



Season's Greetings
and
Best Wishes for a
Happy New Year
from
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Beason's Greetings





#### **Upcoming Events**

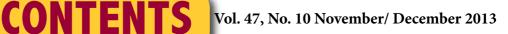
January 8
Beer and Pretzel Social
5:00 Until 6:30
The Seasons
Minneapolis Convention Center

January 9
MGCSA Annual Meeting
Minneapolis Convention Center
Host President Scottie Hines CGCS

January 20th
Shop Tours
Brookview Golf Club, The Minikahda Club
and Interlachen CC
Hosts Greg Spencer, Jeff Johnson and
Matt Rostal

February 5th
The National
Tommy Bahamas
Orlando, Florida

March 10th 10,000 Duck Campaign Assistant's Spring Break TPC Twin Cities Host Roger Stewart, CGCS





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#### **Feature Articles:**

Taking Your Pulse, Maintaining The Heart of Your Course

By E. Paul Eckholm, CGCS Yamaha Cart and Utility

Constructive Growth, President Scottie Hines, CGCS

By David Kazmierczak, CGCS

The Big Buzzzzzz Pesticides and Pollinators

Dr. Joe Bischoff, American Nursery and Landscape Association

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#### **Monthly Columns:**

**Presidential Perspective** page 6-7

Scottie Hines, CGCS

In Bounds pages 10-12

Jack MacKenzie, CGCS

Within the Leather pages 48-49

Dave Kazmierczak, CGCS

#### **BEER AND PRETZEL SOCIAL JANUARY 8TH, 2014** THE SEASONS AT THE NORTHERN GREEN EXPO





The latest Buzzz regarding neonicotnoid insecticides



#### ..Even More Content...

**Neonicotinoids Fact Sheet** 34-38 page By Dr. Joe Bischoff

How Do You Like To Stay Informed? 38-41 page By Sam Bauer UMN Turf Extension

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### Presidential Perspective

by Scottie Hines, CGCS Superintendent at Windsong Farm

Thank you!

Thank you for the opportunity

to serve as President for, arguably, the best group of superintendents, assistants and affiliates in the country. The past two years have been more fun, stress and work than I could have expected. Looking back, I am not sure where two years have gone? I do, however, subscribe to old adage: "Time flies when you are having fun!" So I will move forward knowing that the last two years have been fun!

We, the MGCSA, have made significant changes during my tenure as President. We made a change by hiring a true Executive Director, Jack MacKenzie, CGCS. We have made changes internally with the committee structure. We initiated the Environmental Stewardship Committee to spear head the completion and implementation of BMP's in respect to water quality, water quantity, nutrient fate and pesticide fate. We have engaged our allied associations; MGA, Minnesota Section of the PGA,

Minnesota Chapter CMAA and the Mid-West GCOA to partner with us in our regulatory efforts. Our relationships with state agencies: DNR, PCA, BWSR, Department of Agriculture and the University of Minnesota have never been stronger. We have positioned ourselves as educated turf professionals with these associations and state agencies. I feel strongly that this will pay us big dividends as we partner with these people to self-regulate.

I know you have heard it in the past from me, but I would like to stress how important it is to give back to our great industry. Volunteering at the committee level, attending educational offerings, supporting research, sitting on the Board of Directors are just a few of the ways to accomplish this. It is important to understand that it is up to us to carry our torch, tell our story and advocate for what we see as beneficial to ourselves and our profession. No one else will do this for us. Take the time, get involved. It is well worth it at the end of the day.

Speaking of involvement, I would

like to call out our Executive Director, Jack MacKenzie, CGCS. Everyone knows Jack is passionate, outgoing and a great advocate for us. Do you know all the ways Jack does this? Probably not.

Jack sits on or is involved with the following groups on behalf of us, the MGCSA: The Stormwater Taskforce, The Turfgrass Working Group, The Pesticide Management Plan Committee, MN Dept. of Ag. Applicators Category E SMEG, MN Dept. of Ag. Bee Pollinator Stakeholder Group, the Anoka Community College Advisory Committee and the NGE Strategic Planning Committee. He has been to Capitol Hill to represent us in the egregiously large water fee increase hearing. I know I am missing more than one thing from this list but I think it is important to understand what our ED does for us beyond managing the Association. Thank you Jack.

As I take a step back from almost 10 years of serving on the Board of Directors, I know the MGCSA is in great hands with the leadership at the helm. I would like to thank those who served before me and those on the Board now for your contributions in

shaping our profession and livelihood. I would like to thank my staff, Todd Kranz, Justin Ellison, Jon Dailing and Bret Foster. Leaving the course for meetings and other functions was much easier and less stressful knowing I left it in your capable hands and watchful eyes.

Support of ownership and upper management is important as well in making the commitment to serve on boards and other committees. I would like to thank David Meyer, Bob Lamp and General Manager, Jim Kidd for their support and understanding in my endeavors to give back.

Then there is my family: my wife Kristin, son Leighton, daughter Olivia and mother-in-law, Jojo. Knowing I have the support at home makes everything I do that much more fun. I love you all very much.

Finally, thanks to you. You elected me President when I wasn't even employed. That gesture alone meant a lot to me. I will never forget it. At the end of the day, I hope in your eyes I have served this association well. I have certainly enjoyed every minute of it.



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### **In Bounds**

by Jack MacKenzie, CGCS

A project, a personal challenge with many future returns.

Too long in the waiting, I had been putting off the task as I didn't know how difficult the trial would be. Into it by two months now, I don't understand my hesitancy; the rewards are beginning to show themselves.

Abused and neglected the once beautiful shell sat for too long in the elements, her vibrant red was now a sun scalded, weathered raw and undeterminable hue. Thwart-less and sprung, wooden ribs carefully set in 1972 were free to push outward causing a warped gunwale and off-centered appearance. Stored along a city lake during a summer of discontent, the craft was marred with engraved "KKKs", deep gouges through her veneer, cracked skeleton from a severe attack of boulders and hand woven cane seats decomposed and collapsed. My project had the potential to be a real money pit.

Dropped off years ago, the 15-foot Old Town wooden canoe was a gift from my brother who had originally picked the new watercraft up in Maine with my father. "Now that you live by a lake, you will use it more than me Jack," he said which was actually code for, *I don't have any space to store this ugly boat anymore and you do!* 

Under my deck, decrepit, it sat in stasis collecting dirt, spider webs and leaves as I waited to do something-anything with it. As a superintendent I didn't have time to give the restoration justice and last year I was consumed with a new vocation. Such was my reasoning.

