



A Tale of Two Summers: The 2007 TDL Year in Review

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The significant snow and ice that has recently fallen across the region mere days after golfers were still on the golf course doesn't really surprise those that have been around the Wisconsin turfgrass industry for years. But even the most seasoned veteran has to agree that across much of Wisconsin the growing season of 2007 provided plenty of extremes.

The spring began with something unfamiliar to many courses in southern Wisconsin, the return of gray snow mold (*Typhula incarnata*). While the damage was not widespread and for the most part recovered within one to two weeks, there certainly were some very tense moments for some superintendents when they took their first look at the golf course following snow melt. The courses that saw the most significant damage were those in the far southeastern corner of the state that had applied only PCNB in a singular snow mold application in the fall. A severe early season snowstorm followed by nearly two months of open ground which was then followed by nearly two months of snow cover made for a very difficult winter for snow mold fungicides, and in some cases significant breakthrough. Courses that applied more than one fungicide in the fall for the control of snow molds did not see any significant symptom development.

The following several months saw little in the way of disease activity across most of Wisconsin. Normally spring in the Midwest is an optimum time for the development of Microdochium patch, but not a single sample submitted to the TDL in 2007 was diagnosed as such. Much drier and windier than average conditions were likely the driving force behind that decline. Aside from the normal amounts of take-all patch and necrotic ring spot, the spring and first half of summer were almost disease free at many golf courses.

The two major exceptions to this at some facilities were Bipolaris leaf spot (*Bipolaris sorokiniana*) and foliar and basal rot anthracnose (*Colletotrichum cereale*). Bipolaris leaf spot has been a continuing and frustrating problem at many older golf courses in Wisconsin and Minnesota. Even in the drier conditions of this past summer, symptom development was still severe and intensive, and costly fungicide programs needed to be implemented to control this disease (Figure 1). Anthracnose was likely worse this year due to the dry conditions that persisted throughout much of the season. Courses that had significant winterkill in the winter of 2004-005 and had become



Figure 1. A check area left unsprayed at this Wisconsin golf course showed just how damaging Bipolaris leaf spot can be without fungicide protection.



Figure 2. This plant was severely stressed by drought and intensive maintenance conditions, leading to an infection of anthracnose basal rot which will eventually kill the entire plant.

repopulated with annual bluegrass plants were hit especially hard, with significant hand watering and multiple fungicide applications required to keep the plants alive (Figure 2).

Just because disease in the first half of the summer was more tolerable doesn't suggest golf course superintendents had it easy. While many superintendents reported spraying fungicides only a handful of times in the first three to four months of the season, they also reported huge increases in the volume of water being applied by their irrigation systems to their thirsty golf courses. Devastating droughts gripped nearly all of Wisconsin for much of the summer, which was especially painful for the courses in the northern portion of the state that have now experienced moderate drought for several consecutive seasons. Wisconsin Governor Jim Doyle even declared a statewide drought emergency in early August to help aid farmers affected by the dry conditions.

When conditions seemed as if they could get no drier, it finally decided to rain. The night of the Wisconsin Turfgrass Association's Summer Field Day the O.J. Noer center received several inches of rain, enough in fact to park many large semi trucks hauling equipment away from the show in the mud. And it rained some more. And some more. Madison ended up with nearly 20 inches of rain over a several week period in August, obliterating records and making national news. Other areas across the state had staggering rainfall totals as well, quieting the drought discussions but causing a host of new problems. Aside from the revenue losses many golf courses sustained due to the lack of play, as well as costs incurred cleaning up flood damage, the moisture in the soil coupled with higher temperatures and humidities ramped disease pressure up exponentially. Dollar spot suddenly became very difficult to control. Brown patch and Pythium blight were almost commonplace if not sprayed for. The most difficult disease to control during this period was summer patch, which caused significant amounts of damage to bluegrass or fescue roughs and fairways. The number of sample submissions to the TDL on August 1st stood at only 81 samples, a huge decline from previous years. But the increase in disease activity caused several samples a day to flood into the lab for weeks, and by the end of September the total sample count stood at 145.

Temperatures moderated and rainfall dropped off again as we entered fall. Most of the submissions to the lab were a result of either the extreme drought in the first portion of summer or the heavy rains during the second. About the only disease problem seen on golf courses during the fall was some light to moderate dollar spot outbreaks. Dollar spot was even being reported as late as the last week of October in the Twin

2007 TDL Diagnoses

<u>Diagnosis</u>	<u>Professional*</u>	<u>Homeowner*</u>
Take-All Patch	8 (11)	0 (0)
Abiotic	22 (11)	29 (44)
Microdochium Patch	0 (9)	0 (0)
Leaf Spots	10 (8)	5 (0)
Insects	2 (5)	2 (2)
Anthrachnose (Foliar and Basal Rot)	6 (4)	0 (0)
Fairy Rings	1 (3)	1 (3)
Necrotic Ring Spot	2 (2)	11 (16)
Summer Patch	5 (2)	5 (0)
Rhizoctonia Brown Patch	6 (2)	3 (4)
Rhizoctonia zeae	0 (2)	0 (0)
Rough Bluegrass (<i>Poa trivialis</i>)	1 (0)	8 (11)
Typhula Blight	2 (1)	0 (1)
Weed ID	1 (0)	12 (39)
Dollar Spot	4 (0)	0 (3)
Pythium foliar blight or root rot	2 (NA)	3 (NA)
Fungicide Resistance Assays	6 (NA)	0 (NA)
Other	2 (13)	6 (0)
TOTAL	80 (73)	85 (123)

Table 1. *Numbers in parentheses are diagnoses in 2006

Cities and mid-November in southern Wisconsin. I'm not sure when, or if, we'll be able to end fungicide applications for controlling dollar spot in future seasons.

