

TURFGRASS DISEASE RESEARCH REPORT 1975

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1. Snow Mold

The 1975 snow mold fungicide evaluation trials were conducted at the Boyne Highland Resort, Harbor Springs, Michigan on "Penncross" creeping bentgrass mowed at 1/2 inch. No fungicides were applied to the test area during the growing season. The wettable powder (WP) and flowables (F) were applied with a CO₂ small plot sprayer and the granular fungicide with a 3 foot Scotts spreader. The test was divided into two studies because of the large size. The plots were 6 ft. x 6 ft. and the treatments were replicated 3 times in a random block design for each study.

Study A

The results of Study A can be seen in Table 1. They show that practically all the snow mold present was Typhula blight with only a little Fusarium patch as indicated. In addition to the old standbys, Calo gran and Calo clor; Scotts F + F II Dow 281, MF 582, Terraclor and Acti-dione RZ all ranked high. With the exception of Calo gran, calo clor, and Dow 281, all these materials contain PCNB (MF 582 and Acti-dione RZ) or were PCNB (Terraclor and Scotts F + F II with the F + F II also containing fertilizer). On an appearance basis, the Scotts F + F II was the best, mainly due to the effect of the fertilizer on grass color and growth. This is the second season in which good results have been obtained with the PCNB fungicides against Typhula blight.

Study B

Study B had both Typhula blight and Fusarium patch present. They are listed together on Table 2 as % snow mold and broken down in Table 2a to % Typhula blight and Table 2b to % Fusarium patch. The results in Table 2, 2a, 2b, show that whereas Fusarium patch was present in this study, the predominant snow mold was Typhula blight. Cleary's 4222 and 4223; Daconil 2787 at the 1/4 pt., 1/2 pt., and 1 pt. alone and in combination with Exhalt 800 or Tersan SP 6 oz; Tersan SP 9 oz.; Scotts Fungicide II at the 2X rate; all gave significant control compared to the untreated check, Table 2.

When the results are factored out in tables 2a and 2b, it can be seen that the majority of the snow mold present in the Daconil 2787 and Cleary's 4222 and 4223 plots was due to Fusarium patch, whereas the majority of the snow mold present in the Tersan SP and Scotts Fungicide II plots at the high rate was due to Typhula blight. The untreated control had 43% Typhula blight and 17% Fusarium patch.

Table 1. Percent Typhula blight on Penncross creeping bentgrass, except where otherwise indicated, at the Boyne Highland Resort, Harbor Springs, MI

Chemical & Rate/1000 sq ft	Percent infected area ^b				I	II	III	AV	a	b	c	d	e
	I	II	III	AV									
Calo-gran 8 lbs	0	0	0	0									
Scotts F+F II 1 x	1	1	5	2									
Calo-clor 4 oz	15 ^a	1	0	5									
Dow 281 8 oz	2 ^a	3 ^a	10	5									
MF 582 9 oz	7	7	5	6									
Terraclor 8 oz	15	10	5	10									
MF 582 12 oz	5 ^a	10	20	12									
Acti-dione RZ 8 oz	5	5	30	13									
Terraclor 4 oz	20	10	30	20									
MF 594 10 lbs	25 ^a	25	25	25									
MF 594 7 lbs	30	20	30	27									
MF 582 6 oz	45	7	30	27									
Dow 342 8 oz	31	50	40	40									
Dow 263 8 oz	18	80	30 ^a	41									
MF 594 5 lbs	30	50	60	48									
Milorganite 2 lbs	70	70	80	73									
IBDU 2 lbs	70	60	90	73									
EL 222 8 oz	70	90	80	80									
Check	90	70	90	83									
Urea 2 lbs	80	100	95	92									

a - represents the following % Fusarium Patch included in the number:

MF 582 - 2%; Dow 263 - 10%; Dow 281 - 1 and 2% respectively; Calo Clor 5%; MF 594 - 5%.

b - Treatments follow by the same level are not significantly different at the 5% level.

