

Efficacy of Signature to control pink and gray snow mold in Washington, Idaho, and Montana, 2003-2004.

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Methodology: Trials were conducted on a research green on the Washington State University Turfgrass Research Area (TRA) at Pullman, WA, a golf green on the Meadow Lake Resort Golf Course at Columbia Falls, MT, and a nursery green on the City of McCall Golf Course at McCall, ID. The research green at Pullman was constructed as a California green, the golf green at Columbia Falls was a constructed according to USGA specifications, and at McCall the nursery green was on a cobbly sandy loam soil. Individual treatment plots were 6 ft x 7 ft at Pullman and Columbia Falls and 6 ft x 5 ft at McCall with three replications in a randomized complete-block design. Fungicides were applied on 2 Dec, 6 Nov, and 29 Oct 2003 at Pullman, Columbia Falls, and McCall, respectively. Applications were made with a bicycle-wheeled CO₂ pressurized sprayer with Teejet 11004VS flat fan nozzles at 40 psi. Spray rate was 52 GPA. Snow cover at Pullman occurred from late Dec to late Feb, with roughly a two-week period in mid Jan where snow completely melted off. Snow cover was from mid-Dec to late-Mar at Columbia Falls and from late-Nov to mid-Apr at McCall. Individual plots were evaluated for disease severity (% area infected) and turf quality (rated on a scale of 1-9; 9=excellent) on 11 Mar, 25 Mar, and 22 Apr 2004 at Pullman, Columbia Falls, and McCall, respectively.

Results:

Pullman, WA. Percent snow mold rated 11 Mar 2004 was light (20%) at Pullman, WA and was essentially 100% pink snow mold. Treatments were separated at $P=0.10$ to show differences for percent disease (Table 1). Essentially all treatments gave good control of snow mold. However, Signature alone and 26GT + Signature gave the poorest disease control and were not different from the control. For turf quality there were no treatments significantly better than the control. Numerically the best turf quality treatments were 26GT + Turfcide 400 + Signature and Signature alone.

Columbia Falls, MT. Percent snow mold rated 25 Mar 2004 was moderate (52%) at Columbia Falls, MT. All fungicide treatments were better than the

control for percent disease and turf quality (Table 2). Several treatments had essentially zero percent snow mold. Numerically the poorest treatment was 26GT + Bayleton + Turfcide 400. The best turf quality was with 26GT + Daconil WS + Turfcide 400 + Signature.

McCall, I D. Percent snow mold rated 22 Apr 2004 was moderate (68%) at McCall, I D and was 75% pink and 25% gray snow mold, respectively. The high amount of pink snow mold is unusual for McCall. In previous years, gray snow mold was the predominate disease, often greater than 90%. Also the disease severity (68% in controls) was less than noted in past years. There were no differences among treatments for disease control (Table 3). It was noted that the non-treated control plots had very distinct disease patches (Fig. 3), which did not occur in treated plots, all of which were treated with Turfcide 400 as part of the treatment combination. All treatments had turf quality better than the control. Numerically, 26GT + Daconil WS + Turfcide 400 + Signature had the best turf quality among fungicide treatments.

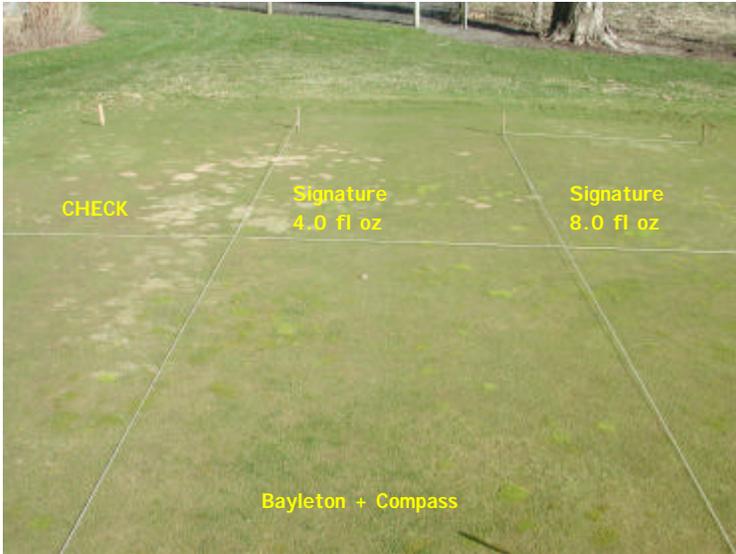


Fig. 1. Signature treatments at the WSU Turfgrass Research Area at Pullman, WA.

Table 1. Signature snow mold control, 2003-2004. Pullman, WA.

Fungicide treatment	Rate (fl oz or oz prod./M)	Disease (% area infected)	Turf quality* (rated 1-9)
26GT + Turficide 400 + Signature	4.0 fl oz 8.0 fl oz 4.0 oz	0.0 a**	5.7
Bayleton + Compass	1.0 oz 0.25 oz	0.0 a	5.3
26GT + Compass + Turficide 400	4.0 fl oz 0.25 oz 8.0 fl oz	0.0 a	5.3
26GT + Bayleton + Signature	4.0 fl oz 1.0 oz 4.0 oz	0.0 a	5.3
26GT + Signature + Daconil WS	4.0 fl oz 4.0 oz 5.5 fl oz	0.3 a	5.0
Compass + Bayleton + Daconil WS	0.25 oz 1.0 oz 5.5 fl oz	0.3 a	4.7
Bayleton + Compass + Signature	1.0 oz 0.25 oz 4.0 oz	1.0 ab	5.0
Turficide 400	8.0 fl oz	1.7 ab	5.3
26GT + Compass	4.0 fl oz 0.25 oz	2.3 ab	5.0
Signature	8.0 oz	4.0 ab	5.7
26GT	4.0 fl oz	5.0 ab	4.7
26GT + Signature	4.0 fl oz 4.0 oz	8.0 abc	4.3
Signature	4.0 oz	13.0 bc	4.0
CHECK	0	20.0 c	3.7

*Turfgrass quality rated 1 to 9; 9=excellent.

