

# The Great Microdochium Outbreak of 2006

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When managing turfgrass, seasons can be remembered for certain reasons long after they have come to pass. Spring is a delicate time of the year to grow turfgrass because so much depends on the weather. I'll remember the spring of 2004 for its heavy rains and destructive flooding, forcing me to pump water for hours on end at Blackwolf Run just so golf carts could pass the 18th hole (we ended up losing the battle that day). The spring of 2005 will be remembered by most as having some of the worst winterkill in recent memory and being an all

around miserable spring for anyone managing turfgrass. Now I'm not sure what all of you will remember the spring of 2006 for, but I will remember it as the spring of "The Great *Microdochium nivale* (also known as pink snow mold) Outbreak."

Now that might not strike fear into the hearts of the average citizen, but it was quite a problem this spring for most people trying to manage turfgrass in Wisconsin. Despite its name, snow is not required for the development of pink snow mold. Under normal conditions, the fungus is most active at

air temperatures ranging from 32-45°F. But under periods of prolonged leaf wetness, much like we saw this spring, severe infection can occur at air temperatures up to 65°F (Couch 1995). In fact, my predecessor Steve Abler reported seeing pink snow mold at a Wisconsin golf course in July of 2004.

Symptoms of pink snow mold differ depending on when you observe them. Pink snow mold symptoms seen as snow cover melts away are circular patches of dull white turfgrass matted together, sometimes with a pink ring surrounding the patch (Couch



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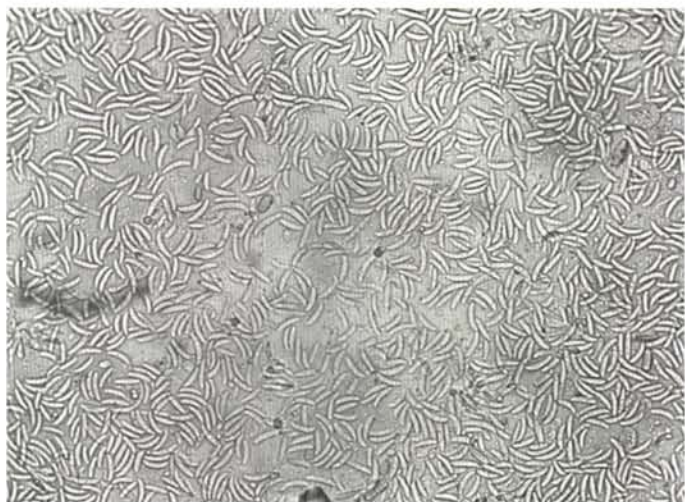
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**Figure 1:** This photo was taken from a sample received this spring, and you can see for yourself the numbers of spores this fungus can produce.



**Figure 2:** The mycelium pictured here was present after incubation in a moist chamber for 24 hours, and can rarely be seen on the golf course in the morning under optimum conditions.

1995). The symptoms we saw this spring were small (2-4"), non-descript patches that had a reddish or rusty color to them.

*Microdochium nivale* is a prolific spore producer (Figure 1). This spore production is the reason that pink snow mold can attack and infect new areas so quickly, and also allows for this fungus to be "tracked" via water and/or traffic. Under optimum conditions, it is even possible to see fluffy white mycelium produced on the foliage (Figure 2).

There are two major reasons why I think pink snow mold was such a severe problem this year. The most prominent reason was the consistently wet conditions this spring. Many areas with severe infections didn't see a huge total amount of rainfall, but the leaf blades were constantly wet due to light rain over a period of several consecutive days. This allowed for a very prolonged period of leaf wetness and hence a prolonged period of *Microdochium nivale* infection. Another reason was due indirectly to the early spring green-up we observed this year. This early green-up caused many superintendents to put down an early application of nitrogen fertil-

izer to further encourage turf growth, but when the cool and wet conditions prevailed the turf was further susceptible to *Microdochium nivale* infection. Preventative fungicide applications for controlling pink snow mold active in the spring are tricky due to the variable weather; iprodione, chlorothalonil, propiconazole, and vinclozolin are all effective chemicals in controlling *Microdochium nivale*.

The spring of 2006 should be used to remind us that there are destructive and explosive out-

breaks of disease caused by fungi other than *Pythium*, and at times of the year when you may not yet be thinking about disease. Hopefully in the future we can become more aware of this, plan our fertilizer and fungicide schedules accordingly, and make the spring of 2007 the spring of the bored turfgrass diagnostician.

#### References:

- Couch, H. B. 1995. Diseases of Turfgrasses, 3rd ed. Krieger Publishing Co., Malabar, FL. p. 74-77

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