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	

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Chemical & Rate/1	1000 sq 1	Ft		Percent	: infect	ed are	ab			
			I	II	III	AV		-		
Calo-gran	8 1	bs	0	0	0	0	а			
Scotts F+F II	1 x		1	1	5	2	а			
Calo-clor	4 02	z	15 ^a 2 ^a	1	0	.5	а	ь		
Dow 281	8 o:	z	2 ^a	3 ^a	10	5	а	ь		
MF 582	9 02	z	7	7	5	6	а	ь		
Terraclor	8 03	z	15 5 ^a	10	5	10	а	b		
MF 582	12 0	z	5ª	10	20	12	а	ь	С	
Acti-dione RZ	8 o:	z	5	5	30	13	а	b	С	
Terrac1or	4 02	z	20	10	30	20	a	Ь	с	
MF 594	10 1	bs	25 ^a	25	25	25	а	ь	с	
MF 594	7 1	bs	30	20	30	27	а	ь	С	
MF 582	6 03	z	45	7	30	27	а	ь	с	
Dow 342	8 02	z	31	50	40	40		ь	с	d
Dow 263	8 o:	z	18	80	30 ^a	41		ь	С	d
MF 594	5 1	bs	30	50	60	48			С	d
Milorganite	2 1	bs	70	70	80	73				d
IBDU	2 1	bs	70	60	90	73				d
EL 222	8 03	z	70	90	80	80				
Check			90	70	90	83				
Urea	2 1	bs	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.

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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.		Perc	ent Infe	cted are	a		
	I	II	III	AVE			
Cleary's 4222 8 1bs	2	2	1	2	а		
Cleary's 4223 8 1bs	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	а		
Daconil 2787 1/2 pt	10	15	1	9	a		
Daconil 2787 1/4 pt + Tersan sp. 6 oz	1	30	5	12	а		
Daconil 2787 1 pt + Tersan sp. 6 oz	1	5	35	14	а		
Daconil 2787 1 pt	5	10	30	15	a		
Tersan SP 9 oz	15	25	10	17	а	ь	
Daconil 2787 1/4 pt	15	30	20	22	a	ь	
Scotts Fungicide II 2 x	8	30	30	23	a	ь	
Daconil 2787 1/4 pt & Exhalt 8 oz.	7	40	40	29	a	b	
Cleary's 4225 8 1bs	60	40	30	43		Ь	С
Tersan SP 6 oz	40	60	30	43		ь	с
Scotts Fungicide II 1 x	60	40	30	43		b	С
Check	70	80	30	60			с
Exhalt 8 oz.	95	32	90	72			

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

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d d

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Chemical and Rate/10	00 546 1 66	I	II	III	ected are AVE			
Daconil 2787	1 pt.	0	0	0	0	а		
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	а		
Daconil 2787	1 pt+Tersan SP 6 oz.	0	0	0	0	а		
Daconil 2787	1/2 pt	5	0	0	2	а		
Clearys 4222	8 1bs	2	2	1	2 3	a		
Daconil 2787	1/2 pt+Tersan SP 6 oz.	7	1	0	3	a		
Clearys 4223	8 1bs	2	2	5	3	a		
Daconil 2787	1/4 pt	5	30	0	12	а	ь	
Tersan SP	9 oz	15	20	9	15	а	ь	
Scotts Fungicide II	2X	1	30	30	20	a	ь	С
Tersan SP	6 oz	20	30	20	23	а	ь	С
Clearys 4225	8 1bs	60	20	15	32		ь	С
Scotts Fungicide II	1X	60	40	20	40			с
Check		70	50	10	43			с
Exhalt	8 oz	95	30	60	62			

