TURFGRASS DIAGNOSTIC LAB

2013: Learning What I Thought I Knew

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

s you all know I made a huge career Change last spring to become the Director of the Turfgrass Diagnostic Laboratory at the OJ Noer Research Facility. After spending over 35 years in the field as a grower, sales rep and general manager this was going to be different. I have had a long relationship with the TDL as a contract member for many years. Through the Gregos, Abler and Koch years I thought I had a good idea of what this new career was going to entail. Let me say it publically boy was I wrong. I never knew Gregos and Steve Abler could work so hard, but I knew Dr. Koch did (he is my new boss). When I started in spring the snow mold rating from the winter had not been finished yet due to the cold spring and the fact that the UP plots had snow cover until May 6th. My real initiation to my new job was the trip from the OJ Noer to Antigo Bass Lake GC to rate the cover trials, then on to Wawonowin Golf Course for snow mold rating and last but not least on to Brainerd, MN all in one day. After a very short night we were off to rate more snow mold plots at The Legacy Course at Gragun's. Then the long trip home in the mist. After lunch Dr. Koch decided to make use of the windshield time and have Sam and PJ (our two great technicians) read the data we had just collected to him as I drove down the interstate. Imagine listening to them reading 76, 66, 74, 69, and 72 and so on for three hours on the interstate in the rain. What had I signed up for, what happened to into work by 8 and home by 4:30 and hitting balls at the University Ridge Driving Range over my lunch hour? Well

those days never did appear. I never made it to the range at University Ridge to hit balls. I played 7 rounds of golf, and never got my boat into the water to fish until early September.

I had to learn turfgrass disease from behind a microscope and if I was lucky a few pictures that accompanied the samples. We have been over this in past articles. I want to tell you I had so much fun this summer talking turf with homeowners, landscape contractors, sports field managers, sod growers, golf course superinten-

dents other turfgrass professionals. At the OJ Noer the Pathology department is in charge of the maintenance of each of our research plots. With the help of Tom Schwab OJ Noer Facility manager, and two fantastic technicians, Sam Soper and PJ Leisch, I was able to keep up on all our work. I need to take a quick moment to thank PJ and Sam; they were fantastic sharing their knowledge with me and teaching far more than I taught them this summer, THANKS GUYS!!!

What did 2013 have in store for me? I was lucky that weather created a slow start to the growing season and I was able to slowly walk into the job and with Dr. Koch's guidance keep up with the diagnostics. As spring passed into summer



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Fig 1. Flooding at the Noer Center when as much as 15 inches fell on the area in a week.

part of the state was berated with as much as 15 inches of rain in a week. Flooding was being reported in many areas of the state and we were not spared at the OJ Noer as shown in **figure 1**.

The prolonged cold spring lead to an increase in root pathogens such as Summer Patch (Magnaporthe poae) and Necrotic Ring Spot (Ophioshaerella korrae) in Bluegrass, and Take-all-patch (Gaeumannomyces graminis var. avenae) in bentgrass. Summer Patch and Necrotic Ring proved to be very active this summer. Many of confirmed diagnosis can be traced back to the extremely wet weather or just plain over watering with in-ground irrigation. It seems many homeowners and contractors feel irrigation systems are set it and forget it. As we have seen many times this does not work!

I learned that in diagnostics the present of a specific fungus does not automatically mean that the fungus is the causal agent. I was able to detect diagnose takeall-patch in many samples this summer but in most samples after careful examination and discussion with the golf course superintendent take-all-patch was not the issue.

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2013 Turfgrass Diagnostic Lab Diagnoses (2012 numbers in parenthesis)

| <u>Diagnosis</u> | Professional* | | Homeowner* | |
|--|---------------|-------|------------|------|
| Take-All Patch | 11 | (10) | 0 | (0) |
| Abiotic | 28 | (53) | 8 | (21) |
| Microdocium Patch | 0 | (1) | 0 | (0) |
| Leaf Spots | 4 | (3) | 2 | (1) |
| Insects | 0 | (0) | 0 | (0) |
| Anthracnose (Foliar & Basal Rot) | 15 | (17) | 0 | (0) |
| Fairy Rings | 2 | (8) | 0 | (0) |
| Necrotic Ring Spot | 1 | (1) | 7 | (9) |
| Summer Patch | 11 | (15) | 7 | (16) |
| Brown Patch | 1 | (1) | 0 | (0) |
| Brown Ring Patch | 0 | (2) | 0 | (0) |
| Etiolated Tiller Syndrome/Bacterial Wilt | 0 | (1) | 0 | (0) |
| Typhula Blight | 1 | (1) | 1 | (1) |
| Weed ID | 0 | (4) | 4 | (20) |
| Dollar Spot | 2 | (2) | 0 | (0) |
| Pythium foliar blight or root rot | 7 | (7) | 0 | (0) |
| Other | 12 | (5) | 2 | (1) |
| TOTAL | 96 | (131) | 31 | (70) |

