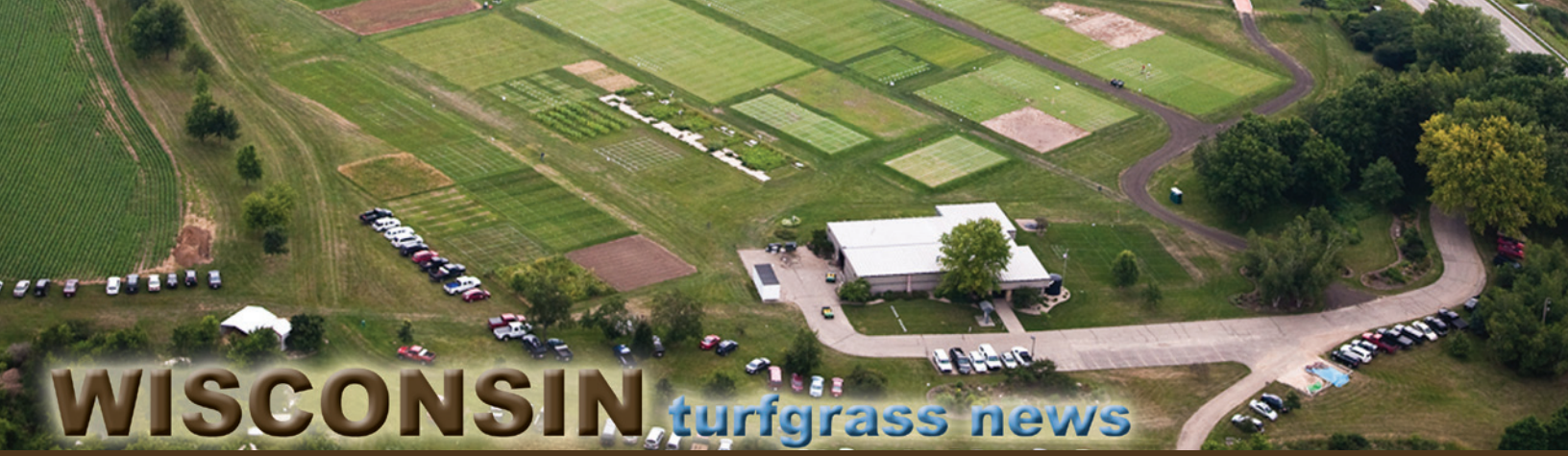

WISCONSIN turfgrass news

VOLUME XXXI, NO. 1 www.wisconsinturfgrassassociation.org SPRING 2017

Summer Field Day Registration page 12

How the WTA Came To Be

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

The Wisconsin Turfgrass Associations (WTA) was founded in 1982 to support turfgrass research at the University of Wisconsin-Madison. At that time there was a serious concern in the industry about a mystery disease affecting Kentucky bluegrass. Turf appeared healthy going into summer, then during the stress of summer, turfgrass would develop tan circles. This eventually led to serious decline. On sod fields this was becoming a major issue. The Wisconsin Sod Producers Association went to Dr. Gayle Worf, Turfgrass Plant Pathologist, with a proposal to fund research into the cause of these necrotic ring spots and find some answers.

To conduct research off site - the UW - Madison had no turf research facility - Dr. Worf was required to request a truck from the UW Fleet for the day, drive it to Russell Labs, load his equipment, drive to various sites, perform his work, return to Russell Labs, unload the truck then return the truck to fleet. It was a poor use of Dr. Worf's time and was insufficient. Due to the limitations of dealing with fleet there were times the research suffered because he could not get use of a truck when weather or timing required.

After a suggestion from CALS Dean Leo Walsh, a small group of dedicated turf professionals met and decided to form the WTA in late 1981 and the winter of 1982. Their mission was to support UW - Madison research by arranging the purchase of a truck and putting the WTA logo on it. Eventually the WTA funded all the expenses associated with the vehicle. This proved to be a very useful venture and had deep industry support. The truck and the research that Dr. Worf performed was a huge success and the WTA Board wanted to support the UW - Madison in more ways.

University Ridge was under pre-construction planning in 1984 and the WTA board discovered that the land donated to the UW - Madison to build University Ridge Golf Course was not going to be fully developed. The design left numerous areas undeveloped, so they approached the UW – Madison campus planning and the golf course committee with a proposal to develop a piece of the land into a turfgrass research facility.

Various turfgrass professionals met with Dean Walsh to propose building the turfgrass research facility. Dean Walsh recognized the need for such a facility and the potential of this public/private proposal from the WTA. The UW College of Agricultural and Life Sciences joined forces with the WTA to make this dream come true. That hurdle cleared, the WTA embarked on a herculean effort to raise funds to construct the O.J. Noer Turfgrass Research and Education Facility and develop the 27-acre property. In three years they raised the projected estimate of funds to begin the project. With assistance of too many people to mention here, the O.J. Noer Turfgrass Research & Education Facility was built on April 15, 1991.

The WTA did not rest on its laurels but used that momentum to raise funds to support turfgrass research at the UW - Madison. Since it inception it has raised and donated over 4 million dollars to UW Turfgrass Research Program.

Every year the Wisconsin Turfgrass Association hosts a Summer Field Day at the O.J. Noer Turfgrass Research Facility. Before construction of the O.J. Noer Facility, all research was conducted either in a lab or off campus on a turfgrass facility willing to allowing research to be conducted their property. Summer Field Day is dedicated to promoting the research being conducted by the professors, researchers and staff at the UW - Madison.

