The GRASS ROOTS

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the 98th Wisconsin State Open.

This quote by Burroughs at its simplest can remind us to take time to see the beauty of the fall season.

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THE GRASS ROOTS

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PRESIDENT'S MESSAGE

I'm Ready For Fall!

By Jon Canavan, Golf & Recreation Turf Manager, Milwaukee County Department of Parks, Recreation & Culture

s of September 23rd fall is here. This year has certainly had its challenges. Spring was cold and snowy! Then came the hot dry summer. Followed by heavy rain and misquotes! Mother Nature certainly threw her challenges at us.

With fall in the air it is time to reflect on the ending of the golf season. This is a great time to evaluate your programs, practices, projects, crews etc. It is a time to change gears and reflect on becoming a better manager, more efficient with time and budgets. This is a great opportunity to do some self-examination to critique your job performance. Spend some time with staff before they leave for the season. We tend do get into a rut of the day to day. Your workers are always

watching you. Maybe they have some advice to help you out.

This is a great time to evaluate your programs, practices, projects, crews etc. It is a time to change gears and reflect on becoming a better manager, more efficient with time and budgets.

With the offseason coming there will be ample opportunities to expand your knowledge. The WGCSA and the GC-SAA work extremely hard to offer educational opportunities for you to gain knowledge. If you have not taken advantage of these opportunities in the past ask yourself why? Please take advantage of what our organization offers to its members.

This coming November 28th and 29th the WGCSA and Milorganite will be hosting our 53rd annual Wisconsin Golf Turf Symposium. The event will be held at the American Club in Kohler Wisconsin. This year's topic will be "Getting back to the basics!" Our two day event is packed with outstanding speakers and topics that will help you with your day to day maintenance of your golf course. I encourage you to attend. If you are unable to attend please look at our 2018 event calendar and make a commitment to attend one of our monthly meetings, the GIS and the vendor sponsored events to continue your education. I look forward to seeing you at one of these events.



GOLF COURSE SUPERINTENDENTS ASSOCIATION OF AMERICA

WGCSA MISSION STATEMENT

The Wisconsin Golf Course Superintendents Association is committed to serve each member by promoting the profession and enhancing the growth of the game of golf through education, communication and research.

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The Wisconsin Golf Course Superintendents Association is dedicated to increase the value provided to its members and to the profession by:

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Road Construction and Rain

By Bruce Schweiger, Manager, O.J. Noer Turfgrass Research and Education Facility

Discussions with many turfgrass professionals has been consistent; this has been a challenging and surprising summer. I could talk about the weather but we are tired of that subject. One thing that has made this summer a long one at the O.J. Noer Turfgrass Research Facility has been the rains and some very heavy ones. Add these rains to the massive road construction project along County Highway M in front of the facility and the combination has been remarkable.

When I assumed this position from Tom Schwab after his 22-year career at the helm, he told me to be prepared for the property to flood on average once per year. Tom might have been selling ice to an Eskimo. In January 2017 the Noer Facility flooded. Making it a complete ice-skating rink. The growing season was not to be outdone. The Noer Facility flooded three times in 2017 and another three times this year, so far. At times, I think Tom knew more than he was telling me. After the last flood, I texted him a few pictures asking if he wanted his old job back, no response.

You may not have heard or seen, but the morning of August 21st,

the Noer Facility flooded the worst it ever has. With rain falling hard for hours and hours, I planned to leave for work around 5:30am to see the damage. I live in Cross Plains and much to my surprise we had received more than 15 inches of rain. I recall Monroe Miller telling a story about his classmate and friend Noah and the arc he started to build because of a big rain event like this. The greater problem was there were no open roads out of town. Around 6:45am, I was outside surveying my house and yard when the local police chief drove by, I flagged him down. He let me know there was one road opening at that time. I was off to see what the Noer Facility looked like. As I pulled into the driveway, the water level was as high as I had ever seen. I walked around the grounds taking pictures. When my employee Larry arrived, we could not believe our eyes. As we looked out on the property, it was quite apparent this was going to be bad as all four of my Toro irrigation controllers were under water. My pump station was also under water. As we entered the building, the carpets and floors were all soaked, the building had flooded.

Left: The normally dry Noer Center is covered by water at 7am.

Below: Noer Center Manager, Bruce Schweiger shows the high water mark on the bridge.







The pumpstation (Left) and irrigation controllers (Above) do not mix with water. The irrigation system will be down for a month.

A dry spell after the flood required areas to be watered with 1,000 gallon tanks.

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Larry and I started moving things to higher ground and cleaning up water. I have never seen anyone use a green squeegee to move water out of the carpet. We started running a carpet cleaner to remove more water and dumped 125 gallons of water. Calls began to my boss, ServPro and the UW Madison to begin the insurance process.

By the end of the day ServPro was here working their magic. Between the hard work of Larry (79 years old) and ServePro, we were able to have all standing water removed. Boy did we pump water. The squeegees seemed to conform to our hands. That was a long day which was proven by the fact that my Iphone battery normally keeps its charge for days, but on my way home that night the battery died. Thank you to all those that reached out and offered to assist and words of wisdom that this too shall come to an end.

Then came Wednesday and the real cleanup began. The entire property was covered in silt and there was debris everywhere. Thanks to Phil Davison from University Ridge for the use of his green sweep and Toro Turf Vac. The irrigation system will be out of commission for up to a month. Because we will not be able to wash the silt off the greens, the next best option was drag, brush and blow. By the end of Wednesday Kurt Hockemeyer and one of his staff were blowing all bentgrass areas after I had dragged and swept them. The general grounds were also covered in silt. I wish I had a picture of the silt flying when I dragged, Kurt and his staff were blowing and Larry was mowing general turf areas, dust bowl is the picture. At the end of the day, things looked better but we were still a long way from done.

Thursday everyone waited until the turf dried and we attempted to mow. The mowing went well and the property started to look respectable. Around noon I was told the water pressure in the building was low. I had a few hoses running off the building and thought I was just demanding too much water. Alas, I was mistaken and the building well pump had died. I had not thought about that pump. When the well repairman arrived, we agreed the wellhead had gone underwater and things were damaged. A few hours later the well was repaired.

By now it was Friday and ServPro had been there running many fans and dehumidifiers for four days. The sound in the building was deafening and the heat from the equipment was unbelievable. The air conditioning could not keep up and was turned off late Tuesday. The next week when ServPro was finished and their equipment removed, I turned the air conditioning back on. It did cool things off but something was wrong. One more call the HVAC contractor. After inspection, the air conditioning units have been damaged and their demise is in the foreseeable future. Let see what has died and needed to be replaced:

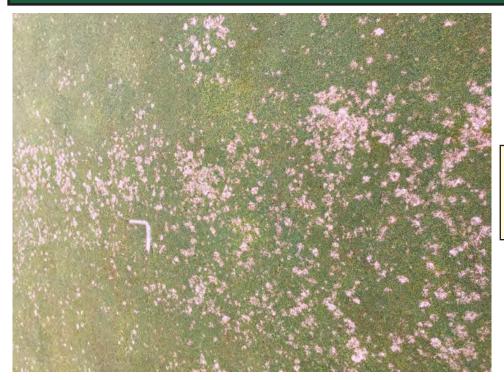
- 4 Toro Irrigation Controllers
- Pump Station Control System
- 38 Ametex rectangular control box cover (they floated away)
- 6 eight inch round valve covers
- Building well pump and controls
- 2 air conditioning units
- · Base molding in the entire facility

As I submit this the Noer went through 11 days without irrigation. Hot, dry and sunny so my sand based surfaces are anything but happy. We were out with two one-thousand gallon water tanks and watered the best we could. Yes, the surfaces showed sign of stress then came the million dollar rains followed the next day by some of the "best" dollar spot this old guy has ever seen, picture attached.

