

WTA - HAPPY HOUR - with the Turf Docs

Thursday, January 20th, 2022
2-4pm CST
Save The Date!

Take the afternoon off, curl up with a beverage of choice, grab a group of fellow turf managers and head out to a local pub, find a quiet corner, order some apps, a round of drinks, flip open a laptop and join the Wisconsin Turfgrass Association as we host Happy Hour with the Turf Docs!

This no cost, informal, virtual discussion will highlight industry trends, challenges, current research, and hot turf topics. More importantly, it is an opportunity for our WTA members to ask questions and spark discussions on issues we face as turf managers in a fun, relaxed atmosphere.

We will be meeting via Zoom with an email invitation sent the day of the event. To receive the invite for this no cost event, you must sign up on the WTA website. We ask that you log on, sign up, include a preferred email address for the Zoom invite and submit a question or two. The questions submitted ahead of time will be the outline for the discussion. While on the website, please renew your WTA membership for 2022. Bring a friend or colleague, showcase what our great Association has to offer and encourage them to join and support the WTA, its mission, and the University of Wisconsin Turf program.

The WTA's mission is to support turfgrass research and education at the University of Wisconsin-Madison. This includes funding of programs in turfgrass management and allied disciplines that enhance the understanding and general knowledge of the art and science of maintaining turfgrass. We need your support, now more than ever, to continue this mission. Please contact Audra Anderson at audra.anderson@wisc.edu or 608 845-6536 if you have any questions.

Please sign up for the Happy Hour, submit some burning turf questions and renew your WTA membership today!



Event: Happy Hour with the Turf Docs

Date: Thursday, January 20th, 2022

Time: 2-4pm CST

Cost: FREE (GCSAA CEU's applied for)
Optional \$25 donation to the WTA

Platform: Zoom (invite sent via email on January 20th)

Location: Your office, home, shop, favorite local watering hole with group of turf managers and/or vendors.

Sign up: Wisconsin Turfgrass Association website:
www.wisconsinturfgrassassociation.org

Enter name, preferred email address for Zoom invite and turf related questions. Please consider an optional \$25+ donation to support turf research at the University of Wisconsin Madison.

Continued on page 3

PRESIDENT'S MESSAGE

2021 Is Finally Winding Down

By Brad T. DeBels, PhD, Weed Man Lawn Care

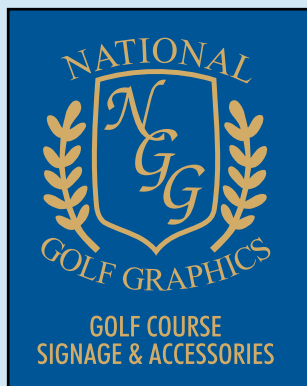


What was the major event that can best describe your 2021? A field renovation, field planted, irrigation project, unprecedented membership counts, course build or renovation? For me it was tackling unparalleled growth with the challenging recruitment climate and current supply chain crisis to the likes we have never seen before. Most recently we are watching the monthly cost of Urea increase by double digit percentages. For me, the long fall was beneficial to complete our lawn care season, likely not viewed the same for many of you managing golf courses, with continued play. Regardless, even though we saw many challenges in 2021, I hope that 2021 has also offered many great opportunities that will carry into next year. Some of the forward-thinking solutions we were required to develop, will serve us well for the future.

For the WTA, we actually saw a year in which returned somewhat back to normal. We held our first face to face meeting in over year, returned to our in-person Field Day and welcomed

everybody to a great Fall golf outing. We look forward to continuing our mission supporting research and information dissemination with some of the old and some of the new in 2022. For the second year in a row and by popular demand, we look forward to Happy Hour with the Turf Docs on January 20th. Prepare your questions and look for a registration link very soon. We will not be having our traditional Winter Conference but look forward to continuing that tradition in January of 2023. It was refreshing seeing everybody in person at the Field Day and we look forward to the same in 2022 and is scheduled for August 2.

Thank you to the entire board for their efforts in a very successful 2021. I also want to thank all of our members, individual and industry, for your support of the WTA and our mission. Without your yearly support the O.J. Noer Research Facility and turfgrass education experience in Wisconsin would not exist as we know it. Look for your membership renewals in the mail or email very soon. Safely celebrate the holiday season with your loved ones and see you all in 2022! ■



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Year behind board member name, is the expiration of their current term. January is the month the term is up.

About the Turf Docs



Doug Soldat, Ph.D., is a professor in the Soil Science department at the University of Wisconsin Madison. He earned both his bachelor's and master's degrees in Soil Science at the University of Wisconsin and Ph.D. in Horticulture at Cornell University. He focuses on turfgrass, urban soils, nutrient management water resources, soil testing and landscape irrigation.



Paul Koch, Ph.D., is an associate professor in the Department of Plant Pathology at the University of Wisconsin-Madison. He earned his bachelor's, master's, and Ph.D. in Plant Pathology at the University of Wisconsin-Madison. His research is focused on three areas: precision disease management using predictive models, pesticide fate and impact on turfgrass landscapes, and the turfgrass microbiome. Research in each area includes both fundamental and applied objectives to gain a broad biological understanding of the system with the intent of developing pest management recommendations for the turfgrass industry that are both effective and reduce non-target impacts.



Bill Kreuser is the President at GreenKeeper App, independent turf researcher and a Golf Course Superintendent at Jim Ager Memorial golf course in Lincoln, NE. Formally, Bill was an Assistant Professor at the University of Nebraska-Lincoln. His research focuses on growth management, PGRs, and precision turf management. Bill received his Ph.D. from Cornell University and his bachelor's and master's degrees from the University of Wisconsin-Madison where he studied PGRs and putting green nutrition.