Every year on the last Tuesday of July over 300 turfgrass enthusiasts descend on the O.J. Noer Facility to interact with the current three turfgrass professors, engaged vendors, and other industry dignitaries for a look into the research being supported by the WTA. After announcements, the morning session offers brief tour stops with various UW - Madison personnel to get a first hand view of their research plots. During these stops research is explained and questions from the attendees are answered.

After the plot tours there is time to visit our dedicated vendor sponsors and your turfgrass peers. Lunch is served, and after lunch we conduct our golf course type research plot tours. As we move around the O.J. Noer Facility, the researcher for each plot describes the project and answers questions. It's a great opportunity to learn.

The day concludes around 3:00pm. This is a great way to see your peers and make new friends. Learn about new products, see new equipment and possibly demo that equipment and most of all support the industry that bring the new ideas and technologies to your everyday.

I hope to see many of you on Tuesday, July 25th at the WTA Summer Field Day this year.

The Wisconsin Turfgrass News is the official publication of the Wisconsin Turfgrass Association,
edited by Audra Anderson, O.J. Noer Turfgrass Research and Education Facility.

PRESIDENT'S MESSAGE

Don't Fall For It

By Paul Huggett

Spring is here. What a joyous time of the year. I enjoy seeing what spring will reveal to me in the woods; the hidden treasures that are covered by winters white blanket or summers underbrush tangle and mosquitoes. I do my futile morel mushroom hunt and deer shed search to no avail. All is not lost though when I see springs glory explode through the forest floors leaf laden soil in the form of a May Apple. Ever so slowly working its way skyward to garner the light before the oak and hickory's full canopy creates the May Apples demise.

Spring is a time to renew your commitment to your grass growing management and follow your own rules. Try the new and unproven while sticking with the tried and true. Springs rush of senses never seems to be dull or repeating. We smell the grass as we put our winter long maintenance mowers to their initial test. The sounds and smells never fail to excite and rejuvenate my senses of how lucky I am to be working in a career that gets to start over every year. Wisconsin's seasons, terrain and beauty are things I enjoy and don't take as ordinary.

Spring also creates a rush to the soul that puts me on a different level. I feel that I can do anything. There is a story to go with this feeling.

In my spring exuberance, I rushed too fast and got myself in trouble. I had an employee show up early this season. The early weather was cold and snowy so I decided to work on the barn we have been patiently putting up over the past 9 years. The day was Friday, March 17th, St Patty's Day. Obviously, I am not Irish as luck was not on my side that day. Cris my helper and latter to find out savior, was helping me finish setting logs. We had set 6 the day before with only 7 to go. I thought it would be an easy start to the day. We lifted the logs up to the height of the 10' loft using the forklift. We then placed the logs using two ladders on either end to slide the log into place by hand.

I always tell my employees be careful, especially on Fridays. All of our accidents seem to happen on Friday. On Fridays we quit an hour early, no chain saws, gutter cleaning or anything to do with heights. Spring excitement got the best of me that day and I didn't follow my own rules. I am sure you have read enough detail to put the story together. Yes, I fell off the ladder. The ladder went one way and I went the other. I fell only 5 feet but in my heroics to "save" myself, my arm struck first with all my well-earned winter weight following. I landed on my side and looked up to see a teetering log being held by my "savior" Cris who calmly said, "I'd come help you but I don't think you want me to let go of this log right now." The log was on a potential path to add insult to injury as I lay assessing the damage to my out of shape winter body. Cris smartly took off his belt to secure the log and came down to my aid. I could barely move my arm well at that point but he said I think you broke your arm.

The trip to the clinic confirmed the break to my radius. Surgery the following Wednesday put in a t-plate and screws. Once the initial pain subsided it was interesting to learn all kinds of tricks to work with only one arm, my less dominant no doubt. I enjoyed trying to figure out how to tie my shoes, put toothpaste on my tooth brush and button my pants with one hand. My wife prefers to refer to my creativity and resourcefulness as me being a stubborn and independent farmer. I never doubt my wife's judgement so she must be right. I am currently 4 weeks from the fall and miraculously typing this message with two hands and no cast. What an amazing repair they did. I am lucky but still not Irish.

My president's message is be careful and follow your own rules in the rush of this glorious spring season.

Spring 2017 Update

By Kurt Hockemeyer, Turfgrass Diagnostic Lab Manager, University of Wisconsin-Madison

As the plant kingdom starts to wake from its long winter slumber, the Turfgrass Diagnostic Lab must dust off the microscopes, plug in the light sources, and defrag the computer hard drives because samples are starting to roll in regularly. Another relatively tame winter has most people breathing a sigh of relief that turf has survived.

I received a couple samples where golf courses suspected snow mold damage, but a lack of any signs of fungi resulted in a diagnosis of abiotic winter injury. Nothing too drastic but some plants were looking very brown. Again this year, the TDL saw some turf (not from Wisconsin) that had some very early PGR applications followed by cold conditions which resulted in some bentgrass injury. Not severe damage but enough to make a superintendent worry.

Most of my samples have been from homeowners concerned about winter damage. I've seen some gray snow mold and just browned out grass from the cold dry winds. Other homeowners have been concerned about some kind of weed they see in their yard. Creeping bentgrass can really standout during the winter months in a home lawn. Moss really starts much earlier than the turfgrasses and I've talked with a couple homeowners about taking care of moss in their yard. That's about all I've seen in terms of diagnostic samples.

