

Green is Beautiful

August 2006

The Official Publication of Ontario Golf Superintendents' Association

SEP 12 2006

Good Things Are Happening At Trafalgar

Acid Injection

Spring Field Day

38th Annual Presidents Day

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COVER PICTURE

Rosedale Golf Club

Photo by by Shawn Karn, 2nd Assistant

Rosedale Golf Club

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President's message

Ideas are free

What continually strikes me about the fraternity of superintendents is our collective and genuine interest and concern for our fellow colleagues' success. This state of mind is really nothing new, but cultivated from a long history of generosity of constructive opinion. Greenkeepers of old have always been known for pitching in with their neighbours, whether it is up the street or across the country. Whenever I have a respected colleague or researcher visit Rosedale Golf Club for lunch or golf, I don't drive over to my best turf areas, rather, I immediately point out my problem area or construction project which poses a challenge for us, and wait for an offer of advice or solicit a viewpoint, which is hopefully an honest assessment drawn upon their years of practical experience. What better feeling is there than knowing that we are all in this course management struggle together, knowing that one little idea may improve someone's chances for growing turf in 40°C temperatures with greens stimping at speeds of 12+, or tackling a renovation project, which really just increases our job security?

The real beneficiaries of information sharing are all golfers at all facilities who are frequently amazed at how we offer continually improved playing conditions in the face of mounting scrutiny of budgetary or environmental pressures. "If one superintendent having difficulty succeeds, then we all succeed", is my mantra. We all 'manage expectations' depending on our clientele, and since we manage "mother nature" in essence, we periodically face challenges not of our own making. You have the 'home turf advantage' from being on-site constantly, but sometimes not seeing the forest for the trees may increase your missed opportunities, which is when a fresh perspective from a respected colleague is of real value. Sometimes the message is just a reinforcement of practices or techniques already in place, or a new approach to an old problem, which is truly worth a luncheon visit. I encourage everyone to step outside their comfort level, and seek and receive constructive comments. This may take some courage for you, but the spirit in which the comments are given is the key to success.

The mere fact that you are reading this President's message means that you probably belong to the OGSA, and by inference, already support your fellow colleagues and value networking and sharing ideas and taking advantage of the latest and greatest turf research or products or techniques. You belong to a fellowship larger than yourself, one that means a lot to you and others, and has a powerful influence on the game of golf and its environment. We are highly respected professionals, primarily due to our success through generosity of opinion and willingness to work hard behind the scenes. Sharing ideas does not cost anything, yet is returned in immeasurable ways not just for you at your facility but for all superintendents everywhere.



Robert Burrows, CGCS, MS
Rosedale Golf Club



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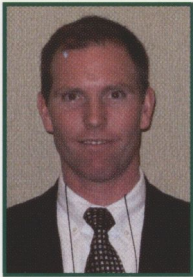
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Editorial message



by Chris Nelson
Co-Editor

Having played in the President's Day at Rosedale Golf Club, I was fortunate to enjoy a wonderful day on a Donald Ross designed golf course. The condition of the course certainly complimented the beauty of the property, which was developed as a golf course over a hundred years ago. Some of the details of Rosedale are listed as part

of the golf course highlight in this month's publication.

The Spring Field Day was hosted by Wade Beaudoin at St. Thomas Golf and Country Club. I understand from talking to participants, the course was in superb condition, and that Wade, in his first year as superintendent, is maintaining the polished image that St. Thomas is known for. You will find more on the Spring Field Day in this issue.

Also included in this issue is a summary by Justin Parsons of those clubs celebrating their centenary year, and of another celebrating their 75th anniversary. We extend our congratulations and best wishes to those clubs.

What's new

ASSISTANTS TOURNAMENT

Thursday, September 21st at The Briars.

The lush fairways and greens, meticulously maintained, are a testament to the skills of 2003 Canadian Golf Superintendent of the Year, Paul White.

ALEX McCLUMPHA MEMORIAL TOURNAMENT

Monday, October 2nd, at The Club at Bond Head.

Don't miss this great opportunity. The course is rugged and rough, daring golfers with the challenge of taming more than 7,500 yards of inspiring terrain.

Register on line for the Assistants Tournament and the McClumpha Tournament by going to www.golfsupers.on.ca Events and click on the individual tournament.

SCHOLARSHIP & AWARD DEADLINES ARE QUICKLY APPROACHING

HUGH KIRKPATRICK BURSARY

- \$2,500 - deadline date October 31st.

Trafalgar Golf and Country Club is in the process of completing a greens reconstruction program and Superintendent, Mark Prieur provides us with some interesting insight into the detail of this process, while Pam Charbonneau talks about some of the challenging disease problems facing superintendents this season.

Many superintendents have been using acid injection for a number of years now. The question for some superintendents is whether this is the right approach as part of their irrigation program. Dan Glitto, from Prime Turf provides some highlights surrounding the use of acid injection.

While Dr. Eric Lyons brings us some interesting information on Poa (Annual Bluegrass) and the invasion of this aggressive plant into greens surfaces, Daisy Moore provides us with suggestions on combination planting for both aesthetics and insect control.

Enjoy this August issue and the variety of interesting topics. I wish everyone a great fall season.

TURFGRASS DIPLOMA AWARD

- \$2,500 - deadline date November 17th.

WILLIAM SANSOM DISTINGUISHED SERVICE AWARD

– deadline date September 1st.

The above are OGSA awards. Details can be obtained by going to www.golfsupers.on.ca – Benefits – Scholarships

HUGH KIRKPATRICK MEMORIAL TURFGRASS MANAGEMENT SCHOLARSHIP

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The above are University of Guelph awards. Details can be obtained by going to www.oac.uoguelph.ca//learning/learn_turfgrass.asp

The way we were

Can you identify the people in this picture? To see if you are correct turn to page 31.



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Paul Sobil Class D
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Craig Thompson Class C
Port Carling Golf & CC

Derrick Weening Class F
The Club at Bond Head

HAPPY ANNIVERSARY

by Justin Parsons, Assistant Superintendent
Trafalgar Golf & Country Club

The 2006 golf season will see a few familiar golf clubs celebrate some rather big anniversaries. In honour of these courses, here is a brief look at who they are and where they have come from.



Mississauga Golf and Country Club

With the impending closure of The Highlands Golf Club in West Toronto in the fall of 1905, a group of enthusiastic young golfers set out to find a new location for a golf course. To ensure that their club would not fall victim to encroaching development, their search carried them well outside the city limits to Springfield Road (later renamed Mississauga Road) from the Dundas Highway. It was along the banks of the Credit River, where the Mississauga Indians once farmed and fished, that the former Highland Golf Club members established their new golf club.

Mississauga Golf & Country Club had its original nine holes laid out by Percy Barrett, Head Professional at Lambton Golf Club, in 1906. George Cumming, the highly respected Head Professional at Toronto Golf Club and host pro Willie F. Lock, later expanded the course to 18 holes in 1909. Since that time, the course has hosted numerous provincial, national and international matches including six Canadian Open Championships.

In 1931, Mississauga hosted its first Canadian Open, which saw Walter Hagen prevail in a 36-hole Tuesday playoff over Peter Allis. Seven years later, the course would see Sam Snead win his first of three Canadian Opens. But it was in 1965 that the "Big Chief" would test its greatest field of golfers. Though Arnold Palmer and Jack Nicklaus headlined the \$100,000 event, it was Gene Littler who edged Nicklaus by a single stroke for the championship.

Over the years the course has been shaped by some of the game's most famous architects. In 1919, Donald Ross made several recommendations, mainly with regard to bunkering and adding length. Stanley Thompson toughened it up considerably by adding even more length to the course in 1928, extending it to about 6,500-yards. Currently, the course superintendent is Robert Brewster. Happy 100th anniversary Mississauga Golf & Country Club!



Galt Country Club

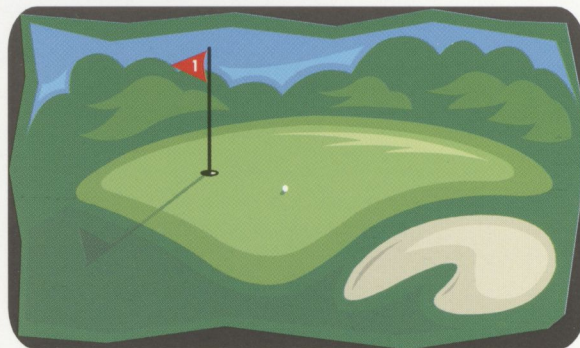
Waterloo Region's oldest golf club will also be celebrating its centennial anniversary this year. The Galt Country Club, originally named Waterloo County Golf and Country Club Limited, received its operating charter from then Lt. Governor Wm. Mortimer Clark in 1906. The charter came with a stipulation that

maintained it could be revoked if anyone was caught, "dealing in, bartering, trafficking in or disposing of spirits, spirituous malts or intoxicating liquors". Shortly after, 86 acres of farmland along the banks of the Grand River were purchased by a group of businessmen.

Like Mississauga Golf & Country Club, Percy Barrett designed the original nine holes. More than two decades later, Stanley Thompson expanded the course to 18 holes. Recently, the membership has been very pleased with the four holes that have been redeveloped by Doug Carrick's design team.

Perhaps the club's most famous member was PGA Tour professional Ian Leggatt who joined the club as a young teenager. It comes as no surprise that he currently holds the course record of 62, shot back in 1989. The par-70, 6,304 yard course may be short by today's standards, but its tight tree-lined fairways offer a challenge to golfers of any skill.

Galt's beautiful new \$2.75 million dollar clubhouse, which was built in 2000, will provide a perfect setting for the many special events planned over the course of the season. Course superintendent Mark Piccolo will no doubt have the place in beautiful shape to help celebrate this milestone. Congratulations on your 100th anniversary Galt!





Oshawa Golf and Country Club

Back at the turn of the century, a few dozen golfers assembled to form a golf club in the Oshawa valley. It seems that these 30 golf enthusiasts not only supplied the funding, but also designed the original layout and contributed to the construction. The club originally opened for play in 1906 with 12 holes. It would take more than a dozen years before Oshawa Golf and Country Club was an 18-hole facility.