Jim Kerns, Ph.D., is a professor and extension specialist at NC State University, Department of Entomology and Plant Pathology. He earned his bachelor's and Ph.D. at NC State and master's degree at Texas A&M University. Jim focuses on etiology, epidemiology, and management of diseases of both warm- and cool-season grasses. His research program focuses on understanding the biology of ultradwarf bermudagrass diseases, large patch of zoysiagrass, plant parasitic nematodes in turf and diseases of creeping bentgrass. The mission of the program is to provide efficacious and cost-effective management strategies to turfgrass managers in NC and beyond.



Ben McGraw, Ph.D. is an associate professor in Turfgrass Science at Pennsylvania State University, Department of Entomology. He earned his Ph.D. in Entomology from Rutgers University, M.S in Entomology from the University of Massachusetts and B.S. in Animal Science from the University of Maine. Ben's research interest is entomology; turfgrass Science, biology, and ecology of turfgrass insects; insect behavior; spatial distribution of populations; biological control; entomopathogenic nematodes, insecticide resistance development and management.

What's New At The UW?

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

As I reflect on the past few months, it's becoming clear that normalcy is finally returning to the UW-Madison turfgrass program. One of the first signs of normal was that we were permitted to hold our Field Day in-person at the O.J. Noer Facility in late July. It was a great feeling to be able to see faces, shake hands (or give fist bumps), and showcase our turfgrass research projects for the Wisconsin Turfgrass industry. Next, in September, we welcomed our first class of students pursuing a Turfgrass Certificate in the Farm and Industry Short Course. While the program was ready for its inaugural class last fall, the Covid-19 situation forced us to delay it by one year. While the university is requiring masks in all buildings and classrooms, things have pretty much returned to normal on campus in all other aspects. I can't tell you how exciting it's been to be able to teach in a classroom full of curious, engaged, passionate turfgrass students. This program takes a very hands-on approach to turfgrass education. While the students certainly rack up hours in classroom settings taking notes to PowerPoint driven lectures, every Thursday afternoon Dr. Koch takes the students on a field trip to a local turfgrass establishment where they are introduced to the craft from the eyes of practitioners. So far, they've had the pleasure to learn from folks like Phil Davidson (University Ridge), Neil Radatz (Hawks Landing/Pioneer Pointe), and Chad Grimm and Dave Noltner (Blackhawk CC).

Another sign of returning normalcy was that I was able to attend the Crop Science Society of America Annual Meetings in-person for the first time in a few years. Scientific conferences have been virtual events lately, and if you imagine a scientific conference being boring, just imagine sitting through one online! The Crop Science Society of America meeting is the top scientific conference for turfgrass scientists. It is an event where researchers (including professors, staff scientists, post docs, industry professionals) present the results of their latest and greatest work in 15-minute talks and oversized posters that show the findings of a study on a huge piece of paper. It's a highly efficient way to learn about what everyone is doing. For example, this year I learned that Rutgers researchers (Zhongqi Xu, Jim Murphy, and Bruce Clarke) have found that potassium fertilizer increases dollar spot on bentgrass and annual bluegrass. These results are different from what I've seen in my potassium study, so now I am curious about the reason behind the difference. I always look forward to attending this conference because I never fail to get a bunch of new ideas, find new potential collaborators, and hang out with old friends like Frank Rossi, Bill Kreuser, and Jim Kerns until way past my normal bedtime.

At the conference, my outstanding group of graduate students and staff represented the UW well. Each year graduate students are evaluated by a panel of scientists on the quality and content of their presentations. This year, Ph.D. student Michael Bekken won second place in the competition for his presentation on golf course water use efficiency. Qiyu Zhou (also a Ph.D. student) won third place for her presentation on precision nitrogen management using machine learning. Qiyu also won third place for her poster presentation about using a new soil test method to estimate nitrogen availability to turfgrass from sand root zones. I can't overstate what a big deal it is to win a presentation award at this conference, it's the Superbowl of turfgrass science, and Michael and Qiyu proved they are among the best in their field. In addition to their presentation awards, Qiyu and



Blackhawk Country Club Equipment manager Dave Noltner shared his wealth of knowledge about reel sharpening and equipment maintenance with UW-Madison students, while superintendent Chad Grimm discussed irrigation scheduling and maintenance.

Michael received the Chris Stiegler Travel Award which is an award given to outstanding turfgrass science graduate students to offset the costs associated with attending the conference. Qiyu and Michael have both benefitted from WTA Graduate Fellowships over the years, including the Kussow, Newman, and Kurth Fellowships. Their

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impressive contributions to turfgrass science would not be possible without the support of WTA and its members.

Britta Welsh, a relatively new Master's student in my program, did not compete in the graduate student competition but she delivered two excellent presentations at the conference, one about clover in lawns, and the other about how weeds are influenced by fertilization and mowing height. This was her first ever scientific conference and I know she'll be a contender for a graduate student prize at the 2022 conference in Baltimore. Finally, our newest team member, Dr. Dimitrios Pavlou delivered a presentation at the conference about the results of his work on an ecosystem simulation model. Dimitrios is working to modify Agro-IBIS, a model that can demonstrate the ecosystem services of various landscapes. When his work is finished, we will be able to use Agro-IBIS to demonstrate or predict what will happen to the environment if we convert landscapes from or to turfgrass. For example, what would happen to ground water recharge and soil carbon if we put a golf course on a former agricultural field; or what would happen if we removed a golf course and instead put in a parking lot or high-density housing. Dr. Pavlou earned his Ph.D. at the University of Georgia in December 2020, joined our group in January 2021 as a post-doc (someone who is in between a Ph.D. and a professor), and has made impressive progress on his project in a small amount of time.

