An Official Publication of the Wisconsin Golf Course Superintendents Association

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ABOUT THE COVER
Pictured is the signature 18th hole at Sedge Valley. Thank you to superintendent Sam Weber for making time in his schedule to talk about this latest gem in central Wisconsin.

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GOLF COURSE SUPERINTENDENTS ASSOCIATION OF AMERICA

THE GRASS ROOTS is the quarterly publication of the Wisconsin Golf Course Superintendents Association. No part of the THE GRASS ROOTS may be used without the expressed written permission of the editor.

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Value and Milestones

By: Garrett Luck, Superintendent, Hidden Glen Golf Club

Dear WGCSA Members,

As we transition into the vibrant hues of fall here in Wisconsin, I find myself reflecting on the profound theme of "Value and Milestones" for this quarterly message in The Grass Roots. In our industry, value is a multifaceted concept, encompassing the exceptional contributions our members make to their facilities and the ways in which we, as superintendents, elevate the golf experience for all. This year, that value has been vividly demonstrated amid challenging circumstances, particularly during the severe flooding in Milwaukee.

The storms that struck on August 9 and 10, 2025 brought record rainfall and catastrophic flash flooding to Milwaukee and surrounding areas, including suburbs like Wauwatosa, causing widespread damage to homes, infrastructure, and yes, our cherished golf courses. WGCSA members rose to the occasion with remarkable leadership, guiding their clubs through the chaos to protect the number one asset at their facilities: the golf course itself. From implementing emergency drainage protocols and coordinating rapid recovery efforts to communicating transparently with club leadership and golfers, our members showcased expertise, resilience, and foresight. These actions not only minimized long-term damage but also reinforced the indispensable role superintendents play in safeguarding the integrity and playability of our courses during adverse weather events. Your dedication in these trying times exemplifies the true value you bring to your facilities every day.

This leads me to the reciprocal value that the WGCSA provides to its members, empowering you to deliver even greater impact at your courses. Through our robust lineup of offerings, including monthly golf meetings that foster networking and idea-sharing, comprehensive educational opportunities to stay ahead of industry trends, a vast array of scholarships to support professional development, and our ongoing commitment to funding university research—we equip you with the tools and knowledge needed to excel. Whether it's learning the latest in sustainable turf management or accessing resources for career advancement, these initiatives are designed to enhance your skills and confidence.

The symbiosis here is clear: the value that the WGCSA delivers directly amplifies the value each member provides to their facility. When you attend an educational seminar, for instance, you return with innovative strategies that improve course conditions and operational efficiency. Scholarships enable emerging talents to grow, ensuring a pipeline of skilled professionals who elevate our industry. And, by supporting research, we collectively advance practices that make our courses more resilient—directly benefiting your day-to-day leadership, as seen in the recent flood response. This interconnected cycle strengthens us all, creating a community where individual success fuels collective progress.

Shifting to milestones, I'm thrilled to report that the WGCSA is experiencing unprecedented success across all membership categories. Our growing ranks reflect the vibrancy of our association and the appeal of our mission. This momentum has enabled us to expand our offerings, delivering even more

WGCSA MISSION STATEMENT

The Wisconsin Golf Course Superintendents Association is dedicated to serving its members, advocating on behalf of the golf course management industry, and supporting the future of golf.

WGCSA VISION STATEMENT

Through promoting environmental stewardship and best management practices on behalf of its members, the Wisconsin Golf Course Superintendents Association is recognized as the regional leader in golf course management.

value to you. Among these exciting developments is the new Equipment Manager Scholarship, aimed at recognizing and supporting the vital role equipment managers play in our operations. Additionally, we've introduced the Superintendent of the Year, Assistant Superintendent of the Year, and Equipment Manager of the Year awards. These honors not only celebrate outstanding individuals in their fields but also shine a broader spotlight on our industry, highlighting the professionalism and innovation that define golf course management. I encourage you to submit nominations online through our website—the process is simple and meaningful. Award recipients will be recognized at our annual Golf Turf Symposium in January, so mark your calendars and help us honor those who inspire us all.

In further milestone news, we're evolving our end-of-season celebrations by replacing the traditional couples outing with new regional year-end parties. These weekday events will provide a relaxed atmosphere for members to bring their crews, fostering camaraderie as we toast to the season's accomplishments among peers. Stay tuned for more details coming soon—we're excited about this fresh approach to wrapping up the year. And, if you're active on social media, keep an eye out for the WGCSA Instagram page. We're building our presence and actively seeking submissions from members to showcase your courses, teams, and stories—your contributions will help us connect and inspire even more.

Finally, I'd like to extend heartfelt recognition and congratulations to the Wee One Foundation for a remarkable achievement: over the past 21 years, they have supported more than $2.5 million in requests for golf course management professionals and their families facing financial hardships due to medical expenses. The WGCSA has been a proud supporter of the Wee One for years, serving as a Chapter Sponsor and hosting the annual auction at our Golf Turf Symposium. Their work embodies the spirit of community and compassion that runs deep in our industry, and we're honored to stand alongside them.

As we look ahead, I urge you to check out our calendar of upcoming events. Whether it's a meeting, seminar, or symposium, these opportunities are where you'll find value to enrich your professional journey—and in turn, bring that value back to your facilities. Thank you for your continued dedication to the WGCSA and to excellence in the golf course industry.

Creating Opportunities

By: Jake Schneider, Editor and Chapter Manager

Earlier this summer, I had the privilege of hosting a gathering of other GCSAA Chapter Executives. Adam Ikamas (Michigan GCSA), Luke Cella (MAGCS), Chris Aumock (Minnesota GCSA), Chris DeMain (Ohio GCSA), Matt Beatty (Iowa GCSA), and Shane Conroy from GCSAA all made their respective ways to Madison for two days of socializing and idea sharing. On day one, we met at Blackhawk CC and had a free-flowing discussion about the chapters that we lead and were treated with a round at the host course after our brains hurt from processing so much information.

After dinner and drinks at the Schneider residence that evening, we reconvened the next morning at the Noer Research Center where Drs. Koch and Soldat led an informative discussion about the state of turfgrass research and the importance of chapter funding along with providing an overview of the Turfgrass Apprenticeship Program. Following our morning meeting, we had planned to play Pioneer Pointe thanks to superintendent Neil Radatz, but Mother Nature had a different idea (surprise, surprise). So, everyone headed out early with their heads swimming with new ideas.

As the veterans amongst the group, Luke and Adam have been convening similarly with Midwestern Chapter Execs for many years, but this was only my second time attending this meeting of minds. My initial exposure to the group came two years ago when I was less than a year into my role with the WGCSA, and to say that I had more questions than answers at that time would be an understatement. I like to think that I had more to contribute this go-around, but regardless, it's always good to catch up and learn from a great group of guys.

One thing that continues to surprise me is how much variability exists regarding the successes and needed improvements that can be found within the various chapters that aren't all that geographically far apart. There seems to be no silver bullet to boosting event attendance or in engaging non-members to join the associations (which is both frustrating and reassuring at the same time). Individually, it was obvious that we were all doing our best to grow our organizations and provide value to our members and industry partners.

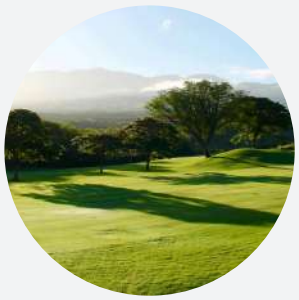
During one of our discussions, Adam Ikamas asked us, "What is it that you tell people you do for a job?" Before we started in with our rudimentary answers, he said, "I've realized recently that we provide opportunities—opportunities for education, opportunities for networking, opportunities for advancing the turf industry." This was something that I hadn't thought about before, but it really hit home and is right along the lines of Garrett's President's Message in this very issue.

With that, I hope that the WGCSA is providing you with the opportunities that you need to succeed at your job, and if we aren't, constructive feedback on what we can do to improve is always appreciated. As an association, we're in a really great place, but that doesn't mean that there isn't room to grow. We appreciate everyone's membership and support and can't wait to see you at an upcoming event or two during the cooler months that everyone very much deserves to enjoy after the challenging growing season that 2025 has brought.

Announcing the 2025 WGCSA Awards

The Wisconsin Golf Course Superintendents Association proudly presents the Superintendent, Assistant Superintendent, and Equipment Manager of the Year Awards, celebrating excellence in golf course management and dedication to our profession.

Wisconsin Chapter GCSAA
Golf Course Superintendents Association of America



Nominate a colleague who exemplifies outstanding contributions in golf course care. WGCSA members may submit nominations from September 1 to November 1, 2025. Board members are not eligible for nomination.

A panel of three recent WGCSA past presidents will judge all nominations. Winners will be honored at the Wisconsin Turfgrass Symposium with a plaque and media recognition, highlighting their commitment to excellence.

Join us in celebrating the achievements within our community. Nomination forms will be available starting September 1, 2025, at wgcsa.com. Submit your nomination by November 1, 2025, and recognize outstanding professionals.

Questions? Contact Jake Schneider, WGCSA Chapter Manager, at jschneider@wgcsa.com
Wisconsin Golf Course Superintendents association — Elevating the Game.

VICTORY!

By: Jake Schneider, Editor and Chapter Manager

One of the better (of many) views on the course is from the 15th tee looking west towards the Mississippi River bluffs and holes 16 and 17.

Going into the third edition of the Border Battle versus our colleagues with the Minnesota GCSA, confidence on the Wisconsin team may have been a bit low due to losing both of the prior matches by a significant margin, but you never would have known it as the good guys from the Badger State claimed a commanding 10-6 victory in the fourball format at a cool, drizzly La Crosse Country Club during the third week of May.

Most importantly, though, is that the event continues to grow as we had a record 90 folks preregistered for the low-key competition against our neighbors to the west, and although we had a few cancellations due to the unfriendly weather forecast, Mother Nature was relatively cooperative when the teams were on the course and a great time was had during our time in the scenic land of bluffs and coulees along the mighty Mississippi.

On the night before we teed off, host superintendent, Greg Willman, arranged for a space at Howie's on La Crosse where 30 of us met for dinner and drinks that were generously picked up by our industry partners at BASF, Simplot, and Thelens. It was great to have some time to catch up with old friends and meet new ones. Even better was the next morning when Greg sent the good news that the course was ready for the event without cart restrictions.

Not surprisingly, Greg (who shared his birthday celebration with us) and his crew including Dustin Klonecki, Dan Scow, Mitchell Degenhardt, and Cole Sobotta had the Arthur Hills designed course in fabulous condition, and most of us were a bit relieved that the precipitation had the greens running a touch slower than they otherwise would have been! Aside from enjoying the fun and challenging course, we had a delicious BBQ sandwich lunch at the turn and had a few complimentary beverages thanks to our friends at Reinders, SiteOne, and Thelens.

Thanks to our outstanding hosts, Greg, Dustin, and Mitchell (from left to right), for a wonderful event. We look forward to returning to defend our title on May 11, 2026!

Along with the team competition, we had several hole event prizes worth $50 in pro shop credit that were nicely split between the two sides:

- Closest to the Pin on Hole 5: JJ Gosh (WI)
- Closest to the Pin on Hole 7: Tyler Engen (MN)
- Longest Drive on Hole 8: JJ Gosh (WI)
- Longest Putt on 9: Grant Blumreich (MN)
- Longest Drive on Hole 11: Walter Beld (WI)
- Closest to the Pin on Hole 13: Aaron Bulman (MN)
- Closest to the Pin on Hole 15: Tyler Engen (MN)
- Longest Putt on Hole 18: Steve Hammon (MN/MI). **A special thank you to Steve, who is the superintendent at Traverse City Country Club in Michigan and a Director on the GCSAA Board of Directors for making the trip!**

Unfortunately, no one took home the hole-in-one prize of an Air2G2 that was sponsored by Foley Company.

Finally, a special thank you to the general event sponsors who helped us to keep the costs at a minimum: Frost Inc, PBI Gordon, Reinders, and Waupaca Sand & Solutions. We've seen great cross-border support for this event from vendors and members, alike, and plans are already taking shape to return to La Crosse CC next May when there will hopefully be even more attendees, slightly better weather, and another WGCSA victory!

The approach shot into the par 5 sixth hole is tricky with bunkers to the left and a sneaky pond to the right of the green.

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SHAMBLING AT U RIDGE

By: Jake Schneider, Editor and Chapter Manager

Prior to this year's golf season, the WGCSA arrangements committee got together and brainstormed about how to make our events a bit more fun. For many years, we had the same old two-person best ball and two-person scramble formats that were growing stale, and it was time for a change. After the success of the four-person shamble that we played at University Ridge in early June, we may be onto something.

Speaking of University Ridge, what a golf course it is! Superintendent Phil Davidson and his crew had been used to prepping the grounds for the Champions Tour, but with move of the American Family Championship to TPC Wisconsin, the schedule opened for us have an event at one of the finest public courses in the state.

Designed by famed architect Robert Trent Jones, Jr and perched in the start of the driftless area, the course features beautifully undulating terrain and two slightly contrasting 9s with the front being more open and the back cutting through the woods. It's a challenging layout, to be sure, but also the type of course that you could play every day.

There were a few teams that navigated the setup better than others when we were there, and the top two teams in both the gross and net divisions received pro shop credit for their efforts. Tied for first place in the gross division with score of -8 was the home team of Trgyve Ekern, Joe Bate, Cory King, and Grant Mohlke and the Reinders squad composed of Brian Placzowski, Adam Wiles, Grant Rundblade, and Dave Dimke. In the net division, there was also a tie at -23 between the teams of Durrell Naquin, Lee Mahnke, Aaron Ehlenfeldt, and Zach Roth and Ben LaBarre, Jonah Naatz, Zac Houfek, and Anthony Selestow.