In the early 1930's, Stanley Thompson was hired to help improve the shortcomings of the original design. There are very few records indicating what changes Thompson carried out. In fact, some believe that the fourth hole has the only remaining Thompson green. The course underwent further alterations in 1954 when William Mitchell was hired to alter the layout.

Now, 100 years later, the 17 green is considered the only remaining portion of the original layout. However, the standout features such as narrow fairways with dense tree lines, as well as challenging lies amongst a beautiful setting, still remain. Steve Hallard, course superintendent had the course in fine shape to help celebrate the anniversary when Oshawa played host to the 2006 Investors Group Ontario Amateur Championship this past July. Happy 100th Oshawa!



Westmount Golf and Country Club

Back in June of 1929, twenty members of the Grand River Golf Club assembled with the purpose of acquiring land so that they could build an 18 hole golf course. The land that was purchased consisted mostly of bush and swamp. It was up to Stanley Thompson, the course architect, to transform the property into a desirable setting for golf.

The club officially opened in the summer of 1931 and has since hosted many memorable tournaments including the 1957 Canadian Open, the 1969 Canadian Amateur Golf Championship, the 1990 LPGA du Maurier Classic and the 1991 Canadian Women's Open.

This 160-acre classic parkland course ranks as one of Canada's best. Congratulations to Superintendent Cory Janzen and the entire Westmount golf team on 75 years of golf!

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From roots to shoots



by Pam Charbonneau
OMAF Turfgrass Specialist

This season moisture seems to be less of an issue and now it is the heat that is getting to us and our turf. This is traditionally a time where turf is lacking moisture and at least threatening to go dormant. Many areas have had near normal rainfall, some have had normal rainfall and a few areas have had up to 50% greater than normal rainfall. The wettest areas are in northern and eastern Ontario, but Vineland and Windsor have also been wetter than normal. This year, keeping up with the mowing and having to mow wet turf is the challenge.

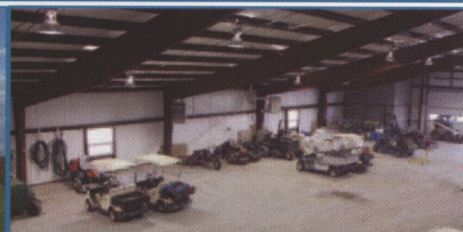
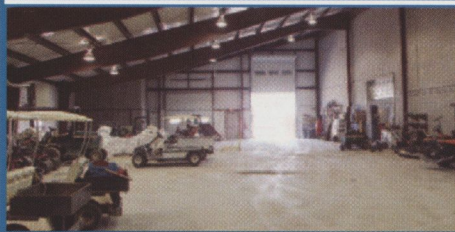
There have been many problems out there over the last month, so let's tackle a few of them.

- One of the main problems facing turf managers this summer has been disease. Many superintendents are on preventative programs for disease so the amount of disease that is occurring out in the field is less than you might expect based on the weather we have been having. The root diseases are dominating the samples that have been submitted to the GTI Turf Diagnostics Lab, according to Dr. Katerina Jordan and Erica Gunn. The early season samples were mostly take-all patch and now there are both take-all patch and summer patch samples coming in. The

hot weather accompanied by thunderstorms has provided the perfect conditions for summer patch. For many golf course superintendents, this is the second year in a row where they have been hit by this disease. Brown patch has been more common out in the field than pythium blight and dollar spot has virtually exploded on fairways during the last weeks of July.

- All the heat and wet soils has also caused a rapid loss in turf roots this summer. Roots die back when soil temperatures are high. Soil temperatures are higher in wet soils than dry soils and this situation is exacerbated with poorly drained soils and hot night time temperatures. During periods of high temperatures and high humidity, when there is standing water on greens you can also experience turf loss. Turf is virtually cooked.
- There is also an explosion of black turfgrass atenius grubs out now. These are really late, but not expected because the adult emergence of this pest was dragged out well over a month because of the warm/cold cycles that we had this spring. We have found these in our routine scouting at GTI. There is no visible damage yet, but the numbers are very high and roots are already compromised because of the hot weather, so it is quite likely that we will see some damage very shortly. Also, there are already animals digging for the tasty grub morsels.

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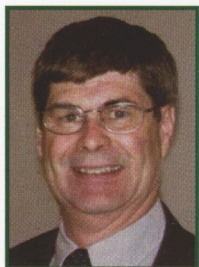
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Health & safety



by Doug Johnson
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Emergency Response – "ICE"

Now this article is a bit different from some of the previous ones. I have borrowed a good portion of the article from some press releases and an article in the Toronto Star.

We often think of emergency response as something that we deal with at our workplaces. Well there are times when it may be necessary to deal with an emergency response away from the workplace and away from your home. Most of us carry a cell phone, so this gives us a convenient way to carry some emergency numbers with us as we travel around.

A recent article from the Toronto Star, "the ICE idea", is catching on and it is a simple, yet important method of contact for you or a loved one in case of an emergency. All you need to do is program the number of a contact person and store the name as "ICE".

The idea was thought up by a paramedic who found that when they attended at scenes of accidents, there were mobile phones with patients, but they didn't know which numbers to call. The paramedic thought that it would be a good idea if there was a nationally recognized name to file "next of kin" under.

Following a disaster in London, Ontario the Ambulance Service launched a national "In case of Emergency (ICE)" campaign. The idea is that you store the word "ICE" in your mobile phone address book, and with it enter the number of the person you would want to be contacted "In Case of Emergency". In an emergency situation, Emergency Services personnel and hospital staff would then be able to quickly contact your next of kin, by simply dialing

the number programmed under "ICE". It really could save your life, or put a loved one's mind at rest. For more than one contact name simply enter ICE 1, ICE2, and ICE3 etc. A great idea that will make a difference!

The American Society of Safety Engineers is pushing to increase the use of the "In Case of Emergency – ICE" system for cell phones. With over 190 million people in the U.S. with cell phones and even more worldwide, ICE can help emergency personnel in quickly identifying an injured individual and their next of kin in minutes instead of hours. This helps emergency workers provide the best care possible.

Individuals can program a new contact in their cell phone address book with the letter's ICE followed by the name and phone numbers of their emergency contacts. If adding more than one ICE contact, mark the primary contact as ICE1, such as ICE1-John Doe, ICE2-Jane Doe, and so on. These individuals should agree to be the ICE contact and they should be supplied with the individual's family contacts, primary physician, work contact and also medical history, which should list allergies, current medication and previous medical procedures. Individuals under the age of 18 should list their guardian, mother or father as their ICE contact.

Take the time to make a difference for your family!! Program your ICE!

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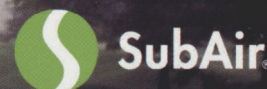
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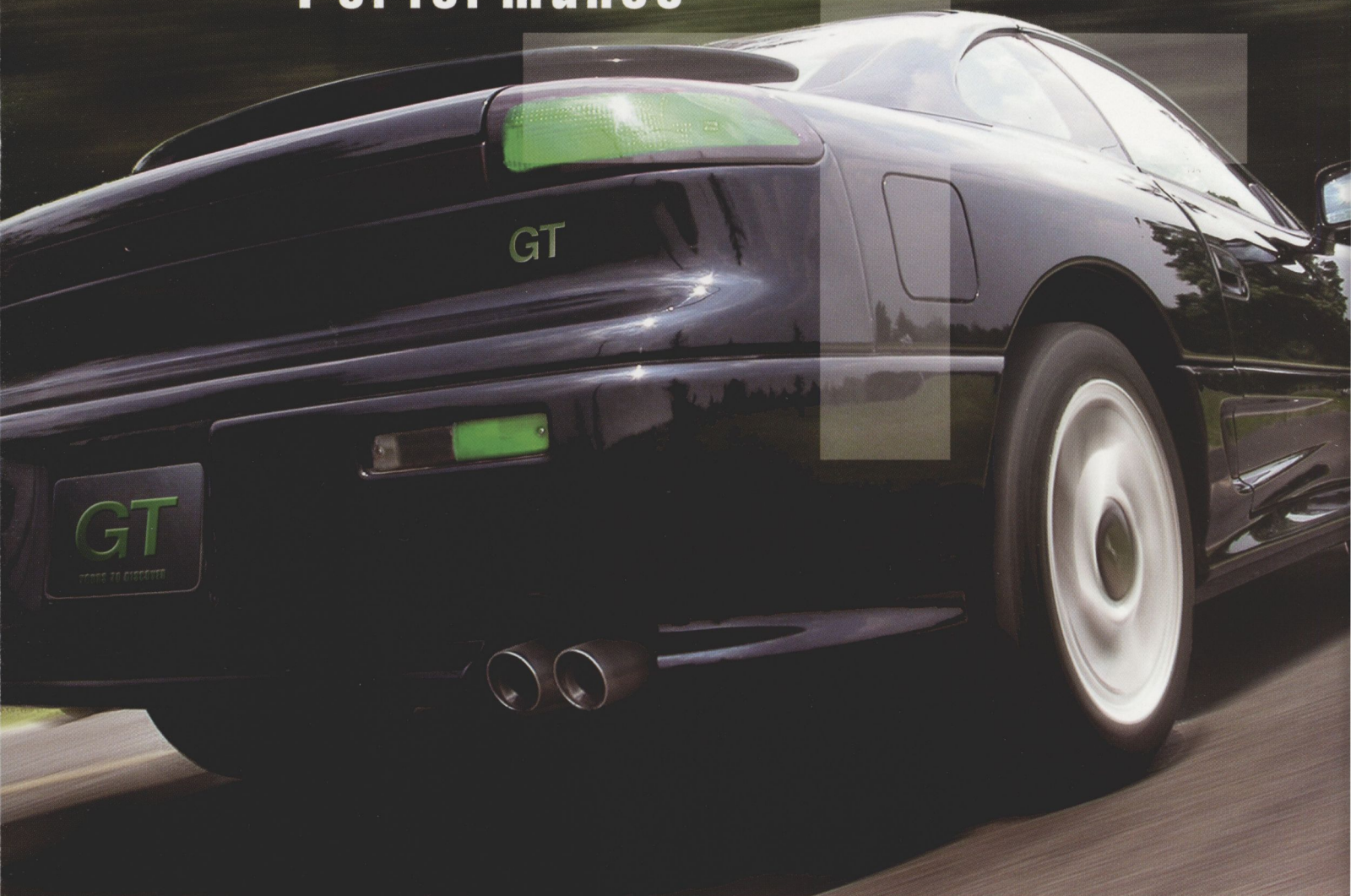
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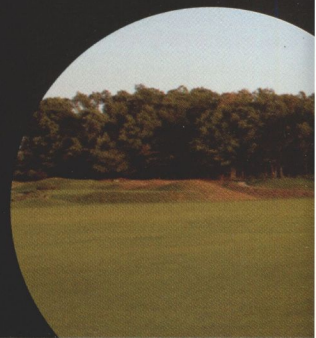
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SPRING FIELD DAY

Article & photos by Dorothy Hills

The St. Thomas Golf and Country Club was recognized for environmental excellence in 1999 when the club achieved designation as a "Certified Audubon Cooperative Sanctuary." The club was the eighth course in Ontario and the fifteenth course in Canada to achieve this status, and has consistently been rated one of the Top 100 Courses in Canada as determined by Score Golf Magazine.