As we look forward to next year and what's next, I am happy to report that we were fortunate to receive two USGA grants this fall, one dealing with how topdressing programs, including sand size and amount, influence turfgrass quality, surface firmness, and

soil organic matter. The other USGA grant will attempt to identify a protocol for measuring soil organic matter on putting greens. We will be collaborating with scientists and USGA agronomists from around the US for that project. These are just two new projects out of several others that are on the docket for 2022.

Please circle August 2nd in your calendar as the date of the 2022 UW/WTA Turfgrass Field Day. Hope to see you there! In the meantime, feel free to connect with me anytime by email at djsoldat@wisc.edu with any questions or just to talk turf. ■







Dr. Paul Koch teaching UW-Madison students the finer points of bentgrass anatomy.

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A New Snow Mold Research Season Brings New Opportunities

By Kurt Hockemeyer, TDL Manager, Plant Pathology, University of Wisconsin-Madison

The weather here in Madison has certainly felt more like winter than last year. In 2020 we were dealing we temps in the 70s in early November. This year we had to wait a bit longer for the first frost (Nov 2), but once the weather turned, it has stayed relatively chilly. At this point, most of our snow mold studies have already been put to bed for the winter. We have the large snow mold study replicated in two locations (Marquette and Wausau), our snow mold timing study (again?) at three locations (Minocqua, Wausau, and Madison), and finally the pink snow mold study in Madison.

Our large snow mold study this year is 110 treatments, which is the largest we've had since 2015. This study is replicated in both Marquette, MI and Wausau, WI. All treatments in Marquette went down on Oct 28 and the Wausau treatments went down on Nov 16. Permanent snow cover at both locations does not look like it will happen anytime soon, but forecasts can change quickly. Little to no snow cover in these early stages of the winter season do not bode well for higher levels of disease pressure. But its still way too early to predict how much disease pressure we will get for the year.

Our snow mold timing study, which is replicated in Minocqua, Wausau, and Madison, is aiming to come up with a temperature-based timing threshold to help folks properly time their snow mold applications. This study has been going on for several years now and hopefully we get some good data again this year and get this study that much closer to publication. Our central WI locations in the past have struggled to get meaningful data for various reasons and that is why it has taken us so long to publish the results from this study.

The pink snow mold study conducted here at the Noer will be returning for another year. Currently our technique involves applying various fungicides in 3 ft by 4 ft plots and letting that sit for 24 hours. Then we come in with rye grain that has the *Microdochium* fungus growing on the grains and spread that over said plots. We have built some wood frames with some pink insulation board on top. These frames are placed over the plots, and a Greenjacket impermeable cover goes on top of the frames. The frames and the Greenjacket help insulate the soil and keep it from getting too cold. This creates the perfect environment for *Microdochium* to grow and infect the turf under the covers. Pink snow mold pressure in Madison is very inconsistent and so we need to use these techniques to ensure pink snow mold development. For all these snow mold studies, keep an eye out for our reports next spring on the TDL website (tdl.wisc.edu).



Figure 1. The winter sensors developed at the University of Minnesota. Solar-powered and cellular connected, these sensors will measure CO₂ and O₂ as well as temp and moisture levels at 3 different soil depths. You can track this data in real-time throughout the winter.

One new thing that is happening this year that many of you may have heard of (and may be taking part in) is the WinterTurf project spearheaded by the University of Minnesota. This project is a very large collaboration between 7 universities in the United States and with turf researchers in Norway. Being such a large project with so many collaborators allows us to have many facets to this project. One facet has been the development of environmental sensors (Figure 1) that can be installed over the winter so that we can more accurately determine what environmental conditions lead to winterkill and/or snow

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mold development. As researchers, we have some idea of what conditions lead to winterkill. This project will really help us narrow that down and be very specific in what conditions need to occur before remedial actions need to be employed by a superintendent or otherwise risk turf loss. This is a very exciting project and I'm very excited to see where it goes over the next couple of years. We have one of these new sensors installed at each of our snow mold locations.

As we approach December, I will be sending out TDL Contract Renewals. So please be on the lookout for those renewals in your (snail) mailbox and please renew your contract if you can. Another year of crazy golf numbers and little help, but if you are not already a contract member, please consider becoming one and help be the foundation that holds up the TDL. Without our contract members, the TDL would simply not exist. In addition to submitting samples at a reduced price, getting the bi-weekly TDL Updates during the summer, and getting timely diagnoses, I also have copies of Dr. Aaron Patton's 'Weed Control for Professionals' and a TDL winter hat. Dr. Patton's book supplies up-to-date herbicide and plant growth regulator information that turfgrass managers can use to develop effective herbicide programs for golf courses, athletic fields, lawns, etc. The winter hat keeps your head warm in style. If you would like me to send you a book and/or a hat, please let me know after you have renewed your contract for next year. I can't believe it's almost 2022 already. I sent these books and hats to most of our contract members in years past, so please let me know if you want more of either. More information on becoming a TDL contract member can be found on the following webpage, by visiting the TDL's website (<https://tdl.wisc.edu/contract-membership/>). Please contact either myself (hockemeyer@wisc.edu) or Dr. Koch (plkoch@wisc.edu) if you have any interest in becoming a contract member. Or you can phone the lab at 608-845-2535. Thank you for your time and consideration. ■

February 18th, 2022 WSTMA Winter Conference

Michael Krupke, WSTMA President

The WSTMA will be holding their Winter Conference at the Kalahari Resort in Wisconsin Dells. There will be a networking event the night before, Thursday February 17th from 6:00pm – 10:00pm. There will be food and refreshments and plenty of fun. Our great commercial partners will be there to highlight their products and services that can be of use to you.

