



Where Did All the Nematodes Go?

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We have reached the middle of winter for 2007, and aside from the blizzard that struck southeastern Wisconsin on the first day of December winter has been fairly benign to this point. Thinking back to the summer of 2005, it was anything but benign. Hot and very humid conditions coupled with a severe lack of rainfall across the entire state provided very stressful conditions for the turf and those who manage it. Collars were dying out daily, juvenile *Poa* from the spring's winterkill was wilting under the summer stress, and the lack of rain caused localized dry spots to form almost uncontrollably. Many golf courses had weak or dead turf despite their best efforts, fraying relations with golfers and board members.

Frustrated with the lack of response of their turf, two superintendents chose to have their golf courses sampled for possible nematode damage. The numbers came back astronomically high, and it was determined by the nematologist that significant damage had

occurred to the turf through nematode feeding.

Fast forward to the summer of 2006. Word had spread that high nematode numbers were found the previous season, so more sampling was planned by three golf courses who had experienced nematode-like damage the year before. For the most part, the nematode population numbers in 2006 came in well below the numbers from 2005, and all three golf courses saw almost none of the symptoms they saw the previous year. This may suggest that nematodes were the problem in 2005, and that cooler temperatures in 2006 kept nematode populations down and turfgrass health up. But there are problems with that assumption.

Nematode thresholds on creeping bentgrass/annual bluegrass in the Midwest are very poorly understood. It is known that different species of turfgrass will have varying tolerances of nematodes (Couch, 95), but it is also true that regional weather conditions also play a huge role in determining the amount of nematode



"THE SUPER GOT US A NINTENDO Wii SO WE COULD PRACTICE TRIMMING GRASS DURING THE OFF SEASON!"

feeding a plant can withstand. For instance, a creeping bentgrass plant in Kentucky may be able to withstand 200 nematodes per cm³ while a bentgrass plant in Wisconsin can tolerate up to 2,000 nematodes per cm³. Without this basic knowledge of plant thresholds for Wisconsin turf, it is impossible for us to make inferences about the amount of damage a particular nematode population is causing.

While it is possible nematodes caused significant damage to Wisconsin turfgrass roots in the summer of 2005, it is more likely in my mind that nematodes were just one of many stresses that added up to be too much for some turf. Heat, humidity, and extreme drought coupled with the intense cultural practices that were employed throughout the summer look to be the primary reasons for turf decline, and some minor nematode feeding may have enhanced the damage. Until more Midwestern studies are done looking at nematodes pathogenic to turfgrass, the debate will continue to rage on.

The TDL Wants You

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 money, so the money brought in from contracts form the foundation of the lab. While all samples submitted to the lab, from contract members and non-contract members, 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 free

written report, which is an additional \$25 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, and also what to watch for at your course over the next two weeks. This is on top of 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 a free 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, a free site visit is included that is good for anytime throughout the growing season.

If you are interested, please fill out and return with check the contract membership order form provided on the next 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 2006 TDL contract members for all of your support. 

2006 TDL Contract Members

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| Blackhawk CC | Blackwolf Run | Brown County GC |
| Brynwood CC | Bulls Eye CC | Chenequa CC |
| Debuck's Sod Farm | Eagle River GC | Eau Claire CC |
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| North Hills CC | North Shore CC | North Shore GC |
| Oconomowoc CC | Old Hickory GC | Olds Seed Solutions |
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