Those who were fortunate enough to play in the Spring Field Day were greeted by sunshine and warm hospitality. Superintendent Wade Beaudoin and his staff had the course in prime condition for our event. Special thanks also go to General Manager, Randy Moncrieff and his staff for helping to make this such an enjoyable event.



Prior to the BBQ luncheon, we had an opportunity to welcome Dr. Katerina Jordan as a new OGSA member and Assistant Professor in the Department of Plant Agriculture at the University of Guelph. She gave a brief update on her research and plans for future work within the golf industry, including her work with Erica Gunn in the GTI Turf Diagnostics Laboratory. She is looking forward to getting to know and working with the superintendents in Ontario.



OGSA Director Doug Breen welcomed our Regional Association guests and recognized the volunteer efforts they bring to their respective regional associations, making a difference in promoting our profession in this ever changing golf industry. Should you require information

about an Ontario Regional Association you can contact the following persons:

Kennedy Court, Northern Ontario Golf Superintendents Association

Gordon Witteveen, The Toronto Society of Golf Superintendents

Sean Evelyn, Lake Simcoe Greenkeepers

Gary Trudeau, Ottawa Turfgrass Association

Mike Gutteridge, Eastern Ontario Golf Superintendents Association

Marc Brooks Georgian Bay Superintendents Association

Mark Hagan, Greater London & Area Association

Randy Hooper, Kent Essex Greenkeeper's Society

Green is Beautiful's Co-editor, John Bladon took the mike to express our thanks to the regular contributors and the Editorial Committee for their continued support of OGSA's official publication. Without their volunteered efforts, it would not be possible to produce this magazine.



Scott Gardner, Superintendent, Echo Valley Golf Club won the Clayton Switzer Trophy with a low gross of 73



Wade Beaudoin accepted the Host Superintendent plaque from OGSA President Bob Burrows

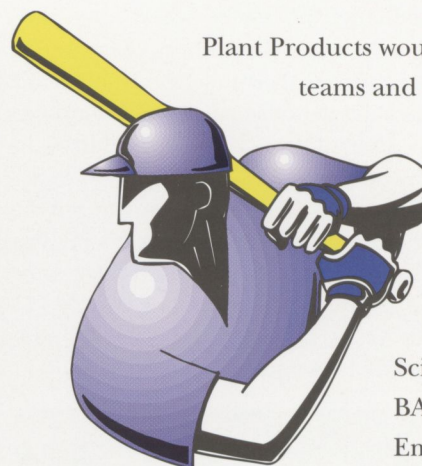
Everyone attending the event was a winner that day but one person in particular made a name for himself. T.J. Rule, from Burnside Golf Services in Pickering sunk a "hole in 1" on #17. Congratulations T.J.!

SEVENTH ANNUAL PLANT PRODUCTS BASEBALL TOURNAMENT

by Gary Tate



The seventh annual Plant Products Baseball Tournament was held on July 8, 2006 at Turner Field in Hamilton. This year's field was made up of forty-two of the best teams from across southern Ontario competing for the coveted trophy and bragging rights. After a long day under the sun, the final four teams were determined. It would be Lionhead vs. Knollwood and Traflagar vs. the defending champs, Cutten Club. After two more hard fought games the home town favourite emerged to take on the defending champs, Cutten Club. At the end of the game Cutten Club was unable to hang on to the trophy and the tournament's new comer, Knollwood claimed the top spot for themselves.



Plant Products would like to thank all the teams and volunteers for helping to make the day a huge success. Special thanks to the following sponsors: Bayer

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Plant Science. Without your generous help, this day would not have been possible. Thank you also to Skyway Lawn Equipment for donating the golf carts for the day.

Once again, congratulations to Knollwood Golf Course and we look forward to seeing all of you next year.

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Eastern Ontario Golf Superintendents Association



On June 1st the Eastern Ontario Golf Superintendents Association (EOGSA) recently held an event honoring the late Tony Martin, former long time golf course superintendent at the Trenton Golf Club.

The association planted an oak tree near the clubhouse in memory of Tony. The golf club purchased a beautiful engraved monument with his name, placed beside the

tree. Approximately 40 members stood in the light rain to remember Tony as Jack Gorman, owner of the Poplars Golf Club shared some inspiring memories of Tony, one of the founding members of the EOGSA. The club president, Tony's nephew and fellow superintendents also shared some fond memories. Tony was a fixture at association events and will be sorely missed.

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SOIL BACTERIA'S ROLE IN TURF QUALITY & SURVIVAL

by Achille Correggia and John Bladon
Technical, Nu-Gro Canada

The world's nitrogen supply can be divided into three major segments known as the atmospheric pool, the soil pool, and finally, the pool of nitrogen contained within the biomass. The complex interaction between these three pools is known as the **nitrogen cycle**. This process is highly dependent on the microorganisms that populate our soils. Without these vital microscopic creatures the majority of the processes such as fixation, mineralization, nitrification, and denitrification, involved in the nitrogen cycle could be hindered dramatically. To provide a better understanding of these important components, the following will discuss each process in more detail and what it may mean to the golf course superintendent when considering nitrogen sources.

Nitrogen fixation includes any process that converts nitrogen gas from the air to ammonium (NH_4^+) or nitrate (NO_3^-). Nitrogen fixation can occur naturally through biological fixation by bacteria & lightning or artificially through industrial nitrogen fertilizer production¹. Bacteria that are involved in the fixation process can be classified into two groups, free living (independent) or symbiotic (associated with another species, like soybeans). *Azotobacter* bacteria are an example of free-living nitrogen fixing bacteria, while *Bradyrhizobium japonicum* is a symbiotic nitrogen fixing bacteria primarily associated with soybeans. Although free-living bacteria are widespread, they multiply fairly slowly and are confined to specific habitats².

Mineralization of nitrogen can be described as a process where mineral forms of nitrogen are released into the soil through organic matter degradation by microorganisms. Examples of nitrogen sources that function in this manner are organic forms, methylene urea and urea form. The nitrogen is released initially as ammonium, which is then rapidly converted to nitrate by nitrifying bacteria in the nitrification process¹.

These nitrifying bacteria are vital in the production of nitrate for turf uptake. Nitrification is a two-step process; the first step is the conversion of ammonium to nitrite by a specific group of bacteria called *Nitrosomonas*. The nitrite that is generated during the first step of nitrification is immediately acted upon by a second group of bacteria called *Nitrobacter*. Under favorable conditions, high soil nitrite concentrations should not occur, as the second transformation is thought to follow the first closely to prevent any nitrite build up in the soil. This is fortunate as nitrite is toxic to most plants and mammals, even in minute amounts³.

Nitrogen fixation, mineralization and nitrification can be classified as processes that supply soil nitrate in either small or large amounts for turf uptake. Denitrification on the other hand can be described as a process that removes nitrate from the soil. Denitrification occurs in soils that

are water logged or highly compacted and therefore with diminished levels of oxygen. Nitrate (NO_3^-) ions are converted to atmospheric nitrogen by a series of widely occurring biochemical reaction that include bacteria from the *Pseudomonas*, *Baillius* and *Micrococcus* genera³.

Due to turf's inability to convert atmospheric nitrogen into a useful biological form, the presence of both *Nitrosomonas* and *Nitrobacter* play a critical role in its survival. Products that are applied and proactively affect the concentration levels of both of these bacteria in the soil will improve the overall quality of turf and lower management inputs. A reduction of *Nitrosomonas* levels could cause ammonium to "volatilize" or be lost to the atmosphere as ammonia. This could result in reduced fertilizer efficiency, repeated applications and therefore higher operational costs. A reduction in the *Nitrobacter* population could create higher soil nitrite levels that are potentially harmful to both turf and mammals.

So, what does this all mean to the golf course superintendent? When considering nitrogen alternatives, organic products and reacted products like methylene urea or ureaform are known for their superior controlled release qualities. They "spoon feed" or meter nitrogen to the turfgrass plant while having proactive effects on soil bacteria enhancing their populations and therefore overall turfgrass health. Release of nitrogen from these forms is dependent on these soil microorganisms. Even in low organic matter soils, choosing to apply these forms of fertilizer encourages the buildup of soil bacteria by providing sustained food (nitrogen) and energy (carbon) to soil microorganisms. They, in turn, convert the water-insoluble nitrogen fractions back to available nitrogen over the course of the growing season.

Without the continued healthy presence of these bacteria in the soil, and inputs stimulating their life cycles, overall turf quality could be compromised. Management and cultural countermeasures would certainly rise over time resulting in higher expense or operational costs. Finally, and most importantly, our mission of providing a quality stand of turfgrass for the enjoyment of our golfing clientele could certainly be diminished.

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THE 38TH ANNUAL PRESIDENTS' DAY

article by Trevor Clapperton

course photos by Shawn Karn 2nd Assistant, Rosedale GC

This year's Presidents' Day tournament was hosted by the beautiful Rosedale Golf Club. Located in Toronto, the club was established in 1893 and was remodeled in 1921 by Donald Ross. Course Superintendent, Bob Burrows, Assistant Superintendent, Steve Tschanz and their staff had the course in absolutely magnificent condition.



