

MAY 12 2008

May 2008

Green is Beautiful

The Official Publication of Ontario Golf Superintendents' Association

OGSAA
ARCHIVES

Making the move to grey water

Inside this issue...

Ammonium Sulphate in Turfgrass Management

Turfgrass Diagnostics at the GTI

Why use PVC Pipe?

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President's message

Spring has not exactly sprung the way we would have liked but are we truly surprised? There are many ways to describe this past winter, with the early snowfall followed by the mid-season thaw and near record snow totals in many parts of the province. For winter to remain as long as it has, has created an anxious wait for the new beginning we prepare for all season. I hope the sight of healthy grass has blessed us all.

For the OGSA, it is also a busy time finalizing conference details, finishing plans for the upcoming season of events and getting ready for next year's conference, to name a few. The conference committee is well on it's way, planning for next year's educational sessions, and I'm confident it will continue to be Ontario's premiere golf course management conference and trade show. Our plans for the seasonal *Green is Beautiful* continue in time for next year and the Editorial Advisory Committee is excited to assist Dorothy Hills and her team to maintain the high standard we've come to expect. Be sure to mark down the dates for the golf events this year, as participation ensures future success of every event. In particular, the Spring Field Day requires greater numbers than what has been experienced in recent years to maintain a date in our schedule.

As you are aware, the provincial government is currently considering a ban on pesticides. The EBR posting closed in February and I hope many people, in support of golf's position for an exemption, took the important step to write a response and be the voice that is needed to be heard. At this time of writing, I understand the government is aiming for a mid-summer decision and we will learn how golf will be affected, at that time. The OGSA board remains committed in our role within the Ontario Allied Golf Association (OAGA). The OAGA will continue to utilize the efforts of a lobbyist and will do so in order to remain in contact with officials of the MOE and provincial government. We will keep you posted as things develop.

Best of luck for the beginning of the season and we look forward to seeing you at one of our many upcoming events.



by Jeff Stauffer
Credit Valley Golf & CC



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Green is Beautiful 2008

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"Green is Beautiful"
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Recycled Paper



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Green is Beautiful

The Official Publication of Ontario Golf Superintendents' Association



COVER PICTURE
Burlington Golf & Country Club

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Editorial message

by Dorothy Hills

Finally, the long, arduous winter is behind us and we can turn our thoughts to spring, on the course, with all its promises and challenges. With that in mind, this issue brings you several articles worthy of your attention. Tim Fredericks, of Fredericks McGuire Ltd., details the reasons for choosing polyvinyl chloride pipe for your irrigation needs. Tom Brain, from Burlington Golf & Country Club, provides us with some valuable input on the recycling of grey water. Daisy Moore, takes the guess work out of planting for a colourful presentation and provides us with a list of her favourite showy flowers. This issue's member profile is on long time member, Corrie Almack, who also provides us with some in depth information on why one would consider the use of ammonium sulphate in their nutrient program. With the onset of spring you may have turf samples that require a professional diagnosis. Save yourself time and expense by following Katerina Jordan's guidelines for submitting

your samples to the GTI, for diagnostic assessment.

We take this opportunity to congratulate Tyler Webb, who is this year's "Above the hole" writing competition winner. Tyler has just completed his first year in the Turf Manager's Course, at the University of Guelph, and will be working this summer at Windermere Golf & Country Club. Be sure to read his entry submission on page 22. We look forward to reading articles from Tyler, in the next 5 issues.

With this May issue of *Green is Beautiful*, members will find their copy of the new OGSA 2008/2009 Roster. Although the Roster is a handy resource to travel with or have at arm's reach in your office, keep in mind that our member information changes on a daily basis and that current, submitted information can be found on our web site www.golfsupers.on.ca in the Members Only section. Keep in touch and let us know should your contact information change.



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What's new

Mark Your Calendars



2008 OGSA TOURNAMENT SCHEDULE

CAN/AM Challenge	Michigan GCSA
Pro/Super Challenge	Batteaux Creek GC
Spring Field Day	Muskoka Lakes G&CC
Presidents' Day	Deer Ridge Golf Club
Assistants Tournament	Forest City National GC
Alex McClumpha	Oxford G&CC (Craigowan)

Dates and details of the above events will appear on our website under both "Events" and "Calendar of Events," as they are confirmed and further details are available. All events will be announced in our e-bulletin *Clippings* when registration is open. For your convenience, on-line registration will be available again this year.

In addition to the above golf events, OGSA will be hosting a "Shoot Out and Bar-B-Q Social" at the CGSA Fall Field Day, on Saturday, September 13th, to be held in Collingwood, Ontario this year. Mark you calendars now and watch for exciting details, coming soon with the CGSA Fall Field Day registration form.



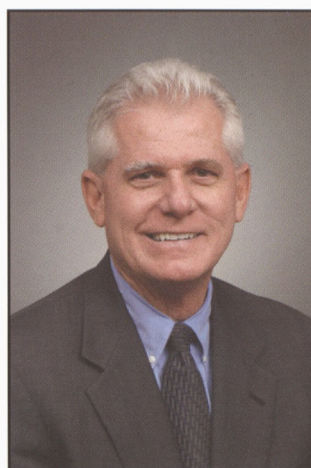
Muskoka Lakes Golf & Country Club is a Stanley Thompson designed par 70, 18-hole facility, playing at 5989 yards. It was first open for play in 1922. There is also a full driving range and practice chipping and putting area.

We invite you to join us on Tuesday, June 10th, for our Annual Spring Field Day, at the Muskoka Lakes Golf & Country Club, resting on the beautiful shores of Lake Rosseau. This is an immaculate course, woven through a canvas of spectacular colour and texture, affording a view of the lake, from time to time.

Register now, as you won't want to miss out on this unique opportunity to meet with your friends and experience the thrill of playing Muskoka Lakes Golf & Country Club.

Host Supt. Doug Palm	Monday, May 5 th
Host Supt. Paul Mickalko	Thursday, May 29 th
Host Supt. Jim Flett	Tuesday, June 10 th
Host Supt. Jarrod Barakett	Monday, July 21 st
Host Supt. Tim Baxter	Tuesday, Sept. 23 rd
Host Supt. Jerry Richard	Monday, October 6 th

Woodward to assume duties after hosting U.S. Open at Torrey Pines



Mark J. Woodward, Golf Operations Manager for the city of San Diego has been selected chief executive officer for the Golf Course Superintendents Association of America (GCSAA).

His selection by the GCSAA Board of Directors comes after conducting a national search to replace Steve Mona, who became the chief executive of the World Golf Foundation, March 3. A familiar face to GCSAA, Woodward has been actively involved as a committee participant, a member of the board of directors and 68th president of the association in 2004. He is in his 30th year as a GCSAA member and first achieved the status of certified golf course superintendent in 1986. He is the first golf course superintendent to serve as GCSAA's permanent chief executive. For full details go to www.gcsaa.org and check under the heading, "News".

OGSA Scholarships

2008 OGSA Heritage Award - now open to applications.

This scholarship program recognizes the scholastic accomplishments of students who are the children or grandchildren of current members of the OGSA (open to all members) and are studying a curriculum unrelated to turfgrass management.

This scholarship is now valued at \$3025.00. The deadline date is August 31st, 2008.

2008 Hugh Kirkpatrick Bursary - now open to applications.

The OGSA, in conjunction with the Kirkpatrick family has developed this bursary program to recognize the leadership, commitment and accomplishments of assistant superintendent members of the OGSA.

This bursary is valued at \$3,025.00. The deadline date is October 31st, 2008.

Announcements have been made in *Clippings* and detailed information is available on our web site www.golfsupers.on.ca in the Members Only Section under the menu heading, Scholarships.

Those members who do not have email and do not receive *Clippings* have been mailed the information. If you require further information please contact Dorothy at the office 519-767-3341 or toll free 1-877-824-6472 or email: ogsa@gti.uoguelph.ca.

A Magazine for All Seasons

Green is Beautiful is advancing to a seasonal issue, commencing with OGSA's fiscal year in October 2008. Check below for deadline and release dates for this bigger and better publication. Advertising rates will be adjusted accordingly, so that our advertisers will still get the same, great marketing value they have experienced in the past.

A media package will go out to our Associate Members and their advertising agencies, detailing the new rates, specifications, ad sizes and opportunities for placing an ad in a prime location. However, we wanted to provide you with material deadline and publication release dates now, so that you can get a jump on your advertising requirements and plan ahead for the upcoming 4 seasonal issues.

In the meantime, you will still receive the 2008, July and August issues, as you have done in the past.

ISSUE	MATERIAL DEADLINE	RELEASE DATE
Fall	October 15 th	November 15 th
Winter	February 1 st	March 1 st
Spring	May 1 st	June 1 st
Summer	July 15 th	August 15 th

Past President's Luncheon

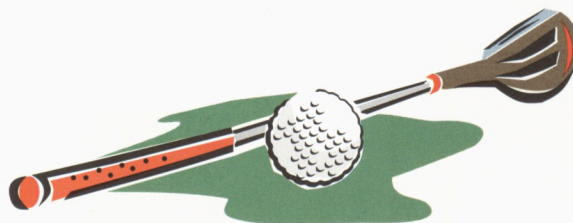
The OGSA Board of Directors have been successfully leading our association for many years and would not be able to do so without the input and guidance from those who have preceded them. Jeff Stauffer, 2008 OGSA President, welcomed 17 past presidents to an inaugural luncheon, held at the Credit Valley Golf and Country Club, in February. It was an enjoyable afternoon, affording them the opportunity to see old friends, reminisce on days gone by, and network with the 2008 Board of Directors on the challenges of the future.



