Evaluation of Cleary's Fungicides for Control of Pink and Gray Snow Mold in Idaho, Montana and Washington 2004-2005.

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Trials were conducted on a nursery green at the City of McCall Golf Course in McCall, ID, on a golf green at the Meadow Lake Resort Golf Course in Columbia Falls, MT and on a practice green at Esmeralda Golf Course in Spokane, WA. The nursery green at McCall was constructed on a cobbly sandy loam soil, the green at Columbia Falls, MT was constructed according to USGA specifications, and the practice green at Spokane was a push-up green. Individual treatment plots were 6' x 7' at McCall and Columbia Falls and 6' x 6' at Spokane with three replications in a randomized complete-block design. Treatments were applied 15 and 28 Oct 04, 20 Oct and 8 Nov 04, and 21 Oct and 12 Nov 04 at McCall, Columbia Falls and Spokane, respectively. Fungicides were applied at 88 GPA with a bicycle-wheeled CO_2 pressurized (40 psi) sprayer with 11004 flat fan TeeJet nozzles. Snow cover was from early Dec 04 to 30 Apr 05 at McCall and from late Dec 04 to mid-Feb 05 at Columbia Falls and snow cover off and on from early Jan 05 to mid-Feb 05 at Spokane. Individual plots were evaluated for disease severity (% area infected) and turf quality (rated on a scale of 1-9; 9=excellent) on 3 May 05 at McCall, 28 Feb 05 at Columbia Falls and 1 Mar 05 at Spokane. Typically, snow does not melt until the end of March to the first week of April at Columbia Falls, this year's rating was done more than a whole month earlier.

There was virtually no disease pressure (unusually low snowfall) at the Columbia Falls, MT and the Spokane, WA sites. The non-treated controls at each site had less than 2% area infected with snow mold (pink snow mold) and no disease was found on any of other the treatments. There was no treatment effect on turfgrass quality at either site.

Unlike the Columbia Falls and Spokane sites, disease pressure was more severe at McCall. Snow cover at McCall was much lighter than usual, however, permanent snow cover lasted from early Dec 04 through 30 Apr 05 (approx. 150 days). The non-treated control had 28% area infected with snow mold (Table 1). Roughly 70% pink and 30% gray snow mold. Typically, up until the last 2 years, gray snow mold has been the predominate snow mold disease in the non-treated control. Perhaps the

milder winters may contribute to this shift in disease dynamics. No sclerotia were found in any of the control plots; therefore, no determination as to the percent of *Typhula incarnata* or *T. ishikariensis* could be made.

Statistically the Spectro 90WDG (early) + Spectro 90WDG (late) + Endorse, Endorse + Spectro 90WDG, CL-EXP-2 + Daconil Ultrex, CL-EXP-4 + Spectro 90WDG, and Endorse + Spotrete 75WDG resulted in significantly better disease control than the non-treated control (Table 1). In general, Spectro 90WDG in combination with Endorse, CL-EXP-2, and CL-EXP-4 resulted in very good disease control, as well as, the CL-EXP-2 + Daconil Ultrex treatment. The worst control was achieved when CL-EXP-2, CL-EXP-4, and Endorse were mixed with Spotrete 75WDG.

Among the top treatments, the Spectro 90WDG (early) + Spectro 90WDG (late) + Endorse, Endorse + Spectro 90WDG, CL-EXP-2 + Daconil Ultrex, CL-EXP-4 + Spectro 90WDG resulted in turf quality greater than 6.3 (Table 1). A rating of 6.0 or above is considered very good turf quality. All treatments with Spotrete 75WDG resulted in lower turf quality.

In conclusion, Spectro 90WDG in combination with Endorse, CL-EXP-2, and CL-EXP-4 resulted in very good disease control and turf quality, as well as, the CL-EXP-2 + Daconil Ultrex treatment. Treatments with Spotrete 75WDG resulted in the lowest disease control and turf quality. It is a bonus in the high snowfall areas, like McCall, where the playing season is short, that the greens comes out of winter in good condition so that play can start as soon as possible in the spring.

Table 1. Evaluation of Cleary's fungicides in high snowfall areas of Idaho to control snow mold. City of McCall Golf Course. McCall, ID. Rated May 3, 2005

Fungicide Treatment	Rate (oz or fl oz prod./M)	App. date	Disease (% area infected)	**Turf quality (1-9)
Spectro 90WDG (Chlorothalonil 72% + Thiophanate-methyl 18%) +	4.0 oz.	10/15	*1.3 a	7.3 a
Spectro 90WDG (Chlorothalonil 72% + Thiophanate-methyl 18%) +	4.0 oz.	10/28		
Endorse 2.5WP (Polyoxin D zinc salt)	4.0 oz.	10/28		
Endorse 2.5WP (Polyoxin D zinc salt)+	4.0 oz.	10/28	2.0 ab	7.0 ab
Spectro 90WDG (Chlorothalonil 72% + Thiophanate-methyl 18%)	5.75 oz.	10/28		
CL-EXP-2 (Emblem) (EXP. Chlorothalonil + Thiophanate-methyl) +	4.0 fl.oz.	10/28	4.0 ab	6.7 ab
Daconil Ultrex 82.5WDG (Chlorothalonil)	5.5 oz.	10/28		
CL-EXP-4 +	1.0 oz.	10/28	5.0 ab	6.3 ab
Spectro 90WDG (Chlorothalonil 72% + Thiophanate-methyl 18%)	5.75 oz.	10/28		
Endorse 2.5WP (Polyoxin D zinc salt) +	4.0 oz.	10/28	11.3 ab	5.3 bc
Spotrete 75WDG (Thiram)	8.0 oz.	10/28		
CL-EXP-4 +	1.0 oz.	10/28	15.7 abc	5.3 bc
Spotrete 75WDG (Thiram)	8.0 oz.	10/28		
CL-EXP-2 (Emblem) (EXP. Chlorothalonil + Thiophanate-methyl) +	4.0 fl.oz.	10/28	18.3 bc	4.3 c
Spotrete 75WDG (Thiram)	8.0 oz.	10/28		
Non-treated Control	0		28.3 c	3.7 c

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

**Turf quality rated 1-9; 9=excellent.