Well, let's hope that 2019 is dry or at least floodless!!!!!



At home or work, flood water on carpet, tile and especially walls is a trying experience.



If the flood, moquitoes and damaged irrigation system was not enough our old friend dollar spot made a visit to the plots.

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Preparing For Golf Course Flooding

By Steve Kammerer Ph.D., USGA Green Section, Southeast Region Regional Director and John Daniels, USGA Green Section, Central Region Agronomist

"This article is reprinted from the Volume. 56 (17), September 7, 2018 of the USGA Green Section Record. Copyright United States Golf Association. All rights reserved."

When it comes to flooding, an ounce of prevention is worth a ton of cure.

One of the greatest challenges in maintaining high-quality playing conditions on a golf course is overcoming the effects of continuously changing weather. Occasionally, weather events are severe — completely disrupting operations and causing significant damage to property. Blizzards, hurricanes, thunderstorms, and tropical storms can bring destructive wind, hail, lightning, and excessive precipitation that causes floods. In the case of flooding, there is often some advance warning that presents an opportunity to take steps to prevent costly damage to a golf course, its equipment, and its structures while also decreasing the recovery time needed to reopen for play when waters recede.

TYPES OF FLOODING

Water is the lifeblood of golf course turf. It is extremely precious, especially in regions that receive limited or inconsistent rainfall. However, too much water can be extremely problematic, considering the amount of damage that can occur during a flood. Flooding can be separated into three broad categories:

River and Lake Floods: River and lake floods are typically caused by excessive rainfall over a short period of time or from very rapid melting of snow and ice.

Coastal Floods: Coastal floods are usually caused by various combinations of heavy rainfall, high tides, and strong winds.

Flash Floods: Flash flooding from excessive rainfall can occur independently of overflowing water bodies.

Areas that are flat, low-lying, have slow-draining soils, and numerous impermeable surfaces are especially prone to flash floods. Storm surge is often independent of rainfall-related flooding and uniquely different from normal coastal flooding because damage is principally caused by the force of quickly rising coastal waters. The power of a storm surge can be difficult or practically impossible to stop or divert. Storm surge can crumble concrete walls and buildings, quickly destroying and displacing structures, vehicles, equipment, bridges, roads, and cart paths. In 2017, some golf courses along the southeastern U.S. coast were devastated by fastmoving coastal water pushed by winds from Hurricane Irma, even though they received little rainfall and the storm was more than 125 miles offshore. Around Savannah, Georgia, coastal waters rose 8 feet in less than 30 minutes. Unfortunately, dealing with storm surge is an entirely separate topic that is beyond the scope of this article. This article will focus on activities around flooding associated with slowly rising waters.

DAMAGE ASSOCIATED WITH GOLF COURSE FLOODING

Identifying the risks associated with flooding will help guide



Quick removal of silt and debris from turf surfaces is critical to prevent long-lasting damage after a flood.

preparations to minimize the potential damage and disruption.

Structural Damage Associated With Flooding: Flooding can cause structural damage that impacts buildings and equipment. Even slow-moving water can severely damage floors, walls, furniture, electrical components, and irrigation equipment. Damage from saline water is especially problematic because salt is corrosive to metal. Other structural damage associated with flooding includes the toppling of trees, collapsing or weakening of bridges, erosion of turf areas, and damage to bunkers and cart paths. Often this damage is coupled with the deposition of large amounts of flood debris. Where power lines and transformers are underground, power outages caused by flooding can delay cleanup and complicate recovery efforts.

Agronomic Damage Associated With Flooding: Removing silt, sand, rock, sticks, leaves, trash, and even fish from turf areas is the first step of repairing a golf course after a flood. If flooding occurs during the growing season, debris removal enables plants to receive necessary sunlight. Debris removal is also critically important for enabling the safe movement of people and equipment while they perform repair and maintenance activities. After any large-scale cleanup work has been completed, additional cultivation will likely be needed to address silt that may have been deposited on playing surfaces. If a silt layer is not addressed, it can reduce infiltration and porosity within the upper rootzone. Yellowing and, in some cases, death of leaf tissue can occur from reduced photosynthesis when plants are underwater or covered with silt and mud for extended periods of time. When soils stay saturated, anaerobic conditions prevent turf root cells from receiving necessary oxygen.





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Waterlogged soils are also prone to tire rutting that can damage turf and compromise soil structure while creating an aesthetic eyesore.

Floodwaters can also contaminate soils with harmful chemicals or salts that can create chronic problems for turf. Such issues may take weeks or months to fully correct. Additional longterm concerns include increased pest pressure from insects, weeds, and diseases that take advantage of weakened, stressed turf following a flood.

PREPARING FOR FLOODS

Maps and Planning: It is imperative to identify flood-prone areas on the golf course to prioritize where action will be needed. The FEMA Flood Map Service Center provides floodplain maps that can be compared with maps created by architects and builders to better understand where water accumulation can be expected.

Preparing for Water Movement, Diversion, and Collection: During a flood, sand bags and barriers can help divert water to drains. Drains should be checked and cleared prior to any weather that could result in floods to ensure quick and thorough drainage. Depending on the age of installed drain lines and the type of debris that may be present, clearing drains could take weeks and should be done sooner rather than later. Right before a flood, mark drain openings with tall stakes for easy location should they become clogged underwater or consider temporarily removing drainage grates to minimize blockage. Rapid drainage will not only facilitate drying and decrease downtime, it also helps reduce the risk of diseases and other issues associated with waterlogged soil.

Many golf courses rely on retention ponds to collect runoff for irrigation. Periodic dredging to remove silt and debris from retention ponds is an important management practice to maintain sufficient holding capacity. Immediately prior to flooding, pumping water from ponds and lakes can also help them accommodate excess water and minimize the risk of overflow.

Agronomic Preparations: Flood duration, temperatures, sun-

light intensity, and the amount of silt deposited are a few key factors that influence the severity of turf damage caused by flooding. The first step in flood preparation is choosing an appropriate turf species. Each turf species varies in its flood tolerance. If a golf course is adjacent to salt or brackish water, salt-tolerant turf species such as seashore paspalum or bermudagrass should be considered. For northern climates, creeping bentgrass is more flood tolerant than tall fescue or Kentucky bluegrass, while Poa annua and perennial ryegrass are least tolerant of flooding.

Equipment for monitoring salinity levels is a must for golf courses with irrigation reservoirs that could be contaminated with salt water. Start recording salinity levels before a flood to establish baseline values for irrigation sources that can be compared with post-flood values. The article "Interpreting Turfgrass Irrigation Water Test Results," is a helpful guide. If soluble salts are a concern, it is recommended to have ample supplies of gypsum available to use in conjunction with flushing once floodwaters recede. Like flood tolerance, turf species also vary in their tolerance of salt.