With no more excuses, eight weeks ago I racked it on top of the car, grabbed my father and adventured to North West Canoe for a bit of education. A grumpy passenger, my Dad was angry over the shape of this once valuable "woody". He was frustrated with my bro and disappointed his 85 years of age would deny him the opportunity to really help on the project. With one look at the canoe, Dennis sent us off to Urban

Canoe Restoration in Minneapolis as it was beyond his expertise.

"Come back when you need new seats and varnish," he said as we left.

Phil at UC was equally quick with an assessment. Much to the delight of my father, we (I) would likely be able to restore the vessel (he could hardly wait)...with a lot of elbow grease (he would have nothing to do with)! Dad was happy about the prognosis and I very excited, however not looking forward to the effort ahead. Back to his shop we went with new vigor.

For the last several weeks my fingers have been worn raw hand sanding new seats, a thwart, the gunwales and many, many ribs, which provide the canoe its strength as well as resiliency. There are no tools on the market for taking down the aged finish and preparing the steam bent surfaces for several layers of new varnish. Therefore,I have lost my fingerprints first with 180 grit sandpaper, followed by 280 and then 400 between the coats of marine grade finish.

Besides a finely prepared surface, hand sanding provides time to think.

My mind did wander and eventually I landed upon a theme; perhaps it was the season that brought my thoughts to thankfulness.

To be who I am, where I am and when I am at this moment in history is of great comfort. Food is abundant, my house warm, aggression nonexistent and love readily available. I am healthy, educated, free from addiction, old enough to appreciate what opportunities I have and young enough to dream of more. My vocation is very satisfying and something I really enjoy doing. Although my senses are not what they used to be, I can still watch a flock of cardinals upon the feeders, hear distant thunder in the summer, smell fresh, cinnamon and sugary, baked caramel rolls, taste rich strong coffee and feel the smoothness of hand sanded cedar

On occasion my father will watch me work as he takes a break from puttering at his desk. A great American Hero, I owe him more then he will ever appreciate; my freedom, independence, perspective, drive, humility, intelligence, common sense, retentiveness, humor and likely good looks. A hard man, he was and sometimes still is a real pain in the ass, one trait I temper on my own. In general however, he is a good individual who I am thankful to have in my life. However I currently wish he could still sand.

Each layer of varnish removed and reapplied has taken me away to the sky blue Boundary Waters. Although this canoe would be my solo craft, I contemplate with happiness, fine memories of northern adventures with my children, wife and friends. I am thankful to be surrounded by incredible people who provide me with both tangible and abstract support. With contained excitement I look forward to the three "F"s associated with my BWCA; food, fish and of most importance, friendship.

Seats installed and interior complete, ribs re-formed and thwart in place, the vessel is taking shape. My imagination puts me over twenty feet of cool and clean water, the call of the loon keeping me company, my watchful eyes always looking for moose along the shoreline. With luck this year will offer a long solo trip, time to contemplate my lot in life and reconnect in-depth with my Higher Power.

I am infinitely appreciative for my spirituality. Having worshipped under

several roofs of different denominations, comfort comes easy to me as I give thanks for the many miracles in my life and pray for others to witness the wonders of faith. Non-theological, my ideology is very personal and based upon the experiences I have lived.

Who I am, where I am and when I am interrupt me as I contemplate resurfacing the exterior of my watercraft. Sanding dust mixed with resin will heal the injuries and several coats of two-part, red tinted varnish will almost finish the project. Just a new name on the bow, of course I will keep in the tradition of my father and prefix her name with a "Mac's" and suffix her name with an adjective beginning with the letter "F".

Through the years there have been red canoes named Mac's Fury, Mac's Folly, Mac's Favorite, Mac's Fourth and Mac's Farce (a sailboat!). In perspective I realize each name reflected a stage in my father's life. Hmmm, I believe my craft will reflect my "now"...Mac's Freedom.

My family and I wish each of you a very Merry Christmas and Wondrous New Year ahead.









# You Are Invited!!! **Beer and Pretzel Social**at the Northern Green Expo

5:00 until 6:30 on Wednesday, January 8th in the Rotunda of the Minneapolis Conference Center.

Come on by and have a beverage and hand snacks with your peers before you hit the town.

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#### Taking Your Pulse; Maintaining the Heart of Your Golf

By E. Paul Eckholm, CGCS

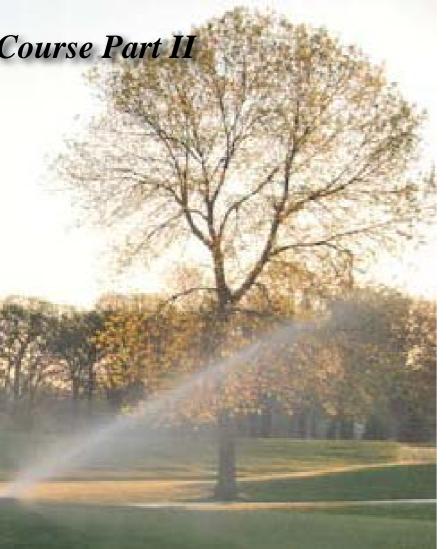


In part I of this series we looked at the foundation of an irrigation system, the water supply and the pump house. In this article we will look at the next link in the system, the pipe and sprinkler heads. This is the part of the system that non-professionals will at least sometimes see. What we tend to see is that irrigation systems are the forgotten piece of the puzzle when it comes to turfgrass maintenance. Many people look at irrigation and think that if the water comes out of the head everything is good. Nothing

could be further from the truth. We as professionals need to realize and communicate that, for the system to be truly efficient and useful, periodic maintenance, repairs, upkeep and occasional updating of the system must be done

#### **Piping**

Irrigation system piping has come a long way in the past 50 years. Many different types of pipe materials have been used for irrigation systems and each has had its own positives and negatives.



Some of the products that may be found currently in use on golf courses are:

☐ Transite - A cement asbestos product, developed by Johns-Manville, used for its strength and long life. The downfall of the product was the asbestos component which when broken or cut would be released to the air and has been demonstrated to cause cancer. It was also difficult to repair when broken. This type of pipe is now considered hazardous waste and needs to be handled specially.

 $\square$  Steel and Ductile Iron – Strong, cheap and abundant. Rust and corrosion of steel and overall weight are the limiting factors with these products. The ductile iron products are still very common in the irrigation industry, mostly used where a strong fitting is needed and the plastic materials will not withstand the forces placed upon it. The type of graphite used in manufacturing of ductile iron makes it much more resistant to corrosion than standard steel.

