

Preventative fungicide applications for the control of grey snow mold on creeping bentgrass, 2003-2004.

Tests were conducted on a Bridgehampton silt loam located at the Skogley Memorial Turfgrass Research Facility at the University of Rhode Island. The turf was maintained at a 0.17 inch mowing height, irrigated regularly and a total of 6 lbs N was applied in four separate applications throughout the course of the season (4 lbs as a slow release and 2 lbs as a quick release foliar). Plots measured 5 ft x 5 ft with no borders and were arranged in a randomized complete block design with three replicates on an original mixture of 83% ‘Penncross’ and 17% ‘Penneagle’ creeping bentgrass with minimal *Poa annua* invasion. Liquid fungicides were applied using a CO₂-pressurized hand held sprayer fitted with TeeJet 8004VS Visiflow flat fan nozzles delivering 3.2 gallons/1000 sq. ft at 40 psi. Fungicides were applied on four separate occasions as follows: MO= 18 Oct 03, LO= 28 Oct, MN= 17 Nov, PS= 1 Dec. A single mowing occurred between the MO and LO application. Plots were artificially inoculated with *T. incarnata* on 4 Dec with approximately 75g per plot of 12 week old infected rye. Immediately after inoculation, plots were covered with 4 inches of loose hay and covered with a lightweight porous greenscover. The experiment was then surrounded by snow fencing to which was attached strips of spare greenscover that acted as a windbreak, increasing humidity inside the experimental area. Plots were uncovered on 23 Mar 04 and rated.

Artificial inoculation of plots was extremely successful, resulting in 66% disease. The majority of treatments resulted in excellent control of grey snow mold. In addition to the check treatment, only 2 treatments did not provide acceptable preventative control. The Banner/Daconil formulation and the Compass formulation did reduce disease severity but neither of these treatments provided an esthetically acceptable level of control. In addition, it does not appear that late season Spectro applications increased the efficacy of November snow mold fungicide applications. Although these two treatments were not considered successful, it is important to note two factors. Firstly, large amounts of artificial inoculum were introduced. Such high levels are not commonly encountered on a typical putting green and it is possible that treatments that failed under these experimental conditions might be more successful under less intense disease pressure. Secondly, fungal inoculation took place after preventative sprays had been applied. Had sprays been applied following inoculation, it may have reduced the severity of disease and these two treatments may have been more successful.

Treatment and rate per 1000 sq ft	Application Dates	% Disease
Control	-	66.7 a
PCNB 15.4G 6.36 lbs	PS	2.0 c
Iprodione 5G/Daconil 6.5G 5.05 lbs	PS	1.3 c
Banner 0.82G/Daconil 6.6G 5.0 lbs	PS	14.0 b
Daconil 5G 15.1lbs + Bayleton 1G 12.5 lbs + Iprodione 1.3G 7.21 lbs	MO/LO/PS	0.3 c
Compass 0.179G 4.4 lbs	MO/PS	20.0 b
Spectro 90WDG 4 oz	MO	
Endorse 2.5WP 4 oz + Spectro 90WDG 4 oz	MN	0.0 c
Spectro 90WDG 4 oz	MO	
Endorse 2.5WP 4 oz + Spectro 90WDG 5.75 oz	MN	0.7 c
Spectro 90WDG 4 oz	MO	
Endorse 2.5WP 4 oz + Spectro 90WDG 4 oz + Allude 5S 5.75 fl oz	MN	0.0 c
Endorse 2.5WP 4 oz + Spectro 90WDG 4 oz	MN	0.7 c
Endorse 2.5WP 4 oz + Spectro 90WDG 5.75 oz	MN	0.0 c
Endorse 2.5WP 4 oz + Spotrete 42F 8 fl oz	MN	1.7 c
Endorse 2.5WP 6 oz + Spotrete 42F 8 fl oz	MN	2.7 c

* Plots were rated based on the percentage of symptomatic plot area. Means within a column followed by the same letter are not statistically different, according to the General Linear Model procedure and Waller-Duncan k-ratio t-test (k=100, P=0.05) of SPSS.