

Bayer - Snow Mold Trials with >80 day Snow Cover (Fairways)

Bayer Protocol #: **FE16USARRTECN1** (Meadowlake Golf Course, Columbia Falls, MT)

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A snow mold control trial was conducted on a fairway at the Meadowlake Golf Course in Columbia Falls, MT. The fairway was a mixture of Kentucky bluegrass, perennial ryegrass, creeping bentgrass and annual bluegrass. Individual treatment plots were 6' x 7' with four replications in a randomized complete-block design. Treatments were applied 27 Oct 2015. Fungicides were applied at 80 GPA with a bicycle-wheeled CO₂ pressurized (40 psi) sprayer with 11008 flat fan TeeJet nozzles. Weather conditions when fungicides were applied at Meadowlake GC: air temperature: 53°F, soil temperature 2": 48°F, relative humidity: 81% with light winds from the SW at 0 - 1 mph. GPS coordinates fairway Meadowlake GC: 48° 23' 17.72" N, 114° 12' 14.24"W, Elevation: 3160'. Meadowlake GC had snow cover for approximately 100 days from the first week of December 2015 through the first week of March 2016. Disease severity and turfgrass quality were rated on 29 Mar 2016 on the Meadowlake GC. Individual plots were evaluated for pink (*Microdochium nivale*) and/or gray (*Typhula spp.*) snow mold disease severity (% plot area infected). Turfgrass quality was rated on a scale from 1 to 9; 9 = excellent and 6 = acceptable.

(Protocol #: **FE16USARRTECN1** (Meadowlake Golf Course, Columbia Falls, MT) Snow mold disease pressure was very high, the untreated check had 78.5% of the plot area infected (Table 1). The ratio of pink to gray snow mold was roughly 75% pink to 25% gray. The gray snow mold present throughout the study area was *T. incarnata*. No *T. ishikarensis* sclerotia were found. All the fungicide combinations resulted in significantly better disease control and turfgrass quality compared to the check. There were no significant differences among any of the fungicide combinations. Although, at least numerically, Interface 6 fl oz + Mirage SC 2 fl oz + Daconil WeatherStik 5.5 fl oz had the best disease control and the highest turfgrass quality compared to the other fungicide combinations. Interface 6 fl oz + Mirage SC 2 fl oz + Daconil WeatherStik 5.5 fl oz resulted in significantly higher turfgrass quality compared to the local standard (Turfcide 400 12 fl oz) or 26GT XTRA 6 fl oz + Mirage SC 2 fl oz + Daconil WeatherStik 5.5 fl oz. Figures 1-4 are photos of all treatments in Reps 1 and 2. Figure 5 is a photo of the entire study. Figure 6 is a photo of high disease pressure along the edge of the study area in which 2 treatments 26GT XTRA 6 or 8 fl oz + Mirage SC + Daconil WeatherStik were located.

Overall, Interface 6 fl oz + Mirage SC 2 fl oz + Daconil WeatherStik 5.5 fl oz had the highest turfgrass quality and was significantly better compared to Turfcide 400 12 fl oz or 26GT 6 fl oz + Mirage SC 2 fl oz + Daconil WeatherStik 5.5 fl oz. However, there were no significant differences among any of the fungicide combinations in terms of disease control.

Table 1. The effect of various combinations of fungicide to control pink and/or gray snow mold on fairway at the Meadowlake Golf Course in Columbia Falls, MT. Rated 29 Mar 2016.

Treatment	Identification Code	Form. Type	Rate (fl oz/M)	Snow mold (% area infected)	*Turfgrass quality
INTERFACE (iprodione + trifloxystrobin) + MIRAGE SC (tebuconazole) + DACONIL WEATHERSTICK (chlorothalonil)	SP102000021104 SP102000014776 DAC WEATHERSTICK	SC SC SC	6 2 5.5	1.0 b**	5.9 a
Turficide 400 (pentachloronitrobenzene) PCNB	STANDARD - LOCAL	F	12	2.5 b	5.0 b
INTERFACE (iprodione + trifloxystrobin) + MIRAGE SC (tebuconazole) + PROXY (ethephon)	SP102000021104 SP102000014776 AEFDQM_01040301	SC SC SL	4 1.5 5	2.8 b	5.4 ab
26 GT XTRA (fluopyram + trifloxystrobin) + MIRAGE SC (tebuconazole) + DACONIL WEATHERSTICK (chlorothalonil)	SP102000030109 SP102000014776 DAC WEATHERSTICK	SC SC SC	5 2 5.5	3.3 b	5.4 ab
26 GT XTRA (fluopyram + trifloxystrobin) + MIRAGE SC (tebuconazole) + DACONIL WEATHERSTICK (chlorothalonil)	SP102000030109 SP102000014776 DAC WEATHERSTICK	SC SC SC	8 2 5.5	3.5 b	5.3 ab
26 GT XTRA (fluopyram + trifloxystrobin) + MIRAGE SC (tebuconazole) + DACONIL WEATHERSTICK (chlorothalonil)	SP102000030109 SP102000014776 DAC WEATHERSTICK	SC SC SC	6 2 5.5	7.8 b	4.9 b
UNTREATED	UNTREATED	0	0	78.5 a	1.1 c