☐ Galvanized steel – The galvanization was intended to help slow down the oxidation of the steel and the eventual failure of the pipe due to corrosion. The problem is that the minerals in the soil react with the galvanization and accelerate the corrosive process. Also difficult to repair if a hole developed.

☐ **Copper** – Much better anticorrosive properties than the Galvanized steel, however, cost proved to be the limiting factor.

☐ **Brass or cast bronze** – used

mainly for irrigation heads and valves. These products have excellent anticorrosive properties, are very strong and last a very long time. The negatives include cost and brittleness. Brass and bronze heads being replaced with plastic can easily be taken in for scrap and generate a significant amount of cash.

Thermoplastics – This category includes polyvinyl chloride (PVC), polyethylene (PE) and the newest high density polyethylene (HDPE). These products have been the mainstay of the irrigation industry since the early 1970's and are now probably the

most commonly found piping products found on golf courses. They are strong, long lasting, and easy to install and repair. Additionally they are light, corrosion resistant and have excellent insulating capabilities. The downfalls of these products are improper fusion of the pipe, improper pipe rating and overall lack of knowledge about the product and its proper use.

A quick word about pipe ratings:

- ☐ Schedule rating: The schedule rating is a number relating to the wall thickness of the pipe.

  There is no official correlation between wall thickness and photopressure ratings.
- ☐ **Class rating:** The class rating is a pressure rating for normal





operating pressure. This number does not have a standard for surge pressures or water hammer.

- SDR (Standard Dimensional Ratio): this number is a ratio of the pipe diameter to the wall thickness and is a standard ASTM number. Since it is a ratio, the numbers are backwards, ie. The higher the number the thinner the pipe wall.
- As a general rule think of schedule numbers for fittings, generally schedule 40. Class 160 pipe is normally SDR 26 and Class

200 pipe is normally SDR 21.

Once you know what type of pipe is in the ground, the next factor to consider is the pipe sizing. This can usually be determined by looking at an as-built drawing of the system. If you are lucky, there is a very good one of these on the property, if there is not, you should start to develop your own by making notes every time someone digs a hole and finds pipe in the ground. With the knowledge of what is in the ground a superintendent can determine if there is enough capacity to add additional lines to areas previously not irrigated.

Without this knowledge, the risk is that additional heads will either cause too much water flow through a pipe exceeding the flow rating of the pipe or there will not be enough water capacity to operate the heads properly.

Irrigation designers spend a large amount of time making sure that there is proper pipe sizing for the system as designed. If there are plans to add additional areas of irrigation at a later date those, considerations should be planned for in the initial design. Adding lateral lines to a system designed for additional output, is a lot easier than adding new main lines to increase capacity. It may seem like a simple thing to pull in a bunch of additional piping to add heads to a previously non-irrigated area, but the

calculations necessary to add that additional pipe is more than measuring the length of the run and counting the number of heads. That is if you hope to have it work efficiently and effectively.

Knowing what type of pipe, the size of that

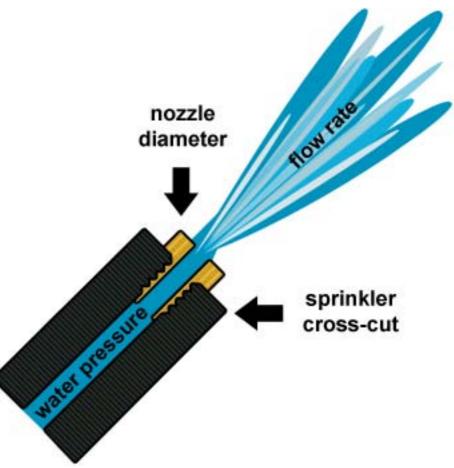
pipe and where it is, can make a superintendents life easy or hard. With the proper knowledge, repairs can be coordinated efficiently, extensions can be made where necessary and updates can be justified.

#### **Sprinklers**

The golf course sprinkler is the one piece of irrigation equipment that is visible to the public. From the beginning the goal has always been to distribute irrigation water evenly across the entire wetted diameter of the throw of the water. As with pipe, there are a number of different products and materials in use on today's golf courses. The earliest golf course sprinkler was the impact sprinkler. A product originally developed for the



agriculture industry, the impact sprinkler forever changed the way golf courses were irrigated. We still see today many courses watering with impact sprinklers and the manufacturers still try to improve on a well developed product. This technology was eventually moved inside of a case that could be permanently buried in the ground and turned on individually or as a group.



As with the above-ground impact sprinkler, the in-ground impact is a tried and true technology that still is in wide use on today's courses. When the engineers determined that there should be a better way of rotating the sprinkler around to improve the uniformity of the distribution pattern, the gear drive rotor was born. This technology was coupled with injection molded plastics to provide what we today see as the mainstay of new irrigation sprinkler heads. Add a valve in the bottom of the head and electric control and you have the

modern golf course irrigation head. Manufacturers continue to work with these products and what we will see in the future will improve control and efficiency.

All of these sprinklers have their place on the modern golf course. However, it is the job of the superintendent to look at how, when and where each of these products is used. As the cost of golf course operations continues to increase it is up to the management teams to help determine areas where efficiencies can be improved. Evaluations of the sprinkler heads should be done on a continuing basis. Initial evaluation should look at the age of he heads, condition and placement.

As with all products, age will adversely affect the performance of the sprinkler. Wear caused by friction of water will wear out the nozzles; this can be exacerbated if the water is dirty or has large amounts of dissolved solids in it. Some nozzle wear is easy to see, some is not. The best way to determine if the nozzle is good

after initial inspection it to conduct a catch can test. This will tell you if the nozzles are distributing the water evenly across the pattern. You do not need to do

every head. If a given number of heads are found to be defective, many of them probably are and should have the nozzles replaced. If the head is physically damaged, it should be replaced. Many times parts can be replaced without needing to replace the entire head.

Check to see if the head is properly placed to cover the area needing to be irrigated. Over time shapes of features on golf courses change. This can cause the irrigation heads to be in the wrong place. Many times they can be easily moved, other times more drastic measures may be needed. If the heads are not level the distribution pattern will be distorted. This seems

like common sense, but the pattern can vary greatly with just a very small tilt.

Delving a little deeper into the operation of the head can reveal some drastic



photo USGA Brian Witlark/Levelift

differences.

