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Special Thanks!

Special thanks to Andrew Carlson for his editorial contributions towards Hole Notes.

Upcoming 2007 MGCSA Schedule

Thursday, September 13
University of Minnesota Field Day
University of Minnesota St. Paul Campus
Hosts: Dr. Brian Horgan and Larry Vetter

Monday, September 24
Harold Stodola Research Scramble
The Jewel Golf Club, Lake City
Host Superintendent: Doug Mahal, CGCS

Monday, October 8
MGCSA Fall Mixer
Le Sueur Country Club, Le Sueur
Host Superintendent: Thomas Meier

Tuesday, December 4
MGCSA Awards & Recognition Banquet
Prestwick Golf Club, Woodbury
Host Superintendent: Dave Kazmierczak

Membership Report

July 30, 2007 - New Members

New Members

Jeff Weber
Class C
Southview Country Club
West St. Paul, MN

John G. Koury
Class D
Southview Country Club
West St. Paul, MN

Jason Pacl
Affiliate
Northstar Cover-All
South Haven, MN

RECLASSIFICATION

Jeramie Gossman
Class C to Class SM
Southview Country Club
West St. Paul, MN

- Respectfully submitted by Mike Knodel
MGCSA Membership Chair

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PRESIDENT'S MESSAGE

MGCSA Plays Important Role in the Green Industry

By James Bade

Everyone has heard of "TGIF", Thank Goodness It's Friday. But of course in our profession when we work weekends every day can be a Monday. And that is fine with me because I like what I do. How about the letters, "MTGF," do you know what they mean? M is for Minnesota where you may live or work. T is for turf, which if you are reading this, more than likely you are related to turf in some way. G is for grounds, which is what we have once we are off our fine turf. And F is for foundation, which is a non-profit organization that supports worthy causes.

MTGF sounds like that is something you should be a part of, and it is by virtue of your being a member in the MGCSA! In other words, YOU are a member of the Minnesota Turf and Grounds Foundation. The MTGF is a collection of allied associations dealing with the green industry, like cemeteries, parks, sports turf, sod growers, seed producers, golf courses, schools and arborists. This is quite an impressive list when one needs leverage to get things done.

There is the adage, strength in numbers. Sometimes you can do more with greater numbers than by yourself. The Minnesota Green Expo is one example. The speakers that can be brought in by the MTGF are the nation's best. Plus, a lot of support goes to research and education due to the Green Expo's success and its large numbers. With ever increasing legislation and regulation we are going to need great numbers to get things done.

Obviously this is an oversimplified version of what the MTGF is. The point being, you are a member of an association that plays an important role within the green industry. One thing I have learned sitting on the BOD comes from a JFK quote, "Ask not what your country can do for you, but what you can do for your country." The more I have put into the association, the more I have received from it! Just by being involved you meet people and stay on the top of your game just through interaction.

Are you ready for another set of letters... how about "RCGC"? Some day they may or could stand for Research Center Golf Course. The concept started about this time last year. The MGCSA is exploring again whether it should help manage a golf course. Another opportunity has arisen that we want to be open to. We very much want to solicit your input and thoughts in regards to this concept. A committee is being formed to define goals and objectives. Is it something we should be involved in or not? The possibilities sound great, like raising funds for research and having a place to expand on the research being done at the TROE center. If this is something that interests you, just contact Scott Turtinen or myself.

First there was the drought, then hail in the Brainerd area, straight-line winds around the cities, and now floods down south. Working with Mother Nature has its rewards and challenges. I am proud to be a part of an association that perseveres during trying times and helps one another out.

Hope to see you at the fall events. - James

HOLE NOTES

Official Publication of the MGCSA

Editor

Jack MacKenzie, CGCS
jmackenzie426@msn.com

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EXECUTIVE DIRECTOR

Scott Turtinen
700 Twelve Oaks Center Dr., Suite 706
Wayzata, MN 55391
952/473-2582 Fax: 952/473-2586
Toll Free: 1-800-MGCSA-27
E-mail: scott@mgcsa.org

www.mgcsa.org

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Superintendent Tom Meier and Staff Set to Host MGCSA Fall Mixer at Le Sueur CC on October 8

Le Sueur Country Club was founded and built in 1926 by the Green Giant Company. The original architect was Ward Cosgrove, CEO/Owner Green Giant Company. The new nine was designed by Joel Goldstrand.

