

**Roger Stewart CGCS
President, MGCSA**



Hole Notes

The official publication of the MGCSA

Vol. 48, No. 10 November/December 2014



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February 25
The National
Hard Rock Cafe, San Antonio
Hosts Mike Kelly and Larry Gorman



EDITOR

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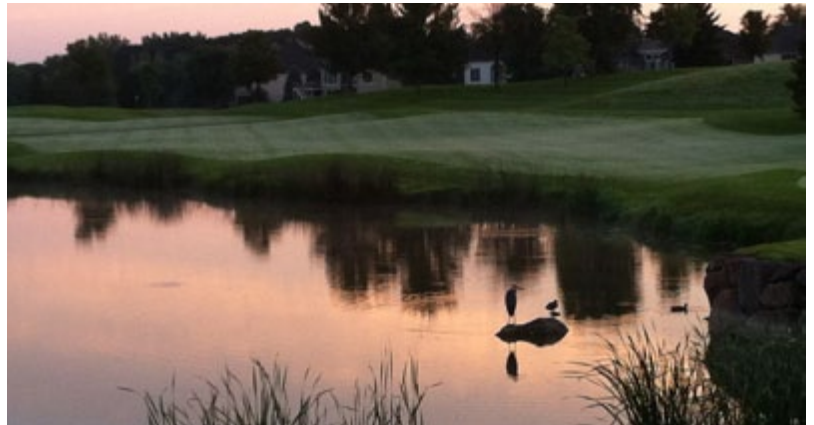
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President MGCSA
2014



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from the UMN

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Presidential Perspective

by Roger Stewart, CGCS Superintendent at TPC Twin Cities

This will be my last President's Message and I want to thank all

continue to validate our efforts well into the future. I look forward to serving with Scottie as Past President.

of the members of MGCSA for their support during my time on the Board of Directors. The time spent as a Director and Officer of this association has been very rewarding for me, as I have watched and participated in a number of significant changes that continue to have a positive impact on the growth of this association. I thank all those members of the Board of Directors with whom I have served for their service and dedication to our association. In particular, I want to recognize the efforts of Scottie Hines CGCS for his vision and guidance over the past three years both as President and most recently as Past President. As President, and with the support of his ex-officio Paul Diegnau CGCS, Scottie guided the Board of Directors through the most significant period of change in the last twenty years or more when we decided to go in another direction with the management of the association. His vision and foresight are responsible for the framework of success that will

At the upcoming Annual Meeting at the Green Expo, you will hear about the many initiatives, successes and accomplishments MGCSA has had over the past year. Together, there are too many to mention here, but I would like to mention four that I feel have had the most impact on our association over the past year. The first is the successful initiation of the Member Driven Research, which will continue to pay dividends for every member well into the future, and enrich our strong relationship with the turf research program at the University of Minnesota. The second is the outreach program, which was developed out of our strategic planning meeting two years ago, and continues to grow our bond with our outstate members making MGCSA truly a state association. The third is our growing relationship with the Wee One Foundation, which has generously supported several MGCSA members and their families as they battle with serious illness. Our commitment to the Wee One event

here in Minnesota grows every year and I thank those who participate and donate to this very worthy cause. The fourth is the ongoing effort by MGCSA and our allied associations of the MPGA, MGA, CMAA and MWGCOA serving on the Minnesota Golf Environmental Stewardship Committee. This committee has built significant relationships with Minnesota regulatory agencies to develop a Golf Course Environmental Certification program built on established and validated best management practices. Through these relationships, we can provide irrefutable evidence that golf courses are good for the environment and are good stewards of water and natural resources. Stay tuned for more information on this critically important work for our future.

The Board of Directors sets the course each year for our association and works diligently to ensure the agenda is followed and the goals are met. There is one person who carries out the plan and is ultimately responsible for the success of our initiatives and that is our Executive Director, Jack Mackenzie. What Jack has accomplished in the last three years is nothing short of amazing

and he deserves every recognition I can give him. His work on Rounds for Research, the Wee One outing, Environmental Stewardship Committee, Outreach, Member Driven Research, Stimpmeter, Hole Notes, building relationships with regulators, allied associations and legislators is the driving force that helps keep our association moving forward every day. Without his unrelenting energy and dedication to our association, we would fall woefully short of our goals. Please take the time to thank Jack for all he does for MGCSA the next time you see him.

On behalf of your Board of Directors, I am happy to tell you that the MGCSA is a strong association on all fronts. MGCSA is known nationwide as a progressive and proactive association that looks to the future and sees opportunity to build on their founding pillars of Education, Outreach and Advocacy. Because your Board of Directors seeks out the opinions of your Past Presidents every year, I can assure you that I will remain active as your President Emeritus. Members of MGCSA have much to be proud of and I thank you for giving me the opportunity to lead this great association.



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FUNGICIDE CHEMISTRIES AND MODES OF ACTION

This seminar will provide a review of the major classes of fungicides used for disease control on golf courses. Mode of action, systemicity and resistance development will be a focus for the talk. The best uses for the control of key diseases will also be covered. This seminar will also highlight new fungicide products and how they can be best used.

POA ANNUAL DISEASES – BROWN RING PATCH, ANTHRACNOSE, & SUMMER PATCH

This seminar will highlight information on three key diseases of annual bluegrass used as golf course turf: brown ring (Waitea) patch,

anthracnose, and summer patch. Identification, timing and key cultural and chemical controls will be discussed. Integrated management of these diseases in seasonal programs will be featured.

DISEASE MANAGEMENT TIPS FOR HARD TO CONTROL DISEASES

This seminar will highlight information on “hard to control” and emerging diseases of golf course turf. Tips and tricks for the control of fairy ring, fungicide-resistant dollar spot, and bacterial diseases will be highlighted. Cultural and chemical controls will be discussed, including the development of seasonal control programs.

BIOGRAPHY

Frank Wong, Ph.D., is a technical specialist and part of the Green Solutions Team at Bayer Environmental Science. He is based in the Washington, D.C. area and focuses on the Mid Atlantic and Northeastern U.S. Prior to joining Bayer, Dr. Wong was an associate professor and turf disease specialist at the University of California, Riverside, from 2001-2011, where he had statewide research and extension responsibilities. He earned a B.S. in Biochemistry from the University of California, Davis and a Ph.D. in Plant Pathology from Cornell University. Dr. Wong currently has national responsibilities for technical service for Bayer’s fungicide portfolio for turf grass use. He has been an



Dr. Frank Wong

associate editor for Plant Disease and editor in chief of Plant Disease Management Reports. In addition to participation in many state and regional turfgrass conferences around the United States, he has also lectured internationally on turfgrass disease identification and management. He has been a GCSAA faculty member since 2003 and is an instructor for the warm season turf disease course.

USGA RULES OF GOLF AND HOW THEY AFFECT COURSE MAINTENANCE

Golf course maintenance and the Rules of Golf should work hand-in-hand with each other. However, they can be at odds with each other if not handled properly. This session will offer superintendents and administrators a look at

how to improve day-to-day maintenance procedures (e.g. course signage, hazard marking, etc.) while also affording the golfer a proper field to play on.

BIOGRAPHY

Tyler Riggan is a graduate of The University of Tennessee and has 11 years of experience

in golf administration with The Golf Association of Philadelphia, The Pennsylvania Golf Association, and United States Golf Association. Riggan is currently Director, Regional Affairs - Great Lakes Region (representing 7 states).



Tyler Riggan

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In Bounds

by Jack MacKenzie, CGCS

“Go placidly amid the noise and haste, and remember what peace there may be in silence”

I meditate daily...when I remember to.

Like a tattoo upon skin, the opening words and content espoused upon in the Desiderata have been etched into my mind since a young boy. Hung upon the wall in the bathroom I shared with my brother in my youth, at the time the sentences never really resonated as I had seen them so often that the letters just smeared together. It was a token posting to read while passing a few moments each day.

Not until I received my own, framed copy to take with me to freshman year at college did I begin taking the message to heart. Besides being comprehensive and easy to read, the material was applicable to many situations encountered in my life.

“As far as possible without surrender be on good terms with all persons.”

In my earlier days, I was often distraught for long periods of time, even years, over individuals for whom I thought had done me wrong...such a waste of my time and energy.

“Speak your truth quietly and clearly; and listen to others, even the dull and the ignorant; they too have their story.”