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

**Means within columns followed by the same letter are not significantly different. LSD ($P = 0.05$).

Fig. 1. Snow mold fungicide treatments on a fairway at the Meadowlake Golf Course in Columbia Falls, MT. Rated 29 Mar 2016.

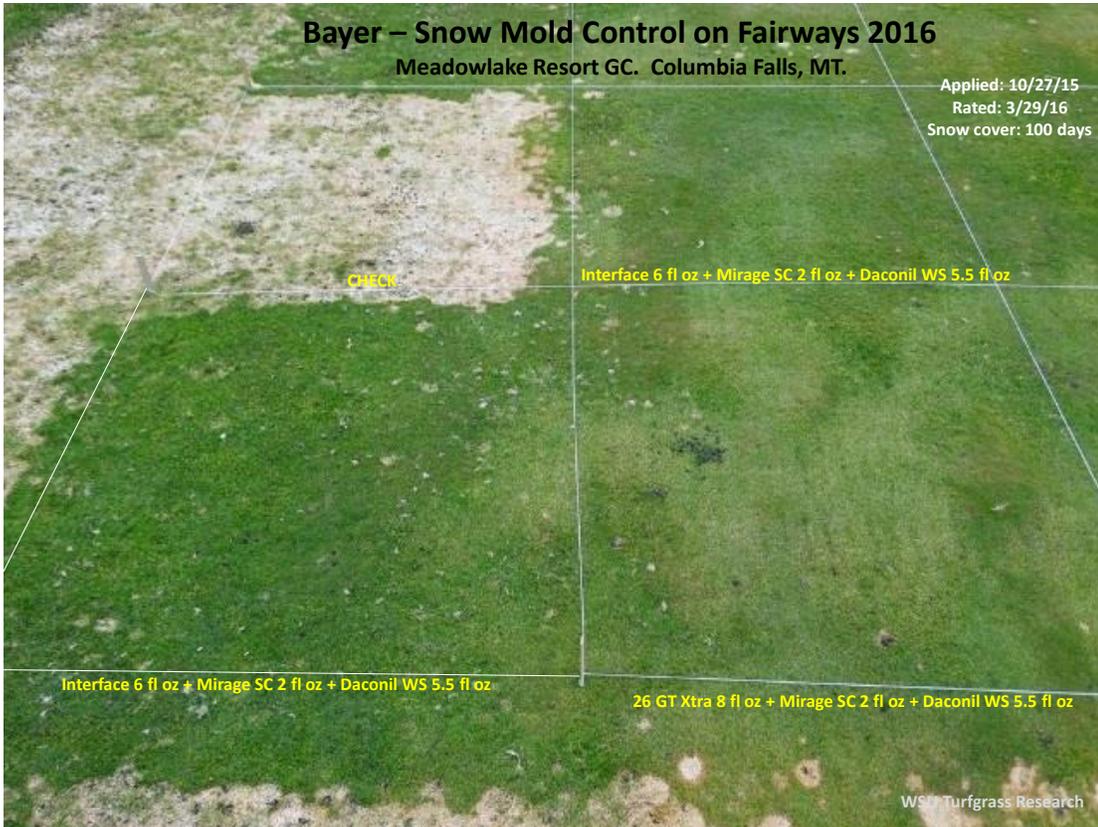


Fig. 2. Snow mold fungicide treatments on a fairway at the Meadowlake Golf Course in Columbia Falls, MT. Rated 29 Mar 2016.