**Numbers within a column followed with the same letter are not significantly different at $P=0.10$.

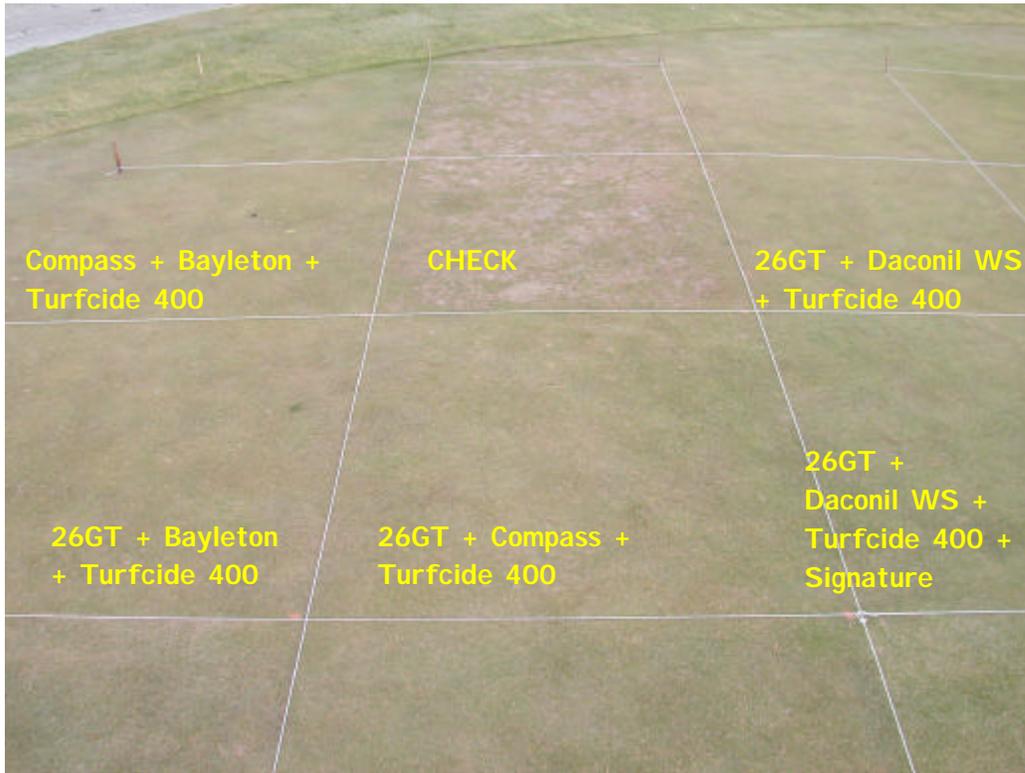


Fig. 2. Rep # 1 at the Meadow Lake Golf Course at Columbia Falls, MT.



Fig. 3. Reps# 1, 2, and 3 at the City of McCall Golf Course, McCall, I D.

Table 2. Signature snow mold control, 2003-2004. Meadow Lake Resort Golf Course. Columbia Falls, MT.

Fungicide treatment	Rate (fl oz or oz prod./M)	Disease (% area infected)	Turf quality* (rated 1-9)
26GT + Daconil WS + Turficide 400 + Signature	4.0 fl oz 5.5 fl oz 8.0 fl oz 4.0 oz	0.3 a**	8.0 a
26GT + Daconil WS + Turficide 400	4.0 fl oz 5.5 fl oz 8.0 fl oz	0.3 a	7.0 ab
26GT + Compass + Turficide 400	4.0 fl oz 0.25 oz 8.0 fl oz	0.3 a	6.7 ab
Compass + Bayleton + Turficide 400	0.25 oz 1.0 oz 8.0 oz	1.7 a	6.0 b
26GT + Bayleton + Turficide 400	4.0 fl oz 1.0 oz 8.0 fl oz	4.0 a	6.3 b
CHECK	0	51.7 b	3.0 c

*Turfgrass quality rated 1 to 9; 9=excellent.

**Numbers within a column followed with the same letter are not significantly different at $P=0.05$.

Table 3. Signature snow mold control, 2003-2004. City of McCall Golf Course. McCall, ID.

Fungicide treatment	Rate (fl oz or oz prod./M)	Disease (% area infected)	Turf quality* (rated 1-9)
26GT +	4.0 fl oz	45.0	4.5 a**
Daconil WS +	5.5 fl oz		
Turfcide 400 +	8.0 fl oz		
Signature	4.0 oz		
26GT +	4.0 fl oz	45.0	4.0 ab
Bayleton +	1.0 oz		
Turfcide 400	8.0 fl oz		
26GT +	4.0 fl oz	46.7	3.3 b
Daconil WS +	5.5 fl oz		
Turfcide 400	8.0 fl oz		
26GT +	4.0 fl oz	48.3	3.3 b
Compass +	0.25 oz		
Turfcide 400	8.0 fl oz		
CHECK	0	51.7	2.0 c
Compass +	0.25 oz	68.3	3.7 b
Bayleton +	1.0 oz		
Turfcide 400	8.0 oz		

*Turfgrass quality rated 1 to 9; 9=excellent.

**Numbers within a column followed with the same letter are not significantly different at $P=0.05$.