We just wrapped up the 2017 UW Snow Mold Field Day in Wausau, WI. There was moderate disease pressure at the experimental site in Wausau. Therefore you could see some of the fungicide treatments break down. Everyone seemed to be pleased with the event and I'm glad my first snow mold field day went off without a hitch. .

The call for summer disease research trials has been put out and soon I'll be dealing with organizing the requests for trials and making sure everything starts on time. As usual we will have several different dollar spot trials: early season dollar spot control, curative control, fairways, greens, and maybe more. We may have a Pythium control trial after not having one last year. Usually there is a brown patch trial and an anthracnose trial. New for this year I am trying to start a summer patch research trial. Summer patch is a little bit different than any of the diseases I've mentioned above in that it is a root infecting disease. This makes it a little bit harder to inoculate and build up a pathogen population in the environment. We have a good inoculation protocol in place and hopefully we can see some symptom expression this year. I think adding summer patch to our research repertoire will add another interesting layer to our summer fungicide trials.

I want to thank everyone who has congratulated me and wished me well in my new position as TDL Manager. I'm looking forward to the opportunity to serve the industry. I also want to wish all the turf managers good luck this growing season and hopefully it's an easy one.

Creating Growing Degree Day Models for Six Commonly Used Plant Growth Regulators

By Doug Soldat, Ph.D, and Benjamin Henke, Soils Department, University of Wisconsin-Madison

Previous research at UW demonstrated that growing degree day models can predict the performance of the plant growth regulator (PGR) trinexapac-ethyl (i.e. Primo Maxx). These models are effective because metabolism or degradation of PGRs is directly related to air temperature. Relative clipping yield of turfgrasses treated with trinexapac-ethyl followed a sinewave model with a period of growth suppression followed by a period of growth enhancement, hereafter called rebound, with respect to non-treated cool-season putting greens. A recent poll found that nearly 50% of turf managers using PRGs now use Growing Degree Day (GDD) models to apply PGRs to their turfgrass despite the lack of GDD models for other anti-gibberellin PGRs.

The objectives of this research were to 1) determine if GDD models could predict performance of other PGRs, 2) investigate the impact application rate on PGR performance, and 3) determine optimum GDD re-application intervals for each PGR on bentgrass fairways and Kentucky bluegrass at a relatively low mowing height.

Materials and Methods

Field research was conducted on creeping bentgrass (*Agrostis stolonifera*) plots maintained at 0.5 inches and Kentucky bluegrass (*Poa pratensis*) plots maintained at 1 inch during the summer of 2016 at the O.J. Noer Turfgrass Research and Education Facility in Verona, WI. Irrigation was applied twice a week to supplement water loss from evapotranspiration. Plots were mowed twice a week. The bentgrass fairway was fertilized approximately monthly with 0.2 lbs N/1000 sq.ft. as urea and 0.1 lbs P2O5/1000 sq.ft. as phosphoric acid. The Kentucky bluegrass was fertilized using 2.0 lbs N/1000 sq.ft as polymer coated urea in May 2016, no other applications during the season.

Plots arranged in a randomized complete block design with three replications for each treatment. Treatments consisted of the recommended low and high rates on the label for six different plant growth regulator products, and a non-treated control. Table 1 shows the exact products and rates used in this study. Applications were made June 3rd, July 6th, and August 6th. Each application was applied to a previously non-treated area observe long term effects of the PGRs as they relate to GDD. Cumulative GDD was calculated by summing the daily mean average air temperature, in Celsius, with a base 0o C following the application date.

Products were applied using a CO2-powered backpack sprayer calibrated to 2.0 gal/1000 ft2 at 40 psi equipped with a TeeJet XR 11004 nozzles. Clippings were collected once a week, washed of any debris, dried for 48 hours, and then weighed. We then calculated how the PGRs influenced growth by comparing the treated plots to the control. This was done by dividing the clipping mass of the treated plots by the clipping mass of the control plots, this calculation gives

Continued on page 5

Table 1: Active ingredients and the application rate for each product tested.

Plant Growth Regulator	Active Ingredients	Creeping bentgrass Fairway Rates oz/A	Kentucky Bluegrass Fairway Rates oz/A
Anuew	prohexadione-calcium	7	15
Anuew	prohexadione-calcium	15	24
Cutless MEC	flurprimidol	25	25
Cutless MEC	flurprimidol	49	49
Legacy	flurprimidol trinexapac-ethyl	10	10
Legacy	flurprimidol trinexapac-ethyl	20	30
Musketeer	flurprimidol paclobutrazol trinexapac-ethyl	18	18
Musketeer	flurprimidol paclobutrazol trinexapac-ethyl	30	30
Primo Maxx	trinexapac-ethyl	11	11
Primo Maxx	trinexapac-ethyl	33	33
Trimmit 2SC	paclobutrazol	16	16
Trimmit 2SC	paclobutrazol	32	32

the relative growth rate. A value less than one indicated suppressive growth while values greater than one indicated rebound growth. Values close to one mean that growth is similar to the non-treated control.

Results

The creeping bentgrass plots responded better to the PGR treatments than did the Kentucky bluegrass plots, which was unexpected. In general, in both species, plots that received the high labeled treatment resulted in greater suppression as well as a longer delay of the re-bound phase than did the treatments that received the low labeled rate as seen on Table 2.