We also have several hole prizes up for grabs that were won as follows:

- Closest to the Pin on Hole 3 sponsored by Advanced Turf Solutions: Travis Krauklis
- Closest to the Pin in two shots on Hole 4 sponsored by Syngenta: Gregg Schernecker
- Longest Drive on Hole 6 sponsored by Clesens: Trygve Ekern
- Closest to the Pin on Hole 8 sponsored by National Golf Graphics: Grant Rundblade
- Longest Putt on Hole 9 sponsored by Thelen Materials: Ryder Underwood
- Longest Drive on Hole 10 sponsored by SiteOne: Grant Molke
- Closest to the Pin on Hole 12 sponsored by Revels: Jeff Millies
- Closest to the Pin in three shots on Hole 16 sponsored by Milorganite: Scott Verdun
- Closest to the Pin on Hole 17 sponsored by Simplot: Adam Wiles
- Longest Putt on Hole 18 sponsored by Reinders: Zach Roth

Despite the busy time that having the US Women's Opens and the Am Fam Championship brought to southern Wisconsin during the latter part of May and early part of June, we had a solid turnout for the event with just over 70 attendees and appreciate that almost everyone stuck around when we had a brief weather delay after nine holes.

Thanks to Phil Davidson (center with framed flag), Trygve Ekern (left of Phil) and the entire University Ridge grounds crew who had the course in amazing condition.

From left to right, Omar Zaldivar and Chad Grimm from Blackhawk CC teamed with Aaron Goninen from Reinders and Jake Schneider (behind the camera) for a great time at the June golf event.

Finally, a special thank you goes out to our growing list of sponsors who make it possible to keep our events affordable:

- Advanced Turf Solutions
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- Golf Creations
- Helena
- Horst
- Irrigation Protection Services
- Landmark Golf Course Products
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- Milorganite
- National Golf Graphics
- OnTime Promo & Apparel
- PBI Gordon
- Pendelton Turf
- Premier Golf & Utility
- Pumpstation Professionals
- Reinders
- Revels
- Simplot
- SiteOne
- Sod Squad
- Syngenta
- Watertronics
- Waupaca Sand & Solutions

Thank you!

A line of storms timed itself well as it rolled through right when everyone was ready for lunch and a fresh beverage.

2025 WGCSA Events Calendar

September 15, 2025	*Wee One Outing, Pine Hills Country Club, Sheboygan, WI*
September 23, 2025	**EM/C Par 3 Golf Event at Pioneer Pointe Golf Course, Verona, WI**
October 7, 2025	*WTA Fall Classic Golf Outing, The Club at Strawberry Creek, Kenosha, WI*
October 21, 2025	**Trap Shooting Event at Milford Hills**
December 9-10, 2025	**Crew Appreciation Events in Milwaukee, Madison, and Fox Valley**
January 7-8, 2026	**Wisconsin Turfgrass Symposium, Kohler, WI**
February 4, 2026	**Wisconsin Room at GCSAA CTS, Cuba Libre, Orlando, FL**
February 25, 2026	**Spring Business and Educational Meeting, South Hills Golf & CC, Fond du Lac, WI**
May 11, 2026	**Border Battle at La Crosse Country Club, Onalaska, WI**
June 9, 2026	**June Golf Event at The Legend at Brandybrook**

Wisconsin Chapter GCSAA
GOLF COURSE SUPERINTENDENTS ASSOCIATION OF AMERICA

An Environmental Leader & Steward Restores Waterways: WISCONSIN COUNTRY CLUB'S DAM REPLACEMENT PROJECT

By: Adam Suelflow, Golf Course Superintendent, The Wisconsin Country Club

Wisconsin Country Club is proud to announce the completion of a significant environmental and infrastructure improvement: the replacement of three failing dams on our property. In collaboration with Design2Construct, raSmith, Wondra Construction, the Wisconsin Department of Natural Resources (DNR), and the City of Milwaukee, this project represents a major step forward in sustainability, water quality improvement, and ecological stewardship.

Headwaters of Lincoln Creek: A Responsibility We Take Seriously

Wisconsin Country Club sits at the headwaters of Lincoln Creek—a vital urban waterway that flows through Milwaukee County. Our property contains 7.41 acres of ponds and stream corridors, with an average depth of 4 feet, equating to more than 9.6 million gallons of surface water. These ponds are fed by storm drains from surrounding neighborhoods, notably Calumet Avenue and 76th Street. As the first line of filtration for this watershed, the health of our water features directly impacts communities and ecosystems downstream.

Why the Dams Needed to Be Replaced

After decades of use, the three existing dams on the property had begun to fail structurally. They allowed water to leak beneath and through their cores, resulting in erratic water levels and reduced water volume. This instability impacted aquatic habitat, threatened the surrounding landscape, and diminished the course's ability to slow and filter stormwater runoff before it entered the creek.

We initiated the dam replacement project to restore hydrological function, improve habitat stability, and reinforce our role as a responsible environmental steward. The new dams feature reinforced concrete culverts, engineered spillways, and water-control valves that allow precise water level management.

Environmental Benefits: Cleaner Water, Healthier Habitat

The ability to consistently maintain appropriate water levels benefits both on-course and downstream ecosystems. The new dams help prevent flooding by allowing us to lower

An aerial view of Lincoln Creek as it meanders through Wisconsin CC. The repaired dams are indicated with red boxes and the gates are also labeled.

water levels in advance of major storms. Meanwhile, a stable aquatic environment supports the resurgence of fish, waterfowl, and native aquatic vegetation that had previously been stressed by fluctuating conditions.

This infrastructure upgrade also enhances the course's ability to improve water quality. As runoff enters the ponds, it slows down, allowing sediment and nutrients to settle out. That process is aided by more than 150 acres of healthy turfgrass surrounding the waterways, maintained using Integrated Pest Management (IPM) strategies that minimize pesticide and fertilizer use.

In addition, buffer strips—areas of unmowed vegetation along pond banks—play a critical role in filtering runoff. These strips trap sediment, absorb nutrients, and reduce erosion, acting as natural water purifiers.

The results speak for themselves. Water testing has shown that nitrate levels decrease from 0.76 ppm at the point of entry to less than 0.1 ppm where water exits our property. Dissolved orthophosphates—a key contributor to algae blooms—have dropped from 0.051 mg/L at the inlet to 0.016 mg/L at the outlet. These measurable improvements illustrate the effectiveness of our environmental strategy.

Execution, Coordination, and Lessons Learned

A project of this scale required coordination among several key partners. Design2Construct, raSmith, and Wondra Construction led the design and implementation, with regulatory oversight from the DNR and the City of Milwaukee. While the permitting process was not especially difficult—both agencies were responsive and supportive—it was time-consuming and required close attention to detail. Early planning and communication were essential in keeping the project moving forward.

No public grants or funding were used. This project was fully funded by the club's new ownership group, Concert Golf Partners—an investment that reflects their long-term commitment to environmental stewardship and the future of Wisconsin Country Club.

By completing most of the work during the winter months, we minimized disruption to both wildlife and member play. Construction began with equipment mobilization on January 9, and just four months later—on May 9—the final punch list items were completed.


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Installation of precast culvert sections.

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Completed dam with sod established in June 2025.

A Broader Message: Golf Courses as Environmental Stewards

This dam replacement project is just one example of how golf courses can—and do—contribute to environmental sustainability. While programs like The First Tee highlight the social and recreational value of the game, it's equally important to recognize the ecological value that well-managed golf properties bring to their communities.

By maintaining green space, managing stormwater, supporting biodiversity, and reducing nutrient loads in local waterways, Wisconsin Country Club serves as a model for modern, responsible golf course management. Sustainability is not just an initiative here—it's a principle we apply across all decisions.

Looking Forward

We hope this project shines a light on the often-overlooked environmental role that golf courses play. Through careful planning, investment, and ongoing stewardship, we've taken meaningful steps to protect and restore a critical waterway in our region.

As we welcomed golfers back this season, we did so with pride in our commitment to improving the property and its environmental impact.

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JASON GOEBEL

Thank you to everyone who participated in the Membership survey. The information and feedback obtained was invaluable. The requests for more member spotlight stories inspired us to start this column. We hope to randomly highlight a few members each edition from all geographic areas, facility types and membership classifications. It may take us 20 years to get to everyone in the directory but please be ready for that phone to ring and be prepared to share stories, photos and information about YOU!

Name: *Jason Goebel*

Company Position: *Equipment Manager*

Years as WGCSA member: *2 Years*

Membership Classification: *EM*

How did you get started in the turfgrass industry? My previous place of employment went out of business, so I started shotgunning my resume' everywhere I could think of near my home. I got lucky that the golf course near me gave me the best offer.

What is the most rewarding part of your career? Fixing things as they break. It gives me the satisfaction that not only am I a key component to keeping the operation running, but that in most cases I am uniquely qualified to do so. I have come to learn that most people can't do what a good equipment manager/mechanic can.

What would you consider to be your greatest career challenge? I think the greatest career challenge I face is the balance between personal professional development and staying committed to the daily requirements of the course and crew.

Which three adjectives describes you the best? Industrious, innovative, and intelligent

Tell us about your family. My wife Shannon and I have been married for 6 years. We are both on our second marriages and have 7 children between us, but none together. Our children range from 15 to 32, with 6 girls and 1 boy. I have two grandsons ages 1 and 4. Our son currently lives in Texas and the girls live throughout Minnesota and northwest Wisconsin.

What drives/motivates you every day? Being appreciated for what I bring to the organization.

Who do you admire? Archimedes of Syracuse

Who is the person in history you'd most like to meet? Jesus of Nazareth

What's a fun fact or two that people don't know about you? My wife and I spent our first 5 years of being married unplugged (no internet or tv). And I have visited 36 different countries on 5 different continents (I've never been to Australia or Antarctica)

Jason and Shannon enjoying some time together on the water.

Jason (third from the left) was recognized at the 2025 GCSAA Conference and Trade Show in San Diego for achieving his Certified Turfgrass Equipment Manager designation.

What do you do in your spare time, favorite hobbies? I spend most of my "spare time" either fixing things around the house or working on our addition. When I'm not doing that, I enjoy playing non-mainstream board games.

If you could go anywhere in the world on vacation, where would you go? The Great Barrier Reef.

What is one thing you would like to learn/accomplish someday? How to play the violin well

What is your favorite turf management related tool or technique? I know its not technically turf management specific but… I'm a really big fan of the lift table.

Favorites:
TV Show: This is us
Movie: The Princess Bride
Food: A good steak
Sports Teams: Vikings and Wild

Do you golf? Handicap? Best shot or golf story? I do golf, but nowhere near as much as I would like to. The last time I played enough to establish a handicap I was a 15…. Now I'm probably over 36. The only thing that is consistent about my golf game is how inconsistent it is.

Top Bucket List item? Watch the whale migration on an Alaskan cruise.

If you could provide one piece of professional advice, what would it be? Never stop trying to learn new things.

Jason (far right), pictured with fellow WGCSA EMs John Niemiec, Jeff Borowski, and Shania Lancour, lent a hand at the US Women's Open at Erin Hills this past June."

The 10th hole measures just over 400 yards from the tips and features another well protected green (photo courtesy of Brandon Carter at Sand Valley Golf Resort).

Sam Weber: Growing Sedge Valley from Sand to Signature

In July 2024, Sand Valley Golf Resort unveiled Sedge Valley - a compact, links-inspired course unlike anything else on the property. With its easily walked routing and a mix of traditional and "half-par" holes, it quickly earned its place among Wisconsin's most distinctive golf experiences.

Since April 2022, Superintendent Sam Weber has overseen its transformation from bare, excavated sand to a fast-running, precisely tuned playing surface. Built on a pure sand base with fine fescue tees, fairways and surrounds, and bentgrass greens, the course demands a specialized approach to conditioning, traffic management and seasonal preparation. The role has called for problem-solving, adaptability and a willingness to rethink conventional practices - traits Weber has relied on throughout the grow-in and into its early seasons of play.

Sam and his family enjoying their time away from the course at a recent bike race in Marquette.

Sam's Early Life & Journey in Golf

Weber grew up in Sturgeon Bay, Wisconsin, where his grandmother first encouraged him to pick up a golf club. By high school, he was at Cherry Hills Golf Course nearly every day - playing with friends, picking the range and parking carts after his shift. The mix of outdoor work, physical activity and the strategy of the game hooked him early.

Cherry Hills Superintendent Kurt Klonsinski saw his potential and encouraged him toward turf management. "I enjoyed science and chemistry in school, so it seemed like a match made in heaven," Weber says.

After earning his turfgrass degree from Michigan State University, Weber's career was shaped by key mentors. At Horseshoe Bay Golf Club, Brian Ferrie and Mike Becker introduced him to the elevated standards of private golf. At The Legend Clubs, Ben LaBarre and Randy Van Fleet refined his post-college skills. Then at the Kingsley Club in Michigan, Superintendent Dan Lucas opened his eyes to fescue and firm-and-fast conditioning - lessons in surface preparation and design intent that still guide his work at Sedge Valley today.

The Arrival at Sand Valley

When Weber accepted the position at Sedge Valley, he expected to hit the ground running. Instead, the first two months were spent taking stock. "You think, here we go, we're going to hit the ground running… and pretty quickly I realized there wasn't anything ready," he says. "Tom [Doak, the course architect] wasn't there yet, it was too early to start seeding, they hadn't really prepared anything."

Although short, the first par 3 at hole 5 is a tricky one as it features a green that is heavily guarded by bunkers and has a steep false front.

That extra time allowed him to settle in and get to know the expansive property - and its people. "It's easy to get lost

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Don't come up short on the par 3 7th hole!

here - the place just keeps going," Weber recalls. What stood out most was the instant camaraderie among the team. "We have our own mini Wisconsin Superintendents Section here," he jokes. "And everybody's buying into the same idea - we're all just trying to put the best conditions we can out there. It's a great place where you've basically got an immediate built-in friend group."

Weber's previous work at the Kingsley Club had taught him the value of a playability-first mindset. At Sand Valley, that philosophy remains, but with adjustments for a resort audience. "We're obviously in a retail golf situation, so we're not able to take it quite as far as we would at Kingsley," he says.

The Grow-In

Construction was underway when Weber arrived, with seeding set for mid-June 2022. That summer, the crew seeded 12 holes, finishing the remaining six in 2023. On paper it looked simple; in practice it required precision timing and constant weather watch.

"I thought the hardest part would be getting seed established that first year," Weber admits. "But it went really well - out of 18 holes we only had one significant washout. Every major thunderstorm came right after our latest seeding had germinated, holding the sand down."

The bigger challenge came after the July 1, 2024 opening. In its first partial season, Sedge Valley saw roughly 16,000 rounds and high-traffic areas quickly showed wear. Then came a harsh winter - extreme cold, unseasonal warm-ups and a long, cool spring that slowed recovery.