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

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

d d

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

Chemical and Rate/10	00 sg. ft.		Per	cent info	ected an	rea ^a		
		I	II	III	AV			
Clearys 4222	8 1bs	0	0	0	0	а		
Clearys 4223	8 1bs	0	0	0	0	a		
Tersan SP	9 oz	0	5	1	2	а		
Scotts Fungicide II	2X	7	0	0	2	а		
Scotts Fungicide II	1X	0	0	10	3	a		
Daconil 2787	1/2 pt+Tersan SP 6 oz.	1	1	10	4	а		
Daconil 2787	1/2 pt+Exhalt 8oz	5	2	6	4	a	ь	
Daconil 2787	1 pt+Exhalt 8oz	5	7	2	5	а	ь	
Daconil 2787	1/2 pt	5	15	1	7	а	ь	
Daconil 2787	1/4 pt	10	0	20	10	a	b	С
Exhalt		6	2	30	11	a	ь	C
Clearys 4225	8 1bs	0	20	15	12	а	ь	С
Daconil 2787	1/4 pt+Tersan SP 6 oz.	1	30	5	12	а	Ь	с
Daconil 2787	1 pt+Ter.SP 6 oz	1	5	35	14	а	b	С
Daconil 2787	1 pt	5	10	30	15	а	b	С
Check		0	30	20	17	а	ь	С
Tersan SP	6 oz	20	30	10	20		b	с
Daconil 2787	1/4 pt+Exhalt 8 oz	7	40	40	29			с

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

2. Helminthosporium Leaf Spot Study

The Helminthosporium leaf spot study was conducted at the M.S.U. Soils Farm on Park Kentucky Bluegrass maintained at a 2 inch height of cut. The plots were 6 x 6 ft. and replicated 3 times in a random block design. The liquid applications were made with a CO_2 hand held sprayer and the dry applications were made with a Scotts 3 ft. spreader. The treatments were applied on May 8, 15, 30 and June 12 except for Scotts F + F II which was applied only once on May 8 and Spectro and Cleary's 4223 which were applied twice on May 30 and June 12. The readings were taken on June 19. The plots were rated on a 0-9 scale with a 0 representing no spots present on the leaf blade and 9 representing 90% or more of the leaf blade surface covered with spots.

The results in Table 1 show that most of the fungicides at one or more rates gave significant control when compared to the untreated check. The noticeable exceptions being EL-222, Cleary's 4223, and Fungo. Those ranking highest in the study (giving the best control) were RP 26019, 2 + 4 oz., Dyrene 4, 5, 6, 8 oz., Daconil 2787 4, 6, 8 oz., Daconil 4 + 6 oz., plus Exhalt 800 1 pt/100 gal and Acti-dione RZ, 4 oz.

	25			$Ratings^2$		
Treatment	Rate 1000	of ₂ ft	I	II	III	Average ¹
RP 26019	2	oz.	2	1.5	1.5	1.7 a
RP 26019	4	oz.	1.5	2	1.5	1.7 a
Dyrene	4	oz.	2	2	2	2 a b
Dyrene	5	oz.	2	3	2	2.3 a b c
Dyrene	8	oz.	2	1.5	4	2.5 abcd
Dyrene	6	oz.	2	3	3	2.7 a b c d
Daconil 2787	4	oz.	2	2	4	2.7 a b c d
Daconil 2787 Exhalt 800	4 1 pt/10	oz. 10 gal	2	2	4	2.7 a b c d
Daconil 2787 Exhalt 800	6 1 pt/10	oz. 10 gal	3	3	2	2.7 a b c d
Daconil 2787	6	oz.	3	3	4	3.3 a b c d e
Daconil 2787	8	oz.	2	4	4.	3.3 a b c d e
Acti-dione RZ	4	oz.	4	3	3	3.3 abcde
Daconil 2787	5	oz.	5	2	4	3.7 bcdef
DPX 164	4	oz.	3	5	4	4 cdefg
MF 573	6	oz.	4	3	5	4 cdefg
Scotts F+F II	1 x		5	4	4	4.3 defgh
Bromosan	6	oz.	3	5	5	4.3 defgh

Table 1. Helminthosporium Leaf Spot Fungicide Trials

Table 1. (cont'd)