The Ontario Golf Superintendents' Association's most popular and prestigious event was a great success. This event is designed to promote camaraderie between team members and other teams. It is an opportunity to share ideas between clubs and enjoy friendly competition between clubs' Presidents, Greens Chairmen, Directors and Superintendents. After golf all teams enjoyed a terrific meal served in the dining room provided by catering manager Lisa Brown and her staff. Following dinner, Rosedale's Greens Chairman, Chuck Thompson officially welcomed all participants to Rosedale Golf Club and expressed his appreciation towards the efforts of Bob Burrows and his staff for the conditions of the course all year.



After the scores were tabulated by Mike Sherman and his pro shop staff the William Sansom Trophy, named after OGSA's first president, was awarded to the team Lambton Golf Club with a score of 120. Congratulations to Peter Kinch, Ross Fletcher, Roman Winnicki and John Demko. Our thanks to Mr. Paul Stone, Curator of the Canadian Golf Hall of Fame for making their "Rub of the Green" golf course design and maintenance exhibit available for viewing in the cocktail lounge, and to General Manager,

Peter Oldfield for tabulating the pari-mutuel. A special thank you must go to Dorothy Hills and her staff at the OGSA for their organization in making this day a great success.

Winners

1st place – Lambton Golf & Country Club
Peter Kinch, Ross Fletcher, Roman Winnicki, John Demko

2nd place – Deer Ridge Golf Club
Jarrod Barakett, Don MacKenzie, Joe Hamley, Pat George

3rd place – Twenty Valley Golf & Country Club
Steve Muys, Gary Hunter, Ken Teshima, Wayne Nicholls

Closest to the pin

Team – Deer Ridge

Men – John Cormier

Women – Donna Armstrong

Longest Drive

Men – Ashley Chinner

Women – Ginny Mawer



1st place Lambton team



Bob Burrows accepting host superintendent plaque from Trevor Clapperton



Chuck Thompson, Green Chairman, Rosedale Golf Club

Golf course highlight

Rosedale Golf Club

1901 Mount Pleasant Road, Toronto ON
Phone: 416 485-9742 Fax: 416 485-8532
Email: rburrows@rosedalegolf.org
Golf Course Superintendent: Robert Burrows



#2 Par 5 by Shawn Karn 2nd Assistant, Rosedale GC

COURSE PROFILE

Is your club private, semi private or public?
Private

Size of membership?
1020 total, 600 golf with 22,000 rounds

Typical opening and closing date
Early April to early December

How long have you been an OGSA member?
20 years, 17 years as Superintendent

Are you a CGCS or Master Superintendent?
MS and CGCS

List other accomplishments
*OGSA President (2006)
CGSA Secretary Treasury (2006)
CGSA Article of the Year Award (2005)
CTRF Chairman (2001)
Numerous GCSAA committees
GCSAA Environmental Steward Award ('97)
Audubon Certification (Hillsdale GC, '96)
QGSAA Board and QTRF (1993-1997)*

How many year round and seasonal staff?
7 year round and 21 seasonal

How many mechanics and assistants?
*Assts: Steve Tschanz (1st), Shawn Karn (2nd)
Fleet Technician: Ray Joyce*

How many gardening staff?
James Pittson, Horticulturist

COURSE STATISTICS

How many holes?
18

What is the yardage from back and forward tees?
*6,471 yards from the gold tees and
5,168 yards from the red tees*

What is the size of driving range and range tee?
Driving range: 210 yards. Range tee: 1 acre

How many bunkers?
87

How many does water come into play?
*1 pond as irrigation reservoir and West
Don River comes into play 7 times*

Who was the original architect?
Tom Bendelow in 1909 (current location)

What was the year of original construction?
1893 Deer Park GC-founding member RCGA

By whom and when was the course remodeled?
Donald Ross onsite in 1921

Major Tournaments held?
*Canadian Open in 1928 and
2 RCGA Presidents' Days*

What is the size of your maintenance shop?
12,000 ft²

What type of irrigation system?
*Toro, Network 8000, Site-pro/T-Map/
Handheld remote*

What is the size of the greens, tees & fairways?
*2 acres of greens, 2 acres of tees
31 acres of fairways*

What is your predominant grass?
Poa Bent mixture

How many USGA/loam greens?
4 modified USGA greens with Poa sprigs

What is the predominant soil type?
Sandy loam throughout property

What equipment do you have in inventory?
Extensive fleet of adequate size of state-of-the-art units to deliver member expectations in a safe and efficient environment. Stay well ahead of member morning play, while having 'reserve' units in inventory. Goal is to remain self-sufficient and not rely on outside contractors for most equipment. Strict adherence to a comprehensive and well supported long-term plan of equipment replacement on a timely basis.

OTHER COURSE INFORMATION

What projects have you recently completed?
-Ongoing use of big-roll Kentucky sod to re-contour fairways

*-Re-sodding around all greens complexes with bluegrass
-Stone curbing around all paths to replace wooden timbers, as well as stone stairs
-Reconstruction of 18th hole, 1st tee, and practice facilities in conjunction with new Pro shop and clubhouse landscaping
-Parking lot resurfacing and landscaping
-Equipment wash-pad and filtration system
-Fairway and green slit-drainage
-Riverbank erosion abatement with TRCA approved natural wood crib-wall structures
-GPS all trees on property to develop extensive inventory and grove management plan using specialized software*

What long range plans for renovation do you have in the next five years?
-Conducting a search for architect who has extensive experience in motif of Donald Ross renovations

*-Planned renovation of all bunkers with "ProAngle" sand this fall; larger square tees; re-building of six greens using Poa cores; rebuilt forward tees
-New irrigation system and new workshops in conjunction with renovation work
-Replacement of 10 bridges*

Are there any particular challenges you face with your property?

*-Age and diversity of over-mature tree population on property requires proactive grove management. Hired full-time certified Arborist, Tuan Tran, purchased necessary equipment and developed tree nursery.
-Valley-holes require constant monitoring in hot/dry periods as high temperatures coupled with air, drainage and sunlight issues impact turf environments consisting of bent/poa blends
-Providing firm/fast/consistent conditions on a sandy property is achievable yet not easy
-Managing expectations with less pesticides
-Invasive weeds in fescue hillsides
-Course renovations with a club membership who does not relish change, interruption or inconvenience.*

Do you have any success stories?

*-Learning from mistakes breeds success
-Keep management/cultural plans simple, "old-school" and straight-forward, while recognizing proven, cutting-edge techniques
-Be generous and sharing with your time and life-lessons. Remain humble and low-key, yet subtly promote/communicate your professionalism/value to golfers/employers.*

What type of innovative cultural practices have you performed?

*While not unique industry practices, perhaps viewed as more site-specific responding to Rosedale's unique property:
-Growth regulators on bunker faces
-Green/fairway slit drainage
-Fairway topdressing
-Acid/potassium injection at pump house
-Use of solid geotextile green/tee covers for winter/ice protection
-Painting 'Roundup' herbicide on invasive weeds on hills
-In-house tree shade analysis using GPS and inventory software
-Poa sod nursery using aerification cores/sprigs
-Use of 'Dryject' and soil amendments*

Good Things are Happening at Trafalgar

by Mark Prieur, Superintendent
Trafalgar Golf & Country Club

The first entry of a two part series on greens reconstruction.

Trafalgar Golf and Country Club is a private, eighteen-hole golf facility located in Milton, Ontario. Having been designed by legendary Canadian golf course architect C.E. Robinson in 1958, it was indeed time to upgrade the tired push up soil greens to sand based ones in time for its 50th anniversary in 2008.

The decision to rebuild the putting greens came on the heels of last year's scorching hot season. Some of the greens, most notably the 1st and the 18th, fell victim to the stresses placed upon them by the extreme weather they faced last summer.

Planning and Logistics

Upon learning that the owners were committing to the project, preparation for the project was done in a little over two months. It was decided that the superintendent be the general contractor for the entire project. Confirming quantities of sand, gravel, sod and drain pipe were of utmost importance before the shapers had arrived on site. The greens were to be excavated to a depth of sixteen inches, with a herringbone style drain system installed, followed by a 4" gravel layer to provide a perched water table.

It was also decided that the renovation project would be done in two phases. Eight greens would be complete by

the spring of 2006, the remainder of the greens built in the fall of 2006 ready for play in 2007

A visit to the sand pit proved extremely informative as it provided insight into the many different types of aggregate that can be incorporated into a greens medium. After consultation with our agronomist, it was decided that an 80/20 calcareous mix was the most beneficial blend for Trafalgar. The 3600 tons of sand would have to be staged out of the clubhouse parking lot to accommodate the large influx of tractor trailers arriving on site at any given time. In addition to the sand, approximately 1100 tons of pea gravel was also delivered at the same time. Needless to say, the members were extremely patient during the first leg of the construction process.



Temporary greens (mowing down of the fairways) commenced about three weeks prior to construction. These greens were core aerated and topdressed heavily and kept at a height of 0.180" during the entire construction process. There is a little more planning involved in selecting a temporary greens sight other than, "pick a spot 45 yards down the fairway." Avoiding steep slopes, valve boxes and having more than two cup positions are key considerations for providing an acceptable interim putting surface for the members.





Construction

We broke ground on the sixteenth green on October 17th and by the time the snow flew in late November, four greens were complete and ready for sod and two more were excavated, bottom graded and drained. The ninth and eighteenth greens were going to have to be dug up in the spring. The wet fall posed many construction problems as excavation and aggregate hauling equipment could not navigate in and out of the soggy greens cavities. When the weather finally allowed the shapers to wake from their slumber, it was the beginning of April. The L-93 bentgrass sod was installed on four greens, the first, seventh, twelfth and sixteenth. The process was nothing short of amazing. The crew arrived at first light and by dinner they had installed, perfectly, approximately 26,000 square feet of bentgrass sod on all four greens. The large rolls were forty-two inches wide and each one covered 360 square feet, which was roughly 18 rolls per green.



Even in early April, sod can dry out fast. Constant hand watering was done morning, noon and night. Speed rolling to help the seams knit faster was employed almost every other day. Fertility levels were monitored frequently to ensure proper rooting. There were not many days off taken after the sod went down. New greens sod installation can be roughly equated to having a newborn child; you never want to take your eyes off them for one second.