Topics and Presenters for the Conference:

Dr. Doug Soldat; University of Wisconsin – Madison
Developing a NR151 Plan For Your Facility

Sports Turf Water Management, Speaker To Be Determined

Dr. Adam Thoms; Iowa State University
Lowering Inputs While Maintaining A Safe And Playable Surface

Michael Krupke; WSTMA - Best Management Practices Initiative From The STMA

**Keynote Speaker and Meet and Greet: Wayne Larrivee;
The Voice of the Green Bay Packers.**

This is also a family event. By holding our conference on Friday, it gives you an opportunity to stay an extra night and bring the family. We have a limited number of rooms made available at a special WSTMA rate for Friday night. Join us for a magnificent event full of networking, education and fun!

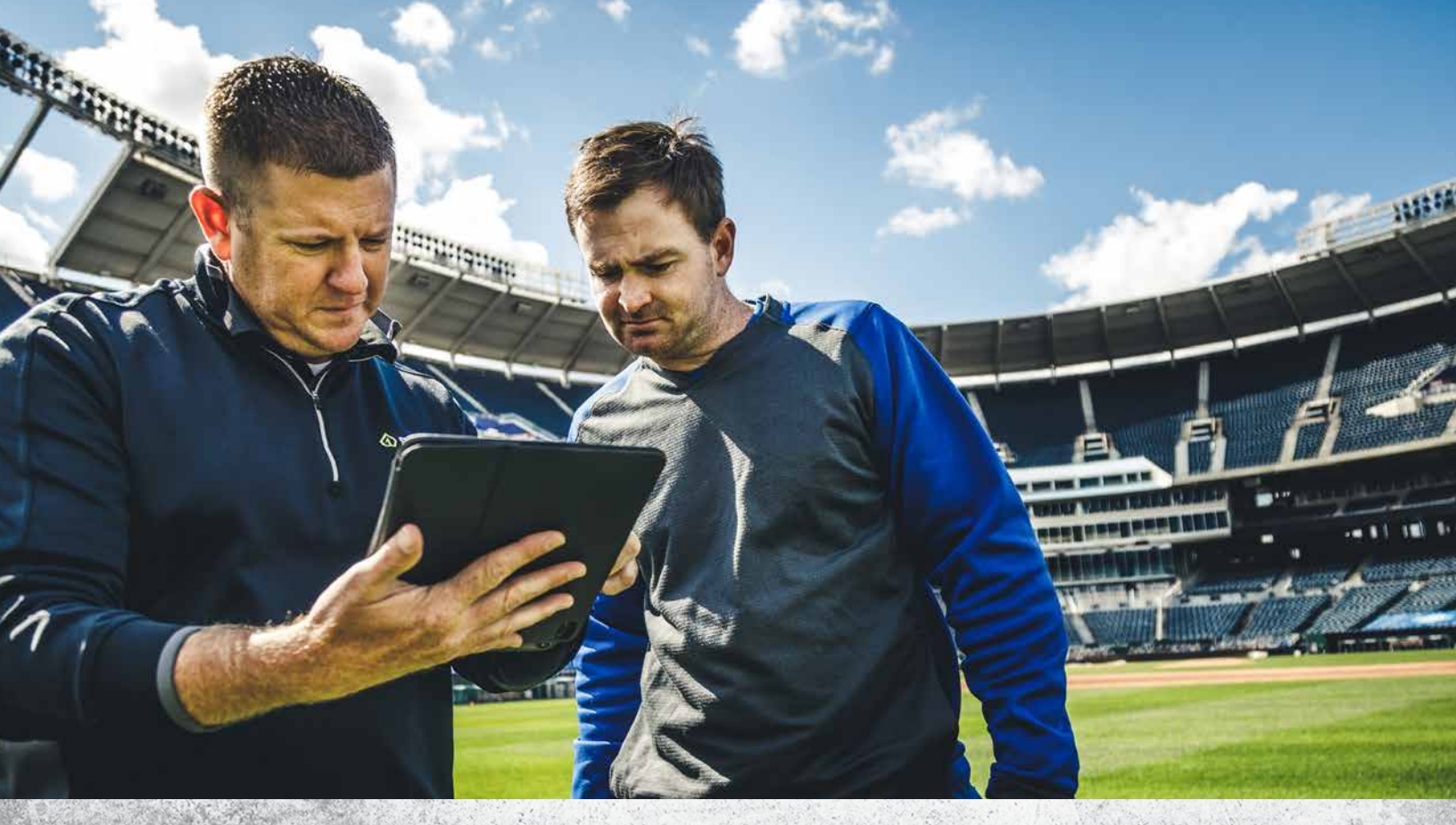
Go to www.wstma.org for more information and to register. For additional questions contact Michael Krupke at mkrupke.wstma@gmail.com. ■

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O.J. Noer Turfgrass Research and Education Founder's BBQ

By Bruce Schweiger, Superintendent, O.J. Noer Facility

Thirty years ago, the O.J. Noer Facility was under construction. At the 1992 Summer Field Day, which was the first event at the Noer Facility, the Wisconsin Turfgrass Association (WTA) officially gifted the Noer Facility to the University of Wisconsin - Madison. On September 21st 2021, the O.J. Noer Facility hosted what will hopefully become the Annual Founder's BBQ. What is a Founder's BBQ you ask? It is a small gathering for those who were part of the creation of the O.J. Noer Facility. Many of you may not know that the WTA was created to support turf research being conducted by the staff at the University of Wisconsin - Madison. In the early days, each professor was required to find a site to conduct their research. Whether it was on a golf course, sports field, park, or landscape, they had to secure a site. Once the site was found they would have to sign up to use a University truck for the day, load all the equipment they needed and then drive to wherever in the state the research was conducted. One of the first things the WTA funded was a truck and fuel credit card to eliminate the need for a truck request from the University fleet.