L-R back row: Jim Wyllie, Paul Dermott, Alan Beeney, Barry Endicott, Bob Heron, Simon George, Keith Bartlett, John Arends & Ian Bowen

L-R front row: Bob Moote, Bob Brewster, John Taylor, Paul Scenna, John Gravett & Neil Acton

Mark Piccolo and Thom Charters, were also in attendance but did not make it into the photo.



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Rob Astley Class F
St. Georges Golf & CC

Andre Aymar Class S
Penn State University

Stoyan Donev Class Supt
Century Pines Golf Club

James Glover Class D
Kettle Creek Golf & CC

David Guay Class D
Kapuskasing Golf Club

Daryl Jantzen Class C
Lake Joseph Club

Peter Manna Class D
Hawk Ridge Golf & CC

Bert McFadden Class A
Georgian Bay Club

Ian McIsaac Class A
Deerfield Golf & Recreation

Chris Nelski Class Supt
Thunderbird Golf Club

Philip Song Class S
University of Guelph

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ONTARIO TURFGRASS RESEARCH FOUNDATION

As the snow swirled around the Guelph Turfgrass Institute (GTI), the Ontario Turfgrass Research Foundation was active in changing their look with a new logo and website www.otrf.ca. Check out the website for information on the latest research funded by OTRF, golf tournament date, memberships, events and news.

The GTI and the OTRF have launched Vision 2027, an in depth plan that outlines the targets for turfgrass and environmental research at the GTI for the next twenty years. Effective design, development and management of green spaces within urban areas will become increasingly critical to Ontario in the near future. Vision 2027, available on the OTRF website, charts a plan for turfgrass research at the GTI that will take management of our green spaces to the next level. A special thank you is extended to the numerous industry professionals, university scientists and provincial government specialists who gathered to compile this strategic plan.

To ensure that the GTI facility continues to be a global leader in the area of urban green space management, the OTRF continues in its quest to solicit donations. In the past few years, donations have grown exponentially, allowing unprecedented amounts to be disbursed for turfgrass research. This year, the OTRF has chosen a cross selection of projects that focus on the areas of fungicides, fertilization methods, identification and management of turfgrass diseases and environmental concerns.

For those anxious for spring and hitting the greens, the OTRF fundraising golf tournament plans are well underway. Invitations and details to this previously sold out event, will be out shortly. This year's event will be held at the Westmount Golf and Country Club, in Kitchener, on August 11th. Contact the OTRF office through the website to put your name on the player's list.

OTRF Challenge... did you know that all donations are tax deductible? Consider an OTRF membership.... your turfgrass will appreciate it!



GTI ERC Vision 2027

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14TH GOLF COURSE HOCKEY CHALLENGE

by John Taylor and Scott Dodson
Tournament Committee

The 14th Annual Golf Course Hockey Challenge took to the ice this past January 21st and 22nd in Fort Erie, Ontario. Twelve teams represented both Canada and the United States, competing for the coveted "Reel Cup."

The teams played two games on the first day in a three team pod and then played two more games the second day matched up by the results of the first day, guaranteeing each team four full games of hockey action.

The hockey was competitive but fun, as was the Monday evening "Attitude Adjustment Party", hosted by Club Car, which always is one of the highlights of the event. Post game refreshments were provided by Vanden Bussche Irrigation and were greatly appreciated by all the participants. Turf Care Products sponsored the ice time for all participants, as they have for all 14 years of the tournament; no small feat considering that the

tournament has grown from a 4 team - one day tournament in it's first year, to it's current 12 team - two day format. Special thanks to Duke Equipment and Podolinsky Turf Equipment, who provided draw prizes for the Tuesday evening party.

When all was said and done, Team Michigan came out on top with a convincing final win over Toronto # 2 and the "Reel Cup" will reside south of the border for the summer. Other final day action saw Eastern Ontario hold off Northern Ontario, London took care of Southwestern Ontario, ClubLink outscored Kitchener, Niagara squeezed by TurfNet, and Plant Science was victorious over Toronto # 1 in a shootout.

The tournament committee would like to thank all the sponsors, players, referees and fans who came together to make this event happen

14TH GOLF COURSE HOCKEY CHALLENGE RESULTS

Monday January 21st

Northern Ontario	- 3	Toronto 2	- 4
SW Ontario	- 1	Niagara	- 2
Michigan	- 5	ClubLink	- 6
London	- 3	Plant Science	- 2
Northern Ontario	- 3	Toronto 2	- 4
Toronto 1	- 0	Kitchener	- 2
London	- 3	Eastern Ontario	- 7
TurfNet	- 1	Plant Science	- 0
SW Ontario	- 4	Kitchener	- 8
Toronto 1	- 2	Niagara	- 4
Michigan	- 7	Eastern Ontario	- 4
TurfNet	- 3	ClubLink	- 3

Tuesday January 22nd

TurfNet	- 3	Niagara	- 2
Plant Science	- 0	Toronto 1	- 1 (SO)
London	- 8	SW Ontario	- 5
ClubLink	- 0	Kitchener	- 4
Michigan	- 4	Toronto 2	- 3
Eastern Ontario	- 3 (SO)	Northern Ontario	- 1
Plant Science	- 6	Niagara	- 3
Toronto 1	- 5 (SO)	TurfNet	- 2
ClubLink	- 7	London	- 4
Kitchener	- 4	SW Ontario	- 1
Eastern Ontario	- 2	Michigan	- 5
Northern Ontario	- 1	Toronto 2	- 1



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THE BIG SWEEP

by Dean Baker, Superintendent
North Halton Golf & Country Club

Oh what a great day for curling! It was obvious that the weather had something to do with the excellent turnout for the annual OGSA Curling Day at North Halton Golf & Country Club, held on March 18th. Who would imagine, 9 feet of snow still on the ground, coming into the Easter Weekend? It was easy to see that the participants were not worried about getting back to their respective jobs. We had fun!

An over full field of mostly five man teams made interesting playing arrangements for the skips. The top team made up of Skip Slippery Pete Vidler (Sand Hills GC), Mark Durand (Masters Turf Supply), Robert Wright (The Pulpit) and Jason Griffiths (The Pulpit) made easy work of their opponents to take the # 1 prize. Noting of course that Mr. Vidler use to make ice for North Halton...no one complained! The boys from Lora Bay, accompanied by Corrie Almack took second place followed by none other than the curling guru himself, Master Curler, Rhod Trainor and his fine team.

A fine lunch was served by the North Halton staff with industry & distributors keeping most of the participants refreshed, out on the ice. A special thanks to all who brought prizes for the day. Almost everyone made it home

with prizes, even the last place team was promised a "luncheon date" by the host.

Thanks again to everyone who participated. It's a great OGSA event and we all know...the price is right.

We are crossing our fingers and toes for a good spring start. Everyone have a great season! Good Curling.



Host Dean Baker, Kerry Whale, Chris Dew and Darryl James... all glad to be curling and not worrying about the snow outside!



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From roots to shoots



by Pam Charbonneau
OMAF Turfgrass Specialist

We are off to a start, but not a very fast start for spring 2008. With the current weather forecast, this could change quickly. As always, I am sure that everyone is chomping at the bit to get the turf back into shape.

Spring Update

What is everyone finding out there? If you were lucky enough to get your snow mould protection on before the end of November, it is likely that you came through the winter clean. If, like many, you did not get your snow mould protection on until the early January thaw, the results may be less than satisfactory. The pink snow mould probably had time to get started and it was a bit more difficult to stop it. Areas without any preventative fungicide control, like our pathology greens here at GTI are decimated from pink snow mould injury. It is hard to find a live blade of grass. The same is true for the longer grass turf research plots. There is a little bit of gray snow mould out and about too. Some superintendents are reporting some winter injury. At this point, it could take a few weeks to figure out how much damage there really is. Sometimes the turf comes out of the winter looking good and then heads south as temperatures warm up. There is some evidence on higher ground of some desiccation injury that may have occurred when we had open ground and some very heavy drying winds. Most likely, once the turf starts growing, it will grow out of it.

The long periods of snow cover gave the voles ample opportunity to have a big party under the snow. There are many runways in turf areas that became visible as soon as the snow melted. Usually a good raking and some fertilizer and warm weather will get these filling in nicely.

Many of our turf creatures great and small are back. Grubs are up at the soil/thatch surface now and leatherjackets are in amongst the turf blades. Grubs will do a very little bit of feeding before they pupate in late May. Leatherjackets are ramping up and will be feeding voraciously over the next month. If you do have large populations of leatherjackets, you can expect to see some damage in a month to 6 weeks time.

New Pest Management Tools

As far as tools for managing pests are concerned, there are a few new ones out there. There are four new products: two are herbicides, one fungicide and one insecticide. There are also some label expansions to products that were already registered. The new products are (*Sclerotinia minor*) Sarritor and (bispyribac-sodium) Velocity herbicides, (triticonazole) Premis fungicide and (deltamethrin) Deltagard insecticide. Table 1. 2008 Additions to OMAFRA Publication 384, *Turfgrass Management Recommendations*. The label expansions are summarized in Table 2. 2008 URMULE Additions to OMAFRA Publication 384, *Turfgrass Management Recommendations*. Please refer to the product labels for rates and timing of pesticides listed below.

