# Be a Skeptic

By Bob Vavrek, Senior Agronomist, United States Golf Association

Cold snowy days provide a bit of time to catch up on office reading of the trade journals that have piled up on my desk this past summer. You cannot help but get caught up in the hype of glitzy advertising. The outrageous claims of some products never cease to amaze me. The current presidential hopefuls could certainly take some lessons from "spin" placed on product performance, or lack thereof.

My spin of the day is the claim that one product "measurably outperformed" another in a university trial. Ok, grab your Stimpmeter and check the speed of the carpet in your office and measure, say 13' 6". Now check it again from the exact same spot and gee whiz, it is 13' 8". That is a measurable difference that means absolutely nothing, except perhaps that your carpet has now "measurably outperformed" itself.

There are measurable differences, statistically significant differences and, more importantly, meaningful differences between various turf management products. Be sure to ask for university based research data before making a significant investment for a new, unproven product. If all you get for your inquiry are testimonials then beware.

Do not hesitate to call the principal investigators of the research study. Most will be more than willing to discuss their opinion regarding the effectiveness of a particular product, which may be quite different from claims found in advertisements. Be wary of graphs and charts that illustrate effects without reference to statistical differences. Furthermore, statistics can be misleading. Books have been written on this subject. For example, you have an inch of dense thatch on your fairways. A research study clearly indicates that, over time, product A or treatment B reduced thatch accumulation by 10% and the difference was statistically significant. Yes, we have a measurable difference. Yes, we have university-based research that demonstrates a statistically significant reduction in thatch. However, is there a "meaningful" difference worth the cost of the product? Probably not, since after all is said and done, you still have 9/10 of an inch of thatch on your fairway.

The bottom line is that you must justify the cost vs. benefits for any product or maintenance operation. Does it "work" just isn't good enough in today's economic climate of stagnant or decreasing operating budgets and ever increasing golfer expectations. A product must be effective and cost effective.



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# Gearing Up For Snow Mold Damage

By Paul Koch, Turfgrass Diagnostic Lab, University of Wisconsin - Madison

In Wisconsin, March and April is the time of year when cabin fever really starts to set in for most people in the turfgrass industry. Every piece of equipment has been maintained, all the ball washers and tee blocks are painted, and more than enough time has been spent in close confines with the year-round staff. These sentiments are increased tenfold this winter throughout much of the state, especially in southern Wisconsin. Madison has easily set a record for snowfall in a single season, and many other communities have also done so or are on the verge of doing so. The interstate on the southeast side of Madison has been closed twice, the roads have gone weeks completely covered in ice, and many communities are running out of road salt. Suffice it to say everyone is looking forward to spring.

But be careful what you wish for, a deep and prolonged snow cover on unfrozen ground will likely bring widespread snow mold damage this spring to southern Wisconsin for the first time in years. While the spring of 2007 brought minor and mostly superficial snow mold damage to certain southeastern Wisconsin golf courses (Koch 2007), conditions are so conducive this winter for snow mold development throughout the state that damage is possible from Superior to Kenosha. What can we do in anticipation of significant damage, and of more concern to most is what can we do to recover from the damage as quickly as possible?

Before even contemplating your plan of attack for recovery in the spring, it is important to educate yourself on the optimum infection conditions for the different snow molds seen in Wisconsin as well as how to identify and differentiate them from ice damage. Snow mold is actually a complex of different diseases that usually includes gray snow mold (*Typhula incar*-

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Figure 1: The sclerotia of gray snow mold (Typhula incarnata) are comparatively large and red in color, while those of speckled snow mold (T. ishikariensis) are smaller and black.

