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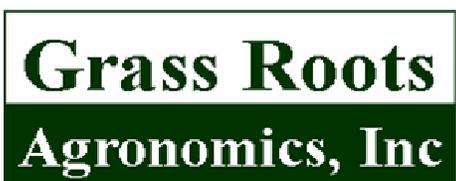


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 Silver Springs Golf & Country Club – 18th hole

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BARB: (403) 912-0130
 Next Issue: June 30, 2014
 Deadline: June 1, 2014

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President's MESSAGE

DUSTIN ZDAN
Superintendent,
Connaught Golf Club



As I write this President's message snow is falling and we have just survived another deep freeze that has engulfed most of the prairies. I am sure everyone is longing for spring and those days of green grass and +20°C can't come soon enough. I do know there is some worry out there regarding winter conditions. Ice has been a problem for a few, including my own property; other areas have substantial snow that may delay openings. Whatever your conditions are we hope you enjoy these last few weeks before the season gets underway and all the best for a successful start-up!

It hasn't been too busy with happenings over the winter months since the Property Manager's Conference. Our surveys for the Property Manager's and our Bi-annual Salary survey have now been completed. Our return rate for both surveys was around 57%, a good representation but we are always looking for more member involvement. You can see results for the Salary survey on the website. Speaking of the website we have added our twitter feed to the home page so those members not on twitter can still see all the latest happenings and info.

I just recently returned from the Canadian International Turfgrass Conference in Vancouver where there was outstanding representation from Alberta. It was great to see fellow AGSA members in attendance and catch up with colleagues from across the country. Some changes were made to the format this year and they seemed to be very well received from the attendees and suppliers. One session that hit home was Kerry Watkins presenting on behalf of some of the golf courses affected by the Flood of 2013. Kerry did an outstanding job and showed just how devastating the effects were to the industry (see his article later in this issue). By no means is the work done, yes some have re-opened but many still have substantial work to do to get back open. We wish them all the best as spring hits and they get back to restoration and repair.

With some informal talks in Vancouver, it was discussed with CGSA how they can be more of a partner with the AGSA. A national organization is very important to the industry as a whole and gives us a unified voice across the country when issues arise. We will continue dialogue

with them and find new ways to be partners. With that being said, we are excited to have the CITC return to Calgary in 2015! James Beebe is already hard at work organizing next year's conference and we will support him and CGSA wherever it's needed.

Finally, there is some great news from Olds College and the PTRC. Firstly the changes to the Turf Program will be going ahead in the fall of 2014. Our association is fully behind the program and believe it is destined to succeed in its new format. With the PTRC, grant funding that has now come thru will change the way the PTRC does business. You can read further in Jim's report on the dollars committed to the program. Things are looking very positive when it comes to research and education; let's hope for the same as the 2014 golf season arrives. 🌱

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CGSA Report

2014 CONFERENCE

The 2014 CGSA Canadian International Turfgrass Conference and Trade Show (CITCTS) was by all indications a big success. The conference was very well attended, the one day trade show seemed to be a big hit and education offered was terrific. The Alberta contingent of Golf Course Management professionals led the way with excellent representation.

Once the data is collected from the conference survey it will be reviewed by the Board of Directors and the Conference & Events committee. At that point, there will likely be improvements to the conference format and then the responsibility for the 2015 Calgary conference will be passed onto a new conference organizing committee. Although the AGSA and CGSA do not co-host the conference when it is in Calgary, the AGSA is very much a partner in all facets of the event including significant involvement in the organizing committee.

The 2015 CGSA Conference in Calgary will take place from February 2nd-6th. Mark it in your calendar as our Alberta reputation for hosting world class events will no doubt prove to be the case once again. If you are interested in

assisting with any aspect of the conference such as joining the organizing committee, speaker introductions, session chair or even presenting a talk, please get in touch with me or Kathryn Wood at the CGSA office.

FALL FIELD DAY

The 2014 Fall Field Day is being hosted by GC Superintendent Jim Flett at the Muskoka Bay GC in Port Carling Ontario. The beautiful Stanley Thompson designed Muskoka Bay GC is sure to be a very popular venue as it is approximately 2 hours from Toronto in cottage country and there are many other outstanding golf courses in the vicinity. Make sure you get organized early with your golf industry friends and register to beat the rush.

CGSA SUSTAINABILITY

During the recent CGSA conference in Vancouver three days of Board of Directors meetings were focused on among other topics the issues of:

- 1) The value of CGSA
- 2) Association Sustainability

Many hours of discussion and debate around both of these issues left the CGSA board unified and strengthened in our resolve for continued advocacy and promotion of the professional Golf Course Superintendent in Canada.