Table 1. 2008 Additions to OMAFRA Pub. 384 *Turfgrass Management Recommendations*

Trade Name/ Chemical Name	Submitter	Crop	Pest
Sarritor Herbicide/ <i>Sclerotinia minor</i>	Sarritor	Commercial lawns, golf course, municipal parks and turf farms	Dandelion suppression
Velocity Herbicide/ bispyribac-sodium	Valent/Engage Agro	Golf courses and sod farms	Reduction of annual bluegrass in turf (creeping bentgrass, perennial ryegrass, Kentucky bluegrass and tall fescue)
Premis Fungicide/ triticonazole	BASF	Turf	Anthraxnose
Deltagard Insecticide/ Deltamethrin	Bayer Environmental Sciences	Turf (including residential lawns, golf courses, sod farms and other turf areas)	Chinch bugs, sod webworm, cutworm and ants

Table 2. 2008 URMULE Additions to OMAFRA Pub. 384 Turfgrass Management Recommendations

Trade Name/ Chemical Name	Submitter	Crop	Pest
Chipco Aliette Signature Fungicide/ Fosetyl Al	Bayer Environmental Sciencers	Turf	Bentgrass Dead spot
Heritage MAXX Fungicide/Azoxystrobin	Syngenta/Engage Agro	Turfgrass for Golf Courses and Commercial Turf Farms	Suppression of Take-all patch
Merit 0.5G Insecticide and Merit Solupak	Bayer Environmental Sciences	Turfgrass including sod farms	Suppression of European crane fly larvae (leatherjackets)

GTI Services

GTI has a new web site. The URL is www.guelphurfgrass.ca. The GTI Turf Diagnostics is up and running for the season and there is a link to it from the GTI home page. Erica Gunn is back from maternity leave just in time for Dr. Katerina Jordan to go on maternity leave. Sample submission forms and fees can be found on the GTI web site.

GTI is also running a Golf Irrigation Technician Course at GTI on May 3 and 4th, 2008. Registration information can be found at the GTI web site or you can call Trudi at (519) 824-4120 x 52501.

OMAFRA Services for 2008

The Turf Management Updates will begin on Mon. April 14, 2008. These will be every two weeks until mid-May and then they will be weekly until the end of September. You can access this report three ways, telephone, internet text file or podcast. To listen to the recorded message you can telephone (888) 290-4441. You can also find them on the OMAFRA website at <http://www.omafra.gov.on.ca/english/crops/updates.html#turf>. You can use the subscribe feature to get an automatic notification when a new update is posted on the web.

The 2008 Supplement for the OMAFRA Publication 384, *Turfgrass Management Recommendations* will be available on line shortly. It contains all of the new pesticide products that have been registered for use on turf in Ontario for 2008. It will be available on line at <http://www.omafra.gov.on.ca/english/crops/pub384/p384supplement.htm>.

In addition, I am always available for site visits to golf courses. If you are encountering problems at your golf course, give me a call or email me and we can arrange for a site visit.

I am particularly interested in hearing from anyone who is finding adult crane flies during the month of May. If you are finding them, please give me a call and I will arrange to come to your golf course to collect samples. My contact info is:

Pamela Charbonneau
OMAFRA Turfgrass Specialist • The Guelph Turfgrass Institute
328 Victoria Rd. South, Guelph, ON N1H 6H8
(519) 824-4120 x 52597 • (519) 766-1704 FAX
Email: pamela.charbonneau@ontario.ca
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Health & safety



by Doug Johnson
SAFETAID - Health and
Safety Consulting

Contractor Safety

Contractor safety and contractor controls are an important aspect of your workplace health and safety program. There is a belief in the industry that once a contractor is hired that they are basically on their own to work in their own way with their own controls. This is not the case.

When a contractor is hired to complete work on club property the club is responsible to ensure that the contractor follows all health and safety protocols that are required by legislation and any rules your club may have in place. Yes, that is correct. The club, through the superintendent, is responsible for ensuring that the contractor follows all safety rules. Contractors are considered to be workers and once employed are considered to be employed by the club and are therefore working under the same conditions as all other workers at the club. So this means that if the club hires a tree removal contractor to remove or trim trees the club, through the golf course superintendent, has the obligation to ensure that all safety rules are followed. Safety rules mean every type of safety protocol including the use of required personal protective equipment.

The superintendent also has an obligation to ensure that any training requirements for operating equipment, in this case, chain saws, ladders, fall protection equipment, wood chippers, is in fact completed and when necessary, up to date. This obligation also includes a requirement to ensure that the equipment being used has been inspected and is in good operating condition.

Good operating condition means that the equipment will not cause injury to the person operating or working with the equipment. If there are guards that are required then the guards must be in place and must be operational.

All guards must be checked for proper operation prior to use of the equipment. As an example it is imperative that the contractor, in the tree removal case, check the emergency shut off bar or mechanism on the wood chipper. It must be tested prior to commencement of the work. This is simple due diligence.

It is imperative that the contractor have a check list of safety features for all equipment and the superintendent or his or her designate must ensure that the checklists are completed and signed off prior to the commencement of any work. Every worker working with a piece of equipment must ensure that the equipment is working properly and that all safety features are in place and operational.

These rules and procedures may sound a bit onerous; however it only takes one incident to clarify why these procedures are a necessary part of safety today.

In the Workplace Safety and Insurance Board (WSIB) Workwell audit in section 2.1 (i) and (j) (Contractor responsibilities and accountabilities) it states that the contractor has the responsibility to ensure that qualified workers are assigned the work and that the workers work in accordance with the legislation. The audit also states that the organization, (in this case the club), is responsible for ensuring that the contractor follows all the rules.

To ensure that you are monitoring and controlling your contractors make sure that you put rules in place that provide you with the documentation necessary to ensure that you are protecting your club whenever you have a contractor working on your property.

Have a safe day!

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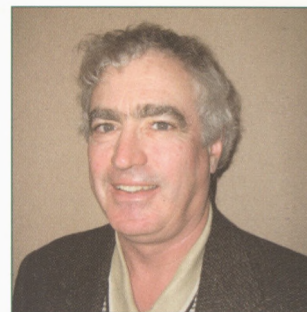
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Member profile

Interview with Corrie Almack, P.Ag. Almack Agronomic Services Inc.

by Paul Grotier, Assistant Superintendent
Donalda Club



If he had never met Mr. Dick Psolla, a long time U.S. based turf consultant, agronomist Corrie Almack might never have set foot on a golf course. The Canadian turf market might have been deprived of a person that many believe to be the authoritative voice in Canadian golf agronomy. Dick convinced Corrie that an individual with agricultural experience could also be a golf course consultant.

Born and raised on a hobby farm in Claremont, a village in north Pickering, Corrie developed a passion for working outdoors and an appreciation for all things related to agriculture from a young age. With no possibility to continue farming on his parent's hobby farm, Corrie set his sights on becoming an agronomist and decided to study Agricultural Science at the University of Guelph. His post graduation goal was to set up a business which would offer "unbiased advice on soil/water/plant health issues based on accurate lab data." He graduated in the spring of 1981 with a Bachelor of Science Degree in Agriculture. Later that fall, Corrie "hung out his shingle" and the rest they say, is history.

As an independent consultant, utilizing the laboratory facilities of Brookside Laboratories, Corrie's initial client base was primarily fruit and vegetable growers. Interestingly, it was through a former University of Guelph classmate, who was then an assistant superintendent at a Toronto club, that Corrie would get the opportunity to expand into the golf market. Corrie was introduced to a superintendent, described to him as "very progressive". This person was Hugh Kirkpatrick, then the superintendent at Westmount Golf and Country Club.

Hugh would become Corrie's first golf client and was instrumental in his success in expanding his business. Through Hugh, Corrie was referred to Ken Wright from the National Golf Club and Paul Dermott at Oakdale Golf Club. With his foot now in the door, things would snowball and he was able to expand his services from coast to coast by meeting Randy Scott, then superintendent at Hillsdale Golf Club in Quebec and moved to the west coast when Dennis Pellre left Scarboro Golf & Country Club and accepted his new position at Capilano Golf & Country Club, in Vancouver. *"It's important to note that all of these superintendents have had an influence on me and deserve credit for helping advance my career as an agronomist. I will be forever grateful".* By 1990, Corrie had more superintendent clients than farm clients and now Almack Agronomic Services Inc, serves close to one hundred turf clients.

Equally, Corrie takes pride in establishing a profession that has attracted his good friend David Smith, C.G.S.A. of D.C.S Agronomic Services to join the consulting ranks. Prior, Dave had been a superintendent but more important a client of Corrie's for many years. *"I suggested that he would be a natural and today, I regard him as Canada's top independent turfgrass agronomist."*

While Corrie has had a very successful career, the future also brings challenges. *"I can not keep working the hours I do for ever and a transition program is currently not in place". "It will be difficult to totally retire as my clients are my friends and I would never wish to disappoint them".*

"In the Hot Seat"

- Favourite major:
- Best piece of turf equipment ever:
- Favourite golf designer:
- Ultimate foursome:
- Favourite course:
- Favourite course played outside Canada:
- What's in your CD right now:
- Rate your lawn on a scale of 1-10:
- What would you be if not in the turf industry:

British Open (never know what you are going to get)
Deep tine aerifier
Mother nature
Me and Charlie's Angels
Next one I am privileged to play
Pasatiempo, California
Neil Young live at Massey Hall
I use it for weed identification
Day Trader or Gold Prospector

Golf course highlight

Burlington Golf & Country Club

422 Northshore Blvd E
Burlington ON L7T 3Z9
Website: www.bgcc.on.ca
Golf Course Superintendent:
Tom Brain
Email: burlingtongolf@bellnet.ca



COURSE PROFILE

What region is your club located in?
Halton

What is the classification of your club?
Private

Size of membership and number of rounds?
750 and 35,000 to 39,000 rounds

Typical opening & closing dates?
Early April – Late November

Name of Superintendent
Tom Brain

How long have you been a superintendent?
1 year

List other accomplishments
Proceeding with IPM accreditation and Audubon certification. Sit on *Green is Beautiful* committee and sit on WOGSA board.