It was built to accommodate their corporate officers, staff and customers. Originally it was built as a nine-hole course but was expanded to 18 holes in the mid-1970s. The course measures 6,117 yards and features many holes with beautiful vistas of the surrounding valley.

Superintendent Tom Meier

Tom Meier has been Superintendent at Le Sueur Country Club for the past six years and prior to that was at the Worthington Country Club for 24 years, 13 as superintendent. "I enjoy spending time with my family and also hunting, fishing, golfing and coaching youth sports. My wife Apryl and I have two children, Meagan 14 and Seth 12" said Tom.

Assistant Super Duane Culbert

Duane Culbert has been at LSCC for the past 19 years, 16 as assistant superin-



Le Sueur Country Club's Maintenance Staff, from left to right, Tim Donovan, Jacob Heimerman, Larry Milan, Kevin Dahn, Doug Malm, Assistant Superintendent Duane Culbert and Gerald Distel.

tendent. When he is not at the club, he enjoys playing softball, basketball, shoot-

ing pool and hunting.



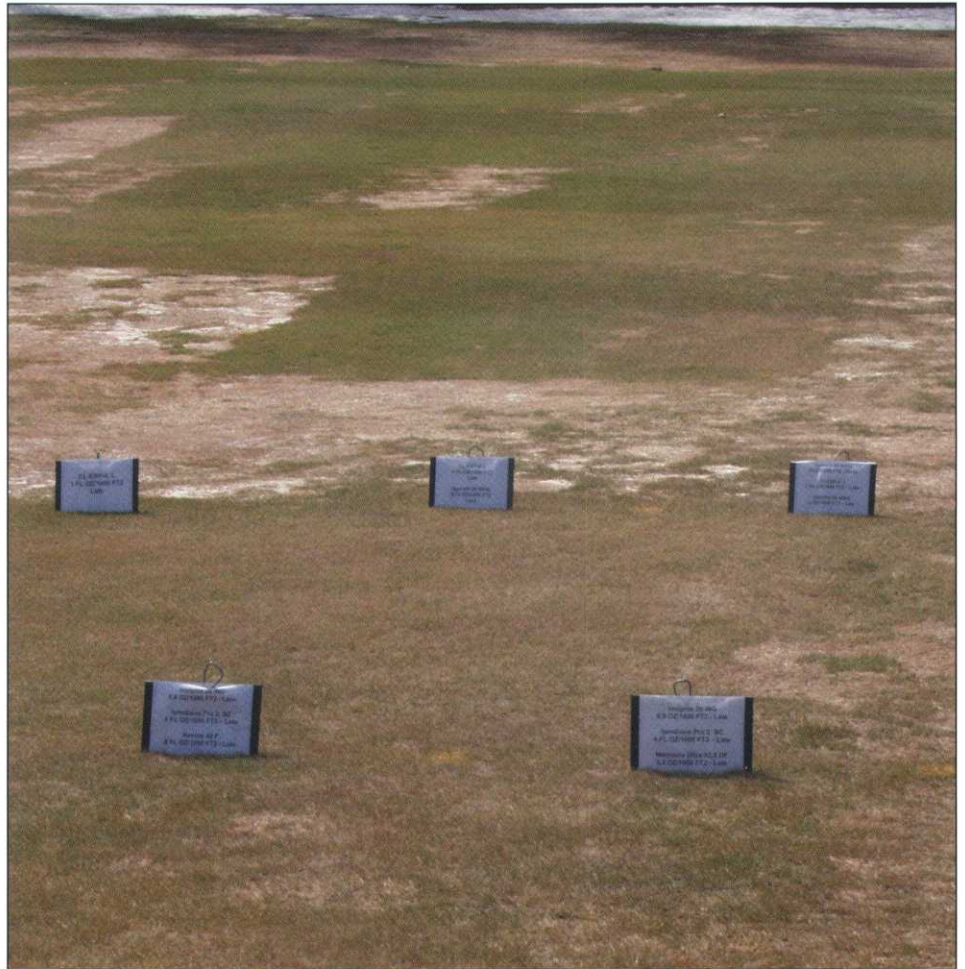
The 9th hole at Le Sueur Country Club

Sick of Snow Mold?