The first mowing was eleven days after the installation, and daily mowing occurred not long after. This spring we had some higher than average temperatures which resulted in an early opening.



Opening Day

The first four greens opened forty days after installation at 0.200". Pressure to open the greens was not felt from the owners and members, as was previously expected. Everybody was just happy *seeing* the progress because they knew eventually that they would be playing on a fine stand of pure bentgrass.

The next two greens (eight and ten) would be sodded on May 3rd and opened on June 7th (that's 34 days for quick math). The growing days were greater in number than the previous four. The last two were installed on May 17th and opened on June 19th (31 days) also to the height of 0.200". As the weather improved and the construction crew had fewer weather delays, the whole process flew by. The eighteenth green (the last one of the spring) was completed in just six days! It was nice to be blessed by great weather after a disastrous fall where it seemed every other day there was some sort of weather setback.



The Future

As this article is being written, we are at the tail end of some of the hottest days this summer. There was even one record breaking night (27°C in Milton). Coupled with high humidity, it is certainly a recipe for high disease pressure. The new greens that were properly planned, constructed, and maintained, were headache free during the onslaught of high temperatures; if only the same could be said for some of the old greens!

Phase two is slated to begin at the end of September with a scheduled completion at fall's end. Let's pray for a great fall and an even better spring!

ACID INJECTION

by Dan Glitto, Prime Turf

After a couple of years of digging into the technology of water treatment and its effects on turf, I have to say that the chemistry of irrigation water is one of the least understood aspects of the overall challenge of maintaining a high quality turf. Unlike the industrial and municipal markets where I lived for 25 years, the turf industry has been slow to develop meaningful tools for the turf manager to use in dealing with the issues related to poor water quality. Collectively, we have seen a number of indices and recommendations for control limits which do not make much sense to the average guy trying to grow grass. Most of the information comes from people trying to sell something and is often viewed skeptically.

As an industry, much of the emphasis is placed on fertility and disease control programs, new configurations of "iron" and relatively little attention is paid to water quality issues. This is unfortunate because the need to understand water chemistry grows in importance as we face a host of various environmental concerns and economic considerations connected to poor water quality. If we irrigate at a rate of 1,000,000 gallons per season, we are putting out over 8 million pounds of water! We put out 350 times more pounds of water than we do nitrogen! We ought to know what's in that water!

The fact is that the chemistry of the water DOES impact on the physical properties of our turf. Another fact is that we cannot select a single set of guidelines for "acceptable" water quality and apply them to every golf course in the country! An understanding of how the given components making up the water analysis react with each other is essential in determining how the water may or may not affect the quality of the turf. In addition, soil analysis and specific course conditions must be worked into the assessment in order for it to be truly valid.

The inter-relationships between pH, alkalinity, Calcium, Magnesium and Sodium are complex. The values of each relative to the total dissolved solids (TDS) present must be considered in selecting control limits for a given water quality. Guidelines should be considered guidelines, not values that are carved in stone for every water quality. There are several indices developed over the years that help determine the potential negative impact poor water quality may have on turf. A few notables are:

- SARSodium Adsorption Ratio
- adj.SAR.....Adjusted Sodium Adsorption Ratio
- pHcCalculated pH
- RSCResidual Sodium Carbonate
- Ca:MgCalcium: Magnesium Ratio

These are formulations that can be confusing and often misleading. Nevertheless, they attempt to take the critical factors into consideration while determining the worthiness

of a given irrigation water. This confusion is complicated by the water analysis reports that are often presented with mixed terms such as ECw and TDS and some values in ppm while others are in meq/l.

It's not simple, but judging the quality of water has in some cases been over simplified. A complete understanding of all the potential interactions will lead to a proper assessment.

The point is this: You put more water on your turf than anything else! Know your numbers and what the impact of those numbers may be. I would guess that each of you at some level recognize that to be true. I also have had enough conversations on the subject with many of you to know that the industry hasn't made it easy for you to make an assessment of your water. Many of you rely on soil consultants who collect a water sample and compare the results to guidelines that never change and in many cases don't make a lot of sense. One report, one look and a few lines of recommendations aren't enough in my view. Harsh but true.

I'd like you be able to make your own assessment or at least have some solid background information to help to get a feel for how your water stacks up against generally accepted control limits.

There is an alphabet soup of indices which have been developed to help. They can be tough to understand and even harder to calculate if you don't know what goes into them. We are going to get started on a series which breaks down the more meaningful indices and begin to get a feel for what goes into them and review why those parameters are important to turf quality.

There are a number of acronyms we see show up on reports and in articles that in general are poorly explained. Each of them has a purpose and has been developed from years of experience and some research.

You may be working with or have seen the following indices:

- SARw – Sodium Adsorption Ratio
- adj.SARw – Adjusted Sodium Adsorption Ratio
- TDS – Total Dissolved Solids
- ECw – Electrical Conductivity of Water
- SI – Saturation Index
- Ca: Mg – Calcium to Magnesium Ratio
- RSC- Residual Sodium Carbonate
- pHc – Calculated pH

So which one of these indices are the best? What's most important? Who knows! There are so many interrelationships at work in your water; you ought to consider them all!

Before we tackle the formulas, we need to take a step back. For a full understanding of this important element of your management program we should try to simplify key water issues beginning with a demystification of the water analysis.

When one take's a look at typical water analysis, each parameter is compared to desired guidelines. These guidelines are generally expressed as:

- pH = 6-7
- Alkalinity $\text{HCO}_3 = <120\text{ppm}$
- Alkalinity $\text{CO}_3 = 0$
- Calcium = 40-120ppm
- Magnesium = 6-24ppm
- Sodium = <40ppm
- Chloride = <140ppm
- TDS = 125-500ppm
- Sulfur = <180ppm
- Iron = 2-5ppm
- Potassium = .5-10ppm

You can see that some parameters are a strict control limit while others have huge ranges!

How can you have calcium be okay at 120ppm and 40ppm? Or TDS be in range at 4 times the lower control limit? This is because of the interrelationships that exist. A simple check against these desired values isn't enough. We need to know how they relate to each other.

As we review the analysis, we often see the results expressed in mixed terms. Some are ppm, some are meq/l and some are mg/l. Furthermore, the indices used to tell you whether or not you have a problem are numbers that are based on formulas and terms that are in most cases are viewed as a magical number that doesn't make sense when looking at a water analysis. It is calculated by the laboratory without much explanation.

The indices desired guidelines most commonly seen are:

- SAR (Sodium Adsorption Ratio).....<3*
 - Adjusted SAR<6*
 - pHc (Calculated)>8.4
 - RSC (Residual Sodium Carbonate)<0*
- *meq/l

Since these critical values are expressed and calculated in meq/l, we ought to know how to simply convert ppm to meq/l.

(ppm to meq/l)

Divide ppm by equivalent weights

- HCO_3 61
- SO_4 48
- CO_3 30
- Na 23
- Cl 35.4
- Mg 12.2
- Ca 20

So if your Calcium is reported as 80ppm, you divide by 20 to get a meq/l of 4. By breaking everything down to meq/l we begin seeing things in equal terms that help us understand the volume relationships better and will help when we work through the index calculations that will show you whether or not you have a potential problem.

It is widely accepted that many of the problems caused by poor water quality are traced higher pH and alkalinity values, when the potential for sodium to become the predominant cation increases. This is due to the calcium and magnesium being "tied-up" by the alkalinity and made unavailable to soil exchange sites, since these "good guys" cannot get to the ion exchange sites, they are replaced with Sodium. This seals the soil and dramatically reduces the ability of the turf to take up nutrients. The balance between cations (positively charged ions) and anions (negatively charged ions) is important and relatively easy to get a handle on.

CATIONS +

Calcium Ca^{++}
Magnesium Mg^{++}
Sodium Na^{+}
Potassium K^{+}

ANIONS -

Bicarbonate HCO_3^{-}
Carbonates CO_3^{-}
Chlorides Cl^{-}
Sulfates SO_4^{--}
Nitrates NO_3^{-}
Boron B_3^{--}

The balance is important. For example, if the Bicarbonate and Carbonate (alkalinity) ions outnumber the Calcium and Magnesium ions, it's certain that they (Ca & Mg) will be tied up, therefore allowing the sodium to fill the cation exchange sites at the soil particle. This is bad news. Once again, we can use the meq/l conversion to get all these things on equal terms to determine the severity of the potential problem.

The key parameters which are examined most closely by the collective group of control indices are:

- pH
- Alkalinity (Carbonates and Bicarbonates)
- Hardness (Calcium and Magnesium)
- Total Dissolved Solids (Total Salts)
- Sodium

These are the main parameters we need to focus our initial review on. The issue of water quality is not going away. Between the impact it has on your turf and the impending environmental considerations, it's something we have to pay growing attention to.

Dan Glitto has spent the last 25 years working in all aspect of water treatment. His background includes specialty chemical programs and the equipment to control and monitor these programs.

NEWSLETTERS: A KEY COMMUNICATION TOOL

Are you responsible for contributing to your facility newsletter? Are you confused about what to write and how? A good newsletter article can be a key communication tool for superintendents. Following are a few tips to help you get started.

Why contribute to your facility's newsletter?

There are only so many hours in the day and superintendents already work long hours. However, golfers may not see the superintendent as often as they see the rest of the golf course management team, which makes it important for superintendents to connect through other means, if possible. Providing content for your facility's newsletter is a quick and easy way to stay in touch with golfers, let them know what is going on with the course and why. Newsletters also are good for getting employees, the media, sales reps, and others excited about your facility and projects.

Where should I start?

The first step is to develop an editorial calendar – having a plan will allow you to efficiently gather the information you need for each issue. Outline topics you'd like to cover during the year, including key projects.

How do I begin the writing process?

Identify your audience. Are you writing to golfers, employers or potential members? Make sure the newsletter content is relevant and important to them.