Overall it was a low year for sample submission, which made my transition much easier. I am poised for a much more active year and let's hope that is in 2019 or beyond.

On the research side the Rust project that Dr. Koch is involved in presented a few issues we had to overcome. The plots where we planned to seed the bluegrass had a turf cover that needed to be removed. After a couple of glyphosate sprays the sod had to be removed, but how were we going to accomplish that task. You are all way ahead of me, thinking just cut out the sod. The issue was the plot is 15,000 sq. ft. and that equates to a semi and half of sod. The only option was our Ryan sod cutter, this could take days. Well we overcame with the use of a commercial grade sod cutter (**Figure 2**). This

made for a few long days but we accomplished our goal and the plots were seeded mid-June. As you remember and saw in **Figure 1** we had 15 inches of rain at the OJ Noer and our plots were completely underwater for 4 days. At field days the plots looked horrible, but with some tender loving care we finally had them established and started to collect data in late August.

As always, we would like to offer sincere thanks to our 2013 contract members listed on page 11. Quite simply, the lab would not exist without their generous support. We are well aware that more is asked of you every year, both at your own facility and in support of the associations that work on your behalf. In addition, we at UW and the TDL in particular rely on you to make our programs viable and successful. We do this knowing that every dollar in your budget, both personal and professional, is stretched to the limit and we work hard to make sure every dollar you send our way is managed in the most efficient way possible and that in the end it will make some aspect of your job easier in the future. We hope that no matter what the future holds, you will continue to support the UW and the TDL to the same degree you have in the past. If you aren't a contract member with the TDL, we urge you to join the 63 of your industry colleagues and help to make the TDL the foremost center for turfgrass diagnostics in the Midwest and one of the premier turfgrass centers in the country. We can't do it without your support. For more information, please visit the TDL's website at www.tdl.wisc.edu

Yes, it was a very exciting year and one full of new challenges and learning opportunities. I hope this past years was the same for you and your facility. I also hope we can continue to make every year challenging and a learning opportunity. I look forward to seeing many of you over the winter months and in the years to come.



Fig 2. A commercial sod cutter was used to speed the process of removing 15,000 sq feet of sod to start with a fresh base for the Rust Project.



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Thank you to the 2013 TDL contract members!!! Names in bold are \$1000 contract members

Abbey Springs CC Blackhawk CC Brown County GC Eagle River GC Fox Valley GC Hayward Golf & Tennis House on the Rock Resort Lake Arrowhead GC Maple Bluff CC Minocqua CC North Hills CC North Shore Mosquito Oshkosh CC Portage CC Rhinelander CC South Hills CC Summit Seed The Legend at Bristlecone Twin River Turf Watertown CC West Bend CC Whispering Pines GC

Agrium Advanced Big Foot CC Bulls Eye CC Eau Claire CC Frontier FS Coop Heritage Seed Company Koshkonong Mounds GC Lake Geneva CC Milwaukee Brewers New Berlin Hills North Shore CC Oconomowoc CC Paul's Turf and Tree Nursery Pine Hills CC **Pro Gro of Illinois** Rolling Meadows GC **Spring Valley Turf** Syngenta Tripoli CC Two Oaks North GC Wausau CC West Bend Elevator **Whistling Straits GC**

Antigo Bass Lake **Blackwolf Run** Chenequa CC Edgewood GC **Green Bay Packers** Horst Distributing La Crosse CC Lurvey Farms Milwaukee CC New Richmond GC North Shore GC Oneida Golf & CC Reinders Sentryworld GC Stano Landscaping **Reliable Golf Tuckaway CC** University Ridge GC Weed Man Lawn Care Westmoor CC Zimmerman Kettle Hills

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