A lesson in CGSA history helped to put this into perspective. We were reminded that it was no more than 30-40 years ago that the position of Golf Course Superintendent was not recognized as the professionals we are today. A significant reason for the change in respect and value that a professional Golf Course Superintendent brings to a facility is due to the hard work of our predecessors.

Past CGSA Boards, committees and staff worked very hard to elevate the professional image, and education to highlight the contributions that Golf Course Superintendents brought to their facilities. Those initiatives by our previous leaders helped pave the way for immeasurable improvements

NOTICE OF MEETING

DATE:	Monday, June 2nd, 2014
LOCATION:	Silver Springs Golf & C.C. Calgary, AB
HOST SUPERINTENDENT:	Paul Dodson
9:00 – 9:30 am	Registration, Coffee
9:30 – 11:00 am	Speaker – TBA
11:00 – 11:15 am	Coffee Break
11:15 – 12:00 am	AGSA Meeting (Dress Code in Effect)
12:00 – 12:45 pm	Lunch
1:00 pm	Golf
6:00 pm	Dinner

Golf Course Industry Affiliates will be invited for lunch, golf and dinner.

JAMES BEEBE
CGSA Alberta Director
Priddis Greens G&CC



in our profession. Some of these improvements include elevated standards in all aspects of golf course management, increased recognition for the profession and a substantial improvement in the opportunity for Golf Superintendents to be compensated commensurately with their professional abilities.

Over the past several years there has been an increase in participation at the regional association level, in some regards at the expense of national association involvement. The ultimate strength of the Canadian Golf Superintendents profession's ability to move forward will be with unified representation at both the provincial and national levels.

The CGSA Board has committed to work with regional associations in an effort to build relationships and enhance communication for industry solidarity. CGSA will look for ways to support AGSA and to find synergies that can help each association to enhance the Golf Superintendent profession. This strengthened regional / national partnership will ultimately provide an "all for one and one for all" approach to ensure our profession stays as healthy as possible into the future (sustainability).

Each of us can contribute to our profession's sustainability by supporting both the AGSA and CGSA. Your membership investment will help you directly as a resource for personal improvement but will also help to support ongoing initiatives for our industry's advocacy and advancement. 

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SUCCESSFUL GRANT Announced for

Recently we received word that our grant application called, 'Sustainable Turfgrass Management in the Canadian Prairie Provinces' was approved for funding. The \$2.3M grant is for five years and is an award from the Natural Sciences and Engineering Research Council, a federal granting agency in Canada.

When informed of the decision, Alberta Turfgrass Research Foundation President, Daryl Asher stated, "This is tremendous news! We will now be able to move forward on our plans to expand our research program in Alberta and Western Canada."

Many other Superintendents, turfgrass managers and research personnel sent congratulatory wishes to us and we are grateful for all the support that was received prior to and during the application process.

So what does this mean for turfgrass research?

One of our first orders of business will be to hire a Lead



Funding for this trial will allow for an increase in plots tours and seminars similar to the picture above.

Scientist for turfgrass research. This individual will have the main responsibility to oversee the research program and institute new initiatives. It is expected that this individual will have considerable experience in turfgrass research and will be somewhat familiar with the challenges faced by growers in western Canada.

"We would like to have someone in this position as soon as possible," said Tanya McDonald Associate Vice

President at Olds College Centre for Innovation. "We expect this summer to be a busy time for turfgrass research and our search for this individual needs to begin right away." The process for doing this will be to advertise throughout North America and then interview candidates for the position. "It is hoped that we can have someone in place by July 1."

In addition to the Lead Scientist, a post-doctoral fellow will also be hired. A 'Post-Doc' is a recent Ph. D. graduate and

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Turfgrass Research

JIM ROSS
Prairie Turfgrass
Research Centre



this individual will form part of the research team. Instructors at Olds College, Dr. Darrell Tompkins, Dr. Ken Fry and Jason Pick, will also form part of this research team and they will support the new hires during the orientation period. In addition, they will be involved in the implementation of student research projects within the turfgrass curriculum at Olds College.

In year one to three, the budget for turfgrass research will more than double from current funding levels and will total more than \$600,000 in each of the first three years. In addition to salaries, this funding allows for equipment purchases, supplies and information dissemination to the end-users in the turfgrass industry.

“One of the reasons for the success of this grant was the high level of industry support,” stated Asher. “We were able to secure more than \$100,000 from industry in year one and we expect that this will grow over the next five years.”

The application pointed out that this research is necessary due to the fact that the turfgrass industry in the Prairie Provinces is estimated to generate an economic impact of

somewhere between \$1.6-2.2B. Technological advancements are necessary in the industry to support growers and homeowners as they encounter increased pressures to maintain their turf in an environmentally acceptable manner. The social and recreational uses of turf are many and varied and it is difficult to imagine our lives without turf.