Looking at Table 2, creeping bentgrass saw a minimum of 36% suppression (Cutless MEC low rate) with every other treatment showing 50% or more suppression. In the high labeled rates Anuew, Primo Maxx, and Trimmit 2SC showed over 75% suppression compared to the other three products that showed a maximum of 65%. These same three products also had higher percentages of suppression at the low end labeled rates. All products typically showed maximum suppression within 200 and 300 GDD, respectively. The rebound phase began between 500 and 700 GDD with all products, respectively.

In contrast, for Kentucky bluegrass only three product/rate combinations showed greater than 50% suppression. These instances were the high rates of Legacy, Primo Maxx, and Trimmit 2SC. Under the low rates, only Anuew and Primo Maxx were able to reach 40% suppression. Interestingly, Anuew showed 48% suppression at both the low and high rates. Overall, maximum growth suppression and the time at which the rebound phase began showed variability within all the treatments and a general range couldn't be identified (Table 2 shows the suggested re-application interval for each product).

These results suggest that mowing height plays an important role in how the plant responds to the growth regulator. From our previous work on bentgrass putting greens, we saw that Primo Maxx only suppressed growth by about 20% and lasted about 200 GDD. But in fairway height turf, we observed up to 87% growth suppression which lasted nearly 400 GDD. In contrast, previous work on lawn height grass showed strong suppression with Primo Maxx, but on 1 inch bluegrass, growth suppression was weaker. It is possible that the lower mowing heights induce growth hormone production in the plant which counter acts the effects of the PGRs. This will be the subject of our work for 2017, as we evaluate hormone production in turf at different mowing heights in the field and greenhouse.

This work would not be possible without the generous support of the WTA. The early GDD work was conducted by Bill Kreuser who was funded by the WTA's Wayne Kussow Graduate Fellowship. Ben Henke is currently supported by the WTA's Robert Newman Graduate Fellowship, and will be funded by the Kussow Fellowship starting in fall.

Table 2: Average June, July, and August peak suppression and re-application interval in GDD

Plant Growth Regulator	Active Ingredients	Creeping bentgrass fairway suggested re-application interval and maximum suppression	Kentucky bluegrass fairway suggested re-application interval and maximum suppression
Anuew Low Label Rate	prohexadione-calcium	300 GDD 70%	290 GDD 48%
Anuew High Label Rate	prohexadione-calcium	370 GDD 80%	200 GDD 48%
Cutless MEC Low Label Rate	flurprimidol	340 GDD 36%	60 GDD 18%
Cutless MEC High Label Rate	flurprimidol	350 GDD 53%	80 GDD 23 %
Legacy Low Label Rate	flurprimidol trinexapac-ethyl	260 GDD 65%	190 GDD 27%
Legacy High Label Rate	flurprimidol and trinexapac-ethyl	320 GDD 64%	300 GDD 62%
Musketeer Low Label Rate	flurprimidol paclobutrazol trinexapac-ethyl	340 GDD 50%	190 GDD 25%
Musketeer High Label Rate	flurprimidol paclobutrazol trinexapac-ethyl	330 GDD 65%	300 GDD 30%
Primo Maxx Low Label Rate	trinexapac-ethyl	250 GDD 66%	260 GDD 40%
Primo Maxx High Label Rate	trinexapac-ethyl	370 GDD 87%	410 GDD 63%
Trimmit 2SC Low Label Rate	paclobutrazol	380 GDD 66%	330 GDD 21%
Trimmit 2SC High Label Rate	paclobutrazol	410 GDD 77%	310 GDD 52%

Preventing and Recovering From Snow Mold on Lawns and Athletic Field

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

Snow molds caused by the fungi *Microdochium nivale* (pink snow mold), gray snow mold (*Typhula incarnata*), and speckled snow mold (*Typhula ishikariensis*) are among the most common diseases found on Wisconsin golf courses. However, they are also commonly observed on lawns and athletic fields in Wisconsin (Figure1). While snow mold damage on higher cut turfs typically recovers relatively quickly once the plants start growing, significant symptoms present in the spring may be unacceptable to some athletic fields with heavy spring play and certain high-end homeowners. In addition, severe snow mold damage can result in thin turf stands during the spring months when many weeds are germinating and lead to increased weed encroachment. Knowledge for both snow mold prevention and recovery is critical for any lawn or athletic field manager in Wisconsin.

Snow Mold Prevention

It is well established that late fall, fast-release nitrogen fertilizer applications can promote turf growth during what should be a hardening phase and lead to increased snow mold development. Late season nitrogen is the likely culprit for the severe snow mold outbreak observed on a commercial lawn in central Wisconsin in Figure 1. Moving the last fertilizer application until late September or early October will lessen the impact this nitrogen has on snow mold development, and in fact according to some of Dr. Soldat's research here at UW is more efficiently taken up by the plant. Potassium is another nutrient that has been the focus of a lot of Dr. Soldat's research lately, and he is finding that potassium applications on creeping bentgrass (0.2 lbs K2O per 1000 ft2 per every other week) can dramatically increase pink snow mold severity. However, Dr. Bruce Clarke at Rutgers University has found that higher potassium actually led to less pink snow mold on annual bluegrass in New Jersey. The jury remains out on how potassium impacts pink snow mold development on higher cut turfs, but know that the late-season 'winterizer' application you apply could significantly impact snow mold development.