As time moved on the new University Ridge Golf Course was being designed and constructed. The WTA Board had the forethought to request a meeting with Dean Leo Walsh of the College of Agricultural and Life Sciences to request a Turfgrass Research Facility for the UW Turf Team. After some discussion, a parcel of land that had been donated to the golf course project but was not going to be part of the golf course, was offered to the WTA. The next hurdle was how to fund the project. The plan was to make a short-term lease of the land to the WTA. This meant that the WTA would need to raise the funds to build the Turfgrass Research Facility. Once funds were raised the WTA would then

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build the facility without the State building bid process. The WTA received a matching grant from the UW Foundation and began fundraising. In no time the industry with the help of generous donors began construction of the O.J. Noer. Many of the original people on the WTA board had great connections around the Madison area that they used as the project progressed. There were many people involved in this process some much more involved than others, but alas they all did something.

Tom Schwab, my predecessor as Superintendent of the O.J. Noer Turfgrass Facility, and I have always discussed the people that made the O.J. Noer Facility possible are almost all retired, some have passed away. Just before Covid-19, we talked about having a BBQ at the O.J. Noer Facility to honor those that made the facility possible. Then Covid-19 and the BBQ was not going to happen. Fast forward to this summer and with vaccines, it was time to give it a try. A master list of people was generated. Trying to find a date that might work was an issue, but we settled on September 21st.

That day came and the old guys took over the facility. We were not sure if they came to see each other or they just like a free meal. The day was a huge success! Some of the people we had hoped to see could not make that day work in their schedule but many of them did.

The attendees were:

Monroe Miller (Retired Superintendent Blackhawk Country Club, founding member)

Dr. Doug Maxwell (Emeritus – Plant Pathology)

Dr. Gayle Worf (Emeritus – Plant Pathology)

Randy Smith (Retired Nakoma Golf Club Superintendent and built putting greens)

Chuck Frazier (Retired Nakoma Golf Club Assistant and volunteered during construction)

Dale Marach (Retired Reinders Equipment and Soft Goods Representative)

Marc Davison (He was able to get much needed plumbing pieces donated while at Kohler)

Tom Schwab (Retired O.J. Noer Facility Superintendent)

Terry Kurth (Weedman and huge contributor)

Bruce Schweiger (Active in fundraising within the industry)


When this group congregates the stories are bountiful. Over lunch the discussion was lively, and I learned a few things. A few of the honored guests stayed around a while to see what has changed and what had not changed before I assume heading home for their nap. The history discussed that day was interesting and insightful. How this entire project happened is a proud testament to the founding Board, volunteers, and our industry! What world-class facility can say it was entirely built and financed by industry end-users?

It is an accomplishment like this that should make you proud to be a WTA member and a reason to recruit other members. I speak for my interactions within the University and when I tell people I work at the O.J. Noer Facility many comments are made about how lucky we are to have the support of a group like the WTA. The work of the WTA does not go unnoticed by the University.


There are many projects that need to be done at the O.J. Noer, but with the University funding issues they are very far down on the list of priorities. The WTA still plays a very significant role at the O.J. Noer Facility and with the Turf Program. We need all the support we can receive. ■




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Turfgrass And Soil Health

By Paul Koch, Ph.D., Department of Plant Pathology, University of Wisconsin - Madison

A healthy soil is critical to a healthy turfgrass plant. Though what exactly constitutes a healthy soil is complex and often debated, it contains mixture of physical, chemical, and biological attributes. In other words, it should contain good structure that allows for oxygen and water to flow towards the roots. It should also contain the proper chemistry, such as pH, to allow the turfgrass plants to obtain the nutrients they need to thrive. And it should contain a robust and diverse microbial community to help the soil function.

It's this last portion, the soil microbial community, that is often criticized in turfgrass. It's not uncommon to hear people from outside the turf industry refer to turfgrass soil as a 'dead' soil because of turf's lack of biodiversity and the regular use of synthetic fertilizers and pesticides. But what does the research, including our own UW research, actually say about the biological health of turfgrass soils? Let's take a look.

Research consistently shows a large and diverse microbiome associated with turf

A group of researchers studied the soil biodiversity in New York's Central Park and found a total of 122,081 bacterial and 43,429 eukaryotic (mostly fungal) organisms. This was similar in microbial biodiversity to soil collected from tropical forests, grasslands, and other natural systems (Ramirez, 2014). A team from the USDA and the University of Maryland researched the U.S. National Mall and found that the turf there had 751 identifiable bacterial organisms and an additional 859 that were not identifiable, and this soil biodiversity was largely unimpacted by a large renovation and installation of new sod in 2015 (Crouch, 2017). A global survey of 112 urban greenspaces in 17 countries found that the soil microbiomes were more diverse than nearby natural ecosystems, and that these urban microbiomes across the globe were more homogenous to each other than adjacent natural systems were to each other (Delgado-Baquerizo, 2021). The same microbial biodiversity has been demonstrated in golf course turf as well. Annual bluegrass maintained as a putting green in New Jersey had similar soil bacterial diversity to soils from tropical forests, temperate forests, and temperate grasslands