If discoloration can be tolerated, certain plant growth regulators such as trinexapac-ethyl can be applied at a high rate before a flood. High rates of growth regulator significantly slow turf growth and respiration, giving flooded areas ample time to fully dry out before mowing is required and freeing up labor for more critical cleanup tasks. Waiting to mow until flooded areas are fully dry also reduces the risk of damaging wet, muddy areas with mowers.

Wet conditions can be prolonged after a flood if internal drainage is an issue. Cleaning out clogged drainage lines to facilitate water movement through and out of putting greens is especially imperative. Some diseases such as Pythium root rot are exacerbated by extended periods of waterlogged conditions. Most fungicides labeled for root diseases recommend irrigation after application to facilitate fungicide delivery to the roots. If the soil is saturated, it will be impossible to perform this task. For this reason, it is far easier and more effective to apply fungicides labeled for root diseases in a preventive manner before flooding.



Widespread flooding can impact all areas of a golf course, requiring an extensive cleanup effort and lengthy recovery time.



Bunkers that are submerged by floodwater can erode and collect silt and debris.

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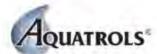


















Heavy equipment may be required to unearth buried turf from the soil deposited by a flood.

Many bunkers also have internal drainage systems. Ensure that these drains are cleared and functioning prior to a potential flood. When bunkers are designed so that surface water moves around them rather than into them, flooding can be less of an issue. Maintaining Maintaining a healthy stand of turf along bunker perimeters can help reduce the risk of collapse and soil erosion during a flood. Even with properly designed and functioning bunkers, having a stockpile of extra sand onsite prior to a forecast flood is recommended to expedite possible repairs.

Irrigation Systems: Modern putting greens, such as those built according to USGA recommendations, are designed and constructed to readily drain. As such, even after heavy rainfall events, putting greens may require regular irrigation to stimulate growth and recovery. Access to water following a flood is also critical to wash away debris. Large, mobile water tanks that can be shuttled from one green to the next are extremely helpful if a storm or flood has rendered the irrigation system inoperable. Access to a large temporary generator that can power an entire irrigation system may be needed if electrical service is unavailable for an extended period.

Immediately prior to flooding, all irrigation system satellites, control boxes, pumps, and variable frequency drives should be powered down and, if possible, moved to a secure location. In areas that have flooded in the past, consider permanently relocating vulnerable components to higher ground or mounting them on concrete pedestals above historical flood levels. Having spare controllers and irrigation heads on hand can facilitate quick re placement after a flood.

Equipment, Materials, and tructural Preparations: The most important flood preparation is to collect and move all valuable electronics, equipment, and documents far away from areas most

likely to flood. Keep spare batteries and items important for communication close at hand. Move large equipment such as carts and mowers to high ground where possible. Plant protectants and fertilizers should be secured in areas that are safe from flooding and rainfall to prevent off-site movement and contamination of adjacent areas or water bodies. Equipment should be greased and fueled prior to moving to high ground. Spare gasoline, oil, gas cans, chainsaws, trash pumps, and generators are essential. When preparing chainsaws, ensure all chains are sharpened along with backup chains.

Having access to a boat that can be used to move personnel and equipment to isolated areas of a golf course can be very helpful if floodwaters persist for several days. Shutting off power prior to flooding is also suggested to minimize potential damage to expensive electrical equipment from short circuiting or power surges.

Personnel: The resource most in demand following any storm is labor. If short on labor throughout the season, prior to a storm is a good time to contract with companies that supply temporary labor. It is important to remember that existing staff and their families may be affected if a storm or flood is catastrophic. Following Hurricane Matthew in 2016, power was out for weeks, and some golf courses supplied temporary housing for staff and their families.

Keep in mind that floodwater is a potential health hazard, so check with the local health department to determine if staff will require any immunizations or booster shots for tetanus, hepatitis, or other diseases before they spend time working in floodwater. The Centers for Disease Control and Prevention publishes recommendations for the safe handling of floodwater after a disaster or emergency.

Strategies to Lessen Flood Damage and Promote a Speedy Recovery

Short-term tactics Long-term tactics

(1-3 days before a flood) (3-6 months before a flood)

Drainage Mark surface drains with Improve surface drainage

a stake so they can be and add subsurface easily located and drainage in low-lying

cleaned of debris areas

Bunkers Collect and store rakes Stockpile extra sand, that could float away gravel, and drain lines

Salt management Acquire and apply Record and establish

gypsum and flush baseline salinity for soil and irrigation water

Turf Apply a high rate of Research and plant

plant growth regulator the best-adapted turf and preventative for your region

fungicides

Water retention ponds Lower water levels Dredge ponds to increase

in advance of excess holding capacity and

precipitation reinforce embankments

Equipment Move equipment to Have properly working

high ground and reserve chainsaws, trash pumps, needed equipment such blowers, squeegees, and

as generators mowers that can cut

high turf

Labor Secure contractors Communicate proper

well ahead of time to training procedures assist with cleanup and to employees

rebuilding efforts

Insurance Take pictures and video Investigate coverage limits,

to properly document deductibles and exceptions,

before and after and secure appropriate

conditions policies

Power down equipment Acquire large, mobile and remove satellites water tank(s) that can be used to irrigate turf

Irrigation system



Areas adjacent to creeks and streams may need reinforcement to minimize the risk of future flood damage.

Insurance, Attorneys, and Retainer Contracts: It is often said that the worst time to realize you need insurance is after a storm, so review insurance policies to determine if additional coverage is needed before severe weather hits. It is a good idea to seek the advice of an attorney, especially one who is familiar with insurance terminology, policies, and contracts. Stay in contact with the attorney and, if need be, consider paying a retainer to ensure that he or she is readily available in the event of need after a flood.

Companies that provide cleanup work — whether they are contractors, tree removal services, or equipment suppliers — typically offer right of first refusal contracts. These contracts vary, but they essentially obligate a company to provide you with their services if and when needed before accepting other work. These types of contracts can be invaluable following a widespread flood when these companies will be in high demand. Contracts with right-of-first-refusal clauses and retainer fees are ways to ensure that you get the help and equipment you need as soon as possible; they essentially put at the top of the list.

CLOSING COMMENTS

When it comes to golf course management, perhaps the guiding axiom should be "an ounce of prevention is worth a ton of cure." Unfortunately, it is not easy to prevent or minimize every risk associated with flooding. Preparing well in advance, in addition to having an emergency plan for quick implementation, can reduce

costly damage and lead to a quick reopening after a flood. It is also important to communicate with golfers about the time needed to prepare for and recover from floods. While above-ground damage will certainly be obvious, the less-apparent agronomic concerns will require more time to fully correct. Rushing to reopen a golf course to cart traffic before flooded areas are dry and fully recovered can often cause as much damage as the flood itself.







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WANDERING MUSINGS

Settling In

By Jake Schneider, Homemaker, Norway

y byline is continuously evolvling these days, and it's safe to say that the current version isn't one that I ever imagined having. First off, I had been working a paid job rather consistently since a few days prior to my 16th birthday, and prior to officially being on the tax rolls, I was paid—mostly in food and shelter-by doing some rather menial tasks around the farm such as picking stones, helping my old man with the calves, and most importantly, managing the cat herd. By most Wisconsin farm standards, I must acknowledge that it was a fairly cushy existence. Now, it seems as if life has made a 360, and I'm back to being paid in food, shelter, and monthly trips throughout Europe. Again, it's safe to say that the situation isn't exactly dire, but it has taken some getting used to.