How long have you been an OGSA member?
8 years

How many year round staff?
4 (myself, 2 assistants, 1 mechanic)

How many seasonal staff?
20-22 (4 full time and 18 part time)

How many mechanics and assistants?
Assistants: Sean McIvor (1), Jeff Lockhart (2)
Mechanic: Wayne Fair

How many gardening staff? 1

COURSE STATISTICS

How many holes? 18

What is the yardage from back & forward tees?
6479 yards from back (gold) tees
5163 yards from forward (red) tees

What is the size of driving range and range tee?
Warm up range: 160 yards with 8 teeing mats, chipping green and practice bunker.

How many bunkers? 65

How many ponds, and/or how many times does water come into play? 6 times

Who was the original architect?
Stanley Thompson

What was the year of original construction?
1922

By whom and when was the course remodeled?
Some renovations with Dave Moote, ongoing master plan work with Doug Carrick.

What major tournaments held?

Numerous RCGA, CPGA, OPGA, CLPGA, GAO amateur and professional events and annual amateur invitational event which attracts the best amateur players from Ontario and NY state.

What type of irrigation system?

Toro Network 8000 with site pro & tmap

What is the size of your maintenance shop?
11,250 ft²

What is the size of the greens, tees & fairways?

Greens: 3 acres
Tees: 3 acres
Fairways: 22 acres

What is your predominant grass?
Poa/Bent

How many USGA greens and loam greens?

18 native soil push up greens
1 USGA spec sand green
1 California sand green

What is the predominant soil type?
Sandy Loam

What equipment do you have in inventory?

6 Toro Flex 18 walking greens mowers
3 Toro GM 1600 walking tee mowers
1 DMI speed roller
1 National 68 triplex
2 Toro 4500 rotary rough mowers
2 Toro 5410 fairway mowers
2 Toro Workman
2 ClubCar Turf II utility vehicles
2 ClubCar 252 utility vehicles
1 ClubCar Carry All 6 utility vehicle
1 ClubCar Carry All 6 electric long box utility vehicle
1 EZ Go golf cart
1 Kubota F2260 outfront rotary (blower)
1 Kubota F2560 outfront (blower)
1 Kubota Z18 Rotary Mower
1 John Deere 5210 loader
1 John Deere 4500 tractor
1 GMC dumptruck
2 Ryan Greensaire 24 aerators
1 Rapidcore 3 point hitch aerator
1 Agric 3 point hitch rototiller
1 Cushman Ds 300 sprayer
1 high pressure sprayer
1 Ryan 18" sod cutter
1 Tycrop Propass 160 topdresser
1 Cushman Topdresser
1 Lev fertilizer spreader

1 Bannerman slitter/slicer
1 Bannerman simple dimple seeder
1 Morbark wood chipper
1 Express Dual reel grinder
1 Express Dual bedknife grinder
Weedeaters, blowers, flymos, garden implements, chain saws etc.
ESD wash water recycling system
ESD spill containment system in pesticide mix/load room

COURSE PROJECTS & PLANS

What projects have you recently completed?

New Turf Care Centre in 2006
Pro shop surrounds in 2006
New clubhouse to be completed in 2008
New practice putting green in 2007
3 tee complexes, 12 bunkers and cart paths completed 2007 and early 2008

What long range plans for renovation do you have in the next five years?

Execute Carrick master plan that will include renovation of some greens, some tees, bunkers, cart paths and other course infrastructure items.

Are there any particular challenges you face with your property?

Heavily shaded course with a lot of traffic on poa/bent push up greens with no subsurface drainage.

Do you have any success stories?

State of the art Turf Care Centre with completely self contained closed loop equipment wash system.
Ongoing, extensive tree management program.

What type of innovative cultural practices have you performed?

Aggressive bentgrass overseeding program to improve bentgrass population in greens.
Very successful aerating/bentgrass overseeding program has substantially increased the bentgrass population in our fairways (thank you Pelino Scenna).
Aggressive aerating, verti-draining, topdressing program on greens to reduce compaction & organic matter & increase sand content in root zone to improve drainage characteristic of push up greens.

MAKING THE MOVE TO GREY WATER

by Tom Brain, Superintendent
Burlington Golf & Country Club

The use of grey water at Burlington Golf & Country Club was predicated by the need for a new maintenance building. We had simply outgrown our existing building and there were a number of health, safety and staff issues that needed to be addressed, along with equipment storage space requirements. Planning for the new building was a long, intricate process taking almost ten years. Approval for the project was received in 2004, with construction set to begin in December, 2005. The new facility afforded us the opportunity to incorporate some up-to-date design concepts and environmental initiatives.

Due to the proximity of Falcon Creek and the steep ravine, we had very little space to work with in order to place the new building. A number of alternate locations on the property were investigated. However, none were suitable without interfering with the golf course or neighbouring properties. Eventually, permission was granted by the Halton Conservation Authority and the City of Burlington to expand our maintenance building at the existing site.

While preferable in terms of aesthetics and access to the property, the expanded building at the existing location would not leave much space around the building for more than parking and vehicle traffic.



Turf Care Centre from #14.



Turf Care Centre from the north

Our existing wash pad had been in place for approximately 30 years. It consisted of a 10 X 10 concrete pad with a grate and water supplied from irrigation water. All the wash water filtered through the grate and ran, essentially untreated, into Falcon Creek. Although we had always intended to incorporate a wash water treatment/recycling system into the design of the new facility to address our woefully inadequate wash pad, the question of the location of the wash pad became something of a challenge. We worked closely with John Glover, our sales representative from ESD Waste-2-Water during the design phase. ESD has many units operating in the United States, and a few operating in southern Ontario. Upon John's suggestion, the wash pad was located inside the building.

We had designed the building to maximize our access to equipment, and it made sense to place the wash pad inside one of the two drive through entrances. Placing the system inside also had some other benefits. One of the problems we had identified with outdoor systems was the tendency to overfill the system when it rained, from water collecting on the wash pad. Having the wash pad under roof eliminated rainfall supercharging the system. Also, the system would be functional year 'round.

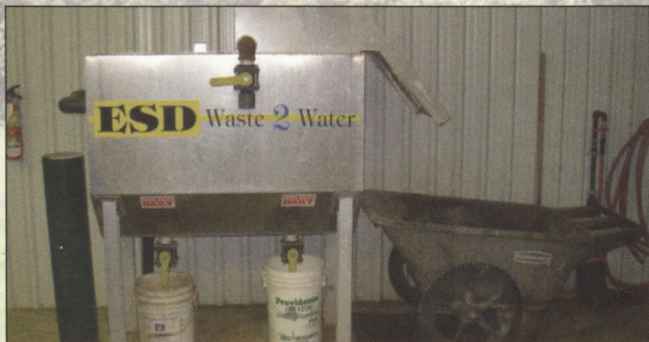
The main draw back we felt was the potential for odour with the solid separator and the treatment unit itself. As it turned out, neither were issues. As long as the clipping cart is emptied regularly odour is not an issue.



The unit requires some minor daily maintenance, the addition of microbes weekly and some ongoing regular maintenance. Maintenance of the unit is the responsibility of our 2nd Assistant, Jeff Lockhart.

The system consists of a 20' X 20' wash pad with a main sump in the centre. There are two hoses on either side of the pad and the pad can accommodate two fairway mowers or two rough mowers at a time.

The wash water is pumped from the self cleaning sump to a solid separator. The clippings are separated and collected in a draining wheel barrow and two additional chambers separate out fine particles.



The water is then pumped to the central unit which is housed in a separate, heated room. The water is cycled through three aerated chambers and the unit is seeded weekly with microbes that feed on the organic and inorganic residues in the water. The microbes are shipped on a bi-monthly schedule from ESD in the U.S.

Plastic honeycomb type cores help the microbes to colonize the unit and increase the exposure of water to the microbes. The water works its way through the system and is then returned to the hoses, completing the cycle.



As I stated earlier, because the wash pad is under roof, our system never overfills, however some water is lost due to evaporation. The system uses a float valve to automatically top up when the water level gets low.

A sump is also located in our mechanics work shop and is connected to the system with an air diaphragm pump for the occasional wash activities that take place in the shop.



Also installed at the time of construction was a wash and spill containment system in the mix load area for our sprayer. The system allows us to reclaim any water or products spilt while filling the sprayer or in the event of a serious leak. Spillage is directed to a sump by a beveled floor, pumped to a holding tank, filtered and returned to the sprayer to be applied on the golf course. Use of the system has been limited to testing and maintenance, but it is nice to

know it is in place, should a spill occur, to contain contaminated water and prevent potential discharge to the environment.



The adjacent Falcon Creek ravine is a wonderful land feature that runs through and defines our property and characterizes our golf course. We want to do everything we can to protect and enhance the ravine and the creek, for generations to come.

We feel we have made some major advancements to protect our immediate environment, including those down stream, and reduce our impact on the environment as a whole.

I would encourage those of you considering improvements to your equipment washing facilities to consider installing a wash water recycling system and say, Yeah to Grey!

WHY I STILL LIKE PVC PIPE – LOTS OF CHOICES

by Tim Fredericks
Fredericks McGuire Ltd.

Just the other day I was asked by a superintendent where I learned how to use a certain type of pipe for the application we were working on. In this case, the application was a large diameter HDPE mainline running up a steep incline with a significant change in elevation approximately half way up the hill—made for great bending! The question was followed by a statement to the effect that HDPE pipe was the way to go, and possibly, the way to always go when installing pipe. While I do enjoy working with HDPE in certain applications, the conversation made me think that the apparent or perceived ease of working with HDPE (and it can be easy) is starting to eclipse our working knowledge of PVC pipe.

In golf irrigation, the predominant type of pipe used is PVC (polyvinyl chloride). There are many types of PVC pipe, but in a pressure application, there are normally three types of PVC pipe that one would encounter - Schedule, Class, and C900/C905.