			1.0					012					
Tersan LSR	4.5	oz.	4	6	5	5	e	f	g	h	i		
DPX 164	2	oz.	6	5	5	5.3		f	g	h	i	j	
Terraclor	4	oz.	6	4	6	5.3		f	g	h	i	j	
MF 573	4	oz.	6	4	6	5.3		f	g	h	i	j	
Spectro	4	oz.	5	5	7	5.7			g	h	i	j	
Terraclor	2	oz.	6	4	7	5.7			g	h	i	j	
Actidione-Thiram	2	oz.	5	8	5	6				h	i	j	
Actidione-Thiram	4	oz.	5	6	8	6.3					i	j	
Cleary's 4223	2	oz.	5	6	8	6.3					i	j	
EL 222	2	oz.	5	7	7	6.3					i	j	
Fungo	1.8	oz.	5	7	8	6.7					i	j	
Tersan LSR	3	oz.	8	5	7	6.7					i	j	
Actidione-RZ	2	oz.	7	7	7	7						j	
Bromosan	3	oz.	8	5	8	7						jk	
Cleary's 4223	4	oz.	7	7	7	7						jk	
EL 222	4	oz.	7	9	6	7						jk	
Spectro	2	oz.	6	7	8	7						jk	
Fungo	1.2	oz.	6	8	8	7.3						k	
Exhalt 800 1	pt/1	00 ga1	7	7	8	7.3						k	
Check	-		8	7	9	8							

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

2. 1-least disease; 9-most disease.

3. Sclerotinia Dollar Spot Study

The regular Sclerotinia dollar spot study was conducted on the M.S.U. Crop Science Farm. The plots were 3×6 ft. and the treatments were replicated 3 times in a random block design. All treatments gave significant control compared to the untreated control. The treatments ranking at the top can be seen in Table 2.

Table 2. Control of Sclerotinia dollar spot.

124		Reading	before 8/26	Reading a	fter 9/15	
Treatments Ra	ate/1000 sq.ft.	Avg. no. spots/ plot	Total number of spots	Avg. no. spots/ plot	Total number of spots	Per cent reduction of dollar spot
Fungo 50	1 oz.	43.3	130	4.7	14	89.2
Cleary's 3224	2 oz.	49.7	149	6.3	19	87.3
Cleary's 3224	1 oz.	40.7	122	9.3	28	87.1
Scotts 7498	1 oz.	39.3	118	7.0	21	82.2
MF 573	4 oz.	21.3	64	4.0	12	81.3
Tersan 1991	1 oz.	36.3	109	7.3	22	80.6
R.P. 26019	2 oz.	29.3	88	6.0	18	79.6
Dyrene	6 oz.	56.7	170	11.7	35	79.4
Daconil 2787 + Exhalt	8 oz.	40.0	120	8.7	26	78.3
Daconil 2787	5 oz.	16.7	50	4.0	12	76.0
Daconil 2787	4 oz.	54.7	164	14.3	43	73.9
Daconil 2787 + Exhalt	4 oz.	15.0	45	4.0	12	73.4
DPX 164	4 oz.	23.7	71	6.3	19	73.2
Cleary's 3336	1 oz.	30.0	91	8.3	25	72.5
Dyrene	5 oz.	38.7	116	10.7	32	72.4
Dyrene	8 oz.	52.0	156	15.0	45	71.2
Daconil 2787	6 oz.	40.3	121	11.7	35	71.1
Daconil 2787	8 oz.	28.0	84	8.7	26	69.1
DPX 164	2 oz.	32.3	97	10.7	32	67.0
EL 222	1 oz.	37.7	113	17.0	51	55.9
MF 573	8 oz.	50.3	151	22.3	67	55.6
Dyrene	4 oz.	19.3	58	9.0	27	53.5
Exhalt	1 pt/100 gal	50.0	150	2.6	78	48.0
Form-A-Turf	4 oz.	51.7	155	28.0	84	45.8
Form-A-Turf	8 oz.	44.0	132	26.3	79	40.2
EL 222	2 oz.	50.3	151	31.3	94	37.8
R.P. 26019	1 oz.	15.0	45	11.3	34	24.5
Check		22.3	67	37.0	111	-65.7

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4. Benzimidazole resistant dollar spot study

The benzimidazole resistant dollar spot study was conducted on the M.S.U. Soil Farm. The treatments in study number 1 were applied on 7/8, 7/23, 8/7, 8/19 and 9/4. The treatments in Study 2 were applied on 8/7 and 8/19. All treatments were applied with a hand held CO_2 sprayer.