Managing fescue on a deep sand base meant rethinking conventional wisdom. "You have to go into winter a little lush," Weber says. "On sand there's no nutrient-holding capacity, so the plant needs to be as healthy as possible to make it through. In turf school, they say you'll get snow mold if you're over-fertile, but here you just can't be too fertile."

The Sedge Valley crew taking time for a photo opportunity during the grow-in process.

It was an "aha" moment that reshaped his winter prep. For Weber, grow-in was as much about adapting to Central Wisconsin's extremes as it was about germination - learning how to bridge the gap between establishment and the daily demands of play.

Managing Fine Fescue

Sedge Valley's fine fescue fairways, tees and surrounds are central to its identity - and its challenges. For Weber, success starts with one non-negotiable: drainage. "Fescue needs to drain - that's the easy box for us to check," he says. "It drains amazingly here, and that's really the key."

Traffic has been the bigger hurdle. With no alternate routes, high-wear areas require frequent re-sodding. "The turf hasn't fully knitted in to hold that ground together yet," Weber says. "Traffic management is very difficult, and we do a lot of resodding where there's no way to move people around."

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Resort play brings its own set of expectations. At Kingsley Club, Weber could keep fairways tight for a lean, fast-running look, but at Sedge Valley the Keiser family prefers slightly higher mowing heights to help players launch the ball more easily and keep rounds moving. "It's a little greener than we'd like," Weber says, "but to manage traffic you have to keep the plant growing."

Even so, the surfaces remain impressively quick. "It's so fast for the height of cut that people don't believe it," Weber says. "On bentgrass, you'd have to cut much lower for the same quality, but here the plant stays healthier and resists wilting - a win for both conditioning and playability."

Course Design & Personality

From the start, Weber knew Sedge Valley would stand apart. Compact, walkable and filled with atypical pars, it borrows more from British links traditions than American scorecard conventions. "Sedge has a number of 'half-par' holes," Weber says. "That's a hard idea for most retail golfers to grasp, but it ultimately makes the course more interesting."

He points to holes 9 and 10 as examples of turning modest land into engaging golf. "That portion of the property was relatively uneventful compared to the topography of the previous holes," he says. "Tom [Doak] and Eric [Iverson] did a fantastic job creating two great holes that fit beautifully with the rest of the course."

Hole 8 delivers a different kind of drama - a par three that can stretch to driver distance for some players. "As soon as I hear somebody say it's 'unfair,' I'm like - well, there's nothing fair about golf," Weber says. "It's so much more rewarding when you hit that driver, it dribbles onto the front of the green and you make that birdie putt."

Then there's hole 18 - what I now consider the best finishing hole in Wisconsin. Originally planned as the 17th, it was renumbered to close the round. Modeled after the fourth at Doak's Barnbougle Dunes in Tasmania, it plays slightly longer from the fairway bunker but otherwise mirrors the original. Just weeks after opening, a father-and-son duo etched their names into Sedge Valley lore when the son made the hole's first ace.

Creative Problem-Solving

Sedge Valley's grow-in demanded more than agronomic know-how - it required creative fixes. With much of the site still loose sand, even getting around was a challenge. "You can't drive a normal cart around the sand or you'll get stuck," Weber says. Local UTVs were scarce thanks to a nearby solar project, so the solution came via Facebook Marketplace: a nice $2,200 2006 Ford F-250. "That was our grow-in golf cart for the first couple of years," he laughs.

Its days as a "nice" truck ended when a mulcher hose burst with the windows down, coating the cab in mulch. "It always

smelled like wet newspaper after that," Weber says. From then on it was strictly a workhorse.

Some solutions were more polished. Because fine fescue doesn't hold dew, mowing passes are hard to see, so every fescue mower at Sedge Valley is equipped with a marking foamer - a practice in place before Weber's arrival, but one that remains essential. "Without foam you can't see where you've been," he explains. "This way, we can cut the whole course cleanly."

For Weber, these adaptations reflect the course's evolving nature. "Almost daily we change things up," he says. "We're still learning this golf course."

Leadership Philosophy

Weber's leadership approach can be summed up in a simple mantra: "Keep chopping wood." For him, it means staying consistent, focusing on the present task and maintaining a healthy work-life balance to avoid burnout. "Prioritize tasks that impact golfers, stay consistent and keep persevering," he says.

His calm demeanor is intentional - a lesson learned from mentors throughout his career. "I try to drill into these young guys to stay calm," Weber explains. "There are so many things in a day that can fluster you, and you just have to look at the big picture. Most of it's not worth getting upset about."

Weber believes the tone set by a superintendent directly shapes crew morale. "If you're stressed and exuding that stress onto them, it's not a positive workplace," he says. "We want people to enjoy being out on the golf course. Come in every morning enjoying where you're at - that's what we're looking for."

For those leading their first grow-in, Weber's advice is straightforward: lean on your network. "Don't be afraid to get on the phone and ask questions," he says. "It's an exceptionally rewarding process going from bare ground to a golf course that 170 people are going to play today."

Life Away from the Course

Away from the golf course, Weber's life revolves around family and the outdoors. He and his wife are raising two young children - an eight-month-old and a three-year-old - which means there's rarely a quiet moment. "Being at the golf course is sometimes easier than being at home," he jokes.

When time allows, the couple enjoys mountain biking in summer and fat biking in winter. "We just did a race up in Marquette this past weekend," Weber says. Family rides, hikes and walks help him decompress after long days at Sedge Valley.

His golf game has taken a back seat, though, as the former everyday player now averages five or six rounds a year - though often on world-class courses. "When you work at

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and play Kingsley and Sand Valley, you tend to become a bit of a golf snob," he admits. "Being at the course doesn't quite scratch that itch, but it definitely makes you happy."

Perspective on Guests & the Game

Weber has quickly learned that Sedge Valley attracts a certain type of player. "Most of the people coming are golf nuts," he says. "A couple months ago somebody said on Twitter, 'An uneducated golfer would look at this place and think it's an unkept muni, but anybody that knows golf appreciates it for exactly what it is.' That guy gets it. He knows we're not manicuring every inch of turf - that's not our goal and it's not even on our radar."

That mindset matches Weber's philosophy and experience with fescue surfaces. He points to the U.S. Open at Chambers Bay as an example of how firm, brown conditions are often misunderstood in the U.S. "The ball plays so nicely off that browned-out ground," Weber says. "Golf isn't fair. Every year they go over to The Open and embrace it, but here people expect perfection - and that's not the case."

For Weber, the joy of Sedge Valley lies in its honest presentation: tight turf that rewards shotmaking, strategic design with multiple options and conditions that challenge conventional expectations while staying fun and playable.

Looking Ahead

As Sedge Valley settles into regular play, Weber sees it only improving with age. "As the course grows in, it's a fantastic complement to the other courses here," he says. "The setting is different and the style is unique."

Agronomically, his plan is to gradually reduce fertility and push conditions toward firm and fast. "That's going to help a lot," he says. "A young golf course can be a little slow with spots that need to fill in, but it's only going to get better from here."

One near-term addition is the opening of Sedge Valley's putting green, designed to match the character and challenge of the course. Looking more broadly, Weber is excited for Sand Valley's next project, The Commons. "It's like The Sandbox on a larger scale," he says. "You'll see some unbelievable holes next to the big lake - they look challenging, that's for sure."

For Weber, the path forward is about refinement: fine-tuning conditioning, protecting high-traffic areas and maintaining Sedge's distinct identity within one of the most innovative golf destinations in the country.

Reflecting on the Journey

In just a few seasons, Sam Weber has helped take Sedge Valley from an open stretch of sand to one of the most distinctive golf experiences in Wisconsin. Along the way, he's navigated the complexities of a fine fescue grow-in, balanced agronomic ideals with resort playability and led his team with a steady, even-handed approach.

The course he tends is as unique as the journey that built it - a par-68 strategy-rich design where par is just a number and firm turf rewards imagination. Watching guests embrace its quirks, creativity and challenge has been the clearest sign of success. Sedge Valley now stands not just as a testament to vision and craftsmanship, but as a course destined to become even more compelling with time.

As the shortest par 4, the 12th hole features a very wide fairway that gives the golfers many different options to attack the pin depending on the hole location.

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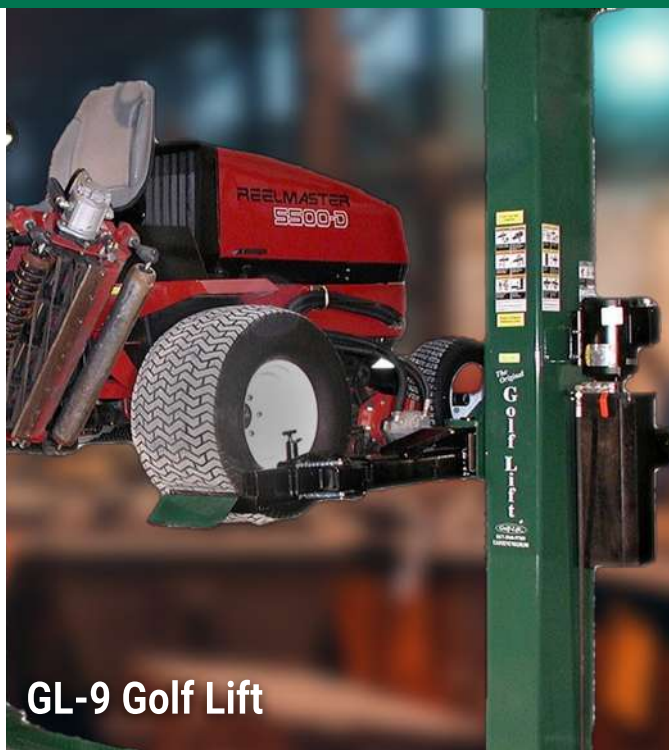

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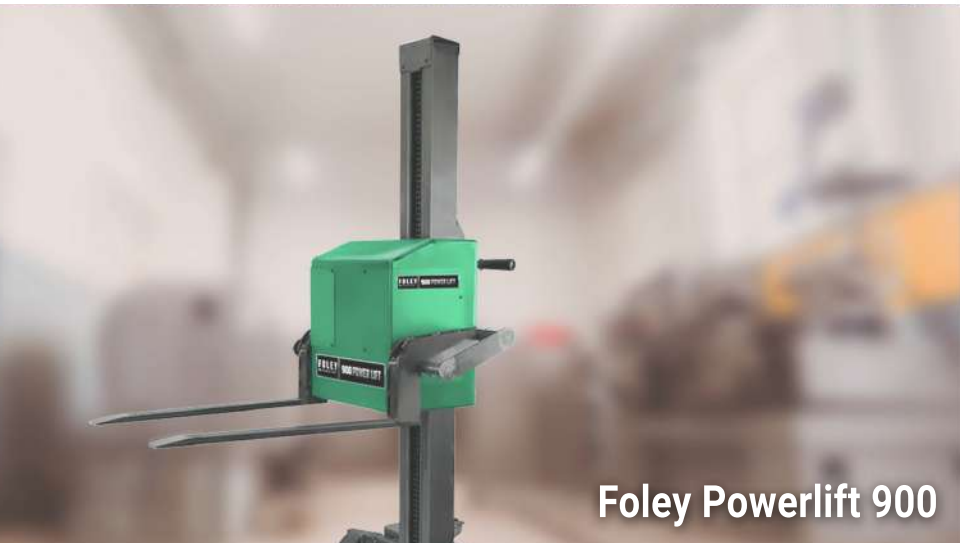
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Celebrating 30 Years OF THE TURFGRASS DIAGNOSTIC LAB

By: Paul Koch, PhD, Department of Plant Pathology, University of Wisconsin – Madison

Author's note: This article is one of 4 articles highlighting the history and impact of the Turfgrass Diagnostic Lab in the 30th year since its founding in 1995. I am grateful to Professor Gayle Worf, Dr. Steve Millett, and current diagnostician Kurt Hockemeyer for also contributing articles to this series.

The University of Wisconsin – Madison Department of Plant Pathology started the Turfgrass Disease Diagnostic Lab in the spring of 1995. In the 30 years since its founding, the Turfgrass Disease Diagnostic Lab has morphed into the Turfgrass Diagnostic Lab (TDL) and become the premier center for turfgrass diagnostics in the Midwest (Figure 1).

Figure 1. As the diagnostic offerings expanded beyond just diseases, the name changed from the Turfgrass Disease Diagnostic Lab to the Turfgrass Diagnostic Lab.

I doubt the people that worked so hard to create the lab back in 1995 had any idea what it would become all these years later, or the impact that it would have on the UW turf program and the Wisconsin turfgrass industry. We're grateful for their vision and endless dedication to serving turfgrass managers. In this article, I focus on how the lab began, how it grew in both size and impact, and how the story of its founding provides direction for the next 30 years of the TDL. Thank you to Professors Doug Maxwell and Craig Grau from the UW Department of Plant Pathology and former Blackhawk CC Superintendent Monroe Miller for speaking with me for this article.

How the TDL began

In 1995, the Wisconsin turfgrass industry was just coming off the highly successful campaign to build the OJ Noer Turfgrass Research and Education Facility. According to Monroe Miller, this project took a years-long coordinated effort of planning, fundraising, and leveraging of the resources and connections within the state's turfgrass industry to convince UW leaders to get the facility built. Individual superintendents visited other turfgrass research facilities throughout the country and brought the best ideas back to Madison, and the result is one of the best turfgrass research facilities in the country that still stands today.

Despite the success of the OJ Noer, turfgrass pathology in 1995 at UW was in a bit of a rut. UW professor Gayle Worf was an internationally respected expert in turfgrass pathology and had served the Wisconsin turfgrass industry well for decades. 'Everyone revered Gayle Worf', said Monroe Miller. But Professor Worf retired a few years earlier and his replacement, Dr. Julie Meyer, wasn't providing the service the turfgrass industry had come to expect and resigned her position at UW in 1994. In addition, turfgrass samples being sent to the UW Plant Disease Diagnostic Clinic weren't being diagnosed using the speed that turfgrass managers require, and the turfgrass industry wasn't shy about letting their displeasure known. Turfgrass samples could be sent to other states for diagnosis, but as Monroe Miller put it, 'we got kind of sick of having to send our samples over to Michigan State.'