The actual research will focus on the following research themes: strategies to reduce winter injury, biotic stress management in sod, recreational turf and lawns, species/biotype selection for alternative turf uses, and water quality and conservation. With funding received from industry, there has already been research activity in some of these research areas. This research grant will allow for significant expansion of the research in these areas.

The next few months will be critical as we institute the changes to the program and as Asher pointed out, “Research is so important to us in the industry...it allows us to continue to make improvements at our course that are based on science.”

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A Review of the 2013 ALBERTA FLOOD

by **KERRY C. WATKINS, AGS**

The Glencoe Golf & Country Club

By mid-June most golf courses located in Alberta are nearing the perfect conditions as the landscape is thriving and from carrying out daily care and conditioning programs that are so tailored and expected at each site. For some courses this was not the case due to the flooding that occurred in the province on June 20, 2013. This date left uncertainty with what the rest of the 2013 golf season would be like

for courses that took on flood waters that in some cases the superintendents had only minutes to react to. For us here at The Glencoe Golf & Country Club June 20th, 2013 was supposed to be an exciting time as we were 9 sleeps away from members having their 45 holes open for the first time since July 31 of 2011. Well nine sleeps has turned into a projected 407 sleeps due to the flood. The goal of this article is an attempt to briefly highlight the flood experience that words will have a tough time describing.

Flood by the numbers

So a good place to begin is to provide some information on the 2013 flood and how the flood affected Alberta and the golf community.

Some Golf Course Stats

This is just a sample of golf clubs that were affected from the flood waters and indicates the range of severity from clubs closed for a week, to clubs not opening until 2014, to the most extreme case of a club's future unknown.



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SOME GENERAL STATS FOR ALBERTA:

- The Alberta 2013 flood ranked 3rd highest in world disaster insurance claims in 2013 with \$4.7 billion US in loss and \$1.9 billion in insured losses.
- \$400 million was damage cost from the last major flood in 2005 to hit Calgary
- Calgary-35 km of River Bank repair at a cost of \$67 million.
- 10 years projected to rebuild 31 communities affected from the 2013 flood
- 15,000 folks were evacuated from High River
- 1,000 homes were hit by flood waters in Medicine Hat
- \$1,000,000,000 Alberta approved funds to kick start the flood recovery
- Almost 9" of rain in 36 hours fell in Canmore the week of the flood – almost half of the annual total
- 51,489m³/S of flow in the Bow River which is 5 times the amount of normal flows in June
- 544m³/S for the Elbow and 734m³/S for the Highwood Rivers with both reaching 10 times the amount of normal flow in June



A view of the flood waters at Inglewood

Mr. Tyler Patroch

Cottonwood Golf & Country Club

- Course closed for 21 days with 11 holes opened for mid-July and 18 holes opened August 1
- Severe devastation on 5 of 18 holes
- Please search YouTube for the video Tyler created on post flood events.

Mr. Wade Bishop

McKenzie Meadows



Post flood look of a green at McKenzie Meadows

- Flood devastated most of the property and practice facility
- Never reopened in 2013 and slated for opening spring 2014.

Mr. Sean Kjemhus

Stewart Creek



Rock Removal at Stewart Creek

- 6 of 18 holes impacted with major rock deposited throughout the six holes
- Course closed for 60 days

Mr. Dean Morrison, MS

Calgary Golf & CC

- Flood waters wipe out power source to clubhouse & pump station for 30 days and damage putting greens, Chalet, Cart storage, flooded clubhouse.
- Course closed for 14 days and clubhouse for 30 days.

Mr. Garry Haynes

Blue Devil Golf Club

- Closed for 7 days pumping water and repaired 1 acre of turf

Mr. Lane Nielson

Highwood Golf & Country Club

- Entire property devastated from

flood waters which includes 27 holes of golf and all buildings

- A member one day event held in September 2013 was only day for play since June 20, 2013.
- Plan to open 18 holes mid-May and may not provide 27 holes again.

Mr. Patrick Johnson

Elbow Springs Golf & CC



Debris trail left at Elbow Springs

- Entire facility had no power for 4 days and ran off of generator power for 4 days
- 1 day of closure for golf and 18 holes of 27 offered were in play June 22, 2013
- The nine that flooded was scheduled to have greens re-surfaced in the fall of 2013 which ended up taking place following the flood with other course repairs and reopened August 15, 2013.
- Turfcare center was flooded and no power

Continued from page 11

Mr. Calvin McNeely

Kananaskis Country Golf Course

- The 36 hole facility was affected from flood waters and future is unknown with what may happen.

