2010-2011 Auxiliary Snow Mold Control Evaluation: Portage CC – Portage, WI

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OBJECTIVE

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

MATERIALS AND METHODS

This evaluation was conducted at Portage CC in Portage, WI on a mixed stand of 'Penncross' creeping bentgrass (*Agrostis stolonifera*) and annual bluegrass (*Poa annua*) maintained under fairway conditions and mowed at a height of 0.5". 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. All treatments were applied on December 1st, 2010. The experimental area was not inoculated. There was continuous snow cover on the plots from December 4th until mid-March of 2011, a total of approximately 100 days. Disease severity, turf quality, and color were recorded on March 31st, 2011. Disease severity was visually assessed as percent disease, turfgrass quality was visually assessed on a 1-9 scale with 6 being acceptable, and turf color was visually assessed on a 1-9 scale with 6 being the color of unsprayed, non-diseased turfgrass. Data were subjected to an analysis of variance and means were separated using the Waller-Duncan test. Means for disease severity, turf quality and turf color are presented in the following table for individual treatments.

RESULTS AND DISCUSSION

Despite a prolonged period of snow cover in 2010-2011 disease pressure was low at Portage CC with non-treated controls averaging 11.3% disease. Prolonged cold temperatures prior to the initial snowfall in December likely allowed the plants to acclimate and naturally resist snow mold infection. The dominant pathogen observed was *Microdochium nivale*, the causal agent of Microdochium patch (aka pink snow mold). All treatments reduced disease severity when compared to the non-treated control. Only treatments 3 and 11 failed to provide complete suppression of snow molds, though both still provided acceptable disease control. Differences in turf quality were also observed, with treatments 2 and 5 providing a slightly higher turfgrass quality when compared to the non-treated control and treatment 11. No differences in turfgrass color were observed.

Snow Mold, Quality, and Color Ratings Recorded on March 31st, 2011 at Portage CC

	Treatment	Rate	Timing[a]	Dis severity[b]	Quality[c]	Color[d]
1	Nontreated Control		Late	11.3 a	5.8 b	5.8 c
2	Interface	3.0 FL OZ/M	Late	0.0 b	7.3 a	7.3 abc
	Triton FLO	0.6 FL OZ/M	Late			
3	Interface	3.0 FL OZ/M	Late	2.5 b	6.8 ab	6.8 abc
	Tartan	1.0 FL OZ/M	Late			
4	Tartan	1.0 FL OZ/M	Late	0.0 b	6.8 ab	6.8 abc
	Chipco 26GT	4.0 FL OZ/M	Late			
5	Triton FLO	0.6 FL OZ/M	Late	0.0 b	7.0 a	7.0 abc
	Chipco 26GT	4.0 FL OZ/M	Late			
6	Interface	4.0 FL OZ/M	Late	0.0 b	6.5 ab	6.5 abc
	Turfcide 400	8.0 FL OZ/M	Late			
7	Turfcide 400	12.0 FL OZ/M	Late	0.0 b	6.3 ab	6.3 abc
8	FreshSeal BR	10.0 % v/v	Late	0.0 b	6.5 ab	6.5 abc
	Insignia SC	0.5 FL OZ/M	Late			
	Trinity	1.0 FL OZ/M	Late			
9	Insignia SC	0.5 FL OZ/M	Late	0.0 b	6.3 ab	6.3 abc
	Trinity	1.0 FL OZ/M	Late			
10	FreshSeal BR	10.0 % v/v	Late	0.0 b	6.3 ab	6.0 bc
	Insignia SC	0.5 FL OZ/M	Late			
	Daconil Ultrex	3.2 OZ/M	Late			
11	Insignia SC	0.5 FL OZ/M	Late	0.5 b	5.8 b	5.8 c
	Daconil Ultrex	3.2 OZ/M	Late			

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

[a]Late fungicide treatment was applied on Dec. 1st, 2010

[b]Disease severity was visually assessed as percent diseased area

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

[d]Color was visually assessed on a scale of 1-9 where 1 = brown, 6 = natural color, 9 = dark green