Professor Craig Grau was the chair of the Department of Plant Pathology at the time and was hearing about the turfgrass industry's displeasure. Professor Grau knew the importance of fast and accurate diagnostics from his career in row crops extension, and he was strongly supportive of the establishment of a separate diagnostic lab to handle turfgrass samples. But without a dedicated turf pathologist in the department, who could handle such an important and time-consuming task? According to Professor Grau, 'by 1995 I could count on one hand the number of faculty that I could trust to complete such an assignment. Doug (Maxwell) is excellent when it comes to organization, attention to details, getting people to work together. Doug always put the department ahead of his personal activities.' And so the first critical decision of the yet-to-be-named

Turfgrass Disease Diagnostic Lab had been made, Professor Doug Maxwell would be the faculty member chosen to get the lab up and running.

Unless you were active in the Wisconsin turfgrass industry in the late 90s and early 2000s you might be wondering who Doug Maxwell even is (Figure 2). Professor Maxwell was a

Figure 2. Paul Koch along with Professors Gayle Worf and Doug Maxwell at the OJ Noer Turfgrass Research and Education Facility in 2024.

highly esteemed plant pathologist who led groundbreaking projects to breed disease resistance into forages, dry beans, and tomatoes. He also managed large international projects in the Middle East and Central America on new plant virus detection methods and breeding virus-resistant tomato plants. He also served as the chair of the Department of Plant Pathology from 1980 until 1990 and served as the interim Executive Associate Dean and Assistant Academic Dean for the UW-Madison College of Agriculture and Life Sciences. In other words, the turfgrass industry was lucky to have Dr. Maxwell chosen to lead this new endeavor.

Despite all the accolades that Dr. Maxwell accumulated during his career, he had never worked in turfgrass pathology or turfgrass diagnostics (Figure 3). In fact, the only person at UW who had turf pathology experience was Steve Millett, who was a PhD student in Dr. Julie Meyer's program

Figure 3. Professor Doug Maxwell may have been a world-renowned plant pathologist, but he still had to get down and dirty to learn about snow mold when he entered the world of turf pathology in 1995.

before she left UW. Dr. Maxwell was able to convince Steve to add turfgrass diagnostics on to his PhD student plate, and Steve became the first manager of the TDDL. Catherine Smejkal had worked for many years as a technician to Gayle Worf but had recently passed away from cancer, and Gary Gaard was brought in to assist with homeowner sample diagnostics. Gary had been a member of the Department of Plant Pathology for years as the operator of the electron microscope. Between Steve, Doug, and Gary, the Turfgrass Disease Diagnostic Lab had its first team and was ready to open for business in the spring of 1995.

How the TDL Grew

The first year of the TDDL was a smashing success. Homeowner samples cost $10 and commercial samples cost $25 and over 100 samples were submitted (Figure 4). For a lab in the first

Table 1. Frequency of turf problems diagnosed by the TDDL in 1995.

DIAGNOSIS	SAMPLES	% OF SAMPLES	GROWER TYPE			
			GC	HL	LC	SF
Env./Phys.	40	18.5	8	22	6	4
Necrotic Ring Spot	31	14	2	21	8	0
Leaf spot/Melting out	18	8	1	10	7	3
Rhizoc. blight	15	7	10	2	1	2
Cult./Nutr.	13	6	5	5	2	1
Summer Patch	11	5	8	0	3	0
Insff. sample	10	4.5	0	4	5	1
Pythium	9	7	1	0	1	
Unidentified	9	9	5	2	2	0
Poa decline	8	3.5	8	0	0	0
Anthracnose	7	3	4	1	6	0
Thatch	7	3	1	4	2	0
Rust	5	2	0	4	1	0
Take-all	4	1.5	4	0	0	0
Typhula blight	4	1.5	1	2	1	0
Spring Fusarium	3	1	3	0	0	0
Dollar Spot	3	1	3	0	0	0
P-tox	3	1	3	0	0	0
Fairy ring	3	1	2	1	0	
Antracnose basal rot	3	1	3	0	0	0
KYB billbug	3	1	0	3	0	0
Weed id	3	1	0	2	0	1
Saprophytes	2	<1	2	0	0	0
Herbicide damage	1	<1	1	0	0	0
Ring/Stunt nemas	1	<1	1	0	0	0
Rhizome rot	2	<1	1	1	0	0
R. zeae blight	2	<1	2	0	0	0
Sod webworms	2	<1	0	2	0	0
Red thread	1	<1	0	1	0	0
Slime mold	1	<1	0	1	0	0
Ascochyta/anthracnose	1	<1	0	1	0	0
Dog urine	1	<1	0	1	0	0
Black cutworm	1	<1	0	1	0	0
Pink snow mold	1	<1	0	0	1	0
Localized dry spot	1	<1	0	0	1	0
Yellow ring	1	<1	0	0	0	1
Bacterial wilt	1	<1	0	0	0	1
Damping-off	1	<1	0	0	0	1

Figure 4. Breakdown of the sample diagnoses from the TDDL's first year in 1995. This table was taken from an article in The Grass Roots written by Bob Erdahl in March of 1996.

year of its existence it showed a high demand from Wisconsin turfgrass managers for quality, turf-specific diagnostics. In addition, the industry was thrilled with the immediate processing and accurate diagnoses of their problems. In year 2, the TDDL moved from its original home at Russell Labs on campus out to the brand new OJ Noer Turfgrass Research and Education Facility, where it remains today.

The TDDL didn't only lead to better diagnostics, it also resulted in additional turfgrass pathology outreach and programming. Additional programming needed additional

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staffing, however, and in the fall of 1996 Jeff Gregos was brought on to assist with diagnostics and expand turf pathology research and educational offerings provided by UW. Jeff completed his BS at Penn State and was heavily involved in the turfgrass pathology program run by Patricia Saunders, and he came in with the immediate ability to conduct field research. Jeff was essential in expanding the fungicide testing program to include numerous snow mold evaluation sites per year, additional evaluations against the increasingly serious disease anthracnose, and even built greenhouse 'death structures' to test products against Pythium blight. Jeff also spearheaded the campaign to build the main research green at the OJ Noer that is still heavily used in our research today.

The additional turf pathology staff and research being conducted led to greater offerings for Wisconsin turfgrass managers. These included better content in industry magazines like The Grass Roots, new TDDL 'Plant Disease Profiles' that were made available to turf managers, and additional sessions at the winter Turfgrass EXPO and Turfgrass Symposium. In addition, turf pathology staff educated turfgrass managers on new technology rapidly changing the world (and turfgrass management along with it). In reading annual activity reports from the TDDL's first years there were numerous mentions of using the new 'super-highway for information' to send out information and offering educational seminars to turfgrass managers on how to use the 'electronic super-highway (Internet)' to conduct all sorts of activities. As we currently wade through an explosive period of change related to artificial intelligence it's important to remember that we've gone through this kind of change before and it's improved our ability to more efficiently manage turf.

The additional turf pathology staff and research also required more funding. While some of this was brought in through the fungicide testing process and critical grants from the WTA, WGCSA, USGA, and others…one critical piece of funding that was developed at this time was the Contract Membership system. This system allowed each turf facility to contribute an amount they could afford in exchange for an increasing array of benefits that included increasing numbers of diagnostic submissions, preferred diagnostic priority, and access to biweekly TDL updates. This contract membership system formed a funding basis to support the TDL, and to my knowledge it remains the only one like it supporting a diagnostic facility in the country. It remains an integral part of our TDL support, and we're incredibly thankful for the support provided by our TDL Contract Members. The contract membership system is a significant reason why the TDL is still going strong while so many other turf diagnostic labs have shuttered over the years.

The impact of the TDL

The primary role of the TDL is to provide fast and accurate diagnostics when something goes wrong. I remember former Maple Bluff Superintendent Tom Harrisson once telling me when I managed the TDL, 'the professor positions are great and really important, but I NEED that diagnostic lab position.' However, what surprised me most when researching this article was how important the TDL was to so many other things that are now associated with the UW Turf Program. The TDL staff reinvigorated and expanded the fungicide testing program that was created by Dr. Worf and remains one of the largest in the country today. The TDL staff offered expanded classes at winter conferences on how to identify and manage diseases, how to use microscopes, and how to use the internet. The TDL staff conducted research that led to important advancements in our understanding of snow mold, improved detection methods for root-infecting diseases, and new cultural and chemical approaches to improve disease management. It's clear that the impact of the TDL on the UW Turf Program and the Wisconsin turf industry goes well beyond diagnostics.

Today, it's easy to overlook the importance of the service that the TDL provides as something that's always been there and always will. Looking back 30 years, a turf-specific diagnostic lab was created because the turfgrass industry wasn't happy with what was being provided to them by UW. In 2025, there is a renewed urgency as support for higher education, and the many services like the TDL it provides, continues to decline. To keep the TDL and the entire UW Turf Program going for another 30 years it's important that the turfgrass industry clearly and repeatedly demonstrate to state and university leaders that a thriving turfgrass program at UW is important to sustain a thriving (and rapidly growing) turfgrass industry in the state of Wisconsin. Some big strides have been made in this area in recent years thanks to leadership from the state's allied turfgrass associations, and I'm encouraged by the momentum I'm seeing. Back in 1995 the UW and the state's turf industry came together to support the development of a new diagnostic lab that exists today as one of the premier centers for turfgrass diagnostics in the country. It took the right people being in the right place at the right time to make it happen, and a heck of a lot of work, but I'm excited to see the TDL continue thriving for the next 30 years.

Where are they now?

Doug Maxwell stayed heavily involved with the turf industry until 2000 when former UW turf pathologist Dr. Geunhwa Jung was hired. Professor Maxwell has very fond memories of his time at UW, even recounting his first trip to the Golf Course Superintendents Association of America Annual Conference in Orlando where he received a 75th Anniversary Jacobsen hat that he proudly wore around the world. Professor Maxwell retired from UW-Madison in 2001 but stayed active in international plant pathology research until 2014. Today he lives in the Town of Verona with his wife Martha, not far from the OJ Noer.

Steve Millett earned his PhD in Plant Pathology from UW-Madison in 1999 and graduated as a leading expert on turfgrass snow mold pathogens. After graduation, he moved to St Louis and has been involved in numerous plant diagnostic and pest management companies over the past 30 years.

Jeff Gregos managed the TDDL and the fungicide evaluation program until 2004. From there, he moved back to his native Pennsylvania and has held numerous positions in the turfgrass industry in both sales and as a superintendent. Jeff is currently a sales representative with EH Griffith in Pennsylvania.

Gary Gaard continued supporting the TDDL until his retirement from UW in 2004. Following retirement, he became heavily involved in ecological restoration and bluebird habitat on golf courses and assisted several courses with their Audubon Sanctuary certification. He worked part-time at University Ridge serving as an ecological consultant until he passed away in 2014 at age 72.

Turfgrass Diagnostic Lab Resources:

- Turfgrass Diagnostic Lab website: https://tdl.wisc.edu/
- TDL contract membership information: https://tdl.wisc.edu/contract-membership/

WISCONSIN'S TURFGRASS INDUSTRY CONTINUES ITS PROGRESS!

By: Gayle L. Worf, Professor Emeritus, Department of Plant Pathology, UW-Madison

Congratulations to UW Madison's Turfgrass Diagnostic Laboratory (TDL) on its 30th anniversary!

One might wonder "Why thirty years? Why not earlier?" My answer is that it followed an interesting, logical and evolutionary chain of events over several previous decades. The time was not yet ready.

It is both flattering and a privilege to be asked to share some thoughts and history regarding the growth of the Turf Industry and its relationship to UW Madison from my perspective. Perhaps the easiest way is to share my own history of turf involvement, since it parallels much of what was happening in professional turf management in Wisconsin during that time. My first contact was in 1963. I had just come over from Iowa State University to head up "Dutch elm disease educational efforts and those of all crop diseases in the state other than fruits and vegetables." I don't recall that turf was even mentioned initially! Given Wisconsin's huge number of crops, who would have guessed that grass would become so important to my program not long afterwards.

That's especially true given my slow start. I didn't golf. I had never seen a sod field. I had walked a few golf course situations but couldn't imagine what snow mold disease was all about! I learned that UW offered an Annual Conference to the turf industry. Jim Love of the Soils Department-more about him later - and Bob Newman, Department of Horticulture, asked me to participate. So, I studied the literature and learned what I could from the few states conducting turf research at the time. It is educational to realize how primitive that information really was six decades ago! Turf fungicides back then were products containing the heavy metals mercury, cadmium and chromium salts! Synthetic fungicides were coming on the market for other crops. For instance, Captan made Reader's Digest news for how well it controlled fruit crop diseases.; dithiocarbamates (maneb, etc) stopped potato diseases cold. But, neither did much against turf problems, and traditional copper-containing fungicides (think Bordeaux mixture) were too toxic on grasses.

To this day, I am grateful for the patience and forbearing of the turf professionals of those times. I reported my book findings. Attendants politely but firmly informed me they didn't stop snow mold and weren't much better on summer diseases. "No, it wasn't rates or timing". After a couple of years of that I decided to look into it. Local superintendents befriended me. A few new synthetics were emerging, maybe they could help. Tom Harrison, then assistant at Maple Bluff, and I finished establishing our first snow mold control trials on their greens on a beautiful bright Thanksgiving morning, probably in 1965. The results proved what superintendents already knew: those recommendations didn't work! And I learned a lot more: I couldn't depend on data from other states and that if I was to be of any value to the turf industry, I had better start creating my own information! I also developed a wonderful working relationship with local superintendents. They encouraged me to use their nurseries and fairways (not their greens!), so I rigged up the equipment and the means to do so. That was the beginning of a great and continuing relationship with the turf industry!

That time was, of course, early, but important things were happening and setting the stage for future developments. Jim Love was continuing with his campus "Turf Club/ Internship program", which was resulting in a growing cadre of good leaders and information-hungry professionals (Figure 1). It might be noted that Leo Walsh, who would later

Figure 1. Professor Jim Love in the Department of Soil Science was the primary undergraduate advisor for the turfgrass students at the time.

play such an important role in future turf decisions as Dean of the college, was of the same department and knew of the impact Jim was having! The industry was growing. They asked campus personnel to help with field days it sponsored in cooperation with various course superintendents around the state each year. Members of the entomology, horticulture, plant pathology and soils departments obliged, and those departments in January 1982 also sponsored a "Turf College" poster educational program at the Public Education facility on the Arlington Experiment Station. Sod Growers hosted a huge attendance of The American Sod Producers Association in August 1984, and they visited the large UW "patch disease" variety trials on the Huggett sod farm (Figure 2 and 3).