There are various differences between the aforementioned pipes including pressure rating, wall thickness, outside diameter (OD). It is important for a staff member or irrigation technician to be somewhat aware of the differences between the types of PVC when both installing and repairing pipe, as the properties of all three types will impact how the system will perform and choice of what future fittings will be required.

The most common pipe used in the golf industry is Class PVC pipe. Class PVC is what all the major golf distributors will supply and stock. The Class designation refers to the pressure rating of pipe as well as how the pressure rating changes as the nominal pipe size changes—it does not. Typically, a course or club will order either Class 200, rated to 200PSI or Class 160 rated to 160PSI. While the majority of irrigation systems do not exceed even 150PSI, the Class 200 pipe is a popular choice as it allows the user more of a safety factor and a little more protection should the pipe be bedded in less than suitable conditions, but not to be considered a solution for rocks!



Class Pipe

These respective Class pipes are also commonly and properly referred to as SDR21 and SDR26 pipe. SDR is an acronym for Standard Dimension Ratio which standardizes the ratio between average pipe diameter and the minimum wall thickness of the pipe. This ratio ensures that pipes with the same SDR rating will have similar pressure rating regardless of the pipe size.

Another important characteristic of Class pipe is that it has a standard OD that is designated as IPS (Iron Pipe Size). For the majority of the time this will not be an issue but it is important to note, that when repairing an older pipe that is not Class pipe the OD might differ from the piece of Class pipe you are using.

The other PVC pipe encountered in the golf industry is Schedule pipe. Schedule pipe is also normally supplied in IPS so it can be easily fitted to Class pipe. The most significant difference between Schedule and Class pipe is that Schedule is not classified by SDR, which simply

means that it does not have the same pressure rating across a range of sizes. While Schedule pipe does come in different pressure ratings (Sch 40, Sch 80, Sch 120), these ratings represent different starting maximum working pressures. The difference is that with Schedule pipe the wall thickness is standardized so that as the pipe diameter gets larger, its pressure rating is reduced. For example, a Sch 40 2" pipe has a maximum working pressure of 275PSI while a Sch 40 6" pipe has a maximum working pressure of 175PSI. Unfortunately, most irrigation systems are designed such that the larger diameter pipe is closer to source and operate at higher pressure due to less head and friction loss, which makes the lower rating of the 6" problematic.

Increasing, courses are starting to use another type of pipe for diameters 4" and larger. This pipe is C900 for 4" to 12" pipe and C905 for pipes that are 14" and larger. Most commonly, this pipe is referred to as "Blue Brute", which is Ipex's brand name, but the pipe is widely available from other manufacturers such as Rahau, Diamond Pipe, or Royal.



C900 to Cast

This pipe is significantly different than the Class or Schedule pipe, as it has a higher safety and is made with a different OD than Class pipe. The OD of this pipe is referred to as DIOD or DIPS (Ductile Iron Pipe Size) which has a slightly larger OD than IPS pipe. A 4" Class pipe has an OD of 4.50" while a 4" C900 pipe has an OD of 4.80". When using this type of pipe, the technician should be aware that the different OD means that all the fittings in stock for IPS pipe will not work and that the appropriate fittings for DIPS pipe will be required. Unfortunately, this realization often comes too late after the fitting has blown off numerous times. One very apt use of C900/C905 pipe is when a course needs to repair or cut-in a piece of pipe on an existing cast iron/ductile iron piece of pipe. The reason for this is that the cast pipe will have the DIPS OD allowing for an easier transition to PVC.

Along with types of pipes, there is the type of ends that the pipe is supplied with. The two different styles are bell and spigot (S.B.E) and gasket-end. SBE require solvent weld (gluing) while the gasket-end requires pushing the pipe in. I currently recommend that all pipe 4" and larger be gasket, and that smaller diameter pipe can be either depending on application and budget. This "rule" is generally only for Class as C900/C905 is only supplied with gasket-ends.

A final consideration when choosing with PVC is whether the pipe meets standards and the physical characteristics of the pipe. If choosing between pipes, verify that the pipes meet all CSA and ASTM standards. Another thing to examine is the quality of the bells and whether the pipe is weathered or been stored outside for a long period of time. PVC is effected by UV which can cause the pipe to become brittle and less workable.

When choosing any pipe, always be aware of the application that pipe is being used for. In most cases, pipe that fails or is hard to work with is being used in an improper application. PVC pipe has been used for many years and stands up very well when installed properly. It is still a very wise choice.



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Above the hole

by Tyler Webb, Student and Intern

Growth, as it has often been said, is a continual process. As students and interns, we have the opportunity before us to continually grow and develop with particular safety in an industry noted for its mentorship and professional fellowship. Finding our place, and putting into focus a positive and pro-active perspective is the first step.

While pulling everything together into a cohesive whole, from textbooks to professors, industry professionals and informal conversations, it is our responsibility to recognize ourselves as the future of an industry we love.

We must look forward with an open, questioning mind that will usher our community, not only through new technologies, but national, if not global, perspectives on golf courses in general. We must be the 'new breed' of turf manager. To get there we have a mountain of knowledge and experience to summit.

Calling ourselves simply 'turf managers' would short change all but the smallest number of professors and mentors we will have. We, as most of my non-turf peers believe, don't simply 'take care of grass'. As a professional, we are managing an ecosystem that must satisfy not only our crop, but our customers. We must learn and be confident in leadership, turf care and tree care, with the math, science and professionalism to back it up. This is our time to learn, ask questions, make mistakes and take charge. This is our time to be excited!

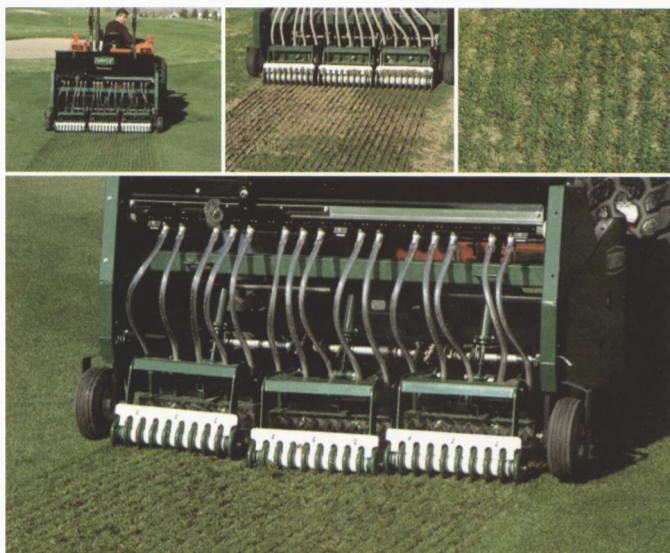
Excitement is the last component to a student, to an intern and to a turf professional. It is our job to be excited at the possibilities before us. We are young and will see many things change in the course of our careers. What place will golf courses hold in the future? Where do we fit in among the environmental watchdogs and the age of technology? Do we adapt, do we survive, and do we remain the only idealistic oasis left among the asphalt? We are the ones who will answer these questions. We are students and interns, who are excited, knowledgeable and keen sighted. Welcome our enthusiasm and you might be surprised.

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USES OF AMMONIUM SULPHATE IN TURFGRASS MANAGEMENT

by Corrie Almack, P.Ag.

Almack Agronomist Services Inc.

It's a common theme in life: we are always reinventing the wheel! At the most recent OGSA symposium, many of the presenters mentioned they were including ammonium sulphate in their nutrient program. With all the recent high-tech nitrogen sources available, why would one even consider such an old-fashioned product? Why? Because it still is an inexpensive but effective nitrogen source for today's modern turfgrass management.

Dormant Nitrogen Source

In order to understand how 21-0-0 - 24% S, ammonium sulphate, $(\text{NH}_4)_2\text{SO}_4$ may be used as a dormant nitrogen source, we must understand the nitrogen cycle. When soil temperatures are above 8°C (45°F), the microbial activity of soil is actively breaking down organic matter (carbon source), resulting in a release of soluble nitrogen. The microbes use this nitrogen as a food source to fulfil their normal life processes termed microbial immobilization. Upon their death, the nitrogen is available for plant uptake or for other microbes to use again and the cycle continues. A soluble nitrogen source is required by the microbes to break down organic matter, resulting in the formation of humus.

When soil temperatures fall below 8°C, the production of soluble nitrogen is not sufficient to maintain a high level of microbial activity. When soil temperatures are this cool, if we apply a soluble nitrogen source that the microbial population can use, it will stimulate the microbes to immobilize the nitrogen source. This creates a "slow release nitrogen source" or correctly termed an "organic nitrogen source" one which is bound with carbon.

The nitrogen source in the 21-0-0 is all ammonium. Ammonium is a positively charged nutrient (cation) which is instantly available as a food source for the microbial population. Being a cation, it resists leaching as it is adsorbed by the cation exchange capacity of a soil. When the 21-0-0 is used in this application, the grass must be dormant, since stimulation of top growth at this time is not desirable. However, the roots and the microbes can still be active. The increase in microbial activity will result in increased late fall root growth; the plant will continue to photosynthesize, thus producing carbohydrate reserves and a plant that is hardier for the upcoming winter.

The following spring should bring an earlier green up, without any excessive growth. The nitrogen is no longer soluble and may persist until at least mid May and even into June, depending on local conditions. The risk of losing nitrogen in the fall from volatilization is very low when ammonium sulphate is the source.

In summary, 21-0-0 can be used as an effective, inexpensive dormant nitrogen source. In order to properly appreciate this source of nitrogen, its' mode of action must be understood.

Disease Suppression

When Urea-based nitrogen sources are used, the possibility exists of increasing the pH of the thatch. This is based on the surface pH of these sources being alkaline. It has been suggested that an increase in the alkalinity of the thatch provides an environment more conducive to patch diseases such as TakeAll (*Gaeumannomyces graminis*). Applying ammonium sulphate will not contribute to a higher pH thatch, and is actually recommended for controlling many diseases.