Mr. Kerry C. Watkins, AGS

The Glencoe Golf & Country Club



Water in turfcare facility at The Glencoe Golf & CC

- 43 of 45 holes and practice facility affected from flood waters from 100% of the golf hole to very small areas.
- Nine holes opened eight days, 18 holes 15 days and 27 holes opened 21 days after the flood.
- 5 on course buildings and Turfcare Facility affected from flood waters and needed repair.
- 630 pieces of equipment have been assessed for flood damage and repair or replace plan is underway
- 17 of 52 greens affected from flood waters from 100% silt covered to just isolated areas on a green.
- 75 of 168 Sand bunkers were affected from flood waters ranging from complete rebuild to silt removal.
- 35 of 51 Irrigation Satellites affected from flood waters.
- 100 acres of Kentucky Bluegrass will be sodded and 20 acres of Fescue will be hydro seeded and or sodded by the time the flood renovations are complete.

Water is rolling in and what do you do?

Watching flood waters flow through a golf course particularly if you are the superintendent of the golf course creates numerous feelings and thoughts. Superintendents naturally have a admiration for the land they are privileged to look after and for the people they get to work with on a daily basis. So seeing flood waters consume the course devastating features such as bridges, path ways, bunkers, greens, creek banks, irrigation system, acres of turf rippling and covered with silt-rock-debris, and on-course buildings left a person in awe to watch first hand and heart wrenching at the same time. Not to leave anyone out but same goes for the assistant superintendents, equipment managers, landscape managers, industry interns, the entire leadership team of clubs. On top of this is the feelings a superintendent has towards those you work with every single day and what the next day of work life is going to be like? Who's going to show up? Who's up for the unknown of what lies ahead? Who's going to see it all through? How are we going to pay for the list of things to be done? What does the future hold or better yet what will the new normal be here at the club? Here are just some thoughts that come to mind and for me personally are the thoughts that put me to sleep most nights.

So water is running in and my experience was to immediately start the planning process. This involved making the necessary phone calls on June 20, 2013 as features on course were literally being wiped out



Greens are the one priority with removing silt.

right before my eyes. It took the first bunker wiped out to call a golf specific contractor as complete bunker rebuild was going to be a part of the flood renovation process. This in our case led to a renovation of the never played on recently restored 18 holes on The Forest Course and a flood renovation of the other 27 holes and practice facilities. It was quite evident that turf was going to be a premium as we were not the only ones to be affected by the flood waters so a call went to Eagle Lake to reserve 100 acres of low cut Kentucky Bluegrass. As it will turn out we will near 100 acres of bluegrass as we complete flood renovations during the first half of the 2014 season. The only thing you can do at the point of flood waters consuming your property (besides being safe about watching it) is to start the planning process and secure what materials, equipment, contractors you may think you need. Once conditions allow and it is safe, start the mitigating process ASAP to areas affected from flood waters. The longer you delay in response if conditions are safe to work the less effort shown to mitigate the loss will not be advantageous for the club when it comes time to deal with the Insurer. When it's safe, react as soon as you can! Reacting and doing gets you one step closer to getting back to what the

new normal is going to be for sites affected by flood waters and really is a great motivator to see results daily. For us here at the Glencoe it will take to the end of 2016 to be where the club was at prior to the flood of 2013 as far the 5 year planning of course and infrastructure improvements go. Keep the plan of attack simple. The list of to do's may seem endless. Keep your teams focused on the day at hand and realize that you cannot do everything all at once. In our case, the goal was to get the game of golf back and the economic engine running as soon as we could. This meant committing to repair areas that would impact the game of golf only across the 27 holes, with repair to out of play areas deferred to 2014 season. If we did not follow this approach we would be looking at over a month of no play and for us this did not make sense due to the money spent. We needed the game of golf back!

Leadership

An event such as the flood creates many opportunities to witness and partake in the art of leadership. From watching Mayor Nenshi lead what seemed to be any hour of any day was inspirational for me as Mr. Nenshi remained positive no matter what the circumstance. Even at times when he was in the spot light and could barely keep his eyes open due to being tired. Whom am I to even pass an opinion on the topic of leadership but rather say that clubs that flooded, the superintendents had to step up and take the leading role to get the game of golf back for their facilities. Superintendents and supporting management had to be the ones to come up with the plan of attack. Superintendents had to motivate turfcare teams under non ideal working conditions. Working conditions like: Not having a home base. Nowhere to conduct a team meeting or the daily morning delegation and celebration. No lunch room. No washrooms. For me personally it was extraordinary to watch the leaders in our department take charge and lead the various teams of Glencoe employees and members ranging from 80 to 180 on a daily basis. Toni Pasolli, Shawn Major, Chris Paterson, Brock Coates, Travis Schmidt, Mark Kolentsis, Jared Speake, Aaron Setter, Rob Scollie, Carmen Henry, Dani Creighton Thank You!. There were many days where we would see the sun rise and the sun set. Equally impressive to the leadership shown by the turfcare leaders were the leaders that emerged from our turfcare team. It was phenomenal to see those team members, not in this business called golf, step up for us in a big way. This group of people (leaders)