Honesty is truth; just don't ask me a question that you might not like my answer to. Sometimes it is hard, but hearing is as important to listening.

“Avoid loud and aggressive persons, they are vexations to the spirit. If you compare yourself with others, you may become vain and bitter; for always there will be greater and lesser persons than yourself.”

I like whom I am, where I am and when I am in this continuum of time we call 'life'. And I am very grateful for my existence, no greater than or lesser than anyone else.

“Enjoy your achievements as well as your plans. Keep interested in your own career, however humble; it is a real possession in the changing fortunes of time.”

I loved being a golf course superintendent and am equally enamored with this chapter of my life. Everyday is another adventure. I own my destiny.

“Exercise caution in your business affairs; for the world is full of trickery. But let this not blind you to what virtue there is; many persons strive for high ideals; and everywhere life is full of heroism.”

With great appreciation, I trust and value the opinions and insight of others...but I am not stupid and invest, fiscally and emotionally, with reasonable vigilance.

“Be yourself. Especially, do not feign affection. Neither be cynical about love; for in the face of all aridity and disenchantment it is as perennial as the grass.”

This line is cool as it mentions grass! I am who I am.

“Take kindly the counsel of the years, gracefully surrendering the things of youth.”

I'm not ready for this as getting old really sucks.

“Nurture strength of spirit to shield you in sudden misfortune. But do not distress yourself with dark imaginings. Many fears are born of fatigue and loneliness.”

A recovering alcoholic, divorcee and sometimes too hard on myself, I am fortunate to have a 'higher power' whom I can disclose my worst fears to and unburden myself.


“Beyond a wholesome discipline, be gentle with yourself. You are a child of the universe, no less than the trees and the stars; you have a right to be here. And whether or not it is clear to you, no doubt the universe is unfolding as it should.”

I'm a guy and I really, really like affirmation.

“Therefore be at peace with God, whatever you conceive Him to be, and whatever your labors and aspirations, in the noisy confusion of life keep peace with your soul. With all its sham, drudgery, and broken dreams, it is still a beautiful world. Be cheerful. Strive to be happy.”

My framed copy The Desiderata resides upon the wall in my office for easy reference. Yes, it is a beautiful world, be cheerful and strive to achieve happiness.

I wish each of you a Merry Christmas and Happy New Year.



Go placidly amid the noise and haste, and remember what peace there may be in silence. As far as possible without surrender be on good terms with all persons.

Speak your truth quietly and clearly; and listen to others, even the dull and the ignorant; they too have their story.

Avoid loud and aggressive persons, they are vexations to the spirit. If you compare yourself with others, you may become vain and bitter; for always there will be greater and lesser persons than yourself.

Enjoy your achievements as well as your plans. Keep interested in your own career, however humble; it is a real possession in the changing fortunes of time.

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Beyond a wholesome discipline, be gentle with yourself. You are a child of the universe, no less than the trees and the stars; you have a right to be here. And whether or not it is clear to you, no doubt the universe is unfolding as it should.

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Max Ehrmann, "Desiderata"

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- 8:30 - 9:30 Environmental Advocacy and MGCSA Update Jack MacKenzie
- 9:30 - 10:30 Member Initiated Research Update, Sam Bauer UMN
- 10:45 - 11:45 Emerald Ash Borer Update, Jeff Palmer Arborjet
- 11:45 - 12:30 Incredible Lunch
- 12:30 - 2:00 Open Turf Forum, Share Ideas and Learn Something New

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PROFESSIONAL EMPLOYMENT PORTFOLIOS

Portfolios can help you market yourself to employers by providing a visual representation of your education, experiences and skills. Contact the career development office for assistance in creating your professional portfolio.

How do I start organizing a portfolio?

- ³⁵/₁₇ Keep in mind that portfolios are *optional* – it is up to you to decide if creating a portfolio will be an effective tool in your job search.
- ³⁵/₁₇ Decide which of your skills and experiences relate to the needs of the employer, and gather materials that will exhibit those skills and experiences.
- ³⁵/₁₇ Buy a 3-ring binder and a supply of plastic page covers to present your materials in a professional manner.
- ³⁵/₁₇ You may want to label different sections for ease of finding information in the portfolio.
- ³⁵/₁₇ Keep similar information together (e.g., put all the recommendation letters in one section).

How do I share my portfolio with a potential employer?

- ³⁵/₁₇ Always bring your portfolio with you to interviews.
- ³⁵/₁₇ When an employer asks questions about your experiences, use your portfolio to support your responses.
 - For example, the employer might say, “I see that you worked at your school newspaper. What were your favorite writing assignments?” Your response might be, “My favorite assignments included this health article (show article in portfolio) that required a lot of research and this creative writing piece (show article) that I wrote for a special edition.”
- ³⁵/₁₇ You may not have the opportunity to show your portfolio in an interview. However, you can offer to send copies of the materials to the employer as a follow-up to the interview.
 - You can also offer to leave the portfolio for the employer to review at his or her convenience. If you choose to do this, determine with the employer a day when you can stop by to pick up your portfolio. Be sure to have back-up copies of the materials in case the portfolio is misplaced.

Portfolio Contents

Consider including the items listed below in your portfolio:

- ³⁵/₁₇ Copy of your resume
- ³⁵/₁₇ Copy of your transcript
- ³⁵/₁₇ List of experiences that you were unable to fit in your resume (i.e., summer jobs, volunteer experiences, co-curricular activities)
- ³⁵/₁₇ Certificates, awards or honors
- ³⁵/₁₇ Certifications for special trainings
- ³⁵/₁₇ A program from an event you planned or in which you participated
- ³⁵/₁₇ Samples of relevant papers or projects
- ³⁵/₁₇ Letters of nomination to honors or academic organizations
- ³⁵/₁₇ Recommendation letters
- ³⁵/₁₇ Newspaper articles that address some achievement
- ³⁵/₁₇ Internship evaluations, summary reports or projects

7 Seemingly Harmless Topics to Avoid During the Interview Process

By Patrick McGuiness, Zlimen & McGuiness, PLLC

It can be tempting to start off every job interview with a little chit-chat, asking candidates about their family and private life. But you should be cautious before asking personal questions—what would be harmless small talk in any other context can easily raise the specter of discrimination during a hiring process.

To help you figure out how to avoid legal headaches, I have put together this list of common questions that might be welcome at a cocktail party but should not be asked about in an interview.

1. Are you married? Are you planning to have children?

Asking applicants about their family can seem like a nice ice-breaker, but in fact it is number one on my list of topics to avoid. State and federal laws prohibit employers from discriminating on the basis of sex. Asking female applicants whether they have or plan to have children implies that are you not interested in hiring women with

children—a direct violation of the law.

In addition, in Minnesota, all employees are protected from discrimination on the basis of familial status. So you should avoid asking whether candidates are married, or even whether they have family responsibilities.



Asking probing questions about applicants' family life can also be uncomfortable for gay and lesbian candidates, who are protected from discrimination under Minnesota law.

2. What country are you from originally? What's your ethnicity?

Most employers know not to ask candidates about their race. But it's just as important to avoid asking questions about a candidate's ethnicity or national origin. Even when candidates have obvious accents, you should avoid asking them what country they come from because state and federal laws bar discrimination against job candidates based on their country of origin.