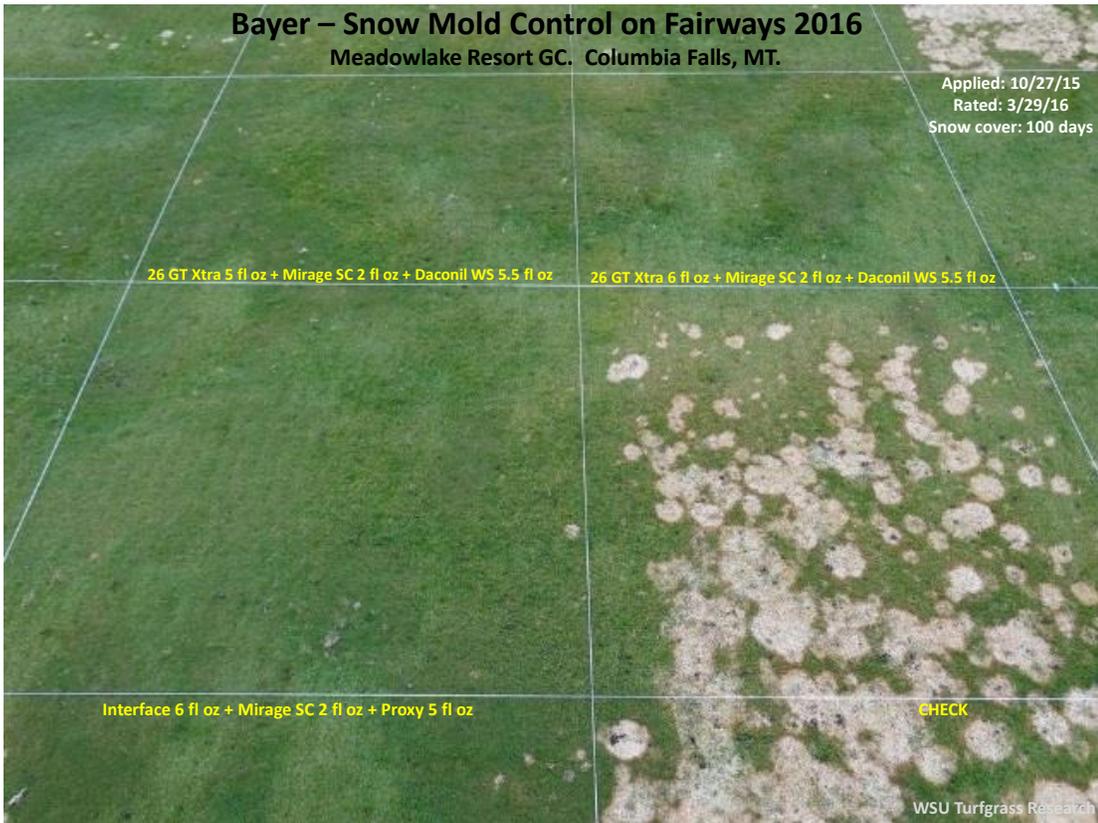


Fig. 3. Snow mold fungicide treatments on a fairway at the Meadowlake Golf Course in Columbia Falls, MT. Rated 29 Mar 2016.