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made progress possible and leading the majority in simply getting any task assigned accomplished to the standards set. The information sharing and idea generating is something that words cannot simply explain. Every day the plan of attack was tailored to what was best for the site, for the membership, with the best assembled personnel and usage of resources to act on the plan. One very valuable lesson learned was that to be a leader requires a commitment to seeing the glass half full no matter what the situation. Being positive is contagious and leaders must live this trait daily especially when faced with challenges from events like the flood of 2013. When dealing with club members, employees of the club remember

Continued from page 13

the camera is rolling at all times when you are placed in a leadership role and being positive garners great support especially when you need it the most. In our case, the support from the other department heads and their teams and from General Manager Mike Kenney was instrumental in achieving what we were able to do to get the 27 holes open for play in 21 days after the flood.

General Hindsight & Silver Linings

- Water was the best method to remove silt off any grass surface and we could have committed more bodies and hoses to this mission sooner. This process salvaged a lot of grass.
- We could have used 20 track skid steers and tractor hauling trailers for the physical removal of silt.
- The process of all club departments coming together and working daily was a great team building experience here at The Glencoe. The key going forward is how to create this type of connectedness between all departments in a golf club without having a major disaster to deal with.

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- If money is there this would be the time to correct the “known problem areas”. Such as relocating features or reducing size of features that were in the path of flood waters. This sounds simple but tough to execute if money is not available. Some properties faced repairing the damaged feature for the second or third time from flood waters. This is where planning for the next flood on sites prone to flooding should take into consideration this type of planning versus putting features back as is with the knowledge at hand.
- Remember to have a life outside the gates of the golf club flood or no flood.
- Make the work fun and prepare your teams for the work load to be expected. We tried a 6 & 1 shift which was not enough time to recharge the batteries. Next flood (hopefully not) we would schedule 5 days on and 2 days off.
- All salary management team members in turfcare here took a week off through July and August. This will be a practice going forward.
- The flood provided very beneficial life and project experience for the entire Turfcare Management team, which will be great for each individual’s portfolios.
- We could have photographed and videoed more than we did regarding all that is involved with a flood.



The future unknown challenges of dealing with a silt layer growing grass.

In Conclusion

In reading this article I hope you the reader gained some insight into the flood of 2013 and the affects it had on communities, the province and some of your fellow superintendents and their teams with what was experienced. In some cases the chapter on the 2013 flood is still being written for some golf courses and communities. The members of AGSA have been so supportive to superintendents affected by the flood and on behalf of all clubs dealing with floods I thank you all for support extended our way. To all the clubs dealing with floods I hope 2014 is a season that sees a lot of golf played on your courses and that we all find our new normal. All the best for 2014! 🌱

What's the story? **OUR POLLINATORS**

HONEY BEES, BUMBLE BEES, CCD, AND NEONICS: WHAT IS THE STORY WITH OUR POLLINATORS?

by **DR. KEN FRY**, Olds College

There are roughly 25,000 different species of bee worldwide with approximately 800 different species in Canada. Most can be found in the Families Apidae (honey bees, bumble bees, and carpenter bees), Megachilidae (mason bees and leafcutter bees), Halictidae (sweat bees), and Andrenidae (digger bees). Within the Apidae, the honey bee, *Apis mellifera*, originated in eastern tropical Africa and is now native to Europe. It was introduced to North America in 1622 by European colonists. The honey bee is exploited for honey production but most importantly for pollination services. Bumble bees are the most abundant native pollinators that nest in abandoned rodent burrows or other cavities in the ground. Carpenter bees are mostly solitary bees nesting in woody material. In the Megachilidae, the mason bees nest in galleries made by wood-boring beetles and use mud to cap their nests. Leafcutter bees also nest in woody material but use leaf sections to seal their nests. Megachilids are exceptional pollinators of our native bush fruit such as Saskatoons and chokecherries. Sweat bees, often metallic green or gold, mostly nest in soil. Digger bees often nest in sandy soils and are the most common bee nesting in sand bunkers. All of these bees are important pollinators of crops and native plants.

All bees require nesting sites, whether they are natural cavities in the soil, undisturbed soils, standing dead wood, or ground cover. Provision of nesting sites is critical to their success. Overly-managed landscapes that do not provide the necessary nesting sites substantially reduce the number and kinds of bees. Bees also require nectar and pollen sources from a variety of flowering species. These resources need to be present throughout the growing season. A healthy landscape will include flowering plants that have species in bloom from early in the spring until fall freeze.