3. Are you religious? What church do you attend?

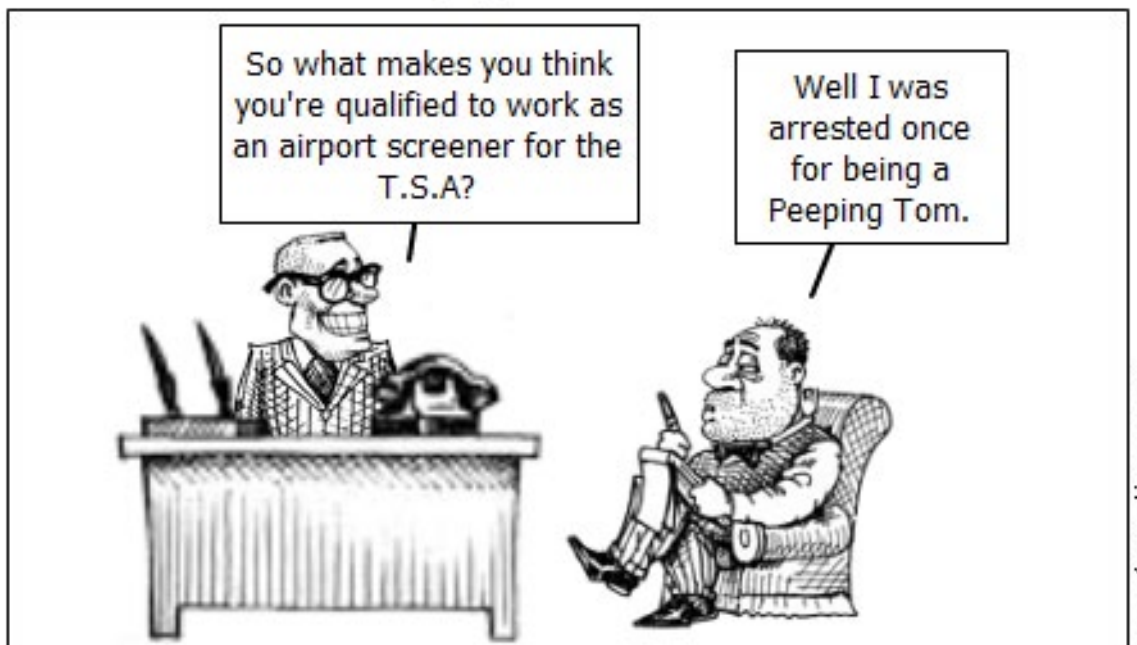
You may just be making small talk or trying to find common ground when you ask a candidate if they go to church, but

this is another topic that is best avoided. The law protects people from discrimination based on their religion, and any mention of religion could imply that you are only interested in hiring applicants who share your faith. Instead, discuss something more neutral like whether candidates have any hobbies outside of work.

4. Do you have any disabilities?

You should be very careful when discussing disabilities. If candidates have obvious disabilities that might make the job difficult, it is appropriate to ask how they plan to perform the job and what type of accommodation they may need. But unless you have a reason to believe a candidate has a disability that will impact his ability to do the job, do not ask about disabili-

Job Interview by john horse



ties.

5. When did you graduate from school?

If you learn a candidate went to the same school as you, it may be reflex to ask when he graduated. But asking what year a candidate graduated—particularly from high school—is also an easy way to estimate how old he is. Since the law protects employees from discrimination based on age, this is a question you should definitely avoid.

6. I see you were in the military, what type of discharge did you receive?

Because federal law protects some veterans from employment discrimination, it is best to avoid probing into why someone was discharged. Instead, focus on talking about what candidates with military experience learned or what skills they used while they were serving.

You should also avoid asking candidates if they are likely to be called up for military duty, if they are members of the Reserves or National Guard, or any other questions that suggest that you are less likely to hire or promote someone because of their military ser-

vice.

7. Have you ever been arrested?

While the law allows employers to check a candidate's criminal history before hiring, you cannot ask about arrests. Because an arrest is not proof that a candidate committed a crime, it does not reflect on their character or ability to perform the job.

Even if a candidate has been convicted of a crime, it may be illegal for you to use that as a reason not to hire him if the crime isn't relevant to the position. In Minnesota, most employers are not allowed to ask job applicants about their criminal history when they first apply for a job. But once a candidate reaches the interview stage, it is legal to ask if he has a criminal record.

This article provides general information on employment law matters and should not be relied upon as legal advice. A qualified attorney must analyze all relevant facts and apply the applicable law to any matter before legal advice can be given. If you would like more information regarding employment law or other legal matters, please contact Zlimen & McGuiness, PLLC at 651-206-3203 or pmcguiness@zmattorneys.com



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President Roger Stewart CGCS, An Unpretentious Professional

By Dave Kazmierczak CGCS cover shot by Seefeldt Photo

“Hi Dave come on in and sit down, I’ll be with you in a second,” Roger Stewart, CGCS said to me, focusing on his computer in his immaculately kept office recently, as I had dropped by for a chat.

“No Problem Rog,” I replied,

shedding my winter apparel. “What are you up to on this (frigid) day?”

“Oh just finishing the weekly report,” he stated without so much as a look up.

“I sure am glad I don’t have that to do all the time,” I said back,



ional

laxed and nonchalant way. “You get used to it.”

Now given the opportunity presented, it wouldn’t be far-fetched to imagine that at least 80% of all superintendents asked the same question would have gone into a dissertation about their loathing of paperwork and red tape already mentioned, but for the current MGCSA President it was just part of the job, part of the tapestry of what has been a long and remarkable career—which isn’t surprising if you have ever been fortunate enough to talk with him.

It is hard to encapsulate what it is like to talk to Stewart without actually experiencing it. With close to a half-century of time spent in the golf course industry, numerous tournaments managed, four Presidencies of local GCS chapters and experience at TPC clubs in both the Northern and Transition Zones you might expect a sense of entitlement or even arrogance. That thought leaves you instantly the second you meet him. What does enter your mind is that he is as easy going and approachable as

envisioning a constant stream of paperwork and red tape that I associate with working for a management company as Stewart has done for decades. The response I got back was not exactly what I expected.

“Nah,” he said in the most re-

anybody, and then you realize he is like E.F Hutton- the now defunct financial provider who's commercials became famous for the catch phrase: "When E.F. Hutton talks- people listen."

When Roger Stewart, CGCS talks- people listen.

...And for good reason. Stewart started out graduating from high school in his home town of Kankakee, Illinois. From there he enrolled in tiny Doane Collage in Crete, Nebraska trying to figure out what he wanted to do in life. After a couple years at Doane he came to the realization that he kind of liked his summer jobs spent in Illinois working at the golf course and decided to pursue a career in the field at the

University of Nebraska where he received a degree in Agronomy, Crop and Soil Science in 1973.

"By the time you get to the middle of your sophomore year, you are kind of feeling pressure to decide what to do. I said what the (heck), I kind of like working on the golf course " Stewart said.

From there it was back to Illinois. Stewart was hired by Bob Williams, a renowned area Superintendent and Past President of GC-SAA, as an assistant-in-training and with Williams' help, landed his first Superintendent job at Midlane CC in Waukegan, Illinois in 1975. From there he moved to Riverside Golf Club in North Riverside, Illinois where he worked for 10 years from





1978-1988.

“That was a real good job. It was a middle-of-the-road private club and the members really took good care of me. Moved my salary up every year, but I knew I was getting to the max of what they could pay so I started poking around, looking around a bit,” he said.

Despite the comfort of working at Riverside Stewart realized it may be time to move on to bigger and better things, so in 1988 he pursued and landed a grow-in job at Stonebridge CC that was a Tom Fazio design surrounded by a housing development. It was at Stonebridge that Stewart got his first taste of preparing for a big-time golf tournament,

hosting several Ameritech Senior Open events from 1990-1994.

In 1995, Stewart came to find out that Stonebridge was going to be sold to the membership, and while he had a good relationship with the members, he had always worked for the development company, and was the highest paid employee at the club. This was a recipe for unsteadiness in his mind. He remembered an old adage he had heard about the business that for many, stands true today.

“You know, there is a lot of talk in this business about that if you stay in a place longer than seven or eight years, it’s probably not in your best interest,” Stewart said.

Once again, Stewart decided to be ahead of the curve, and was hired by Cal Roth and the PGA Tour TPC management team to grow in the new TPC Jasna Polana club in New Jersey in 1996. The course opened in 1998 and hosted one of the last Shell's Wonderful World of Golf matches between Hale Irwin and



Tom Watson. It then hosted the In-tstinet Classic until the fateful day of 9/11 occurred and all that went away. Even in South New Jersey, the tragedy was tangible.

“You could smell it, even where we were. It smelled like an electrical fire,” he said.

Stewart continued to manage Jasna Palona through the middle of the decade with several General Managers and Head Golf Professionals. That, coupled with close to a dozen years away from the Midwest got him thinking about a change. He knew he wanted to retire back in Chicago but the closest TPC course was in Moline, Illinois, followed by either Cincinnati or the Twin Cities. A phone call inquiring about his assistant's interest in the vacant job at TPC Twin Cities led Stewart to call back the inquirer and report that his assistant wasn't interested but guess what? Maybe he was. With the previous twelve years at Jasna Polana, and the seven year rule once again in the back of his mind, it was time for another change.