Study 1

The results show none of the fungicides were effective in controlling the benzimidazole resistant strain of dollar spot Table 3.

Study 2

The study was read on 8/26. Table 4 shows Daconil 2787, 6 oz., R. P. 26019 2 oz., Calo Clor 2 oz., R. P. 26019 1 oz., Actidione - Thiram 4 oz., Calo Clor 3 oz., Actidione RZ 2 oz., and Dyrene 6 oz. ranked at the top of those giving significant control over the benzimidazole resistant strain of dollar spot. Calo Clor and Acti-dione RZ were phytotoxic. It is obvious for complete control shorter treatment intervals will be required.

Table 3. Control of benzimidazole resistant Sclerotinia dollar spot.

		Ave.	Number of spot:	s/plot	
Treatment ¹	Rate	I (8/26)	II (9.9)	III (9/15)	
MF 598	3 oz.	400*	400*	400*	
MF 598	4 oz.	н	п	н	
MF 598	6 oz.	U.	п	11	
Dithane M=45	2.25 oz.	н		н	
Dithane M-45	3 oz.	п	u	п	
Dithane M-45	4.5 oz.		u	н	
Fungo 50	.9 oz.	н		н	
Fungo 50	1.2 oz.	п		п	
Fungo 50	1.8 oz.	п		11	
Check		н	н		

* Estimation - spots too numerous to count.
1 Treatment dates are 7/8, 7/23, 8/23, 8/19.

	. /	Nu	mber of spo	ts		
Treatment	rate/ 1000 sq.ft.	I	II	III	Avera	je ¹
Daconil 2787	6 oz.	6	3	12	7.0 a	3
R.P. 26019	2 oz.	0	0	23	7.7 :	a
Calo-Clor ^a	2 oz.	17	20	23	20.0	a b
R. P. 26019	1 oz.	17	45	11	24.3	аЬ
Actidione-Thiram	4 oz.	25	25	25	25.0 8	a b
Calo-Clor ^a	3 oz.	28	35	21	28.0 4	а b
Actidione-RZ ^a	2 oz.	37	35	29	33.7 8	a b
Dyrene	6 oz.	60	32	85	59.0 a	a b
Actidione-Thiram	2 oz.	125	73	40	79.3	bc
Daconil 2787	3 oz.	65	70	106	80.3	bс
Actidione-RZ ^a	1 oz.	115	103	153	123.7	c d
Dyrene	3 oz.	200	150	92	147.3	d
Tersan 75	3 oz.	75	263	213	183.7	е
Tersan 1991	1 oz.	400*	400*	400*	400*	f
Cleary's 3224	2 oz.	400*	400*	400*	400*	f
Check		400*	400*	400*	400*	f

Table 4. Control of benzimidazole resistant Sclerotinia dollar spot.

¹ Treatment followed by the same letter are not significantly different from each other at the 5% level.

* Estimation - spots too numerous to count.

^aPhytotoxic to the turf.

5. Anthracnose

The Anthracnose studies were conducted at the Dearborn C.C. in Dearborn, MI on the fairway which was primarily Poa annua cut at a 1/2 inch height. The plots were 6 x 6 ft. and replicated in a random block design. The liquid applications were made with a CO₂ hand held sprayer and the dry formulation with a Scotts 3 ft. drop spreader.

Study I

Treatments for Study I were applied on 8/6 and 8/16 except for Tersan 1991 8 oz., Scotts F + F II and Ammonium Nitrate which were only applied once on August 6. The systemic fungicide Tersan 1991, DPX and Scotts Fertilizer plus DSB Fungicide were all drenched in after application. The plots were evaluated on percent thinning due to Anthracnose. The readings were taken on 9/11. The results in Table 1 show that Tersan 1991 at 8 oz., 4 oz., and 1 oz.; DPX at 8 oz., and 4 oz.; and Scott's Fertilizer & DSB Fungicide all gave significant control over the untreated check. Table 5.