The landscape manager can support native bee populations by planting a variety of flowering species and not just showy ornamental varieties that have a limited bloom time. Lastly, bees require access to water, whether in the form of natural wetlands or ornamental bird baths.

The status of all bees in North America has been on the decline in recent decades. Honey bee hives in the United States have declined from a high of 4.5 million in 1945 to fewer than 2 million in 2007. This has largely been a result of a change in farming practices over the last half century. The adoption of reduced tillage practices coupled with an increase in the use of synthetic fertilisers and pesticides, in particular herbicides, have substantially reduced the amount of cover crops (clover, alfalfa) and weeds supportive of bees. Reduced plant diversity in the landscape resulting from a shift to large monoculture cropping systems has further

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reduced bee populations. The decline in honey bees and native bees comes at a time when there is a 300% increase in crop production requiring pollination (Spivak 2013).

One third of the world's crops require pollination services. In a report from the Food and Agriculture Organisation of the UN it is stated that 71 of the 100 crops that provide 90% of human food are pollinated by bees with the estimated value of those crops as high as \$200 billion annually (FAO 2005).

An estimated 10 million honey bee hives have been lost since 2006 in the U.S. alone. Overwintering losses have historically been in the 10-15% range. However, losses in the past decade have been in the 30% range (Table 1). While the losses in 2011-2012 were down at 15% in Canada, the losses in 2012-2013 were back in the 30% range (Table 2).

Table 1. Honey Bee Losses in 2012-2013

Country	Percent Loss
Canada	28.6
United States	31
United Kingdom	34

(from Canadian Association of Apiculturists)

Table 2. Honey Bee Overwinter Losses in Canada

Province	Winter 2011-2012	Winter 2012-2013
B.C.	27%	18%
Alta.	13%	23.8%
Sask.	17%	27%
Man.	16%	46.4%
ONt.	12%	37.9%
Que.	16%	24%
N.B.	27.9%	37.4%
N.S.	18.9%	17%
P.E.I.	19%	27.9%
Canada	15.3%	28.6%

(from Canadian Association of Apiculturists)

Honey bee colonies are subject to a great many stresses including American foul brood, chalk brood, small hive beetle, greater wax moth, microsporideans such as *Nosema ceranae*, viruses, tracheal mite, and the Varroa mite. Additionally, honey bees are exposed to pesticide residues, transport stress if used for pollination services (approximately 1.6-1.7 million hives are transported to California in the spring to pollinate the almond crop), and reduced diversity of pollen sources in the landscape. Approximately one third of reported honey bee losses are attributed to colony collapse disorder (CCD) (USDA 2012).

A 2010 survey of bees, honey and comb for the presence of 170 pesticides or residues did not find any pattern of exposure correlated with CCD incidents in the United States (USDA 2012). A 2010 study by Currie et al. reported that Varroa mite infestations were the most important factor in Canadian losses.

Colony Collapse Disorder is a very specific condition with a well-defined pathology. Bromenshenk et al. (2010) described CCD in 2010 as follows; the queen and brood (larvae and pupae) within the hive are healthy but lack the services of worker bees. The workers have not returned to the hive and the bees normally resident in the hive to feed and maintain the brood have departed or there are only young adult bees present (indicating only recently emerged adults are present, all older bees are lost). It is believed that the Varroa mite, Varroa destructor, vectors one of many viruses affecting bees and the virus suppresses the immune response of the bees allowing a microsporidian pathogen, Nosema ceranae, to infect the bees. The infected bees depart the hive as a defensive mechanism to prevent further infection of the colony. The colony then collapses due to the lack of worker bees.

Recent research (Alaux et al. 2010, Krupke et al. 2012, Pettis et al. 2013) has shown that pesticides, including neonicotinoids and fungicides, can result in an increased vulnerability to Nosema infection in honey bees. Therefore, the threat to honey bees lies with not just any single factor; instead it is a combination of biological and chemical stresses. The Pest Management Regulatory Agency of Canada has taken steps to reduce some aspects of risk. In their Notice of Intent NOI2013-01, Action to Protect Bees from Exposure to Neonicotinoid Pesticides, recommendations to limit “fugitive” dusts in corn and soy crops are being developed. Pesticide-containing dust resulting from seeding practices has been shown to be a risk factor to bees. Increased availability of pesticide-free seed, low dust seed lubricants, and adjusting of seeding practices are recommended to reduce the risk to bees.

