2023-2024 Idaho Snow Mold Control Evaluation:
Whitetail Club – McCall, ID
McCall Golf Club – McCall, ID

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OBJECTIVE

To evaluate fungicides for the control of gray snow mold (*Typhula incarnata*), speckled snow mold (*T. ishikariensis*), and Microdochium patch (*Microdochium nivale*) on golf course turfgrass.

MATERIALS AND METHODS

The evaluations were conducted at both Whitetail Club and at McCall Golf Club in McCall, ID on fairway plots containing a mixed stand of Kentucky bluegrass (*Poa pratensis*), perennial ryegrass (*Lolium perenne*), creeping bentgrass (*Agrostis stolonifera*), and annual bluegrass (*Poa annua*). Individual plots measured 3 ft x 10 ft and were arranged in a randomized complete block design with four replications. A 'primer' application was made over the entire plot area at both locations to limit early snow mold fungal growth. At McCall GC an application of prothioconazole and propiconazole was made on 29 Sep 2023 and at Whitetail an application of the same fungicides was made on 28 Sep 2023. Individual treatments were applied at a nozzle pressure of 40 psi using a CO_2-pressurized sprayer equipped with one AI9508EVS Teejet nozzle. All fungicides were agitated by hand and applied in the equivalent of 1.5 gallons of water per 1000 ft^2. All applications were made on 24 Oct 2023. Snow cover lasted from late November until late April, a total of approximately 150 days. Disease severity and turf quality were assessed on 30 April 2024. Disease severity was visually rated as percent area affected and turfgrass quality was visually rated on a 1-9 scale with 6 being acceptable. Treatment means were analyzed using Fisher's LSD method and are presented in Tables 1 (Whitetail Club) and 2 (McCall Golf Club).

RESULTS AND DISCUSSION

Disease pressure at both locations was moderate, with the non-treated controls at Whitetail Club averaging 55% disease and McCall Golf Course 26% disease. The primary diseases present at Whitetail Club were approximately 50% speckled snow mold (*T. ishikariensis*) and 50% pink snow mold (*M. nivale*). A significant amount of abiotic winter injury was also present at Whitetail Club and made assessing snow mold difficult. The primary disease present at McCall Golf Course was mainly speckled snow mold (>90%) with a small amount of pink snow mold also present. There was a small amount of winter injury present at McCall Golf Course but it was isolated to only a few small areas. No treatment provided complete snow mold control in either trial, and in fact the best treatment at Whitetail still had 22.5% disease and at McCall 2.5%. Most treatments were significantly lower than the non-treated control. Treatments that did perform reasonably well were those that contained mixtures of 3 or 4 active ingredients from multiple different chemical classes. Turf quality mostly mirrored disease severity ratings, and phytotoxicity was not observed with any treatment.

Table 1: Mean snow mold severity, turf quality, and turf color were assessed on 30 April 2024 on fairway turf at the Whitetail Club in McCall, ID.

	Treatment[a]	Rate	Disease Severity[b]	Turf Quality[c]
1	Non-treated Control		55.0a	3.8cd
2	Traction 26/36 Par	1.3 fl oz/1000 ft2 6.0 fl oz/1000 ft2 0.28 fl oz/1000 ft2	28.8de	4.8ab
3	NFA-0800009 NUP-19026 26/36 Par	0.196 fl oz/1000 ft2 0.5 fl oz/1000 ft2 6.0 fl oz/1000 ft2 0.28 fl oz/1000 ft2	28.8de	4.5abc
4	NFA-0630-301 26/36 Par	1.1 fl oz/1000 ft2 6.0 fl oz/1000 ft2 0.28 fl oz/1000 ft2	27.5de	4.8ab
5	NUP-19022 NFA-0800009 NUP-19026 26/36 Par	0.213 fl oz/1000 ft2 0.196 fl oz/1000 ft2 0.5 fl oz/1000 ft2 6.0 fl oz/1000 ft2 0.28 fl oz/1000 ft2	25.0e	4.8ab
6	ALB-5025	1.0 fl oz/1000 ft2	33.8b-e	4.3a-d
7	ALB-5025	2.0 fl oz/1000 ft2	45.0a-d	3.8cd
8	ALB-5025	3.0 fl oz/1000 ft2	32.5b-e	4.5abc
9	EXP 0614	6.5 lb/1000 ft2	55.0a	3.5d
10	EXP 0814	6.5 lb/1000 ft2	48.8abc	3.5d
11	Interface Mirage	6.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2	35.0b-e	4.3a-d
12	Interface Mirage Daconil Weatherstik	6.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 5.0 fl oz/1000 ft2	37.5a-e	4.3a-d
13	Interface Mirage Turfcide	6.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 5.0 fl oz/1000 ft2	40.0a-e	3.8cd
14	Interface Mirage	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2	31.3cde	4.5abc
15	Interface Mirage Densicor	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 0.196 fl oz/1000 ft2	22.5e	4.8ab
16	Interface Mirage Turfcide	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 5.0 fl oz/1000 ft2	32.5b-e	4.3a-d
17	Interface Mirage Secure Action	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2	26.3e	4.8ab
		LSD P=.05	18.05	0.93

[a]All applications were applied on 24 Oct 2023.

