Evaluation of Fungicides from Syngenta to Control Pink and Gray Snow Mold on Putting Greens in Idaho and Washington 2007-08.

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Snow mold control trials were conducted at 3 different locations in the Intermountain Region of the PNW, on a practice green at the Whitetail Golf Club in McCall, ID, a nursery green at the Chewelah Golf and Country Club in Chewelah, WA, and on a research green at the WSU Turfgrass and Agronomy Research Center (TARC) in Pullman, WA. The practice green at McCall is an USGA green of 'Providence' creeping bentgrass, the nursery green at Chewelah is a push-up green covered with 3" to 4" of sand with a mixed stand of 'Penncross' creeping bentgrass and annual bluegrass, and the research green is a pure stand of 'T-1' creeping bentgrass grown on an USGA green at Pullman. Individual treatment plots were 6' x 5' at McCall and 6' x 7' at Chewelah and Pullman with three replications in a randomized complete-block design. Treatments were applied 24 Oct 07, 1 Nov 07, and 15 Nov 07 at McCall, Chewelah, and Pullman, respectively. Fungicides were applied at 80 GPA with a bicycle-wheeled CO_2 pressurized (40 psi) sprayer with 11008 flat fan TeeJet nozzles. At McCall, one day prior to applying fungicide treatments, the practice green was core aerified and topdressed with sand (Figure 8). At Pullman snow cover was intermittent throughout the winter from the end of Nov 07 through the 26 Feb 08 (approx. 80 days). Continuous snow cover was from end of Nov 07 to 20 Apr 08 (approx. 140 days) at Chewelah and from mid Nov 07 to 8 May 08 at McCall (approx. 175 days). Individual plots were evaluated for pink (*Microdochium nivale*) and/or gray (*Typhula spp.*) snow mold disease severity (% area infected) and turfgrass quality (rated on a scale of 1-9; 9 = excellent) on 29 Feb 08 at Pullman, 23 Apr 08 at Chewelah, and 13 May 08 at McCall.

The non-treated control at Pullman had 14 % area infected with pink snow mold (*M. nivale*) (Table 1). All treatments provided complete snow mold control. Although not significant Turfcide 400 had the lowest turfgrass quality compared to the other fungicide treatments. Figures 1-4 show the treatments in Reps 1 and 2.

At Chewelah, the non-treated control had 13 % area infected with roughly 20% pink (*M. nivale*) and 80% gray (*Typhula spp.*) snow mold (Table 2). There was some winter injury which made rating difficult. However, all treatments had significantly less disease than the check. There were no significant differences in turfgrass quality among the treatments. Figures 5-7 show the treatments in Reps 1 and 2.

At McCall, the research site apparently was treated with fungicides in the fall by the staff at Whitetail either before or after the experiment was put out, which resulted in the total control of snow mold throughout the entire research site.

Table 1. Evaluation of Syngenta fungicides to control pink snow mold at the WSU Turfgrass and Agronomy Research Center. Pullman, WA. Rated 29 Feb 2008.

Treatment	Rate (fl oz or oz/M)	Disease* (% area infected)	Turf quality** (1-9)
Syngenta Mix 1 [Concert (Propiconazole + Chlorothalonil)] + Medallion (Fludioxonil)	8 fl oz 0.33 oz	0.0 a***	5.7
Instrata (Propiconazole + Fludioxonil + Chlorothalonil)	4 fl oz	0.0 a	5.3
Instrata (Propiconazole + Fludioxonil + Chlorothalonil)	9 fl oz	0.0 a	5.3
Instrata (Propiconazole + Fludioxonil + Chlorothalonil)	11 fl oz	0.0 a	5.3
Headway (Propiconazole + Azoxystrobin) + Medallion (Fludioxonil)	5.25 fl oz 0.33 oz	0.0 a	5.3
Turfcide 400 (PCNB)	8 fl oz	0.0 a	4.3
CHECK	0	14.3 b	3.7

*Percent area infected with pink and/or gray snow mold

**Turfgrass quality was rated on a scale of 1 to 9; with 9 = excellent turf quality

***Values within a column followed by the same letter are not significantly different. LSD *P*=0.05.

Figure 1. Syngenta snow mold trial at the WSU Turfgrass and Agronomy Research Center. Pullman, WA. Rated 29 Feb 08.

