Snow Mold to Fear?

Weather

October was cooler than normal, which is the first time in a full twelve months that a month did not have above normal temperatures. In accordance with the low October temperatures, soil temperatures, are also below normal throughout the state. In addition, rainfall was at or above normal for most of the state with areas averaging 3.5 – 6.0” of the wet stuff for the month. These mild temperatures and some topsoil moisture recharge meant quite a bit of recuperation for drought ravaged lawns in Missouri, with some tall fescue lawns completely recovering. Lawn reseeding and renovation efforts should also have gone very well for most.

Forecasted temperatures for later this week and into the weekend are very mild, with highs forecasted to be nearly 10 degrees above normal. This may come crashing to a halt by the beginning of next week as a cold front is forecasted to bring potentially very heavy rains and a steep downturn in temperatures. Overall prediction for the next two weeks indicate a high probability of above normal temperatures. However, if you’ve got a fertilizer application still to make on cool season lawns, these next few days are probably a very good time to do so.
Snow Mold to Fear?

Quick Hits

- Preventive fungicide applications for large patch of zoysiagrass or spring dead spot of bermudagrass should have been applied by now. Not many turf disease samples have been submitted into the lab in the past month, but this past week we did have a confirmed large patch instance from Union, MO. In this case, the fungicide application may be more effective early next spring when zoysiagrass growth resumes.
- This current warm spurt may mean lawns will need one more mowing before growth stops. A good way to tell if a lawn needs to be mowed – make a pass at it... If you make one pass at 2.5-3” and no clippings are noted, then it's time to winterize the mower.
Snow Mold to Fear?

Snow Mold

Now that the weather has turned chilly and frosts are more frequent, a few calls have come in regarding snow mold applications. I am going into my 3rd winter here in Missouri and the past two couldn’t have been more different. Winter 2011 was one for the record books as ~ 48” of snow fell across some parts of Missouri. Pink snow mold was evident in March 2011 (see above and past newsletter), and some inconsequential gray snow mold was observed on some sports fields. Last year, was the complete opposite. A particularly warm winter with only 4-6” of snow around much of Missouri was followed by a late May like March. To my knowledge, there was no snow mold activity in the state last year. So that has yielded the question, are preventive snow mold fungicide applications necessary and if so when?

I believe it boils down to a few crucial aspects on whether or not an application is necessary: site history, geography, and turf type. If a preventive fungicide was not put down in 2011, and the area did not have a snow mold outbreak, then more than likely it also won’t have a problem with it this year. If you are located in the northern reaches of the state and are sniffing Iowa or Omaha, then you are more likely to require a preventive fungicide spray. And lastly, I have not seen any evidence to suggest that applications are necessary on anything other than creeping bentgrass greens and routinely covered Kentucky bluegrass sports fields in Missouri. Higher cut lawns and uncovered sports fields simply are not very susceptible to snow mold damage in this climate. Covered sports fields, particularly with Kentucky bluegrass, may warrant more caution, as the cover can create an artificially high humidity environment in which pink snow mold can prosper.

Pink Snow Mold - March 2011
A. Pink snow mold was the only snow mold type diseases of importance encountered after the snow-filled winter of 2011. In this case, pink snow mold was only observed on A-4 in this cultivar trial.
B. A chain of Microdochium spores congregated in a film of water.
Snow Mold to Fear?

This being said pink snow mold, or its non-snow covered disease symptom Microdochium patch, are both caused by the pathogen *Microdochium nivale*, and the only snow mold type problem Missouri turf managers need worry about. Snow has fallen in Missouri as early as October and as late as May, but seldom does it stay on the ground for more than a week or two before it melts. Other snow molds, such as gray and speckled require these extended snow cover events of 30-60 days or more.

Because pink snow mold is our only concern, application timing can be difficult since the pathogen is active under a wider array of temperatures. If a fall preventive application is warranted for a high amenity area then the next warm (55 -60 F high temps) spurt in later November or early December may be an appropriate application period. Since the disease is not often seen in epidemic proportions in Missouri, it may be more prudent to spot apply curatively in the spring or select greens to preventively spray that have a history of the disease or are shaded and prone to more prolonged snow cover.

I prefer to leave it to our neighbors to the North who shovel their way through winter to provide the best suggestions for fungicide selection. One of the best resources I’ve found is from the turf pathology team at University of Wisconsin, who wrote this article ([click here to view](#)) during the stop sale on PCNB (which is now available again). The article details all of the products for snow mold control and ranks them according to their relative efficacy. Again since we are only concerned with pink snow mold, chlorothalonil + iprodione or thiophanate-methyl has historically yielded good results for pink snow mold control.

**Missouri Green Industry Conference & Winter Speaking Schedule**

Now that most turf and pathogen growth has slowed, I will be hitting the trail for a number of presentations across the region. In particular, I would like to highlight the upcoming Missouri Green Industry Conference in St. Charles on December 6th. This will be a great event that should not be missed. It will be a full day of education and showcase the wide array of turf and ornamental research programs we have to offer at Missouri. [Click here for more information and to register](#).

Below are a few dates over the next month or so that I, sometimes with help from others in the turf pathology team, will be presenting turfgrass disease and management related talks. I also will be heavily involved in the Missouri Pesticide Applicator Certification and Recertification Training Program in January 2013. I hope to meet you at one of these events.

Snow Mold to Fear?

December 6 – *Disease & Other Pest Issues of 2012*
Missouri Green Industry Conference – St. Charles Convention Center, St. Charles, MO

December 11 – 1) *Pythium Root Rot vs. Pythium Root Dysfunction: Understanding the differences between the two and how they’re managed on bentgrass putting greens*  
and 2) *Fungicide chemistries: Evaluating the new and testing the old to refine uses*
2012 Mississippi Valley Golf Course Superintendents Association Shop Tour – Norwood Hills Country Club, St. Louis, MO

December 18 – *Missouri Research: Year in Review*
Common Ground/Heartland Green Industry Expo – Overland Park Convention Center, Overland Park, KS.

Lee Miller  
Follow on Twitter! @muturfpath  
Extension Turfgrass Pathologist – University of Missouri