Keep it simple. Precise editing for grammar and facts is more important than an exciting look. Pictures can help tell the story, but too many pictures or irrelevant pictures can make a newsletter too confusing or busy. Remember, newsletters are meant to be quick reads, so keep the stories short and to the point. If you're writing on a topic that's too long to be fully discussed in the newsletter, you may want to summarize your topic and provide a link directing readers to your facility's Web site for the full story.

Write what you know. Potential topics to address include new staff members, facility changes, upcoming events, specials, golf cart rules, ball marks, divots, aerification, winter play/frost, raking bunkers and pesticide applications. If you're still stumped, search chapter and industry publications and Web sites, as well as GCSAA.org, which has a wealth of resources on industry topics that can be easily applied to your facility and situation.

Personalize your content. Make your stories personable and phrase articles with a positive, informative bent. Include quotes, interviews and even tasteful jokes (if applicable) and be sure to cite your sources. By telling your golfers what you and your crew are doing and writing in a way that lets them get to know you better, they'll feel more included and be able to understand and appreciate the work you do.

Gather feedback. Ask your patrons for their opinions – are you hitting the mark with your articles? By tracking what's happening, you'll be able to better meet your golfers' needs.

With the proper set-up and writing, a newsletter can be a tool for reaching your audience in a quick, concise way. It allows you to reach out and tell your golfers the enjoyment you get from your job and how the work you do contributes to their recreation and enjoyment of the game.

Sources:

<http://www.gcsaa.org/industryclients/research/print/newsletters.asp>;
http://www.riches.com.au/articles/writing_email_newsletters.htm#how_to_write; <http://www.email-marketing-reports.com/emailnewsletters/newsletterwriting.htm>;
<http://www.publications.pdx.edu/tips.html>;
<http://www.topstory.ca/newsletters.html>;
<http://www.gcsaa.org/gcm/2002/dec02/12Write.asp>





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Above the hole

by Ian Boyd, Student & Intern
Carruther's Creek Golf & Country Club

Golf courses are very dynamic work environments and to keep everything up to the demanding standards of golfers takes a keen eye and skilled labour to go along with it. Knowing what is happening at all times on a property is one of the most valuable assets of a successful superintendent and one of the most difficult to be successful at as a turf student. For part of the summer work term, we as interns are required to take record of the daily events at our respective courses. This is a great opportunity to practice these observational skills and really focus on and understand what happens at the course in preparation for our future careers. In school they stress signs and symptoms over and over; I've found you don't really get it until you step out of the class and onto the turf. When I first started out in the business I had a severe case of tunnel vision. What I was doing was the only thing going on at the course and really hadn't any idea of the bigger picture. As the years progressed the tunnel vision subsided and I became more aware of what was happening on the course as a whole. With a few years of work and a year of school under the belt it all begins to make sense and come together. Now I have a very firm grasp of what happens out in the field, whether it is with respect to pest issues, maintenance being carried out, watering issues or whatever else may occur. Yet, I still miss the odd thing, or am late on picking them up. Just as I think I may have got the jump on say a disease problem, it's already been seen and the chemical ordered for the treatment. It is easy to see the

advantage of having 20 plus years of experience versus a handful, as this kind of observation becomes almost automatic. Not only does this become second nature but so does the ability to keep tabs on the what's and where's of the golf course staff.

In second year at Guelph we are required to take a human resources course, which basically covers issues with staff, patrons, and management at the golf course. However, I have a funny feeling that this is where they teach you how to take your staff completely by surprise. There must be some kind of "spidey" sense superintendents have about their staff taking a break. Riding a tuned up electric golf cart, guys have a way of appearing out of nowhere scaring some poor kid half to death who has just leaned on his shovel after slugging it out for the last hour. At one point or another we have all been that kid, and sooner or later someone else will take that place.

It is interesting to see and to be part of the evolution of someone taking golf from just a sport, to a hobby, a job, and then a career. The reasons you get into the business aren't exactly what you end up doing, but the love for the job remains. Responsibilities and stress tend to increase, while sleep and hair decrease at alarming rates, hmm maybe there is a connection here other than just male pattern baldness. With all joking aside, to become a good turf manager it takes years of experience and from that experience the tools to do so. We as students have to strive to not only learn as much as possible, but to keep learning in whatever facet of the industry we end up.

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University of Guelph update

by Eric Lyons, Assistant Professor
Department of Plant Agriculture, University of Guelph

Annual bluegrass invasion on golf putting greens, factors behind the inevitable.

Annual bluegrass invasion on golf course putting greens is such a common incident that even golfers refer to annual bluegrass by its Latin Genus *Poa* and in some cases I have even heard it referred to as Poor Anna in the southern United States. Those of us in the industry also refer to it as *Poa* ourselves even though we know that *Poa* is actually the designation for all of the bluegrasses such as Kentucky bluegrass (*Poa Pratensis*). Annual bluegrass or *Poa annua* is a reality that all turfgrass managers must live with. The competitiveness of annual bluegrass is beginning to be better understood and with continual research we hope to crack the code to help us better manage this highly competitive grass.

Annual bluegrass is very competitive in a variety of different situations because it has high variability within the species. Turfgrass scientists have tried to classify subspecies to help aid in the discussions surrounding annual bluegrass management; Greens-Type VS. Wild-Weedy-Type or annua (referring to annual life pattern) VS reptans (referring to close to the ground) are just two examples. Actually, these designations are there to aid in conversation but the population of annual bluegrass actually exists along a gradient from true annuals to perennial varieties that cannot produce viable seed. Within that gradient there is also a gradient from coarse textured large plants to very fine textured small plants that can survive lower mowing heights (the type we tend to find on golf greens). The interesting thing about these gradients is that they are actually independent of each other. Typically, we think of the small, Green-Type as being more perennial, but we have seen small greens-types that seed heavily and are actually very annual in nature.

Why is annual bluegrass so variable and adaptive? The answer lies in its evolution. Annual bluegrass as a species has two other species as parents. Annual bluegrass is the result of a cross between Mediterranean bluegrass (*P. infirma*) and mountain bluegrass (*P. supina*). This cross may have occurred many times throughout the evolution of annual bluegrass creating many different lines of annual bluegrass adding to its variability and ability to invade a wide variety of different habitats. The real question is how do we live with this grass and how do our

management decisions affect the quality of annual bluegrass and its competitiveness with creeping bentgrass and other desirable species.

Annual bluegrass is often a desirable grass for playability. With the exception of seed set, the annual bluegrass can create a very smooth putting surface due to its density and upright growth habit. In fact efforts have been made to breed it for commercial seed production resulting in at least one commercial variety. The problems with annual bluegrass arise with the patchiness it can create when growing with the stoloniferous, prostrate growing creeping bentgrass. The color can also be aesthetically less pleasing. Annual bluegrass is also more susceptible to many pathogens and abiotic stressors such as heat, cold, flooding and ice encasement.

Currently, we are studying factors that affect annual bluegrass invasion and persistence when competing against creeping bentgrass. Fertility can be a major factor in annual bluegrass invasion. We have shown that annual bluegrass has significantly less root mass than creeping bentgrass (Figure 1) possibly limiting its acquisition of immobile nutrients. This also creates a need for syringing greens to keep them cool due to the fact that the roots cannot take up enough water to cool the plant. Last year an undergraduate student in our lab, Kelly O'Conner, did an experiment where we compared applying liquid fertilizers to the leaves with a spray as opposed to applying the same fertilizer directly to the soil in pots that had a mixture of creeping bentgrass and annual bluegrass. The preliminary results were that annual bluegrass had more tillers than the creeping bentgrass in the foliar applied pots and in soil applied pots the tiller ratio's were the same (Figure 2). I am very happy to welcome Ms. O'Conner to the turfgrass group this fall to pursue a Masters of Science. Her project will be an extension of how fertility affects annual bluegrass survival and competitiveness on golf course putting greens. Our first project will be to see if what we found in the pots in the greenhouse actually translates into the field leading to recommendations for fertility to allow turfgrass managers to grow better golf greens whichever the desirable species the superintendent is trying to encourage.

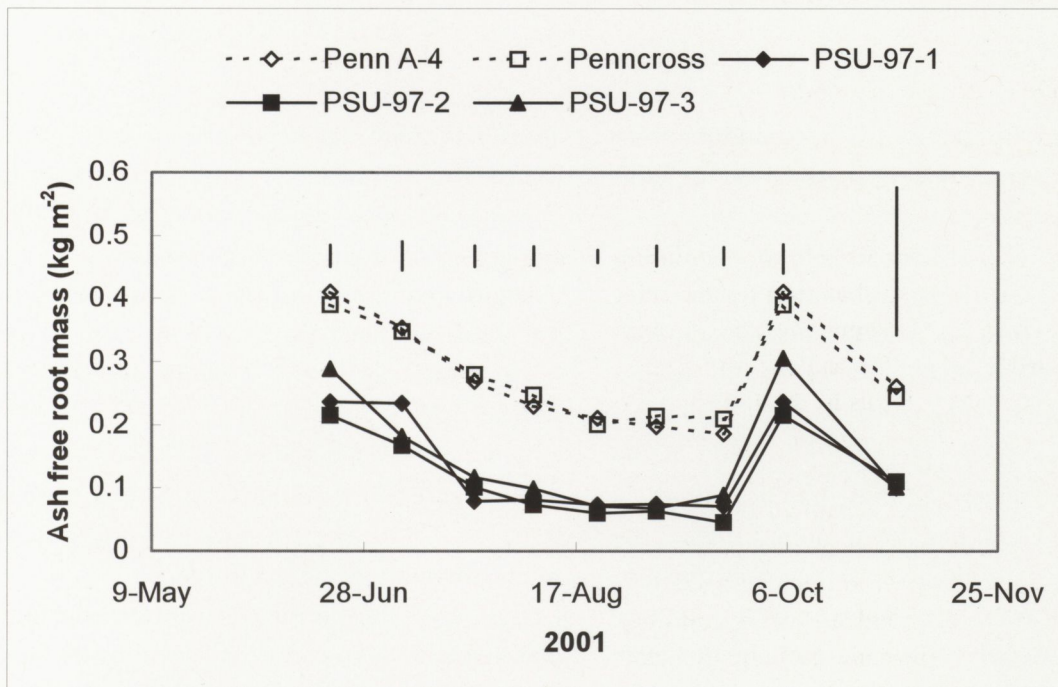


Figure 1. Root mass on a golf green of creeping bentgrass (dotted lines) and annual bluegrass (solid lines) throughout a growing season.