Study II

The fungicides in Table 2 were applied only once on August 18. Recovery in this study was not as good as in Study I, which is probably due to the fact that the plots only received one treatment and, more importantly, due to the fact that the treatments were made over a month after the initial appearance of the disease. In study II Tersan 1991 2 oz. drench; Cleary's 3336 2 oz. drench and 3 oz. foliar and Fungo 4 oz. drench gave significant control compared to the untreated check. Table 6.

			Percent inf	ected area			
Treatment	Rate/1000 ft ²	I	II	III	Ave	1 rage	
DPX 164	8 oz.	0	0	0	0	a	
Tersan 1991 (D ²)	4 oz.	0	0	0	0	а	
Scotts Fertilize + DSB	r 1 x	0	5	0	1.7	a b	
Tersan 1991	1 oz.	5	0	0	1.7	a b	
Tersan 1991 (D)	8 oz.	0	5	0	1.7	a b	
DPX 164	4 oz.	0	10	5	5	abc	
Tersan 1991	3 oz.	25	0	0	8.3	a b c d	
Scotts F+F II	1 x	20	20	30	23.3	abcde	
Tersan LSR	8 oz.	40	15	20	25	abcde	
Scotts 10IV	1 x	25	15	40	26.7	abcde	
Am. Nitrate	1 1b,	30	40	10	26.7	abcde	
Daconil 2787	4 oz.	50	5	40	31.7	bcde	
Tersan 75	4 oz.	30	10	60	33.3	cdef	
Daconil 2787	8 oz.	60	10	40	36.7	def	
Tersan LSR	4 oz.	35	30	50	38.3	def	
Dyrene	4 oz.	70	10	40	40.0	e f	
Check		40	20	60	40.0	e f	
Dyrene	8 oz.	70	5	50	41.3	e f	
Tersan LSR	6 oz.	20	60	50	43.3	e f	
Calo-Clor	2 oz.	70	40	50	53.3	e f	
Calo-Clor	1 oz.	80	50	60	63.3	f	

Table 5. Control of Anthracnose in Poa annua

¹Treatments followed by the same letter are not significantly different from each other at the 5% level.

²Symbol (D) signifies treatment was Drenched in.

Treatments	rate 1000 sq. ft.	I	II	III	Average ¹
Tersan 1991 (D) ²	2 oz.	5	5	20	6.7 a
Cleary's 3336 ([) 2 oz.	5	15	5	8.3 a b
Cleary's 3336	3 oz.	10	15	5	10.0 a b
Fungo 50 (D)	4 oz.	20	20	5	15.0 a b
Cleary's 3336 (1) 4 oz.	20	20	15	18.3 a b c
Cleary's 3336 ([) 1 oz.	40	10	20	23.3 a b c d
Fungo 50 (D)	1 oz.	20	20	30	23.3 a b c d
Fungo 50 (D)	2 oz.	40	25	10	25.0 a b c d
Cleary's 3336	1 oz.	30	40	15	28.3 a b c d
Tersan 1991 (D)	1 oz.	10	30	50	30.0 bcd
Fungo 50	1 oz.	35	25	30	30.0 bcd
R.P. 26019	2 oz.	40	35	40	38.3 cd
Check		40	20	60	40.0 cd
Fungo 50	3 oz.	60	30	40	43•3 d

Table 6. Control of Anthracnose in Poa annua

¹Treatment followed by the same letters are not significantly different from each other at the 5% level.

²(D) signifies treatment was drenched in.

6. Fusarium Blight Study

The 1975 Fusarium blight studies were conducted at the Pebble Creek Apartments in Farmington, Michigan and at the Michigan State University Crop and Soil Science field laboratories on Merion Kentucky bluegrass. The plots at Pebble Creek were 5×10 feet whereas those at M.S.U. were $5! \times 6!$. Both sets of plots were replicated in a random block design. The liquid application was made with an Ortho hose jar applicator and the dry granular applications were made with a 3 foot Scotts drop spreader. All treatments were immediately drenched in after application.

