Greenis Beautiful

The Official Publication of Ontario Colf Superintendents' Association

Ash Trees: A strategy to control their greatest threat

ALSO INSIDE THIS ISSUE:

OTRF – Green Supporting Green
Sand Traps: The Nocturnal Guestbook
Soil Monitoring at Your Fingertips

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Dr. Thomas Nikolai, Michigan State University

Turfgrass: the environment and the golf course

Dr. Frank Rossi, Cornell University

What I've learned from a decade of reducing pesticide use

Dr. Katerina Serlemitsos Jordan and Dr. Eric Lyons, University of Guelph

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PRESIDENT'S MESSAGE



by Chris Andrejicka, Essex Golf & Country Club

Tam sure that many superintendents will be glad that this season is finally winding down. 2011 was definitely a season of extremes. There were record spring rains, record summer heat, record summer rains and, in some spots, record dry spells. I think if we can learn anything from this year, it would be the importance of adhering to sound cultural management programs. I have spoken to dozens of our peers throughout the province and those who survived the extremes well were the golf courses that continued to practice sound cultural programs. Now, heading into fall, it will be very important to continue those programs in preparation for the winter.

Over the past two months, I am sure many of you have been audited by the firm hired by the IPM council. From my experience during our audit, I found that the process was much more thorough than anticipated. I believe this is good for our industry to show how educated and experienced we are in pest management and that we are responsible land stewards. The OGSA board, through our weekly Clippings brief, informed everyone that the IPM council reported to us that many courses have still not registered into the IPM program. You, as a superintendent, have an obligation to have your course registered. There have been two clubs that I know of that have been issued stop spray orders because of failure to hold a valid pesticide licence. The orders are being issued by the MOE. Failure to follow Ministry guidelines is punishable by a possible \$50,000 fine. The time to complain and criticize the new pesticide law is over. It is our responsibility to comply. The OGSA board has a seat at the table with the IPM council and we are providing input to improve the program for our members.

With this year coming to an end, so to is my term as your President. I have thoroughly enjoyed my time on the board and the friendships I have developed with many superintendents across the province. Membership growth still continues and is strong. This year we have seen a large increase in event participation and our new executive manager has brought a wealth of experience and innovation to our association. The OGSA is very strong and, looking forward, I am confident that the board will continue to be outstanding advocates for our profession. I encourage all members to register and enjoy our upcoming conference in Niagara Falls in the New Year; it's shaping up to be quite spectacular. Let's hope for a friendly winter and a safe holiday season.



Photo credit: Virginia Kinney at Mad River Golf Club, Creemore, ON





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Green is Beautiful



COVER PICTURE

Markland Wood Golf Club Main cover photo credit: Darryl James, ArborTurf Solutions

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Green is Beautiful 2011

Golf Superintendents' Association.

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> **OGSA** is committed to serving its members, advancing their profession, and enriching the quality of golf and its environment.

EDITORIAL MESSAGE



by Justin Parsons, Engage Agro Corp.

The threat of foreign pests disturbing the balance of local ecosystems and habitats here in Ontario is nothing new. Perhaps the most famous example is the Dutch elm disease that started spreading across our province over four decades ago. Since that time, over 80 per cent of elm trees in Toronto alone have been lost. It is interesting to note however, the province of Alberta has the highest number of elm trees

unaffected by this disease in the world. This is largely due to knowledge and subsequent prevention.

In more recent years, we have seen several other foreign invaders attack the biodiversity of our waters and forests. Plant species such as purple loosestrife and giant hogweed have disrupted local wetlands. Invertebrates like the zebra mussel have been wreaking havoc in aquatic ecosystems. On dry land, the concern over the Asian long horned beetle has been well documented the last few years.

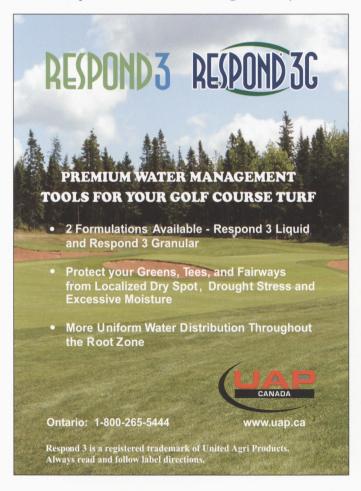
The problem with foreign pests establishing themselves in other areas is that it represents a disruption to the natural order. Since they originate in other parts of the world, they are free to proliferate here void of their natural predators. The consequences can be devastating, not only from an environmental standpoint, but also from an economic one.

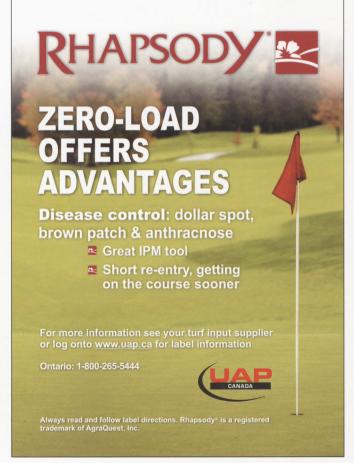
Most recently in Ontario, the emerald ash borer has become a major concern in many parts of the province. Confirmed in Toronto in 2007, this pest has the potential to wipe out every single ash tree in the city by 2017. Already this pest is costing homeowners thousands of dollars as they are forced to remove infected trees on their property. For golf courses, this means a threat to both playability and aesthetics, not to mention the cost associated with removing dead ash trees.

I spoke with several individuals within the industry regarding this issue and responses have been quite varied.

The important thing to realize is how your actions, or lack thereof, can affect your neighbour and how their actions impact the next person in line. The easy thing to do is not care. But sometimes by doing nothing, we make the problem worse. By allowing an infestation to run through a property simply because ash trees aren't valued, only serves to feed the pests' proliferation through our province.

It's certainly not in the budget for everyone to strategically map the trees on their golf course and then devise a preventative treatment plan. But there are other, much more inexpensive ways this pest can be discouraged. I think if history has taught us anything, the best thing we can do is educate ourselves and that really doesn't cost a thing.





by Sally Ross, OGSA Executive Manager

SUPERINTENDENT OF THE YEAR

Sincere congratulations go out to Ken Wright, Devil's Pulpit GA who was recently awarded the CGSA's Superintendent of the Year Award.

SUPERINTENDENT RECOGNITION PROGRAM

As part of the Ontario Golf Superintendents' Association Board of Directors recognition program, Mike Pellerin, Superintendent, North Bay Golf and Country Club was recognized as the host superintendent for the Investors Group, Senior Women's Amateur Championship.



Stu McMillan, Lively Golf Club left, presented to Mike Pellerin, right.

OGSA AGM

The OGSA Annual General Meeting is scheduled to take place on January 20th, 2012 7:30 AM at the Scotiabank Convention Centre in Niagara Falls. The full notice of meeting, appointment of the nominating committee and the nomination form is available on the OGSA website at www.golfsupers.on.ca



Jay Honeyball, left, OslerBrook Golf & Country Club, host Superintendent of the 66th Alex McClumpha Memorial Tournament is presented with a plaque from Mark Prieur, OGSA Director and Superintendent at Trafalgar Golf & Country Club.

FROM THE OFFICE

The OGSA Board of Directors met in late October for two days; a day of Strategic Planning with facilitator Steve Randall, Senior Manager of Chapter Outreach from the GCSAA, followed by a Board of Directors meeting the following day.

Through the strategy session, decisions were made to assure the continued growth of the organization. Some short and mid length goals were set, and included, but were not limited to the following:

The restructuring of "portfolios" into committees, and the decision to garner the involvement of interested members as well as members of the Board of Directors on working subcommittees.

The goal to outline each committee's purpose formally and in writing. In order to provide all committee members with clear and concise objectives.

The intent to form a conference taskforce which would include participation from all segments of the OGSA membership associates, assistants, and superintendents. This group would review the current



Ray Richards from Mad River Golf Club is presented with the George Darou Trophy at the 66th Alex McClumpha Memorial Tournament. Ray won with a score of 89.

conference structure and recommend changes to benefit both the OGSA, the delegates and exhibitors.

The OGSA directors meeting also included some new initiatives for OGSA, most notably to offer a benefit plan to members including health, medical, dental and long-term disability through Morneau Sheppell.

The board also approved a comprehensive review and re-write of the OGSA by-laws, which over the years have become difficult to interpret and, at times, repetitive. Changes were also required to the by-laws to make them non gender specific, to allow for current practices such as electronic communications and online meetings, and included a cleanup of old language. combination of the Secretary position with Treasurer, and compliance with OGSA letters patent which state there should in fact be 11 Directors on the OGSA Board. A lawyer has been consulted with regard to some of the more intricate clauses.

All by-law changes will be posted on the OGSA website for members to review prior to seeking their adoption at the upcoming AGM in accordance with constitutional requirements.



OTRF Tournament Raises \$27,000 for Turgrass Research

PlubLink's Greystone Golf Club was the venue for the Ontario Turfgrass Research Foundation's annual golf tournament, with over \$27,000 raised for turfgrass research.

In addition, the Golf Association of Ontario generously presented a \$45,000 donation on behalf of their membership.

Host Superintendent Adam Trenton had the course in impeccable condition, in spite of some heavy rains. The tournament Low Gross winner was Trevor Parkes (Turf Canada) and the Low Net winner was Vesko Gueorguiev (Royal Ontario Golf Club). The success of the tournament, in addition to the full field of players,



L-R: Grant Murphy, National Golf Club of Canada, Deni Terenzio, Hawk Ridge Golf Club, Adam Schuller, New Course Construction, Jay Honeyball, OslerBrook Golf Club

is due to the remarkable contribution from sponsors. Platinum sponsors were Turf Care Products and Green Horizons Group of Farms.