Turn the head on and observe the operation. How long does it take to come on? How long does it take



photo sprinklerheadtrimmer.com

to make a full revolution? How long does it take to shut off? All of these things affect just how much water you are applying to a particular area. This may not be a huge problem in the rough, but on a green that already holds water or is dry; this can become a bigger issue much more quickly. These quick observations can lead to finding a head that needs some repair, adjustment or replacement. This saves time, money and additional headaches down the road.

As with the other parts of the irrigation system, a small amount of time invested can lead to more efficient operation of the system as a whole and provide more piece of mind for the superintendent.

Additionally, from a planning

standpoint, these evaluations will aid the superintendent in promoting the updates that may be needed to the system.

E. Paul Eckholm, CGCS, is a former golf course superintendent with over 25 years of experience in golf course management and is currently an irrigation specialist at Yamaha Golf and Utility. Paul has been working with numerous manufacturers of irrigation products for the past 15 years on product development related to water use reductions. Paul currently holds a number of certifications in irrigation technologies.



The mark of any good leader is the ability to listen, guide and administer while understanding the confines of his or her authority. Those qualities have shined through during the tenure of the MGCSA's current president, Scottie Hines, CGCS, Windsong Farm Golf Club.

Hines has served as the head man of the association since January of 2012, and has overseen the growth of the association and the transition of executive directors over that tenure. He has helped spearhead the environmental stewardship committee working with the Minnesota Department of Natural Resources on best management



practices for water stewardship, as well as serving on GCSAA's Governmental Relations Committee. Hines accomplished all this while overseeing the daily operations of Windsong Farms Golf Club.

But for Hines, the commitment to service just kind of makes sense.

Hines started in the golf industry at a very early age in Ligonier, Pennsylvania his home town. He started working at the golf shop at Champion Lakes Golf Course in his early teens, while learning the game he grew to love.

When he entered high school he started working maintenance at Laurel Valley Golf Club for Superintendent Mark Kuhns, CGCS. It was that relationship with Kuhns that would open many doors for Hines, and ultimately lead him to the life he leads to this day.

Hines enrolled at Penn State University in the fall of 1986 after graduating from Ligonier High School in Pennsylvania. With an eye on the business side of golf,

Hines grew frustrated with college

and took a two-year break while continuing to work maintenance at Laurel Valley for Kuhns. It was there in 1989 that Hines got his first taste of preparing for a major tournament when Laurel Valley hosted the US Senior Open.



Hines and First Assistant Todd Kranz review a construction project taking place at Windsong Farm.

To say that Kuhns is a friend and mentor to Hines would be an understatement. The relationship started at a very early age.

"He was my scout leader," Hines said.

Whatever leadership skills Kuhns helped instill in Hines paid off for both men as Kuhns was hired to care for the venerable Oakmont Country Club in 1991, and Hines was right there with him from day one serving as an assistant superintendent. Oakmont would host the 1992 US Women's Open and the 1994 US Men's open during that tenure.

"Mark Kuhns is more than just a mentor, he's like a father figure. I wouldn't be here today if it wasn't for his support and love," Hines said.

With a turf degree from Penn State in his pocket (1993 graduate) and a wealth of experience under his belt Hines made the ascension from assistant to Superintendent in 1996, taking over Riverview Golf Course in Elizabeth Pa. For Hines it was a bit of a culture shock, as Riverview was a daily fee public course with a single owner but he said he wouldn't trade the experience for anything. He said he learned a ton about how to make things work on a limited budget and make do with



In his home "away from home" at the comand center of Windsong Farm

what he had to work with.

"I tip my hat to those guys," Hines said. "The guys who pull off great conditioned golf courses with so little to work with, those are the real (quality) superintendents. Anybody can do it with an unlimited



A well protected family: Leighton, wife Kristin, Olivia and Scottie

budget."

While toiling along at Riverview in the fall of 1999 the winds of change would blow Hines in completely different direction however, and once again it was Kuhns who was providing the air flow. Hines knew Kuhns was trying for the Director

position at Baltusrol Country Club in New Jersey whelf he saw his old friend and mentor riding across the Riverview Golf Course. He knew Kuhns had landed the position.

"He came riding up the fairway, drove up to me and said I got 10 months until the US Amateur, I want you there with me," Hines said, and at that point he became the Superintendent of the lower course at Baltusrol.

While Hines valued his time at Baltusrol, the work was hard, and the hours long. While he was not necessarily looking for a change in 2001, an event changed Hines, and everybody else, on September 11 of that year.

"I watched both towers fall with my own eyes," he said. "I was all done here, it was time to go."

Right about that time Hines had a couple irons in the fire for potential jobs and when he caught wind of a grow-in project in Independence, Minnesota he was keenly interested, not having done a grow in before. With a little leg work from future assistant and Minnesota native Jeff Girard and help from local golf legend Reed Mackenzie, Hines landed the Superintendent position at Windsong



Hines in Washington DC representing the Golf Industry with the GCSAA Government Affairs Committee

Farm Golf Club in 2002, a position he holds today.

"I just had a ball in the interview process, and it seemed like the perfect fit. Reed MacKenzie was very integral in getting me this job," Hines said.

Minnesota ushered in a big change in Hines' professional life. He saw the course grow in, grow up, and is still undergoing change to this day. But Minnesota also ushered in a change in his personal life as well.

Not too soon after grow-in Hines was set up on a blind date with Kristin Leighton, a very accomplished golfer originally from Austin, Minnesota.

"It was just about love at first sight," he said. "She needed convincing but I got her over the ridge. It was the best thing that ever happened to me."

The couple became parents four years ago with Leighton and again two years ago with Olivia. Kristin works with pre-school special education children at ISD 196 (Eagan, Apple Valley, Rosemount) and also keeps her hand in the golf business as both a teaching pro and staff pro at Mendakota Country Club.

With Scottie managing Windsong and Kristin busy with her two jobs raising young children would seem almost impossible except for the Hines' super support system of Kristen's mother Jo-Jo Leighton who lives with Scottie and Kristin, and is a great supporter of both them and the children.

Hines' service to the MGCSA started with a simple invite to

serve on the education committee, and from there he became more and more involved. Over the past decade he has served on the awards committee, research committee and education committee. He helped form the MGCSA environmental award given annually to a nominated recipient. He also helped form and structure along with Paul Diegnau, CGCS and Jack MacKenzie, CGCS the aforementioned Environmental Stewardship Committee.