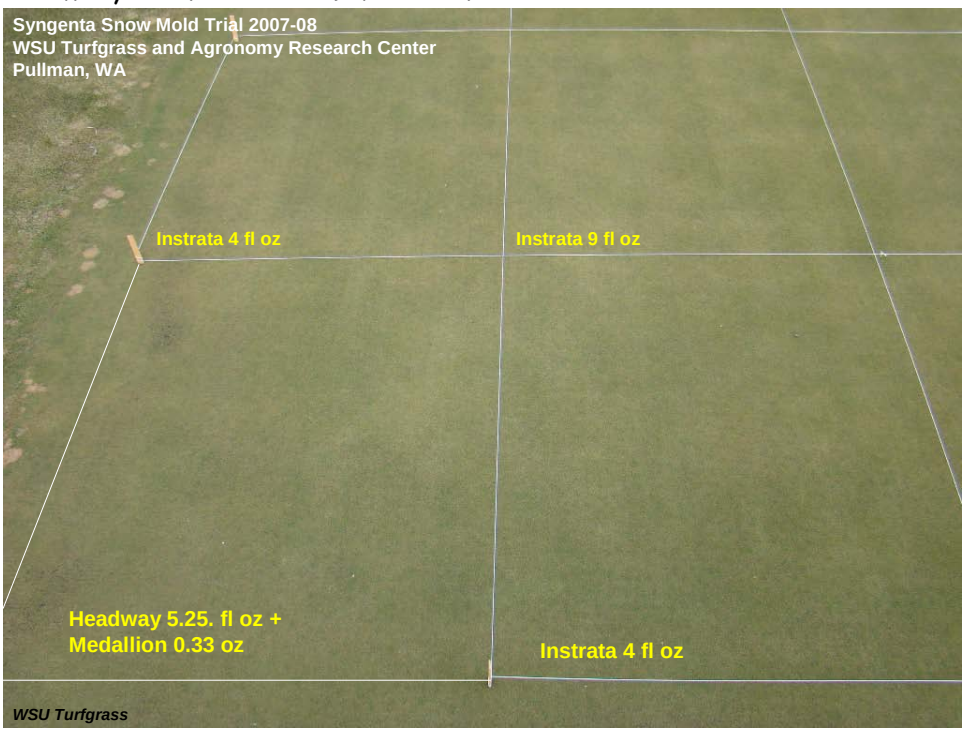

Figure 2. Syngenta snow mold trial at the WSU Turfgrass and Agronomy Research Center. Pullman, WA. Rated 29 Feb 08.

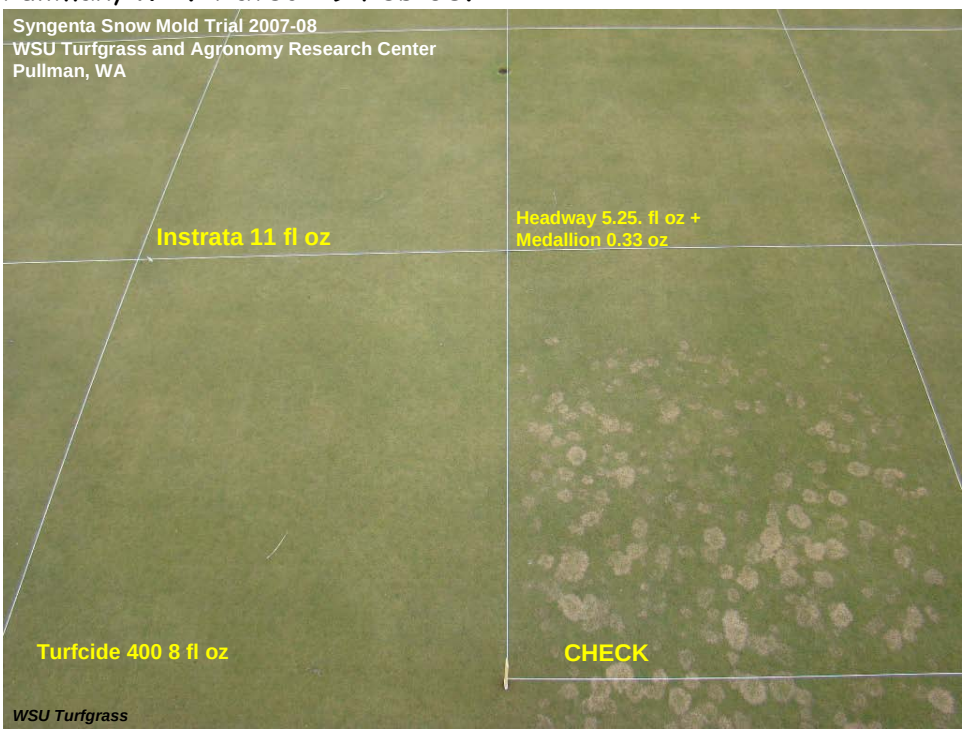

Figure 3. Syngenta snow mold trial at the WSU Turfgrass and Agronomy Research Center. Pullman, WA. Rated 29 Feb 08.

