

HOLENOTES

The Official Publication of the MGCSA
V. 58, #4 August 2023



2023 Scholarship
Recipients

Native Soil
Pathogens for JB

UMN: WinterTurf
Going Global



On the Cover:
Interlachen Turf Talkabout
On this page:
Tom Lehman with Craguns
Superintendent Matt Mckinnon
and Judd Duininck, celebrating the
opening of the Lehman 18 Course.

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HOLENOTES

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Minnesota Chapter

GCSAA

August 2023

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Presidential Perspective

By: Matt Cavanaugh
Rush Creek Golf Club



It has been an eventful few months since the last Presidential Perspective. Apathy for grass is high, loathing for weather forecasting high, and budget dollars are low for irrigation repairs.

Like many of you, I have received very little rain at the course since May 1st. With irrigation often being inadequate for conditions such as this it has been one of the most difficult years of my 19 years at Rush Creek. This was compounded when the VFD took a dump on June 27th. This was not an ideal situation with the long holiday weekend looming and days off for suppliers coming. Nine days of night watering took

its toll on Dennis, Betsy, Ben, Spencer and me. I also found it was a situation that was hard to explain to people that do not deal with irrigation daily which for me can be equally frustrating. As much as I tried to explain what we had to do at night to keep the irrigation going it just didn't seem to click with the average person.

In the golf course management world, it can be very hard to come in day after day and not see much improvement in the conditions. On top of the irrigation issues and lack of precipitation, a record number of rounds also went through the course in July and we are almost 1,000 rounds over the record

year we had in 2022. Everyone on the staff has been working at 100% day after day and there can be little appreciation for it. However, at the end of the day I always know that I did my best. During a difficult year such as this it has been great to have a few close fellow superintendents to talk to and just vent to. If you don't have a peer support group such as this, give me a call and I'd be happy to listen to what you have going on.

As we have been churning away on the course, there have been several MGCSA members that have taken advantage of the inaugural MGCSA Golf Course Stewardship Grant Program. The selection committee (consisting of a university professor, State Agency representative from the DNR and MDA, and a retired Golf Course Superintendent) went through the selection process. This selection process resulted in the MGCSA Board of Directors awarding \$16,392 toward six MGCSA member courses to make improvements on their courses. I look forward to seeing how the resources have been used in future Hole

Notes publications so stay tuned. Many students have also taken advantage of the Turf Scholarship program over the past few months. Scholarships totaling \$10,580 have been paid out to turf students. Please continue to remind any turf students that work for you of the opportunity available with this program. One final reminder is about the event rebate program. \$35 is available for use at most MGCSA events to each MGCSA member. To date though only 10 people have used their rebate. The process is easy when you register for an event...just use the promo code GrowingMGCSAtogether.

I also want to take a moment to thank Brian and Taylor at Interlachen for the walk around on August 15th. It was a unique opportunity to see the renovation and to have great conversations with peers. I hope to see more of you at future event such as this. Well, bed time now...later.

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Thank you to our 2023
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continued support of
the MGCSA!



2023 Stewardship Grant Program Recipients

The MGCSA was able to support 6 member courses for our inaugural Stewardship Grant Program. These applicants were scored by our non-member selection committee, and were ranked based on those results. These 6 courses best demonstrated their efforts to improve their facilities through enhanced stewardship efforts!

**Keller Golf Course
Lake Miltona Golf Course
Mankato Country Club
New Hope Golf Course
Piper Hills Golf Course
Springfield Golf Course**

We all look forward to hearing more about these projects in future Hole Note Magazines.

Thank you to all of our applicants for participating in our new Stewardship Grant program!

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2023 Joseph S. Garske & MGCSA Legacy Scholarship Recipients

The 2023 Joseph S. Garske and
MGCSA Legacy Scholarships
were generously supported
by Par Aide Products.

The MGCSA thanks Par Aide
for their continued support of
MGCSA Scholarship programs!



Parker Wood

Son of David & Connie Wood. David is the superintendent of Oxbow Country Club, Oxbow ND.

Parker is a 2020 graduate of Moorhead high school. He is entering his final semester at Minnesota State University Moorhead. This fall, Parker will be completing his student teaching to earn his bachelor's degree in Elementary Education. Since 2021, Parker has coached football, basketball & track at Horizon Middle School in Moorhead and has worked as an AmeriCorps elementary reading tutor.

This past April, Parker made the decision to serve his country by enlisting into the North Dakota Air National Guard. He will attend basic training after graduating from college in December.

In Parker's free time, he enjoys fishing on the Red River and playing frisbee golf. He is 100X better at frisbee golf than he is at real golf...

It is a honor to be selected as a recipient of the 2023 Joseph S. Garske Scholarship. Thank you to the Garske Family and Minnesota Golf Course Superintendents Association for making this generous scholarship possible.



Kylie Knodel

Kylie is a 2022 graduate of Hutchinson High School in Hutchinson, Minnesota. She graduated with a 3.9 GPA and with 15 college credits. She was a part of the girls' varsity golf team for 5 years and was a captain for 2 of those years. Throughout high school, she was employed with Oakdale Golf Club and Wheel and Cog Children's Museum. She has enjoyed being able to spend much of her childhood on the golf course helping the family business.

Kylie now attends South Dakota State University in Brookings, SD with a major in Business Economics and a minor in Land Valuation and Rural Real Estate with the intent to have a career in real estate. She has made the Dean's List with a 4.0 GPA all 3 semesters that she has taken courses at SDSU. While at school, she is employed at the SDSU Foundation in the Jackrabbit Philanthropy Center. During the summer, she continues to work at

both Oakdale Golf Club in the Pro Shop and Wheel and Cog Children's Museum. She looks forward to volunteering at the Tim Orth Memorial Foundation golf event each summer and helping with the Junior Golf Program at Oakdale. Kylie and her family would like to give a special thanks to the MGCSA and Par Aide for making these scholarships available and continuously supporting students!



Calvin Yonak

Calvin (Cal) Yonak is a recent high school graduate of Zimmerman High School. He will be attending Dordt University in Sioux Center Iowa to study Civil Engineering in the fall. Basketball has always been a passion of Cal's and he is very excited to continue playing at Dordt. Cal is a great student athlete, he was awarded Academic All-Conference in the Granite Ridge Conference for his high school basketball team.

Cal has grown up on his dad's golf course, The Links at Northfork, always helping the grounds crew in the early spring getting the course ready to open. It is a tradition that Cal helps with cutting the first cups for the season opener. Cal officially (on the payroll!) started working on the course in the summer of 2019 and has continued to this summer. Much to the dismay of his dad and The Links Grounds Crew, Cal may have to stay in Sioux Center

over the summer for basketball, but he is excited to know that they have a golf course that he could potentially work at. Cal has a bright future ahead of him and is excited to take all the life lessons he's learned through playing basketball, working at the course, and his studies to get his degree in Engineering.



Giants Ridge Exposure Golf

Thank you to host Superintendent Jeff Simondet and his team at the Quarry!