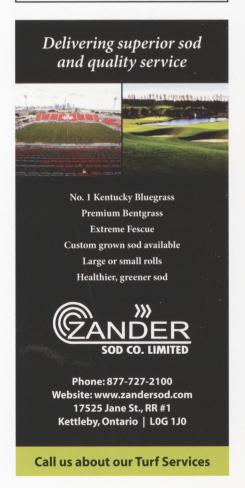
Assistant's Tournament Recap

n September 26th, the annual Assistants Tournament was held at Pheasant Run Golf Club in Sharon. Ontario. We could not have asked for a better fall day, with mid-twenty degree temperatures and sunshine. The course conditions were terrific, so a big thank you goes out to Superintendent Andrew Hardy and his maintenance staff.

There was a three-way tie for first place at 14 under par after 18 holes, so a putting contest was required to determine the winner. In the end, the team from Riverbend Golf Club retained the title.

The big winners were Roberston, Midland Golf and Country Club who won the Turf Canada Vegas Golf Experience Trip and Alan Dolick, Dundas Valley Golf and Country Club who won a trip to FarmLinks in Alabama donated by Agrium Advanced Technologies. This event could not have happened without our sponsors so we extend a big thank you to them. Platinum Sponsor: Agrium Advanced Technologies; Gold Sponsor: Turf Care; Silver Sponsors: G.C. Duke Equipment Ltd., Bayer Environmental Science, Nutrite, Ontario Company, Envirosol and AllTurf.





Summer Scramble

by Sally Ross, OGSA Executive Manager

The second annual OGSA Summer Scramble was held August 30, 2011 at Springfield Golf and Country Club in Guelph with host superintendent Ray Dlugokecki. The weather was picture perfect: warm, breezy with no humidity. A welcome change from the dog days of summer.

Touted by many to be "the most fun tournament the OGSA holds", the Summer Scramble is a friendly competition. The wide range of golfing skills and diversity of attendees contributes to its success.

The Summer Scramble is a great way to reward assistants and technicians after an arduous summer and it was obvious a number of clubs did just that. The faculty at the GTI thanked their summer students with a day of golf out at Springfield. Special thanks goes to Ray Dlugokecki, Frank Lizzotti, General Manager, Jonathon Forbes, CPGA Pro and all the staff at Springfield for a terrific day!

OGSA members and guests also gave back. Golfer's Green ran a hole in one and closest to the pin challenge. \$1,232.00 was raised for the Children's Cancer Foundation.

Flight A winning team, with a 15 under par was Jamie Spencer, Scott Gardner, Mark Trudell and Graeme Calder. Flight B winning team was father-son combo Scott and Paul White, with Dan McAllister and Paul Halk with a 10 under par.

Rhod Trainer took the Golfers Green closest to the pin prize, and Justin Parsons took the closest to the pin prize donated by Jonathon Forbes, Club Pro. The raffle for a suite at Blue Mountain to attend the Alex McClumpha Memorial Golf Tournament on October 3, 2011 was won by Doug Davidson from Glencairn Golf Club. Winners for the Longest Drive team prize for flight A were Paul Scenna, Bill Fach, Ken Wright and Rob Ackermann and for flight B, OGSA's past Executive Manager Dorothy Hills, with Katerina Serlemitsos Jordan, Rob Gatto and Jeff Alexander took the prize.

Prize donations were gratefully received from Frank Lizzotti, from Springfield, Graeme Calder from Plant Products, Mike Kehoe from Nutrite and Darren Schuett from Skyway Lawn Equipment.



Chris Andrejicka's group tee off at the Golfers Green hole in support of the Children's Cancer Foundation.



Chris Andrejicka, left, presents plaque to Ray (Duke) Dlugokecki, Host Superintendent

The MC for the event was John McLinden, Ladies Golf Club of Toronto and he thanked everyone for their participation.

No matter what your skill level, the Summer Scramble is one of the best ways to wrap up the summer.

Deer Creek Wins Slo-Pitch Tournament

The annual Plant Products slopitch tournament was held on August 20, 2011 at Turner Park in Hamilton.

Twenty-six teams started the day with a chance at the title. After the round robin, and several playoff rounds, the final four matchups pitted Deer Creek versus Rattlesnake, and Diamond Back versus Glen Eagle. Deer Creek beat Rattlesnake, and Diamond Back edged out Glen Eagle in a close game to set up a



Winning team Deer Creek.

rematch of last year's final. Under

the lights, the Deer Creek offense was sparked by an early grand slam from Brogan, and they continued to roll throughout the game. Deer Creek won the championship game 13-3, avenging their second place finish last year.

Golf carts for the day were donated by G.C. Duke and Hornby Glen transported them. Tournament sponsors were: BASF, MANA, Bayer Environmental Science, Lebanon, Aquatrols and Par Aide.

Green Supporting Green

by Dr. Brenda Nailor, OTRF Director

66 1 9, 12, 15, 23"... do you hear That? It's the sound of a researcher counting larvae in a turf test plot. Local research is important to address issues encountered by all Ontario turf managers. The Ontario Research Foundation Turfgrass (OTRF) funds projects addressing nutrient and water management, emerging pests, pest control, turfgrass species and cultivar evaluations.

OTRF needs your help!

Input is needed from superintendents and industry associates to assess the priorities for the turfgrass research OTRF funds. On January 25, 2012 at 10 am, the OTRF Turfgrass Research Priority Setting Workshop will be held at the Guelph Turfgrass Institute. Attendance is a must to be part of the team to set a course for turfgrass research in Ontario for the next five years. This interactive workshop is an opportunity for turfgrass stakeholders, researchers and related industry participants to develop turf research recommendations relevant to present environmental and regulatory conditions. The resulting prioritized research recommendations will be forwarded to interested researchers for future turfgrass research funding. The OTRF, in conjunction with other turfgrass funding agencies, strive to ensure that industry's turfgrass concerns are met by providing funding to turfgrass research projects identified as research priorities.

How are the funds generated for the Research Foundation?

Hopefully you've heard about, or played in, the Annual OTRF Golf Tournament. Entry fees and generous contributions by turfgrass industry suppliers make up a large part of the funding. People and companies also donate funds

through personal memberships and sponsorships. Finally, the Ontario Golf Superintendents Association (OGSA) is one of the organizations that recognize the value of turfgrass research by making an annual contribution from their membership. The contribution from the OGSA can make the difference in funding an extra project a year.

The money from the OGSA is generated from proceeds of membership dues and attendance at the annual Ontario Golf Course Management Conference Trade Show. When you attend the conference you directly support turfgrass research relevant to Ontario golf courses. And, the research creates new technologies or techniques to be adopted by the golf industry. For counting leatherjacket example, larvae may lead to a biological control of this invasive pest. As an added bonus, the research dollars support students that will mature into professionals in the industry, bringing expertise for years to come.

How can you help?

- Attend the OGCM Conference & Trade Show on January 18-20, 2012
- Attend the turfgrass research priority setting workshop on January 25, 2012 and voice the concerns and challenges of golf course turfgrass management
- Play in the annual OTRF golf tournament
- Become a member of the OTRF for \$75 (or more if you are feeling generous)
- · Make a donation and get a tax receipt
- Volunteer for the Board of Directors of the OTRF

Contact the OTRF office for more details at d.conrad@otrf.ca or 519-824-4120 ext 56149 or check out the OTRF website at www.otrf.ca



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Driver Safety – Handheld Electronic Devices

7ith changes to the Highway Traffic Act in Ontario, employers should be urging their employee drivers to prevent tragedy on our roads by putting safety first and avoiding all driver distractions.

Employers have an obligation to remind all drivers that although they can't control weather or road conditions, what they can control is their own safe driving habits. This includes taking more responsibility by utilizing safe driving techniques and being cognizant of the many driving hazards.

The Ontario Road Safety Annual Report (ORSAR) for 2005 identified that there were over 71,800 persons injured in collisions and 230,258 reportable collisions on Ontario roadways that resulted in 766 fatalities. Motor vehicle incidents are one of the leading causes of work related fatalities and are on the rise. These tragedies can be prevented by avoiding driver distractions such as inappropriate use of electronic devices while driving.

To address the issue of the growing number of driver distractions, including the increased use of electronic devices, the province of Ontario changed the Highway Traffic Act making it an offence to drive while using handheld electronic devices in motor vehicles.

In September, the Ontario Provincial Police blitzed the province for distracted driving and I expect that the results of this blitz will determine future enforcement action.

This danger was put high on my agenda last week when a young driver who was texting while stopped at a traffic light accelerated and crashed into the back of my vehicle. Yes, he was stopped. He glanced up at the green light and accelerated. What he failed to see was that no one in front of him had moved. Fortunately, there were no injuries, but the damage was extensive. It certainly reinforced the need to always be aware of the traffic conditions. Even when stopped at a traffic light.

There is no longer any debate on cell phone use in vehicles. As a result, employers now have an obligation to ensure their safety programs include procedures for workers and owners to control their use of handheld electronic devices. It is strongly recommended employers ensure all drivers be aware of the hazards associated with distracting devices.

Employers must evaluate their current practices

and create and enforce written guidelines addressing employee use of electronic devices while driving. They must also provide proactive training of employees about appropriate operation of electronic devices and improve driver education. These are significant components in securing safety on the roadways by addressing the hazards of using cell phones or other electronic devices while driving. Driver education should include training about eliminating or, at least, minimizing driver distractions and to show the horrendous impact a slight distraction can have when a crash occurs. Employers must reinforce the effects that death or sustaining a lifelong injury, including brain damage, may have on the families of the victims, the employer, and the community at large.

Many employers I have talked to believe that since the law states the use of handheld electronic devices is prohibited, they, as the employer, don't need to do anything since they believe the worker will be held accountable by the courts. What employers forget is that when a worker is at work and operating a motor vehicle for the organization, they are the organizations responsibility. As a result, the organization may be liable for any incident they have, even in their own vehicle.