By Paul Koch
Turfgrass Diagnostic Lab

Finally, we've reached that point of the golfing season. The point where the days are still warm, the nights are a bit cooler, the sun sets at eight instead of nine, and adjustments are being made to maintain the golf course without the help of students. Believe it or not, it's also the point where our attention should begin to shift towards protecting our turfgrass this upcoming winter. Snow mold, be it from the pink or gray variety, can cause significant damage to golf courses in the northern tier of the country. Significant snow mold damage leads to poor course conditions in the spring, which will in turn lead to a drop in golfer revenue and possibly a hit on your maintenance budget. But with a little bit of planning and the use of research results obtained from our snow mold fungicide trials, excellent snow mold control can be obtained in any environment and with any budget.

Snow mold is not caused by a single fungus, but rather a compilation of different fungi that cause damage under a variety of environmental conditions (Smiley et al., 2003). Pink snow mold is caused by the fungus *Microdochium nivale* and can cause damage with or without the aid of snow cover. Symptoms of pink snow mold can vary, but as snow cover recedes pink snow mold can cause circular patches of tan or bleached turfgrass that may have a pink outer perimeter. Gray snow mold is caused primarily by the fungi *Typhula incarnata* and *T. ishikariensis* (also known as speckled snow mold). Symptoms don't differ dramatically between the two species, but the environmental conditions required for symptom development do. *Typhula incarnata* requires approximately sixty days of continuous snow cover to cause symptoms and primarily damages the leaf blades of the turfgrass plant, while *T. ishikariensis* requires approximately ninety days of continuous snow cover and can infect the crown region of the plant as well as the leaves. Because of the crown infection, recovery time is significantly slowed on those plants that have been damaged by *T. ishikariensis*. The main diagnostic tool in identifying which *Typhula* species is present on your turf is by sclerotial characteristics. Sclerotia are fungal structures developed as a way to survive through



the unfavorable conditions of summer until new infections can begin with the onset of cold weather again the following winter. Sclerotia produced by *T. incarnata* are approximately the size of fertilizer granules and red in color, while those produced by *T. ishikariensis* are smaller and black in color. The Turfgrass Diagnostic Lab, in cooperation with the University of Wisconsin-Madison and the University of Minnesota, has conducted snow mold fungicide research for over a decade. The past two years there have been five separate trials conducted in different parts of Wisconsin and Minnesota to give results under varying levels of snow mold disease pressure. The five locations were Lake Wisconsin CC in Prairie du Sac, Wis. just outside of Madison; Sentryworld GC in Stevens Point, WI; Gateway GC in Land O' Lakes, WI on the border with Michigan's Upper Peninsula; and two sites

at Giant's Ridge golf course in Biwabik, Minn.

With the probable elimination of PCNB from all turfgrass uses in the near future and new products for snow mold control introduced into the market in recent years, many superintendents may be in a state of transition concerning their snow mold control program. Damage from snow molds and winter injury can significantly affect the playability of the course well into springtime, which could reduce play and ultimately the revenue of the golf course. While options are limited in controlling other forms of winter injury such as ice damage, they abound in snow mold control. So take the time this fall to choose the products that will provide acceptable snow mold control at a price you can afford, and then sit back and worry about next summer's anthracnose.