Applying ammonium sulphate, (along with manganese) is becoming a common management practice for suppressing TakeAll (*Gaeumannomyces graminis*) and other patch diseases including Summer Patch, (*Magnaporthe poae*) and Bentgrass Dead Spot (*Ophiosphaerella agrostis*).

pH Reduction

Of all the common nitrogen sources available for use in turfgrass, ammonium sulphate has the highest calcium carbonate equivalent (C.C.E.) - the ability to neutralize limestone in a soil. Continued use has the potential to cause a reduction in soil pH, especially in lower exchange capacity soils. For every 100 pounds of ammonium sulphate added to a soil, 120 pounds of limestone will be neutralized. This can be an important source of acidity to help manage the pH of soils. A lower soil pH can increase the uptake of many other nutrients such as phosphorus, iron and manganese.

Counteracting Alkaline Irrigation Water

Another benefit, which is often overlooked, of an acid fertilizer such as ammonium sulphate, deals with counteracting the limestone equivalent deposited by alkaline irrigation water. A water source containing 200 p.p.m. of bicarbonates, common in many areas of Canada, has the equivalent of nearly 900 pounds of pure limestone for each acre foot of water applied. I have seen soil-based greens change from a pH of 7.2 in the spring to 7.8 in the fall, after a dry summer when the vast majority of the summer moisture came from the high bicarbonate irrigation source. The accumulation of bicarbonates on the soil surface lends itself to poorer water infiltration, reduced nutrient availability and a higher incidence of surface crusting and algae.

Another excellent source of acidity can be obtained

from the product 21% Iron Sulphate - Ferrous Sulphate ($\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$). Besides being an essential nutrient and a greening agent, its high level of acidity will aid in neutralizing surface accumulations of bicarbonates. Many respected researchers are encouraging turf managers to increase the amount of Iron Sulphate in their fertility program.

Make Your Own Starter Fertilizer

If your soils contain adequate levels of phosphorus, (most older courses have very high levels) then a spring application of between 0.25 to 0.50 lb./1000 of actual nitrogen from an ammonium sulphate-based product should result in a similar or an improved response as an application of a conventional starter fertilizer.

The acidity of ammonium sulphate will acidulate the existing soil phosphorus and make it more plant available. This availability is normally achieved by soil microbes once the soil temperature has increased. If the turfgrass industry is ever legislatively prevented from applying phosphorus to a soil which already contains a level deemed adequate, an approach such as this could become more common practice.

Predictability

Ammonium sulphate being readily water soluble, is

termed a "quick" release nitrogen source providing a predictable growth response, even in cooler soil temperatures. A moderate spring nitrogen application will not continue to release into the summer, reducing the possibility of elevated plant-available nitrogen levels, which can occur during periods of warmer soil temperatures.

This is not a risk on newer high sand-content greens but I feel it is a real concern on older greens that have an organic matter content of over three percent. Having excess plant-available nitrogen in the heat of summer is a potential invitation to turf stress and disease.

Conclusion

Over the years, as our turf industry has evolved, we have been provided with much safer means of applying ammonium sulphate. In addition to increased spray tank applications, we have homogenous granular products including 16-4-8, 15-3-10 and 13-2-13 which have become popular sources. The Canadian market recently has been exposed to the *MESA* and *ProScape* brands, many with an ammonium sulphate component.

It seems the future is bright for those turf managers wishing to benefit from the many advantages that ammonium sulphate can provide as part of a total nutrient management program.



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Jeff's knowledge and expertise have been an invaluable asset to the ProTurf® line in Ontario and everyone at Agrium Advanced Technologies wishes him the very best in his future endeavours.

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FROM HERE TO THERE AND BACK AGAIN

by Sean Jordan, Superintendent
Beaverdale Golf Course

For the first nine years that I grew grass for a living, I was in the “professional dodgeball” end of things. That is to say, I worked in golf course maintenance with a short stint in course construction. Then in 2005, my wife received an offer to work for the University of Guelph and we moved to Ontario. At this point I was pretty well burned out with the clientele that I had been serving at a public course in Connecticut and was looking for other turfgrass possibilities. It was by luck then that Ron Schiedel was looking for an assistant production manager, at Compact Sod. From early on I had been trying to work in several different aspects of golf course maintenance to experience everything from high-end private courses with massive budgets to shoestring public courses, where the shop had holes in the walls big enough to throw a softball through. So when the opportunity came up to try something completely different, I jumped at it



Cedar Ridge

It didn't take me long after starting the job to figure out that production is an altogether different world than maintenance.

One of the first things that I noticed was the sheer difference in size between the equipment on the farm and what now looked like toys on the golf course. I had been using a three-point-hitch spreader capable of a 50-foot wide pattern on the golf course, and the machine that I was trained on at the farm had a similar width but dwarfed

the first with its capacity to carry 5 tonnes of fertilizer at a time instead of 200 kilos. Even more impressive to me was the fertilizer blending system. Where I was used to lugging 50 pound bags to no end, here we handled all of the material with a skid steer. Most of the blends we needed could be put together with the three ingredients we had on hand. Also included in this training was a crash course in metric conversion.

The main sprayer was much the same way, going from a 16.5 foot boom I had used for greens and tees to a whopping 72.5 foot swath. Trying to get the hang of an 18-speed transmission proved tricky while keeping the end nozzles out of the fence lines. Again, because of the immense volume of chemical that needed to be loaded at one time, I had to learn the ins and outs of a chemical pump and a sprayer loading system that looked like the Space Shuttle with its hood open.



Big A

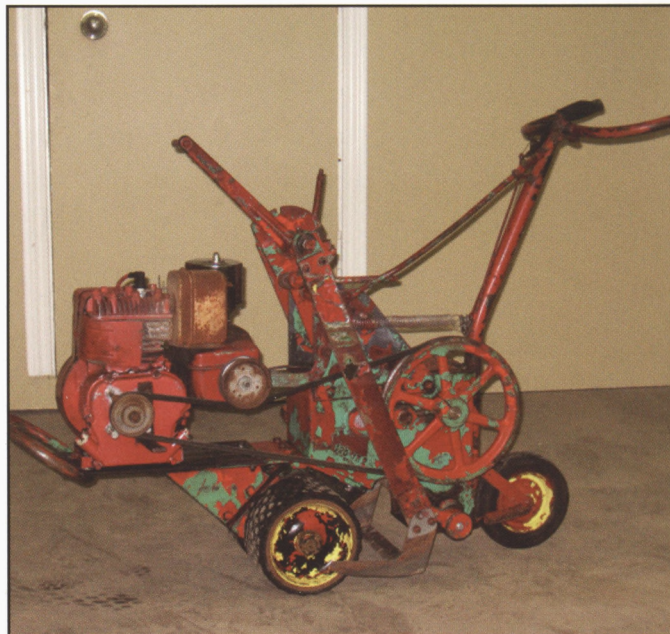
It wasn't until working on the farm that I was able to experience GPS guidance for spreaders and sprayers. If I had a nickel for every time I said “if only I had this back on the golf course!” No more squinting on dry, sunny days hoping to catch a glimpse of my wheel tracks or the edge of the last throw. Gone were the days of praying that the foamer would just last until the end of the load. Now I had a nice little black box with two sets of lights, one to tell me where I was, and the other to let me know where to go. If only life had one of these babies!

When it came to keeping things green and growing, the nice days of automated, in-ground sprinklers were replaced with hours of setting up aluminum piping, moving "travelers" and starting centre pivots. Travelers are essentially mobile hose reels with large poly pipe that has a cart-mounted impact gun or boom of sprinklers on the end, and is wrapped around a drum which is wound in using either a gasoline engine or water-driven turbine. The best part of setting up the travelers was forgetting to turn the end of the impact gun to the side when pulling the hose out in the early morning and having that icy-cold blast down my back when the tractor stops and all the water in the hose suddenly catches up. That is a serious eye opener.

On the golf course side of turf, actual establishment doesn't seem to happen to a great extent other than when a course is built, renovated, or damaged areas are repaired. So the task of prepping the soil and sowing the seed are often done with smaller tractors and implements and with a lot of hand work generally followed by a 3-foot wide drop seeder. It always seemed like a nice side task to get away from the day-to-day work that had gotten monotonous by mid-June. On the sod farm however, the area that has to be prepped and seeded every season is so vast that it takes every man hour that can be found to operate the tillage and stone picking equipment just to get the soil ready, then hours on end when the conditions are right to sow seed with a 12 foot wide seeder (15 feet if you count the wheels, making it very popular on the road traveling between farms). My mad months of July and August, when traffic on the golf course was usually at its peak, were shifted to August and September, when picking stones and planting filled every minute that the soil conditions would allow.

Now, after a couple of peaceful years of keeping things green side up without fear of being beamed by a flying white sphere, I have returned to the contoured and treed side of growing grass. It was a tough decision to make, but ultimately necessary (my physiotherapist told me I would be crippled if I didn't find other employment). I've taken a position as a superintendent on a course right across the fence from the fields that I just left. While walking the course for the first time I started remembering some of the parts of the job that got me into this mess in the first place, like the fine detail work, the sculpted curves of the playing field and the endless possibilities that keep the "to do" list from ever getting short. If I am lucky, it will hopefully be a long while until I start remembering why I wanted to take a break from golf courses in the first place.

Antique alley



Greig Barker, Superintendent at Highland Country Club submitted this photo. This Ryan Sod Cutter has been a part of the golf course equipment fleet, at Highland for over thirty years. An exact age is not known. It has had some rebuilding and is still in working order.