If injury or death occurs, this responsibility will be tested in the courts and employers will be required to show they have a program in place and the affected workers were trained. Employers will also need to prove that the policy was enforced. This all starts with well-developed policies and procedures that are clearly communicated.

With winter coming on, safe driving habits become even more important. So take the time now to evaluate your vehicle operator policies and set the standards before an incident occurs.

If you need assistance, please give me a call. This season is almost over, now is a good time to prepare for next year.

Have a safe autumn. Take care and drive safely. ■



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Getting Your Turf Through Winter

Tow your turf survives winter is influenced by a very 1 complicated suite of factors that include turfgrass species, cultural practices, micro-climate or microenvironment and weather. There are many forms of winter injury and there was a review of these in the Spring 2010 issue of Green is Beautiful. In this current edition, Katerina Jordan has written in depth about the role thatch plays in overwintering of turf and how to successfully control thatch. In this article, I will focus on the other management practices and add a few tidbits about the weather so far and its' possible impact on turf survival this winter.

The goal going into the winter is to maximize cold temperature hardiness. Plants develop cold hardiness by storing carbohydrates (sugars) that they make during photosynthesis. These sugars are stored in cells of the crowns and roots of turfgrass plants. The turfgrass plant uses these sugars as an energy source to get through the winter. The plants ability to make lots of sugars is affected by the amount of leaf area, the amount of fertilizer and the amount of sunlight. You can help your turf produce the maximum amount of carbohydrates by raising mowing heights during late summer through the fall. The analogy here is that you are building a bigger factory for the turfgrass plant so that it can produce more product - sugars. Another factor that affects the amount of sugars that a plant produces is the fertility status of the plant. The greener it is, the more chlorophyll it has. It is the chlorophyll in the plant that allows it to absorb sunlight and combine carbon dioxide with water to produce sugars (remember Grade 9 biology). Nitrogen produces greener turf, so more nitrogen means more photosynthesis, which means more sugars. Increasing the amount of sunlight that turfgrass receives by reducing shade also increases sugars, which in turn increase winter hardiness.

There have been debates around the practice of late fall fertilization over the past five years within the turfgrass research community. My take on it is that the recommendations from the mid-to-late seventies do not reflect what we now know about nitrogen leaching, so the rates have been lowered. Recent research results recommend roughly .25kg/100m2, which reflects the maximum amount of water soluble nitrogen that a plant can take up before leaching occurs. There is also new information about the timing. For turfgrass plants to take up nitrogen from the soil there needs to be water moving into the plants through the roots. For this to happen, the turfgrass plants need to be transpiring, so there needs to be a measurable ET for this to occur. The timing probably needs to be mid-late October.

This is a bit earlier than previous recommendations.

The last recommendation to do with insuring the maximum amount of winter hardiness is to maximize the amount of light that turf receives. This can be done by pruning deciduous trees and removing evergreens to allow for maximum light penetration. Increased sunlight also results in lower tissue moisture and increased cell wall thickness in turf, both of which contribute to increased winter hardiness.

The turfgrass species on your greens is very important too. Annual bluegrass is genetically inferior to creeping bentgrass when it comes to winter hardiness. A fully hardened annual bluegrass plant will survive in temperatures of -20°C, where a fully hardened creeping bentgrass plant will survive in temperatures as low as -40°C. During the winter or in early spring, a rise to 8°C for 48 hours is enough to de-harden annual bluegrass making it susceptible to winter injury.

The micro-environment that allows for standing water on a green during the winter or spring will reduce the chances of the turf surviving the winter. This can be controlled by modifying the rootzone mix, alleviating compaction through aggressive aeration with a Verti-Drain or some type of solid tine deep aerator. Increasing surface drainage is very important, but it requires a major renovation to accomplish this. Something to keep in mind if you have greens that sustain winter injury year after year.

What role does weather play in the development of cold hardiness? Well, quite a bit actually. For turfgrass plants to maintain maximum winter hardiness they need to be exposed to freezing temperatures in the late fall. The amount of rain also impacts winter hardiness. Plants that are a bit drought stressed going into the winter have more winter hardiness than plants that have received too much moisture. So far in Ontario, we have had very few hard frosts and we have had lots of rain. So, the weather to date is not helping to contribute to maximum winter hardiness of turfgrass plants. Let's keep our fingers crossed that the rain will stop and we will have some frosty days to help the turf harden off to have its best shot at surviving yet another Ontario winter.



Pamela Charbonneau OMAFRA Turfgrass Specialist The Guelph Turfgrass Institute Guelph, Ontario Email: pamela.charbonneau@ontario.ca

John Bontje

by Alan Dolick, Assistant Superintendent Dundas Valley Golf & Curling Club

Cometimes a calling in life finds You long after you went looking for it. This is true for John Bontje, Superintendent at Thunder Highlands in Cedar Point, Ontario. Bontje never would have thought in his early years that he would end up a golf course superintendent. Born in Woodbridge, Bontje figured he would work in the farming industry in some capacity. Up until the time he was in his midthirties, that is exactly what he did. For years Bontje worked as a salesman in the livestock industry until he realized it was time to make a change.

That's when Bontje decided he



John Bontje with his dog, Gilmore.

could intertwine his love for golf with his passion for the outdoors into a wonderful career in the turf industry. Since Bontje had already attended the University of Guelph, and had received a Bachelor of Science in Agriculture, he was able to complete the one year turf program and get his new career off the ground very quickly.

After completing his year at Guelph, he started working at the Board of Trade Golf and Country Club near his home in Woodbridge. Over the next three years he would jump around quite a bit. He left Board of Trade GCC for the assistant's position at the Oshawa Golf and Curling Club. He then became the superintendent at



Circled Pine Golf Club in Borden.

It was at Circled Pine where Bontje knew that he would much rather be out of the busy GTA and in the slower paced Georgian Bay area. "When I was growing up, Woodbridge was much smaller and quieter than it is now, and that's the way I liked it".

After spending two years as the superintendent at Circled Pine, John moved to the beautiful Shelburne Golf and Country Club. It was here, after being in the industry for about 5 years, Bontie finally took up some roots. He married his wife, Mary, now of 16 years and has two teenage boys, Jackson and Kevin. It was during his time at Shelburne GCC that John decided to get involved with the Georgian Bay Superintendent's Association where he served nearly 10 years on the board of directors before holding his current position as the association's president.

Bontje would spend 11 years at Shelburne before taking his current job at Thunder Highlands outside of Midland. It was here that John stumbled upon his dream job. In many ways Thunder Highlands is a truly unique and wonderful place. It is a five hole private facility that has no clubhouse or beverage cart, just Bontje, his two staff and plenty of dogs. Bontje is able to bring his puppy to work every day, which isn't unique in our profession, but what is, is the fact that members are able to bring their pets with them during their rounds of golf.

"Each hole is named after one of the owner's dogs and the ownership encourages the members to bring theirs along and enjoy the property".

But dogs are not the only creatures that occupy the property. Bontje recalled once he was at home on a Saturday afternoon and received a call from a frantic member, "there's a bear cub in the ditch on the fourth hole,

what should we do?!" exclaimed the distraught member. Bontie's advice was simple, "keep playing". This story perfectly illustrates his wonderfully relaxed approach to life.

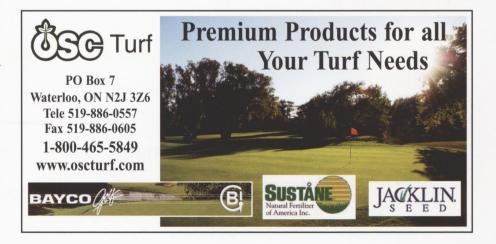
"Treat people the way you want to be treated," he offers as advice. It is this motto and his relaxed outlook

that has carried John through his life and now into his successful career in the turf business. In the 20 years he has been in the industry, John Bontje has shown that with a great attitude, a friendly demeanour and positive outlook on life, anyone can find their own slice of personal paradise.

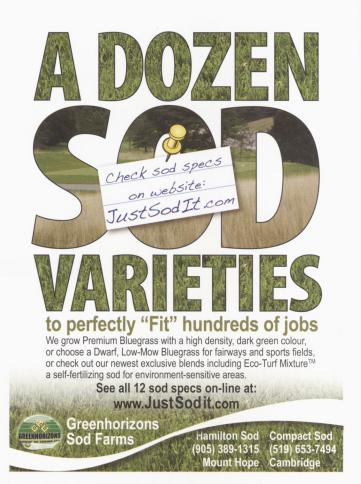
IN THE HOT SEAT

- Q Favourite major
- A The US Open
- Q Favourite piece of turf equipment
- A Lightweight fairway mower
- Q Favourite golf designer
- A Doug Carrick
- Q Ultimate foursome
- A Lee Trevino, John Daly, and my brother
- O Lowest round and where
- A 1 under par at Circled Pine GC
- Q This year's Stanley Cup pick?
- A Habs!

- Q Favourite movie
- A Bull Durham
- Q Favourite meal
- A Prime Rib
- Q What's in your CD player right now?
- A I have never bought a CD in my entire life
- Q Rate your home lawn on a scale of one to ten (1 worst, 10 best)
- A Seven
- Q What would you envision yourself doing if you weren't working in the turf industry?
- A Salesman







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shallard@oshawagolf.com www.oshawagolf.com

Golf Course Superintendent: Steve Hallard

Assistant Superintendent: Matt Booth

Equipment Manager: Chad Smith

Horticulturalist: Lynn Anderson

Photo credit: Courtesy Oshawa Golf & Country Club, Hole #1

COURSE PROFILE

About the Course

This century old layout with its thousands of mature trees and well manicured fairways and greens is 'the hidden gem of Durham Region'.