Figure 2. There were dramatic differences in Kentucky bluegrass variety susceptibility to necrotic ring spot.

Figure 3. Technician Jana Stewart greeted American Sod Producers Association visitors to view necrotic ring spot variety trials in 1982.

In the meantime, the push continued for greater interaction with the University. A group of dedicated turf professionals met in 1982 with Leo Walsh, who by that time had become Dean of CALS, pleading their case for more formalized turf research facilities. The time was not right for advancing the idea of a Turf Research station, but the newly formed Wisconsin Turfgrass Association (WTA) did purchase and fund the operations of a truck with the WTA logo for my turf research work throughout the state. What a break! More on that later.

Two years later, the University finally elected to construct the University Ridge Golf Course on land donated for that purpose. Leadership also agreed to use some of the excess land for the creation of the Turf Research Station in 1991 that we enjoy today. The time for that was finally right! I don't recall all the WTA leaders who were so active in that arena, but Superintendents Monroe Miller and Tom Harrison, sod growers Jim Huggett and Dave Payne and seedsman Egon Herman were among those who deserve huge credit!

What of my use of that WTA truck? Prior to that huge contribution, it was necessary each trip to arrange for a CALS or campus fleet vehicle (assuming one was available!), pick it up the day needed, then load all the equipment, accessories and materials before heading out. Upon returning after a long day I had to reverse the process before heading home.

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Can you imagine how significant it was having your own vehicle available like that? It changed my life, I could do so much more! I recall establishing plots throughout the state, starting first with local courses and sod farms, then adding locations in locations such as Stevens Point, Wausau, Cable, Minocqua, Door County, Appleton, and the Milwaukee area. We were able to accumulate information relating to the entire state (Figure 4).

Figure 4. Gayle Worf with his application rig treating a snow mold plot in northern Wisconsin. How many miles of turf did this rig treat?!

I witnessed so many changes during those three decades. The proliferation of new Kentucky bluegrass varieties effectively eliminated the common and serious Helminthosporium disease complex but also introduced new "patch diseases," including necrotic ring spot (Figure 5). The older fungicides were replaced by more sophisticated products. The heavy metal ones were ultimately and properly enough banned from use. New organics, including systemics, revolutionized what we could do, but also introduced the spectrum of fungicide resistance, which we had to learn how to manage. Irrigation of fairways became common place and improved golfing, but also set the stage for "Poa decline" disease. That became the problem uppermost in my desire to figure out its etiology before I retired. I didn't get it done, but we did demonstrate its pathogenic nature, and that the new sterol inhibitor fungicides (Bayleton, for instance) brought it under remarkable control with the right application and timing. Snow mold control became recognized as far more complex than we appreciated initially, and also, Wisconsin's different weather patterns and regional variations gave it a special status among turf diseases!

Figure 5. Inoculated bluegrass plugs confirmed that the suspect fungus was indeed the incitant of necrotic ring spot disease.

It was also fascinating to me how golfing popularity exploded during that time.

Equally surprising to me in retrospect was that I was able to scrape up enough money each year through grants and fees to hire the eager student interns and competent technical assistants that were especially critical to my laboratory and greenhouse research. Individual members and the WTA became invaluable to me!

Following the development of the WTA, its strong relationship with the University and the establishment of the Turf Research Station, it was now time for the TDL to emerge. There was a home for it at the station. There was interdisciplinary contribution, and as a result, for the last thirty years the Turf Diagnostic Laboratory (TDL) has become an integral part of Wisconsin turf.

It was once the job of extension pathologists nationally to receive and deal routinely with all crop disease specimens, often over the weekend after we had returned from spending the previous week working elsewhere in the state! There was universal agreement back then that turf crop samples were the most difficult to diagnose! Regardless, it was evident that effective results depended upon professional fieldmen who learned the art of proper sampling and data gathering to partner with what help a diagnostician could provide. Training and use of diagnostic forms helped. Over time, dedicated plant diagnostic labs have emerged in most states, including Wisconsin, but even then, I chose to examine the professional turf samples myself when possible.

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SOYLENT GREEN

ROOTS OF RESILIENCE: The UW Turfgrass Diagnostic Lab—Thirty Years of Growth, Challenge, and Community

By: Dr. Steve Millett, UW Alum 1999

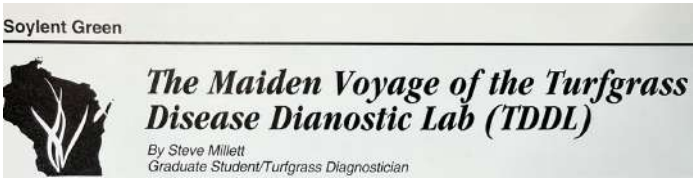
When I began graduate school at the University of Wisconsin, I was impressed by the campus beauty, vibrant academics, lake views, and Memorial Union social scene. Yet beneath the excitement lay a current of uncertainty, one that soon deepened as I began my studies in the Department of Plant Pathology.

My major professor, Dr. Julie Meyers, was a source of inspiration and expertise. Life's unpredictability, however, intervened: Dr. Meyers left to begin her family, and suddenly, I found myself without my primary mentor. The academic journey is rarely a straight line; I sought guidance from professors in horticulture, Dr. Frank Rossi, and soils, Dr. Wayne Kussow, but their time was spread thin. For a while, I felt like a pulled-up perennial weed, exposed, uncertain, and searching to anchor itself.

Surprisingly, my most steadfast guide came from beyond the university's walls. Monroe Miller, the superintendent at Blackhawk Country Club, became an invaluable mentor—generous with his time, practical in his advice, and unwavering in support. Through Monroe and the broader turfgrass community, I discovered a classroom beyond the lecture hall and a compass pointing toward real-world relevance.

As my original research project faltered, I found opportunity in adversity. A gap existed in the study of *Typhula* snow molds. Seizing this, I shifted focus and was welcomed into Dr. Doug Maxwell's lab. Dr. Maxwell not only provided scientific guidance but also modeled perseverance and adaptability, skills essential for thriving amidst uncertainty.

It was during this period of transition that the seed of the UW Turfgrass Diagnostic Lab (TDL) took root. At that time, the UW Plant Disease Identification Lab focused on identifying plant pathogens but did not provide recommendations. In 1994, I began diagnosing samples and recommending treatment options. My involvement aimed to contribute to both providing coaching and gaining experience. As my reputation increased, the samples increased in numbers. I responded with tailored recommendations, often blending cultural, genetic, environmental, and fungicidal tactics. This practical, client-focused model was innovative and quickly gained traction, attracting clients from as far as Texas and the Caribbean. I soon led the Turf Diagnostic Lab during its maiden voyage in 1995.


Soylent Green

The Maiden Voyage of the Turfgrass Disease Dianostic Lab (TDDL)

By Steve Millett
Graduate Student/Turfgrass Diagnostician

Establishing the TDL was more than scientific entrepreneurship. It became a bridge between academia and the professionals who depend on its insights—a place where theory and practice met. Every phone call, email, and sample brought a new challenge. Diagnosing diseases required scientific rigor; recommendations demanded creativity and empathy for the realities faced by superintendents and groundskeepers. The Lab's distinctive commitment was not only in identifying problems but also empowering professionals with a range of actionable solutions.

A turning point came when Dr. Maxwell proposed a subscription model at the Winter Wisconsin Turfgrass conference. The overwhelmingly positive response from the turf community, industry partners, and growers confirmed the Lab's value and set it on a path toward long-term sustainability.

Three decades later, we mark the TDL's thirtieth anniversary. What began as a student-led response to unmet needs has blossomed into a cornerstone of turfgrass management, a model for diagnostic labs nationwide, and a training ground for new generations of turf professionals. This success is rooted not in the efforts of one or two, but in a community: UW professors who offered guidance where they could, mentors like Monroe Miller, superintendents who trusted a fledgling service, and industry partners who believed in our mission.

Reflecting on my journey, I am reminded that adversity indeed cultivates resilience. Dr. Meyers's decision to step away was a powerful lesson in balancing personal and professional commitments. Dr. Maxwell's acceptance and guidance arrived when I needed them most. The generosity of Monroe Miller and the wider industry community illustrated the profound impact of collaboration and service. Yet if my experience at the University of Wisconsin and the TDL has taught me anything, it is that adversity is the soil in which growth takes root.

The TDL's story is far from over. Each year brings new challenges, new diseases, new students, new partnerships. If there is one message I would offer to future "Badger Turfies," it is this: Embrace the uncertainty. Seek mentors. Listen to those on the front lines. Have faith in the power of community and the value of service. Leadership is not about having all the answers but about creating spaces—labs, communities, opportunities—where others can flourish.

Thirty years ago, WE planted the seed of a new approach to turfgrass disease management in Wisconsin. Today, that seed has grown into a living legacy—resilient, collaborative, and ever-evolving. May it inspire and thrive for generations. U-rah-rah! Wisconsin!

A HISTORY OF THE TDL
30 YEARS OF DISEASES, DIAGNOSTICS, AND SCIENCE

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By: Kurt Hockemeyer, Turfgrass Diagnostic Lab Manager

I have here in front of me several articles from the Wisconsin Turfgrass Association newsletter over the past 30 years. The first is from summer 1995 titled "New Turfgrass Disease Diagnostic Laboratory Begins Operation This Season" (Figure 1). Now, I'm no mathematician, but here we sit in summer 2025 and I believe that means the TDL has existed in some fashion for 30 years! Paul and I wanted to do something special to commemorate the 30th anniversary, so we decided to write a couple of articles for The Grass Roots detailing the history of the lab. So, here is my attempt to document the people, the reasons, and the details behind the history of the Turfgrass Diagnostic Lab.

New Turfgrass Disease Diagnostic Laboratory Begins Operation This Season

Julie R. Meyer, Extension Plant Pathologist

A new diagnostic laboratory is now open to complement the existing Plant Pathogen Detection Clinic on the UW-Madison campus. The goal of the Turfgrass Disease Diagnostic Laboratory (TDDL) is to provide rapid, accurate, and specific disease diagnostic information and management recommendations to turfgrass

for homeowners, and $25.00 per sample for commercial turf managers, including golf course, sod farms and commercial lawn care companies. The fee includes:

- visual diagnosis
- culturing for presence of pathogens
- microscopic examination
- disease management

er applications are very important for us to know because they often provide clues to the problem.

The laboratory is also a site of research and development for new molecular techniques which will provide rapid, accurate diagnosis of pathogens that are currently very difficult to detect. Dr. Doug Maxwell is heading up this

Figure 1. Article from the WTA Newsletter detailing the opening of the TDDL in 1995.

Founded in 1995

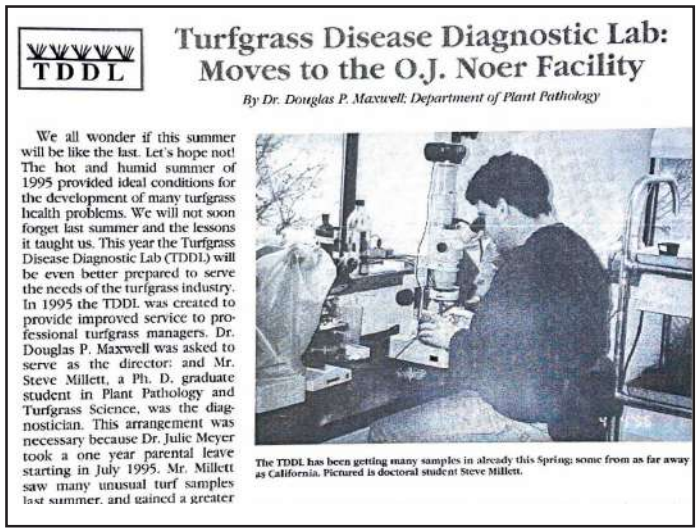
There was a significant demand for turfgrass disease diagnostics in the 1990s that was not being met by existing diagnostic labs. So, the Wisconsin turfgrass industry got together and coordinated with the Department of Plant Pathology to figure out how this demand could be met. The industry wanted a more specialized lab. A lab that would be more responsive, and that knows the turfgrass industry. Professor Emeritus Doug Maxwell was tasked with starting up the lab that was initially monikered the "Turfgrass Disease Diagnostic Laboratory" or the TDDL. At that time, the diagnosticians were Doug Maxwell, Julie Meyer, Steve Millet, and Mary Francis Heimann.

The lab originally opened in Russell Labs on the UW-Madison campus. The goals of the lab were to "provide rapid, accurate, and specific disease diagnostic information and management recommendations to turfgrass growers". If you are reading this article, you are probably acutely aware of how fast things move in the turf industry. Waiting several days or even weeks for a disease diagnosis is just not going to cut it. The original article of the opening of the lab says "When you send your sample in, you will be contacted within a day". This is what Paul stressed to me when I took over the diagnostic lab, and to this very day, I will contact any professional submitters with 24 hours of receiving a sample. I may not have a final diagnosis at that point, but I can at least confirm reception of the sample and give my initial thoughts on the sample. I think it's very cool that one of the main tenants of the lab in 1995 is still one of the main tenants today.

The original pricing for turf samples was $10 for homeowners and $25 for professional turf managers. In today's dollars that equates to $21 dollars for homeowners and $53 dollars for professional samples. In this WTA article, it lists the services offered by the TDDL and guidelines for submitting a sample. Again, I am just astonished that the language used in this original article is still very similar to language we use today on the TDL website. Things like "Collect and submit a sample early in the week" or "Send an adequate representation of the problem". I can just imagine Monroe Miller driving down to campus with a sample in hand, windows down, and the radio blaring!

Big Changes in 1996

It was decided that the diagnostic lab needed to move out to the OJ Noer Research Station (Figure 2). Perhaps, it was just a little too hard to drive down to campus or to find parking at Russell Labs. Perhaps, it was decided that the diagnostic lab needed to be part of the research going on at the OJ Noer. Whatever the reason, the diagnostic lab has been housed at the OJ Noer ever since. In addition to the change in location, the lab needed more funding. Doug Maxwell decided to implement a "contract" system. Golf courses, sod farms, lawn companies, and turf support companies can purchase a pre-paid contract for submitting samples to the lab. These contracts provide a base level of revenue for the lab. We use this contract system to this day. Without the support from these contracts, the diagnostic lab would simply not exist.