Landscape managers and agriculturalists are advised to take action to protect pollinators of all sorts. Reducing monoculture, planting hedgerows, diversifying the plant community and providing needed resources (nectar, nesting sites, water) are all measures that will result in a healthier environment for bees and ultimately for us. 

To stay informed about CCD and bee health in general visit <http://beeinformed.org/> and http://www.extension.org/bee_health for more information. To identify the bees you encounter visit http://pick5.pick.uga.edu/mp/20q?guide=Bee_genera_United_States_and_Canada and <http://www.nhm.ac.uk/research-curation/research/projects/bombus/wnearctic.html>.

Literature Cited

- Alaux C, Brunet J-L, Dussaubat C, Mondet F, Tchamitchan S, Cousin M., Brillard J, Baldy A, Belzunces LP, Le Conte Y. 2010. Interactions Between Nosema Microspores and a Neonicotinoid Weaken Honeybees (*Apis mellifera*). *Environmental Microbiology* 12(3):774-782.
- Bromenshenk JJ, Henderson CB, Wick CH, Stanford MF, Zulich AW. 2010. Iridovirus and Microsporidian Linked to Honey Bee Colony Decline. *PLoS ONE* 5(10): e13181. doi:10.1371/journal.pone.0013181
- Food and Agriculture Organisation of the United Nations. 2005. Protecting the Pollinators. *Agriculture and Consumer Protection Department Magazine*. <http://www.fao.org/ag/magazine/0512sp1.htm>
- Krupke CH, Hunt GJ, Eitzer BD, Andino G, Given K. 2012. Multiple Routes of Pesticide Exposure for Honey Bees Living Near Agricultural Fields. *PLoS ONE* 7(1): e29268. doi:10.1371/journal.pone.0029268
- Pettis JS, Lichtenberg EM, Andree M, Stitzinger J, Rose R, vanEngelsdorp D. 2013. Crop Pollination Exposes Honey Bees to Pesticides Which Alters Their Susceptibility to the Gut Pathogen *Nosema ceranae*. *PLoS ONE* 8(7): e70182. doi:10.1371/journal.pone.0070182
- Spivak, M. 2013. Why Bees Are Disappearing. TED Talk. http://www.ted.com/talks/marla_spivak_why_bees_are_disappearing.html
- United States Department of Agriculture. 2012. Colony Collapse Disorder Progress Report. CCD Steering Committee June 2012 Annual Progress Report. <http://www.ars.usda.gov/is/br/ccd/ccdprogressreport2012.pdf>
- United States Department of Agriculture. 2012. Report on the National Stakeholders Conference on Honey Bee Health. <http://www.usda.gov/documents/ReportHoneyBeeHealth.pdf>

CGSA / CLUB CAR ENVIRONMENTAL AWARD FOR 2013

Bruce Constable (R), Superintendent at Woodside Golf Club in Airdrie won the CGSA / Club Car Environmental Award for 2013. The award was presented at the CGSA Conference in Vancouver and Bruce is pictured with Dustin Zdan.



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James Beebe

**Superintendent at
 Priddis Greens G&CC**

Where were you born and raised?
 Saskatoon, SK (Go Riders!)

Did you come from a big or small family?

Mom (Nurse) and Dad (Principal) one sister, one brother

Are you married with children?

Married to Janet, Son Aaron 25, Daughter Gabrielle 16

What made you decide on a career in turfgrass management and what would you be if you hadn't become a superintendent?

I loved golf as a kid and was always curious about the conditioning and the great golf courses always intrigued me. I tried to get a Green Keeping job as a kid but jobs were hard to come by back then. When I was in Grade 12 my Dad brought home a brochure about a diploma course in Golf Technology at Seneca College in King City Ontario. I attended Seneca College with no previous golf course experience. The rest is history.

If golf didn't come along I may have gotten into welding. I took 4 years of welding in High School and really enjoyed that. I also really enjoy interacting with people and I am always looking for teaching opportunities. I guess I could have been a teacher like my dad.

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How many years have you been at your current golf course and where did you work previously? Education?

Experience

I have just completed my 20th year at Priddis Greens where I was an Assistant Superintendent for 3 years and have been the Golf Course Manager for 17 years. Prior to my time at Priddis Greens I worked at the following golf courses:

- D'Arcy Ranch GC: 1993 (Assistant Superintendent)
- Woodside GC: 1991-1993 (Assistant Superintendent)
- East Sussex National GC (England): 1989-1991 (Construction/Grow in Staff)
- Riverside GC (Saskatoon): 1988 (Summer Intern)

Education

- Seneca College - Golf Course Technology 1989
- Penn State University - Turfgrass Management 1995

Tell us about your golf course and what your biggest challenges are there.

Drainage: The golf course was built on heavy clay soil with an organic topsoil that retains moisture.