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Nick White
Golf Course Superintendent



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*Dollar spot, brown patch, anthracnose, gray leaf spot and snow mold were the five most common diseases according to a national survey among golf course superintendents.

BIOCONTROL OF JAPANESE BEETLE BY DISTRIBUTING A NATIVE SOIL PATHOGEN

Vera Krischik, Cody Prouty, Carrie Deans, Kyle Murley, Annabeth Johnson, Ronan Keener, Entomology, UMN, krisco01@umn.edu

The best products to use for JB control. Scotts Grub Ex with AI (active ingredient) chlorantraniliprole with the trade name Acelepryn kills grubs. Acelepryn also is a foliar JB insecticide. Products with BT galleriae, trade name grubGone, grubHALT, and beetleGONE, kill grubs and adults, as well as painted

lady butterflies. Using Scotts GrubEx for grubs will not harm butterflies or bees. However, foliar sprays for JB adults will kill butterfly adults and larvae.

Japanese beetle adults feed on foliage and grubs feed on grass roots. Managing JB with insecticides can potentially kill bees, butterflies, and other beneficial insects.



First introduced to the US from Japan in 1916, Japanese beetle (JB) was commonly found in MN by the 1990's. Adult feeding by JB results in damage to foliage and fruits, reducing food for bees and wildlife. JB is the most



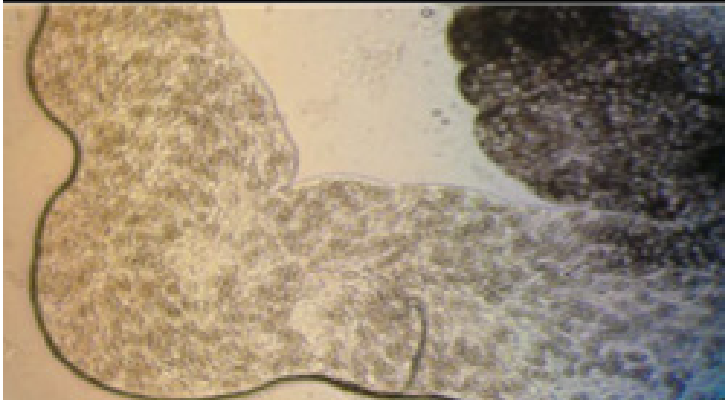
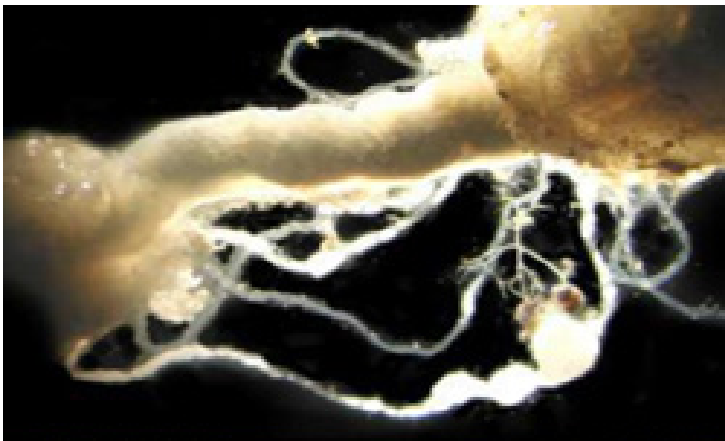
common pest in MN turf and requires insecticide application that may kill pollinators.

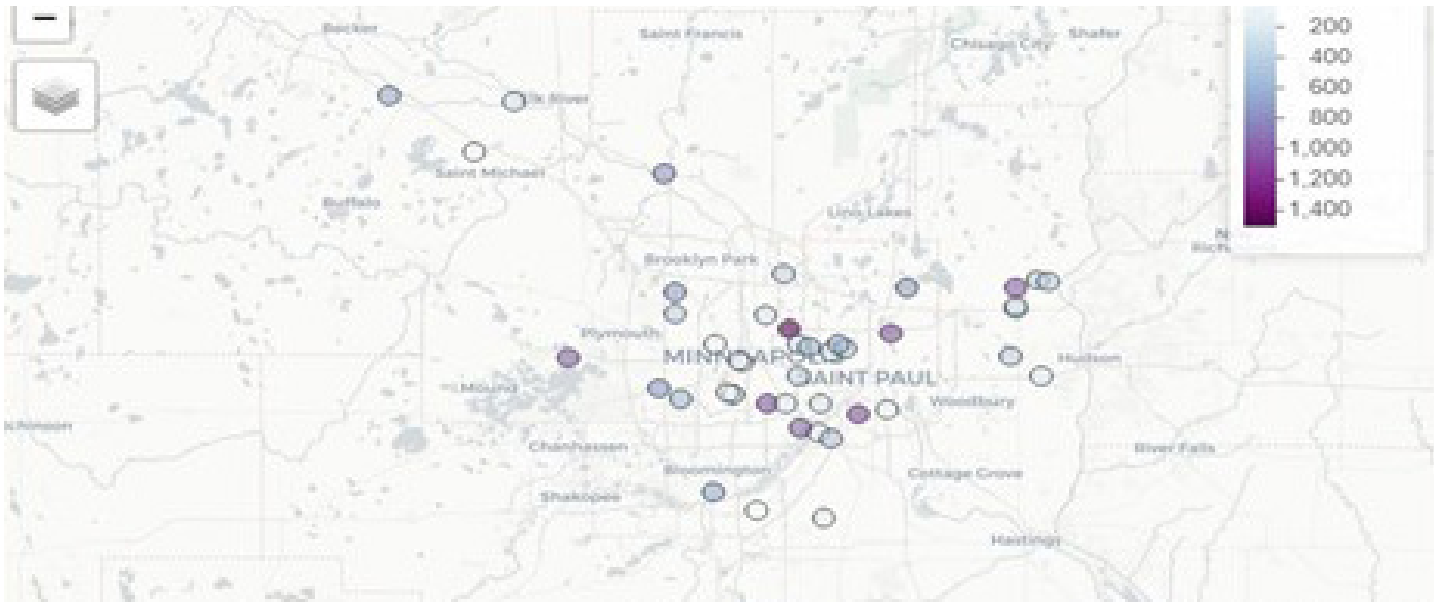
The spread of JB to western states, where it is not yet established, is also a serious APHIS concern. As a result, several control programs have been established at various airports to reduce JB numbers and the likelihood of them being transported on aircraft. The best long-term solution is biocontrol by the specialist *Ovavesicula* pathogen, as is done for gypsy moth and emerald ash borer. We are performing research on the distribution and transmission

of a native soil pathogen that kills JB grubs and adults. The low number of JB along the East Coast was correlated to the abundance of this pathogen in research papers. We are distributing this pathogen in MN to reduce JB numbers.

Below left, actual *Ovavesicula* spores clogging the JB gut. The spores feed on the nutrients and reduce fat that is stored in grubs. This reduces grub survival and adult egg production. We are collaborating with the Smitley Lab at Michigan State University, where the fungus has been previously studied. In Michigan, at 6 years post-inoculation, JB grub numbers dropped by 30% and then by 75% at 18 years post-inoculation.