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TURFGRASS DIAGNOSTICS AT THE GTI

by Katerina Jordan, Assistant Professor, UofG
GTI Turfgrass Diagnostic Laboratory
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diagnostics@guelphgti.ca

Proper sample submission can save you precious time and money!

As the Turfgrass Diagnostic Laboratory, at the Guelph Turfgrass Institute, gears up for its fifth season of providing diagnostics to turfgrass managers throughout Ontario and Canada as a whole, we thought it would be helpful to set out some simple instructions for proper sample submission to the GTI or any diagnostic laboratory. The steps outlined below are essential towards obtaining an accurate and timely diagnosis from your diagnostician.

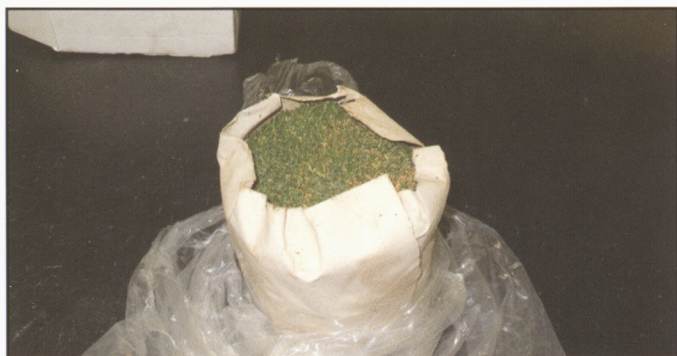
The first thing to remember is that the lab receives only a small plug of affected turfgrass and it is therefore out of context. Two additional pieces of information that can aid a diagnostician in making an accurate diagnosis are details regarding symptom development and, if possible, photographs of the affected area. You can include photographs either with your samples or separately by e-mail, but either way, this gives the diagnostician the advantage of seeing any patterns or stand symptoms that may be difficult to describe. Whether or not photographs accompany the sample, make sure that you take the time to fill out the submission sheet as thoroughly as possible. No matter what diagnostic lab you choose to send your sample to, each of them should have some submission form that has space for a good deal of information – when symptoms were first seen, what the weather conditions were like at onset, what fungicides, fertilizers, or other additives were applied and when, and what species and cultivar of turf you are dealing with. There is also usually space provided for any additional comments – such as whether or not you have been battling this problem for years, or if it seems to reappear in the same areas each season. All of this information is essential for the diagnostician to properly do their job and to make the diagnosis in a timely fashion, a critical aspect of turfgrass diagnostics. Most diagnostic labs should get back to you within 24 hours, although diagnosis may take a bit longer, depending on the complexity of the problem.

The next step is proper preparation of the sample to be sent out. It is very important that you take your sample from the margin of healthy and symptomatic turf, as often times pests and pathogens will take what they need from



the host, and then move on to a healthy plant to continue their attack. Samples taken from only the most affected areas may be too advanced to see any pathogens remaining. In addition, there are a number of opportunistic or secondary pathogens that come in after a plant has been attacked and they feed on the material leaking from dead or dying cells. These opportunists can cloud the diagnosis because many of them form mycelia and can appear similar to some of the primary pathogens. Also ensure that your sample is taken before any fungicides or insecticides have been applied. By the time your sample reaches the diagnostic lab, any pesticide that you have put down may be taking effect and will prevent the diagnostician from seeing the signs of pests or pathogens that allow a diagnosis to be made. As for sample size, usually a one cup cutter plug that includes the turf, thatch, and about three inches (7.5 cm) of soil is adequate for proper diagnosis.

Once you have taken your sample, properly package it such that the plug stays somewhat moist and that the soil stays intact. This allows the diagnostician to observe any soil properties that may be contributing to the symptoms, such as layering or compaction. Keeping the sample somewhat moist will hopefully allow any pathogens that are present to remain active and decrease the diagnosis time. The ideal way to keep the moisture and integrity of the sample is to wrap the plug in newspaper as is at the time of sampling (do not add water) and then place it in a plastic bag before putting it in the shipping box. One of the most important things to remember is that the sample must be sent overnight. If the sample stays in a box for two



or more days, pathogens and secondary opportunists will usually make the turf unrecognizable and nearly impossible to diagnose.

By following these simple steps – filling out the submission sheet, including photographs if possible, properly packaging your sample, and most importantly, sending it out overnight, you are increasing the chances of an accurate and timely diagnosis, both of which can often save you much more time in the long run than what it takes to follow these steps.

The diagnostic laboratory at the Guelph Turfgrass Institute is currently open and ready to receive samples for diagnosis. Thanks to a generous subsidy from the OGSA, we are happy to welcome back Erica Gunn, the diagnostician who developed the lab at the GTI. Many of

you may not be aware of the fact that I will be on maternity leave during the growing season. Rest assured, however, that I will still be available to discuss recommendations and look at samples over the course of the season. Between Erica at the GTI site and me piping in from home, we will have your diagnostic needs covered for the 2008 season. Be sure to check out our new website: guelph-turfgrass.ca. There you can find our submission sheet that outlines a significant discount for OGSA members for diagnosis. As always, we welcome suggestions or comments on how to continue providing you with the best and most professional service we can.

Portions of this article were printed in the August 2007 issue of Green Master

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by Daisy Moore

Showy Flowers

People love gardens because they are colourful and beautiful and it is mainly because of the flowers. So let's give them flowers Big ones ♪♪ small ones ♪♪ some as big as your 'ead ♪♪.

There are a multitude of flowers to choose from within the sub-categories of spring bulbs, flowering shrubs, annual flowers, summer-flowering bulbs and perennials.

Blue bells *scilla siberica* are small as individuals, but en masse deserve an honourable mention. In my books they signify that the golf course is ready to open, like forsythias tell you that seeds are germinating in the soil. Massing or grouping flowers is one way of creating an effect and another way is to choose large and showy individuals. Here are a few to consider for that important spot in the garden, in order of flowering.

Lily-flowering tulips are really nice. They are available in many colours and appear right about the time you are tired of daffodils. It is better to plant these in smaller groups such as three. Leave the massing of tulips to the earlier flowering and simpler types. Lily-flowering tulips are a couple of feet to a metre tall.

Ornamental onions, such as Purple Sensation, are very big and showy and ridiculously easy to grow. Plant them once, usually in the fall, and with ease they give you an explosion of purple fireworks every year. The flowers persist after the tulips are finished and continue through the frost-free date when you can plant colourful annual flowers.

Peony flowers are short-lived but are worth a place in every sunny or semi-shade garden. Peonies would be classified as perennials. They are usually scented, come in a variety of colours and they have handsome and sturdy leaves for the entire growing season. They compliment other plants well. Peony rings or flower supports are helpful to show off the big and numerous flowers. Tree peonies require slightly more care than the ordinary peonies but are worth it if you can. Tree peonies flower later in the season and if they like it in their sunny, sheltered spot will be loaded with peony flowers for several weeks.

Bottlebrush Buckeye *Aesculus parviflora* is a shrub-form of the well known horse-chestnut tree. It grows as wide as it does high (3-4metres) with horse chestnut-like leaves and a body that is crested with bottlebrush shaped flowers in the early summer. It is native to northeastern North America and does well in partial shade.

Love-lies-bleeding *Amaranthus caudatus* is an annual

plant that can be planted from seed or from transplants. You may need to look for this plant since they aren't grown in the numbers that petunias and impatiens are. They blend well with almost anything or are good on their own to droop over walls, containers or other plants.

Red flowers from the annual **salvia** or the native perennial **cardinal flower** *Lobelia cardinalis* are a great way to colour up an otherwise bronzy haze in the late summer garden. I strongly advise against planting annual salvia on mass because on that scale the colour may often clash with something as simple as the brick of the building or the outfit of a dignitary during a photo opportunity. Hummingbirds in particular are attracted to these red plants.

Dahlias are summer-flowering bulbs, meaning that they are planted in the spring, flower in the summer and dug up in the fall and wintered indoors. Why would you go through all of that trouble? Many people treat them as annuals by purchasing and planting them in the spring and then let nature take its' course. Let your conscience be your guide. Dahlias are very much worth the effort and worth saving from year to year because of the quality of the flowers (and foliage) they produce. It is their image that is conjured up when you hear about 'dinner plate sized' flowers. They can be that big, or they can be smaller, more numerous and have beautiful pest-free foliage to boot. Like peonies, dahlias are worth staking since the central stem is as hollow as Easter chocolate and can be knocked or blown over. Dahlias come later in the summer and persist until the frost.



Sunflowers, of course, are a classic. Remember that they will always turn to the sun, so plant them, by seed or transplant, so that they are facing south when you look at them. It is disconcerting to have the heads turned away from you and no amount of staking, turning or convincing will get them to behave otherwise. There are many varieties now available, some that are seedless to keep away those pesky birds, some that are multi-flowered, some that are dwarf and all that are a fun and familiar addition to a sunny garden.

Annabelle Hydrangea is a classic plant for entrance gardens. The plants are a metre or so tall and produce huge white pom-pom flowers in the fall. The flower-heads persist through the winter. They are shade tolerant but will be highly disappointing in dry sites. Avoid planting them near the base of maple trees because they will not thrive.

The past two Mother's Days the landscape has been extremely floriferous and gay, telling me that despite grim predictions and climate change, plants are enjoying themselves. We should enjoy ourselves as gardeners too and treat ourselves to some of these spectacular bloomers, just because we like them.

Daisy is a professional gardener. She operates a landscape design and consulting business from her home in Elora.

She is the host of the radio program, "Ask the Gardener" every Saturday from 1-2:00 on am570.