Established: 1906

Original Architect: George Cumming

Type of Club: Private

Size of Membership: 455 Full, 150 Junior

Number of Holes: 18

Number of Rounds Annually: 36,000

Practice Facility: Full driving and chipping range

Biggest Course Challenges

The high number of rounds annually on a small property make it difficult to distribute traffic and also the miserable bunkers.

A CLOSER LOOK

What You Need to Know

Predominant Grass Type: Poa/Bent

Predominant Soil Type: Clay/Silt

Type of Greens: 1 USGA, 1 California, 16 Push-up

Recent or upcoming construction:

Completed were five bridge crossings over six years, new driving range and chipping area and new maintenance shop. Over the next five years, renovation plans include a full bunker renovation, compliance requirements for PTTW and a new irrigation system.

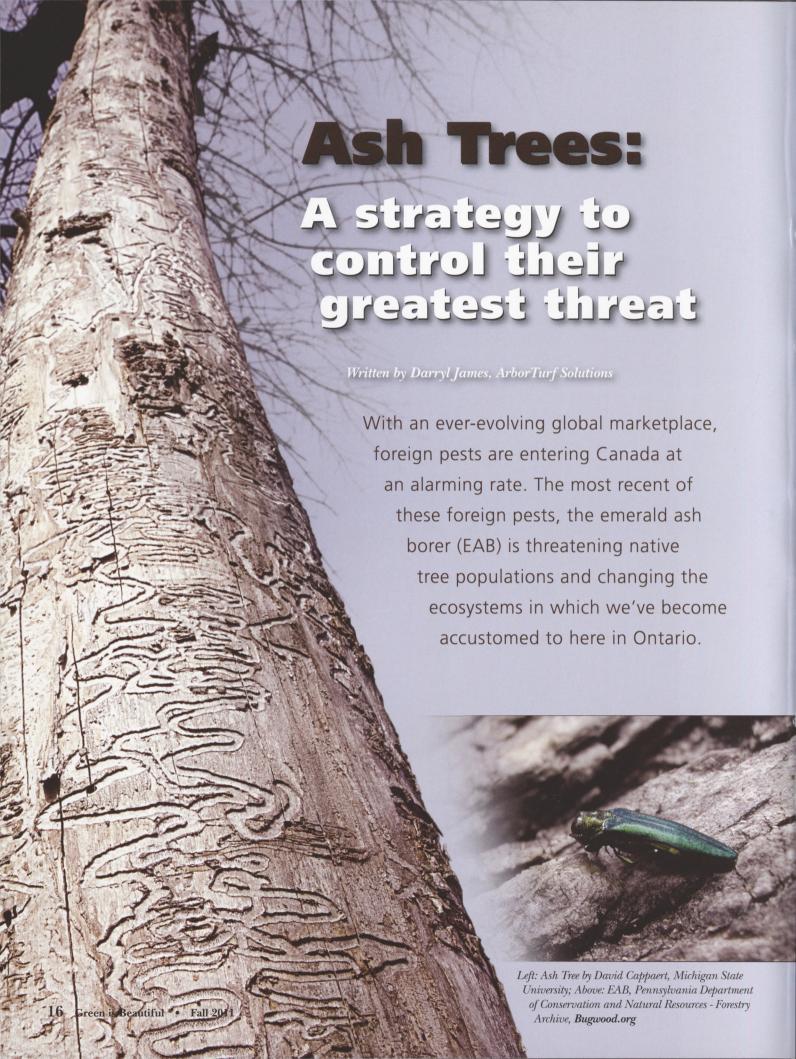
Course Lenght: 4,954-6,596 yards

Size of Property: 145 acres

Size of Greens: 2.5 acres

Size of Tees: 2.2 acres

Size of Fairways: 29 acres



Although this issue has not received a great deal of attention, it is important for our industry to be aware of this pest and the damage it can cause. Before we look at what can be done, it is important to understand the history of the EAB and its life cycle.

This pest was first found in North America in June 2002, in southeast Michigan. Not long after, it was determined the beetle was also present in Windsor, Ontario. It is believed that the EAB first arrived through improperly treated wooden packaging material from Asia. Since then, it has likely been spread through firewood and logging operations. Although several bans and quarantines on the movement of ash materials are now in place in parts of Ontario and Michigan, its development to other areas is progressing. In 2002, EAB was spotted in six Michigan counties. Now, populations have been seen in at least 40 counties. EAB has also been seen in parts of Indiana, Ohio and Maryland and appears to be moving east through Ontario.

Adults are metallic green in colour and about 8.5 mm to 13.5 mm in length, with a long, slender shape.

They lay eggs on and in the bark crevices from late May into July, with egg hatch occurring three weeks later. There are four instar stages, all of which feed on the phloem, cambium layer and sapwood (new wood) of the tree. They tend to bore further into the tree as they mature, cutting off the transport of nutrients and water. This larval tunneling eventually leads to dieback of the tree from the top down.

Larvae stop feeding in the fall and overwinter in the tree. Pupation occurs the following spring, with adult emergence starting mid-May. Mating occurs 7-10 days after emergence with females producing an average of 70 eggs.

Although many feel as though it may not be an issue in their area yet, it is important to recognize that tree mortality may not occur until several years into the infestation. It is difficult to spot damage in the first year, but there are several signs there may be an issue. Exit holes in the bark, prolific production of seeds, epicormic shoots, cracks in the bark, as well as vertical tunnels under the bark are all symptoms. You may notice an increase in woodpecker populations as well as they enjoy

feeding on the larvae.

Despite increased awareness and control efforts, this pest continues to spread and has now become a concern for golf course superintendents with ash trees on their property. Since many golf courses planted ash trees following the demise of the American Elm tree from Dutch elm disease in the late 1960's, these trees can comprise up to twenty five per cent of tree populations on most established golf courses.

Some studies have estimated that within the next five to ten years, all ash trees will be dead in Southern Ontario. Although the extent of the damage in Ontario remains to be seen, there is no doubting the severity of this foreign pest. The spread of the Emerald Ash Borer across our province could be potentially devastating to the aesthetics and playability of many golf courses.

At Markland Wood Golf Club, where ash trees represent approximately fifteen per cent of the tree population, Golf Course Superintendent Owen Russell, myself, and other members of his crew set out to manage their Ash tree population.

continued on page 18...





This page, left: To create a visual of the potential impact an EAB infestation would have on the property, Ash trees were marked with orange tape during the inventory phase. Right: Each Ash tree which had been treated was marked with Yellow tape. Photos by Darryl James



TreeAzin is applied using the Ecojet system. Photos by Darryl James

At the time of treatment, the only pesticide registered in Ontario for the preventative and curative control of EAB was TreeAzin. This product is derived from the seed of the Neem tree (Azadiracta indica) and has been used to control multiple species of insects for centuries. TreeAzin is distributed by Bioforest Technologies, and is injected into trees with the use of their Ecojet system. Markland Wood Golf Club purchased the unit to be able to inject their own trees and provide a financial benefit when further treatments are warranted

In the winter of 2011, Owen and I began to determine the data we wanted to incorporate in the tree inventory. Some of the information we collected included: number of trees, tree species, diameter at breast height (DBH), location, municipality (the golf club is partly located in Toronto, and Mississauga), foliar condition, structural condition, ash treatment date, debris, and pruning history. A priority was also placed on collecting data on the total number of ash trees and their diameters at breast height (DBH) before finishing the entire inventory. We could then accurately forecast the budget requirements based on how many trees the membership chose to treat.

After the attributes were planned, I started conducting the tree inventory in the spring of 2011. While counting trees on the front 9, there was a specific focus on collecting all the

information pertaining to ash trees throughout the entire golf course. Once the information was collected for an ash tree, Owen suggested we use orange marking tape on each ash tree to show the membership how many ash trees existed throughout the golf course. This was a fantastic idea since it provided the membership with a visual of the potential impact to the property if all these trees were infested with EAB and eventually cut down. With that said, this marking was done in co-ordination with intense membership communication weeks prior, so that each and every member didn't think we were going to cut every tree down on the property.

Once all the ash trees were counted and tagged, it was discussed what trees the membership would like to treat. With all the tree information already collected, it was very easy to forecast the exact cost in material to treat a specific number of trees.

Ash trees that provided important barriers from neighbouring properties and golf holes, along with strategic trees in terms of impacting playability were given priority for treatment. All this was done with an ultimate timeline of completion by mid-May to mid-June because that is when the adult beetle emerges from the tree and begins to feed on the leaves. This provides the best control due to the longevity of the pesticide in the tree, along with the products ability to impact two stages of the EAB's development.

First, the adult feeds on the leaves, thus ingesting the pesticide, which inevitably decreases their egg laying viability. Secondly, the few larvae that do survive egg hatch feed on the cambial tissue, ingest the pesticide and then die.

The rate of the product depends on the populations and pressure in your area. Low rate is 2 mL and high rate is 5 mL per centimeter diameter of tree at breast height. With the cost of Treazin at approximately \$700 per litre, a mid sized Ash tree would cost approximately \$100-200 in product only.

The biggest downfall with the injection process is how the weather will impact the speed in which the trees will uptake the chemical. On a warm, breezy day with a relatively higher ET rate, an Ash tree will take up the chemical in a matter of minutes. On the other hand, a cloudy day could result in the chemical being taken up in over an hour or longer.

When these trees were treated, they were then tagged with a yellow marking tape to identify that the treatment was done. This allowed the membership to provide recommendations of other ash trees they thought should be treated.

To date, there has been no evidence of EAB located at Markland Wood Golf Club. We are continually monitoring for their presence and our goal is to be proactive in the removal of infected ash trees. This puts less pressure on the treated Ash trees and their survival rate will be increased.