First and foremost, there are few things that I generally disdain more than cooking as it has always seemed like a significant amount of work for little payout. When we were in Madison, Melissa did the vast majority of the cooking, but that arrangement was more justified as I was also working full-time and usually spending significant time training for one endurance event or another. Plus,

I took care of the grocery shopping, dishes, and most of the cleaning, and as someone with borderline OCD tendencies regarding things being neat and orderly, keeping a tidy home has always been strangely satisfying. But, given that I'm on the unemployment rolls for the foreseeable future, it only makes sense that I also handle the nightly food preparation duties. While it's only been three weeks, my culinary skills haven't been abysmal so far; I still have some work to do in the flavor enhancement category, though.

Aside from the house-duty assignment changes, it seems as if my acclimation is getting better by the week. The first several days were rough on the system as I spanned seven time zones from Denver to Trondheim by way of Minneapolis and Amsterdam over a rather long travel day during which I was awake for about 31 hours with a few unrefreshing, headbobbing airplane naps thrown in. Upon arrival, we dropped off our luggage in the apartment and went to our first Norwegian class that started 15 minutes after we landed, and there's nothing quite like starting to learn a foreign language while completely exhausted. But, alas, I again survived, and after three or four terrible nights of sleep, my body got back on track and have settled into a new daily routine after two months without structure (I like structure).

Although this is my first time making a significant move since taking the trek from Hilbert to Madison, it seems as if I'm settling in quite well, and unlike my first month in Madison as an 18-year-old, I don't want to move home. Aside from differences in weather and daylength, Trondheim and Madison have similar vibes in that they are well-educated, mid-size cities that are culturally driven by large universities and surrounded by water (a little too much water in Madison this summer). Some of the significant differences that I've noticed thus far are that:

- There's much less traffic here, and the highest volumes occur at 3:30 when people leave work after 8 hours of work. The work-to-live vibe is strong here, and one that I happen to strongly agree with.
- Almost nothing is open on Sunday because this, naturally, is the day for hiking or, depending on the season, crosscountry skiing. Again, no disagreements from this guy.



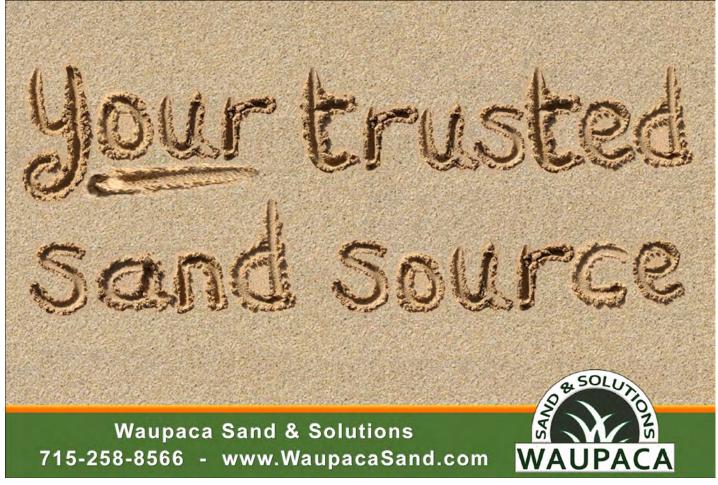
WANDERING MUSINGS



Melissa took this incredible picture of the Geirangerfjord, considered one of the most spectacular sights in Noway. It offers a mix of deep blue water, snow covered mountain peaks, waterfalls and lush vegetation.

- It seems as if everyone is middle class, and thanks to the structure of their taxation system, almost everyone is. I've put on quite a few running miles through various parts of the city and have yet to find one that I would consider to be significantly better or worse than others.
- Most everything is quite efficient, but the banks and toilets are not. First the latter—the toilets use approximately 10 gallons of water to accomplish their sole duty fifty percent of the time (maybe things are more buoyant at 63 degrees North). We could use some Kohler products over here. And now the former—Melissa has been here for about three months, and we still don't have a Norwegian bank account. Let's just say that the process could use some improvement especially considering that things such as paying rent, getting a cell phone, and joining a gym are tied to having a Norwegian bank account. So, just like in America, banks and toilets are of the same class.
- The kids aren't soft. There's a daycare outside our apartment, and when I left this afternoon, the kids were playing outside despite it being 50 degrees and raining steadily. Another peculiar thing about the kids here is that it's not uncommon to see an unaccompanied, sleeping baby in a stroller outside a store or restaurant. Apparently, the general population shares my wonder in why anyone would ever steal a baby as they are quite literally the least practical beings around.

With that segue, I have to run to the liquor store where microbrews are only sold in single bottles and cost the same as a twelve pack of Hamms; someone get me out of this hell hole.



TURFGRASS DIAGNOSTIC LAB

White Leaf: What Is Going On?

By Kurt Hockemeyer, Turfgrass Diagnostic Lab Manager, O.J. Noer Turfgrass Research and Education Facility

ost of the summer research has Lbeen finished and reports have been posted online. It finally seems like we may have turned a corner with fall weather finally arriving. The number of samples coming into the lab have dropped, which means stressful conditions are mostly behind us. Then we start to get some phone calls and emails about some turf turning white (Figures 1 and 2). Those of us familiar with the turf industry would associate white leaves with an application of Tenacity herbicide, but no Tenacity has been applied. It occurs sporadically in small spots. It occurs on both creeping bentgrass and annual bluegrass. What is going on?

This might sound quite alarming to you, but the reality is that this issue seems to be purely cosmetic. Sporadic leaf whitening appears, seemingly without rhyme or reason. Then disappears just as quickly, with no evidence that it was even there. From a scientific perspective, we know almost nothing about this issue. The sporadic and transient nature of white leaf makes it almost impossible to research. By the time a research study is initiated, the symptoms have subsided.

What we do know is that this issue is likely caused by a mollicute. Mollicutes are bacteria-like organisms without a cell wall. According to the Compendium of Turfgrass Diseases, these organisms cause diseases of grasses used for forage. So it is not entirely surprising to see these organisms also affecting turfgrasses. Most diagnostic laboratories don't have powerful enough microscopes to observe these organisms and therefore cannot confirm their presence like other pathogenic organisms. Mollicutes appear to be transmitted via insect vectors such as leafhoppers. The organisms live the phloem cells of plants and cause the infected leaves to lose chlorophyll. The mollicutes do not appear to infect whole plants, rather only a small part of the overall plant. Control measures are poorly understood, and are rarely needed anyways. A little patience should go a long way towards this issue clearing up on its own. From my experience, this issue does not show up until later in the year. I don't know of any instances of this issue appearing in more northern climes. The belief is that these leafhoppers have to be blown up from the south every year, which might explain why it does not show up until later in the year.

So to sum up, this issue is not something that turf managers should be overly concerned with in my opinion. It shows up quickly, and goes away just as quick. These organisms are difficult to identify and difficult to research. Please let us or other researchers know if you see this abnormality appear somewhere. The more information we can collect the better we can understand what is going on.



TURFGRASS DIAGNOSTIC LAB



Turfgrass Diagnostic Lab
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Fax: 845-8162

Figure 1. A creeping bentgrass putting green was exhibiting these white leaves. This is thought to be caused by a bacteria-like organism and goes away within a couple of weeks.