During a typical Wisconsin winter there will likely still be minor to moderate amounts of snow mold no matter what you do with your fertility plan. For the aforementioned cases of spring athletic play and overly demanding high-end homeowners, there are effective chemical control options for snow mold on higher-cut turf. This past winter we conducted a test of nine different fungicide treatments for snow mold control on a Kentucky bluegrass practice football field. The study was funded by the Wisconsin Sports Turf Managers Association and conducted at Wausau West High School. We would like to offer huge thanks to the WSTMA for their support of this work and to Rex Zemke for being such a great host at Wausau West.

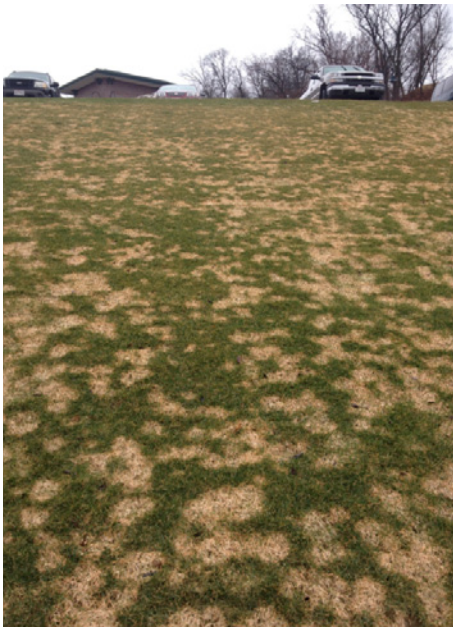

Figure 1. A late fall application of fast-release nitrogen was a likely contributing factor to the severe outbreak of pink snow mold at this commercial site in central Wisconsin in 2016.

We were pleasantly surprised when we pulled up in March to rate the trial and saw great disease pressure on the plot, with the non-treated control averaging 62.5% disease (Figure 2)! Most of this disease was pink snow mold, and there were clear differences in the control provided by the different treatments (Figure 3). In general the sprayable treatments provided better snow mold control then the granular, and among the sprayables TM 4.5F, Headway, and Tartan performed the best (Table 1). The full report with treatment pictures is available online at the Turfgrass Diagnostic Lab's Fungicide Research Results page (https://tdl.wisc.edu/results/).

Snow Mold Recovery

I already mentioned earlier that the vast majority of snow mold damage that occurs on a given Wisconsin lawn or athletic field will recover in relatively short order once conditions favor turf growth. While the damage will only recover as fast as the temperatures will allow the turf to grow, there are some strategies that you can employ to try and get things back to normal as fast as possible.

Continued on page 7

Table 1: Mean snow mold severity, turf quality, and turf color were assessed on March 23, 2017 at Wausau West High School in Wausau, WI.

Treatment		Rate	Application Timing[a]	Disease Severity[b]	Turf Quality[c]	Turf Color[d]
1	Non-treated control			62.5a	3.0f	95.3e
2	Banner Maxx	4 fl oz/1000 ft2	Late	10.0cd	6.3bc	155.3b
3	Trinity	2 fl oz/1000 ft2	Late	61.3a	3.0f	102.5de
4	TM 4.5F	3.5 fl oz/1000 ft2	Late	0.0d	7.8a	150.1b
5	Headway	3 fl oz/1000 ft2	Late	3.0cd	7.3ab	180.8a
6	Tartan	2 fl oz/1000 ft2	Late	0.0d	8.0a	199.3a
7	Velista	0.7 oz/1000 ft2	Late	58.8a	3.3ef	116.4cde
8	Prophesy G	5 lbs/1000 ft2	Late	36.3b	4.3de	104.1de
9	Headway G	5 lbs/1000 ft2	Late	22.5bc	5.0d	131.8bc
10	Pillar G	3 lbs/1000 ft2	Late	18.8bcd	5.3cd	120.1cd
			LSD P=.05	19.9	1.19	24.12

[a]Treatments were applied on Nov 15th, 2016
[b]Mean percent diseased area assessed on March 23rd, 2017.
[c]Quality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.
[d]Color was assessed using a FieldScout CM1000 Chlorophyll Meter from Spectrum Technologies, Inc.

Figure 2. Our snow mold trial at Wausau West High School had more snow mold pressure then some of our surrounding golf course trials!

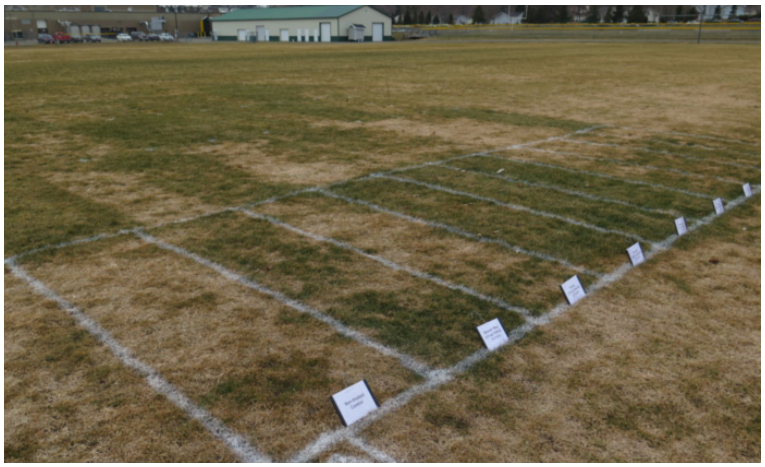

Figure 3. Despite the intense disease pressure, multiple treatments provided excellent pink snow mold suppression. The full research report with pictures can be found at the Turfgrass Diagnostic Lab's Fungicide Research Results page (https://tdl.wisc.edu/results/).