Emerald Ash Borer is a major threat to all ash species throughout Ontario. The potential loss of many valuable trees on each and every golf course in Ontario will drastically impact the playability and aesthetics of many Clubs. Remember that the easiest way for these insects to relocate to new areas is through the movement of firewood. Do your part by not giving away any ash firewood to members and burn and chip any ash on site to help manage EAB populations. Effective management of the insect is crucial and will hopefully preserve a native species from a foreign pest.

Thatch and Winter Hardiness -More Related than You Might Think

s the 2011 season is drawing to a close, many of you are Apreparing or have already prepared your turf for the winter ahead. Winter preparation is such an important part of turfgrass maintenance here in Canada and can mean the difference between a good season and a really bad one come spring and summer. Pam Charbonneau of OMAFRA does a great job of putting together tips and ideas for winter preparation so I will not get into methods in this article. Instead I will discuss one of the factors that can affect how well your turf survives a harsh winter, as well as how quickly it is able to green up in the spring; your thatch levels. I am confident that everyone reading this article is well aware of the negative issues that can arise from an excessive thatch layer, yet I would argue that many of you may not deem it important enough to fix the problem - especially at the risk of reducing the turf quality and playability even for only a week or so. The purpose of this article is to discuss excess thatch within the context of how it affects winter hardiness as well as to go over some remediation methods based on results from a four-year study that we have just completed at the Guelph Turfgrass Institute (GTI).

Excess thatch and mat (organic matter intermingled with soil) can reduce winter hardiness in a number of ways. First and foremost, soil protects the crown and roots of the plant from extreme temperature shifts such that rapid freezing events in the fall are less likely to harm a plant surrounded by soil. Thatch and organic matter have much larger pore spaces than soil alone and therefore are less likely to buffer extremes in temperatures, making the plant more vulnerable to sudden shifts such as freeze events. This is especially important in the fall, if rapid decreases in temperature occur before the plant has had a chance to harden off. It is also important in the spring, when freezethaw events are most likely to occur and a buffered plant is going to be more protected than one anchored by thatch.

Another issue that can arise from having excess thatch layers is the development of a shallow root system. Because the pore spaces in thatch layers are quite large, the roots are able to grow more easily within that layer and often will not penetrate the soil layers below. This is primarily an issue in the summer months, especially in uncharacteristically warm years like 2010 and this past season, as a shallow root system does not allow for access to moisture deep in the soil profile.

... continued on page 20

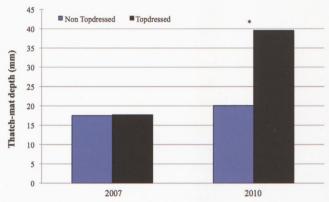


Figure 1. Effect of weekly topdressing application on thatch-mat depth from the start of the study (2007) toward the end (2010). *Denotes a significant difference between treatments

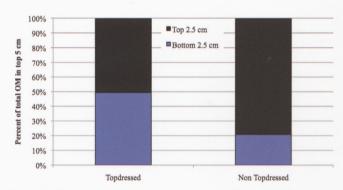


Figure 2. Proportion of organic matter in the top 2.5 cm vs. the bottom 2.5 cm between plots that had weekly topdressing applied and those that had none.



Figure 3. Effect of weekly topdressing application on thatch-mat layer over time. Plot 403 had topdressing applied while 404 did not.

However, a shallow root system also reduces winter hardiness as roots are less buffered (as mentioned above) and less able to access available water in the spring to allow for rapid recovery from winter damage.

Finally, excess thatch is often associated with compacted soil beneath that layer and this can lead to reduced water infiltration and reduced root penetration in the soil. Pooling water in the fall can lead to more ice sheet formation and the slew of issues that can surround that scenario. However, it is even more of an issue in the spring, when snow and ice start to melt and reduced infiltration lead to pooling and problems with anoxia (lack of oxygen to the root system) and crown hydration injury.

Many of you have already put your turf to bed for the winter, but the tips outlined below will work for both winter prep as well as preparation for the upcoming season next spring and summer:

A study was conducted to determine the ideal combination of practices for thatch reduction on a mixed species golf course putting green. We examined the effects of core aeration at two different core diameters, vertical mowing at various depths, solid tine aeration and combinations of the above all with and without weekly topdressing application on reduction of thatch depth over a four-year period.

Results indicated that none of the treatments applied reduced the depth of the thatch layer significantly when compared with the control plots (where no treatments were applied). However, when percent organic matter (OM) was calculated, it was determined that both large hollow tine aeration (1.59 cm diameter at 5cm x 5cm spacing in the spring and fall) as well as a combination of core aeration in the fall and vertical mowing in the spring (2 cm depth) reduced organic matter in the top 5 cm and subsequently increased infiltration rates significantly. Results also indicated that although weekly topdressing led to a significant increase in thatch/mat depth, this practice diluted the percent OM of the mat layer, especially in the top 2.5 cm of the rootzone (Fig. 1-3). Additionally, over time, topdressing significantly improved infiltration rates (Fig. 4) and as mentioned above, this can reduce the potential for ice sheet formation and winter injury in general.

The results of our study suggest that thatch reduction is best achieved with a combination of large-tine core aeration, vertical mowing and weekly topdressing during the growing season. Although turf quality and playability (measured by ball roll distance) were adversely affected by the two cultivation practices recommended (data not shown), these effects were short-lived, lasting only 10-14

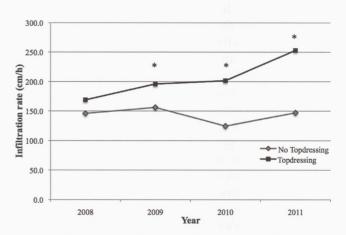


Figure 4. Effect of weekly topdressing application on infiltration rate over time. * Denotes a significant difference between treatments.

days. In addition, both practices were conducted in the shoulder seasons when play would be reduced relative to the summer months. Also, during the spring and fall, the turf would normally be growing well and able to recover quickly from any damage the cultivation would cause. Annual implementation of these practices should ensure a healthy stand of turf, both during the growing season as well as heading into the winter months, allowing for greater winter hardiness and more rapid spring green-up. For more information on winter preparation, please see Pam Charbonneau's article in this issue as well.

Hopefully this article helped to illustrate some of the problems surrounding excess thatch that we don't normally think of, especially related to winter injury. In addition, I hope that the results of our study will help with the development of your cultivation programs and implementing practices to reduce some of that thatch and mat layer, improve infiltration, and improve the health of your turf in general.

Acknowledgements: Special thanks to the Ontario Turfgrass Research Foundation, the Quebec Turfgrass Research Foundation and OMAFRA for funding of this project. Also thanks to the research team of Dr. Eric Lyons, Pam Charbonneau, Alex J. Porter and Dr. Ken Carey for intellectual input, technical assistance and statistical analysis.



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ABOVE THE HOLE

s the summer heat subsides and the leaves begin to Afall, so brings the return of weary turf students from their internships to the classroom. Although I was enjoying my season spent in Norton, Massachusetts working at TPC Boston, I had secretly been anticipating my return to school to get back into the grind, and I wasn't alone. After kicking back with my classmates and recapping our summer experiences, we all agreed this coming school year would be the meat and potatoes of our skill set development. The curriculum in second year begins to focus on turf diseases, insect pests, business administration, management philosophy and human resources. We are now nine weeks deep into our semester and I can't tell you how impressed I am with everyone's commitment to learn and devotion to achieve their best. Attendance levels are way up (faculty opinions may vary) and it seems everyone has something to offer when we move into class discussions on topics from IPM to budget management to changing industry paradigms.

This year I am fortunate enough to live in a house with three other 'turfies' who share my passion for this profession. It seems like every waking moment we are debating and discussing different cultural practices, summer experiences, class information, and different articles that we encounter in trade journals or turf magazines. We have even linked ourselves into social networks like Twitter (@cshaw04; @kevinmoores; @speakeasy) and have begun following superintendent tweets from all over the world. I am very proud to be a part of our particular class because we all just seem to "get it". We work hard, we study hard (once again, faculty opinions may vary), we support each other and, most importantly, we have fun together. I think our class has raised the bar for expectation in terms of what it means to be a turf student in the Associate Diploma program at the University of Guelph.

This fall also saw the arrival of the new first year students in the ADTM program. They are a handsome bunch with a wealth of experience and a lot of promise. As tradition holds, they will be putting on the student-run Ontario Turfgrass Symposium this November 25th from 8:30 am-12:30 pm at Cutten Fields clubhouse in Guelph. More information is available from the website: www.guelphturf. com and all RSVP's can be directed by email to guelphturf@

For those who are interested, I have listed some industry events which the Guelph Turf Club will be attending this year. There are sponsorship opportunities still available, so if you or your company wish to help us achieve our goals please contact Aaron Hill (ahill06@uoguelph.ca) or myself (cshaw04@uoguelph.ca), as we are both managing the turf club account this year.

- 2012 Ontario Golf Course Management Conference & Trade Show - January 18-20, 2012. Scotia Bank Convention Centre, Niagara Falls
- Ontario Turfgrass Symposium February 22–23, 2012. Rozanski Hall, Guelph University
- The Experience at FarmLinks Sylacauga, Alabama
- GCSAA Industry Show and Turf Bowl February 27– March 2, 2012. This will be the second time Canada has ever competed in the Turf Bowl. We are hoping to arouse more interest and recognition in Canadian turf studies on an international level.

That's all for now. Wishing everyone a great season ending and a smooth winter close down.

Note: Our Turf Club meetings are usually held on Thursday from 7:00-9:00 pm in the Crop Science building on the University of Guelph campus. Everyone is welcome and if you feel you have a unique or interesting topic from which students could benefit, please feel free to contact Hilly or myself.