Figure 2. Close-up of individual leaves turning white.



WISCONSIN SOILS REPORT

A New Option for Turfgrass Science Education at UW-Madison

By Dr. Doug Soldat, Department of Soil Science, University of Wisconsin - Madison

2019 will mark the 60th anniversary of the conversation between O.J. Noer and Dr. L.E. Engelbert, which resulted in the founding for the Turf and Grounds Maintenance Specialization in Soil Science. That program, which produced its first two graduates in 1964, has been the academic training grounds for a small but steady stream of turfgrass managers who've gone on to do great work in Wisconsin and beyond. The small numbers of students in the program relative to others was designed to match (not exceed) the demand of turf related job openings in Wisconsin, and the program has typically graduated four or five students a year. However, because of recent changes in the job market, the cost of education, and the economy in general, the enrollment in the program has declined to the point where it has been consistently unable to meet demand. Job searches are going unfilled, and internship offers pile up with fewer and fewer students to accept them.

Because of the very close relationship between the Wisconsin turfgrass industry and the University of Wisconsin, the University felt obligated to try something new. In the fall of 2019, students interested in learning about turfgrass management will have the opportunity to do that through the UW-Madison's Farm and Industry Short Course. The Farm and Industry Short Course is a historic program that has been going strong in the

College of Agricultural and Life Sciences for over 130 years. In 1885, the Board of Regents accepted the recommendation that "a shorter course for the winter months confined to the term of two years, would be more popular and appropriate" for the education of farmers. The program was taught by UW faculty like F.H. King, Stephen Babcock, CALS Dean's Henry and Russell, who all have buildings or malls named after them on campus today. When thinking about how to expand our turfgrass program, we wanted to find a way to educate students in a compressed period, but without compromising the quality of the instructors or the content. We felt the Farm and Industry Short Course would be the ideal place to try this new idea.

The Farm and Industry Short Course is in session over two 8-week periods (early-October through mid-December) and (mid-January through mid-March). This timing works well for prospective students who already work in the turf industry and want to combine their work experience with their Short Course education. We are hoping to draw students from three main areas: 1) high school graduates interested in a career in turfgrass management, but without the means or desire to complete a four-year degree, 2) working turfgrass professionals interested in a certificate for career advancement, and 3) students that have earned a degree in a different field, but wish to switch careers.

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WISCONSIN SOILS REPORT



Upon completion, the credential will not be a bachelor's or an associate's degree, but rather two certificates. The first certificate (earned in year 1) will be called the Foundations of Turfgrass Management, the second certificate (earned in year 2) will be the Professional Turfgrass Management Certificate. The two certificates are designed to be taken sequentially. Students must complete the Foundations certificate in order to enroll in the Professional Turfgrass Management Certificate.

The Farm and Industry Short Course offers over 40 courses taught by 25 faculty and staff at UW-Madison, all highly regarded in their fields. The faculty teaching the turfgrass courses will be myself and Dr. Paul Koch. While actual schedules will vary from student to student, here is a sample of the course work for the two certificates:

Year One Foundations of Turfgrass Management

Introduction to Soils (2 cr.)

Agribusiness Communications (2 cr.)

Plant Science (2 cr.)

Agricultural Safety (1 cr.)

Weather and Climate (1 cr.)

Business Principles (1 cr.)

Agricultural Human Resources Management (1 cr.)

Turfgrass Management (2 cr.)

+ Electives

Total: 12 or more credits

Year Two

Professional Turfgrass Management

Turfgrass Nutrient Management (2 cr.)

Precision Agriculture (2 cr.)

Turfgrass Irrigation and Drainage (1 cr.)

Farm Power (2 cr.)

Safe and Effective Use of Pesticides (1 cr.)

Turfgrass Integrated Pest Management (2 cr.)

+ Electives

As the program grows, we will be able to add more courses to suit the needs of our students. That said, we feel this is a solid start. While I am not able to quote exact costs for this article, the

cost of the program will be significantly lower than the cost of attending UW-Madison's normal turfgrass management program. In-state tuition for each certificate will be less than \$5,000. Students can choose to stay in the dorms for the 16-week period for about \$3,000 a year. Thanks to the overwhelming support of the turfgrass and agricultural industries, over \$140,000 in scholarTotal: 12 or more credits

ships are available (some earmarked for turfgrass students only), which will lower the total cost of the education significantly for award recipients.

We are very excited about this new direction but without strong enrollment, it may not be around long. Please help get the word out. Any student interested in enrolling in Fall of 2019 can start by visiting the Farm and Industry Short Course Web Site at www. fisc.cals.wisc.edu and/or contacting me at djsoldat@wisc.edu. The enrollment deadline for the fall semester is August 1, 2019.

LAUGHTER ON THE LINKS

A golfer standing on a tee overlooking a river sees a couple of fishermen and says to his partner, "Look at those two idiots fishing in the rain."

I was playing with this 85-year-old man recently on a course that I was unfamiliar with. On the third hole, I asked him what's the best part of the fairway to be on, and he replied, "the top."





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North Shore Golf Club Hosts 98th Wisconsin State Open

By David A. Brandenburg, Editor, The Grass Roots

North Shore Golf Club in Menasha played host to the 98th Morgan Stanley Wisconsin State Open August 20-22.

The State Open is played over 72 holes with the low 60 and ties playing the final 36 holes on the final day. Sun Prarie's Dan Woltman won his third Wisconsin State Open Championship with final day rounds of 69 and 67 to win by 5 shots. He had also topped the field in the 2007 and 2009 events. His 3 victories go with 2 second place and 2 third place finishes over the past 10 years.

River Falls Garrett Loomis took second place and 36 hole leader Joe Du Chateau of Fond du Lac tied for third with Thomas Burton and Nick Nelson both of Milwaukee. Nelson had won the State Amateur at North Shore in 2016.

Certified Golf Course Superintendent Scott Schaller and his staff had the course in incredible condition for the tournament. Schaller has been at the club since 1996 after serving South Hills Golf and Country Club. Surprisingly for many of us Schaller announced his retirement from North Shore effective the end of the season. He is definitely going out on top.

In 2001 architect Bruce Hepner of Renaissance Golf Designs was hired to restore the course to its original 1930 Leonard Macomber design. Bunkers were redone and many of the greens had short cut run off areas added and enhanced. The run offs give the players options to chip, putt or pitch the ball to get close to the pin on the slick greens.

In 2019 the State Open will be hosted at Geneva National over the Palmer and Trevino courses followed by Blue Mound G&CC in 2020.

2018 WPGA State Open Championship Qualifing Sites

Majestic Oaks GC, Delevan
Eau Claire, G&CC, Eau Claire
Trappers Turn GC, Wisconsin Dells
Washington County GC, Hartford
Nakoma GC, Madison
North Shore CC, Mequon
Ridgeway CC, Neenah



Mom kept a close eye on me while the kids enjoyed some grass for supper near the 9th tee.





Left: PGA of Wisconsin Executive Director Joe Stadler selects pin placements on the 7th hole.



Right: The Par-3 7th green shows how the run off areas can add to the challenge around the greens.



The first tee, 9th green with the clubhouse and patio in the center of the background and golf shop on the right. The entire area is set on the northern shores of Lake Winnebago.



