2011-2012 Snow Mold Control Evaluation
Les Bolstad – St Paul, MN

Paul Koch, P.J. Liesch, Sam Soper, and Dr. Jim Kerns
Department of Plant Pathology
University of Wisconsin-Madison

Andrew Hollman and Dr. Brian Horgan
Department of Horticultural Science, University of Minnesota

OBJECTIVES

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

MATERIALS AND METHODS

This evaluation was conducted at Les Bolstad GC in St. Paul, MN on a creeping bentgrass (*Agrostis stolonifera*) and annual bluegrass (*Poa annua*) golf course fairway maintained at a height of 0.5 inch. Individual plots measured 3 ft x 10 ft (30 ft^2), and were arranged in a randomized complete block design with four replications. Individual treatments were applied at a nozzle pressure of 40 p.s.i using a CO_2 pressurized boom sprayer equipped with two XR Teejet 8004 VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 2 gallons of water per 1000 ft^2. Early applications were applied on October 21st, 2011 and late applications were applied on November 17th, 2011. The experimental plot area was not inoculated. Due to low snowfall and warm temperatures, continuous snow cover approached 60 days at this site. Disease severity and turf quality were recorded on March 27th, 2012. Disease severity was visually rated as percent disease and turfgrass quality was visually rated on a 1-9 scale with 6 being acceptable. Data was subjected to an analysis of variance and means were separated using the Waller Duncan test. Means for disease severity and turf quality for individual treatments are presented in the following tables for individual treatments.

RESULTS AND DISCUSSION

Unseasonably warm temperatures and little snowfall resulted in very low disease pressure at Les Bolstad in 2011-2012. Snow mold was not observed on any plots in the trial. Turfgrass quality ratings were generally unacceptable due to winter desiccation amongst much of the experimental area.

Snow Mold and Quality Ratings Recorded on March 27th, 2012 at Les Bolstad GC

	Treatment	Rate	Timing[a]	Dis Severity[b]	Quality[c]
1	Non treated Control			0.0 a	6.0 a
2	Velista	0.7 OZ/M	Late	0.0 a	6.0 a
3	Velista	0.7 OZ/M	Late	0.0 a	4.5 cd
	Daconil Ultrex	5.0 OZ/M	Late		
	Chipco 26GT	4.0 FL OZ/M	Late		
4	Velista	0.7 OZ/M	Late	0.0 a	4.5 cd
	Daconil Ultrex	5.0 OZ/M	Late		
	Heritage	0.7 OZ/M	Late		
5	Velista	0.7 OZ/M	Late	0.0 a	4.5 cd
	Daconil Ultrex	5.0 OZ/M	Late		
	Banner MAXX II	2 FL OZ/M	Late		
6	Velista	0.7 OZ/M	Late	0.0 a	5.8 ab
	Daconil Ultrex	5.0 OZ/M	Late		
	3336 Plus	2.0 FL OZ/M	Late		
7	Velista	0.7 OZ/M	Late	0.0 a	5.0 a-d
	Daconil Ultrex	5.0 OZ/M	Late		
8	Velista	0.7 OZ/M	Late	0.0 a	4.8 bcd
	Medallion	0.25 OZ/M	Late		
	Banner MAXX	2.0 FL OZ/M	Late		
9	Pillar G	3 LB/M	Late	0.0 a	4.5 cd
10	Insignia SC	0.7 FL OZ/M	Late	0.0 a	4.8 bcd
	Trinity	1.0 FL OZ/M	Late		
	Daconil Ultrex	3.2 OZ/M	Late		
11	Honor	0.84 OZ/M	Late	0.0 a	4.5 cd
	Trinity	1.0 FL OZ/M	Late		
	Daconil Ultrex	3.2 OZ/M	Late		
12	Interface	3.0 FL OZ/M	Late	0.0 a	5.0 a-d
	Triton FLO	0.5 FL OZ/M	Late		
13	Interface	3.0 FL OZ/M	Late	0.0 a	4.5 cd
	Trition FLO	0.75 FL OZ/M	Late		
14	Interface	4.0 FL OZ/M	Late	0.0 a	5.3 a-d
	Triton FLO	0.5 FL OZ/M	Late		
	ES TC006A	3.0 Gal/A	Late		
15	Interface	4.0 FL OZ/M	Late	0.0 a	4.5 cd
	Triton FLO	0.75 FL OZ/M	Late		
16	Reserve	4.5 FL OZ/M	Late	0.0 a	4.8 bcd
	Interface	4.0 FL OZ/M	Late		
17	Reserve	4.5 FL OZ/M	Late	0.0 a	5.3 a-d
	Tartan	1.5 FL OZ/M	Late		
18	Tartan	1.0 FL OZ/M	Late	0.0 a	5.5 abc
	Interface	3.0 FL OZ/M	Late		
19	Tartan	1.5 FL OZ/M	Late	0.0 a	4.8 bcd
	Interface	3.0 FL OZ/M	Late		
20	Interface	4.0 FL OZ/M	Late	0.0 a	5.5 abc
	Triton FLO	0.5 FL OZ/M	Late		
21	Instrata	7.0 FL OZ/M	Late	0.0 a	4.5 cd
22	Instrata	9.0 FL OZ/M	Late	0.0 a	4.8 bcd
23	Concert II	8.5 FL OZ/M	Late	0.0 a	4.8 bcd
24	Concert II	8.5 FL OZ/M	Late	0.0 a	5.8 ab
	PAR	0.37 FL OZ/M	Late		