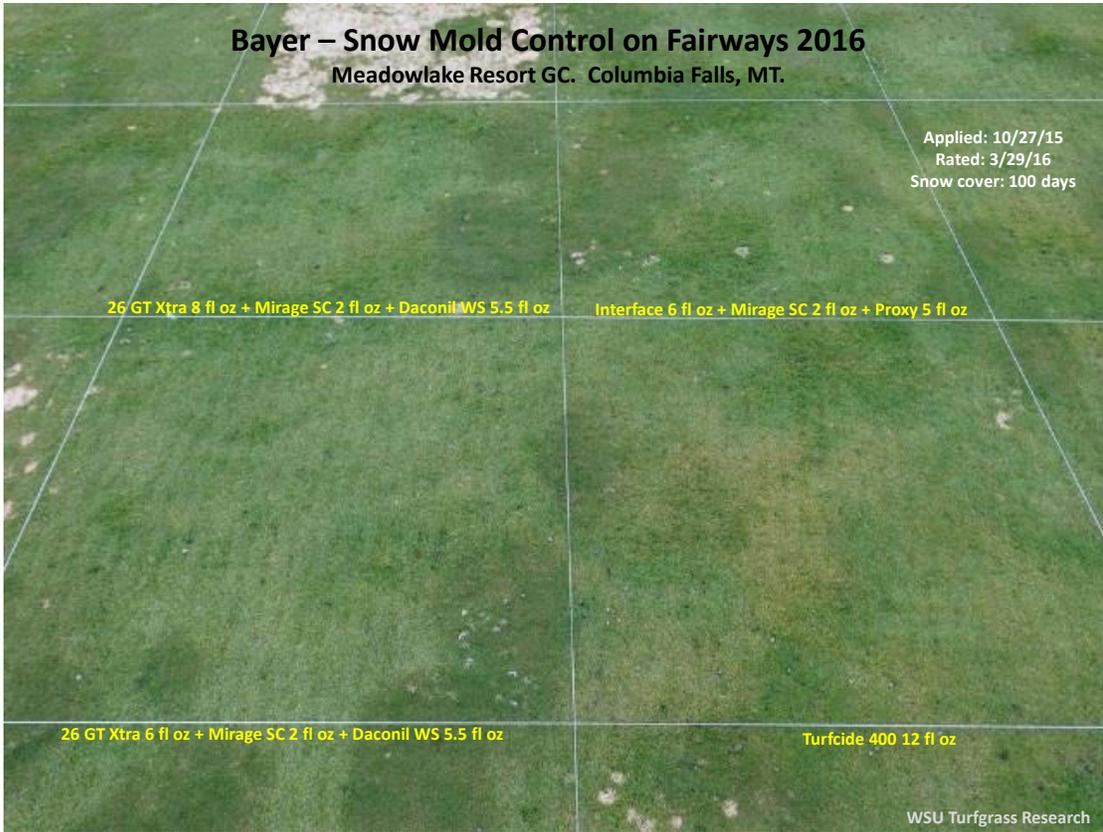


Fig. 4. Snow mold fungicide treatments on a fairway at the Meadowlake Golf Course in Columbia Falls, MT. Rated 29 Mar 2016.

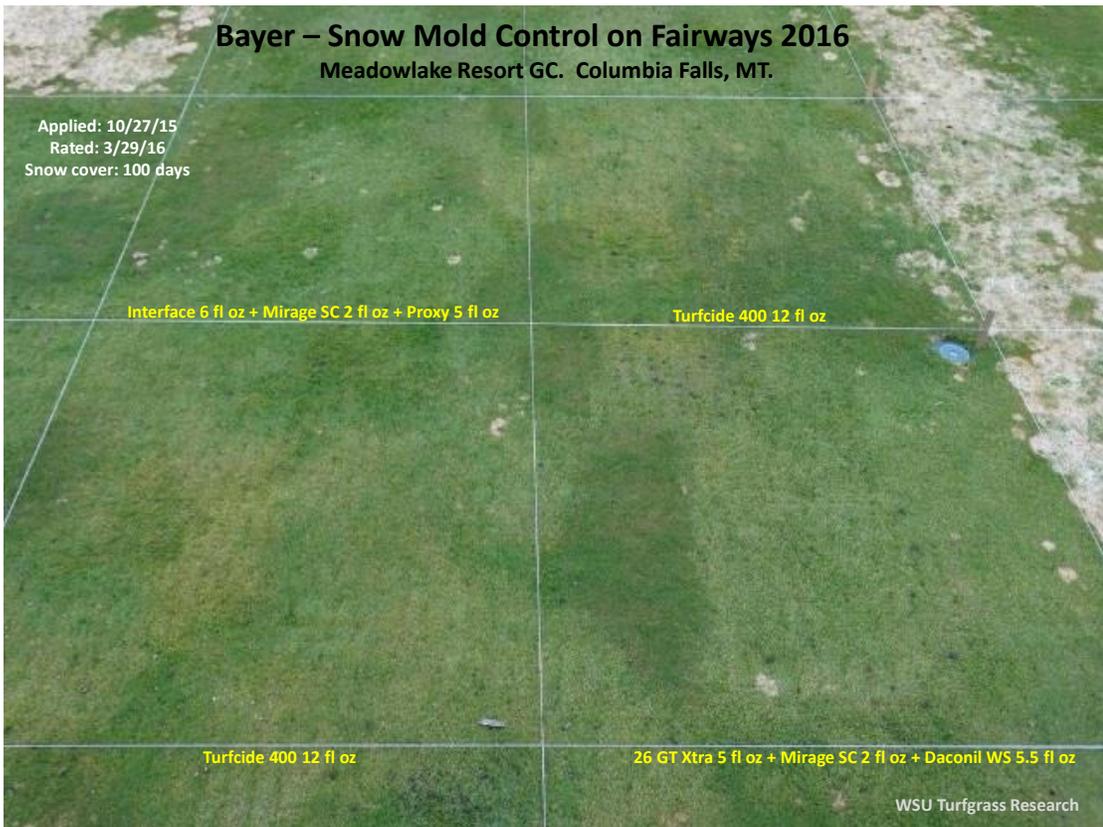


Fig. 5. Snow mold fungicide treatments on a fairway at the Meadowlake Golf Course in Columbia Falls, MT. Rated 29 Mar 2016.



Fig. 6. Snow mold fungicide treatments on a fairway at the Meadowlake Golf Course in Columbia Falls, MT. Rated 29 Mar 2016.