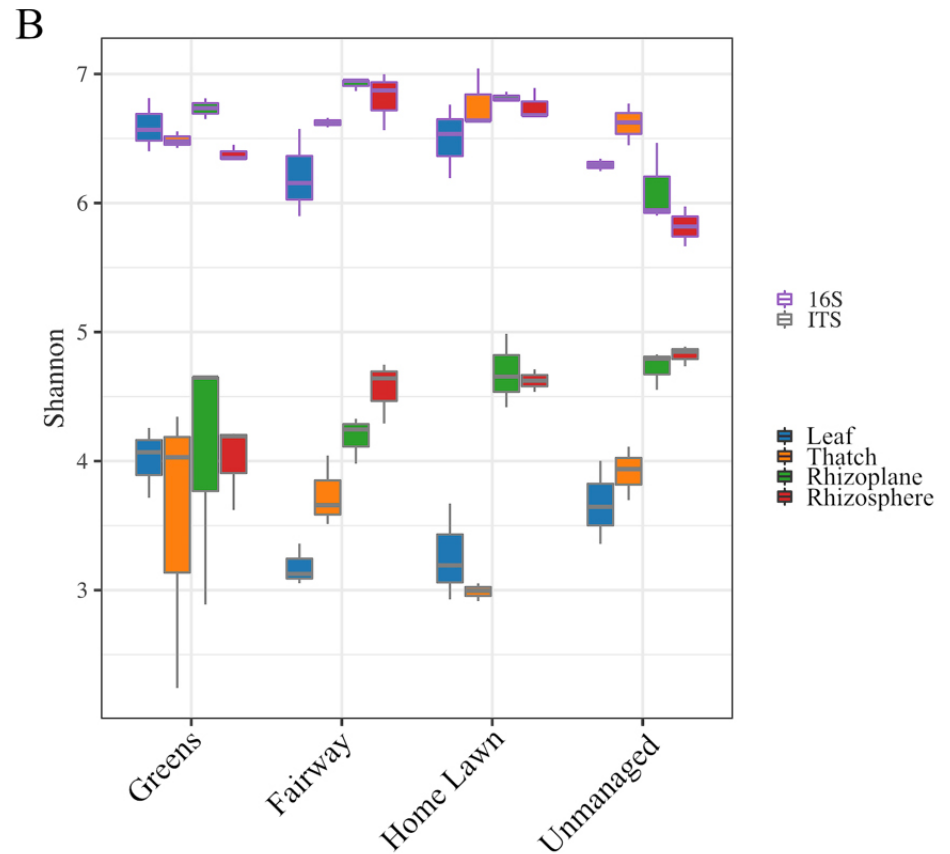


Figure 1: Bacterial (16S) and fungal (ITS) diversity as expressed by the Shannon Diversity Index. Higher numbers indicate greater levels of diversity.

despite the regular applications of synthetic fertilizers and pesticides required to maintain acceptable turfgrass quality (Beirn, 2017). Pesticide use was found to have a limited impact on soil bacterial diversity on golf courses in Massachusetts, though impacts on fungal diversity were more apparent when synthetic fungicides were used (Allan-Perkins, 2019). In short, the majority of the research conducted so far has shown that turfgrass supports a large and diverse microbial community.

Our own research on microbial diversity and soil health of turfgrass soils

My own program has been conducting a number of studies on soil health and the turfgrass microbiome in recent years, and a grant that Dr. Soldat and myself recently received from the USDA to focus on the 'ecosystem services' of turfgrass will help further advance those studies. In

one study we compared the bacterial and fungal diversity of turfgrass leaves, thatch, rhizosphere, and rhizoplane from 4 sites at the OJ Noer: a putting green research plot, a fairway research plot, a tall fescue lawn height

research plot, and an unmowed and unmanaged area of multiple plant species. The results showed differences in microbial diversity between locations on the plants and showed higher levels of microbial diversity among bacteria compared to fungi, but the most interesting result was the consistent diversity between the various sites (Figure 1). In other words, a golf course putting green had the same level of bacterial diversity compared to an unmanaged site containing multiple grassy and non-grassy plants despite having much higher levels of management intensity (ie fertility, pesticides, irrigation).

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In a second study, we sampled soils from various turfgrass and non-turfgrass sites in Madison, Minneapolis, and Chicago. The turfgrass sites in each city included an athletic field, a home lawn, and a park as well as

non-turfgrass sites like an agricultural field and an unmanaged 'prairie-like' site. All of these samples were collected in the summer of 2020 and sent to the Cornell Soil Health Laboratory to have a series of 12 'soil health'

assessments conducted. While the results are preliminary, several of the soil health indicators tested suggested that the turfgrass soils were significantly 'healthier' than the agricultural soils and on par with the samples collected from the unmanaged/prairie sites. Soil respiration, which is often used as a test of microbial activity, was much higher in the turfgrass sites compared to the agricultural sites (Figure 2). ACE Protein Index, which is an indicator of how much food is present in the soil for microbes, was also much higher in the turfgrass and prairie sites compared to the agricultural sites (Figure 3).

While the results from our work are preliminary and need further research and analysis, the results that we're collecting are in agreement with other results from around the world...turfgrass often produces soils with high biological activity and diversity and often scores well in various soil health ratings. So much for turfgrass soils being dead!