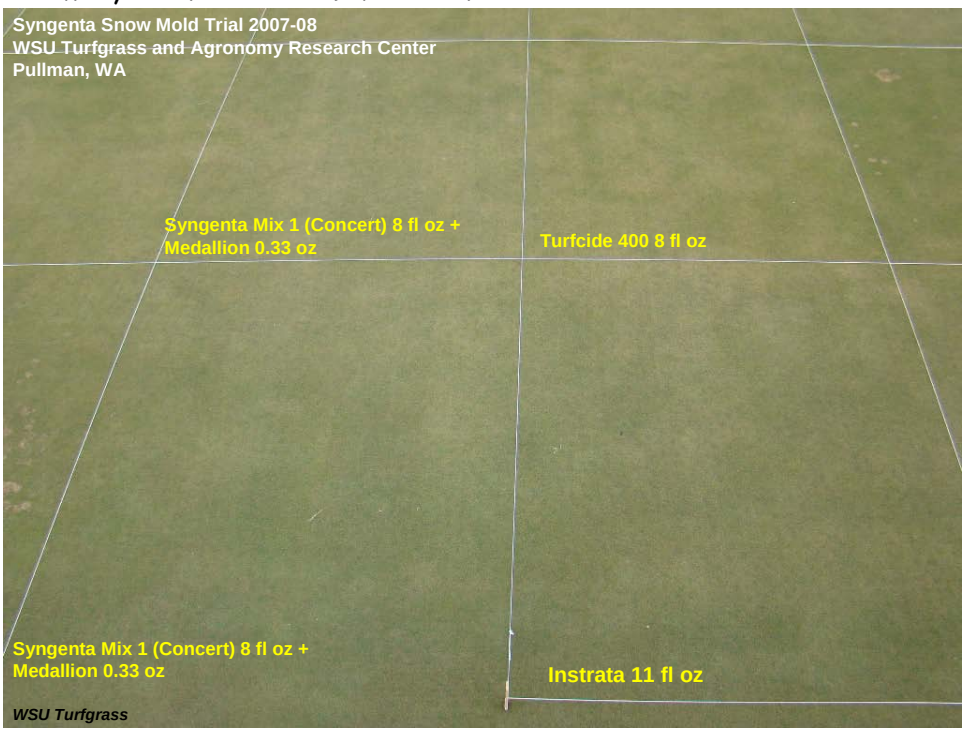

Figure 4. Syngenta snow mold trial at the WSU Turfgrass and Agronomy Research Center. Pullman, WA. Rated 29 Feb 08.

Table 2. Evaluation of Syngenta fungicides to control snow mold at Chewelah Golf and Country Club. Chewelah, WA. Rated 23 Apr 2008.

Treatment	Rate (fl oz or oz/M)	Disease* (% area infected)	Turfgrass quality** (1-9)
FFII 14-3-3 + Fungicide V	6.36 lbs 5.95 lbs	0.0 b***	4.3
Syngenta Mix 1 [Concert (Propiconazole + Chlorothalonil)] + Medallion (Fludioxonil)	8 fl oz 0.33 oz	1.5 b	4.5
Instrata (Propiconazole + Fludioxonil + Chlorothalonil)	9 fl oz	2.0 b	4.2
Headway (Propiconazole + Azoxystrobin) + Medallion (Fludioxonil)	5.25 fl oz 0.33 oz	3.3 b	3.0
Instrata (Propiconazole + Fludioxonil + Chlorothalonil)	11 fl oz	3.7 b	4.0
CHECK	0	13.3 a	3.0

*Percent area infected with pink and/or gray snow mold

**Turfgrass quality was rated on a scale of 1 to 9; with 9 = excellent turf quality

***Values within a column followed by the same letter are not significantly different. LSD *P*=0.05.

Figure 5. Syngenta snow mold trial at Chewelah Golf and Country Club. Chewelah, WA. Rated 23 Apr 08.