First, do some light raking to remove the dead leaf material and promote sunlight penetration and air movement deeper into the plant canopy. This will stimulate plant growth and will lead to slightly fast recovery times. Second, apply a light dose of fast-release nitrogen in mid-to-late spring to stimulate growth. There is no need to douse the plant when the ground is still frozen (the plant won't recover even if you put 100 lbs of nitrogen down!), but as the plants begin to grow and green up some additional stimulation can help. Third, be sure to apply weed pre-emergents to areas significantly impacted by snow mold. These areas will be thin for a period, and the increased sunlight penetration can be enough to stimulate crabgrass and other annual weeds to germinate and gain a foothold. Alas, with all things spring in Wisconsin, patience will be needed to allow for those fickle spring temperatures to warm up enough to promote growth and recovery of the turf.

Research Day Wrap-Up

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

On January 10th, 2017 the WTA hosted the Winter Research Day at the Pyle Center in Madison. The roads were slippery and depending on where you were coming from, snow covered but attendees were not deterred making their trek to see a great educational seminar. With the inclement weather some found it very relaxing to know they were attending from the comfort of their office due to the webinar option. In years like this the webinar option can make life much easier. Even though the webinar got off to a slow start with a technical issue at the Pyle Center their staff quickly fixed the issue and we were off.

Dr. Doug Soldat welcomed everyone that was attending, both in person and via webinar. He began with the scholarship presentations. Ben Henke was awarded the Department of Soil Science James R. Love Memorial Scholarship. Ben is a Masters student working in Dr. Soldat's lab. He is presently conducting research investigating plant growth regulators and their effect on Kentucky Bluegrasses. His position and research is being funded by the Robert C. Newman Fellowship. Ben received his B.S. degree from Iowa State. He is from Kansas City, Missouri and is interested in professional sports turf management.

Emma Buczkowski received a scholarship from the Wisconsin Turfgrass Association. Emma works in Dr. Koch's lab as a Masters student. She is studying the impact of pesticides on soil organisms. Her position and research is being funded by the John & Flora Berbee Fellowship. Emma received her B.S degree from Oregon State University and is from Portland, Oregon.

Ada Zhou received the Charles O. Newlin Scholarship which was given on behalf of the University of Wisconsin Foundation. Ada works in Dr. Soldat's lab studying the impact of sodium on golf course soils. Her position and research is being funded by the Wayne R. Kussow Fellowship. She received her B.S. degree from Michigan State/Sichuan Ag University joint degree program.

Durrell Naquin earned the WTA James W. Huggett Memorial Scholarship. Durrell is a senior at UW – Madison in the soil science department. He will graduate in May 2017 with a degree in turf and grounds management. He is originally from Reedsburg, Wisconsin.

Logan Mohr earned the WGCSA James R. Love Scholarship. Logan is a senior at the UW – Madison in the soil science department. He is interested in golf and athletic field maintenance. He is from Elkhorn, Wisconsin.

After the scholarships were handed out the education began. Dr. Chris Williamson was first, asking *"Why Don't We Find Japanese Beetle Grubs On Putting Greens?"* He shared many ideas and research findings. He explained how he is recruiting a graduate student to assist him in his new research into this issue.

Dr. Dale Sanson from PBI/Gordon joined research Day via teleconference to discuss *"Why Do We Need So Many Different Formulation Types In Pest Management?"* He explained the differences between consumer products and professional products, pH effect on mix combinations of products. By the end of his presentation, he had us all wondering how does the pH our water source change from year to year or even season to season?

Dr. Doug Soldat gave us an overview of his research projects he is conducting. After Dr. Soldat's presentation, I had more questions than answers. One of his current research projects are following degree days for more Plant Growth Regulator information. Another research project he will start in 2017 is determining how to improve turfgrass roadsides and accurately testing for soil nutrients.

Dr. David Hogg, Emeritus Professor, Department of Entomology discussed *"Care and Maintenance of Honey Bees."* Honey bees are topic discussed from their value as pollinators, pesticide effects on their survival, and diminishing habitat. We all need to be aware of honey bees but most of us do not understand their life cycle, class system and winter survival. Dr. Hogg explained honey bees have a very easy to understand style and we all left learning volumes about bees. I think it would be fair that after his seminar a few people were considering starting a couple of bee hives this year.

Next up was Ms. Chelsea Gallagher, HR Generalist and Jake Schneider, Production Manager from the Bruce Company in Middleton. They gave us some great ideas on recruitment of new employees and how to keep those employees. This is a topic that has everyone concerned. The comment about the labor pool of good quality employees seems to be shrinking has been heard often. They presented some very new ideas and re-affirmed some old ones that we should all be practicing. The Bruce Company has been working with non-traditional sources for employees and their ideas were insightful.

Dr. Koch discussed *"Precision Spray Management."* We need to move away from the old programs that have us making applications based on the calendar. One of the challenges to this is fast and accurate weather data and models for predicting disease. This prediction model has the potential to allow our pesticide applications to be very focused. It might be possible to decrease the number of applications per year or trim away tank additions when the model does not predict the need. The models for this type of management and the equipment to collect all this data are showing up in our industry. Dr. Koch's future work will be on fine-tuning disease models, fertilizer models, along with testing some new data collection equipment.