We are researching whether using JB traps to disperse spores is a better method of dispersal than pouring spores on the soil surface. A JB trap uses a floral rose like scent and the attractant pheromone of JB. The traps call in too many beetles and cannot be used for reducing beetles population size.





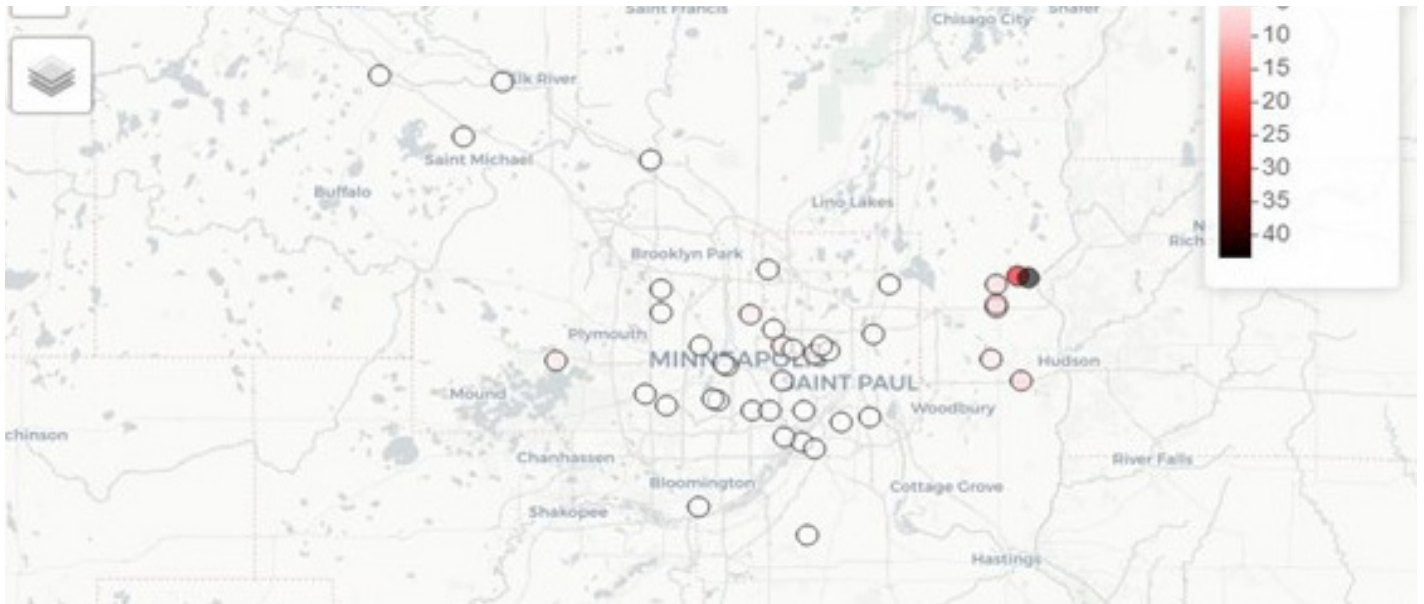
Map 1: The number of adult JB in 44 sites in MN. Circles represent a site and the darker the blue the more JB. JB abundance at each site was averaged over the course of the season.

In 2022, around Stillwater we had 8/44 sites infected with the pathogen.

Map 1(blue) shows the distribution of JB adults at the 44 sites. In total, we collected 77,326 JBs from 44 sites, sampling each site 4 times from July 5 through Sept (Map 1, blue). The fewest JB recovered at one time were 1 and the most were 3,951. The Northwestern side of the Metro has the fewest JB as seen by white circles in Map 1. Map 2 (red) shows the percent of JB infected with *Ovavesicula*. We have spent the winter dissecting adult JB, counting pathogen spores inside the gut, and extracting DNA and

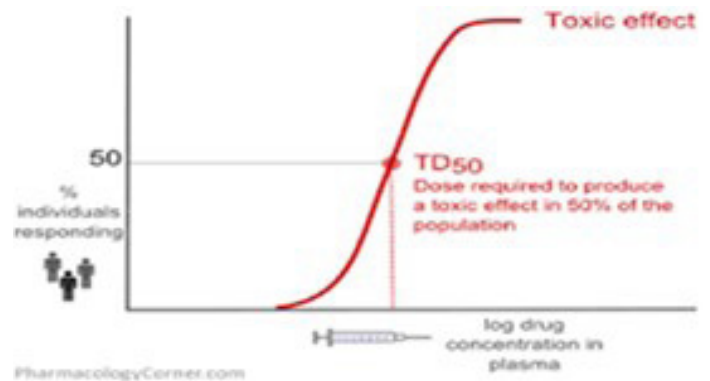
using qPCR to identify the pathogen. The Stillwater area has 8/44 sites that had pathogen spores inside adult JB.

A standard method to compare toxicity of different chemicals or different doses to determine relative toxicity. It is done for mammals, birds, fish, and insects by the EPA. It is used to understand how toxic a insecticide is to the environment or to kill a pest. We are studying what insecticides kill JB grubs and adults, but do not kill butterflies and bees. Consumers and professionals need to know how to manage JB grubs that does not affect



Map 2: The percent of adult JB infected with *Ovavesicula* pathogen spores in 44 sites in MN. Circles represent a site and the darker the red the more JB adults contain pathogen spores. The Stillwater area had 8/44 sites that had pathogen spores inside adult JB.

ground nesting bees or flower visiting bees. Bee identification is important so native ground nesting bees are not killed as consumers think that the bees are ground nesting wasps.



The goal of the biocontrol program is to reduce JB numbers. *Ovavesicula* manages



Nontarget effects of JB insecticides: Dead painted lady butterfly (PLB) larvae after an application of a biorational insecticide that kills JB.		Bioassays using insects and leaves to test the effects of insecticides.
Biorational	Insect/Product	LC50 (CI)
<i>Bacillus thuringiensis galleriae</i>	JB/BeetleGone	1.37 mg/ml kills JB
<i>Bacillus thuringiensis galleriae</i>	PLB/BeetleGone	1.87 mg/ml kills PLB
<i>Beauveria bassiana</i>	JB/Mycotrol	3.79 mg/ml kills JB
<i>Beauveria bassiana</i>	PLB/Mycotrol	3.77 mg/ml kills PLB
<i>8 other insecticides tested on JB and PLB in progress summer 2023.</i>		

JB in the East. MN has much fewer *Ovavesicula* killing JB compared to Eastern states. The pathogen is correlated to low JB numbers in the East.

The Minneapolis Parks and Rec Board and 5 other sites are cooperating with us on establishing an outdoor

poster with information on IPM, managing JB with microbial insecticides, and the establishment of *Ovavesicula* for long term biocontrol. Vera Krischik was a technical appointed member of the 2018-2020 MPRB Pesticide Committee.