*nata*), speckled snow mold (T ishikariensis) and Microdochium patch (*Microdochium nivale*). Microdochium patch can oftentimes be differentiated from the Typhula diseases by the presence of a reddish ring around the outside of the patch or the lack of sclerotia embedded in symptomatic turfgrass leaves (Smiley *et al.*, 2005). Sclerotia are small, hardened masses of mycelium that act as resting bodies for the fungus. Sclerotia of T. *incarnata* are comparatively large and red, while those of T. *ishikariensis* are smaller and black in color (Figure 1). Snow mold sympYour career is too important to rely on products that are "good enough." You need **better**. And BASF delivers. Our comprehensive portfolio of products offers control of hundreds of turf diseases, weeds and insects. Control you can trust. **Better** control.

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toms can appear similar to ice damage, but ice damage will never have sclerotia present and will often take on a more irregular shape than snow molds (Figure 2). Be aware that all four of these conditions may be present at the same site under conditions of prolonged snow cover, and samples may be sent to the Turfgrass Diagnostic Lab for definitive diagnosis.

The optimum infection conditions are different for each fungus. Microdochium patch (pink snow mold) does not require snow cover for infection, but is most severe under snow cover or in wet conditions on unfrozen turf with temperatures between 32-46°F. Gray snow mold is most severe under extended periods (>60 days) of snow cover on unfrozen turf with surface temperatures under the snow cover at approximately 32°F. Speckled snow mold is most severe under similar conditions as gray snow mold, but does the majority of its damage when consecutive days of snow cover extends beyond 90 days (Millett and Maxwell, 2000). For this reason, speckled snow mold is responsible for the majority of the damage to turfgrass in northern Wisconsin, with gray snow mold more common through central Wisconsin and Microdochium patch usually the largest concern for the southern part of the state. But this winter nearly all of Wisconsin has had snow cover since December 1st, a span approaching 90 days at the time of this writing. Even with this extended period of snow cover I would be surprised to see widespread speckled snow mold in the southern half of the state, but gray snow mold pressure could be very high all the way down to the Illinois border.

Since nearly every golf course in Wisconsin applies fungicides for the control of snow mold on at least their putting greens and tees, the main questions will be which fungicides are most effective at controlling snow mold under these conditions and how quickly the turf can recover where fungicides were either not applied (i.e. roughs and possibly fairways) or not effective. For how effective different fungicide combinations may be under heavy snow mold pressures you can view the 2005-2006 Snow Mold Trial at Gateway Golf Club in Land O' Lakes, WI included in the 2006 Wisconsin Turfgrass Research Reports on the Wisconsin Turfgrass Association website (www.wisconsinturfgrassassociation.org). Snow mold pressure was extremely high during the trial at this location, and differentiated those treatments effective at high pressures and those that broke down. In general, those treatments that included three different active ingredients were the most effective at controlling snow mold under heavy pressures. With the unusually high disease pressures this winter in southern Wisconsin it is possible that golf courses throughout the state that applied only one or two active ingredi-



Figure 2: Ice damage oftentimes takes on a more irregular pattern than snow molds. Photo courtesy of Steve Abler.



ents, or even low rates of a three way mixture, could observe some disease breakthrough.

Once the snow starts to melt, and damage can begin to be assessed, a plan for recovery should be implemented. Severe infections of gray and speckled snow mold can affect the crown area of the turfgrass and kill the plant, but the great majority of cases result in only the foliage being killed. To determine if the turf is actually dead or not, simply take 2-3 cup cutter plugs from affected areas as you would for ice damage and put them either in a local greenhouse or in an office window in a container with water. If the turf does not begin to green up and sprout new shoots within 2-3 weeks then the turf is likely dead and reseeding or resodding may be needed depending on the extent of damage. If the turf does begin to recover, some light fertilizer applications containing high amounts of soluble nitrogen may be applied once the soil dries out to speed up the recovery process of the plant. Be aware that even as the plants begin to recover, the loss of foliage due to snow mold can be a severe setback and will weaken the plants heading into the growing season. But too much nitrogen in the spring can cause serious problems later in the growing season, and nitrogen fertilizations in the spring will make the turf more susceptible to infection by some diseases and may require added fungicide protection.