TDDL

Turfgrass Disease Diagnostic Lab: Moves to the O.J. Noer Facility

By Dr. Douglas P. Maxwell: Department of Plant Pathology

We all wonder if this summer will be like the last. Let's hope not! The hot and humid summer of 1995 provided ideal conditions for the development of many turfgrass health problems. We will not soon forget last summer and the lessons it taught us. This year the Turfgrass Disease Diagnostic Lab (TDDL) will be even better prepared to serve the needs of the turfgrass industry. In 1995 the TDDL was created to provide improved service to professional turfgrass managers. Dr. Douglas P. Maxwell was asked to serve as the director: and Mr. Steve Millett, a Ph. D. graduate student in Plant Pathology and Turfgrass Science, was the diagnostician. This arrangement was necessary because Dr. Julie Meyer took a one year parental leave starting in July 1995. Mr. Millett saw many unusual turf samples last summer, and gained a greater

The TDDL has been getting many samples in already this Spring; some from as far away as California. Pictured is doctoral student Steve Millett.

Figure 2. A picture showing the TDDL microscopes sitting exactly where my scopes sit today.

Also, prices were increased to $20 for homeowners (same price today), and $60 for professional turfgrass managers.

Also discussed in 1996 was how to better disseminate information to turfgrass managers. One of the solutions that was brought up was to use something called the World Wide Web! How fancy! Efforts also started this year to find a full-time diagnostician to run the lab, instead of running it by committee. Still in 1996, they were trying to stress the guidelines for submitting a sample. I still do that today. It's not because we are trying to be difficult; it's because these guidelines give me the best chance to find any pathogens that may be infecting and killing your turf. Which is what turf managers need to know to properly manage their turf. This was true 30 years ago, and it's true today.

Full-Time Lab Managers Over the Years

Jeff Gregos – Fall 1996-Spring 2003 (6.5 years)

Jeff Gregos was hired to be the first full-time lab manager in fall of 1996. Jeff got his B.S. in Turfgrass Science from Penn State. Jeff got some research and pathology experience during his time working at the Penn State Turf Research Facility and at Oakmont Country Club. It was very fitting that Jeff had to get ready for snow mold trials as soon as he stepped foot inside the OJ Noer. I think I know the feeling. I believe this was the start of TDL Manager position and the responsibilities expanding to include the overseeing of the

Continued on page 38

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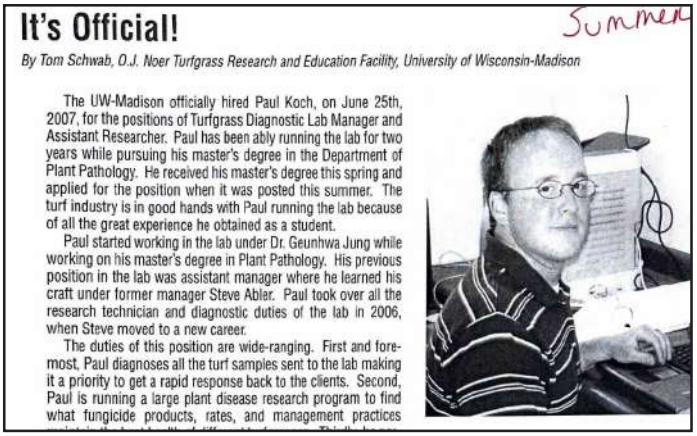
Turf Pathology research trials. That is still basically my job description to this day. Jeff stayed on as TDDL manager until spring 2003, when a face that many of you know today came back to his ancestral home of Wisconsin.

Steve Abler – May 2003-Sep 2005 (2.5 years)

Steve Abler came to the TDL after receiving his M.S. at Virginia Tech from Dr. Houston Couch. Dr. Couch was one of the most respected turfgrass pathologists in the country during his time at Virginia Tech. And Dr. Couch's knowledge and expertise shined through Steve with his knowledge and expertise. Steve was a great addition to the UW turf team during his time here, and he is still part of the Wisconsin turfgrass industry today! Also, at some point around this time, the name of the lab was changed to the Turfgrass Diagnostic Lab (TDL), which is the name that remains today!

Paul Koch – Oct 2005-April 2013 (7.5 years)

Paul managed the diagnostic lab unofficially for a couple of years until he was officially hired in June 2007 (Figure 3). He was working towards his M.S. during those first two years. That must've been some hard work diagnosing samples while also working towards a master's degree. Little did we all know that this would be the start of the future of the Turf Pathology program here at UW. Paul is approaching his own personal 20 year anniversary of being associated with the TDL. I know I am personally grateful for all that Paul has given to this program and the turfgrass industry as a whole over these years.



It's Official!

Summer

By Tom Schwab, O.J. Noer Turfgrass Research and Education Facility, University of Wisconsin-Madison

The UW-Madison officially hired Paul Koch, on June 25th, 2007, for the positions of Turfgrass Diagnostic Lab Manager and Assistant Researcher. Paul has been ably running the lab for two years while pursuing his master's degree in the Department of Plant Pathology. He received his master's degree this spring and applied for the position when it was posted this summer. The turf industry is in good hands with Paul running the lab because of all the great experience he obtained as a student.

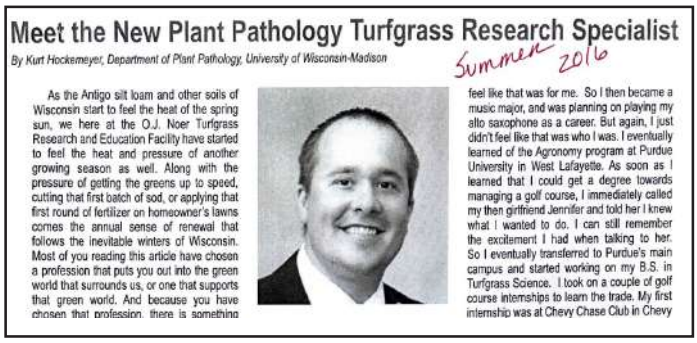
Paul started working in the lab under Dr. Geunhwa Jung while working on his master's degree in Plant Pathology. His previous position in the lab was assistant manager where he learned his craft under former manager Steve Abler. Paul took over all the research technician and diagnostic duties of the lab in 2006, when Steve moved to a new career.

The duties of this position are wide-ranging. First and foremost, Paul diagnoses all the turf samples sent to the lab making it a priority to get a rapid response back to the clients. Second, Paul is running a large plant disease research program to find what fungicide products, rates, and management practices

Figure 3. Article detailing Paul's official start as TDL Manager.

Bruce Schweiger – May 2013-Dec 2016 (3.5 years)

Bruce Schweiger was a familiar face to many in the Wisconsin turfgrass industry already by the time he took on the mantle of TDL Manager. Bruce got his B.S. in Soil Science when Dr. J.R. Love was running the Turfgrass program here at UW. Bruce then was a golf course superintendent, general manager, and then sales rep over the next 35 years! He brought all this experience with him to take over the TDL and it served him well during his time here.



Meet the New Plant Pathology Turfgrass Research Specialist

Summer 2016

By Kurt Hockemeyer, Department of Plant Pathology, University of Wisconsin-Madison

As the Antigo silt loam and other soils of Wisconsin start to feel the heat of the spring sun, we here at the O.J. Noer Turfgrass Research and Education Facility have started to feel the heat and pressure of another growing season as well. Along with the pressure of getting the greens up to speed, cutting that first batch of sod, or applying that first round of fertilizer on homeowner's lawns comes the annual sense of renewal that follows the inevitable winters of Wisconsin. Most of you reading this article have chosen a profession that puts you out into the green world that surrounds us, or one that supports that green world. And because you have chosen that profession, there is something

feel like that was for me. So I then became a music major, and was planning on playing my alto saxophone as a career. But again, I just didn't feel like that was who I was. I eventually learned of the Agronomy program at Purdue University in West Lafayette. As soon as I learned that I could get a degree towards managing a golf course, I immediately called my then girlfriend Jennifer and told her I knew what I wanted to do. I can still remember the excitement I had when talking to her. So I eventually transferred to Purdue's main campus and started working on my B.S. in Turfgrass Science. I took on a couple of golf course internships to learn the trade. My first internship was at Chevy Chase Club in Chevy

Figure 4. Article detailing my official start with Paul's lab. I didn't officially start as TDL Manager until January 2017.

Kurt Hockemeyer – Jan 2017-Present (8.5 years)

After getting my M.S. from Purdue University in Turfgrass Pathology, I eventually made my way to Madison (Figure 4). After one summer working in Dr. Koch's lab, the TDL Manager position came open and Paul asked me to take it over. I was a little hesitant at first to say yes, mostly because I knew the pressure that would come along with a position like this. The pressure of giving a superintendent a fast and accurate diagnosis. The pressure of providing the most recent recommendations based on university research. The pressure of being an unbiased opinion that could determine the outcome of any disease outbreaks on a golf course. But, Paul was persistent, and I eventually accepted. And I can't believe it's been over 8.5 years already. Time flies. I've enjoyed my time here so far and Paul hasn't fired me yet, so I guess you'll have to see me around for the foreseeable future.

I'll have to end with a blanket apology if I forgot to mention anyone or any events that were important to the history of the TDL. Or, if I misrepresented anyone or anything. Much of this article is based on what I can read in historical WTA Newsletter articles, and some of my discussions with folks over the years. Hopefully, the TDL has been a valuable resource for you over the past 30 years. And, here's to another 30 years. If I remember, I'll write another article for the Grass Roots in 2055!

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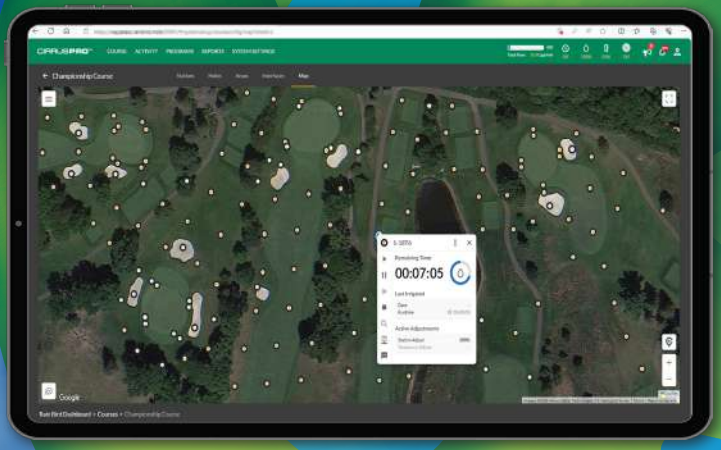

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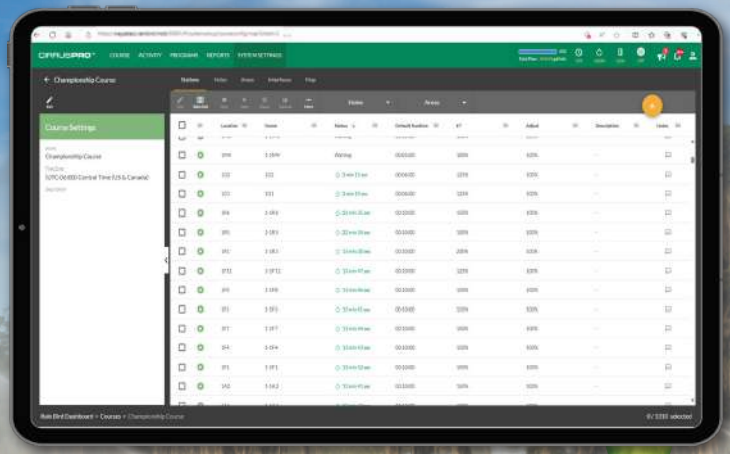

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BENTGRASS CULTIVAR PERFORMANCE TRIAL RESULTS

By: Doug Soldat, Ph.D., Department of Soil Science, University of Wisconsin-Madison

The National Turfgrass Evaluation Program (NTEP) is an decades-old research program that evaluates the performance of all the major turfgrass species across 40 US states and 6 Canadian provinces. Primarily funded by breeder fees for entries, NTEP collaborates with turfgrass research programs for the evaluation of new grass cultivars. The OJ Noer Turfgrass Research Facility is currently hosting four NTEP trials (bentgrass green, bentgrass fairway, fine fescue, and Kentucky bluegrass). The trials contain many new experimental cultivars alongside well-established cultivars. Breeders use the information to make decisions about their experimental cultivars. The information that NTEP generates is useful to turfgrass professionals for identifying the best cultivars for a specific situation. NTEP trials often run for a period of five years to ensure the grasses are exposed to a range of environmental conditions typical for each location.

In this article, I am excited to report some of our findings from the bentgrass fairway and green trials that we have been running for the past five seasons. Both trials were seeded in the fall of 2020 and data collection will cease at the end of this growing season. The putting green trial was established on a putting green constructed to USGA recommendations. The fairway trial was seeded on a silt loam textured soil, typical to many golf course fairways in Wisconsin. We had a lot of annual bluegrass pressure in the fairway trial and controlled the annual bluegrass with Poa Cure in the fall of 2021 and spring of 2022. The fairway was mowed two to three times per week at a height of 0.5 inches, irrigated to replace ET, fertilized with 1 to 2 lbs of N per 1000 ft2 per year, and used a rotation of fungicides to control and prevent disease. The putting green was mowed five days a week at a height of 0.125 inches, irrigated to replace ET, fertilized with about 2 lbs of N per 1000 ft2 annually, and aerified annually and topdressed several times per season. Diseases were prevented and controlled with fungicides.

Both trials had many cultivars in common, but also some differences. Because NTEP trials are dominated by experimental entries that breeders use internally, this article will focus only on the results from the named cultivars that you are familiar with already and can obtain for use. The data NTEP uses is visual ratings on a 1 to 9 scale. We evaluated turfgrass quality monthly, and other parameters including spring green up, genetic color, and density once per year. Each of those parameters are visually assessed on a 1 to 9 scale, with 9 representing the highest possible turfgrass quality (or green up, or density, or genetic color) and 1 representing completely brown or dead turf. A rating of 6 represents a minimally acceptable level. For this article, I will focus on the turf quality (which integrates things like color, density, disease, and uniformity) and spring green up which is collected early in the season when we notice some plots starting to change color – usually in April.