When asked what he was most proud of accomplishing over his tenure, Hines suggested that his biggest achievement was the structuring of the Board to a committee based entity. That, and the reaching out and engaging of associations like the PGA, MGA and government entities that will help create partnerships that will serve the MGCSA for years to come.

On the national level- he was very proud to be able to get the ear of our Minnesota policy makers and tell them the value of the golf course industry.

I'm (pretty) proud of getting our story out to our elected officials," Hines said. "We told them we can't afford to be over-watering, over



A respectable professional staff; Jon Dailing, Scottie Hines, CGCS, Todd Kranz and Justin Ellison.

fertilizing because that hurts our bottom line. It was great to be able to tell them that story and make them realize we are a pretty good size industry that helps the economy."

Hines presidency came as almost an accident. He related that while he was serving on numerous committees as well as the Board, he wasn't really striving for a presidential nomination. He said it wasn't something that he really thought about or was goal of his, he just came in with the mind-set



Sharing his passion for hunting with son Leighton.

of service and let's see. About four years ago he found himself one of the elder-statesman of the Board and was told: "You're up- you're the oldest guy," which he accepted graciously.

"I got into this just more to give back," he said. "If there's one thing I want them (his children) to understand is giving back. It was never a goal of mine (the presidency) but I'm glad I'm here. We've made some big decisions the last few years, and being a part of it has been very rewarding."

Hines will ride off into the sunset of his service to the MGCSA as Ex-Officio for the next two years, but indicated he will be back sometime, and continue to serve in other capacities. For now, with a young family, it is time serve and lead, with them, as much as he can.

### A smooth transition.



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# The Big Buzzzzz Pesticides and Pollinators, What is the Issue?

By Joe Bischoff, ANLA

Recent media reports and commentary have focused on neonicotinoid insecticides and their potential impact on bees. Many of these stories provide important information for the green industry to consider and reflect upon, while others represent sensationalized perspectives with the intention of driving a political agenda.

Growing plants, tending crops, and managing greenhouses and landscapes are roles for responsible stewards, and our industry's access to and use of insecticides must be approached with the same level of respect. Neonicotinoids are insecticides, capable of killing various insects, and, when used appropriately and as directed by the approved EPA labels, they are useful tools in the fight against invasive insect species and in ongoing efforts to manage pests.

Some recent reports suggest that plants treated with neonicotinoid pesticides are directly connected to Colony Collapse Disorder (CCD)



of bees — a phenomenon in which worker bees do not return to their hive after foraging. Another frequently associated term is Bee Decline, a more general term meant to reflect the decreasing number of managed honeybee hives over the course of decades due to a multitude of issues — including urbanization and fewer beekeepers in the workforce, as well as environmental and pest stresses.

However, research and peerreviewed publications, including those from the United States **Department of Agriculture** (USDA) and the Environmental Protection Agency (EPA) strongly contradict the finger-pointing at neonicotinoids. Rather, the research suggests that CCD of managed hives is likely caused by a combination of factors, including the 1987 introduction of the destructive Varroa mite, bee pathogens and the constant stress of transporting hives to new locations by beekeepers. Fortunately, our native bees do not appear to be impacted by CCD despite dealing with many of the same parasites and pathogens and similar exposure to pesticides. This is not to say that pesticides play no role in CCD or Bee Decline in general — the truth is we don't have all of the answers at this point.

Based on current science, EPA continues to allow application

of neonicotinoids with appropriate guidelines because they are among the safer chemicals available to combat many pests. ANLA is encouraging the research community to pursue its work on this issue without bias and identify the necessary steps to alleviate Bee Decline.

As a proud part of U.S. agriculture, the green industry understands the importance of pollinators to the agricultural industry and our natural environment. We also recognize the

importance of having effective pesticides with low environmental impact. Neonicotinoids, when used properly, are vital to the success of our industry. They are important tools in defending trees, shrubs, and plants against destructive invasive species like the Japanese Beetle, Hemlock Woolly Adelgid



and Asian Longhorned Beetle, in dealing with invasive and often chemical-resistant whitefly species, and preventing the spread of these and other pests. In some cases, neonicotinoids are approved regulatory treatments for certification and interstate movement of nursery and greenhouse crops. In others, they are critical to managing the development of pesticide resistance to other modes of action.

The neonicotinoids represent a tremendous advancement over older pesticide treatment options. When used properly, neonicotinoids effectively control problem insects, while exhibiting less impact on nontarget insects (including bees). Their ability to provide residual control means fewer applications and less applicant exposure. We fear that decisions made to restrict or prohibit use of such materials, without scientific merit, will undermine research and development into new and reduced-risk materials going forward.

We must acknowledge our

stewardship role in using these chemistries, deploy them as part of a management strategy, and always remember to use them only as directed by the EPA-approved label. ANLA, OFA and SAF have collaborated on a "Frequently Asked Questions" which may be helpful in answering questions that you may receive on this volatile issue.

Dr. Joe Bischoff is ANLA's Director of Government Relations. Focused on legislative and regulatory issues connected to pest and disease management, Joe also works in collaboration with the Horticultural Research Institute (HRI), the research arm of ANLA, to develop and implement strategies for responding to new pest and disease challenges facing the industry. He was recently appointed to the Federal Invasive Species Advisory Committee (ISAC), serves on the Tier 2 Commodity Committee for the National Clean Plant Network - Fruit Trees, and is on the Research Committee of the National Ornamentals Research Site at Dominican University of California. Before joining the ANLA in February 2012, Dr. Bischoff was National Mycologist with the Animal Plant Health Inspection Service (APHIS) of the USDA.

photos from public.domain.com

# Neonicotinoid Facts By Joe Bischoff

#### What are neonicotinoids?

They are a class of insecticides, developed in the 1990s and approved by the Environmental Protection Agency (EPA). When applied appropriately, neonicotinoids are vital in controlling harmful and often invasive insect pests with reduced impact on non-target insects (e.g., bees).

#### Why are you using pesticides, especially neonicotinoids?

Controlling pest populations is vital to a healthy agriculture system and pesticides are often one of the important tools for that purpose. Neonicotinoids are frequently used in combination with other strategies as part of an integrated pest management (IPM) approach to reduce pest populations while managing against pesticide resistance development. In some cases, neonicotinoids are approved regulatory treatments for certification and interstate movement of nursery and greenhouse crops.