Cam Shaw, student and intern Turfgrass Management Program University of Guelph Guelph, Ontario Email: cshaw04@uoguelph.ca



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The School of Hard Knocks

by Chris Bouwers, Second Assistant Superintendent Credit Valley Golf and Country Club

s fall approaches and another season draws to a Aclose, I contemplate what I have learned since the completion of my education. Having acquired my diploma in Turfgrass Management from The Pennsylvania State University in 2008, and having spent my time since then as the second assistant at Credit Valley Golf and Country Club, I realize I have grown immensely in both knowledge and understanding.

We all know that irrigation is a vital part of turf management. Auditing and frequent inspections of your irrigation system are very valuable practices for developing an efficient use of water on your course. Through auditing you will most likely find that ten minutes of water on one green is not the same as ten minutes on a different one. Frequent checks to make sure that not only all the heads are coming up, but that they are also turning is very important. Knowing when water is required as well as how much is needed is a skill very few people possess when coming out of school and starting work. Based on experience with hand watering, one tends to recognize when turf is under stress. However, using a soil probe is an incredibly valuable tool for identifying problems before they become visually apparent and more difficult to treat. Repairing irrigation is a difficult topic to cover in a classroom; on site learning and experience is a must. Fixing a leaking pipe or sprinkler head can be difficult as well as frustrating at times. Moreover, electrical issues can have you pulling out your hair and wondering where on your one hundred plus acres of property the problem might be. However, there are beneficial books on the topic that can aid knowledge

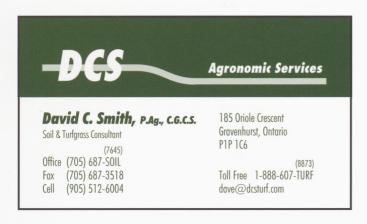
and will help develop or improve your skills.

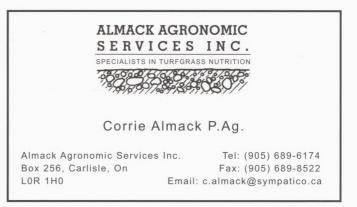
Cultural practices and the ability to perform them with very little disruption to the playing schedule can also be difficult. There are times when you will have two shotgun tournaments in one day, yet still need to perform certain practices in between or during the tournaments. Weather can play a major role as well, as stretches of rain, heat or humidity may affect when you need to spray.

Course construction and renovation projects are an excellent way to improve your knowledge of both turf management and the property. Taking pictures of utilities or irrigation and drainage being installed can be valuable information for the future as they provide a reference of the work that has been done. It is important that greens, tees, fairways and bunkers are constructed in accordance with recommended specifications and that the changes allow for ease of routine maintenance moving forward.

Staff management, consisting of hiring and daily interactions, is an aspect of the job that can be very challenging, yet very rewarding if approached and conducted in an appropriate manner. Although very little time is spent covering these situations in class, determining who is the best person to fill a position and getting the most out of staff members is a very key part of the job. Back when I was in school, a graphic was shown depicting all of the vital nutrients to plant health. Our professor stressed how the plant suffers if one nutrient is lacking, even if all of the rest of the nutrients are present in ample amounts. I feel as though this also applies to staff management. The health of the department will be limited by what is or isn't being put into it by all staff members.

Although school and my first four years have taught me plenty so far, I have no doubt I will be continuing to learn for the rest of my career on the golf course. \blacksquare





Sand Traps: The Nocturnal Guestbook

Tt's that time of year - shorter days and less time to Lomplete daylight tasks on the course. Often we will have more to contend with in these days of shortened light, including wildlife. It's fall, and we have already seen an

increase in Canada Goose populations across the province. Even on courses within city boundaries, the increase in goose traffic from rural areas due to hunting and less human traffic on their 'green' buffet tables. But what about other wildlife which take advantage of less daylight seasons. How do they adapt on our sites, and how do we manage their populations in order to keep a healthy balance?

Previously, I touched on assessments and how they are critical in an overall wildlife program. Tools used during an assessment can be used seasonally to determine the wildlife pressure a course will be exposed to and the possible direction for effective management. An effective, common sense approach is visual monitoring of activity. Last year, on a regularily serviced course located between Milton and Burlington, a raccoon situation arose. The raccoons were turning over sections of turf on a fairway, causing issues for golfers and the

turf department. In this instance, the question for the turf managers was how to deal with the problem. They knew they had hundreds of raccoons in the vast forested area on and around their course. To catch and release the few culprits digging for grubs would only invite more to come in and feast where the others left off or the others would simply return to continue the damage.

As a regular customer, we knew they had other wildlife activity on site, some predator, some competition for food source. One obvious factor in control was to remove the food source, grubs, as soon as possible. The other needed control was to remove the predation on the grubs by the raccoons and prevent skunks from moving in and taking claim to this area and other areas of course as well.

We assessed the wildlife activity by simply monitoring areas where signs of wildlife activity could be seen - the sand traps. An excellent source for monitoring wildlife, sand traps show wildlife activity by the tracks animals leave behind. In the spring and fall when the days are warm and

the nights are cold, the sand will warm up to the days sun and retain that heat into the evening, attracting all kinds of wildlife activity, both predator and prey.

This particular course is very diverse in wildlife activity.

We identified the coyote presence was very strong on certain areas of the course. We had to move them from their comfort zones to the areas where the racoons were feasting on turf. Over the course of a week, we pre-baited pork ribs on 4' stakes which were placed systematically along the edge of the green space towards the area of desired control. As predicted, the bait was taken each day. The week also allowed the application of grub killer to take effect on grubs, ultimately removing the food source. Upon the 5th night of control, we set up more bait stations in the area, in the event raccoons would also be attracted to pre-bait stations. To confirm our goal of attracting the predators, coyotes, to the prey, raccoons, we installed field cameras. The cameras showed that the coyotes were very much in the area. Now the monitoring of the damage would take place to see if the coyote presence moved the raccoons out. Observations showed both short-term and long-term results as

Tools used during an

assessment can be used

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and the possible direction

for effective management.

no further evidence of racoon activity was evident. More importantly, no further damage the entire year following.

The benefits of using this natural means of control, with an integrated approach:

- Allowed for successful results with no further turf damage
- Humane approach and results
- No time required for checking of trapping devices and disposal or relocation of trapped animals
- Most importantly, more time for turf staff to focus on other priorities that they do best.



Michael von Kaitz, C.Q.C.S. / C.G.M.P. Owner / National Consultant The Wildlife Management Group Inc., Burlington, ON Phone: 1-888-557-5855 www.wildlifeteam.ca

Soil Monitoring at Your Fingertips — **Irrigation Soil Sensor Systems**

Top playing conditions and strong healthy turf are a result of properly timed agronomic practices. With every course having many of its own unique microclimates that require separate water, fertility and cultural inputs to optimize turf health, this goal can be challenging to deliver on a day to day basis. Especially with ever-changing soil conditions due to fluctuations of weather.

A tool that would have the ability to collect and monitor course conditions quickly across the property would assist course managers to efficiently manage varied conditions and provide better control over growing and playing conditions. Toro and Rainbird have come to the plate to help deliver this level of precision course management with the introduction of their new soil sensor systems.

This technology provides crucial information about the course before it affects the health of the turf. Monitoring your courses hot spots can now be done without breaking a sweat. The data is collected and compiled into a user friendly and easy to view software system. With a click of a mouse, these systems are capable of measuring realtime data instantly across your property. Soil moisture, salinity and temperature readings at the root level are instantaneously delivered to your computer or handheld device for an instant snap shot of what is happening out on the course. You will have precise knowledge of how and when moisture is entering and exiting the soil to help you avoid many damaging conditions.

Turf professionals agree that the ability to accurately monitor the condition of the root zone allows them to more quickly and efficiently correct issues with irrigation, maintenance and soil management before symptoms appear on the grass. Some of the benefits include:

- Improved turf quality
- Disease prevention
- Ability to manage heat stress

- Reduce water usage
- Ability to manage salt conditions
- · Optimize timing of aerification and seeding

Areas that are too dry or too wet can be monitored and irrigation adjustments can be made accordingly. effectiveness of the previous night's irrigation can be clearly identified through reviewing the moisture graphs. You can detect exactly how deep the water penetrated the root zone.

Alarms can be set to reveal when certain soil temperature, moisture or salinity levels are reached.

You can also setup irrigation to water until a certain moisture level is reached by a specific sensor by tying it into your central control. To maximize irrigation effectiveness, the irrigation cycle will not terminate until a pre-determined moisture level is reached in the soil.

Soil salinity may be an issue at some courses. By using the salinity monitoring function, courses can identify when salt levels have reached a threshold where an irrigation flush is required.

Each system is easy to install and can be used as a standalone system or integrated with your irrigation central control. Once the system is installed, the level of precision will depend a lot on how many sensors are installed. A starter kit may include a handful of sensors. You could start off with some of your problem green locations and add more sensors in the future as budget and time permits.



Jim Flett, B.Sc. (Agronomy), AGS^{\otimes} Golf Course Superintendent Muskoka Lakes Golf & Country Club Phone: (705) 765-3165





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The Life and Times of a Salesman

few months back, my blackberry crashed and I was Aleft stranded without means of communication for a couple of days. Not a great situation to be in, especially when you're in sales. While I was talking to the head of our IT department, trying to fix my phone issues, I asked him, "How did people function before cell phones?" He quickly answered that they had pagers and had to pull off the road to look for a pay phone. I then wondered, 'what about before they had pagers?' This is where I got the inspiration for this column. I wondered how a salesman's job has changed over time and what role technology has played. With that, I called a sales veteran, Dave Dick, formerly technical sales representative for Scott's Pro Turf from 1977 to 2007.

Q: How did your job as a salesman change over the span of your career?