At the end of the day Mr. Nathan Wolfe, the local Environmental Enforcement Specialist (EES) for DATCP spent some time explaining to us the responsibilities of your EES. Most often we consider the EES as the pesticide police. After listening to Nathan, it became obvious that the EES is not the pesticide police but rather a great resource for everyone who applies pesticides. Nathan expounded on their desire to be your supporter and not your opponent. He went on to explain some of the more frequent issues and violations they deal with and ways to avert them. He concluded by encouraging all of us, if we are ever in doubt, it is best to ask before we spray.

This is a very brief description of the day. If you would like more details or want to listen to any one of these presentations, contact audra.anderson@wisc.edu and she can assist with the links to these presentations. If you missed the day you can still pay the registration fee and she will forward you all the information to view the talks that were given that day.

Please put Research Day 2018 on your calendar. The date is January 9, 2018 at the Pyle Center in Madison.

A big thank you goes out to our Research Day Sponsors. Please support them through the upcoming season. Their names and sponsorship levels are shown on page 9 of this newsletter.

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PENDELTON TURF SUPPLY

CALENDAR OF EVENTS

2017

May 15th	WGCSA May Meeting – West Bend C C	West Bend, WI
June 5th	NGLGCSA Chapter Outing – Pinewood C C	Harshaw, WI
June 20th	WGCSA June Meeting – Grand Geneva Resort	Lake Geneva, WI
July 25th	**WTA Summer Field Day**	**Verona, WI**
October 2nd	WTA Golf Outing – Chenequa C C	Hartland, WI

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

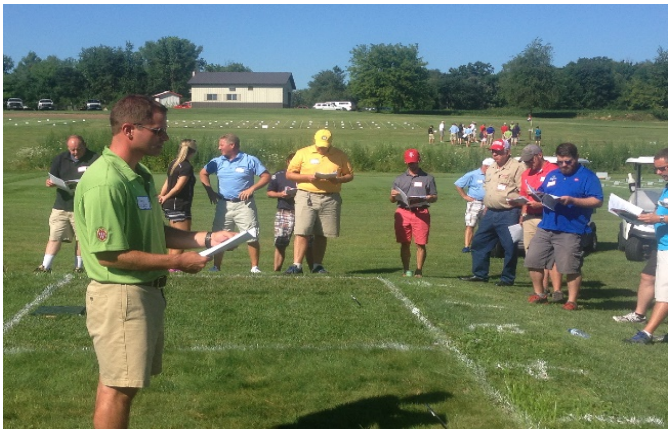
Contact Telephone Numbers

GCSAA	Golf Course Superintendents Association of America	800-472-7878
Great Lakes	Great Lakes School of Turfgrass Science Online	763-767-3518
NGLGCSA	Northern Great Lakes Golf Course Superintendents Assoc	906-424-4176
Northern	Northern Green	651-633-4987
iLandscape	the Illinois + Wisconsin Landscape Show	630-472-2851
PAT	Pesticide Applicator Training (Turf and Landscape 3.0)	608-262-7588
STMA	Sports Turf Managers Association Conference	800-323-3875
TPI	Turf Producers International	800-405-8873
Wee One	Wee One Foundation Golf Outing	630-457-7276
WGCSA	Wisconsin Golf Course Superintendents Association	920-643-4888
WGIF	Wisconsin Green Industry Federation	414-529-4705
WPT	WPT Garden Expo	608-262-5256
WSPA	Wisconsin Sod Producers Association	262-895-6820
WSTMA	Wisconsin Sports Turf Managers Association	608-792-9264
WTA	**Wisconsin Turfgrass Association**	**608-845-6536**

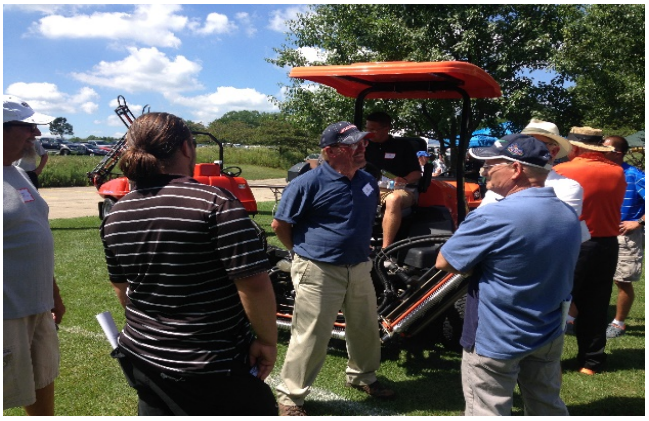
Wisconsin Turfgrass Association

2017 Summer Field Day, Tuesday, July 25th

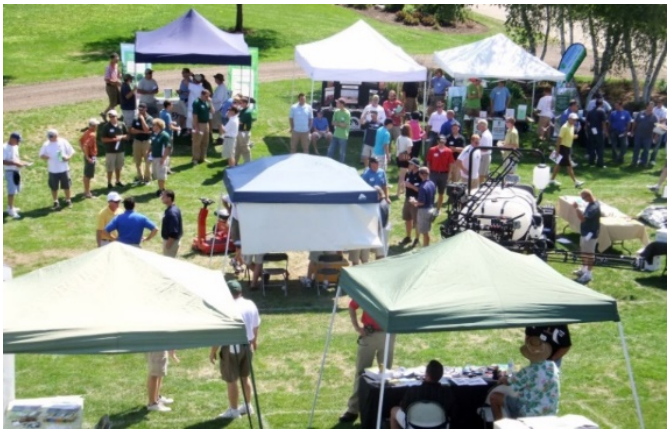
O.J. Noer Turfgrass Research and Education Facility in Verona