#### Are neonicotinoids safe for the environment?

It is important to remember their purpose – they do kill insects. However, when used as described on the EPA approved label, as is required by law, they are shown to have reduced impact on non-target insects and represent a significant improvement over older chemistries. Furthermore, they are an important tool in defending our environment against invasive species such as Japanese Beetle, Asian Longhorned Beetle, Emerald Ash Borer and Hemlock Woolly Adelgid.

#### Are neonicotinoids dangerous to humans?

Neonicotinoid chemistry, first developed in the 1990s, represents a tremendous advancement in insecticides. The chemical is based on the nicotine molecule that has been altered so as not to impact human nerve endings but to retain its ability to impact insects. The chemical's ability to act systemically in the plant means that



applicators do not need to spray broadly but instead can target applications and let the plant move the insecticide around. In addition, the residual control means fewer applications and less applicant exposure. Thus far, all the scientific evidence suggests that when neonicotinoids are used as described on the EPA-approved label they are safer for humans, safer for the environment, and safer for non-target insects – including bees.

#### Why has there been so much effort to discourage or ban neonicotinoids?

Some people in the conservation movement in the U.S. and European Union embrace what is referred to as the, "Precautionary Principle." This term has been interpreted by many to mean that any new action or policy should be prohibited unless all of the possible consequences are known in advance. However, the precautionary principle approach actually inhibits research, innovation and incremental improvements. We fear that decisions made without scientific justification to restrict or prohibit use of materials like the neonicotinoids will undermine research and development into other new and reduced-risk materials going forward.

#### Why were 50,000 bees killed in Oregon?

Initial reports suggest that the accidental killing of bees in Oregon would not have occurred if the label instructions had been carefully followed and the appropriate

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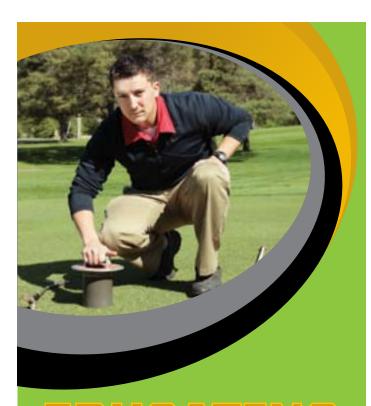
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site, plant, pest, and timing considerations properly taken into account. This unfortunate event serves as a sobering reminder of the need to closely follow manufacturer and EPA-approved labeling.

### What happens if growers and landscapers can't use neonicotinoids?

Some insects can cause significant damage to crops and their populations must be controlled. If growers and landscapers cannot include neonicotinoids as part of their pest management strategy they will have to turn to other chemicals, which are more likely to interfere with beneficial insects and other IPM options. Neonicotinoids are an important and advanced tool in our toolbox, so long as they are properly used.

## What is the difference between Bee Decline and Colony Collapse Disorder (CCD)?

"Bee Decline" is a more general term that reflects the decreasing number of managed honeybee hives over the course of decades due to urbanization, pests, pathogens, beekeeper retirements and other causes – including CCD. Colony Collapse Disorder is a syndrome where worker bees from of a European honeybee colony do not return to their hive after foraging. The cause for this abrupt change in behavior remains unknown but is believed to be associated with a number of interacting factors like – parasites, pathogens, genetics, malnutrition, migratory beekeeping, habitat loss, and environmental stresses, which does include pesticides.

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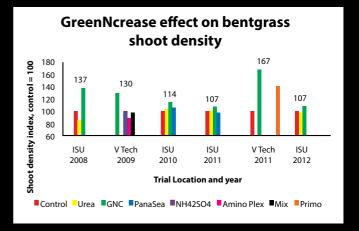


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#### How Do You Like To Stay Informed?

Madeline Leslie, Sam Bauer, and Dr. Brian Horgan

The title of this article might lead you to believe that we are asking you how you like to stay informed. Actually, we already did. So for now there's no need to rack your brain. Just sit back, relax and read on. For the 160 MGCSA members that completed our online needs assessment survey last year, a resounding THANK YOU. The purpose of this article is to summarize the results of this survey and to

inform you of how we will utilize this information to best serve you in the future.

### Purpose of the needs assessment survey

In the area of golf course management, it can be difficult for a person to know what to do when an issue arises, especially if this issue needs to be addressed quickly.

Usually while trying to solve a problem, it is helpful to look up the appropriate information, or call upon knowledge one already has. But what about times when that information is difficult to find, or the turf problem is unique and hasn't previously presented itself? To help stop a lack of know-how and inaccessible information from preventing quick solutions to turfgrass management issues, a survey was conducted last year to determine common turfgrass management practices and problems among survey recipients, as well as preferred methods for learning about and receiving information on turfgrass and lawn care. The results of this study will be used in the future to provide the most useful information in effective and easily accessible ways.

#### How the survey was conducted

The survey was conducted by sending out online questionnaires designed in Qualtrics to those who agreed to participate, and 1,234 people returned completed surveys. The survey was available over the period of January 1<sup>st</sup> to March 31<sup>st</sup>, 2013. Most respondents were homeowners (80%), while the remainder cared for turf in some other facet, such as in their professional life. To be honest,

this survey was initially written with homeowners in mind, with the main goal of disseminating low-input lawn care information in the way that they prefer to receive it. With the overwhelming response from golf course managers, this information will can be used to help drive our educational programs for you.

#### MGCSA member results

Of the people who completed surveys, 160 (this means you!) stated that they took care of golf course turf. When it came to how golf course managers like to get their information, 'listening to an expert lecture' was ranked in the top five choices most often, followed by 'browsing a website', 'reading', 'watching a demonstration', and 'watching a 3-5 minute video' (Figure 1). In regard to ways one would stay up to date on future turf information, websites were the most popular choice, followed by newsletters. Upon considering the information presented in a website, the source of information was most often chosen as the most important aspect of the site, followed by the presence of informative text. An additional question asked if there were any practices not previously listed in the survey that the respondent