“I said to my wife you know, I think I have cheated the devil once when I got this job working for the tour, and I think I'm going to have to cheat him again,” Stewart said. “She looked at me like (I was crazy), and I said well hear me out- two of our kids are out of school and living in the Chicago area, that gets me that much closer to Chicago, and it's a hell of a lot easier to visit Chicago

from Minneapolis than from Philadelphia.”

That turned out to be Minnesota’s gain, New Jersey’s loss. Stewart started in 2008 and has hosted the 3M Championship as well as keeping the course perfect for TPC Twin Cities members ever since.

But with Stewart, taking care of his courses and running a tight ship only scratches the surface of what he is all about and what he has accomplished in the industry. He first started getting involved with the Midwest AGCS in the late 1970’s. Before long, he had worked his way up to President in 1984. That was also about the time he teamed up with Bruce Williams, CGCS, another Chicago area Superintendent at the time, and began teaching a seminar at the GCSAA National Show on organization and motivation of crews, geared for assistants. It is a class they still teach today some thirty plus years later, though it has been condensed from a two-day class to four hours.

“Early on I just tried to get involved in anything I could,” Stewart said. “Honestly, the seminar, the teaching has made me a better superintendent. You (think back) to

what you were teaching and it reminds you of what you need to get accomplished.”

Stewart followed up his Midwest service with the Presidency at the Chicagoland GCSA, a smaller, more intimate association than MAGCS 1990-91. Stewart said he really liked the Chicagoland group, based strictly on education and formal dinner meetings.

Naturally once he moved to New Jersey, the call to service would be right away and he served on their board until elected President in 2006. The same would hold true for the MGCSA, as Stewart joined the board in 2009, and was elected President for 2014.

When asked to give highlights and what he felt was his greatest accomplishments while serving and presiding on the various boards and committees Stewart was not quick with a list of great things. He generally stated that he was proud to be involved with all the boards and board members and felt each one accomplished a great many things. There was one curious answer he did relate however.

“You know while I was on the board of the Midwest, New Jersey

and Minnesota they all made major changes to the Executive Directorship, and all for the better,” he said. Modesty aside, there has been quite a few things he has helped accomplish for the MGCSA. Stewart was

at pursuing a BMP Certification for Minnesota Clubs. He also had major influence on the MGCSA’s Outreach program and Wee One support. The impact of his wisdom and leadership will be felt for years to come.



instrumental as Chairman of the Research Committee in driving the MGCSA member supported research at the University of Minnesota. He was also instrumental along with Scottie Hines, CGCS and Paul Diegnau, CGCS in the formation of the Environmental Stewardship Committee that is still working hard

Despite all that he has accomplished, and all the time spent at the course and in the board rooms, Stewart is at heart, a family man. He married Susan, his wife of 43 years in 1971. Being a native of the Chicago area, she helped lead Stewart back to Chicago where he started his Superintendent journey. His

daughter Lauren, resides with her husband Josh in Chicago, and has given Roger and Susan three granddaughters to visit and spoil. His second daughter Anne is engaged and also resides in Chicago while their son Roger III resides where he grew up in the greater Philadelphia area. When asked about the demands on family life the job imposes, Stewart conceded that it was not always easy finding the balance, but in the end his family understood the demands on him, and the benefits of the job.

“It has been a good (career) for

and my family and me in that it has provided a good livelihood for us. We put three kids through college at about 80 percent or so. (The kids) really never were wanting for anything. I remember my one daughter complaining once that we never had a summer vacation, and I said (to her) well, that’s not so bad,” Stewart said. “What you have to realize is that they have wants and needs too. You may have to work on a Saturday, but you don’t always have to work on the Sunday too. There are times you have to be (at the course), but you have to take advantage of


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the days that are not high stress times (and be with the family then). In the end, all my kids have done very well and are successful in their own right and you can't ask for more than that."

So what has been the key for Stewart's longevity? When asked, he really didn't have a definite answer. Certainly working within the TPC Network management system has presented a steady structure on how to accomplish goals. Stewart related he thought he was working for one of the best companies out there. He cautioned that working for a management company is not for everyone. It takes a certain skill set to handle the structure and requirements, but he seems to have adapted well to the business model. As for the job of Superintendent itself? "Don't let the job consume you," he

said.

When we were done with our chat I donned my coat and hat, bracing for the mid-afternoon chill as Roger escorted me to the door. I glanced across the room and noticed a very elegant trophy of marble and gold lettering. The GCSAA lettering stood out first followed by 2013 Environmental Stewardship Award.

"Oh wow," I said. "I completely forgot about your national award last year."

"Huh? Oh yea, that was quite a surprise," Stewart said in his unassuming way.

Like Stewart, the trophy and the honor, to be admired and respected but never to be thrust to the forefront or trumpeted in any way. That pretty much sums up the 2014 MGCSA President.

***Thank You
Roger Stewart CGCS
for your outstanding support as
President of the MGCSA***

Applicators License and Use Categories

By Corinne du Preez, Agricultural Advisor/ACI



November 2014 (Bulletin 6 of 6)

Do you have the right licenses to apply pesticides at your golf course?

Use Categories

Since 2002, only licensed pesticide applicators can apply General Use (GU) or Restricted Use Pesticides (RUP) to grounds, water or golf course structures.

Licenses

- ✔ **Commercial Applicators License:** Required for pesticide applicators that charge for their service or are for hire.
- ✔ **Non-Commercial Applicators License:** Required for applicators to apply GU and RUP pesticides on a golf course as part of their job on property owned or contracted by their employer.

Licensees must pass at least two (2) certification exams: Core and one or more other category. Here are the most likely categories for golf courses:

- A. **Core:** Basic principles of pesticide regulation and application; required for all license categories.
- E. **Turf and Ornamentals:** For pesticide application to non-agricultural or ornamental areas including lawns, parks, athletic fields, **golf courses**, nurseries and greenhouse.
- F. **Aquatic:** For pesticide application to water areas or surface water to control aquatic pest organisms and plants.
- P. **Vertebrate Pest Control:** For pesticide applications to control vertebrate pests. Examples include the liquid fence, dried pigs blood, geese, rabbit, or deer repellants; in addition to underground animals like gopher and mole. This license does not include traps, unless poison bait is used in the trap.

In some cases golf courses may need to be licensed in other categories.

License Categories

<http://www.mda.state.mn.us/licensing/licensetypes/pesticideapplicator/catdefinitions.aspx>

Financial Penalties

Due to potential human and environmental risks from lack of proper applicator license and use categories, be advised that documented non-compliance will result in a Notice of Violation ORDER and may include additional enforcement or financial penalties.

Statutory authority

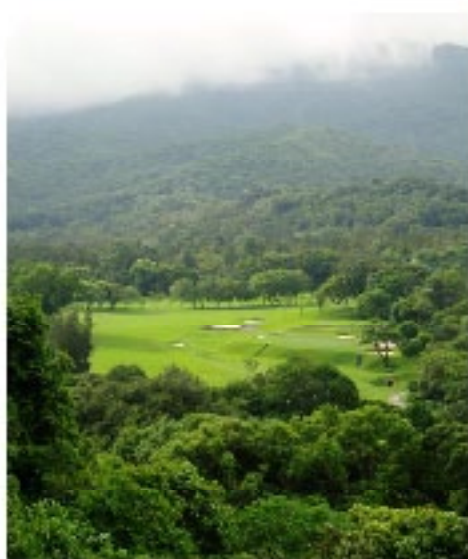
Follow the link below to read Minnesota Statute 18B.345 Pesticide application on Golf Courses.

<https://www.revisor.leg.state.mn.us/statutes/?id=18B.345>

Register at: <http://z.umn.edu/2015greatlakesturfschool>



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Stewart Receives 2014 President's Award for Environmental Stewardship

Provided by the GCSAA



Roger Stewart, certified golf course superintendent (CGCS) at TPC Twin Cities in St. Paul, Minn., received the 2014 President's Award for Environmental Stewardship by the board of directors of the Golf Course Superintendents Association of America (GCSAA) on Wednesday, Feb. 5, during the Opening Session at the 2014 Golf Industry Show in Orlando (Feb. 1-6).

A 38-year member of GCSAA, Stewart has accumulated an impressive array of environmental accomplishments at each stop along a nearly four-decade career as a golf course superintendent. Since joining the TPC network of courses in 1996, he has served as a leader and a resource on environmental matters across all 33 TPC courses, and has been equally involved in issues on the local level through leadership in

numerous superintendent chapters.