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Looking back

35 YEARS AGO TO-DAY

by Barry Endicott

The directors of the OGSA in 1973 were **Jim Wyllie** (Pres.), **Bob Heron** (Vice Pres.), **Ross Haines** (Sec.), **Paul Dermott** (Tres.), **Al Beeney**, **Ed Charman**, **Roy French**, **Bob Hall**, **Whitey Jones**, **John Stoughton**, and **Bill Hynd** (Past Pres.).

The 3rd Annual Turf Symposium was held on January 4th at Northwood GC. **Keith Nisbet**, president of the OGA, and **Dr. Jack Eggens**, University of Guelph professor, chaired the sessions. **Dennis Pellrene** (Glen Abbey), **Leslie Kelly** (Royal Ottawa), **Bob Moote** (Oakdale), **George Darou** (Richmond Hill), **Bob Heron** (Markland Wood), **Cameron Cairncross** (Foxwood), **Dave Moote** (Essex), **Al Beeney** (North Halton), **Rusty Warkman** (Stratford), **Charles Behm** (Cherry Hills), **Barret Muir** (Shanty Bay), **Ross Haines** (Brampton), **Robert Lamb** (Summit), **Bob Hall** (Toronto Ladies), **John Piccolo** (St. Catharines), **Paul Scenna** (Galt) and **Gord Witteveen** (Northwood) kept everybody informed on the latest developments in turfgrass maintenance.

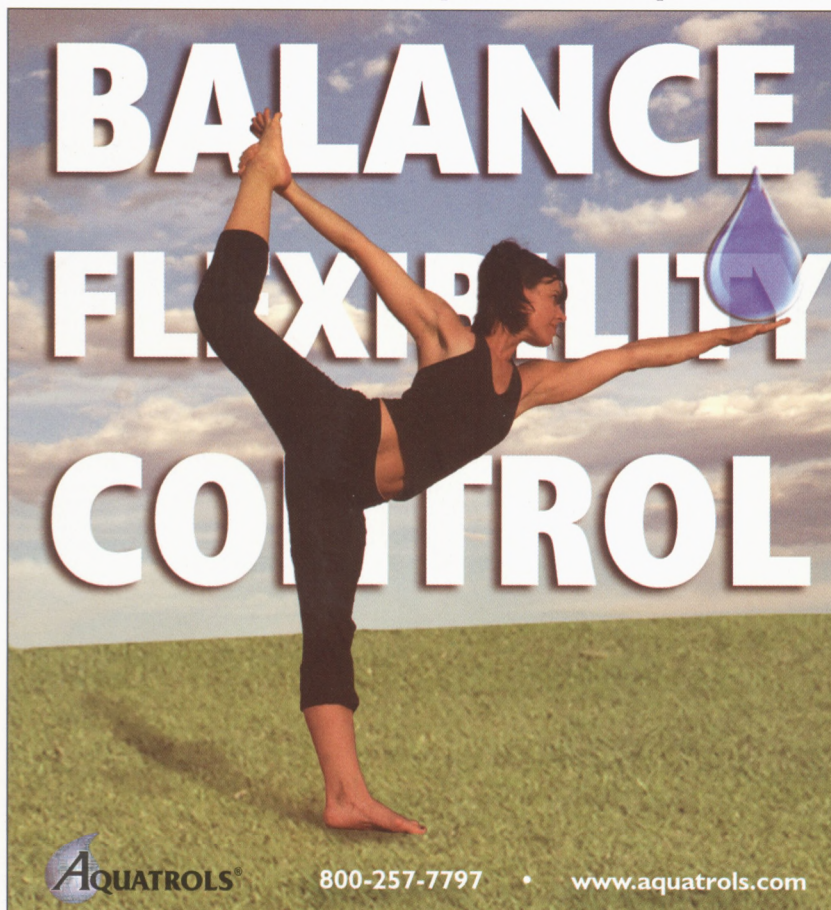
Paul White, Superintendent at Kanawaki GC in Montreal, moved to Glendale GC. **Cameron Cairncross** was a successful applicant for the head position at the Summit GC. **Rusty Warkman**, from Stratford GC, accepted the position of superintendent at Oshawa GC. **Gord Witteveen** and **Bob Hall** accepted new positions at the Board of Trade G&CC and Toronto Ladies GC, respectively.

Ron Allen and **Bob French** were recipients of scholarships

from the Turf Managers Short Course. **Gord Witteveen** was elected director of the GCSAA at the annual meeting held in Boston, Mass. **Art Dodson**, **Dave Gourlay** and **Jim Wyllie** became GCSAA Certified Superintendents. The RCGA Turfgrass Conference was held in Montreal from March 4th-8th. **Dave Gourlay** was elected president of the CGSA at the annual meeting.

New member applications were received by **Ray Grinikis** (Pleasant Valley GC) and **Ken Nelson** (Sunningdale GC). **Morley Findlay**, of the London Hunt Club, passed away from a heart attack following an operation. **Tom Lewis**, of Kawartha G&CC, received the 25-year award of a lapel pin from the GCSAA. **Charlie Muylaert** was busy with the new construction on the old Pine Valley Golf Course. The new course will be called the PGA National. Glen Abbey, in Oakville, was rumoured in the papers to have been purchased by the Skyline Hotel and Jack Nicklaus was hired to redesign the golf course.

The Greens Chairman/Superintendent Tournament was held on July 20th at the Brampton GC. The team of **Paul Scenna** and **Sandy Forbes** (Greens Chairman) earned the top honours for the day. The Pro/Superintendent Tournament was held on August 31st at Markland Wood. Low gross superintendent/pro team was from Peterborough GC and the low net team was **Paul Dermott** and **Jim McKitterick** from Islington GC.



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Turf or consequences

by Doug Breen, Superintendent
Golf North Properties

State of the Game Address

It seems like every few months, someone writes another article, ruminating and hand wringing about the "state of the game". Is the number of golfers expanding or declining? Are we adequately serving Junior golf? Why do women always demand a fully stocked proshop, and then buy the same product at the *Arizona Bill's Professional Low Price Town* over by the mall for twenty-two cents less - and tell you about it? We're always looking for trends that will help us to serve our customers better (and make more money). Don't misunderstand me, because I think that this kind of market research is crucial, and those who ignore such warnings do so at their own peril, but I just think that there are a couple of significant trends that don't ever appear in such articles, or in the surveys that I dutifully fill out when they're sent to me.

Take Junior golf for example. Everyone talks about the importance of developing the next generation of golfers (read customers), but no one actually wants to play behind them. Or in front of them. Or heaven forefend *with* them. Actually, many seniors become agitated if anyone under eighteen is anywhere on the property. If there's a bike in the bike rack, their round is ruined. People like the *idea* of Junior golf far more than they actually like Junior golfers. A program at the course down the road; is perfect.

Another well known, but never-spoken-of fact, is that Baby Boomers are cheap. Many a golf course was constructed on a business plan that assumed that when all those Boomers playing high-end corporate golf retired, that they would continue to pay for high-end golf with their own money. Ummm, not so much. Turns out that they're far more interested in getting their free coffee refills after they finish mall walking, and pocketing extra condiments, than they are in golf. And as soon as they started retiring en masse, golf could no longer be written off as a business expense. If they weren't going to have it any more, neither was anyone else! They're not even interested in low-end golf unless they can bring their own sandwich, a banana, and have a coupon.

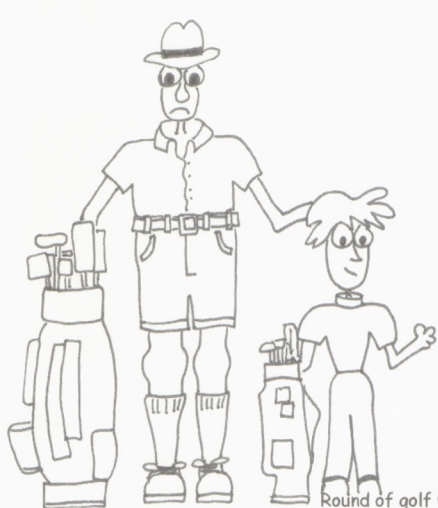
I've recently begun my very own "state of the game" survey. I readily admit that mine isn't exactly what a statistician would call "scientific", "accurate", or even "valid", but it won't stop me from publishing my conclusions here (results may vary +/- 100%, most of the time). Here's what I did. I started randomly asking my friends who play the grand old game, why they



don't play more than they do. The overwhelming response was a lack of time. It seems that we don't have the leisure time that I was promised by my teacher in grade two. According to Mrs. Nethercott, robots and computers would take care of so many of my mundane duties, that by the time I was forty I'd be free to play golf every day. But I don't even have the leisure time that Mrs. Nethercott did.

When Ward Cleaver finished work, he went to the club, played eighteen holes, came home to a hot meal, a pipe, and gave a stern lecture to the Beaver about not throwing his football into the neighbour's flowerbed. The biggest stress in his life was dealing with Eddie Haskell hitting on his wife. If Ward was around today, he'd be driving Wally and the Beaver to hockey practice, making dinner, attending PTA meetings, and being "engaged" in their education, because June's got a job and Miss Landers is more interested in the Beaver's self esteem than whether or not he can read. Ward would be lucky to play once a week on Saturday, and that would have to be nine holes squeezed in between his duties as Cub Scout leader, taking Wally to the math tutor, and the weekly dinner at June's first husband's parent's house. Ward doesn't get to go fishing too much anymore either.

So what's the conclusion of my "state of the game" address? On the positive side, there are more golf courses, in far better condition for people to play than at any time in history. On the negative side, unless you're a senior or a junior you don't have any time to play, and neither of those two groups have any disposable income (and they hate each other). The folks with the cash and desire to play every day are working late most nights to pay for the social services required by the two aforementioned groups, and then running off to watch swimming lessons while they continue to type on their blackberry. The state of golf is fine; the state of modern culture is a mess.



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