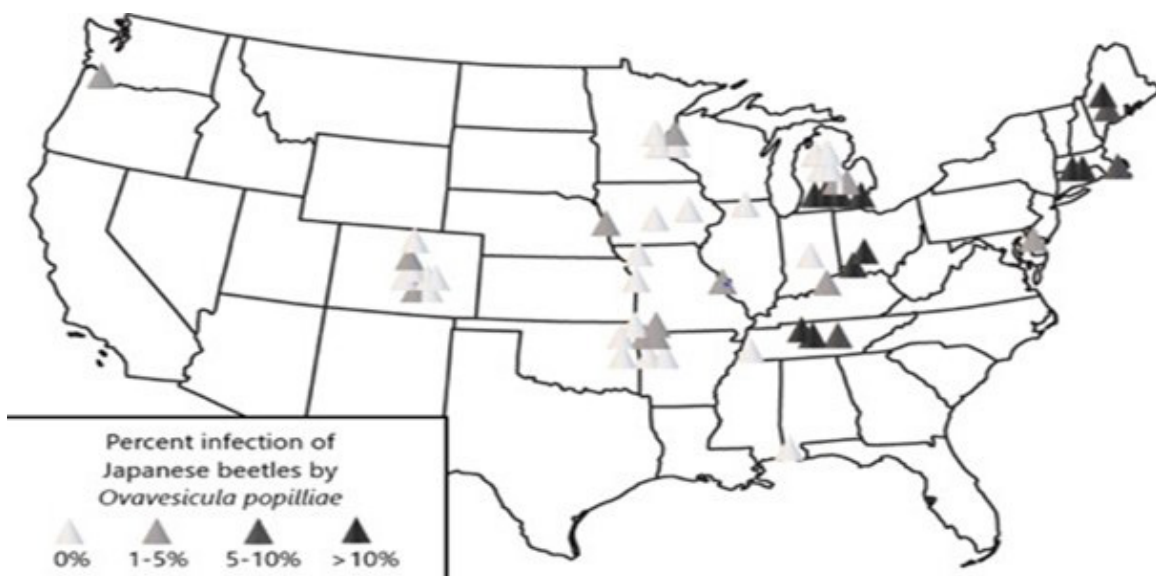


Table 1. MN has less pathogen spores compared to Eastern states with lower JB populations. Spores per beetle consistently increase with years after introduction until JB population collapses. Data are estimated from samples of 96 beetles per site and a standardized scale based on an established relationship between PCR Ct values and spores per ml counted with a microscope. (Hulbert et al. 2020).

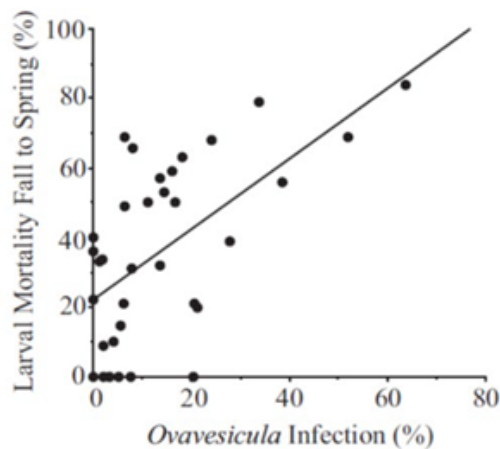


Figure 1. Graphic from Smitley et al. (2011) showing the overwintering mortality for grub populations with variable *O. popilliae* infection rates.

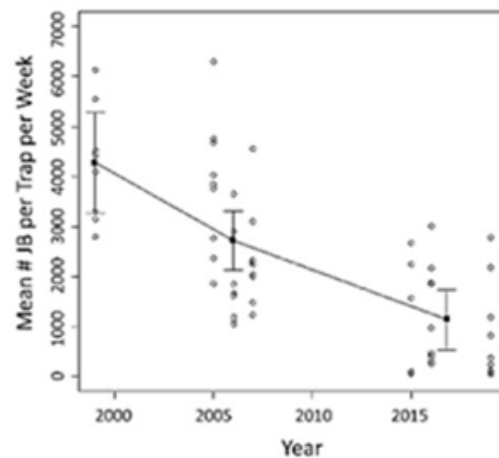


Figure 2. Graphic from Smitley et al. (2022) showing the reduction in JB populations over time at sites inoculated with *O. popilliae* in 1999.

Krischiklab Websites:

UM Krischik Pollinator Conservation, <http://ncipmhort.cfans.umn.edu/>

IPM: Japanese beetle, <https://ncipmhort.cfans.umn.edu/ipm-case-studies/ipm-case-study-japanese-beetle>

2021-2024 LCCMR Biocontrol of Bee Lawns in Parks and Landscapes, <https://ncipmhort.cfans.umn.edu/ipm-krischik-lab-research/ipm-case-study-2021-2024-lccmr-biocontrol-bee-lawns-parks-and-landscapes>



*2023 MGCSA Championship
Tuesday, September 12th
Fox Hollow Golf Club
Host: Corey Heasley*

Event includes: golf, cart, range, proxy prizes, and lunch!

2023 Don White Participants: **FREE** (confirm spot with Chris)
Individual registration: **\$35*** per person (Sign up as a two-
some or individuals to be paired) **Member Rebate Eligible*

10:00 - Registration & Range

11:00 - Shotgun Start

3:30 - Awards & Cash Bar

Team Flight - (1st Place \$200 & 2nd Place \$150)
Individual Flight** - (Low gross \$100, Low Net \$100)
- Prizes in Pro Shop certificates.

*Two person fourball stroke play event. No handicaps for team event.
Individual matches will occur within the team event.
(I.e. Never pick up your ball if you are playing the singles event!!)*

***Submit your handicap to Chris for singles scorecard prep.*

Registration deadline: September 5th.

If your Don White partner is unavailable, you will be paired with another single.

2023 MGCSA Member Event Rebate Program



The MGCSA Board of Directors is working hard to reduce limitations to participation. In-person events are essential to the growth of our industry and the professionals within it. MGCSA has the opportunity to support those engagement efforts by implementing a member rebate program this year for all class members. We are offering an event registration rebate of up to \$35 to all class members. This will allow for free or reduced entry into one of our association events!

Promo
Code

Use Rules:

- Must be active MGCSA member. Use will be monitored and recorded. One time use only, regardless of event registration costs, no redeeming cash value.
- If using credit, the individual must register separately by choosing that ticket option when signing up for an event and entering the promo code below. Member cannot use credit within a group registration.***
- Credit will be good for one calendar year, April 1, 2023 - March 31, 2024.
- Applicable to most MGCSA events, except Don White Match Play, The Wee One and The Scramble.

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Turfgrass Apprenticeship Program

UNIVERSITY OF WISCONSIN-MADISON

The University of Wisconsin Turfgrass Apprenticeship Program (TAP) consists of a 12-week, in-person educational bootcamp and a field-based apprenticeship at a golf course, athletic facility, or other turfgrass facility. The program provides participants with the hands-on, real-world experience needed to succeed in the turfgrass industry. Successful completion of both the bootcamp and the apprenticeship is required to earn the Turfgrass Apprenticeship Program Certificate.

