

## Wait 'til Next Year...a 2011 TDL Year in Review

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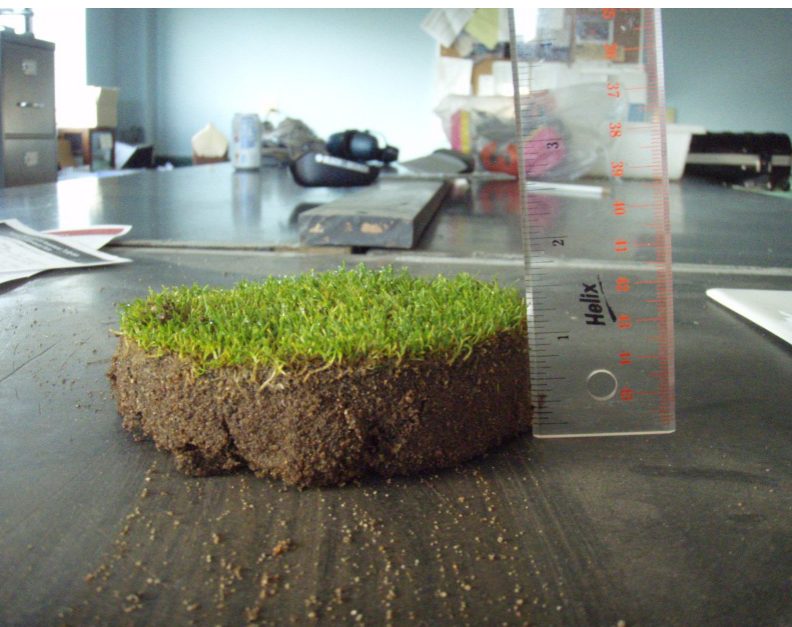
That makes two in a row. Two consecutive years that were alternately cold and hot, wet and dry, barely bearable and downright nasty. Following the difficulty the region experienced during the summer of 2010, this was an unwelcome development as many budgets were again slashed and customer expectations refused to fall along with them. While we unwind and wait for the first flakes to fall, let's take a moment to look back on the year that was from the eyes of the Turfgrass Diagnostic Lab.

Though snow mold was prevalent in some pockets of the state, mainly throughout central Wisconsin, widespread disease breakthrough was not observed. It appears that most facilities survived the winter without PCNB, a forced lesson as a result of the Environmental Protection Agency's (EPA) stop sale order in August of 2010. The big story in the spring of 2011 aside from the cold May wasn't snow mold or ice damage recovery, but rather mysterious reddish-colored putting surfaces. The purely aesthetic discoloration appeared to be related to plant growth regulator applications made shortly before a frost or freeze, though the evidence to support this is purely anecdotal. This phe-

nomenon has been observed in past springs, but not nearly to the same degree as in 2011. Fortunately, once temperatures warmed the discoloration disappeared and no visible long-term effects were observed.

As spring slowly changed to summer, the rains began for certain areas of the state and didn't really stop until summer had nearly ended. Rains pounded areas of northern Wisconsin and far southern Wisconsin with seemingly daily bouts of a half inch or more, saturating the soils and causing anaerobic conditions in some soils and severely inhibiting the rooting depth of a large portion of annual bluegrass and even some creeping bentgrass turf (Figure 1). One superintendent in central Wisconsin likened it to southern Florida in the summer, when daily afternoon thunderstorms sweep through and drench the area. When the temperature and humidity skyrocketed along with the rainfall totals in mid-summer a trying summer became even worse for many. In addition to worries over flooding and annual bluegrass rooting depth, hot weather diseases such as Pythium blight, brown patch, Rhizoctonia leaf and sheath spot, and anthracnose became prevalent across the region of the second consecutive year (Figure 2). Most superintendents protected their grass adequately from the disease onslaught until the heat wave broke in late July.

Rather than rejoicing with the cooler temperatures and lower humidity, though, many superintendents experienced rapid wilting and losses of annual bluegrass. Ironically, the high soil moisture and humidity that was promoting disease activity and stressing the plants actually was helping the plants in a way. The annual bluegrass plants with the shallow rooting depth were protected in a way because the humid conditions inhibited plant transpiration rates, making it difficult for the plant to cool itself but also making wilt less likely. Once the humidity dropped, wilting of the annual bluegrass was almost impossible to prevent and afternoon handwatering became a daily ritual for many facilities in late July and August. Despite all the trouble keeping turf alive, pine trees dominated discussion in most maintenance shops for much of the summer. This unfortunate diversion of time and resources will serve as a reminder for the future that what seems like a 'can't miss' product can still strike out, be taken out of the lineup, sent to the minors, and banished from the organization.



**Figure 1: With annual bluegrass rooting depth at many golf courses under one inch, it was difficult to keep the turf alive in July and August.**



**Figure 2: A basal rot anthracnose outbreak in August on creeping bentgrass left many superintendents in the region frustrated.**

August had generally pleasant weather, but a hidden disease began to cause widespread damage to annual bluegrass. Due to the hot, humid, wet weather of the previous months the summer patch fungus (*Magnaporthe poae*) caused widespread damage to bluegrass roots in general and the symptoms became evident in late July and continued through September. Unfortunately, once the symptoms of summer patch become evident the only short-term control strategy is to increase irrigation frequency on the affected plants to make up for the plant's decimated root system.