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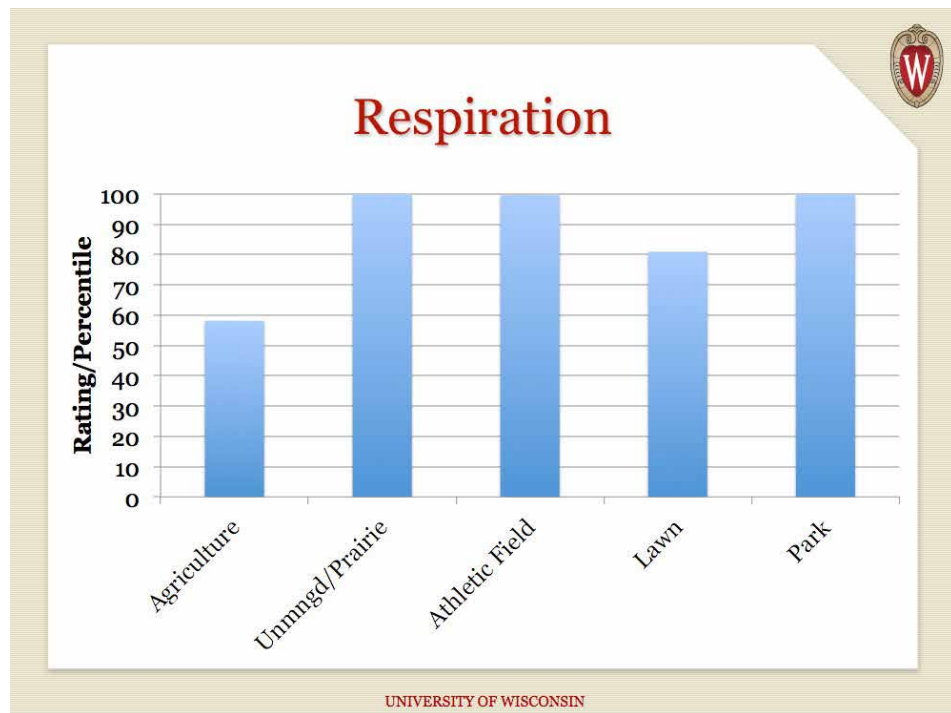


Figure 2. Comparison of soil respiration from the 5 sampling sites. Respiration is often used as an indicator for microbial activity.

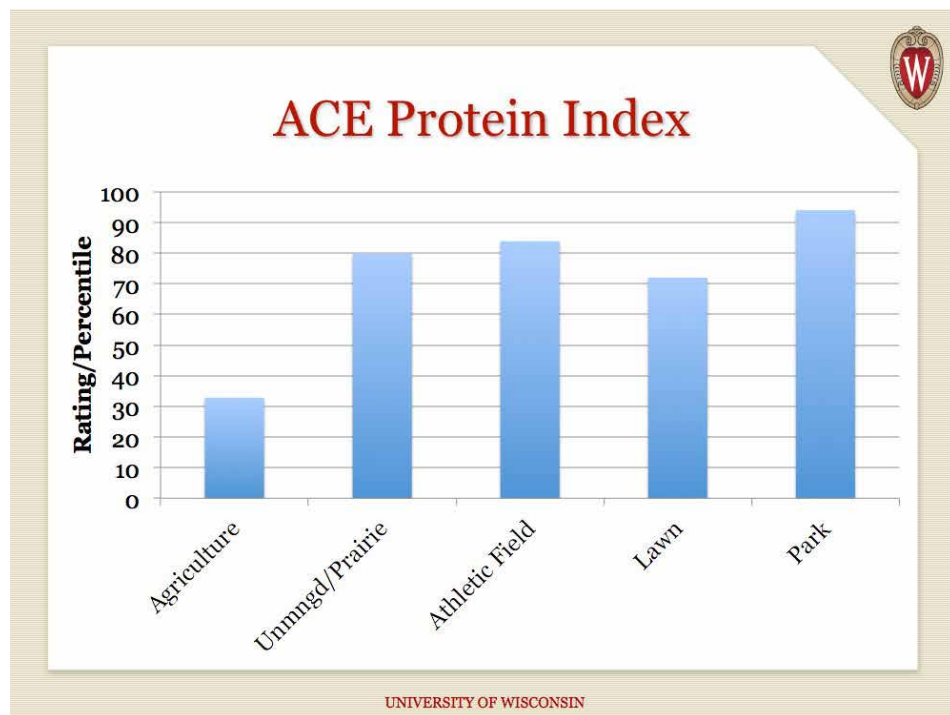


Figure 3. Comparison of ACE Soil Protein Index from the 5 sampling sites. The ACE Soil Protein Index is often used as an indicator for how much food is present in the soil for microbes to use.

WTA Fall Golf Classic 2021 at Nakoma Golf Club

By Bruce Schweiger, Superintendent O.J. Noer Turfgrass Facility

On Monday, October 4th 2021, ninety-eight golfers took over Nakoma Golf Club in Madison. The activity is the largest fundraising event for the WTA every year. The WTA has been hosting the Fall Golf Classic since 1982. The WTA has only had two rain outs, 2018 and 2019. Over the years my predecessor, Tom Schwab, has made this an entertaining event, with the focus on fun, not just a skills challenge. The festivities at Nakoma Golf Club continued this mission.

The event was attended by 98 golfers of all skill levels. The laughter and fun was abundant all around the course and clubhouse the entire day. The first few holes began with a very light mist but I did not see any umbrellas being used. It lasted for a hole for two then the day was pleasant. Overcast and warm but not hot until the very end of the day when the mist returned. The mist was not enough to dampen any fun.

Superintendent, Mike Lemke, had the course in great shape. When I visited with Mike the Friday before, the greens were slick. Sunday afternoon Nakoma Golf Club received one inch of rain. When Mike told me this Monday morning I was concerned, you see in my much younger days after one inch of rain, the course would be playable but very wet. Mike told me not to worry as there is now an interstate system of tile throughout the property. He was right, the course handled the water well. The only casualty was the green speed. As we all know green speed takes a pounding after heavy rains, but it might have been a blessing in disguise because I heard many people had problems putting. The slower speed might have contributed to a more enjoyable day. Thank you, Mike and your staff for all you did to make the day happen, you made my job much easier.

When it comes to making my job easier the entire staff at Nakoma Golf Club must have had that as a goal. The pro shop communicated their needs and helped me with a few issues. They were super easy to work with. Event manager, Brianna, understood what we needed and was wonderful. The kitchen staff was very helpful with a few concerns of mine and the food was great. Lastly, I want to thank the Nakoma Golf Club Board of Directors for allowing us to hold our Fall Classic at such an enjoyable course.