Step 1: Educational Bootcamp

The bootcamp takes place over two 6-week terms during the late fall and winter. The fall term will begin the first week of November and end in mid-December. The winter term will begin the second week of January and end in late February. Each week will have class on Tuesday, Wednesday, and Thursday from 10 AM until 3 PM CST with a 1-hour break for lunch.

Program cost is the same for in-state and out-of-state students. Check the website for current rates. Housing is not provided by UW-Madison, but we provide a number of affordable hotel options in the Madison area.

Significant scholarship funds will be available to support student tuition and housing costs from a variety of turfgrass associations. More information on scholarships and how to apply for them will be provided in the first week of class during the fall term.

Step 2: Field-based Apprenticeship

Students in the TAP are required to complete a field-based apprenticeship at a golf course, athletic complex, or other turf management facility of their choosing. A list of tasks to complete during the apprenticeship have been developed in cooperation with associations in the turfgrass industry and can be viewed on the program website.

How to Enroll

Please visit <https://turf.wisc.edu/academics/> and add your name to the enrollment form. Alternatively, contact Dr. Soldat or Dr. Koch via email (djsoldat@wisc.edu / plkoch@wisc.edu). The deadline for enrollment in the fall term is October 15th.



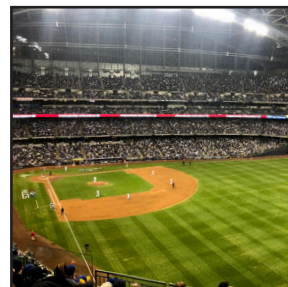
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Roll It Forward

By: Matt Cavanaugh



A 1979 Buick Regal had just been purchased for \$700 in April of 1996. All my savings had been drained and I now needed to figure out how to pay for the gas needed to run this brown tank. I enjoyed golf and there was a little 9 hole, par 32 just down the road in Mounds View. My quest to get free golf and earn money

for this gas guzzler was the start of my turfgrass maintenance career at The Bridges Golf Course during the summer of 1996. I immediately enjoyed the work. As a suburban kid, I loved operating the equipment and I wanted to learn it all. It was great that we had no walking equipment as I was able to



ED Note: The previous thread of Roll it Forward will continue at a later date. We are beginning a 2nd thread, which we can alternate as needed.

Photos provided by Matt Cavanaugh



learn all the riding equipment that first year at 16 years old. The hooks were in. I was back for the next summer, and I was given more responsibility. I have always had an eagerness to learn and the superintendent saw an opportunity to remove some irrigation duties from his plate. I enjoyed learning

about irrigation that second year. I remember taking some kind of job evaluation test as a freshman in high school that tried to determine what career path I should take. That test said I'd be a good plumber...I guess it was right. I went back to The Bridges for a third summer in 1998, graduated from high

school, with the only direction being following my girlfriend (now wife of 21 years) to UW-River Falls. I finished that first year at River Falls knowing that I wanted to pursue golf course management as a career. I loved being outside, I loved working with my hands, I loved the equipment, I didn't mind early mornings and I was good at.

With my credits transferring, I found myself at Kansas State University to get my B.S. in Agronomy with an emphasis in Golf Course Management. I was a great student. I wanted to know it all and it didn't seem like school to me. It truly felt like my

calling in life. An initial need for gas money turned into a career path that I was excited to be on. It was 2002, I was graduated, I was married, I owned a house and I was excited to be part of the golf course superintendent world at Rush Creek Golf Club. I was still just a member of the crew at the time and at the end of the 2002 season they could not keep me on, but quickly found myself back at Rush Creek as the Second Assistant in 2003. My responsibility had changed to making all of the fertilizer and pesticides applications on top of managing the irrigation repairs. All tasks that I loved. I enjoyed learning about the products I





was applying, understanding their impacts on turfgrass and also learning the ins and outs of an irrigation system as large as the one at Rush Creek... well large for me at the time.

I continued to love the work at Rush Creek. I enjoyed everything about grass and I wanted to know more. Only God knows why, but I did. In 2007 Eric Watkins, at the University of Minnesota, found more for me to learn and took me on as a graduate student. It was extremely difficult, but it cemented the fact that I was in the industry I was meant to be in...however

it was time for a change.

I know, not the direction you were expecting. I left Rush Creek in the Fall of 2011 and took a job at Stillwater School District that I hated and only lasted 3 months. I was excited to find a new role as a Sales Rep for PBI-Gordon that lasted 3 years. With travel being too much, I moved again and spent 2 years as a Research Scientist with Eric Watkins at the University of MN. All of this brought me back to what I loved...which was the golf course. I couldn't stay away. I loved the outdoors, I loved the challenge of golf course turfgrass management and I missed it.

I found my way back to Rush Creek in April of 2016...a changed person from 2011 and reinvigorated for the challenge ahead. I had a different mindset on my return. People were the focus. I had learned so much on the turfgrass side since graduating from Kansas State in 2002, but people were now the focus. This is a tough industry to work in and I didn't always like what I saw in terms of keeping young people in the industry. I started to focus on building a crew at Rush Creek that enjoyed coming to work, but also enjoyed the flexibility in the work that I never really seemed to have. Over the past 8 years I have had some really great young adults come through the doors at Rush Creek. Most have stayed 4 years before real life called and some have stayed to make turfgrass management a career choice. Managing people is always the hardest part of the job, but it is also the most rewarding. There can be a very negative tone around many young adults, but I have found that some trust and giving them a sense of value brings out the best in all of us. This career path is not for

everyone on your staff and it shouldn't be. But I found there to be a unique opportunity in our profession to mentor young adults and provide them with a fun working environment in a summer job that is really difficult.

I started in this industry because I like golf and riding equipment. I no longer have time to do either. I stay in the industry because of the people. I love teaching and engaging with the people around me. That is what keeps my passion. From the people on my staff to the peers I have in the industry. Who would have thought it would be the dang people that are the best. With all of this, I would like to nominate a true friend in Corey Heasley at Fox Hollow Golf Club for the next Roll It Forward.



2023 Wee One



MEDINA GOLF & COUNTRY CLUB

Monday, September 25th

11:00 Registration & lunch

12:00 PM Shotgun start

5:00 PM Prizes & dinner
reception (cash bar)

Proper golf attire



\$160/Individual
\$640/Foursome

Purchase mulligans online!

Register online at mgcsa.org

Registration deadline Sept. 19

4-Person Scramble - Field is limited to 36 teams, 144 players.

Contests: Must be present at the reception to win.

Pro Shop Certificates - 1st, 2nd, 3rd Place

50/50 Gross Skins Game - \$40 per team

Bullseye Challenge - \$5 per ball, 4 for \$20

Wee Putt Contest prior to shotgun - \$100 Prize

Mulligan Purchase - 4/\$20, 8/\$40, 12/\$60, 16/\$80

Iron Challenge - Winners draw down for \$150 Gift Card

Featured Raffle Prizes - \$5/5 tickets or \$20 for arm's length

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MONDAY Pre-Conference Sessions:
PLT Relicensure and Pesticide Recertification will be available on Monday, January 22 at the Northern Green venue.

TUESDAY
Community day for these Villages:

- Landscape/Hardscape Contractor
- Golf

WEDNESDAY
Dedicated trade show day!