DD: The basic premise of sales hasn't really changed at all, but the way we do business certainly has. Sales is all about building relationships, delivering good products which fill customer's needs, and providing good service before and after a sale. That part hasn't changed, but technology has definitely changed how we do business. Expectations are much higher for everyone involved. In the old days for example, a rush quote or delivery meant that we absolutely had to have it in the customer's hands in 4-5 days. Not today. Customers can access you instantly and expect you to take care of their needs instantly.

Q: How exactly did technology change your job?

DD: Two things come to mind: increased access to information and definitely increased stress. When I first started, access to information was limited and today's technology was virtually non-existent (I saw my first calculator, believe it or not, in 1975 and was amazed at what it could do.) Superintendents used to rely more on sales reps for technical information. We passed along what we had seen and heard at other courses. The internet now provides tons of information to superintendents and the level of education has definitely gotten better. Secondly, the stress level has drastically increased. Sure having a cell phone enabled me to return a call ASAP which I couldn't do before. But today, when I see sales reps responding to emails, texting and dealing with problems while driving to their next call, it just seems so stressful. The younger people have grown up with the technology and it is all they know. But for myself, I remember what it used to be like and would definitely have trouble today. I used to look forward to the peaceful, quiet time driving between calls.

This was the time to gather my thoughts and to prepare for my next call. It's not like that today.

O: Wasn't communication with a customer harder without access to these new technologies?

DD: I used to have home phone numbers for all of my customers. If I couldn't reach them on their office line from the phone booth, I would call them at home to book appointments and to return their calls. Maybe by being a former superintendent I was able to build a rapport with my customers pretty quickly, but it was never a problem calling them at home. They knew if I didn't call them at night, at home, I might not be able to ever reach them. Cell phones definitely helped as auto traffic got worse to the point of facing constant gridlock; I was able to call a customer to tell him I was running late. The old days of looking for a phone booth and finding it occupied, or worse, finding one that was out of order, I was happy to have behind me. Fax machines, scanners and the computer were huge additions to respond to customers immediately. But I would do all of that in my office at home at night, not constantly during my entire working day and making calls as well! All the new technology was certainly useful, but customer expectations have become so high. To be honest, I'm happy I didn't have all of these technologies throughout my entire career. I would have gotten an ulcer.

O: In what other ways have you seen the golf industry change?

DD: Protecting the environment. But that is definitely a good thing. There wasn't much thought put into spot treating in the past. What was IPM back then? If one had an issue on his golf course, he would spray "wall to wall". Clearly, today's practices are better for the environment and I have to say that superintendents have done an excellent job in changing their ways.

DD: I'd like to take this opportunity to thank all my former customers. Because of them I had a successful career that would never have happened without their support, and I would not have changed a thing. They made it all worthwhile.



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Unique and Inspiring Challenges

Fall has arrived and with it brings mixed emotions. For me it is the joy of having Saturdays off once again, but also the melancholy of dismantling my favourite pot of the season to replace it with frost hardy mums and kale. This is also a great time of year to reflect on the season and celebrate our accomplishments. There has been a lot of talk this year about the landscaping difficulties caused by the cold wet spring and the dry July, but in the midst of this and other challenges, there have been many goals accomplished and, in some cases, our gardens have even surprised us. And that is what we are celebrating. We offer many thanks to everyone for their contributions.

SUNNINGDALE GOLF AND COUNTRY CLUB Gardener: Theresa Hachey

Tim Webb, our superintendant, wanted more bulbs, so I ordered LOTS of bulbs for 2011. When this planting of bulbs came up (pictured above), it was fabulous. I got so many compliments like, 'stunning', 'lovely', and 'outstanding'. After seeing this, people were inspired to plant bulbs. That is my purpose, 'to inspire'. I received a lot of inquiries about the Fritillaria imperialis on the left.

ROSEDALE GOLF CLUB Gardener: Rebecca Roy

This bed is in a high-profile area, viewed from inside the club's restaurant (immediately to the left in the picture) as well as from adjacent outdoor dining areas. From inside the restaurant, the first hole can be viewed beyond the garden. The bed is surrounded by a clipped boxwood hedge.

In contrast to the formality of the hedge and fountain, I wanted to plant something informal, bright and colourful with some variation in height, while keeping in mind the view to the golf course beyond.

The challenge with this bed is the soil is very heavy and



Rosedale planting combination of: Coleus (mixed varieties), African Marigold, Geranium 'Violet', Geranium 'Neon Pink', Canna 'Pretoria'. Photo by Rebecca Roy

can become waterlogged. The past couple of years, I have added soil amendments to improve drainage. Coupled with the long, hot summer, this year's planting did well!

HAMILTON GOLF AND COUNTRY CLUB Gardener: Jo Ann Smith-Gibson

The window boxes at the Pro Shop have always been a bit of a problem area for me. They face west and would appear to get a good dose of afternoon sun. But they have awnings over top of them and, in the past, sun loving flowers have never done well. However, shade loving plants like impatiens or even sunshine impatiens always find the brick wall a little too hot. To add to the problem, these window boxes are in a high traffic area of the club and require three seasons of planting. So, in the past, I always did spring bulb displays, followed by summer annuals like coleus, which then had to be quickly replaced at the first nip of frost with mums. This can be an expensive proposition.

However, this year, more by accident than good planning, I added some lamium, coral bells and sedum to the standard



One of two window boxes in a tricky location at the Pro Shop at Hamilton GCC. Photo by Jo Ann Smith-Gibson

daffodil and pansy spring planting. The perennials took off with the lamium sending off a wonderful display of their blue flowers. With the lousy wet/cool spring the pansies lasted well into the summer creating a very lush display very early in the season. I eventually pulled out some of the pansies and added some red dragon-wing begonias, and trailing verbena to the mix. With some regular deadheading, the lamium has continued with its blue flowers.

The window boxes have never looked so full. More importantly, by adding the more expensive perennials in the spring, I saved a lot of re-planting costs come summer and fall. It's something I hope to do again next year.

YORK DOWNS GOLF AND COUNTRY CLUB **Gardener: Stephanie Osborne**

This particular garden, situated near a Par 3, gives the membership time to stop and enjoy the plants. Russian Sage, Balloon Flower, Barberry, Lambs Ears and Liatris are the main attractions and are flourishing. Since we are Audubon Certified, the plant selection favours the water conservation initiative, but is not favoured by the resident deer. The garden is only a year old and already looks full and mature. These plants are all low maintenance and require full sun, which is ideal for such an open area on the golf course.



Drought tolerant Audubon initiative garden at York Downs Golf and Country Club. Photo by Stephanie Osborne

PORT CARLING GOLF AND COUNTRY CLUB **Gardeners: Clare Kuehner and Bella Vagnini**

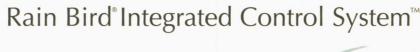
combination The chosen here was the perfect fit for the small 1' x 3' area between a rock and a hard place at #4 tee deck. mauve of the Scaveola compliments Ajuga's two tone leaf while the spider plant brings in light when in bloom. The deep purple of the Clematis 'Etoile Violette' (not shown) completes it.



Photo by Clare Kuehner



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The Tools of My Travels

Winter is coming and you should be taking stock of just what attention your fleet will need over the coming months to ensure a seamless transition into the next growing season. With safety in mind, now is the time to review shop tools that may not have been used recently, but will undoubtedly be called back into service real soon. So here are some common tools you would likely find in most turf department shops, their definitions, and some useful tips and pointers about their possible uses.

DRILL PRESS: A tall upright machine that usually sits in the far corner of the shop that is useful for suddenly snatching that piece of metal bar stock out of your hand so that it smacks you in the chest, causing you to spill your large double-double all over yourself.

WIRE WHEEL: Cleans paint off bolts and then throws them somewhere under the workbench with the speed of light. Also removes fingerprints and hard-earned calluses from fingers in about the time it takes you to say, "Ouch!"

BELT SANDER: An electric sanding tool generally used to convert minor touch-up jobs into major refinishing jobs.

HACKSAW: One of a family of cutting tools built on the Ouija board principle. It transforms human energy into a crooked, unpredictable motion. The more you attempt to influence its course, the more dismal your future becomes. Other members of the same tool family include jigsaw, circular saw and the common utility knife.

CIRCULAR SAW: A portable cutting tool used to make long pieces of wood too short.

UTILITY KNIFE: Used to open and slice through the contents of cardboard cartons delivered to your shop. Works particularly well on contents such as packing slips, upholstered items, liquids in plastic bottles and basically anything made from rubber or plastic. Note: Can be useful for slicing holes in pants/coverall pockets. Special note: Can be especially useful in wounding hands and fingers while attempting to open aforementioned cartons.

PLIERS (ALL VARIETIES): Commonly used by grounds staff to round off bolt heads and to cut off lengths of trimmer line from the big spool in the shop. As a bonus feature, they can also be useful for creating blood-blisters. They are most commonly be found rusting away in amongst the dirt, grass clippings and used sandwich wrappers that accumulate in the back of most utility carts.

VISE-GRIPS: Generally used after pliers to completely round off bolt heads, though they are not a particularly good choice for cutting trimmer line. If nothing else is available, they can also be used to transfer intense welding heat to the palm of your hand through that hole in your welding gloves.

OXY/ACETYLENE TORCH: Used almost entirely for lighting various flammable objects in your shop on fire. Also handy for igniting the leftover grease inside of that roller from which you want to remove a bearing race.

HYDRAULIC FLOOR JACK: Useful for jacking a piece of turf equipment by its wheel motor or any number of other precarious positions, only to find the jack handle in the way of the flat tire that you're trying to remove.

TWO-TON ENGINE HOIST: A tool for testing the maximum tensile strength of everything you forgot to disconnect before attempting to remove said engine.

PHILLIPS SCREWDRIVER: Normally used to stab the vacuum seals under lids or for opening old-style paper-and-tin oil cans and splashing oil on your shirt. They are also excellent for stripping the heads out of Phillips screws.