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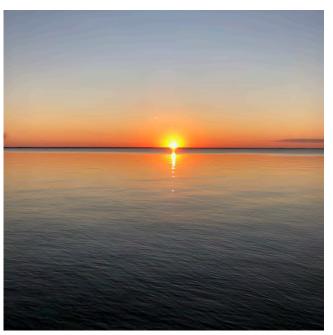
Extra Holes With Scott Schaller

(You can see Scott's answers to the regular Member 9 set of questions in the July / August, 2016 issue of The Grass Roots.)

- 1. What is the biggest change in golf course maintenance methods / conditioning in your career? There have been so many positive changes to golf course maintenance methods/conditioning in my career. It is hard to pick out just one, but if I have to, I would say that the conditioning of the putting greens surfaces. From triplex mowing and back to hand walking greens. Heights of cut have dropped significantly since 1982, while stimp meter readings have raised considerably. We had the addition of some good tools along the way. Greens Rollers, TGR's and most importantly the great turfgrass research which provided to us with new and improved turfgrass fungicides and studies done on cultural practices of putting greens.
- 2. What is the biggest change in golf course maintenance equipment in your career? Another good question, because there are so many areas to touch on. But I think golf course irrigation would be the biggest change for me. Back in 1980, I was working for my father at Idlewild GC. Myself and two of my high school buddies were the nightwatermen. Back then it was all quick coupler systems and today some golf course have installed wall to wall irrigation systems. It seems a little crazy, but having the complete control of water applications to your golf course is crucial. The technology of control systems, along with better irrigation heads has been the biggest change for me in golf course maintenance equipment.
- **3. Sunrises or sunsets?** *Sunsets, Especially on the Bay of Green Bay!*
- **4. Spring or fall?** *Fall and it is my favorite season of the year.*
- **5. Hobbies?** I don't have too many presently, but I know that I have a couple that I will soon pick up. Fishing, golfing and yard work. Yes, yard work because I have always had the worst conditioned yard in my neighborhood. Don't most superintendents have the same problem? I want to raise the bar with this and hopefully that will take care of my turfgrass fix.
- **6. Favorite pro golfer past or present?** *Tiger Woods. Golf was never better when he was great!*



Scott and Joan Schaller in Ireland at the Cliffs of Moher. The couple took thier first major in-season vacation ever in late August with a trip to Ireland and Italy. The Schallers enjoyed the natural beauty of the area and the kindness of the people they met.



A sunset from the Schaller home on the Bay of Green Bay.





Top Left: Approach and greensmowing on the 6th. A handy blower mount on the tri-plex.

Top Right: Detail work on the bunkers on hole 5.

Bottom: Fairway and approach mowing on the 6th.









Top Left: The par 3 4th green from 2 tee.

Top Right: Greensmowing on the 5th green.

Right: Looking back on the challenging par-4 2nd hole.

Bottom Left: The 10th green is well protected by deep bunkers.

Bottom Right: Detail work on the tee bank for hole 3.







WISCONSIN PATHOLOGY REPORT

Gray Leaf Spot Creeps Northward

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

The growing season is coming to an end across Wisconsin, and I don't think any of us are shedding a tear to see it go. Flooding rains and record stretches of high humidity led to widespread thinning turf and bruising battles with diseases we don't normally experience on a widespread scale in Wisconsin. Outbreaks of Pythium blight and Bipoalris leaf spot are normally isolated to a few select locales but were common across the region in 2018. One important disease that didn't quite make it into Wisconsin in 2018, but that knocked on the door and got as close as Chicago, was gray leaf spot.

The Disease

Gray leaf spot is a disease caused by the fungus Pyricularia grisea. It primarily affects perennial ryegrass and tall fescue, but can also impact fine fescues. Creeping bentgrass, Kentucky bluegrass, and annual bluegrass are not susceptible hosts for this disease. Of note, the fungus that causes gray leaf spot is an important pathogen of rice, causing the disease called rice blast that is one of the most destructive diseases of a major food crop.

Symptoms of gray leaf spot first appear as small, water-soaked lesions that can

resemble either early Pythium blight or Bipolaris leaf spot infections (Figure 1). The lesions progress and coalesce and if left unchecked eventually kill the entire plant. Plant stand symptoms begin as small patches of brown or tan turf that can resemble drought stress, dollar spot, or grub damage. But in optimal environmental conditions the symptoms can quickly spread into large, irregularly shaped areas of dead turf (Figure 2). Microscopic identification is straightforward since the fungus produces very unique spores that resemble small bowling pins (Figure 3).





WISCONSIN PATHOLOGY REPORT



Top Left: Figure 1. Lesions of gray leaf spot can start as small, water-soaked lesions but progress to bleached lesions with reddish-brown borders. Photo from NC State University (https://www.turffiles.ncsu.edu/diseases-in-turf/gray-leaf-spot-in-turf/)

Top Right: Figure 2. Gray leaf spot damage can spread quickly on perennial ryegrass and tall fescue and resemble drought or grub damage. This picture from Rutgers University (https://plant-pest-advisory.rutgers.edu/touch-of-gray/) show the damage that can occur on perennial ryegrass not preventatively treated with a fungicide.

Right: Figure 3. Gray leaf spot spores from an athletic field in Chicago submitted to the Turfgrass Diagnostic Lab in August of 2018. Microscopic identification of gray leaf spot is simple and straightforward due to the unique shape of the spores.









WISCONSIN PATHOLOGY REPORT

Optimal conditions for gray leaf spot development are daytime temperatures between 82 and 90°F with high humidity and lots of available moisture. Fast-release nitrogen applications during optimal disease conditions can enhance gray leaf spot development, and higher cut turf found on golf course roughs is often more susceptible to disease than shorter cut turf on fairways. Other abiotic conditions including drought, soil compaction, traffic and others that stress the plant also increase disease severity.

Why is the disease moving north?

When I first started at the TDL back in 2005 I was told that gray leaf spot never occurs north of central Illinois. We have received samples at the TDL containing gray leaf spot from central Illinois, southern Indiana, Missouri, and Nevada. That changed in August of 2018 when we received a gray leaf spot sample from an athletic field on the south side of Chicago and another from a ryegrass fairway on the west side of Chicago the first week of September.

This is the furthest north, and closest to Wisconsin, that we had ever observed this disease. The summer of 2018 was exceptionally warm and humid, but warmer and more humid regions are becoming a trend across the country. As this trend continues, and nighttime lows above 65°F become the norm rather than the exception, it's reasonable to expect gray leaf spot to continue marching northward and eventually cross the cheddar curtain into Wisconsin.

Controlling the Disease

As is the case with any disease, limiting abiotic stresses on the plant will limit gray leaf spot development. Limit drought and traffic stress, alleviate soil compaction through cultivation, and limit fast-release nitrogen applications during times of high heat and humidity. Prolonged leaf wetness increases disease so regular dew removal on fairways can help limit disease development.