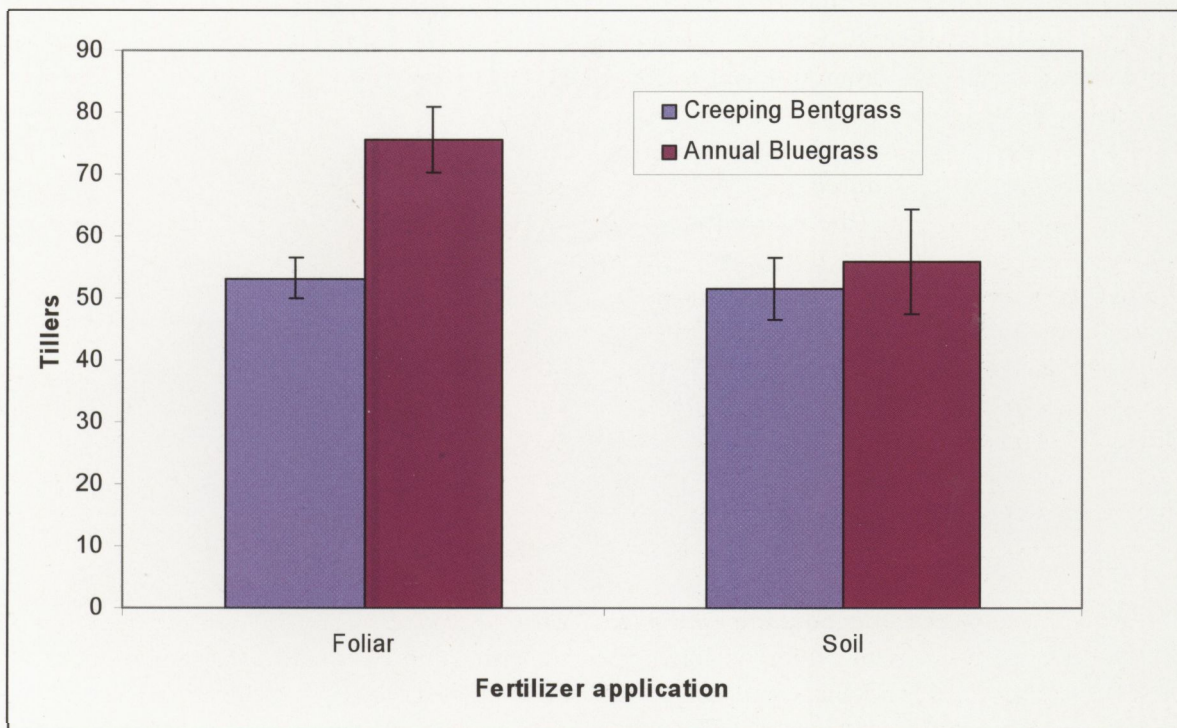


Figure 2. Tiller number of annual bluegrass and creeping bentgrass grown in a mixture.

MY SCREEN SAVER AND COMMITMENT TO EXCELLENCE

by Don Crymble, Property Manager

Keeper of the Markham Green

We have all paid lip service to a commitment to excellence and thinking outside of the box; I didn't know what these terms meant until recently.

Recently my brother Gord turned 50; as is common he made a list of a few things he wanted to do. Play Pebble Beach, The Old Course at St. Andrews and visit Augusta National (he realized his limitations by not listing to play Augusta). The family provided funds for Pebble Beach (over \$600 green fee plus stay on the property). Gord arranged to play, booking almost a year in advance. Gord had been submitting to the Masters for practice round tickets for years and was finally chosen and given the opportunity to purchase tickets to the Wednesday practice round of the 2006 Masters. Gord invited me and with the approval of my employer we arranged to attend.

We arrived at Augusta National as the gates opened at 8:30, walked the course, re-walked the course, followed a few groups, re-walked the course and left the property

after 6:30. Our legs were sore for days. The course is what we wanted to see, feel and understand.

Equipped with digital cameras and gigabytes of storage we photographed everything.

Augusta National and the Masters are without doubt the most esteemed property and event in the golfing world. Any superlative I could use could not do it justice.

My screen saver is a photo of a collar #15 green which had appeared to have been scalped by a greens mower some 3 – 6 weeks previously. I found the photo interesting and thought I would set it as my wall paper. I considered the photo an inspiration; if Augusta can make a mistake, so can I. How could anyone explain if Tiger had to chip out of that imperfection? What happened to the person responsible for that scalp? Many other questions and considerations.

I realized how little I know about excellence and thinking outside of the box. Certainly Augusta

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National has the resources to do what ever they want; they could have flown a piece of turf in from anywhere in the world. Why was that one imperfection left on that magnificent course? To inspire me? I have no doubt that Augusta National purposefully installed that scalp on the collar of #15 as an inspiration to all who aspire to excellence and are daring enough to take risks in order to be the absolute best that they can be.

Thank-you Augusta National, thank-you Masters. Thank-you. Thank-you. Thank-you.

Post script:

I realize my complete and utter naivety. From my experience, or lack there of, I know the planning, timing and honour associated in executing that perfect imperfection.

I am aware that there are many traditions associated with Augusta National, the Masters, rub of the green and golf in general. I do not intend to dishonour any of those traditions in any way. I may also have been aware of this tradition from discussions with colleagues and may have even seen a photo of this tradition.

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On the REEL side of things

by Mike Slack
Slack Reel Service



Reels that make you go hmm or hum...

I have received a number of calls about reels that are stripping and or humming very loudly. I thought it may be a good time to address the issue, as it seems that there are many people with this problem.

There are many reasons for this phenomenon. The largest reason is improper maintenance of your reel bearings either through:

- a) improper torque valve adjustment
- b) lack of lubrication
- c) faulty bearings

As your reel spins and makes slight contact with your bedknife a misaligned or faulty bearing can rotate unevenly, resulting in too much contact on your bedknife. This produces heat therefore putting a roll in your bedknife by removing the temper from the steel. Other reasons include:

- Adjusting your reels too tight. Improper adjusting puts extra contact on your bedknife, resulting in the same preceding results.
- Foreign material. If a stick or a divot etc. passes through the reel, something has to give. Usually the bedknife will bend away then retract to its regular position. But at times it does not, also resulting in too much contact.


- Lack of lubrication between the reel and bedknife, especially in fairway units. The reel requires lubrication from the grass blade. If it does not receive enough lubrication, it's like putting the reels down in mow position on the shop floor and letting them run for a period of time. Anyone who has done this knows that in a matter of 1 or 2 minutes the reels get louder and louder.

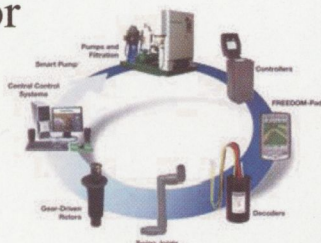
I have never heard of so many instances of reel stripping before. Are we getting lax in our maintenance program, cutting costs on bearing replacement in the winter or is it just that our season has been very dry from the start? I know, as of late July we, or most people, have received more rain than usual, but maybe there is something to be said for our reels and the unusual dry spring.

I generally have a tough time trying to decipher each individual case, but maybe if you consider each of the above issues you may be able to work your way through the problem to find your own answers. Finally, keep the e-mails coming!

Mike will be happy to answer any of your questions, on a regular weekly basis, through the OGSA web site forum, "Turf Talk". To post a question or comment go to the Members Only Section of www.golfsupers.on.ca click on "Turf Talk" and start a new thread or click on an existing thread. If you have a problem using "Turf Talk" call the OGSA office at 877-824-6472 or 519-767-3341 and they will assist you.

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Off the fairway ...



by Daisy Moore

Plant Combinations

The right plant combinations will convert an average garden into a great garden. The most pleasing gardens have individual plants amidst well selected planting partners. As with any good companion, plant companions make their partners look good and cover up for them when they are not at their best. It is rare that an individual plant, marooned in a sea of lawn, will be captivating enough for the entire season.

I was recently asked to assist in improving the look and feel of an established garden where everything was doing well but the appearance was often unsatisfactory. The biggest problem was that the individuals were all great, but they didn't work well together. The garden was a blur of grassy foliage offered by grape hyacinth, daffodils, daylilies, and ornamental grasses. A form of season-long interest is achieved with this mixture but the sameness of the foliage makes the combination rather boring, so I replanted and recombined the plants on the basis of the potential mixture of foliage and flowers. Bold, broad leaves, variegated foliage and highlights of summer flowering perennials improved this garden immensely. Being a bit ruthless in the thinning of daffodils and daylilies also went a long way in eliminating the sameness of the garden.

Disguising another plant's short-comings is another role of a good companion plant. For example, after the tulips have finished their bloom, the leaves are not attractive. Lupins or peonies combine well with tulips because they will both frame the tulip flowers with their attractive foliage and disguise the dying tulip foliage after the tulip blooms have finished. Another winning trio for the early season combines early flowering yellow Anemones, the grey foliated lamb's ears and the later flowering Siberian iris. Plant combinations such as these will extend the glory of that section of the garden.

The long term success of plant combinations is determined by the ability of plants to find a balance and co-exist. The plants cannot be invasive because they will take over and require a lot of maintenance to keep them in check. In your own garden, there will be areas where some combinations work but will fail in others because of a slight change in growing conditions. This difference in light, water or soil type will give one plant an advantage over the other. You can try to mimic combinations from gardens you have seen, but trial and error is often the best way to find your own winning combinations. Experimenting with the infinite possibilities of plant combinations makes gardening great fun as well as a challenge.

Companion planting in vegetable gardening is done more to promote the success of the vegetable crop than the

aesthetic appeal. Plants assist or harm each other through their odour, root secretions and their effects on soil nutrients. The poisonous secretions of the Black Walnut are well known by most gardeners. The poison, secreted by the roots, prevents seed germination to keep many plants from growing near its base. This is an excellent example of the profound effect that plants have on each other.