Whatever your plan for recovery will be, the two most important things you can do during what may be a difficult spring is to communicate with others at the facility and exercise patience. Educate others at your facility about possible damage before the snow melts, be it from ice, snow mold, or both. As many learned from the ice damage of 2005, trying to be proactive and remove the ice may have done more harm to the turf than good. Still others believe they reduced turf loss and accumulated public relations points with others at their facility. Every place is a little bit different, but hopefully everyone learned from this winter that snow molds can still be a serious disease throughout the entire state of Wisconsin.

#### **Generous Industry Support Continues**

As a non-profit lab that receives no state or university aid, the support of the turfgrass industry from Wisconsin and surrounding states is paramount to the survival of the Turfgrass Diagnostic Lab. I am entering my third full year managing the lab and the unrelenting industry support continues to amaze me. Nearly 80 contract members for 2007 from all walks of turfgrass



#### TDL

management were listed in the November/December issue of *The Grass Roots* and form the foundation of the lab. While some members are very active in sample submission and lab interaction, others are members simply to support the TDL for a later time when they may need it. Product testing with chemical cooperators provides large financial support for the entire turfgrass pathology program at UW, which includes the TDL. Research grants from the Wisconsin Golf Course Superintendents Association and Northern Great Lakes Superintendents Association support useful research to local superintendents while at the same time supporting the lab.

Aside from these research grants, the WGCSA and NGLGCSA also provide additional gifts totaling thousands of dollars in support of the lab. Most recently, Dennis Robinson of Horst Distributing graciously donated the proceeds of Aquatrols 'Turfbucks' program earmarked for research to be presented to the TDL, a gift in excess of \$1,700! These gifts are instrumental in keeping diagnostic submission fees low while still maintaining the excellent quality of service you have come to expect and deserve. Please remember these organizations and companies when considering the benefits of membership or purchasing a product, for without their support our state industry would be much less vibrant.

For further information on how to become a contract member with the TDL or for other forms of support please visit our website at www.plantpath.wisc.edu/tdl or contact me directly at plk@plantpath.wisc.edu or 608-845-2535.

#### **References:**

- Koch, P. L. 2007. A tale of two summers: the 2007 TDL Year in Review. *The Grass Roots*. November/December. 36(6) p 38-41.
- Millett, S. M. and Maxwell, D. P. 2000. Typhula snow molds: the strong and the weak. Golf Course Management. February. 68(2) p 49-51.
- Smiley, R.W., Dernoeden, P.H., Clarke, B. B. 2005. Compendium of Turfgrass Diseases, 3rd ed. APS Press, St Paul, MN. p 91-94.



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When Performance Matters."

# The Life of Riley

By David Brandenburg, Golf Course Manager, Rolling Meadows Golf Course

Dustin Riley CGCS began his term as the 39th President of the Wisconsin Golf Course Superintendents Association at the Symposium on November 28th, 2008. Right off the bat he was indoctrinated with presidential duties. Opening comments at the Symposium, *The Grass Roots* Presidents column deadline looming and I am also asking him for his life story for this article. If history shows us anything, Dustin will handle the responsibilities of the association with ease.

It must be a sign of my aging when I can say, I knew Dustin when he was but a lad playing on his hometown Lomira Lions golf team. Dustin admits he was a typical jock, but without the talent. His lack of speed, bad arm and inability to hit a baseball sent him towards golf after two seasons of high school baseball. His high school golf career was successful as the team made trips to state his junior and senior years. Those trips to state gave Dustin experiences he says he will never forget.

After high school graduation, his career in golf started with a summer job at Camelot County Club in Lomira working for your's truly learning the basics of golf course maintenance. Dustin worked at Camelot for four summers.

Dustin's college life began at University of Wisconsin - Stevens Point working towards a Wildlife Biology major. After two years, Dustin realized that careers in natural resources were limited for those entering the job market. The best route would be to obtain a PhD and then apply for limited term employment, working his way up. That plan did not seem worth the years of schooling, so like many of us Dustin's summer job was becoming enjoyable despite the early mornings so he began to consider a career in golf.