A pleasant, if not slightly dry, fall was a welcome relief for the state's superintendents. Cultivation was undertaken to increase oxygen flow to the roots, and recovery projects that weren't touched during the heat of the summer were completed that will hopefully lead to stronger, healthier turfgrass going into 2012. While the conditions consisting of prolonged heat and humidity probably weren't quite as severe in 2011 as in 2010, it was still a second consecutive miserable year for many in the turfgrass industry. The TDL sample submission breakdown shows as much (Table 1). As we look forward to weeks of catching up on reading and general maintenance around the shop and the course, we can actually gain inspiration from *The Grass Roots* editor and other fans of that baseball team to the south. Though last year didn't go as planned, and neither did this year, there is always hope that next year will be the year that everything comes together for a safe, productive, and enjoy-

able year. Let's hope we don't have to wait as long as Cubs fans have been waiting though.

## Thanks to our 2011 contract members

As I have stated numerous times over my 6 year tenure at the TDL, the lab does not receive a single penny of support from the University or state of Wisconsin. I recently had a conversation considering the state of turfgrass diagnostics with a turfgrass professor from the eastern part of the country, and our conversation centered on the decreasing number of turf-specific diagnostic labs around the country. Entire regions of the country, including golf-heavy areas such as California, no longer have university-based turfgrass diagnostics. As you are all aware, having a turf-specific diagnostic lab is critical because of the unique recommendations for dealing with potential disease that a turf diagnostician must make as compared to disease problems in other agronomic or horticultural crops. The reason for the decreasing number of diagnostic labs is actually quite simple, diagnostics is just not profitable.

The TDL charges \$100 for a commercial diagnosis, which is very similar to what most other turfgrass diagnostic services charge. We average about 100 commercial samples a year, which is more than only one or two other labs in the country. Simple math then shows that in a given year a turfgrass diagnostic service will bring in about \$10,000 of revenue. This math doesn't add up to much, and certainly not enough to pay a turf-specific diagnostician, which is why turfgrass diagnostic labs are decreasing in number.

So why is it that the TDL is not only surviving, but thriving? Efforts by both Dr. Kerns and myself over the last several years to make the TDL a more regional presence has paid dividends as samples from coast to coast were shipped to Verona, WI in 2011. Like other labs, we supplement our revenue by testing fungicides and then relaying the results to you in the form of the winter and summer research reports. But with more money coming in from fungicide testing than diagnostics, many universities have opted to either reduce their focus on diagnostics or eliminate it entirely.

So again, why has the TDL succeeded and continued to grow for all these years since its beginnings under Dr. Doug Maxwell in the 1990's? There are numerous explanations, but in my mind a critical factor is the support of our contract members. No other turfgrass-specific diagnostic lab in the country, to my knowledge, has a contract system similar to ours. Other labs have tried to initiate systems like ours, but they have failed due to lack of industry, and specifically golf superintendent, support. We don't have that problem in Wisconsin, as we have nearly 70 contract members that provide over \$20,000 in support of the TDL (Table 2).

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This by no means covers all the expenses required to run the TDL, but it shows the deep support that the turf industry in Wisconsin has given to the TDL even amongst the most trying of times for most facilities. As the manager of the TDL I am deeply thankful for all those who support the TDL, including the recent WGCSA donation of \$1,975 and Horst Distributing's continued donation of Aquatrols Turfbucks. But I am most grateful to the contract mem-

bers who continue to commit dwindling dollars in the face of increasing scrutiny to the TDL year after year. To put it simply, without the support of so many contract members, there would be no TDL. For more information on contract memberships with the TDL, or to sign up for a new membership or renew a continuing one, visit the TDL's website at [www.tdl.wisc.edu](http://www.tdl.wisc.edu).

2011 TDL Diagnoses				
Diagnosis	Professional		Homeowner	
	<u>2011</u>	<u>2010</u>	<u>2011</u>	<u>2010</u>
Take All Patch	6	6	0	0
Abiotic	42	53	25	34
Microdochium Patch	2	1	0	1
Leaf Spots	3	10	10	15
Insects	0	0	2	7
Anthracnose (Foliar and Basal Rot)	13	9	0	0
Fairy Rings	3	7	1	1
Necrotic Ring Spot	1	1	8	3
Summer Patch	6	13	28	15
Brown Patch	3	2	0	13
Brown Ring Patch	3	3	0	0
Rough Bluegrass (poa trivialis)	0	0	6	5
Typhula Blight	1	4	6	2
Snow Scald	0	0	0	0
Weed ID	2	0	15	19
Dollar Spot	2	3	0	1
Pythium foliar blight or root rot	4	7	1	1
Other	7	1	3	7
TOTAL	91	123	106	124



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## Thank you to the 2011 TDL contract members!!!

Names in bold are \$1000 contract members

Abbey Springs CC  
 Blackhawk CC  
 Big Foot CC  
 Brown County GC  
 Eagle River GC  
 Fox Valley GC  
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 Koshkonong Mounds GC  
 Lake Geneva CC  
 Milwaukee Brewers  
 New Berlin Hills  
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 Sentryworld GC  
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**Syngenta**  
 Tripoli CC  
 Two Oaks North GC  
 Watertown CC  
 Westmoor CC  
 Wistl Sod Farm

Agrium Advanced  
 Blue Mounds CC  
**Blackwolf Run**  
 Bulls Eye CC  
 Eau Claire CC  
 Frontier FS Coop  
**Horst Distributing**  
 La Crosse CC  
 Lurvey Farms  
 Milwaukee CC  
 New Richmond GC  
 North Shore GC  
 Oneida Golf & CC  
**Pine Hills CC**  
 Reedsburg CC  
 Rolling Meadows GC  
 Silver Bay CC  
 Stano Landscaping  
**The Bruce Company**  
 Tuckaway CC  
 University Ridge GC  
 Weed Man Lawn Care  
 Whispering Pines GC  
 Zimmerman Kettle Hills

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 Bristlecone Pines GC  
 Blue Mounds Golf and CC  
 Chenequa CC  
 Edgewood GC  
 Green Bay Packers  
 House on the Rock Resort  
 Lake Arrowhead GC  
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