“GCSAA members such as Roger Stewart set a shining example for all superintendents through the positive environmental stewardship he has displayed during his career,” says GCSAA President Patrick R. Finlen, CGCS. “His openness and willingness to share what he has learned with others has been a benefit to our entire industry, and we’re pleased to honor him for his many accomplishments.”

Stewart’s first stop in the TPC system was as the grow-in super-

intendent at TPC Jasna Polana in Princeton, N.J. He worked diligently throughout the construction process to protect the water sources and native wildlife habitat that surround the environmentally sensitive site. Under his direction, Jasna Polana was certified as both an Audubon Cooperative Sanctuary by Audubon International and a River Friendly Golf Course through the Stony Brook Millstone Watershed Association.

After moving to TPC Twin Cities in 2008, Stewart continued his stewardship efforts. He recertified the property as an Audubon Coop-



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erative Sanctuary. He oversaw work on surface water areas that included stream bank stabilization, the enhancement of wildlife habitat areas and a naturalized planting project. Stewart also focused on the expansion of low-maintenance areas, and the reduction of irrigation water use, and TPC Twin Cities has regularly ranked among the leaders in low energy use among golf courses in the greater Minneapolis area.

The GCSAA President's Award for Environmental Stewardship was established in 1991 to recognize "an exceptional environmental contribution to the game of golf; a contribution that further exemplifies the golf course superintendent's image as a steward of the land." For a full list of past winners, visit www.gcsaa.org/community/awards.

Right: Roger Stewart CGCS and winner of the GCSAA President's Award for Environmental Stewardship



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Season's Greetings

A Look Back: 2014 Horticulture

Anoka Technical College Horticulture has had an exciting year with several highlights...

January saw the Northern Green Expo. Students helped install our Anoka Tech booth. They laid a 10 X 20 foot paver patio, Strauss wall column (thanks, Borgert!) with a granite column cap/ fire rock, and a fire on water fountain that wowed the crowds! Many of the students donated their time for experience of practicing the innovative techniques.

Early spring found the Horticulture Club teaching Horticulture to 5th grade students at Franklin Elementary in Anoka. The weather was cold outside but the students were thrilled to plant herbs to take home! The Horticulture Club also followed up with Twin Rivers Nursing Home in Anoka and planted some annuals into the raised beds they had donated in December.

Internships sent everyone out for the spring and summer. Once again, the turf students were coast to coast (Vermont to California). For the first time in many years, the Horticulture department sold plants that the student's raised. Although it was small, nearly \$500 was raised. Shortly after the plant sale we graduation. The department had 6 AAS in Golf Course Grounds Management and 4 AAS in Landscape Technology graduate in May.

This summer brought the news that the 60/120 waiver was approved. Our program was one of the last to be reviewed. The approval means that we do not have to decrease any content delivered to our students. Other good news over the summer was the approval of the articulation agreement with University of Wisconsin- River Falls. The articulation gives transferring students about a years worth of credit plus electives.

This fall saw a small change in the structure of the program. We started all Golf Course students October 6 (not including the fall internship). Landscape students started the week before Labor Day but did have a late start in both Plant Pest I and Woody Plants I. It was very quiet until the return of the Golf Course students! Currently we have 18/3/1 Golf Course students (AAS/Diploma/Certificate) and 11/12/7 Landscape students plus 2 full time PSEO students.



This fall has generated a crazy amount of energy and excitement.

Parade: Horticulture faculty and students participated in producing the ATC float displaying 2 1376 pound pumpkins (squash).

Horticulture Club participated in the Stillwater Harvest Fest by assisting the St. Croix Growers Association with the weighing of the big pumpkins.

Coursework at ATC:

Marlin and his students have scalped the green outside, top dressed it and cut a cup. Equipment that has not been run in 5 years is working and getting used along with the new greens mower that Toro donated last year. The indoor green is replanted and the new lights are showing promise for sustaining growth.

The second phase to the courtyard is underway. Students have installed two more patios and some seating within the walls. Edging, mulch and plant material will also be installed.

Irrigation class has installed irrigation just outside the department so plants can finally grow through the summer without dying.

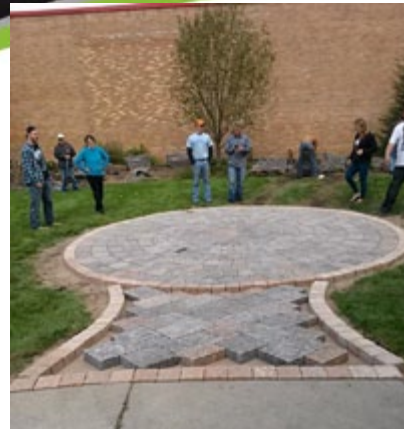
All of the students have commented on how beneficial the hands on learning has been!

Horticulture Club installed a landscape for the Conexus Energy Solar Garden in Ramsey as a way to promote good will because they are strong supporters of ATC through the Foundation.

The day after Advisory Board, ATC Hort will host an Industry Day in the Department with seminars, job fair, and lunch by the Hort Club. We are looking forward to this new launch of internship/ SOE.

We are also looking forward to many students volunteering at the Northern Green Expo in paid positions from MNLA.

And that wraps up a year in the life of ATC Hort...



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Member Driven Research: Using growing degree days to schedule paclobutrazol applications on Kentucky bluegrass fairways

Sam Bauer, Matt Cavanaugh, Mario Gagliardi, and Dr. Brian Horgan
University of Minnesota

Plant growth regulator (PGR) use on golf courses has increased dramatically over the last two decades. In that time, turfgrass managers and researchers have constantly been striving to increase both the efficiency of PGR uptake and consistency of turfgrass response. Previously, calendar-based PGR applications have been the standard in the industry due to convenience and ease of scheduling. As we begin to learn more about PGR uptake and metabolism, it has become apparent that calendar-based application scheduling results in inconsistent turfgrass responses because air temperatures impact metabolism of PGRs. Superintendents noticing a lack of PGR effectiveness in the summer months can attribute this to a more rapid breakdown of PGR compounds within the plant.

Research at the University of Illinois demonstrated the increase in PGR metabolism under high temperatures by analyzing trinexapac-ethyl (TE) and paclobutrazol (PAC) residues in both creeping bentgrass and Kentucky bluegrass at different times of the year. Metabolism of TE increased almost two-fold in both species when comparing temperatures of 64 degrees F to 86 degrees Fahrenheit. Applications of PAC resulted

in a similar PGR breakdown response under high temperatures, although PAC had a longer half-life in both species, and Kentucky bluegrass was regulated for a longer period than creeping bentgrass (Branham and Beasley 2007). Researchers at the University of Wisconsin-Madison built on this work by establishing growing-degree-day (GDD) application interval timings for TE and PAC applications to creeping bentgrass putting greens (Soldat 2011; Kreuser and Soldat 2012). This work helped to improve the consistency of suppression without over-applying PGRs, while avoiding the rebound phase following PGR breakdown. Plant growth regulator GDD models are calculated by determining the mean daily air temperature in degrees Celsius and adding this number to consecutive days until the threshold is reached. The base temperature used is 0 degrees Celsius. Current models developed for TE and PAC regulation of bentgrass putting greens require applications at 200 and 300 GDD, respectively.

The goal of this research was to establish a GDD application model for consistent season-long suppression of Kentucky bluegrass fairways with PAC. Knowing that Kentucky bluegrass is regulated for a longer duration than creeping bentgrass and fairway height turf can tolerate higher rates, the models used in this research have longer GDD application intervals and rates relevant for fairways. Note that our application rates in some instances exceed the label rate and was done so for experimental purposes.

Study Design

This study was carried out on a 75/25 mixed stand of Kentucky bluegrass and annual bluegrass maintained as a fairway at Tartan Park

Golf Course in Lake Elmo, MN during the 2013 growing season. The fairway was mown three days a week at 0.6 inches, and received irrigation as necessary to prevent drought stress. Treatments were applied with a CO₂ backpack sprayer calibrated to deliver 1 gallon per 1000ft² and irrigation or rainfall occurred within 24 hours of application. The treatment list is included in Table 1.