Weather: Priddis Greens is located in the foothills of the Rocky Mountains. The property is normally snow covered from the end of October to early/ mid April making it difficult to schedule projects. We generally get cooler weather and more precipitation than Calgary. Cool weather and low soil temperatures make recovering from winter injury a real challenge.

Shade: There are many areas on the golf course including green sites that have large stands of mature (60') spruce trees along the east and south sides limiting sunlight exposure required for healthy turf. We have removed thousands of trees over the years and will forever be working on improving sunlight penetration.

Annual Bluegrass: Wet, cool and shade = Poa Annua

Golf Calendar: Incredibly busy golf facility.

What are your preferences for golf course equipment and fertilizers?

Over the years I have tried almost every make / color of turf equipment and fertilizer and I really think much of our decision making on products comes down to who provides the best service.

What have you noticed are the biggest changes in the role of the Golf Course Superintendent since your start in the business 25 years ago.

There are far greater demands and requirements for higher standards in everything that we do as Golf Course

Superintendents. Success now requires a commitment to excellence in all facets of what we do and not just course conditioning. Outside pressures and demands on our time have forced us to become experts in leadership and management so we can deal with such issues as government regulatory agencies, reporting, human resource management, communication and Occupational Health and Safety to mention a few. Although most of us never anticipated these demands when we started our careers, those who have embraced the opportunity to take the leadership role have thrived and those who didn't have either left the business or continue to struggle.

What would you say to an Assistant Superintendent who asked what it takes to be a successful Golf Superintendent?

There is no one answer to that question but a few thoughts are:

- Work harder and do more than anyone else is prepared to. Who wouldn't want to hire someone who is prepared to do whatever it takes to succeed.
- Maintain an attitude that you never know everything, be a lifelong learner, and be open to change and new opportunity. Everything seems to change quickly in this day and age, and being adaptable is critical.

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- Learn to be a great leader. Nothing is ever accomplished on your own and without a great team you'll never reach the top. You must learn to get the most out of the team and learn that helping your people grow is essential.
- Be willing to sacrifice yourself and do more than you have to so you separate yourself from the pack.
- Learn and get involved in as many areas of your golf club as possible. Your over-all decision making will improve and you will become recognized as a more valuable asset at your facility.
- Become a great communicator.
- Learn from others. Get a mentor. You won't live long enough to learn all there is to know all by yourself. Build a network of experts that you can learn from and take the fast track to success.
- Surround yourself with quality people in your work and personal environments.
- Take every opportunity you can to participate in your Provincial (AGSA) and National (CGSA) Golf Superintendent Associations.

What is your most important event there this year?

Priddis Greens is a very active private club. We have nine different member leagues every week, 26 member tournaments per year, fourteen 36 hole corporate events, a two day charity event and at least 30 different inter-club events. Priddis will also host the three day Calgary City Ladies championship this year. It seems like every one of these events is most important to someone, so we do our best for each event.



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Do you have any renovations/ construction planned this year?

This August we are into the second phase of an extensive drainage

project. We have a specialized drainage company from Quebec (NMP Golf) installing \$350,000 of slit drainage on the 12th & 13th holes of the Hawk GC. We performed this type of drainage on a few holes in 2012 and it was very successful. We are also working on a small in house bunker renovation and will be repairing failing cart paths.

What is your favorite travel destination?

I love searching for the next great golf experience. My wife and I travel somewhere each November in search of great golf. A few highlights over the past few years have been, Scotland, Bandon Dunes & Pebble Beach. My goal is to play at least one top 100 golf course in the world every year. After playing these great golf courses I am incredibly inspired.

What is your favourite restaurant?

I am not a huge food guy, but I do have to say the Cattle Baron in south Calgary. They have the best steak in town and I do enjoy sharing a cold pint in the lounge with my good friends while solving the world's problems.

What golf course would you play if you had your choice?

Top 3 are: 1) Royal County Down 2) Royal Melbourne 3) Augusta National

What do you like to do away from the course?

Golf , Travel, Read and hang out with family and friends.

Do you have any mentors?

My first true mentor was Kevin Pattison who hired me at 22 years of age as his Assistant Superintendent at the Woodside GC. Kevin took me under his wing, supported me 100% and believed in me more than I did myself. Kevin's support was instrumental in helping me get to where I am today.

Although I didn't work for these gentlemen I truly look up to and learned a lot from many of the present and retired (Walt Gooder) Calgary Area Golf Course Superintendents who have provided their clubs with outstanding playing conditions and have continually raised the bar as true professionals for the entire golf course management industry.

Is there anything that you would like to add?

I hope everyone has a great season and I look forward to meeting many of you throughout the year at AGSA and CGSA events. 📍



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