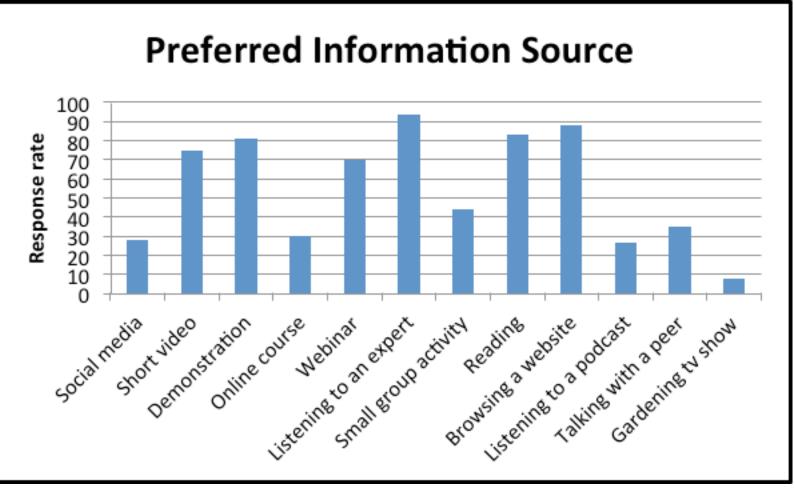


Figure 1. Golf course managers preferred information source to learn more about turfgrass management.

would like to learn more about. Golf superintendents wanted to learn more about specific topics, such as drainage issues, growing degrees days, and environmentally friendly practices, like organic products and low-input maintenance.

Further on in the survey, respondents were asked about lawn care products that are widely available at home improvement stores and garden centers. Of the questions on this topic, the answers to one question stood out when compared to the rest. When presented with the statement

'Advertisements for the products available accurately represent the results I have experienced', the average of the answers fell somewhere between 'slightly disagree' and 'slightly agree'. This indicates that many golf course superintendents think the products available to homeowners do not always do precisely what they are advertised to do. In particular, when looking through the explanations as to why respondents answered the way they did, there was a general consensus that the products available for homeowner

use are of lower quality and not as effective as the products available to golf course managers, despite that many of these widely available products advertise themselves as being able to, in the words of one respondent, "...make your home lawn look like a golf course".

Ninety-five percent of golf course managers that responded had in the past attended a lawn care or turfgrass event. Most people had found out about the said event from a newsletter or from an individualized option, such as the MGCSA. In regard to future events, every respondent was interested in attending one, and most saw value in longer rather that shorter events (Figure 2). About a third would prefer to attend an event that was half a day, and another third an event that was a full day. Of the remainder, 22% were in favor of an event lasting from 1-3 hours, 14% an event longer than a full day, and only 4% wished to attend an event that was less than an hour long.

Travel time choices were spread out as well, with 38% willing to travel 30-60 minutes, 28% between one and two hours, 20% more than two hours, and 14% less than a half hour (Figure 3). Not surprisingly, most respondents indicated that they would prefer to attend an event that was held in the morning or afternoon on a weekday during one of the winter months. January and February were the highest



Figure 2. The amount of time that golf course managers are willing to dedicate to an educational event.

ranking months for an event. Finally, in regard to payment options, about half of the golf superintendents felt that somewhere between \$20 and \$50 was a fair price to pay to attend a turfgrass event. 32% were willing to pay somewhere between \$51 and \$100, while 12% would pay over \$100. The remainder (totaling 8%) would either not pay at all for an event or only pay an amount that was less than \$20.

A comparison of all results

The largest group of folks who responded to the survey were people who took care of home lawns. When comparing that group to golf course managers, there were some differences that stood out. When both groups were asked about how they wanted to stay up to date on turfgrass or lawn care issues, homeowners answered 'newsletters', 'websites', and 'social media' at a lower rate and 'garden centers and 'general media' at a higher rate than golf superintendents. This is certainly no surprise. The remainder of the questions that asked about

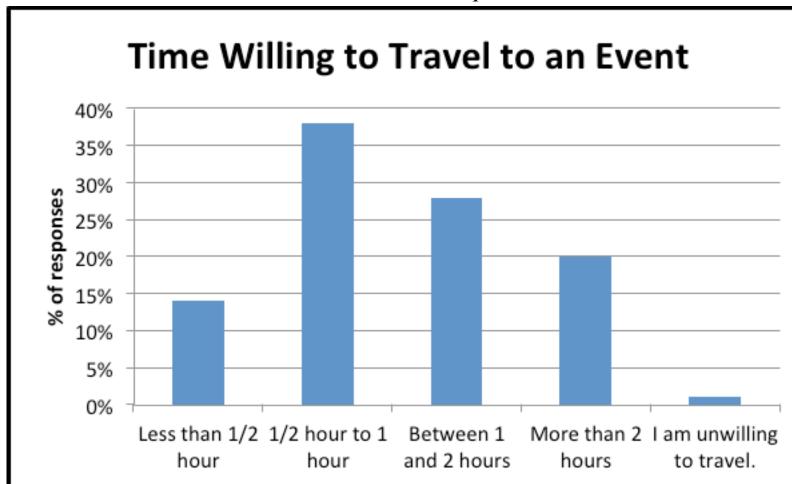


Figure 3. The amount of time that golf course managers are willing to travel to an educational event.

information reception resulted in answers from both groups that were very similar.

The turf management practices used by each group were different as well. Whereas most professionals conducted all of the common practices, homeowners were more divided. In particular, homeowners tended to not use insect or disease control, which they indicated was because they did not believe there was a need, they had environmental concerns about the practices, or lacked the knowledge to use those controls.

Additionally, homeowners were evenly split between whether they aerated their lawns or not, and when they did not aerate, it was because of a perceived lack of need, time, or knowledge. When asked the question about lawn care topics they would like to learn more about, homeowners were interested in a wider range of topics than golf superintendents, especially about subjects turf professionals may consider basic knowledge.

Homeowners most frequently wanted more information about issues with bare patches or thinning turf, low-input lawn care and organic products, pest issues caused by moles, voles, and Japanese beetles, choosing the correct turfgrass for certain situations, weed and disease control

options, and best cultural practices.

Regarding turfgrass or lawn management events, 44 % of homeowners had heard of a recent event they had attended through the University of Minnesota Extension, but 37 % had never attended an event of this nature. This is very different from golf course superintendents, almost all of whom had attended a turfgrass event, and had heard about it from a few different sources.

Over half of homeowners wanted such events to be one to three hours long, 18% preferred half day events, and 12% would attend events that were less than an hour. Golf course superintendents had a different, more even distribution that leaned towards longer events. Homeowners also preferred to travel shorter amounts of time to lawn care events, with 49% willing to travel 30 to 60 minutes, and 39% would travel no more than 30 minutes. This group also would rather attend these events in the morning and afternoon on weekends, or the evening on weekdays, mainly during the months of March and April, and February and May to a lesser extent.