TABLE 1. Study Treatment List and Application Intervals

Treatment #	Product	Active ingredient	Rate (oz/ac)	Application interval
1	Trimmit 2SC	Paclobutrazol	8	400 GDD
2	Trimmit 2SC	Paclobutrazol	16	400 GDD
3	Trimmit 2SC	Paclobutrazol	24	400 GDD
4	Trimmit 2SC	Paclobutrazol	8	800 GDD
5	Trimmit 2SC	Paclobutrazol	16	800 GDD
6	Trimmit 2SC	Paclobutrazol	24	800 GDD
7	Trimmit 2SC	Paclobutrazol	24	June 3, July 30, Sept. 30
8	Primo Maxx	Trinexapac-ethyl	24	400 GDD
9	Untreated	N/A	N/A	N/A

For this study, GDD were determined by subtracting the base growing degree temperature (0° C) from the daily mean temperature (also in ° C). Growing degree days began accumulating after each application and the sum was reset to zero after each application was made. Initial applications were made on 3 June, 2013, with the last application applied on October 1st, 2013 (Table 1). Plots were 5 ft x 10 ft and arranged in a randomized complete block design with four replications.

Data collected weekly included clipping biomass, relative chlorophyll index and turf quality. Clipping biomass was collected using a Toro walk-behind mower (Greensmaster 1600 series, Toro, Bloomington,

MN) making one pass down the middle of each plot following 24 h of growth. Post-harvest, clippings were dried in an oven set to 95 degrees Fahrenheit for at least 48 h before being weighed. Chlorophyll index was determined using the Field Scout CM1000 (Spectrum Technologies, Aurora, IL) by taking the average of nine random readings across each plot area. Turf quality was visually assessed on a 1-9 scale with 6 being minimally acceptable turf. Due to phytotoxicity after initial applications, phytotoxicity ratings were made for three consecutive weeks using 0-5 scale with 0 being no visible signs of phytotoxicity and 3 being the maximum acceptable. At the initial and last rating, a visual percent annual bluegrass per plot was made to determine if there was any reduction in the annual bluegrass population.

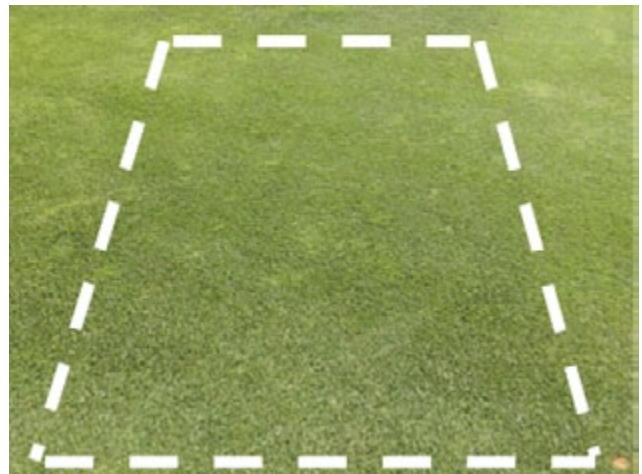
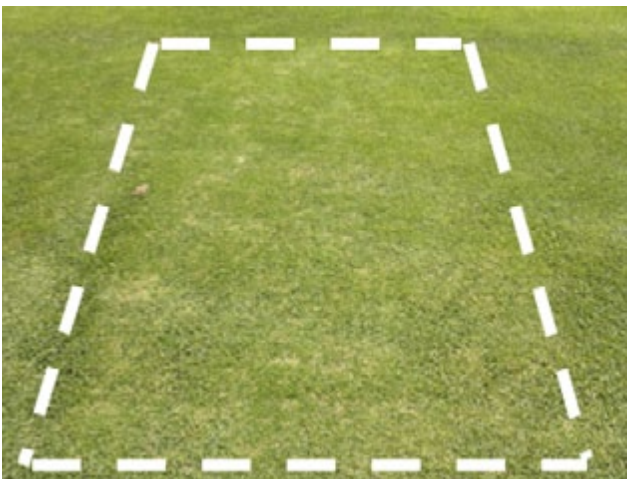
Results

The growing season of 2013 could be considered normal by many standards. A relatively wet spring was followed by a fairly dry summer and fall with moderate temperatures throughout. The total number of season-long applications required following the 400 GDD model was seven, while four applications were required when following the 800 GDD model. In warmer years, the frequency of applications would increase when using these models.

Primo treatments at 24fl.oz per acre on 400 growing degree days provided the most inconsistencies in turfgrass quality, chlorophyll index (color), and clipping biomass throughout the growing season. Generally, Primo treated plots had the lowest turfgrass quality in the spring and early summer, followed by the highest turfgrass quality in the late summer and fall. Chlorophyll index ratings closely matched the responses in turfgrass

quality and the same trends were observed (Figure 1). Clipping biomass correlated closely to turfgrass quality and color, with approximately 75% yield reduction in the spring and 30% yield increase in the fall. A possible explanation for these results could be that this area was not treated with Primo previously and the 24fl.oz. per acre rate was excessive for the initial applications. The increased biomass in the late summer can be attributed to a reallocation of carbohydrates from shoot growth to tiller growth, causing an overall yield increase as compared to the untreated control. Trimmit applications provided little increase in turfgrass quality or color in the spring and summer as compared to the untreated control.

In the fall, all Trimmit treated plots received greater turfgrass quality and color ratings than the control; this could be attributed to lower shoot growth rates and higher densities (Images 1 and 2).



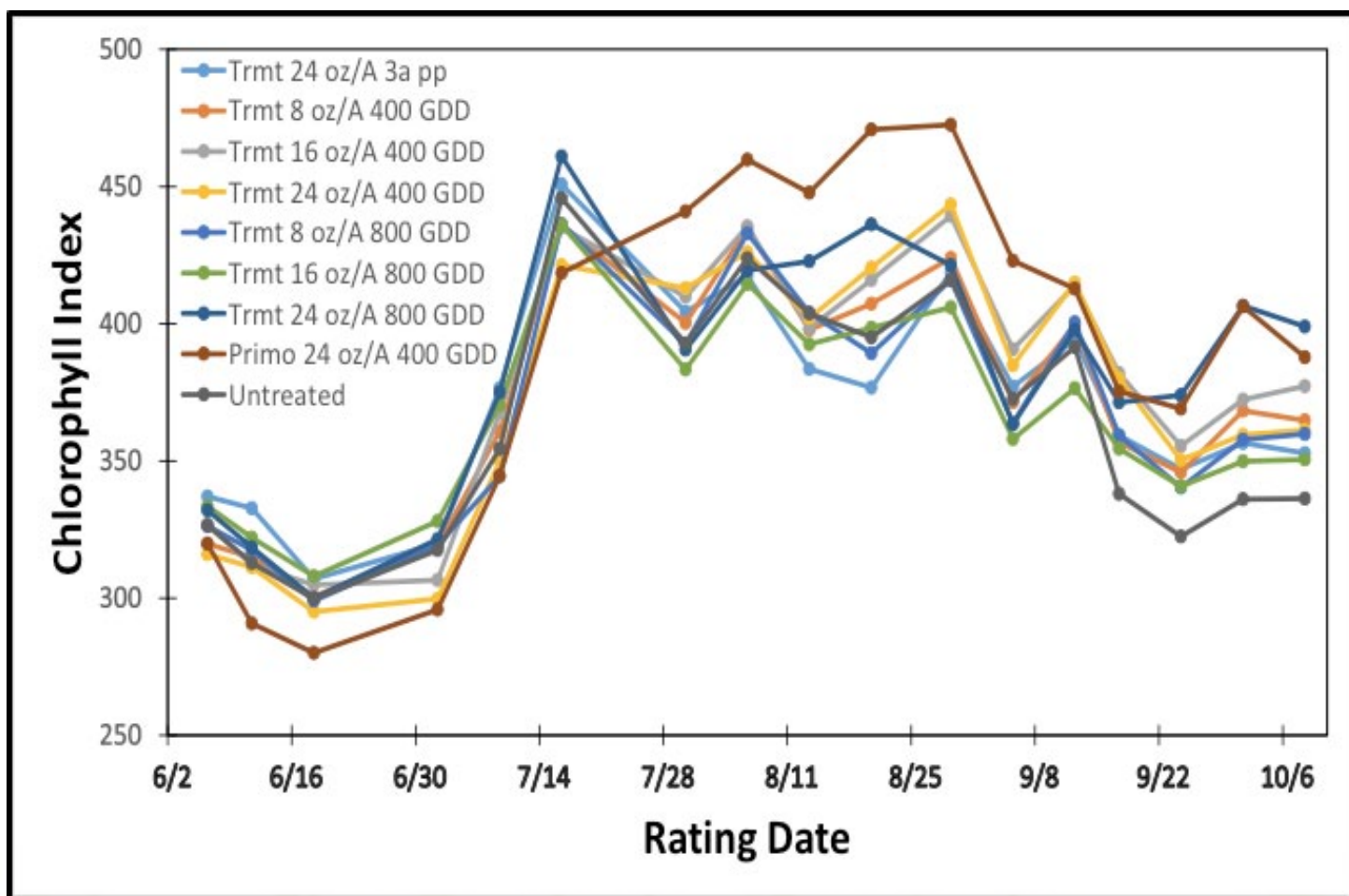
Above: On left an untreated control plot image taken on September 17th, 2013. On the right Trimmit application of 16 fl. oz/acre applied at 800 GDD. This picture was taken on September 17th also.