TRADE SHOW
9:00am-5:30pm

THURSDAY
Community day for these Villages:

- Turf, Grounds, & Snow Management
- Garden Center/Grower

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Le Sueur Exposure Golf

Thank you to our host
Superintendent Tom Meier, his
team, Le Sueur Country Club,
and the over 40 participants
for this MGCSA Event!



INTERLACHEN TURF TALKABOUT



50 MGCSA members toured Interlachen Country Club's renovation project. Thank you to Brian, Taylor, and the entire Interlachen team for a educational tour and fantastic lunch!





2023 MGCSA Scramble

Proceeds support the MGCSA Legacy Scholarship and UMN Turf Research

Host Superintendent:

Matt Cavanaugh

Rush Creek Golf Club

Monday, October 9th

11:00 Registration/range/lunch

12:00 Shotgun start, proximity prizes

Dinner reception following

Just \$160 per player or \$640 per team.

Purse prizes will be pro shop gift cards

Register by October 2nd!!

UMN GOLF FOCUSED FIELD DAY

Wednesday, September 20th

1:00 - 3:00 PM

TROE Center

Topics to be covered:

NTEP bentgrass cultivar evaluations

Using soil moisture sensors in golf course fairways to improve irrigation thresholds

Recap of winter turf data to date

Lessons learned from dormant seeding multiple species and mixtures

Optimizing tall fescue and bluegrass mixtures

FIELD DAY
REGISTRATION



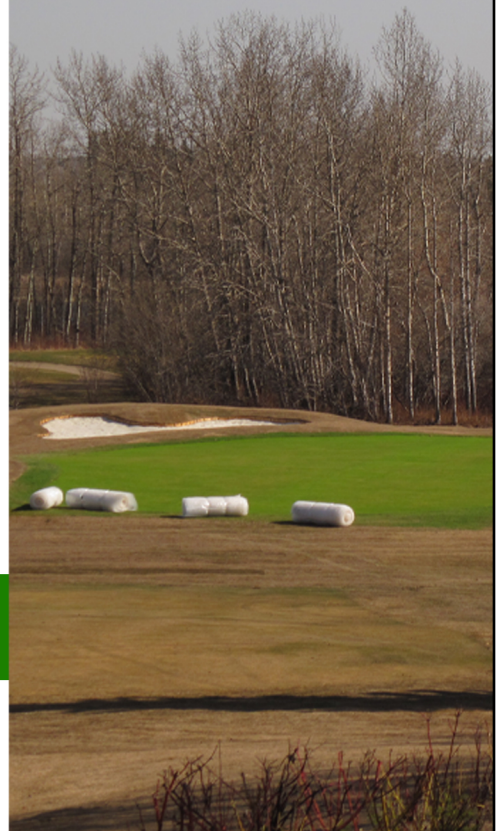
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Get to Know 'Em



Bryan
Wasilewski

Lake Wissota
Golf Course

FACILITY INFO

Public or Private: Public

Number of Holes: 18 Holes

Full time employees: 2

Seasonal employees (not including full time): 8

Types of grass: Bent/Poa/Blue/Rye

Total course acreage: 126

Greens acreage: 3

Tee acreage: 2.5

Fairway acreage: 17

Rough acreage: 80



PERSONAL TURF FACTS:

How many years have you been in your current position? 7 years

How many years have you been in the turf industry? 22

Where else have you worked?

Ohio, Lake Tahoe, Colorado, Maryland, South Carolina

Turf School Attended

(if any)? Penn State

INDUSTRY THOUGHTS:

What is one “master plan” thing you would like to change at your golf course?
Irrigation System. No inners and outers, no central control. Not as efficient as it could be.

What concerns do you have the turf business and the future of golf? Staffing is on all of our

minds. Sustainability, reliance on water, pesticides, those are the concerns I have. Also, advocating for golf courses as benefits to the environment.

What is needed to bring more young professionals into the industry? Another Tiger Woods! Superintendents trying to find time to showcase practices and efforts through social media, targeted towards showing younger people what we are doing on the golf course.

What piece of equipment do you want? Not a need, a want.
Bunker rake.

In terms of industry costs (equipment, pesticides, labor,





etc.) are they too low, too high or just right? Equipment is way too high. Everything is expensive. Need to learn to be efficient where we can because we're paying employees more as well.

FUN FACTS

Have you ever met a celebrity?

Who? Paul McCartney, when I was 20. Working at Mammoth Ski Resort in California. Sold him a ski ticket and he was really nice.

What is your favorite vacation spot? Tahoe has a place in my heart from being there for 6 or 7 years.

What is your favorite memory of starting your turf career?
I had to patch up a green that got

damaged, and remember being very meticulous about patching it up. Superintendent really took a liking to me and saw my attention to detail and interest in the profession from that.

What is your favorite job on the golf course? Mowing fairways, its therapeutic to me.

What is your least favorite job on the golf course?
Spraying, and mowing tees.

Have you played any famous golf courses? Which ones? A lot of them. Erin Hills, every year. All the Wisconsin big courses. Pinehurst No. 2, Firestone South, San Francisco Golf Club.

Who is your dream foursome?
Tiger, Jack, and Jordan Spieth.

The last few years have been unique, with Covid and drought. Would you like to comment on how it affected you, and how it has changed your management approach now? The hot topic is staff, keeping those staff members compensated as best as you can, but also keeping it fun for them. Keeping them

intrigued and jobs not mundane. Switching up the jobs was a big one, A lot of guys were only doing certain jobs, but I feel like it has been beneficial to rotate

their jobs. I give them the power to get things done, they know what needs to be done and I put it on them to be accountable and get the job done.



Don't miss our extended conversation with Bryan on this month's Hole Notes Podcast!

If you would like to participate in a future Get to Know 'Em, please reach out to chris@mgcsa.org.

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GOLF COURSE MUSINGS

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Send your images to chris@mgcsa.org.



This sign at Cragun's
Lehman 18 should follow
me everywhere!

WinterTurf Environmental Sensing Going Global: Understanding the Drivers of Winter Kill

By: Bryan Runck
University of Minnesota



Winter injury remains a top challenge for golf course superintendents and an ongoing research priority at the University of Minnesota. It's a big problem, and we're bringing big data to bear on it.

Over the past four years, we've progressively up-scale our data collection on golf course greens to understand the drivers of winterkill. Led the UMN Turfgrass program, we've created systems for integrating environmental sensing with survey data, hyperspectral data from unmanned aerial vehicles, and satellite remote sensing imagery.

A Global Scale WinterTurf Observatory
Scientists in U-Spatial, the GEMS Informatics Center, Forest Resources, and Bioproducts and Biosystems Engineering worked with the Turfgrass program to engineer these data systems from scratch, taking them through multiple major versions, and then deploying them across a broad swath of the Northern latitudes (Figure 1). This system will continue to actively collect and integrate data at the global scale to better understand winter injury.