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2006-07 Snow Mold Control Evaluation

Gateway Golf Club, Land O' Lakes, WI

By Paul Koch, Department of Plant Pathology
and Jake Schneider, Department of Horticulture
University of Wisconsin / Madison

OBJECTIVE

To evaluate fungicides for the control of Typhula blight (caused by *Typhula ishikariensis* and *Typhula incarnata*) and pink snow mold (caused by *Microdochium nivale*).

MATERIALS AND METHODS

This evaluation was conducted at Gateway Golf Course in Land O' Lakes, Wis. on a creeping bentgrass (*Agrostis stolonifera*) and annual bluegrass (*Poa annua*) fairway nursery maintained at 0.5-inch cutting height. Individual plots measured 3 ft x 10 ft (30 ft²), and were arranged in a randomized complete block design with three replications. Individual treatments were applied at a nozzle pressure of 40 p.s.i using a CO₂ pressurized boom sprayer equipped with two XR Teejet 8005 VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 2 gallons of water per 1,000 ft² except treatment 8 was applied in 5 gallons of water per 1,000 ft².

Granular applications were applied using a shaker jar. Approximately 1 lb/1000 ft² of nitrogen fertilizer was applied to the experimental plot throughout the 2006 growing season. Early treatments were applied on October 16, 2006 and late applications were applied on November 5, 2006. The experimental plot area was not inoculated. There was continuous snow cover on the plots from November 30, 2006 to late-March 2007, a total of approximately 120 days. The percent cover of snow mold and phytotoxicity were recorded on March 28, 2007. There was an even distribution of pink snow mold across the experimental plots before the first treatment application, and that was excluded from the final rating. Data obtained was subjected to an analysis of variance to determine significant differences between treatments. The mean percent diseased area snow mold and mean phytotoxicity rating for each individual treatment are located in the table on Page 8.

RESULTS AND DISCUSSION

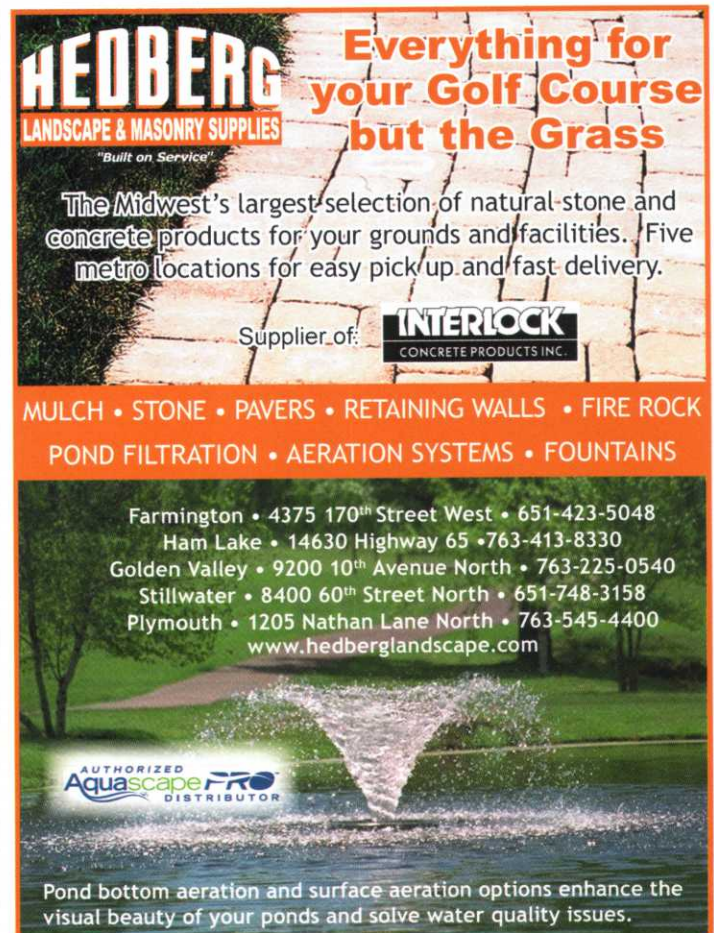
Disease pressure from *Typhula ishikariensis* was fairly high at Gateway GC this season, with untreated control plots averaging 92% disease damage. Despite this high pressure, many of the treatments provided excellent control of pink and gray snow mold. Most treatments limited damage caused by *T. ishikariensis* to less than 10%, while many did not allow any *T. ishikariensis* damage. The untreated controls were rated as having a color of 7, with only minor variations found within the treatments. The mean percent snow mold and mean phytotoxicity rating for each individual treatment is presented in the table below.