Trimmit treatments suppressed biomass production to a greater extent



in the spring and summer than in the fall, which is similar to what was witnessed with Primo and the same explanation would be valid. The most consistent and desirable suppression from Trimmit was achieved by applications of 8 and 16 fl.oz. acre⁻¹ at 400 GDD (approximately 20% and 35% growth reduction, respectively) or 16 and 24 fl.oz acre⁻¹ at 800 GDD (approximately 30% growth reduction).

Figure 1. Chlorophyll index ratings across 9 different treatments throughout the 2013 growing season from a Spectrum CM1000 chlorophyll meter. This meter estimates chlorophyll content by comparing reflection of 700nm and 840nm light and uses a scale of 0 to 999 (0= no chlorophyll, 999= highest chlorophyll). This measurement is a non-subjective estimate of canopy greenness. Trmt = Trimmit



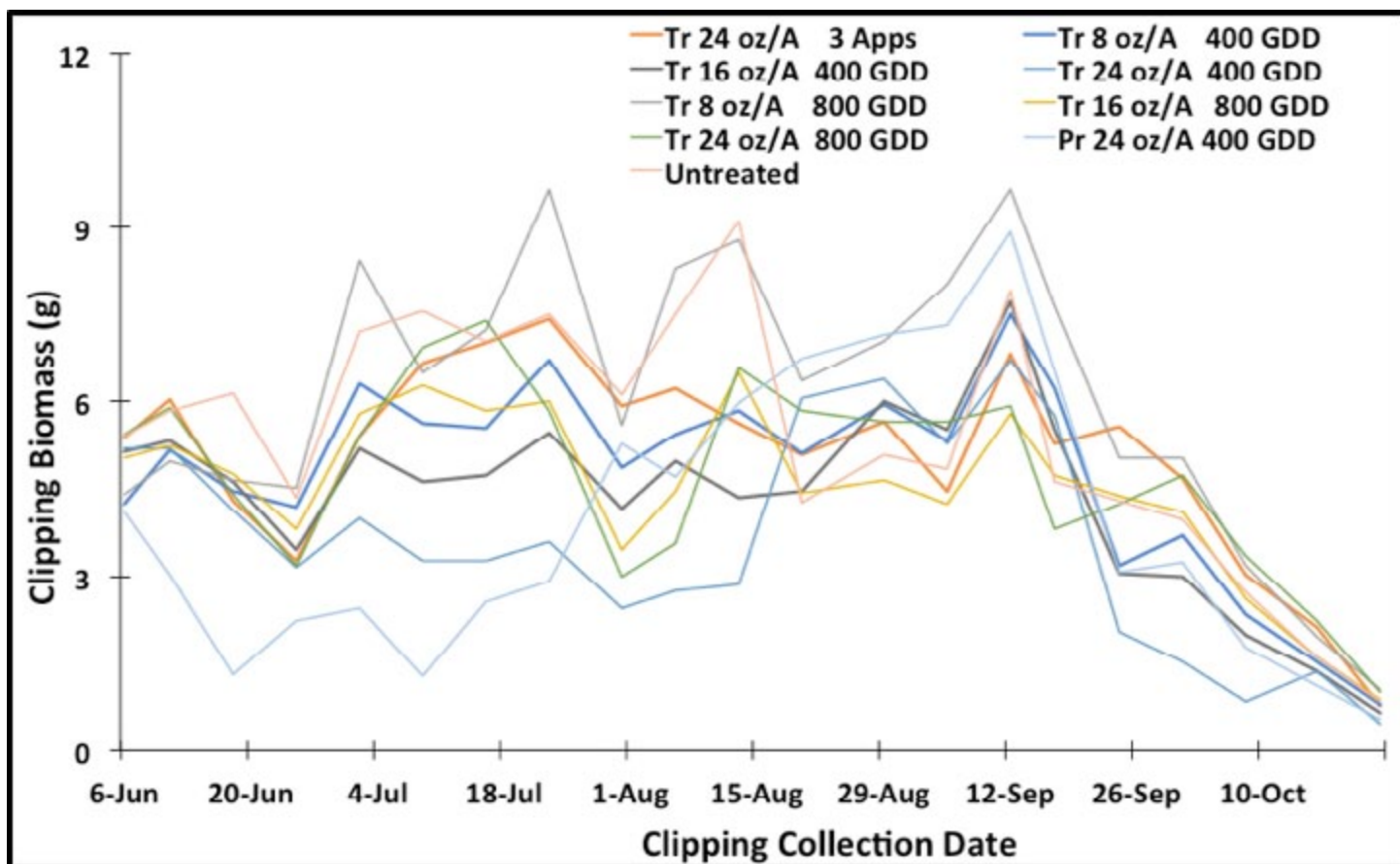


Figure 2. Clipping biomass results from weekly collections throughout the growing season. The most desirable treatments are represented by consistent biomass production, whereas drops and peaks would be considered undesirable. Tr = Trimmit, Pr = Primo

Phototoxicity occurred on several rating dates in June and July as a result of Primo applications, and therefore we recommend starting with rates initially below 20fl.oz per acre. Additionally, minor phototoxicity occurred in July from 16 and 24fl.oz per acre applications of Trimmit applied at 400 GDD, so consider lower rates during this period because higher temperatures will cause growing degree days to accumulate quickly, resulting in more frequent applications during this time.

Discussion



The use of PGRs in a fairway program is easily justified due to the benefits in mowing reduction, improved turfgrass quality and health, more consistent playability, and possible annual bluegrass reduction. We did not see a reduction of annual bluegrass in a Kentucky bluegrass fairway with any PGR treatments, however, and this can be attributed to a similar metabolism of TE and PAC by both species. Creeping bentgrass metabolizes PAC at a more rapid rate than annual bluegrass, which is the main reason that PAC works to reduce annual bluegrass in creeping bentgrass turf.

Both PGRs evaluated in this study improved turfgrass quality and color over the untreated control at some point throughout the growing season. The high rate of both Primo and Trimmit (24fl.oz per acre) applied at 400 GDD produced an undesirable reduction in quality and growth in the spring and early summer, however, these were some of the best treatments in the fall and late-fall. These inconsistent responses throughout the growing season make the frequent high rate applications difficult to recommend. When designing a plant growth regulator program for any turfgrass surface, superintendents should consider the goals of the program and plan applications to meet these goals. If reduced mowing is the main goal and some discoloration is acceptable, frequent high rate programs will provide the maximum level of suppression. If the desire is to balance consistent, moderate suppression with high quality, than application rates and frequencies should reflect this. In this study, high season-long quality and consistent suppression (20-30%) of Kentucky bluegrass was achieved with Trimmit at rates of 8 to 16fl.oz per acre applied every 400 GDD, or 16 to 24fl.oz per acre applied every 800 GDD. We are currently evaluating growing-degree-day programs for both paclobutrazol and flurprimidol on creeping bentgrass fairways in a

cooperative project with the University of Illinois. We expect these results to be available in the near future.

Acknowledgements

The University of Minnesota Turfgrass Science Program would like to thank MGCSA members for their support of this research. We would also like to acknowledge the support from Tartan Park Golf Course and Superintendent Tom Steigauf and Assistant Superintendent Eric Viessman.