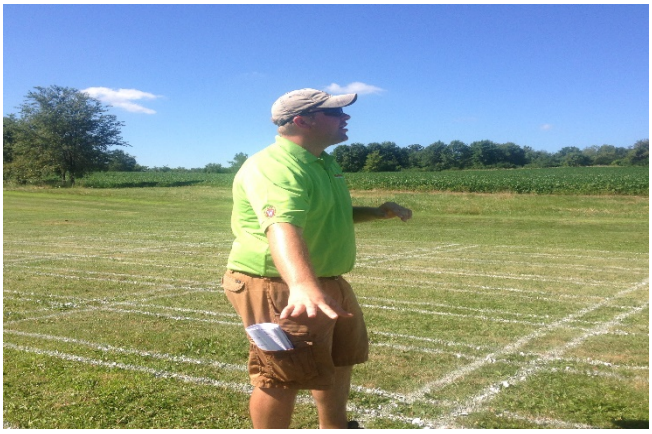
Hear UW - Madison professors and researchers talk about current projects they are working on. Scheduled talks are listed on the back side of this flier.



Learn from vendors, during the trade show, as they demonstrate how their equipment can make your daily work more efficient and successful.



Talk with industry leading vendors about your equipment, plant care product, seed, fertilizer, and other turf needs.



Meet Mr. Kurt Hockemeyer, the new manager of the Turfgrass Diagnostic Lab (TDL) on July 25th. Learn why you should be a TDL Contract member.

The registration form and additional details are on the back of this flier. You may go to www.wisconsinturfgrassassociation.org to register and pay online.

Field Day Schedule

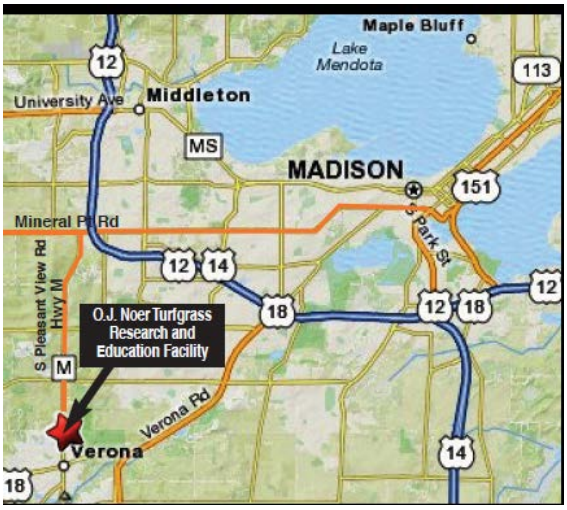
8:00am – 9:00 Attendee Registration/Trade Show open
9:00 – 9:30 Welcome Session
9:30 – 11:00 Lawn Care & General Turf Tours
11:00 – 1:30 Trade Show Only time
12:00 – 1:15 Lunch
1:30 – 3:00 Golf Turf Tours

Lawn Care & General Turf 9:30 – 11:00

- Reduced risk herbicides
- Low input turf selections
- Lawn & sports turf snow mold control
- Herbicide evaluations
- Hose end sprayer calibration
- Mosquito and other nuisance pests abatement

Golf Turf 1:30 – 3:00

- Dew removal impacts of fungicide efficacy
- Potassium on bentgrass
- Agronomic & economic evaluation of liquid fertilizer
- Earthworms management options
- Cultural dollar spot control



O.J. Noer Turfgrass Facility Directions
2502 County Highway M
Verona WI 53593 phone 608-845-6536

From Madison Beltline US-12 & 18
Take Mineral Point Road exit
Go West on Mineral Point Road 0.7 mile
to Pleasant View Road roundabout
Exit roundabout going South on Pleasant View Rd
Continue 2.5 miles to O.J. Noer Facility

Registration Includes

*Donuts & coffee in the morning
*Wisconsin style lunch
*Morning and afternoon turf education
*Become a brand new WTA member & get free admission to Field Day.
Contact Audra for details at audra.anderson@wisc.edu or 608-845-6536.

WISCONSIN TURFGRASS ASSOCIATION

cut here and return registration form with payment

Registration Form

Mail registration form and check payable to WTA by July 18th to O.J. Noer Turfgrass Facility / 2502 Highway M / Verona / WI / 53593, or register online at www.wisconsinturfgrassassociation.org. **Prices valid if postmarked by July 18th. Add $5 per person after July 18th and for on-site registration.**

Name of all Registrants_____

_____

Company_____email_____
Mailing address_____
City/State/Zip Code_____phone _____

WTA member - $40 = _____
Additional employees from same WTA member organization - - - - -$25 each x # emps ____ = _____
Not a WTA member - $45 = _____
Additional employees from same Non-WTA member organization - -$35 each x # emps ____ = _____
WTA membership (New member, get one free registration) - - - - - - -$150 = _____
GRAND TOTAL = _____