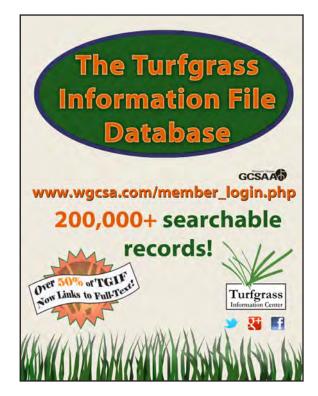
The most effective strategy to control gray leaf spot is to plant resistant species. Fairways and roughs where perennial ryegrass and tall fescue dominate can be susceptible to gray leaf spot, though typically tall fescue is more resistant to gray leaf spot than perennial ryegrass. Rough or lawn areas that contain mostly perennial ryegrass can be converted to resistant Kentucky bluegrass and (mostly) resistant fine fescues. Fairway areas that contain perennial ryegrass can be converted to creeping bentgrass or Kentucky bluegrass. Perennial ryegrass cultivars with gray leaf spot resistance have been developed at Rutgers University, and if gray leaf spot becomes common in Wisconsin then resistant cultivars of perennial ryegrass should be identified and planted whenever ryegrass is seeded.

Chemical control options also exist to manage gray leaf spot. Dr. Jim Kerns at NC State has identified products containing thiophanate-methyl as highly effective at controlling gray leaf spot, and surprisingly there has been very little gray leaf spot resistance to thiophanate-methyl observed in the field. QoI fungicides like Heritage and Insignia are also effective against gray leaf spot, though gray leaf spot resistance has been reported to both these products and may reduce the level of control. The UW Turf Management Mobile website can also be used to identify effective gray leaf spot fungicides. Simply go to the website (https://turfpests.wisc.edu/), click on the 'Turf Diseases' button, then check the 'Gray Leaf Spot' box and a list of ranked fungicides will appear. Preventative applications are required for effective control no matter which fungicide you choose.

Conclusion

Warmer and more humid summers will change the way Wisconsin superintendents manage their turf in several unpredictable ways. Diseases that we don't traditionally experience may become widespread in the near future as those 'St Louis summers' become more common in Wisconsin. At this point there is no need to develop gray leaf spot preventative management plans, but Kurt Hockemeyer and myself will monitor sample submissions and report any gray leaf spot samples that may continue to track north.





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Still Wet?

By David A. Brandenburg, Editor, The Grass Roots

Summer is becoming a distant memory as we enter the middle of the fall season and the amount of daylight quickly shortens. For much of our area it has remained wet and sloppy as crews prepare for winter and try to get some projects competed.

Speaking of projects please consider taking some pictures of your projects or ideas big and small and submit them for publication. Even if you do not want to write a article, a couple pictures and captions is all you need to educate your fellow superintendents.

The one benefit of being tied to a cell phone is the ability to take and share pictures of family, friends and the golf course industry.

Sadly, Sharon Risenbeck, Sales Manger for Waupaca Sand and Solutions for 14 years passed away September 4th at the age of 59. Sharon and her family lived in Illinois but we got to see her at trade shows and the Wee One Fundraiser at Pine Hills.

Sharon thought enough of the Wee One mission her family asked that memorial donations go to the cause in her obituary. Sharon is survived by her husband Michael and children Justin and Brittany.

Disappointedly the WTA Fall Golf Classic was rained out for the first time in history as too much rain fell in the Kenosha area and the forecast was for continued rain. Too late to reschedule for this year hopefully we can revisit the historic Kenosha Country Club in the future.

The Symentra Tour (The LPGA Developmental Tour) recently announced a second tour stop in Wisconsin in 2019. The Janesville Golf Classic will be held at Janesville Country Club Aug. 2-4. Janesville is considered the oldest club in Wisconsin and the 6th oldest in the nation. The event will also feature 30 LPGA Ledgends as part of the event.

The Symetra Tour also has the PHC Classic at Brown Deer Park Golf Club Aug. 6-11.



Event Schedule!

November 3 (Saturday) Couples Evening - Green Bay

Nov 28th - 29th - 53rd Golf Turf Symposium - American Club, Kohler

January 8, 2019 - Winter Turf Conference - Pyle Center, Madison

February 2-7, 2019 - Golf Industry Show and GCSAA Conference, San Diego Convention Center

February 27 - (Wednesday) Northern Great Lakes GCSA Educational Conference - The Waters in Minocqua

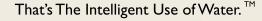
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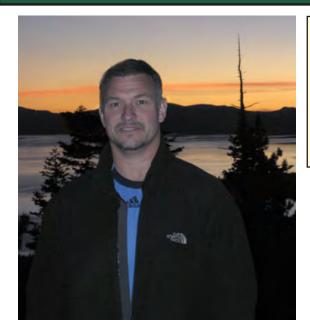
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Dr. Chris Williamson has joined the PBI Gordon research team after 20 years at UW-Madison as a Professor of Entomology. Chris was a regular contributor to The Grass Roots and a frequent speaker at our events. He was a excellent resource on Japanese Beetles, Beekeeping and the Emerald Ash Borer.

Chris received his bachelors from The Ohio State University and his Ph.D. from University of Kentucky. Good Luck Chris in this new endeavor.



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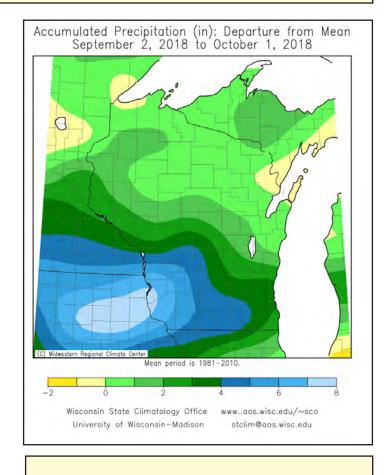
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Wetness continues for parts of the state as can be seen in this map from the Wisconsin State Climatology Office.



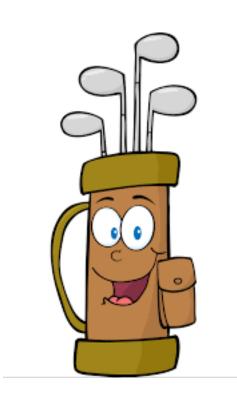
Craig Sondergaard and his wife Meagan welcomed Addie Mae into the world on July 28 at 8:18 pm. Addie weighed 8 lbs and 8 oz.

Craig is the assistant golf course superintendent at Racine Country Club and will be the superintendent when longtime member Mike Handrich retires in spring of 2019.









I had asked our member vendors for some member updates and as usual Mark Robel was first to respond with the following news along with sending the baby information for Craig Sondergaard on the previous page.

Grand Geneva hired an Assistant Superintendent for the Brute Course. His name is Kyle Nash. He came from New Mexico.

Chad Kirchen moved up from Assistant Superintendent to Superintendent at New Berlin Hills GC.

LaBelle GC in Oconomowoc was purchased recently by the Prestwick Group from Sussex. They are now completely renovating the property, putting a new golf course over the new and purchased additional land to re-route some holes. They have hired Jimmy Cavezza to be the Superintendent.

Scott Schaller announced his fall retirement from North Shore Country Club after 20 years and Dustin Riley has been announced as his replacement causing a vacancy at Occonomowoc Country Club.

Mike Handrich announced his spring 2019 retirement from Racine Country Club and Craig Sondergaard has been sleected to replace him after serving as assistant superintendent.

Thank you Mark and Steve Waser for passing along these changes but we really need you guys to toot your own horn and let myself or Brett Grams know what is going on in your lives.