Pebble Creek

The treatments at Pebble Creek were applied on July 2, 16 and August 22. The readings were taken on Sept. 23. The results in Table 7 show that Cleary's 3224, Tersan 1991 8 oz. with and without wetting agent, Aqua Grow 8 oz., R.P. 26019 ranked at the top of the treatments. The study was conducted on a heavy clay soil and the wetting agents apparently helped with the penetration of the fungicide and/or water into the soil.

M.S.U. Soils Field Laboratory

The treatments were applied on August 28 and September 11 and the readings were taken on Oct. 15. The results in Table 8 shows Tersan 1991 8 oz, Tersan 1991 8 oz plus Hydro-wet; Tersan 1991 8 oz plus Aqua-Gro gave significant control of Fusarium blight compared to the untreated check.

Table 7. PEBBLE CREEK Fusarium blight study. % area infected

Chemical	Rate	I	II	III	T	AV
Cleary's 3224	8 oz	2	10	0	12	4.0
Tersan 1991 & Aqua-Gro	8 oz	2	2	30	34	11.3
Tersan 1991 & Hydro-Wet	4 oz	0	20	30	50	16.7
Aqua-Gro	8 oz	10	10	30	50	16.7
Tersan 1991 & Hydro-Wet	4 oz	2	30	20	52	17.3
R.P. 26019	8 oz	10	15	30	55	18.3
Tersan 1991	8 oz	40	10	10	60	20.0
Tersan 1991 & Aqua-Gro	4 oz	30	30	5	65	21.7
Tersan 1991	4 oz	40	20	10	70	23.3
Form-A-Turf	8 oz	20	30	20	70	23.3
R.P. 26019	4 oz	50	10	25	85	28.3
Form-A-Turf	4 oz	60	5	20	85	28.3
EL 222	4 oz	70	5	25	100	33.3
EL 222	8 oz	15	60	30	105	35.0
lydro-Wet	8 oz	50	10	50	110	36.7
Check		60	20	40	120	40.0

TABLE 8	FUSA	RIUM B	LIGHT S	TUDY SC	ILS FAR	RM						
Treatment	Rate/ Percent infected area											
	1000	I	II	III	Avera	1 age						
Tersan 1991	8 oz	2	2	10	4.7	a						
Scotts F 6970	1x	10	5	5	6.7	a	b					
Tersan 1991 & Hydro-Wet	8 oz	15	2	20	12.3	a	Ь	с				
Tersan 1991 & Aqua-Gro	8 oz	20	15	2	12.3	а	b	с				
Vydate	4.5 1b	2	30	20	17.3	а	Ь	с	d			
Dasanit	3 16	20	5	40	21.7	а	Ь	с	d	e		
Tersan 1991 & Aqua-Gro	4 oz	20	4	50	24.7	а	Ь	с	d	e	f	
Tersan 1991 & Hydro-Wet	4 oz	20	50	10	26.7	a	ь	с	d	е	f	
Nemacur	3 1b	40	30	30	33.3	а	b	с	d	e	f	
Mocap ²	3 1 b	10	60	30	33.3	а	b	с	d	e	f	
Cleary's 3224	8 oz	20	60	30	36.7	a	b	с	d	e	f	
Hydro Wet	8 oz	15	40	60	38.3	а	ь	с	d	e	f	
R.P. 26019	4 oz	70	20	30	40.0	а	ь	с	d	е	f	
R.P. 26019	8 oz	70	10	40	40.0	a	Ь	с	d	е	f	g
Tersan 1991	4 oz	25	60	40	41.7	а	b	с	d	е	f	g
Aqua-Gro	8 oz	25	40	60	41.7	а	ь	с	d	e	f	g
Ciba-Geigy GA-4-737	3.5 1b	40	40	50	43.3		ь	с	d	e	f	g
Form-A-Turf	4 oz	70	50	20	46.7			с	d	е	f	g
CHECK		60	30	70	53.3				d	e	f	g
Form-A-Turf	8 oz	60	70	40	56.7				d	е	f	g
EL 222 ²	8 oz	80	30	60	56.7					e	f	g
Ciba-Geigy GA-4-737	7 1bs	60	80	40	60.0						f	g
EL 222 ²	4 oz	90	70	70	76.7							g

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

2. Phytotoxicity