Cultivar Name	Turfgrass Quality (1 to 9, 9=best)	Spring Green Up (1 to 9, 9=best)
Piranha	6.82 A	4.17 A
Oakley	6.57 AB	4.42 A
Piper	6.50 AB	4.42 A
007XL	6.44 ABC	4.17 A
L-93 XD	6.44 ABC	4.75 A
Barracuda	5.94 BCD	4.58 A
Penn A-1	5.83 CD	4.67 A
Declaration	5.78 D	4.67 A
Penncross	5.33 D	4.75 A

Table 1. Bentgrass cultivar performance under putting green conditions. Averages with similar letters are statistically similar (i.e. 6.82 A is statistically similar to 6.44 ABC, but 6.82 A is statistically greater than 5.94 BCD).

Table 1 shows the performance data from the putting green cultivars. The average turfgrass quality ranged from between the lower 5s and upper 6s. As you can imagine, across the five-year trials, plots fluctuated from low quality scores (3s and 4s) to high scores (8s and even a few 9s) as the season changed. Averaged over the ~40 evaluation periods (8 months x 5 years), most averaged somewhere between 5 and 7.

While we saw no significant differences in spring green up across the putting green cultivars over the trial period, the top group of cultivars for turfgrass quality included Piranha, Oakley, Piper, 007XL, and L-93 XD. The bottom group for quality included Penncross, Declaration, Penn A-1, and Barracuda. However, these differences were fairly subtle. If you attended the Wisconsin Turfgrass Field Day this year, you could see a top-ranked Piranha plot right next to the lowest ranked Penncross and judge that difference for yourself. I am confident that any golf course superintendent could see the

difference, but I think that the average golfer would need the differences between those two grasses pointed out and explained to them.

Cultivar Name	Turfgrass Quality (1 to 9, 9=best)	Spring Green Up (1 to 9, 9=best)
Chinook	6.09 A	4.58 BCD
Barracuda	5.99 AB	4.92 B
Match Play	5.96 AB	4.67 BCD
TourPro	5.95 AB	4.75 BC
Piranha	5.92 AB	4.33 BCD
007XL	5.86 AB	4.42 BCD
Shark	5.85 AB	4.83 B
Oakley	5.75 AB	4.00 D
Piper	5.75 AB	4.08 CD
Musket (colonial)	5.60 B	6.17 A
Penncross	5.08 C	5.67 A

Table 2. Bentgrass cultivar performance under fairway conditions. Averages with similar letters are statistically similar (i.e. 6.09 A is statistically similar to 5.75 AB, but 6.09 A is statistically greater than 5.60 B).

Table 2 shows the performance data from the fairway cultivars. It was interesting to see some differences between the trials. The top performer in the fairway trial was Chinook, which did not appear in the putting green trial. Barracuda was in the bottom statistical group of the putting green trial but in the top group of the fairway trial. Musket was the lone colonial bentgrass cultivar, with the rest being creeping bentgrasses. While Musket and Penncross showed strong spring green up, their quality lagged the rest.

Advances in turfgrass cultivars are slow, and while these results may seem underwhelming, these trials and others like it across the US are helping to advance the performance of bentgrasses to achieve reductions in the amount of resources needed to maintain them. Some other NTEP trials will focus on drought tolerance or disease resistance or shade tolerance. This particular trial focused on the differences in visual appearance under ideal conditions. Coupled with other trials around the US, breeders obtain the information they need to keep producing better and better cultivars each year.

The OJ Noer and the NTEP trials it hosts are an asset to Wisconsin's golf course superintendents. You are always welcome to set up an appointment to tour the plots with me; and of course, your attendance at the Wisconsin Turfgrass Field Day is always welcomed and appreciated. I look forward to planting the next generation of bentgrasses in the near future.

NTEP Trials, Drones, and Dollar Spot Galore

By: Dave Marach, Superintendent, OJ Noer Turfgrass Research & Education Facility

The 2025 WTA Field day once again did not disappoint, and this year the weather cooperated! Turf managers and employees from around the state took the time out of their busy schedules to come to the Noer and see the latest in turf research from the UW professors and research staff.

The general lawn care session as usual had some great information to bring back to your property to make your turf that much better. It may seem like it will be a while before we start dealing with it, but Dr. Koch brought the latest findings of his "leaf mulching in home lawn" study. Kurt Hockemeyer gave a talk about common lawn and sports turf disease, which he has seen a lot of them this year. Dr. Soldat took everyone on a nice walk over to his Bluegrass NTEP trial that was established last year and it is a large one: 50'x100'. These NTEP trials allow for a thorough evaluation of everything from color to drought tolerance which will help in proper selection for a given site.

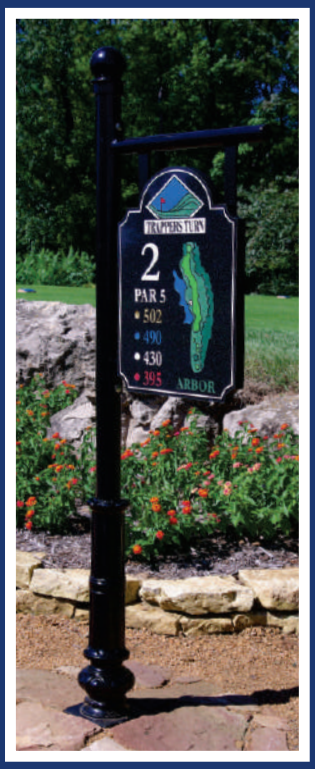
The afternoon brought on the golf course turf session. This casual walk around all the bentgrass plots allowed the professors to explain their ongoing research to better the golf industry. One of Dr. Soldat's talks was on his research of organic matter management and firmness. Frequencies, rates, types of sand, multiple combinations of these were all discussed to find the best practice for your greens. Dr. Koch and staff had a banner year for dollar spot again, so they had plenty to discuss. How different moisture levels affect dollar spot formation, different control strategies for dollar spot, and, in my opinion, one of the most interesting discussions was the use of drones in disease management. There were great discussions from both professors and their staff on continuing research.

We hope you were all able to take something back to your property and add it to your toolbox to make conditions even better in the future. Thank you for all attending and continued support of the vendors; it is greatly appreciated! Let's do it again next year, same time, same place and bring a colleague to see next year's research. Have a great rest of the growing season.

Kurt Hockemeyer discussing some of the most common turf diseases on general turf and how to identify them.

One of the more intriguing discussions was Dr. Koch's study on the use of drones to spray fine turfgrass areas. While there are still questions to be answered, the early results are very promising.

Dr. Soldat talked about the Kentucky Bluegrass NTEP trials that are always a good resource when deciding what varieties to plant.



NATIONAL GOLF GRAPHICS

GOLF COURSE SIGNS | TEE MARKERS | YARDAGE MARKERS
FLAGS | SPRINKLER HEAD YARDAGE CAPS | ACCESSORIES

SCHOLARSHIP AWARD WINNERS

By: Jake Schneider, Editor and Chapter Manager

Earlier this summer, the WGCSA Scholarship and Research Committee chaired by Matt Shafer had the privilege of awarding scholarships to two outstanding students who are children of superintendents in southern Wisconsin.

It's rare that we have a double scholarship winner, but Tyler Kregel did just that in 2025.

Tyler Kregel, son of Matt Kregel who is the superintendent at Strawberry Creek Golf Club, was selected to receive the WGCSA Turf Scholarship which is a $2500 award given to recognize and support active WGCSA student members attending any accredited turfgrass management, or related field, program. Tyler is pursuing a two-year certificate in Turfgrass Management from Penn State University. After working for many years alongside his dad, Tyler spent the summer interning at prestigious Shoreacres in Lake Bluff, Illinois. Tyler will be graduating from Penn State in March 2026, and between his bloodlines, education, and real-world experience, he clearly has a bright future in the turfgrass industry.

Tyler didn't stop with just one scholarship as he was also awarded one of the $1500 Legacy Scholarships alongside Josephine Canavan, who is the daughter of Jon Canavan who is the director of golf for Milwaukee County. The WGCSA Legacy Scholars Program was developed to recognize outstanding students and offer educational aid to children/stepchildren/grandchildren of WGCSA members who are active Class A, B, and Class C, Class A-retired, Class B -retired or Class AA members who are in good standing with the association. Josephine graduated from Wauwatosa West High School this past spring with an impressive 3.8 GPA and has recently started her freshman year at UW-Madison where she intends to major in Biology. Congratulations to both Tyler and Josephine!

Josephine Canavan

Because there were no applications for the JR Love Scholarship this year and due to having one undistributed Legacy Scholarship, the S&R Committee has voted to use these "leftover" funds for additional TAP Scholarships that will be selected later this fall. Instead of giving out (4) $1500 TAP Scholarships, we will be awarding (5) $2000 recipients as the WGCSA looks to continue supporting both members' children and future turfgrass professionals, alike.

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Golf Course Playability

By: Gunnar Stapp, Assistant Golf Professional, Hidden Glen Golf Club

As I visit golf courses throughout the state, I've come to the conclusion, we maintain too much grass. Please, do not take that the wrong way - I respect you for the work you do. But, I want your budget(and your energy) to go to you, your staffs and your families. Not into gas, mowers and wasted time.

Garrett Luck and I have wonderful conversations about native areas vs maintained areas and the importance of both. If your budget allows you to have well maintained areas, then by all means, continue to maintain them! They are beautiful and allow play everywhere on your facility. But, if you're losing staff or battling budget cuts, why not focus your energy on areas that matter while improving the aesthetics of your golf course!

In the early-2010s, the Grantsburg Golf Course stopped mowing areas it deemed "out of play". As a small municipal course next to the highway, this change in aesthetics caused numerous vacationers to finally stop in to see what the course was like. In the first year of adding long grass areas visible from the road, revenue for the season went up 25% while expenses were actually LOWER.

One example of what Grantsburg GC looked like before expanding their native areas.

Common Misconceptions:

Golfers Should always find their golf ball.

- Trust me, they shouldn't. Golfers are horrible and you can't maintain a business based on needs or demands of terrible players. Worst case scenario? Golf ball sales increase and the golf shop loves you!

Drops in the bucket don't matter...

- If you become $20 more efficient every day for a season, that allows you to spend $4,000-$5,000 in other areas
- Now compound that efficiency of 1,5,10 years
- Decreased wear and tear on mowers and you, 1 hour at a time.

Long Blue Grass and Clover doesn't look good.

- Once the areas establish, you'll be amazed at how diverse and beautiful the areas become.

In the end, make decisions with your course in mind. But, please do not be scared of making changes or taking risks. You'd be amazed at small adjustments can improve the quality of life for you and your staff.

After adding more native areas, Grantsburg GC saw lower expenses and improved aesthetics compared to their prior turfgrass monoculture.

GCSAA PREPARES FOR :

Centennial with New Website, Orlando Celebration, and a Day to Recognize Superintendents

By Shane Conroy, Great Lakes Regional Representative, GCSAA

As GCSAA approaches its 100th anniversary in 2026, the association is setting the stage for a memorable centennial with an updated website, plans for a historic conference in Orlando, and of course, a dedicated day to honor the professionals who keep the game going: golf course superintendents.

NEW GCSAA.ORG LAUNCHES WITH MEMBER-FOCUSED FEATURES

The newly redesigned GCSAA.org is now live, offering a streamlined, user-friendly experience tailored to the needs of you, GCSAA members. The site was designed with things in mind like improved navigation, enhanced search capabilities, and a personalized member dashboard. The member dashboard now makes it easier to access continuing education, certification progress, BMP tools, and event registration through GCSAA.

LOOKING AHEAD: GCSAA'S CENTENNIAL IN ORLANDO, FEBRUARY 2026

The 2026 GCSAA Conference and Trade Show in Orlando will serve as the centerpiece of the association's 100th anniversary celebration. Members and attendees can expect special centennial-themed programming, historical exhibits, and events that honor the legacy of the professionals who made and continue to make golf what it is today. The milestone event will reflect on a century of growth of our great profession.

INTERNATIONAL THANK A GOLF COURSE SUPERINTENDENT DAY: SEPTEMBER 9, 2025

Before the centennial year begins, GCSAA continues with Thank a Golf Course Superintendent Day and invites the golf community to recognize the selfless contributions of superintendents. This year, the event will take place on Tuesday, September 9th. The global campaign will once again feature messages of appreciation shared on social media using #ThankASuper and #ThankAGreenkeeper, shining a spotlight on the work and dedication you guys do every day. This event continues to grow with more than 14 million people seeing messages thanking superintendents for their work last year alone.

As the association looks ahead to 100 years, these initiatives reflect GCSAA's continued commitment to elevating the profession and celebrating the individuals who make it all possible. Thank you for your continued to support, and here's to another 100 years!

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In addition to 30-gallon drums and totes, 4-Runner is now available in 2.5-gallon jugs! Contact your rep for more details.

Shaded greens are more vulnerable to a host of agronomic problems including disease, summer decline, and winter injury.

Developing a Tree Management Program

By: Adam Moeller is President of Moeller Consulting and Director of Agronomy, North America with Turfgrass®, a global agronomy consultancy and golf course project management company. Contact Adam at: adammoellerconsulting@gmail.com or adam@turfgrass.golf

Trees are an important part of many golf courses, but we've all seen how they can negatively impact turf performance and playability. Removing trees is controversial, so a planning document for the management of trees is extremely valuable. Tree Management Plans reduce the emotional aspects of removals, pruning, and help clubs make good decisions when planting. Like a Master Plan, Tree Management Plans provide a roadmap for the agronomy team and course decision-makers for how to fund and execute tree work. In addition, they can expedite the approval process for annual tree work, and then it simply becomes a decision on prioritizing the work each year.

I've worked with many golf courses including Blackhawk Country Club in Madison with developing a Tree Management Plan, which focuses on the following:

- Maximizing turf performance and improving playability
- Highlighting specimen trees and creating views of the property/surrounding landscape
- Removing dead or declining trees
- Planting native trees where appropriate.