The discrepancy between these groups in terms of event timing can likely be explained by work activities, as most superintendents would be attending events during their work

hours as part of their professional development, whereas homeowners would likely need to attend events outside of their normal work hours. In terms of payment, homeowners were willing to pay less money for turfgrass events, with 50% only willing to pay up to \$20, 29% wanted to pay between \$20 and \$50, and 15% not willing to pay for an event at all. This makes sense, as golf superintendents would be more likely to be using funds provided by their employer to pay for events and thus willing to pay more money. Additionally, turf management problems may be a less pressing issue to homeowners, as their jobs do not depend on them solving problems in their home lawn.

#### How we will use this information

It makes sense that there are different groups of people in our community that need and use information about turfgrass and lawn care. Before this survey was conducted it wasn't clear if there were differences in the type of information various groups of people use and how they like to receive it. The results from the survey indicate similarities and differences between the two groups, and this information can be used to give different groups of people the

information they want through the best channels and at the correct time of the year.

Golf superintendents need access to turfgrass information year round, but during the growing season will likely want to access information quickly, perhaps in an online format or through regular newsletters. During the winter, when they have more time, this group clearly wants to receive in-depth information on specialized topics during events such as multi-hour workshops. Given this information we will continue to refine a variety of information in multiple easy-to-access formats during the busier season, and structure the more time-consuming in-person events so they are predominantly scheduled during the winter months for the appropriate price and travel commitment.

Homeowners are interested in basic information about a wide variety of turf-related topics, and like golf superintendents would also be able to use this information year round in an easy-to-access manner. A well designed website can provide relevant turf management information to both groups of people and longer events could be held for homeowners in the early spring, on subjects they were interested in learning more about.

#### Final thoughts

Thank you again to all the MGCSA members who completed this survey. Without your help, we would never have been able to glean the insight we have about the best ways to deliver the correct information about turfgrass to the different groups of people who need it. With this new knowledge, we will be able to modify and sometimes substantially change our current practices to better meet your future needs and ultimately create more successful and valuable extension programs for you.

### **Current University of Minnesota Extension Turfgrass Management Resources:**

Turfgrass Science Program Website and Blog: <a href="www.turf.umn.edu">www.turf.umn.edu</a>
Extension Turfgrass Management Publications and Interactive Tools: <a href="www.extension.umn.edu/turfgrass">www.extension.umn.edu/turfgrass</a>

Sustainable Urban Landscape Information Series: www.sustland.umn.edu

Yard and Garden News Blog: www.blog.lib.umn.edu/efans/ygnews

Soil Testing Laboratory: <a href="www.soiltest.cfans.umn.edu">www.soiltest.cfans.umn.edu</a>

Plant Disease Clinic: www.pdc.umn.edu

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### Within the Leather

by David Kazmierczak, CGCS

By now everybody reading this column is deep within the frozen confines of the

off season in the upper Midwest.

Mother Nature let us hang-on through
Thanksgiving this year and then
slapped us on the behind with the cold
reminder that she is in charge and there
will be no messing around. Winter is
here for good.

When winter comes, two things happen for me: the reflection upon the previous season and the planning for the new. We are blessed (or cursed depending on how you view it), that we have this period of reflection. It's a period our brethren to the south are not afforded. It allows us plenty of time, the further north you go, to identify successes and failures, strengths and weaknesses and develop strategies to alter both for the next season. The further along I go in my career, the more important I feel this time has become for any number of reasons, but mostly because time in everyday life is becoming the most precious commodity any one person possesses. For a manager, the value is exponential.

As golf course superintendents we are

asked to do about a half a million things, wear a thousand different hats and be at least somewhat skilled at all of them. The further north you go, you are asked to do them all and accomplish everything in a much shorter period of time. The reward is that the off season is supposed to allow for a mental and physical break from the busy season and afford the turf manager time to make him or herself more efficient when the new season arrives. This is sound in theory, but are you actually able to accomplish that goal? More so than ever, it is critical that you do.

The old adage that time equals money has never rang truer. I know I don't have to beat anybody over the head about shrinking budgets, shrinking salaries and rising expectations. There is a finite threshold in all that we do. To produce the conditions at golf course X it takes X number of dollars. I can't imagine that there is a turf manager that hasn't streamlined his or her operation streamlined and got the most out of what they spend in 2013. If they didn'tshame on them. The only area in which to further streamline an operation is in the area of time management, and I don't care what your operation or budget there probably is someplace that time can be saved with a new procedure or product. The trick is finding that procedure or product.

Technology is one good place

to start. The invention of personal computers, ipads and such allows a tremendous opportunity to develop systems than can save time. It's just a matter of finding the time to learn them so you can save more time. Some of these devices seem to be more work than they are worth, but there is no doubt they have made a lot of things more efficient. They have also opened the door to communication both from an individual and group perspective. The sharing of ideas promotes efficiency. Ask, seek and share with other people in the industry. It will only make us all better at saving time.

Another avenue is taking a seminar or class pertaining to becoming more efficient or dealing in an area of interest that will make you more proficient at that individual interest. There are many of these opportunities both locally and nationally. It has been my experience, however, that it's one thing to take one of these seminars and hear the thoughts and ideas, quite another to actually follow through and implement or incorporate these ideas to help become more learned or efficient. To take a class and not use what is taught you is simply wasting time.

If you put your mind to it, I am willing to bet you can come up with many ways and many vehicles for which you can become more efficient and save on more time. Too often we get caught in a trap of focusing all that needs to be done, thus becoming overwhelmed instead of compartmentalizing, and developing systems with which to deal

with individual or sets of issues. I will not refute anybody that says people have more on their plate than ever before. However, I would respond that there are more tangible things to help manage those issues than ever before.

My parents and parents in-law are in their seventies and eighties. Though slowing down the past 10 to 15 years they are still active and able to do things in life. If I had a dollar for every time I heard we are so busy or we just don't have the time I might have enough to fund the new Vikings stadium.

As I look at their lives in retirement during that time I am amazed at what they consider busy. Their busy is about 45 minutes of my life but it seems to consume them and put them in a mind-set of: "I'm always busy." Think about this: how many times do you greet somebody and within five minutes the words I'm so busy or I've been so busy come out of your mouth? More than you probably realize. Stop it! It's counterproductive, the person you are talking to probably is two times busier than you and you sound like a whiner! I know, I've been that person.

Instead, make a pledge to come up with a positive thing you have done that helped make you more efficient to share with that person. It's a big challenge but you have a lot of time this winter to work on it!

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