Table 2. Percent Typhula blight and Fusarium blight on Penncross creeping bentgrass at the Boyne Highlands Resort, Harbor Spring, MI

Chemical and Rate/1000 sq. ft.	Percent Infected area ^a							
	I	II	III	AVE				
Cleary's 4222 8 lbs	2	2	1	2	a			
Cleary's 4223 8 lbs	2	2	5	3	a			
Daconil 2787 1/2 pt Exhalt 8 oz.	5	2	6	4	a			
Daconil 2787 1 pt + Exhalt 8 oz.	5	7	2	5	a			
Daconil 2787 1/2 pt Tersan sp. 6 oz	8	2	10	7	a			
Daconil 2787 1/2 pt	10	15	1	9	a			
Daconil 2787 1/4 pt + Tersan sp. 6 oz	1	30	5	12	a			
Daconil 2787 1 pt + Tersan sp. 6 oz	1	5	35	14	a			
Daconil 2787 1 pt	5	10	30	15	a			
Tersan SP 9 oz	15	25	10	17	a	b		
Daconil 2787 1/4 pt	15	30	20	22	a	b		
Scotts Fungicide II 2 x	8	30	30	23	a	b		
Daconil 2787 1/4 pt & Exhalt 8 oz.	7	40	40	29	a	b		
Cleary's 4225 8 lbs	60	40	30	43		b	c	
Tersan SP 6 oz	40	60	30	43		b	c	
Scotts Fungicide II 1 x	60	40	30	43		b	c	
Check	70	80	30	60			c	d
Exhalt 8 oz.	95	32	90	72				d

a - Treatments followed by the same letter not significantly different at the 5% level

Table 2a. Percent infection of study B due to Typhula blight.

Chemical and Rate/1000 sq. ft.			Percent infected area ^a			
			I	II	III	AVE
Daconil 2787	1 pt.	0	0	0	0	a
Daconil 2787	1/4 pt+Exhalt 8oz	0	0	0	0	a
Daconil 2787	1/2 pt+Exhalt 8oz	0	0	0	0	a
Daconil 2787	1 pt+Exhalt	0	0	0	0	a
Daconil 2787	1/4 pt+Tersan SP 6 oz.	0	0	0	0	a
Daconil 2787	1 pt+Tersan SP 6 oz.	0	0	0	0	a
Daconil 2787	1/2 pt	5	0	0	2	a
Clearys 4222	8 lbs	2	2	1	2	a
Daconil 2787	1/2 pt+Tersan SP 6 oz.	7	1	0	3	a
Clearys 4223	8 lbs	2	2	5	3	a
Daconil 2787	1/4 pt	5	30	0	12	a b
Tersan SP	9 oz	15	20	9	15	a b
Scotts Fungicide II	2X	1	30	30	20	a b c
Tersan SP	6 oz	20	30	20	23	a b c
Clearys 4225	8 lbs	60	20	15	32	b c
Scotts Fungicide II	1X	60	40	20	40	c d
Check		70	50	10	43	c d
Exhalt	8 oz	95	30	60	62	d

a - Treatments followed by the same letter not significantly different at the 5% level.

Table 2b. Percent infection of study B due to Fusarium Patch.

Chemical and Rate/1000 sq. ft.		Percent infected area ^a							
		I	II	III	AV				
Clearys 4222	8 lbs	0	0	0	0	a			
Clearys 4223	8 lbs	0	0	0	0	a			
Tersan SP	9 oz	0	5	1	2	a			
Scotts Fungicide II	2X	7	0	0	2	a			
Scotts Fungicide II	1X	0	0	10	3	a			
Daconil 2787	1/2 pt+Tersan SP 6 oz.	1	1	10	4	a			
Daconil 2787	1/2 pt+Exhalt 8oz	5	2	6	4	a	b		
Daconil 2787	1 pt+Exhalt 8oz	5	7	2	5	a	b		
Daconil 2787	1/2 pt	5	15	1	7	a	b		
Daconil 2787	1/4 pt	10	0	20	10	a	b	c	
Exhalt		6	2	30	11	a	b	c	
Clearys 4225	8 lbs	0	20	15	12	a	b	c	
Daconil 2787	1/4 pt+Tersan SP 6 oz.	1	30	5	12	a	b	c	
Daconil 2787	1 pt+Ter.SP 6 oz	1	5	35	14	a	b	c	
Daconil 2787	1 pt	5	10	30	15	a	b	c	
Check		0	30	20	17	a	b	c	
Tersan SP	6 oz	20	30	10	20		b	c	
Daconil 2787	1/4 pt+Exhalt 8 oz	7	40	40	29			c	

a - Treatments followed by the same letter not significantly different from each other at the 5% level.