This event would not be possible without the sponsorship of our members and vendor partners. Please remember those that sponsored this event as you move through early order season and next year's growing season. In alphabetical order:

- Advanced Turf Solutions
- Aquatrols
- BASF
- Bio-Health Pod Systems by RIGERO
- Corteva
- DHD Turf & Tree Products
- Golf Creations - G C Construction
- Grass Roots Magazine
- Helena Agri-Enterprises
- Insight FS
- Jasperson Sod Farm
- Landmark Seed
- Lohmann Quitno G C Architects
- Maple Bluff C C
- Midwest Turf Products
- National Golf Graphics
- Paul Koch - UW Madison
- Pendelton Turf Supply
- Reinders Softgoods Division
- Reinders Turf & Irrigation Division
- Revels Turf & Tractor/John Deere Golf
- SiteOne Landscape Supply
- Soldat Family
- South Hills Golf & C C
- Syngenta
- The Andersons
- Waupaca Sand & Solutions
- Wausau C C
- WSTMA



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The event was a four-person scramble and there were some pretty good scores posted. The team of Edward Huberty, Kyle Dawson, Brian Opheim and Riley Thomson won with a winning score of 10 under par. Seven teams finished with a score of seven-under-par or better. As I mentioned this is not a skills challenge so the next golf winning score was four under par, winning a scorecard playoff was, Devin Lysne, Kevin Green, Omar Zaldivar, and Reid Maier. The next golf prize that went to the last-place team with a score of (none of your business) was Ethan Rosenberg, Brian Haag, Justin Mottl, and Dan Prochaka.

The Classic had five event hole prizes, the first four were gift certificates to the pro shop. The winners were:

- Closest to pin number 17 David Blast
- Long Drive number 10 Aaron Hansen
- Long Drive number 10 for women Tiffani Horman
- Long putt number 18 Devin Bressers

We also had a special sponsored prize for closest to the pin on hole number four. An ION Pathfinder 280 all-weather bluetooth speaker was donated by Bio-Health Pod System by Rigero, represented on the tee by long-time member Colin Seaberg. The winner was Paul Evans.

Each year the WTA does a playing card raffle which is normally a huge success, and this year was not any different. We thank everyone that bought a card or two to support a good cause. Their year there were three prizes awarded. A Fitbit Versa 3 watch won by Michael Bekken, a Ph.D. student in the Soldat lab in Soil Science

- Two pack of Ring Doorbell Camera System
- Noise-canceling headphone

After the prizes were awarded, it was time for the raffle. With the very generous support of the following people and companies, we again were able to make sure every participant received a prize.

Phil Davidson	Jon Hegge
University Ridge G C	Evansville CC Mike Bremmer
Chad Hauth	Revels Turf & Tractor
Bayer	Wayne Horman
Shawn Hilliard	Landmark Seed
Helena Agri-Enterprises	Kristin Witkowski
Beth Whitehouse	Pendelton Turf
Corteva	Scott Verdun
JT	NuFarm
Aquatrols	Josh LePine
Andy Morris	Maple Bluff CC
BASF	Colin Seaberg
Bob Lohmann	Bio-Health Pod System
Lohmann-Quinto	Phil Spitz
Matt Kregel	Syngenta
Strawberry Creek G C	

The day ended with a few heartfelt good-byes and an idea-sharing session around the bar. On behalf of the entire WTA Board, I would like to thank everyone that participated and helped make this year's Fall Golf Classic a huge success.

Hope to see everyone next year! If you would like or have a suggestion on a host site for 2022, please let me know! ■



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CALENDAR OF EVENTS

January 11th – 13th	Northern Green @ Minneapolis Convention Ctr	Minneapolis, MN
January 20th	WTA - Happy Hour with Turf Docs	Online
February 11th – 13th	Garden & Landscape Expo	Alliant Energy Ctr/Madison
February 18th	WSTMA Winter Conference – Kalahari Resort	Wisconsin Dells, WI
March 30th	Pesticide Applicator Training – Ingleside Hotel	Pewaukee, WI
April 13th	Pesticide Applicator Training – Rock Garden	Green Bay, WI
April 27th	Pesticide Applicator Training – Metropolis Resort	Eau Claire, WI

To make sure a Winter/Spring turf event is still scheduled, please contact them directly.
Phone numbers for some of the common organizations are listed below. Stay safe and healthy!

**WTA Members -- If you have an important date that you would like to share with other members,
Call 608-845-6536 or email audra.anderson@wisc.edu to include it in the next calendar.**

Contact Telephone Numbers

GCSAA	Golf Course Superintendents Association	800-472-7878
iLandscape	the Illinois + Wisconsin Landscape Show	630-472-2851
NGLGCSA	Northern Great Lakes Golf Course Superintendents Assoc.....	906-424-4176
Northern	Northern Green	651-633-4987
PAT	Pesticide Applicator Training (Turf and Landscape 3.0).....	608-262-7588
STMA	Sports Turf Managers Association	800-323-3875
TDL	Turf Diagnostic Lab	608-845-2535
TPI	Turf Producers International	800-405-8873
WDATCP	Pesticide Certification & Licensing.....	608-224-4548
Wee One	Wee One Foundation Golf Outing	630-457-7276
WGCSA	Wisconsin Golf Course Superintendents Association	920-643-4888
WPT	WPT Garden Expo	608-262-5256
WSPA	Wisconsin Sod Producers Association	262-895-6820
WSTMA	Wisconsin Sports Turf Managers Association	920-723-0936
WTA	Wisconsin Turfgrass Association	608-845-6536



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