STRAIGHT SCREWDRIVER: A tool used mostly for opening paint cans. Sometimes used to convert common slotted screws into non-removable type screws (a.k.a. tamper proof screws), and for butchering your palms.

PRY BAR: A tool used to crumple the metal surrounding that clip or bracket you needed to remove in order to replace a 50-cent part.

HOSE CUTTER: A tool used to make hoses too short.

HAMMER: Originally employed as a weapon of war, the hammer nowadays is used as a kind of divining rod to locate the most expensive and/or fragile parts adjacent the object you are trying to hit.

And finally, I know everyone has one of these:

SON-OF-A... TOOL: Any tool that happens to be within reach that can be grabbed and thrown across the shop while yelling at the top of your lungs, "Son-of-a..."!

In all seriousness, take time now to plan your winter service regimen. Having parts on hand when needed can help keep a backlog of half-fixed equipment from piling up. While you're at it, examine and test drive these tools before you get into production. Check for dull, bent or broken blades, worn or misadjusted belts, missing or damaged guards. All guarding MUST be in place and functional on all of your equipment, shop tools including, when you use them. So have an enjoyable autumn, be safe and work smart. Now, where did I put that 9/16ths wrench?



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Twenty Years Ago Today

by Barry Endicott

The Board of Directors in 1991 were: Mark Hagen (pres.), West Haven, Rhod Trainor (vice), Hamilton, Gordon Nimmo (past pres.), Sarnia, Simon George (editor), Oakville, Bill Fach, Rosedale, Alex La Belle, Carlton, Ian Bowen, Oshawa, John Taylor, Twenty Valley, Mark Schneider, Beach Grove, Dave Gourlay, Eagle Creek, Bruce Burger, Lakeview and Vince Dermott, Markland Wood.

On the move: **Bob Burrows**, from assistant at Credit Valley to Superintendent at Cornwall.

The Ontario Turfgrass Symposium was held at Guelph with 230 in attendance. Dean of OAC, Dr. R. McLaughlin and Gord Nimmo opened the session. Talks were presented from Gerald Faubel (president of GCSAA), Doug Carrick, Annette Anderson (OMAF), Teri Yamada (RCGA), Dave Smith, Muskoka Lakes, Kent Groves, Green Care, Thom Charters, Weston, Bill Fach, Rosedale, Chris Hall, University

of Guelph and **Tim Clarridge**, Parkview. This was the last time the OGSA ran this symposium as it will be organized and run by all sectors of the turf grass industry in the future.

John Piccolo, St. Catherines and Sam Depinto, Beverly, received their 25 year membership plaques. Rhod Trainor, Hamilton Golf Club, hosted the Ontario Amateur Golf Championship.

Annette Anderson, OMAF, was moving on and Pam Charbonneau was assuming the duties of Turfgrass Extension Specialist.

The CGSA Conference was held in Toronto on December 8th-11th. Paul Dermott was selected as Superintendent of the Year. The Canadian Golf Team of Bob Heron, Thom Charters, Robbie Robinson and Doug Meyer, were winners over the United States in the Ransomes International Golf Tournament in England.



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The Competitive Drive

by Doug Breen, Superintendent GolfNorth Properties

Ever heard of Floyd Satterlee Rood? In September of 1963, he teed up a ball on the shore of the Pacific Ocean, and proceeded to knock it all the way across the United States, where he finished by driving it into the Atlantic Ocean in October of 1964 – just over a year later. The trip was 3,397 miles and he lost 3,511 balls (or just over one ball per mile). It took 114,737 strokes, not including penalty strokes for the lost balls, to play the 5,978,720 yard course. At an average score of 80 strokes per round, that would be the equivalent of 1,434 rounds of golf - which is pretty close to the number of rounds that our Early Morning Seniors' Group played this season. Got to get that membership down to less than a dollar per round!

My only question is – why? What makes an otherwise reasonable person do things that are extreme, often dangerous, just to become the answer to a trivia question, or get a three line mention in the *Guinness Book of World Records*? It's safe to assume Floyd had a job before he set off on this epic (albeit pointless) journey into obscurity. Imagine going to your employer, and explaining that you are taking a year off work to hit a golf ball across the continent. I think it's also safe to assume that when Floyd returned to work, he found his position had been filled by someone who wouldn't take a year off to hack his way across the country.

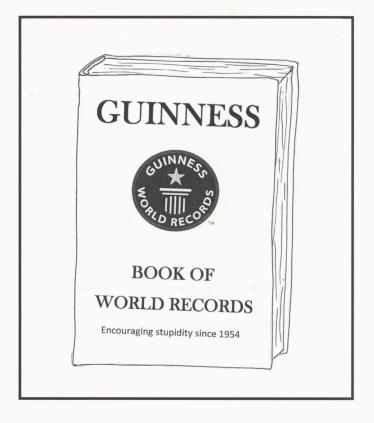
The Guinness Book of World Records, was originally published by the Guinness Brewing Company, and was intended to act as a way for pub owners to settle bar room arguments about the trivial kinds of things that people argue about in bars. Who was the fastest man on earth, who won the 1931 Monaco Grand Prix – important things like that. But since then, it has become a springboard for people with too much time on their hands to try to achieve their fifteen minutes of fame. Does anyone actually care what the record is for throwing a washing machine? Or how many live rattlesnakes a guy can put into his mouth at once?

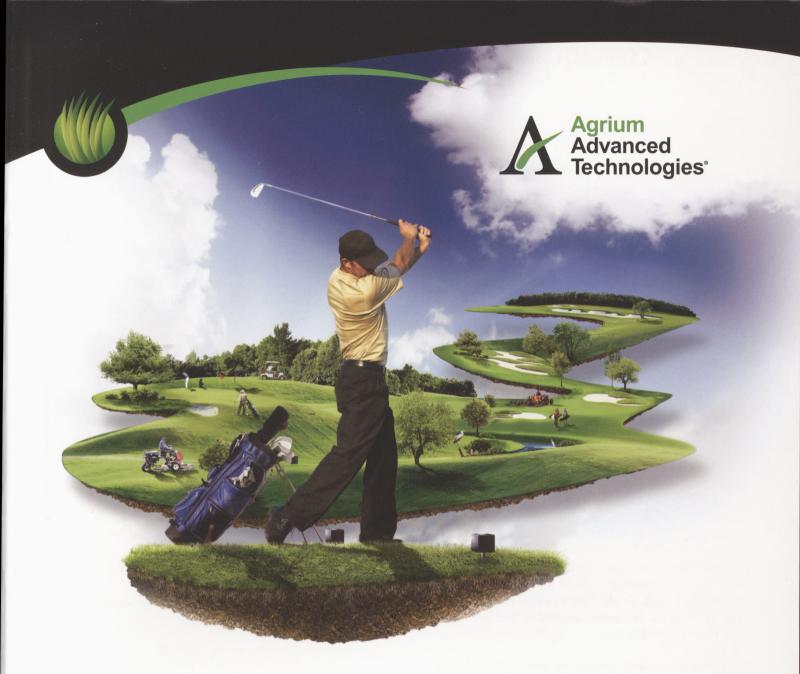
The golf section of the book is filled with many of the things you'd expect to be there. The most wins on the PGA tour, most holes-in-one in a round, longest drive in competition – that kind of thing. But alongside that, is how many times a person has bounced a ball on a wedge, how many golf balls can be held in one hand, and how high a ball will bounce if dropped from the top of a ten storey building. We ought not to be encouraging these people by

putting their names in a book.

There is something deep rooted in the human psyche, that gives us the need to compete with one another. If someone picks up a pumpkin and throws it, then someone else has to throw it farther. Then somebody else builds a rudimentary pumpkin catapult. Before long you have the sport of Pumpkin Chunkin and hillbillies who could never spell "trebuchet" are perfecting their engineering. Believe it or not, there is a Pumpkin Chunkin professional tour.

I suppose it's that spirit of competition which led to the invention of most sports, including golf. The game is essentially two bored sheep herders trying to knock a rock down a rabbit hole with a stick in less swings. But here's the proof that whatever drives us to compete with one another for our moment in the spotlight is within each one of us – how many of you actually thought to yourselves, if I were to hit a ball from Vancouver to Newfoundland, it would be farther than Floyd Satterlee Rood travelled across the USA, and I'd have the record for the longest round of golf? According to researchers, 85% of you should have had that thought cross your mind. It was the first thing I thought of. The only difference between us and Floyd, is that we're not willing to take a year off work to do it – not yet anyway.





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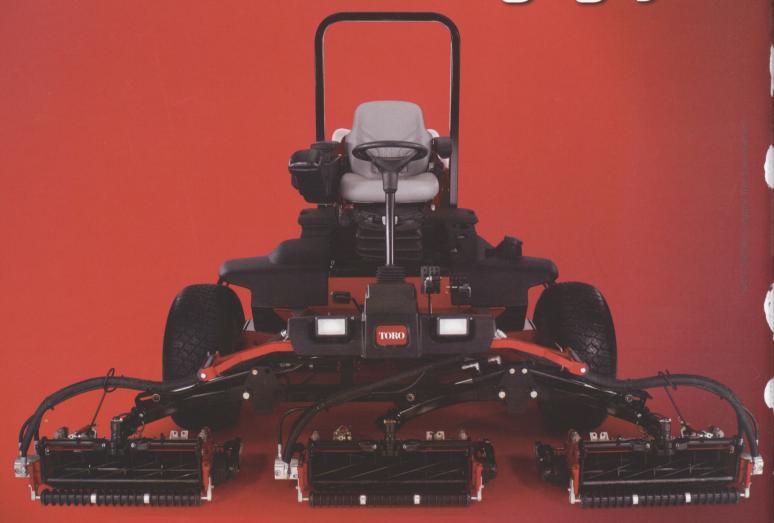
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