He changed his major to Urban Forestry with a Soil Science minor for his junior year at Point. After learning UW-Madison had a Turfgrass and Grounds emphasis Dustin transferred there and graduated in 1994 with a BS in Soil Science. Dustin enjoyed Madison and the simple, straight forward thinking of Dr. Wayne Kussow mixed along with the "fiery" approach to turf management from Dr. Frank Rossi.

In discussing his career options and the need to expand his golf course experience with Dr. Rossi, Dustin was given contact information for Scott Schaller then superintendent at South Hills Country Club in Fond du Lac. Dustin made the necessary contacts and received an interview with Scott, and



received a position. While at South Hills, Dustin learned quickly that golfer expectations and turf management intensity is much different at the private club than those he experienced at the public Camelot CC.

With his degree from UW-Madison, and new position Dustin's passion for turf knowledge grew 10 fold and he wanted to continue learning but did not want to pursue graduate studies. Scott along with Andy Gruse the assistant superintendent at South Hills were graduates of the Penn State Golf Course Turfgrass Management Program. In discussing his educational and career options with Scott and Andy, Dustin decided that Penn State was exactly what he was looking for. Dustin considers himself fortunate to be selected to the program





on his first try and he was able to use his passion for learning under the direction of the late George Hamilton. At the 1997 GCSAA Conference and Show, Dustin along with 2 other classmates from Penn State were presented with GCSAA Scholarships. Also at the conference and show, Dustin put his education and experience to work and finished second at the Student Turf Bowl, losing out to a graduate student from Texas A&M.

After graduating from Penn State's two year program in 1997 Dustin became the Assistant Golf Course Superintendent at North Shore Golf Club in Menasha, WI, working under the direction of Certified Golf Course Superintendent Scott Schaller. Working with Scott for several years while gaining the confidence needed to manage an effective crew led Dustin to decide it was time to find a position as Golf Course Superintendent. After several successful interviews the right position became available in 1999 and Dustin became the Golf Course Superintendent at Oconomowoc Golf Club.

Oconomowoc Golf Club is a private 18-hole club designed by Donald Ross in 1916. Membership is capped at 175 and the club is maintaining a small waiting list something unique in the current golf market. The club is for golfers and does not have tennis, swimming or tee times. Members show up to play when they want, and rarely have to wait long at the club that hosts 14,000 rounds annually.

The club is on the 2nd highest elevation in Waukesha County and has about 10" of topsoil overlaying gravel. This soil profile makes drainage one thing Dustin and his staff do not have to worry about. The only rain concern they do have is the fact Oconomowoc Golf Club is one of the few remaining clubs with member carts. A restriction of cart traffic during wet periods becomes



Hole 8 at Oconomowoc Golf Club



Hole 12 at Oconomowoc Golf Club

more challenging politically when the members own the carts. Dustin has rebuilt two greens to USGA specifications while the other 16 native soil greens offer some challenges with past inconsistent modified green expansions.

As with many courses as old and historic as Oconomowoc Golf Club fairway turf is mixed with bentgrass, *poa annua*, *poa trivialis*, perennial ryegrass and old Kentucky bluegrasses. This mix offers varied views and playing conditions through the golf season as weather changes exposes each variety to its particular weaknesses. The biggest fairway challenge is the old Kentucky bluegrasses on the perimeter the newly re-contoured fairways. Re-grassing the fairways is being considered by the club so Dustin and his staff regrassed two par 3 fairways in 2007 as a test plot for the members to examine. More information on Oconomowoc Golf Club can be found at www.ocongolfclub.org.

You can imagine Dustin could be torn during football season being a graduate of Wisconsin and Penn State, however he was quick to point out he is a Badger fan and always will be. Dustin's family life is growing along with his career. He