tee markers. All the young workers would ask Dave what he thought of the particular job they were doing, and could he help them with additional instruction or a little tip.

I traveled with Dave and Bob Heron for years to conferences throughout America and Canada.

One night, we were in Palm Springs out walking along and David started to behave like he was wacky, falling over and losing his balance. He said, "I need an ice cream cone" which we got for him immediately and he was fine; his sugar went out of balance. After that little episode, we gave him the nickname of "Nutsie" and that

private little nick-name has stuck through to today.

Now let me tell you that David is always a nice person, but if you ever played a trick or prank on him he would get you back in spades.

You have all heard of the wrath of God and of Wayne Rath, but God help you if you ever ran into the wrath of Gourlay, it was nasty. I am sure it came from some ancient Scottish tribe way up in the Highlands. In this one instance we were staying in a nice hotel in New Orleans in the French Quarter and I was a little late coming back to the room. Everyone was asleep, and I proceeded to wake up David, and needless to say he was not as happy as I was. We all went to bed, and at 4am, 5am and 6 am I was woken with a wakeup call from the front desk. The wrath of Gourlay.

David was an avid golfer but a wee bit of a sand-bagger. We would all show up to play and ask what the handicaps were, and David would always say, "Oh, about 16" and would proceed to shoot 80 and collect all the money.

I congratulate the selection committee on their choice for the OGSA's Distinguished Service Award this year. Thank you. ■

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Carpe Diem

By Doug Breen, Superintendent, Golf North Properties

When you get to be my age, young folks start to ask you for advice with respect to their career paths. And whether it's a young member of the Turf Brotherhood, one of the players on my high school football team, or just one of my own kids or their friends – I always end up giving them the same advice. Some of it came from my Dad and golf industry people who came before me. Some of it came from books and seminars, and some of it I just absorbed through osmosis. I don't pretend that there are many bits of it that I truly dreamed up by myself, but I've distilled it all down to a handful of ideas that I consistently pass along.

First of all, the great secret is that very few successful people really had a clear plan when they started. Steve Jobs didn't set out to revolutionize how people listen to music and kill the record industry – he was just trying to build better personal computers.

Colonel Sanders didn't set out to sell chicken at all. He had a steamboat ferry across the Ohio River, and when the Government built a bridge over it, he went bankrupt. So, he borrowed a friend's car, started at the bridge that buried him, and drove until he was nearly out of gas. On the spot, he bought an acre of land from a farmer and opened a gas station. When a customer asked him, "Where (he) could get a good meal around here" – he gave him his own chicken dinner. The next day, he started what would become a very popular chicken restaurant inside the gas station. Then the Government rerouted the highway away from his business. He was over 60 years old, twice bankrupt, and had no place to sell his chicken – so he invented franchising. He made 15 cents on every chicken sold in hundreds of restaurants along that interstate highway; and was the only source of the secret combination of 11 herbs and spices (10 are salt, 1 is heroin – no other way I'd crave it so badly).

The point is, 10-year plans are great, but seize the opportunities that present themselves. Unfortunately, there are many times we don't recognize those opportunities when they're right in front of us. Sometimes opportunities just look like work – hard, dirty, work. Sometimes opportunities even disguise themselves as a *pain in the arse*. I started working as a superintendent with GolfNorth 20 years ago this spring. They had just purchased their third course and added five more that season. When I arrived, I was literally the only person in the company who had ever ground a reel. We owned a set of grinders, but no one was using them. When the word got around that I knew how to sharpen and repair reels, they started arriving in the backs of pickups, trunks of cars, planes, trains and automobiles. I didn't really have time to grind everyone else's reels, certainly didn't recognize it as an opportunity, and absolutely saw it as a pain in the arse. But then winter came, and instead of being laid off (as my contract said that I

would be), I was "the reel guy", and was GolfNorth's first year-round employee. The rest, as they say, is history.

Success is what you say it is. I've known well paid superintendents from prestigious courses, with extravagant budgets, who never felt successful. I've also known superintendents working on shoe string budgets, on mom and pop neighbourhood courses, who felt like they were the most successful people in the business. Success is a feeling, that results from a job well done. If at the end of each day,

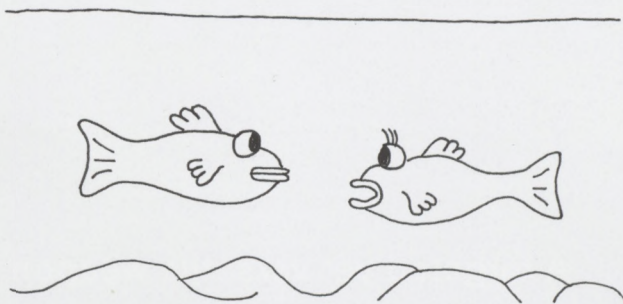
you go home knowing that you did everything that you could do, with the tools provided – to allow the golfers to enjoy this great game, and at the same time put a few bucks in the owner's pocket – you'll feel successful. But if you define success as prestige, or financial rewards, or recognition from your peers – it's a bottomless pit. There will always be a better course, a bigger paycheck, and someone else stealing the limelight.

Last thing – follow your passion.

Money will be spent, courses come

and go, but passionate people can't wait to get to work in the morning. Like they say on Letterkenny, "Do what you love, and you'll never work a day in your life." Imagine if the Wright Brothers had ignored their passion for powered flight! I'm sure that there were no small number of people who chided them for wasting time on such a pointless pursuit, when they could have been building up their bicycle business. There can be no doubt that their bicycle business would have been better off if they had focused on it exclusively. Perhaps they would have become the biggest bicycle manufacturer in the USA. They probably would have made more money. But instead they followed their passion – and thank goodness they did. They weren't just trying to fly, they were trying to change the world. Let people who are passionate about building bicycles, build the bicycles.

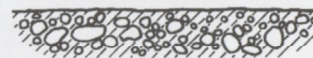
I have a few others – "No job is beneath you" comes to mind. But that's always the core message to young people. Look for opportunities, seize upon those opportunities, success is found in a job well done, and follow your passion. ■



Hard to believe that after all that planning, we ended up back here raising a couple thousand kids....

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