A breakdown of submission diagnoses at the TDL in 2007 can be found in Table 1, and while overall number of sample submissions to the lab dropped significantly in 2007 compared with 2006, the entirety of that drop can be attributed to the drop in homeowner submissions. There was a large increase in abiotic problems submitted to the lab this year, mostly due to drought and annual bluegrass problems. Many of the other disease submissions to the lab ended up being on par with an average year, which I guess could be expected in a summer of two extremes.

TDL Contract Memberships

If your course has had turf decline for unknown reasons in the past, or you need verification of a problem to prove to the board a certain action needs to be taken, or you just feel like supporting your local turf resources; then it may be time to consider becoming a contract member with the Turfgrass Diagnostic Lab.

The Turfgrass Diagnostic Lab does not receive any state or university funding, so the money brought in from contract members forms the foundation of the lab. While all samples submitted to the lab, from contract members and non-contract members alike, get our complete attention; there are some special benefits to becoming a TDL contract member.

Contract members that submit samples to the lab get a complimentary written report, which is an additional \$50 for non-members. The report includes color pictures and recommendations for controlling the pest that can be useful in explaining the situation to your staff or the clubhouse. Contract members also get biweekly email updates throughout the growing season with explanations of the most common problems being brought into the lab at that time, and also what to



Turfgrass Diagnostic Lab Order Form
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Phone: 608-845-2535

Fax: 608-845-8162

Please detach the lower portion of this order form and mail to the Turfgrass Diagnostic Lab's address shown above. Please include check with order form.

Checks can be made out to: Turfgrass Diagnostic Lab



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**Please fill in the blanks to the right
with your name and address**

Invoice

1. Please indicate in the blank to the right your membership level for 2008.

\$ _____

2. The 2007 UW-Madison Turfgrass Research reports will be available at the WTA Expo in January. The report will also be available online at <http://www.plantpath.wisc.edu/tdl>

Would you like a CD containing the reports mailed to your address? ☐ Yes ☐ No

3. Do you wish to receive biweekly updates from the Turfgrass Diagnostic Lab on turf health issues commonly being seen at the time? If yes, please provide an email address to be reached at.

Email address _____

☐ No email / No thanks

watch for at your course over the next two weeks. This is in addition to the disease alert emails sent out to contract members, which warns them if weather conditions will be conducive for a damaging outbreak of disease such as Pythium blight. Complimentary "University of Wisconsin Turfgrass Research Reports" are also mailed to those contract members who request it, keeping you up to date on the latest and greatest ways of managing your turf.

The fee system is also set up to allow for flexibility in membership depending on the financial capacities of your facility. For each \$100 in membership you sign up for, you get one sample diagnosis with complimentary report. For example, a \$500 membership entitles you to up to five sample submissions with report throughout the growing season. For those who become \$1,000 contract members unlimited samples may be submitted, which is perfect for munic-

ipalities or ownership groups that operate several golf courses.

If you are interested, please fill out and return with check the contract membership order form provided on the following page. For any further questions, please do not hesitate to call me at (608) 845-2535 or email at plk@plantpath.wisc.edu. And a heartfelt thank you to the 2007 TDL contract members for all of your tremendous support. 🌱

Thank you to the 2007 TDL contract members!!!

Abbey Springs CC	Antigo Bass Lake	Big Foot CC
Blackhawk CC	Blue Mounds CC	Bristlecone Pines GC
Blackwolf Run	Brown County GC	Brynwood CC
Bulls Eye CC	Chenequa CC	Debuck's Sod Farm
Eagle River GC	Eau Claire CC	Edgewood GC
Fox Valley GC	Frontier FS Coop	Grand View GC
Green Bay CC	Greenwood Hills CC	Hawks Landing GC
Hayward Golf & Tennis	House on the Rock Resort	Janesville CC
Kenosha Grounds Care	Koshkonong Mounds GC	La Crosse CC
Lake Arrowhead GC	Lake Wisconsin CC	Lawsonia GC
Lieds Nursery	Long Sod Farms	Lurvey Farms
Maple Bluff CC	Mascoutin GC	Meadowbrook CC
Merrill Hills CC	Milwaukee Brewers	Milwaukee CC
Milwaukee County Parks	Minocqua CC	New Berlin Hills
New Richmond GC	North Hills CC	North Shore CC
North Shore GC	Oconomowoc CC	Old Hickory GC
Olds Seed Solutions	Oneida Golf & CC	Oshkosh CC
Paul's Turf and Tree Nursery	Pine Hills CC	Portage CC
Racine CC	Reedsburg CC	Rhineland CC
South Hills CC	St. Germain GC	Stano Landscaping
Summit Seed	The Bridges GC	The Bruce Company
Tripoli CC	Trout Lake GC	Tuckaway CC
Twin River Turf	Two Oaks North GC	University Ridge GC
Verdicon	Watertown CC	Waupaca CC
Wausau CC	Weed Man Lawn Care	West Bend CC
Westmoor CC	Whispering Pines GC	Whistling Straits GC
Windy Acres GC	Wistl Sod Farm	Zimmerman Kettle Hills