Start With a Historical Review

Tools like historic.aerials.com and Google Earth Pro can be powerful when trying to learn how tree populations evolve. If a picture is worth a thousand words, an aerial image that conveys the importance of removing trees is worth even more! Aerial images help show golfers that many trees on the property are not as old as they think, and that haphazard tree planting was far more common than most understand.

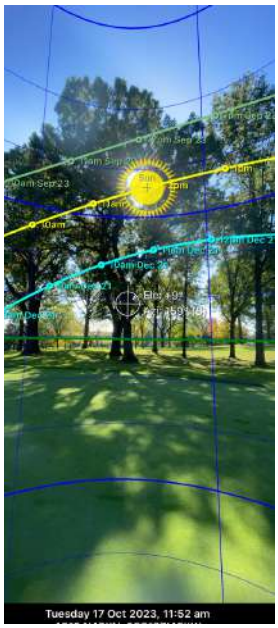
Document Agronomic Impacts

Use sun tracking technology to illustrate shade patterns and cite research articles that identify how much sunlight the grass needs to perform well. A key message that I deliver within a Tree Management Plan is the fact that there is no grass, agronomic plan, construction method,

Aerial images are a great way to illustrate how tree populations have evolved on golf courses

or product that can offset the challenges associated with shade and tree roots. Where necessary, analysis from an arborist, agronomist, and architect should also be used to support recommendations. Each golf course is unique, but based on modern expectations for putting green speed and performance, the following are basic goals for daily sunlight hours:

- A minimum of three to four hours of morning sun during the fall equinox.
- A total of eight to 10 hours of sun throughout the day during the fall equinox – e.g., a daily light integral > 30 mol/m2/day.



Using apps like SunSeeker are easy ways to document shade issues.

When it comes to challenges with air movement and tree roots, there is less scientific information related to how to best overcome these challenges outside of the use of oscillating fans. However, it can be helpful to share the following industry-accepted information related to tree roots and air movement:

- Green sites with limited air movement are more prone to problems like heat stress, disease, and summer decline.
- Tree roots always win the battle against turf roots for water.
- Tree roots can destroy nearby drainage pipe.
- Trees prone to surface roots can damage cart paths, increase the risk for player injury, and damage maintenance equipment.

Trees near cart paths also obstruct golfer traffic patterns. This issue is especially damaging because funneled traffic combined with shade and root competition quickly results in thin turf and even bare ground. Additional impacts from trees include debris falling on playing surfaces and higher annual maintenance costs.

Tree roots can destroy nearby cart paths, increase the risk for player injury, and damage maintenance equipment.

Highlight Playability Impacts

Work closely with a golf course architect to understand how specific trees influence the strategy of each hole. That said, superintendents and agronomists can often identify from aerial images and onsite observations where tree lines have encroached into the play corridors. As trees squeeze the lines of play, golf courses become too challenging for the average golfer. This slows pace of play and makes golf less enjoyable.

Fewer, Better, Healthier Trees

Brian Schnieder of Renaissance Golf Design has used the phrase "Fewer, better, healthier trees" when describing his views on managing trees on golf courses. These four words highlight how a thoughtful Tree Management Plan considers trees that are growing into each other, trees blocking great views of the property, disfigured trees, or trees that simply clutter an area for no specific purpose. My message is similar – tree quality and placement are of far greater importance than tree quantity.

Plant Trees If Appropriate

Planting in areas where trees are going to be removed is something to include in Tree Management Plans. However, highlight the importance of waiting at least one full year before planting to evaluate how a hole is played after select tree removals occur. Consult with an arborist or agronomist when necessary to ensure native trees suited to your course are planted and that the location is not going to cause agronomic issues as the tree grows.

Educate Golfers

Golfers often suggest that tree removals will create safety issues and/or make the course too easy. Trees do not reliably "protect" players given how golf balls can easily fly over, under, or even through trees onto adjacent holes. In fact, trees that block the view of adjacent landing areas can

Continued on page 52

Continued from page 51

Trees can narrow the playing corridor, create pace of play issues, and limit the strategy created by the golf course architect.

Pocketed green sites result in higher canopy temperatures, disease, and poor summer performance.

create safety issues because players can't see each other.

I typically acknowledge that certain tree removals could make a given hole "easier", but I also am quick to point out the trees might make a golf course more difficult than the architect ever intended. Architects are particularly helpful with these conversations. From a Course Rating and Slope Rating perspective, keep in mind the primary trees considered during these evaluations are those adjacent to landing areas for the bogey and scratch golfer. The USGA article I wrote titled How Trees Impact USGA Course Rating and Slope Rating is a helpful reference.

Make a Prioritized List

Develop a prioritized list before beginning any tree work. The priorities should be based on several factors including turf health/agronomy, tree health/safety, impact on playability, infrastructure issues, and location within the property. My recommendations always include completing work at green sites first. Next, it is usually best to move to teeing grounds and finish up with the play corridors.

Completing additional tree removals in the immediate area of work being completed around a green site is often ideal. It's more cost-effective and least disruptive to mobilize

equipment to remove all the trees marked for removal within a close area rather than having to remobilize equipment to go back to the same area a year or two later to remove the last few trees.

Execute the Plan

Removing and pruning trees is both physically and mentally demanding work that requires professional training and the proper tools to be successful and most importantly, safe. **It is highly recommended** to use a certified arborist for large-scale removals. Staff safety is always the highest priority, especially with tree work.

Many courses have seen success and cost savings by having year-round staff assist with tree removals in the shoulder and off seasons. There are likely several areas on your course that can be deemed low risk removals that the agronomy team would be able to complete in-house, as well as clean up associated with larger scale removals done by a contractor. The key is having access to the proper tools. By acquiring a few key pieces of equipment, it's common to realize cost savings and shorter periods of disruption from removals. Purchasing or leasing the types of equipment listed below can be extremely valuable with executing tree removals and cleanup:

- A rubber track excavator with flail mower attachment
- A contractor grade chipper with winch
- A contractor grade stump grinder
- A skid steer with drum mulcher attachment for brush work and moving logs
- The Imants root pruner for root maintenance

Conclusion

For many courses, developing and executing a Tree Management Plan is their biggest opportunity to put the course on a path towards more reliable turf and the most enjoyable golf experience possible. Tree management is controversial, so having a long-range plan based on objective analysis including aerial imagery, sun tracking technology, and scientific research will help reduce the emotions of this sensitive topic. Where necessary, analysis from an arborist, agronomist, and architect should be used to support recommendations.

About the Author: Adam Moeller has been a consulting agronomist for 16 years, partnering with clients to determine maintenance and renovation needs so their golf course can meet or exceed playability and turfgrass performance goals.

References

Moeller, A. 2014. How Trees Impact USGA Course Rating and Slope Rating. USGA Green Section Record. Vol. 52 (8).

BADGER STATE TURF CLIPPINGS

Congratulations to John Niemiec who because the 5th Certified Turfgrass Equipment Manager (CTEM) in the Badger State! John is the longtime EM at Westmoor Country Club and also a valuable, dedicated member of the EM Committee that plans several events each year. Way to go, John!

August Borino at Wanaki Golf Course recently completed the Assistant Superintendent Certification Series through GCSAA, and we've had quite a few ambitious assistants achieve this designation in recent months. Well done, August!

The Wisconsin Turfgrass Association's annual "Fall Classic" Golf outing will be held at Strawberry Creek Golf Club on October 7. Aside from playing one the best courses in the state, there will once again be a bucket raffle with many excellent high-value items, the opportunity to win the 50/50 raffle, and plenty of great food and drinks all while providing valuable support to the UW-Madison Turfgrass Program. More details and registration information are on the next page.

The WGCSA was once again a sponsor of the Badger Chapter of the CMAA's annual golf outing that was held at Westmoor Country Club on a cool day in May. We were well represented by our very own association President, Garrett Luck.

WELCOME TO OUR NEW MEMBERS:

- **Noah Aden:** Greenkeeper at Blackhawk Country Club
- **Matthew Antony:** Assistant Superintendent at New Berlin Hills Golf Course
- **Peter Fish:** Superintendent at New Berlin Hills Golf Course
- **Matt Garner:** Superintendent at Devil's Head Resort
- **Brent Larson:** Assistant Superintendent at The Wisconsin Country Club
- **Connor Nelson:** Assistant Superintendent at The Wisconsin Country Club
- **David Stralow:** Student at UW-Madison
- **Trevin Ullrich:** Assistant Superintendent at Geneva National
- **Bradley Vander Waal:** Superintendent at Indianhead Golf Course

If you have news to share regarding your personal life (big achievement, trophy buck, marriage, baby) or your professional life, please send it my way! It's always fun to hear what WGCSA members are up to.

Wisconsin Turfgrass Association 2025 Golf Outing Fundraiser

Benefitting the
Wisconsin Turfgrass Research Sustainability Fund

The Club at Strawberry Creek – Tuesday, October 7th

14810 72nd St
Kenosha WI 53142
262-857-8400

10:00 – 11:30	Registration
10:15 - 11:15	Practice Range
10:30 – 11:30	Lunch
11:30	4-person Scramble, Shotgun Start
After golf	Hors d'Oeuvres, Raffle, Golf Awards, Cash Bar

Your **$175 registration fee** will include golf, cart, practice range, lunch, golf awards and hors d'oeuvres after golf. If you have questions, contact Audra at 608-845-6536 or audra.anderson@wisc.edu. Let's show WTA member Matt Kregel, that we are grateful to him and his board of directors for allowing us to play this impressive course.

Rick Jacobson, a Chicago native, did not need to drive too far in order to accomplish this Wisconsin track. Located directly west of Kenosha, The Club at Strawberry Farms is one of the southernmost clubs on our Wisconsin Best in State list. The property, as the title suggests, is built on a former strawberry farm. Although the club has strategically allowed it to return to a more native state — with prairie and wetland — trees are a rare sight on the site. Jacobson moved relatively little earth to create a links like experience.

REGISTRATION FORM – WTA Golf Outing Fundraiser

Name:_____ Phone (_____)_____

Name:_____ Email_____

Name:_____

Name:_____

Optional Tee Sign Sponsorship

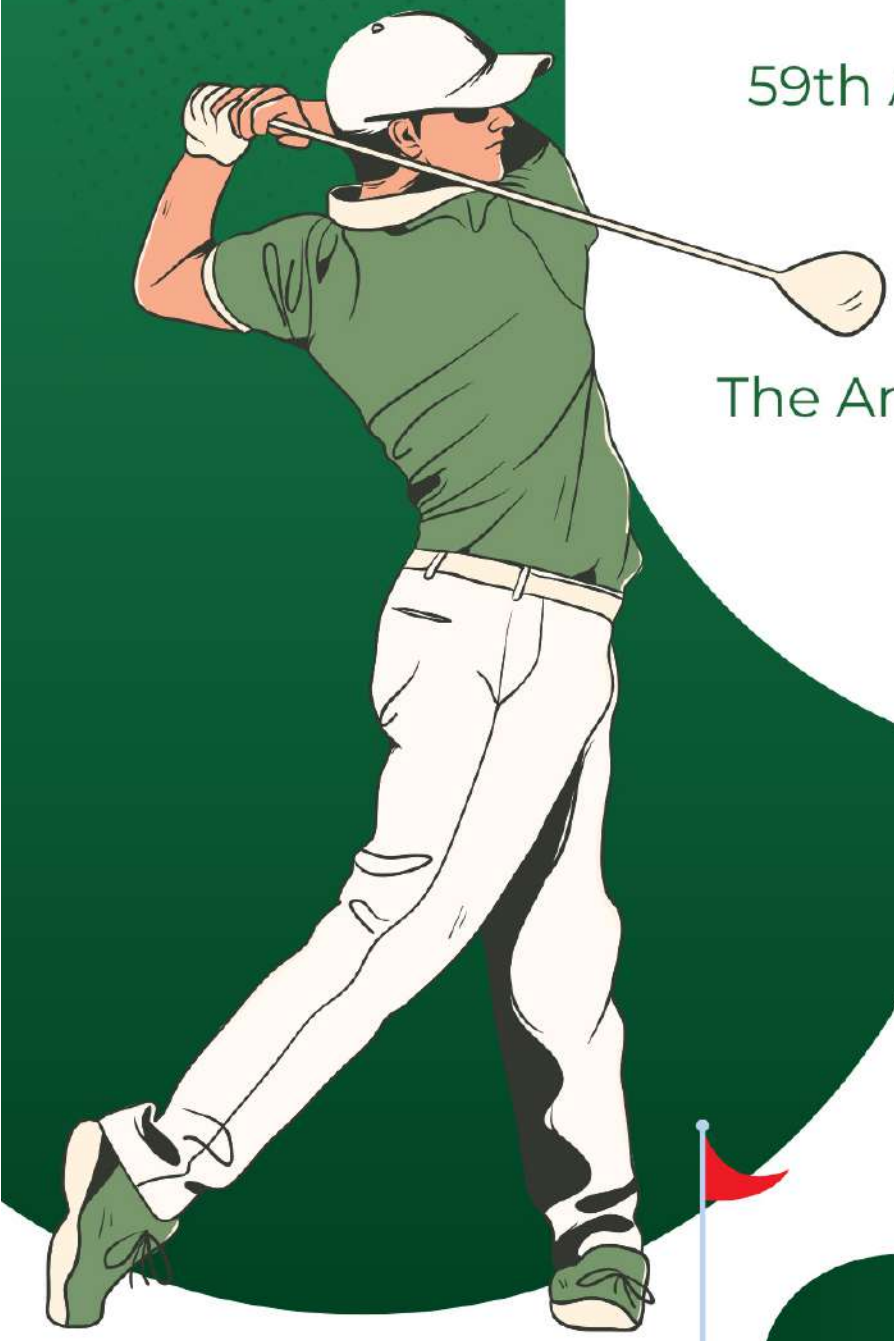
Name to be printed on tee sign_____

# of people golfing _____ x $175 per person = _____

Tee sign sponsorship _____ x $150 = _____ **Grand Total**_____

Make check payable to WTA and return completed form to 2502 S Pleasant View Rd / Verona / WI / 53593
You may register online by going to www.wisconsinturfgrassassociation.org
Registration deadline is Wednesday, October 1st, 2025. You may register as many people as you want.

THINKING FORE-WARD



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Registration details coming soon

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