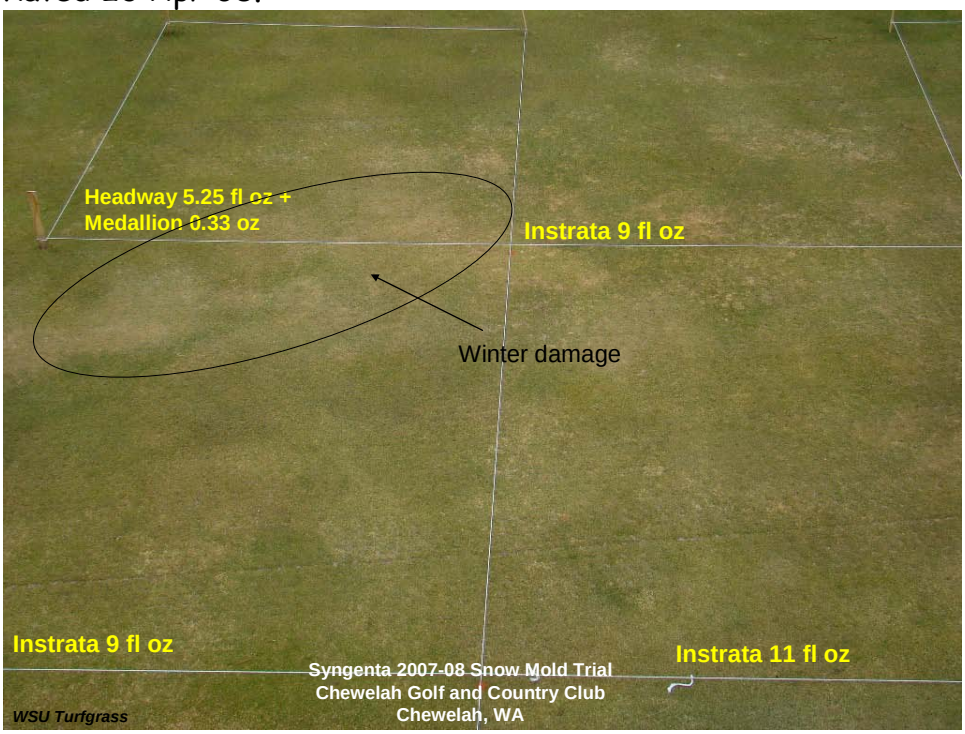

Figure 6. Syngenta snow mold trial at Chewelah Golf and Country Club. Chewelah, WA. Rated 23 Apr 08.

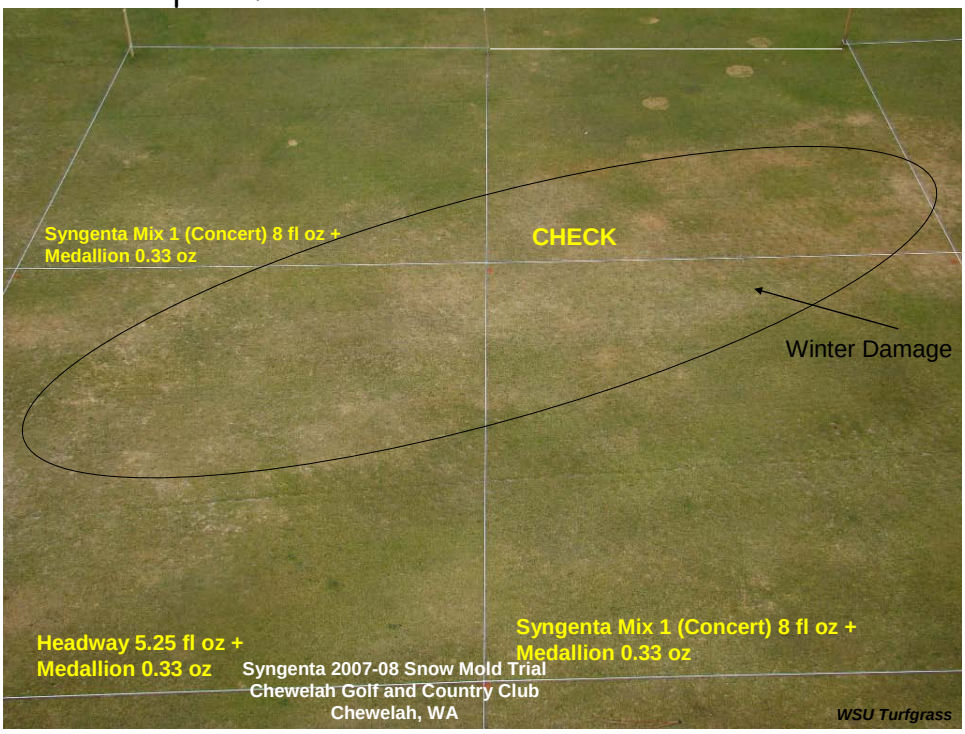

Figure 7. Syngenta snow mold trial at Chewelah Golf and Country Club. Chewelah, WA. Rated 23 Apr 08.