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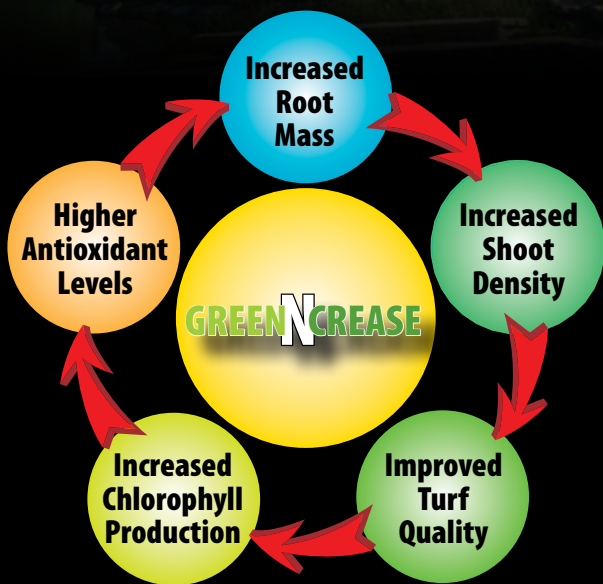
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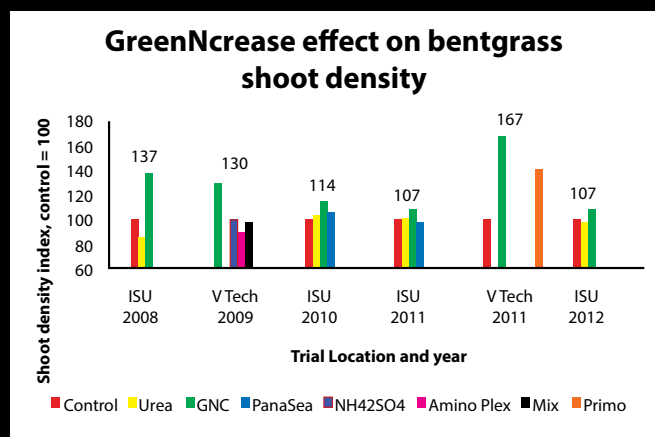
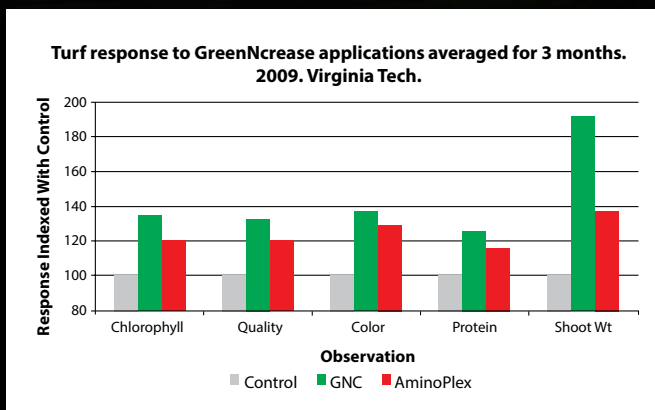
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GreenNcrease rate effects on creeping bentgrass drought resistance. 2009.
Ervin, E.H. and X. Zhang. Virginia Tech.



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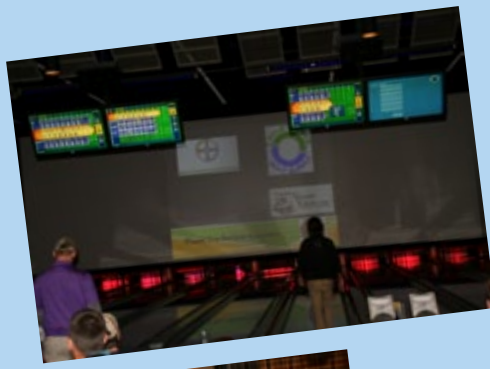
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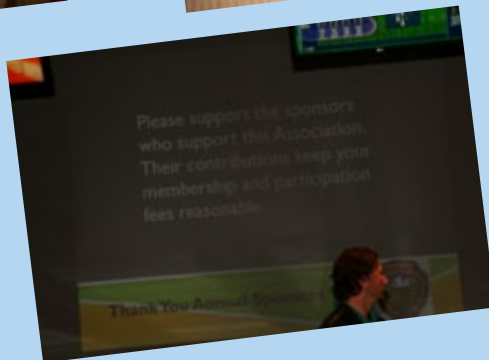
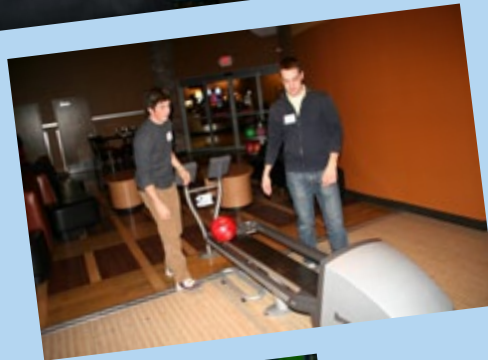
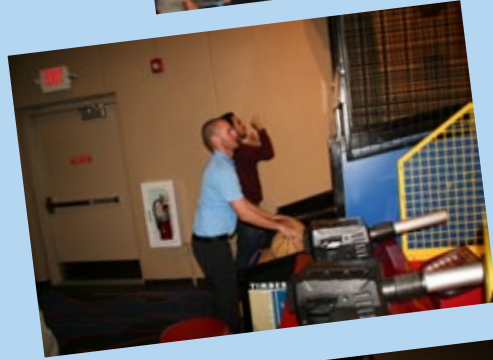


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Within the Leather

by David Kazmierczak, CGCS

Well, that was quick.

Is it just me, or did it seem

like we just got the golf course open this year, only to have the season fly by and come to a rapid, abrupt end the first full weekend in November? Each year I marvel at all the things area Superintendents and their crews accomplish in such a small window of time. Hopefully all of you were able to get the course put to bed before the first snow, or certainly after the melt-down two weeks later.

So now it is the long off season. This year it looks like about five full month's worth of "down time." We are not alone, you know. There are others- roughly half the country- that have a similar dilemma of what to do during the winter.

It is pretty easy to become provincial as a golf course superintendent. Our job consists of taking care of X number of acres and that we pretty much have to be there every day to do

so. We aren't traveling very much to say the least. The fortunate ones get to escape in the winter on a vacation or two, with work likely being the last thing on their minds. A few more are allowed to go to the GCSAA show and experience all it has to offer but even then, I am willing to bet most guys tend to hang out with the same fellows they know from the area mostly. It's what you do. You hang out with the guys you know and are familiar with.

Technology has been able to break down some of that provincialism. Whether it's through TurfNet, Twitter, Facebook, etc. more conversation is taking place between superintendents all over the country and the world than ever before. But why is this conversation happening? What does a guy in Florida have to do with a guy in International Falls, or a guy in the Arizona desert, or New Jersey?

I recently was lucky enough to be involved in a congregation of ten superintendents from a variety of regions nationwide for a couple days of discussion about the industry. It was an amazing

experience. What made it amazing was not that we were all successful superintendents, or we all did unique things to manage our courses or provided revelations to the people that brought us together that will change the industry. What was amazing is that ten total strangers from all across the country got together and exchanged thoughts and ideas feely and honestly like they were lifelong friends. I came away from the experience realizing one thing for sure: that there is a bond that every superintendent has, for the most part, with each other. We are almost all cut from the same cloth. No matter where or what type of club we work at, we all have similar issues we have to deal with. We can all relate to each other. I would call that a brotherhood- the brotherhood of golf course superintendents.

There are other professions that can be called brotherhoods I suppose. Any profession in which a person's life is on the line like police and firemen come to mind as a brotherhood. Certainly there is a brotherhood to our fighting forces. But for what is kind of a solitary existence growing grass and managing a crew, there sure is a lot of camaraderie when we

all get together. That's what I experienced with this group, and I made what will be lifelong friends in a few short days.

I bring this experience up to implore you to branch out if you are able. It is such a valuable thing to get together with other superintendents and exchange thoughts and ideas, or even just complain if that's what you need. They get it, they understand believe me. I also implore you to do it on a face to face basis. The brotherhood is exponentially stronger over a meal or a beer than over an electronic device. There is no substitute. Chat rooms can only take it so far. Twitter is a one and a half way street. There are plenty of opportunities locally to bond with other guys just trying to do the same job you are. Take advantage of them. With that, I hope 2014 was a solid season for you all, and we will see you in 2015 at the Northern Green Expo.

By the way- doesn't Brotherhood of Golf Course Superintendents ring truer than Golf Course Superintendents Association of America? Maybe I should contact Lawrence.....