SNOW MOLD FIELD DAY SUPPORTERS

The Andersons; Arysta LifeScience; BASF Corporation; Bayer Environmental Science; Chemtura Corporation; Cleary Chemical Corporation; LESCO; Quali-Pro; Syngenta Professional Products; Northern Great Lakes Golf Course Superintendents Association; Wisconsin Golf Course Superintendents Association; Gateway GC, Todd Renk, Sup't. Lake Wisconsin Country Club, Kendall Marquadt, Sup't.; The Legend at Giants Ridge, Jared Finch, Sup't., and Sentryworld, Gary Tanko, Sup't.

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Table 1

Snow Mold and Phytotoxicity Ratings Recorded on March 28th, 2007 at Gateway GC

Treatment	Rate	Timing ^a	% Snow Mold ^b	Phytotoxicity ^c
1 Untreated Control			91.7 a	7 bc
2 Instrata	5 FL OZ/M	Late	0 f	7 bc
3 Instrata	9 FL OZ/M	Late	0 f	7 bc
4 Instrata	11 FL OZ/M	Late	0 f	7 bc
5 Medallion	0.15 OZ/M	Late	0 f	7 bc
Daconil WeatherStik	2.5 OZ/M	Late		
Banner MAXX	1.8 FL OZ/M	Late		
6 Banner MAXX	2 FL OZ/M	Late	3.3 def	7 bc
Daconil WeatherStik	5.5 FL OZ/M	Late		
7 Banner MAXX	2 FL OZ/M	Late	0 f	7 bc
Turficide 400	6 FL OZ/M	Late		
8 Turficide 400	12 FL OZ/M	Late	5 def	7 bc
9 Insignia	0.7 OZ/M	Early	1.7 ef	7 bc
Manicure Ultra	5 OZ/M	Late		
Revere 4000	12 FL OZ/M	Late		
10 18 Plus	4 FL OZ/M	Late	0 f	6.3 c
Manicure Ultra	5 OZ/M	Late		
Revere 4000	12 FL OZ/M	Late		
11 Spectator Ultra	4 FL OZ/M	Early	1.7 ef	7 bc
Insignia	0.7 OZ/M	Early		
Manicure Ultra	5 OZ/M	Late		
12 Spectator Ultra	4 FL OZ/M	Early	0 f	7 bc
Revere 4000	12 FL OZ/M	Late		
13 Insignia	0.7 OZ/M	Early	1.7 ef	7 bc
18 Plus	4 FL OZ/M	Late		
Manicure Ultra	5 OZ/M	Late		
14 Armada	1.2 OZ/M	Early	0 f	7 bc
Revere 4000	12 FL OZ/M	Late		
15 Tartan	2 FL OZ/M	Late	0 f	7.7 ab
Daconil WeatherStik	5.5 FL OZ/M	Late		
16 Tartan	2 FL OZ/M	Late	0 f	7.7 ab
Turficide 400	6 FL OZ/M	Late		
17 Tartan	2 FL OZ/M	Late	3.3 def	7.7 ab
Chipco 26019GT	6 FL OZ/M	Late		
18 Tartan	2 FL OZ/M	Late	0 f	7.7 ab
Prostar	2.2 OZ/M	Late		
19 TBZ+TFS Green	2 FL OZ/M	Late	0 f	7.3 b
20 TBZ+TFS Green	2 FL OZ/M	Late	0 f	8 a
Chipco 26019GT	4 FL OZ/M	Late		
21 Lynx	1 FL OZ/M	Late	0 f	7.7 ab
Chipco 26019GT	4 FL OZ/M	Late		
Daconil WeatherStik	5.5 FL OZ/M	Late		
22 Insignia	0.7 OZ/M	Late	3.3 def	7 bc
Revere 4000	4 FL OZ/M	Late		
Manicure Ultra	5 OZ/M	Late		