This past year, we built on work from the past three winters (funded by MGCSA, the

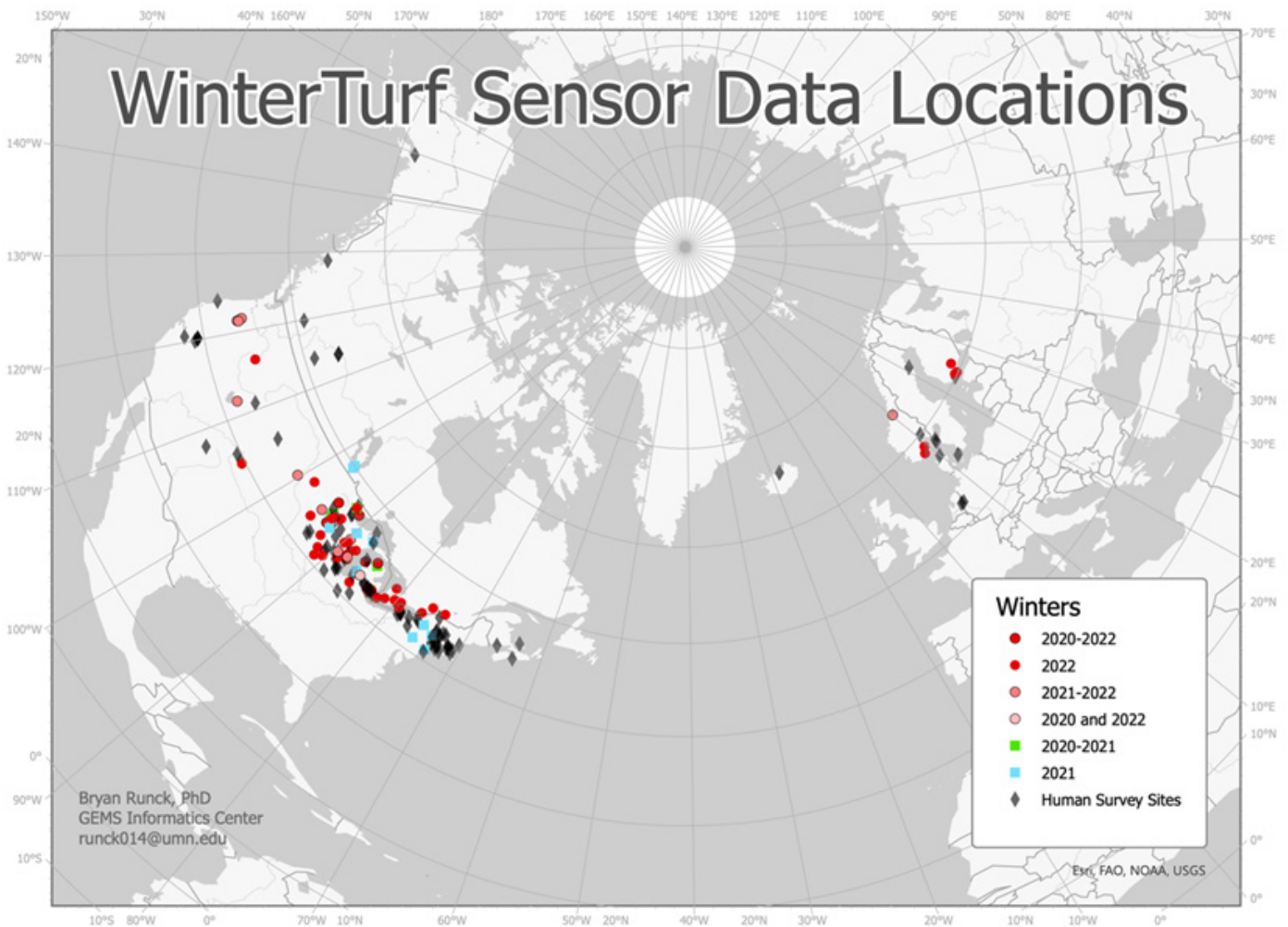
Michigan Turfgrass Foundation, and USDA NIFA) to release our first integrated dataset. This dataset was built to support machine learning researchers and will allow them to data mine for the statistical patterns of winter injury and death. Ultimately, as the dataset grows, it will allow them to predict the risk of winterkill and provide

breeders with effective screening objectives to select for improved varieties. This is big data to help address a big problem.

Hitting the Data Archives: Historical Observations of Winter Injury

In addition to collecting data year-to-year in real time, we've also started to collect data

Figure 1. Map of data collection using environmental sensors and human surveys of golf course greens.