Means followed by same letter do not significantly differ (P=.05, Waller Duncan)

[a]Early and late fungicide treatments were applied on Oct. 21st and Nov 17th 2012, respectively

[b]Mean % diseased area

[c]Quality was visually rated on a scale of 1-9 where 1 = completely dead, 6 = acceptable, 9 = dark green

Snow Mold and Quality Ratings Recorded on March 27th, 2012 at Les Bolstad GC

	Treatment	Rate	Timing[a]	Dis Severity[b]	Quality[c]
25	Concert II	8.5 FL OZ/M	Late	0.0 a	5.8 ab
	Medallion	0.25 OZ/M	Late		
	PAR	0.37 FL OZ/M	Late		
26	Concert II	8.5 FL OZ/M	Late	0.0 a	6.0 a
	A7087F	0.5 FL OZ/M	Late		
	PAR	0.37 FL OZ/M	Late		
27	Headway G	4.0 LB/M	Early/Late	0.0 a	4.5 cd
28	QP TM/C	6.0 OZ/M	Late	0.0 a	5.0 a-d
	QP Iprodione	4.0 FL OZ/M	Late		
	QP Propiconazole	2.0 FL OZ/M	Late		
29	QP TM/C	6.0 OZ/M	Late	0.0 a	5.3 a-d
	QP Iprodione	4.0 FL OZ/M	Late		
	QP Tebuconazole	0.6 FL OZ/M	Late		
30	QP TM/C	6.0 OZ/M	Late	0.0 a	4.3 d-g
	QP Iprodione	4.0 FL OZ/M	Late		
31	QP Iprodione	4.0 OZ/M	Late	0.0 a	4.8 bcd
	QP Propiconazole	2.0 FL OZ/M	Late		
32	Torque	0.6 FL OZ/M	Late	0.0 a	4.8 bcd
	26/36	4.0 FL OZ/M	Late		
	Spectro	3.6 OZ/M	Late		
33	Torque	0.6 FL OZ/M	Late	0.0 a	4.5 cd
	Affirm	0.9 FL OZ/M	Late		
	Spectro	3.6 OZ/M	Late		
34	Chipco 26GT	4.0 FL OZ/M	Late	0.0 a	4.8 bcd
	Daconil Ultrex	5.0 OZ/M	Late		

Means followed by same letter do not significantly differ (P=.05, Waller Duncan)

[a]Early and late fungicide treatments were applied on Oct 21st and Nov 17th 2012, respectively

[b]Mean % diseased area

[c]Quality was visually rated on a scale of 1-9 where 1 = completely dead, 6 = acceptable, 9 = dark green