On a more positive note, certain combinations are known to produce better results because the plants help each other. Bush beans and potatoes, for example, are excellent companions because they protect each other from beetle attack. Radishes can be planted in the same row as carrots because the radishes will germinate rapidly and loosen the soil for the later emerging carrots. The radishes are harvested and the carrots are left to fill in the spaces.

Flowers and vegetables are excellent companions both for the aesthetic appeal and the protection from pests they can offer each other. Garlic is one of my favourite additions to the perennial garden. The distinctive odour will keep away many chewing insects and the flower heads, which appear in July, are a special and unique addition for most beds. Basil, sage, parsley and coriander are all attractive and useful components of the flower garden. Marigolds and nasturtiums are always useful in pest control and on top of that they are orange. What more can you ask for?

If you are looking to improve the appearance of your garden by adding new perennials, shrubs or grasses, you will need to narrow things down a bit. Think first of the height you need and always of blooming dates for a balance of early, mid and late season plants. I don't worry so much about colour combinations or clashes, to the chagrin of some of my pink-hating clients, but make my choices to deliver something that highlights the garden when other plants are waning.

Daisy Moore P.Ag. is a horticulturist. She operates a garden design and consulting business from her home in Elora

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Looking back

30 YEARS AGO TO-DAY

by Barry Endicott

In 1976 the directors of the OGSA were as follows: **Paul Dermott** (president), **Al Beene** (vice), **Carl Bennet** (sec.), **John Hutchinson** (treas.), **David Gourlay**, **Paul Dodson**, **Hugh Kirkpatrick**, **Whitey Jones**, **Stew Mills**, **Paul Scenna** and **Bob Heron** (editor).

New members: **Graham Shouldice**, Highland G.C.; **Doug Hoskins**, Summit G.C.; **John Ingram**, Glenview G.C.; **Graydon Rogers**, Westers Trent G.C.; **Craig Wilton**, Greenhills C.C.; **Gerald Gitzel**, Rain Tech Irrigation Services; **David Jackson**, Southbrook G.C.

Sid Witteveen has left Glen Abbey as assistant and is joining **Ken Wright** at Northwood. **Cam Cairncross** started a new position with the Sault Ste. Marie Parks Department, **Ted Charman** has started at the National, G.C. and **Doug Hoskins** has moved to Summit G.C.

The Sixth Annual Management Symposium was held at Aurora Highlands G.C., hosted by **Whitey Jones** and chaired by **Keith Nisbet** and **Bill Glashan**. Guest speaker was **Murray Tucker**, golf director from the Board of Trade.

Meetings were held at Bayview G.C., **Ed Ortleib**; North Halton G.C., **Al Beene**; Beach Grove (via "Pelino Express"), **Ed**

Henderson; Board of Trade, **Gord Witteveen**; and Maple Downs, **Art Dodson**.

The C.G.S.A. Conference was held in Toronto at the Inn On The Park. There was a spring dance at Islington G.C. The Galt Country Club hosted the Galt Field Day and the President, Green Chairman, Superintendent Tournament was at St. Georges, hosted by **Bill Hynd**. The Pro/Superintendent Tournament was held at North Halton G.C. hosted by **Al Beene** and the Christmas Dance was held at Markland Wood C.C. The McClumpha Memorial Tournament was held at St. Thomas G.C. The Canadian Open was held at Essex G&CC.

On March 26th, a curling meeting was held at North Halton hosted by **Al Beene**. The winning team was made up of **Al Beene**, **Carl Bennet**, **Paul White** and **Bill Robinson**. **Larry Sherk** from Sheridan Nurseries gave an interesting slide presentation.

John Bennet moved from Cedar Brae G&CC to London Hunt, and **Bruce Thrasher**, assistant to **Paul Dodson** at Mississauga, moved to Cedar Brae. **Ted Tom**, formerly working at Islington G.C., is now at Uplands G.C. as superintendent.

The way we were... answer from page 5 **Bob Moote**, **Jim Wyllie** and **RT Heron** at Markland Wood.

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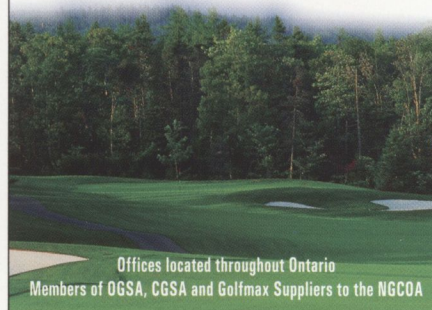
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Turf or consequences

by Doug Breen, Superintendent
Golf North Properties

What I Did Last Summer

In our mail a couple of months back, we got a letter in an embossed envelope, with fancy gold writing on it. We have a system for the mail at our house. All bills go to my wife, who pays them if she thinks of it. All junk mail goes into the garbage, along with anything important that's addressed to me (the sorters are very sloppy). And anything with red letters on it gets dumped on my desk, so that I can try to explain to the gas company why my wife hasn't thought to pay them in six months. But this day, the children mistook a wedding invitation for an overdue notice and I got to open it. The whole Breen family, young'uns and all, were invited to a wedding in Nipawin, Saskatchewan. Krista still hasn't thought to send the RSVP, but we're back now anyway, so what's the point?

Flights to Western Canada are obscenely expensive to begin with, but once you add on sales tax, airport tax, special terrorism tax, temporary fuel surcharge tax, living in a free country tax, waking up this morning tax.... it would have been cheaper to just buy my own jet and fly it out there. I could have driven to Argentina for what they wanted for four tickets and a rental car. So I *drove* to Nipawin for less than the taxes would have been. That's right, 70 hours in the Tundra with the family, and since it was the middle of summer, I had to take as little time away as possible. So we drove straight out, went to the stag, rehearsal party, wedding, and drove straight back. More time in the truck, than in Saskatchewan.

Nipawin is one of those names that pops up all over the north in various forms. Nipigon, Neepawan, Nipowan, Nipassing... I figure that it's the punch line to an Ojibway joke that they used to play on the fur traders. It likely means, "White people are idiots," or "Poopytown", or something like that, and the guides used to sit around and laugh about how they could tell the Fur Traders anything and they'd believe it. "The other day, I told a White Man that we called a place Moose Jaw, and he bought it!"

The town is easy enough to find, just drive to La Pas, Manitoba and turn left. It's so far north, that the first night we were there, the northern lights came out and I had to look south to see them. We were in a bar with the groom dressed as Spiderman. Somebody sent their kid in to tell us to come out to see the Aurora Borealis, and there was his hero - half unmasked, playing a video lottery terminal, holding a beer, with his Spidey gut hanging over his belt. We assured the kid that Spiderman was just on a well deserved vacation from crime fighting. It will all come out in therapy later.

The best news was that the wedding guests were all booked into a hotel on a golf resort, so I can try to write the whole trip off as a business expense. It turned out that the course was in the Score 100, and rated number two in Saskatchewan, so I *thought* that I wanted to play it. On further discussion with my wife, it turned out that I really didn't want to play golf at all. Oddly enough, after they talked to their wives, all of the other married guys suddenly realized that they didn't want to play golf either! All the single guys played every day.

Anyhow, back to the drive. Let me begin by saying that Ontario is a very, very big province. Those of us in Southern Ontario tend to think of places like Collingwood and Barrie as 'going up north', but once you've driven to Kenora, you realize

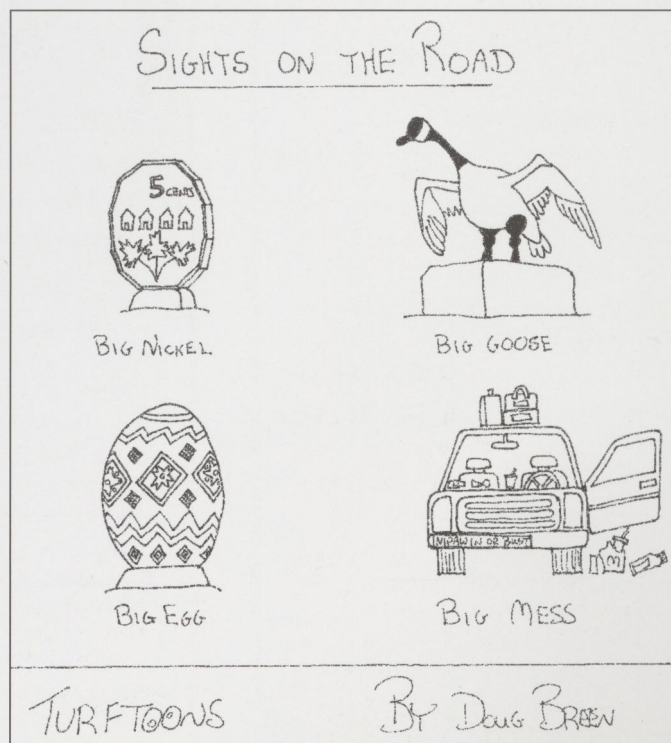


that relatively speaking, Collingwood is practically at the corner of Yonge and Dundas. We even cheated a bit and took the ferry to Manitoulin, but it's still twenty hours of rocks, trees, and moose to get to the Manitoba border. Once you cross that line, it's still another couple hours of exactly the same scenery. The only difference is that there are 'watch for deer' signs instead of 'watch for moose' signs.

Then the prairies open up. The prairies are flat. People will try to tell you otherwise. They are lying. When you get far enough north that there are no more red lines on the map, you're in Nipawin. Two days later, we did it again, only backwards.

Everyone said that we were crazy to take a seven and nine year old that far without a DVD player in the truck. I told them that our children would sit quietly, look out the window, and learn about the country. What they learned, was that it's a very long, stinky drive from Rockwood to Nipawin. I kept them riveted by pointing out every golf course I saw, discussing 'cut and fill balance' at every rock cut, and explaining that we couldn't stop to see the interesting roadside attractions because we were 'making good time'. This would usually be followed by a fun mathematical equation for them to figure out how long it would take to get to the next point of interest that we wouldn't stop at.

So that's what I did on my summer vacation. It was really just a long weekend, but it was the closest thing I've had to a summer vacation in about 25 years, and I made the most of it by driving halfway across the country, turning around and coming back. Next year, perhaps we'll drive to Newfoundland for dinner and a movie, then be back for work on Monday.





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