[b]Mean percent diseased area assessed on 30 April 2024. Means followed by the same letter do not differ significantly.

[c]Quality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.

Table 1 (cont): Mean snow mold severity, turf quality, and turf color were assessed on 30 April 2024 on fairway turf at the Whitetail Club in McCall, ID.

	Treatment[a]	Rate	Disease Severity[b]	Turf Quality[c]
18	ESTC184 ESTC120 ESTC280	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 0.2 fl oz/1000 ft2	45.0a-d	4.0bcd
19	ESTC184 ESTC120 ESTC499	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 3.0 fl oz/1000 ft2	32.5b-e	4.5abc
		LSD P=.05	18.05	0.93

[a]All applications were applied on 24 Oct 2023.
[b]Mean percent diseased area assessed on 30 April 2024. Means followed by the same letter do not differ significantly.
[c]Quality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.

Table 2: Mean snow mold severity, turf quality, and turf color were assessed on 30 April 2024 on fairway turf at the McCall Golf Club in McCall, ID.

	Treatment[a]	Rate	Disease Severity[b]	Turf Quality[c]
1	Non-treated Control		26.3a	4.8d
2	Traction 26/36 Par	1.3 fl oz/1000 ft2 6.0 fl oz/1000 ft2 0.28 fl oz/1000 ft2	7.5b-e	6.3ab
3	NFA-0800009 NUP-19026 26/36 Par	0.196 fl oz/1000 ft2 0.5 fl oz/1000 ft2 6.0 fl oz/1000 ft2 0.28 fl oz/1000 ft2	5.0cde	6.3ab
4	NFA-0630-301 26/36 Par	1.2 fl oz/1000 ft2 6.0 fl oz/1000 ft2 0.28 fl oz/1000 ft2	10.0b-e	6.0abc
5	NUP-19022 NFA-0800009 NUP-19026 26/36 Par	0.213 fl oz/1000 ft2 0.196 fl oz/1000 ft2 0.5 fl oz/1000 ft2 6.0 fl oz/1000 ft2 0.28 fl oz/1000 ft2	11.3bcd	5.5bcd
6	ALB-5025	1.0 fl oz/1000 ft2	12.5bc	5.5bcd
7	ALB-5025	2.0 fl oz/1000 ft2	10.0b-e	5.8abc
8	ALB-5025	3.0 fl oz/1000 ft2	8.8b-e	5.8abc
9	EXP 0614	6.5 lb/1000 ft2	13.8b	5.3cd
10	EXP 0814	6.5 lb/1000 ft2	10.0b-e	5.8abc
11	Interface Mirage	6.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2	5.0cde	6.3ab
12	Interface Mirage Daconil Weatherstik	6.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 5.0 fl oz/1000 ft2	5.0cde	6.5a
13	Interface Mirage Turfcide	6.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 5.0 fl oz/1000 ft2	2.5e	6.5a
14	Interface Mirage	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2	5.0cde	6.3ab
15	Interface Mirage Densicor	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 0.196 fl oz/1000 ft2	6.3b-e	6.3ab
16	Interface Mirage Turfcide	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 5.0 fl oz/1000 ft2	6.3b-e	6.0abc
17	Interface Mirage Secure Action	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 0.5 fl oz/1000 ft2	5.0cde	6.3ab
		LSD P=.05	8.26	0.85

[a]All applications were applied on 24 Oct 2023.
[b]Mean percent diseased area assessed on 30 April 2024. Means followed by the same letter do not differ significantly.
[c]Quality was visually assessed where 1 = dead, 6 = acceptable, 9 = dark green.

Table 2 (cont): Mean snow mold severity, turf quality, and turf color were assessed on 30 April 2024 on fairway turf at the McCall Golf Club in McCall, ID.

	Treatment[a]	Rate	Disease Severity[b]	Turf Quality[c]
18	ESTC184 ESTC120 ESTC280	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 0.2 fl oz/1000 ft2	6.3b-e	6.0abc
19	ESTC184 ESTC120 ESTC499	4.0 fl oz/1000 ft2 2.0 fl oz/1000 ft2 3.0 fl oz/1000 ft2	5.0cde	6.3ab
		LSD P=.05	8.26	0.85

[a]All applications were applied on 24 Oct 2023.
[b]Mean percent diseased area assessed on 30 April 2024. Means followed by the same letter do not differ significantly.
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