



2006: The TDL Year in Review

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The temperatures are dropping as fast as the leaves, the first snowflakes have fallen all across the state, and only the most intense homeowners are still submitting home lawn samples to the Turfgrass Diagnostic Lab. All this can only suggest that we have reached the end of another growing season, providing an opportunity to reflect on the year that was.

Being my first full year at the helm of the TDL, I wasn't sure what to expect. But Mother Nature kept everybody in the state guessing until the weather moderated in the fall, and provided for a wide range of diseases for both professional turf managers and homeowners to deal with (Table 1).

Consistent rains and cool temperatures early in the spring in the southern part of the state provided optimum conditions for damaging outbreaks of pink snow mold (*Microdochium nivale*). Many superintendents were caught off guard with the suddenness

of the symptoms, and it took several weeks at some golf courses until symptoms finally disappeared.

Many older golf courses continued to see nagging but serious problems in the early summer with *Bipolaris* leaf spot (*Bipolaris* spp.) on their older clones of bentgrass (Figures 1 and 2). Fungicides that have controlled the leaf spots in the past were not providing acceptable control, and only after several fungicides were tank-mixed and applied at high label rates was control achieved. We still have not answered the question as to why this particular leaf spot outbreak was so difficult to control, and continued research is needed for further understanding.

Root-rotting diseases such as take-all patch, summer patch, and necrotic ring spot continued to cause significant damage to Wisconsin turfgrass. But with what appeared to be an extremely long window of optimal growing conditions for the fungus, damage

2006 TDL Diagnoses

<u>Diagnosis</u>	<u>Professional*</u>		<u>Homeowner*</u>	
Take-All Patch	11	(17)	0	(0)
Abiotic	11	(10)	44	(20)
Microdochium Patch	9	(13)	0	(7)
Bipolaris Leaf Spot	8	(NA)	0	(NA)
Insects	5	(0)	2	(2)
Anthracnose	4	(NA)	0	(0)
Fairy Rings	3	(0)	3	(1)
Necrotic Ring Spot	2	(7)	16	(19)
Summer Patch	2	(8)	0	(0)
Rhizoctonia Brown Patch	2	(3)	4	(1)
Rhizoctonia zeae	2	(NA)	0	(NA)
Rough Bluegrass (<i>Poa trivialis</i>)	0	(8)	11	(5)
Typhula Blight	1	(0)	1	(1)
Weed ID	0	(8)	39	(12)
Dollar Spot	0	(NA)	3	(0)
Other	13	(NA)	0	(0)
TOTAL	73	(96)	123	(103)

Table 1. *Numbers in parentheses are diagnoses in 2004 (Numbers not available for 2005)

was actually a bit less than anticipated. Increased damage from take-all patch and necrotic ring spot were seen in the northern parts of the state, where very dry conditions persisted for much of the summer.

In comparison to recent summers, the summer of 2006 was proceeding relatively quietly until the middle of July. That is when some of the most intense heat and humidity we have seen in recent memory gripped the state for several weeks, providing optimum conditions for hot weather diseases such as brown patch, Pythium blight, and even *Rhizoctonia* leaf and sheath spot (*R. zeae*). Disease pressure was so high in this period that golf courses that haven't seen either disease in many years suffered serious turf loss, and even some courses

that did apply preventative fungicides experienced some disease breakthrough.

The wet spring coupled with the extreme heat and humidity also allowed for rather severe Type I (hydrophobic soil) fairy ring damage to occur. In one bizarre instance, the nitrogen released by the fairy ring fungus that causes the green fairy rings (Type II) was enough to promote *Rhizoctonia zeae* in the exact same rings, forming several yellow rings on many putting greens.

Fortunately for everyone, the weather moderated soon after the Wisconsin Turfgrass Association's Summer Field Day on August 1st. Only minor turfgrass problems were sent to the Turfgrass Diagnostic Lab the rest of the growing season, and most of those dealt with abiotic issues such as soil compaction or shade.

But unfortunately at the same time that the intense summer conditions had dissipated and we said hello again to Wisconsin's comfortable summers, we had to say goodbye to Dr. Geunhwa Jung (Figure 3). Dr. Jung was my major advisor and the man that convinced me to stay at the University of Wisconsin to pursue my master's degree. His tireless work ethic, boundless energy, and constant support made what could be a boring laboratory study interesting and meaningful. Even after the sometimes nasty battle to keep Dr. Jung in Madison had ended unsuccessfully, he continued to support my research and be available for guidance anytime I or anyone else needed him. Considering the conditions, that is a remarkable accomplishment. But our loss is the University of Massachusetts-Amherst's gain, and I wish him all the best as he builds on the success that he started here. ♻



Figure 1: The *Bipolaris* leaf spot damage we have seen over the past couple of seasons has resembled dollar spot, but with a pronounced reddish color.

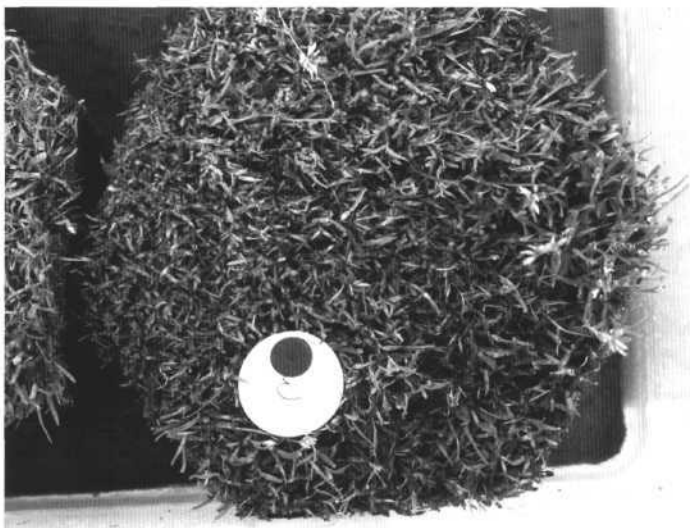


Figure 2: In some cases, the *Bipolaris* leaf spot spread from the distinct lesions found in Figure 1 to cause widespread damage over relatively large areas.



Figure 3: Dr. Jung is a renowned leader when it comes to *Typhula* blight, which is probably why he's smiling so broadly standing amongst all this disease.