Means followed by same letter do not significantly differ ($P=.05$, Student-Newman-Keuls)

^a Early and late fungicide treatments were applied on Oct. 16, 2006 and Nov. 5, 2006, respectively

^b Mean percent diseased area

^c Phytotoxicity was rated on a scale of 1-9 where 1 = straw colored, 6 = acceptable, 9 = dark green

Table 1 (Continued)

Snow Mold and Phytotoxicity Ratings Recorded on March 28th, 2007 at Gateway GC

Treatment	Rate	Timing ^a	% Snow Mold ^b	Phytotoxicity ^c
23 Insignia	0.7 OZ/M	Late	3.3 def	7 bc
Iprodione Pro	4 FL OZ/M	Late		
Manicure Ultra	5 OZ/M	Late		
24 Insignia	0.7 OZ/M	Late	0 f	7 bc
BAS 595	1 FL OZ/M	Late		
Manicure Ultra	5 OZ/M	Late		
25 Insignia	0.7 OZ/M	Late	5 def	7 bc
Revere 4000	4 FL OZ/M	Late		
Manicure Ultra	4 OZ/M	Late		
26 Spectro	4 OZ/M	Early	1.7 ef	7 bc
26/36	4 FL OZ/M	Late		
CLEX-9	1.2 OZ/M	Late		
27 Spectro	4 OZ/M	Early	1.7 ef	7 bc
26/36	4 FL OZ/M	Late		
Daconil Ultrex	5.5 OZ/M	Late		
28 Spectro	4 OZ/M	Early	11.7 def	7 bc
26/36	4 FL OZ/M	Late		
Endorse	4 OZ/M	Late		
29 26/36	4 FL OZ/M	Late	0 f	7 bc
CLEX-9	1.2 OZ/M	Late		
30 26/36	4 FL OZ/M	Late	5 def	7.3 b
Daconil Ultrex	5.5 OZ/M	Late		
31 26/36	4 FL OZ/M	Late	25 cd	7 bc
Endorse	4 OZ/M	Late		
32 Spectro	5.75 OZ/M	Late	3.3 def	7 bc
CLEX-9	1.2 OZ/M	Late		
33 Turfcide 400	12 FL OZ/M	Late	25 cd	7 bc
34 Turfcide 400	9 FL OZ/M	Late	5.7 def	6.3 c
Daconil Ultrex	3.7 OZ/M	Late		
35 Instrata	7 FL OZ/M	Late	5 def	7 bc
36 Instrata	3 FL OZ/M	Early	0 f	7 bc
Instrata	8 FL OZ/M	Late		
37 Instrata	5.5 FL OZ/M	Early/Late	0 f	7 bc
38 Instrata	7 FL OZ/M	Early/Late	0 f	7 bc
47 Disarm	0.18 FL OZ/M	Early/Late	53.3 b	7 bc
48 Disarm	0.36 FL OZ/M	Early/Late	8.3 def	7 bc
Banner MAXX	0.36 FL OZ/M	Early/Late		
49 Disarm	0.18 FL OZ/M	Early/Late	6.7 def	7 bc
Banner MAXX	2 FL OZ/M	Early/Late		
50 AND6242	6.36 lb/M	Late	31.7 c	7 bc
51 AND6243	6.36 lb/M	Late	22.3 c-f	7 bc
52 AND3224	6.36 lb/M	Late	5 def	7 bc
53 AND6244	6.36 lb/M	Late	1.7 ef	7 bc

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

^aEarly and late fungicide treatments were applied on Oct. 16, 2006 and Nov. 5, 2006, respectively

^bMean percent diseased area

^cPhytotoxicity was rated on a scale of 1-9 where 1 = straw colored, 6 = acceptable, 9 = dark green