It is hard to believe we are leaving the WGCSA golf meeting season and entering the education season. The Wisconsin Golf Turf Symposium is coming up November 28 and 29th. This years event is titled "Getting Back to The Basics" and features a great lineup of speakers including Dr. Frank Rossi, Dr. Rick Latin and our very own Dr. Paul Koch. Last year was the first time I stayed at The American Club for the night. All I can say is WOW, what a place. The room is incredible and I could have just lived in the shower

Then after the holidays the WTA Winter Turf Conference is held January 8th to offer both on site and webinar based education from the comfort of your office or home.

with it's multiple shower heads.

In early February the Golf Industry Show and GCSAA Educational Conference returns to beautiful San Diego and is quickly followed the WGCSA Assistants Seminar and Spring Business Meeting, NGLGCSA Symposium and the Reinders Show.

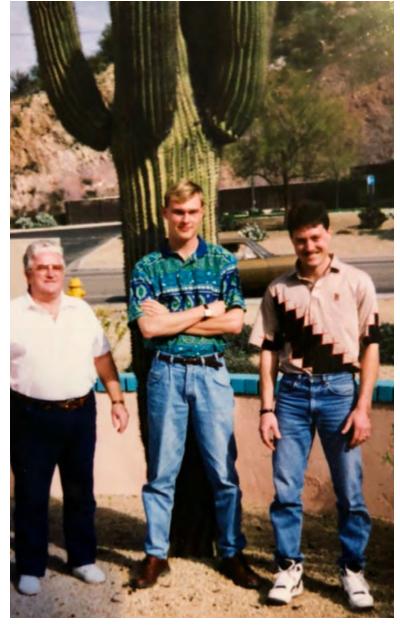
I wish you and your staffs good luck and we move into the fall season and what is hopefully a more relaxed time of turf care. For many aerfication is behind them and it become time to mow down native areas and prepare the turves for the winter season. Remember to take time to enjoy the colors and scents of fall!

New Members March 2 Through July 31, 2018

Roy Carlson, CEO, Lake & Pond Solutions
Jeremy Chmielewski, Superintendent, Greenwood Hills CC.
Brian Digise, Superintendent, The Beloit Club
Peter Dobbs, Grounds Member, Trempealeau Mountain GC
Kyle Dreger, Assistant Superintendent, The Club at Strawberry Creek
Nicholas Fisk, Superintendent, Turtleback Golf Course
Jesse Koeshall, Superintendent, Oliphant Golf
Douglas Lackey, Board Member, Oconomowoc Golf Club
Matthew Leinen, Superintendent, Big Foot CC
Greg Ramer, Market Development, Wacker Neuson
Gregg Schernecker, Account Manager, JW Turf
Brian Schuh, Assistant Superintendent Ridgeway CC
Danie Vater, Assistant Superintendent, Blue Mound Golf & CC
Josh Viet, Owner, Midwest Athletic Fields
Gram Weed, Assistant Superintendent, University Ridge Golf Course

This blast from the past was submitted by past WGCSA President Brian Zimmerman and features Ted Schulte, Derek Kastenschmidt and John Jensen.

At the time all three were working for Wisconsin Turf. Currently Ted is retired and the youthfull Derek and John now work for Reinders.



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BACK IN TIME

WGCSA GREEN SHEET

Official Publication of the Wisconsin Golf Course Superintendents Association, Inc. Volume 1, No. 4 October 1970

AUGUST - MILWAUKEE COUNTRY CLUB

John Stamphl was our host for the meeting August 10 at Milwaukee Cluntry Club. I am sure our membership greatly appreciated the use of the clubs very fine facilities. The meeting was among the finest we have had recently.

Roger Thomas, Sales Manager for Jacobsen Manufactruing Company, was our guest speaker. He was superb as always. His subject was PERSONAL RELATIONS. Roger reminded us that we could maintain good personal relations with our help by communicating clearly and keeping each persons "bucket of goodwill" as full as possible. It was a very interesting talk with something for all of us to think about.

SPECIAL - A film covering the Walker Cup Matches between the best British and the best American amateurs. The film, put together by the American Broadcasting Company, was made available through the courtesy of Milwaukee Country Club. Jim Latham, head of our educational committee, made an extra special effort to see that the film was shown. It was very interesting and a treat to all those present.

DINNER DANCE NOVEMBER 14 PIONEER HOTEL OSHKOSH PLAN TO COME SEPTEMBER - WAUSAU COUNTRY CLUB

Walt Stepanik was our host at Wausau Country Club, September 14. It was our annual tournament meeting. The weather only half cooperated, but the 43 golfers that made the trip and played were treated to a fine golf course and some beautiful views. Golf scores and calss winners will appear in the next issue.

Although no speaker was scheduled, we had a fine discussion with Gayle Worf, Extention Pathologist at the University of Wisconsin. Gayle discussed some of the problems we may be having with mercury (Hg) based fungicides. There has been a great deal of uproar over Hg in general this past year and golf courses, as users of Hg based fungicides, are being looked at as one of the contributers to the problem. He didn't know exactly where we stood, but he did know that the Department of Natural Recources (DNR) was studying the situation. More information should be available after a meeting on Hg to be held by the DNR in Madison on October 12. He promised to let us know how things develope.

However this thing turns out, it's nice to know that there are people at the University that are interested in our problems.

I am sure there is going to be much more information on the Hg problem and on other chemicals in the future.

PLAN TO COME - IT'S FUN FOR ALL!

BACK IN TIME

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OFFI CERS

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Editors Note: Correction

The last issue of the Green Sheet described a greens plotting board. An error was made in giving credit for the first board. Credit should have gone to Palmer Maples Jr., Charlotte C. C., Charlotte, N. C.. Thanks to Dr. Paul Alexander for calling this mistake to our attention. Our apologies to Palmer Maples Jr and to Henson Maples for the confusion.

WGCSA GREEN SHEET 5013 ACADEMY DRIVE MADISON, WISCONSIN 53716

HACKERS AND DUFFERS

79 golfers enjoyed a beautiful day on a beautiful golf course at Milwaukee Country Club. John Stamphl can be truely proud of his fine course.

Low gross was a 79 by Tom Burrows and the boggy winner was Vern Bare.
Other winners in the boggy were Roger Schultz, Ed Neitzel, Herb Hoopes, John Crewe, Bill Koontz, Gary Mulhollon, R. Eucher, Wayne Otto, Ted Payne, Tom Lees, Kelly Yarock, R. Bottensak, Cliff Decker, and Frank Musbach.

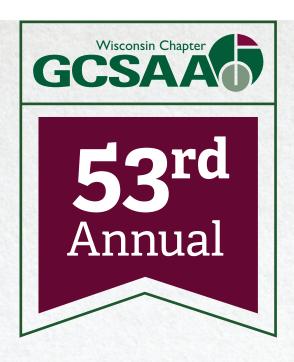
National members named Wayne Otto as delegate to the National Convention to be held in Denver, Colorado in February. Bill Eckert was named as alternate.

The members present at Wausau authorized a full page ad in The Golf Superintendent. The as will appear in the issue before the National Convention.

SOCIAL COMMITTEE - DINNER DANCE

Again this year the Dinner Dance will be held at the Pioneer Hotel in Oshkosh. The date is November 14. The \$20 per couple includes a Top Serloin dinner - 2 drinks - flowers for the gals and dancing.

Those members present voted to have the association pay for the band to play at the dance up to a cost of \$150.



WISCONSIN GOLF TURF SYMPOSIUM

NOVEMBER 28TH & 29TH | THE AMERICAN CLUB - KOHLER, WI