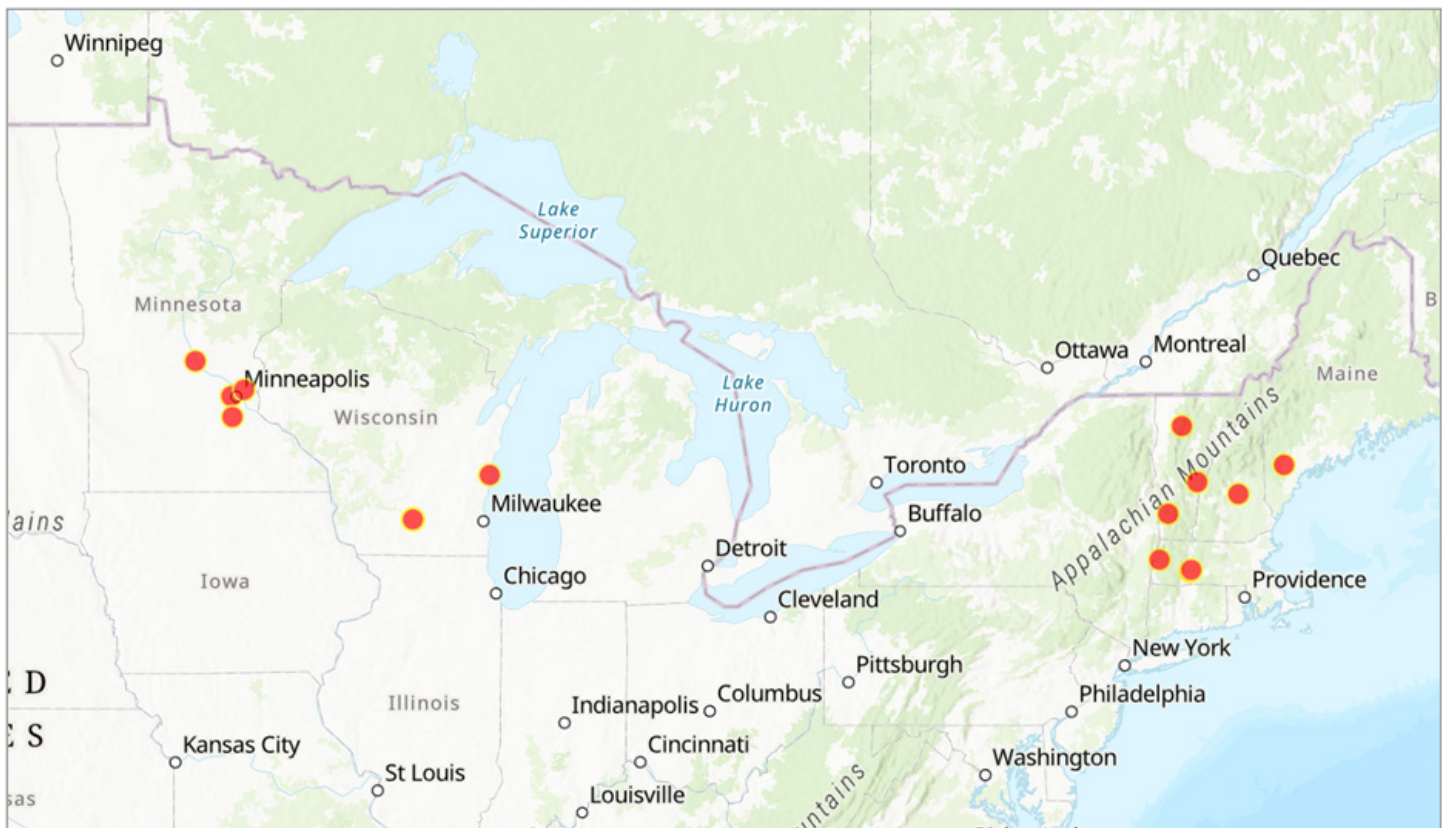


historically on winter injury. Machine learning is a data hungry approach to science, and leveraging historical data will let us get to higher quality models more quickly. We're taking two approaches to increasing the number of winter injury observations.

First, we're working with golf course superintendents to capture what they know has

happened on their courses over the past few decades (Figure 2). To do this, our team worked with U-Spatial to develop an online web app survey. The app has gone through multiple revisions and is now being piloted with state extension specialists and a small group of golf courses. We can then fuse this data with other historic data from satellites and weather stations to create a dataset with less

Figure 2. Screenshot of pilot data collected on historical winter damage in Minnesota, Wisconsin, and New England.



richness that our real time systems, but more historic depth.

If you have had winter injury on your course in the past, email us (runck014@umn.edu). You can help grow our dataset.

Second, we're beginning to explore ways to use text mining to leverage the MGCSA Hole Notes and other state archives. The Turfgrass Information Center at Michigan State University archives these and many other publications going back decades. This approach could allow us to identify reports of winter damage and death. For example, back in 2000, we can find reports from Edina, Minnesota losing many greens planted to poa annua.

There good imagery datasets from this time period, as well as historic weather information.

Taken together, we've established an on-going, global scale data collection system to understand the drivers of winter damage, and we're finding creative ways to leverage historical archives to further augment our observations of winter damage.

This approach to doing data collection is unique, but also uniquely powerful for answering hard questions related to winter injury and death. Big problems need these big datasets, and we'll keep working to collect and integrate them.

Follow the UMN Turf Blog
for project updates!

From the High Grass

By: Chris Aumock



Time of writing: 1:21 AM
Location: MSP Baggage Claim

We need to talk about customer service!

I recently purchased a new minivan (Wait, I'm not starting at the airport?), the final nail in the coffin for my dreams of being a car designer! We had ordered it in May of 2022 and had waited patiently for a year. The van finally arrived at the dealer in the middle of May this year. Great, we finally can get it! Except, we happened to be closing on a new home at that the same time, and we were advised not to apply for any financing until sometime after the home closed. For context, we closed on May 26th, followed by the long Memorial Day weekend.

I told the dealer I would be happy to pick up the van in just a few weeks after the new mortgage was completed. They then informed me that they would only hold the vehicle until the 31st, or they would have to offer the van to the next person in line. That gave us two days on the

calendar, but we were still not advised to utilize those days. So, the van that we had specced to our wants, and waited a year for, they were just going to give away!! This was infuriating. I was appalled at the seeming lack of customer service, as I think it was a reasonable request given the situation. To avoid losing out on the vehicle we had ordered, we made the purchase in cash, where now it feels good not to pay them another penny!

This whole process got me thinking about the lack of customer service, and the direct indifference to the customer. The person does not matter in this situation, only the vehicle does! If that vehicle is still on the lot at the end of the month, that will affect their quotas, and they won't get as many vehicles next month, or so the story goes.

This is the reasoning I was given by several dealer employees. Whatever the policy, it's just bad customer service and it will greatly affect my future car purchasing decisions.

While I was seething on that thought, I wondered what role the Superintendent plays in customer service. We talk about our job being behind the scenes, and customer interaction is limited. Which is true, but what are we doing with those limited interactions? I think of my time as a Superintendent, and the customer service I provided to our members. Was it the most vital to our operation? Probably not, but it is important to display professionalism for our positions. I am wondering now if I ever trained my staff in those interactions, and its likely most of the training was to just send them to me or give me a call. Well, that can be effective, but wouldn't that experience be better if I had trained, or educated my staff better to provide the answer themselves? I think I failed in this sense, as it was never my main consideration to provide a positive customer

experience apart from the course conditions. Even with this personal understanding, I still don't absolve the car dealer of their inadequacies!

On a related thought, I recently had discussions with some colleagues about specific advertisements that were in a regional golf association magazine, and their display of superintendents on a particular piece of equipment. It was supposed to showcase the Superintendent and their work, yet they came across as pure marketing and promotion of the equipment pictured. A unique example of customer service, as they are trying to do the right thing, but inadvertently, or ignorantly, are misrepresenting their customers, the Golf Course Superintendent. To our eyes, it was an example of poor customer service to that supposedly "honored" Superintendent.

So, why am I writing this at 1 AM in the MSP baggage claim area? Somewhat related to customer service of course! Well, after several hours of watching my flight get delayed, I switched

to a different flight, leaving my bags behind for the solo journey later. However, as I landed at MSP, my delayed flight had been moved back up and took off while we were in the air. I've never seen that happen before! So my bag is coming shortly on my original flight, and now I have an hour to write this. There was never any reasoning or explanation for the delay, just delayed. Continuously pushed back 5 minutes for several hours. A few beers were needed to pass the time. I like to think I'm reasonable and understand the difficulties of air

travel, and this one is unique, but it is still a customer service experience that will affect my next air travel decision.

We all know that our job is more than maintaining the golf course, as we are representatives of our course, our industry, and the profession. I hope I am, and you all, are making the best effort to always be a reasonable and rational individual when a golfer, customer, or member needs service. My last bit of advice, definitely don't threaten the thing someone ordered, paid for, and waited a year to receive!!



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MGCSA Hole Notes Podcast

This issue is also available in audio format!! Suscribe to the MGCSA Hole Notes Podcast on Spotify, Apple Podcasts, Amazon Music, or find it online at [Buzzsprout](#).



MGCSA NEW MEMBERS - *July/August 2023*

Andrew Larson	Class C	Wayzata Country Club
Corey Lange	Affiliate	Twin City Outdoor
Gage Mills	Student	Hazeltine National Golf Club
Cole Vanek	Student	Hazeltine National Golf Club
Cody Semingson	Class A	Wild Ridge and Mill Run
Candace Okeson	Student	Keller Golf Course
Tanner Schoenfelder	Class A	Madden's on Gull Lake