

The weather this summer was very conducive to dollar spot disease and disease pressure in this study was heavy. Bayleton and a number of experimental compounds were quite effective as were Banner and the high rate of Chipco 26019. Tersan 1991 was ineffective because the dollar spot strains on this plot area are benzimidazole-resistant.

A number of treatments produced phytotoxic responses including Bayleton, PP523, Nustar + Ter. 1991, and EXP 2185A at the high rate. Turfcide 2EC burned the turf so severely after one application that its use was discontinued.

Summer Patch Fungicide Studies

Orchard Lake Country Club, Orchard Lake, MI

The weather this summer was ideal for the development of summer patch (*Phialophora graminicola*) disease on annual bluegrass (*Poa annua* L.) fairways and greens. We conducted a curative disease study at Orchard Lake Country Club on an irrigated annual bluegrass fairway which was mowed at $\frac{1}{2}$ ". The study was set up in 3 replications of a random block design. Treatments were applied as soil drenches at a volume of 28 gal/1000 ft. Granular treatments were pre-weighed and applied by hand.

The initial application was made curatively on July 27 (except as noted on data table). Subsequent treatments were applied on a 14 day schedule (8/14, 8/24) and a 28 day schedule (8/24). It was our original intention to maintain a 21 day (rather than 28 day) schedule, but we mis-marked our calendar. We apologize for this error. By the date of the final rating (9/8), the 14 day treatments had been applied three times and the 28 day treatments had been applied twice.

Disease pressure was extremely heavy when this curative study was initiated. As a result, none of the treatments had promoted complete recovery by the end of the season when disease pressure was abating in the controls and the last rating was taken (Table 7). As the data of August 14 (Table 5) shows, the benzimidazole fungicides (Tersan 1991, Fungo 50) promoted the fastest recovery during the first 18 days after initial treatment. This corresponds with previous research findings from our summer patch field research in 1983. Bayleton and Rubigan were somewhat slower in arresting this disease out-break. By the August 24 rating, (Table 6) however, visual observation and data taken from the study showed that the benzimidazole fungicides were breaking down, with renewed yellowing of the turf and renewed disease activity, while Bayleton-treated plots continued to improve and Rubigan-treated plots remained essentially unchanged. Following re-application of treatments on August 24, the benzimidazole-treated plots began to recover once again (Table 7).

Some phytotoxicity was observed as noted on the data tables. Treatments which severely burned the turf as a result of the 7/27 application were not re-applied. These treatments, however, were applied to new plots at one-half label rates on 8/14 and 8/24 in an attempt to control the fertilizer burn during the hot weather. These plots were then rated for disease control on 9/8.

Table 8. Summer Patch Fungicide Trial-1987

Orchard Lake Country Club, Orchard Lake, MI

Percent recovery in each plot from 7/27/87-9/8/87

Rating Date: 9/8/87

TREATMENT	RATE/1000 ft ²	INTERVAL	I	II	III	AVE	DMR ¹
Tersan 1991	6 oz	"	71	90	70	77.0	A
Prochloraz + SN596	3 fl oz + .5 oz	monthly	50	73	94	72.3	AB
SN 596	1 oz	"	70	65	80	71.7	AB
Tersan 1991	3 oz	"	46	80	88	71.3	AB
Prochloraz	4.5 fl oz	"	67	63	83	71.0	AB
Bayleton TOF	2 oz	"	59	56	80	65.0	ABC
PP523 (G)	8 gm ai	"	65	50	75 ^Y	63.3	ABCD
HWG 1608 (1.2EC)	.375 oz ai	"	42	63	83	62.7	ABCD
PP523 (G)	6 gm ai	"	53	73	57	61.0	ABCDE
Bayleton (G)	1 oz ai	"	38	77 ^Y	67	60.7	ABCDEF
Fungo 50	6 oz	"	25	77	80	60.7	ABCDEF
Rizolex + Ditek	2 oz ai + 1 oz ai	"	36	58	88	60.7	ABCDEF
PP523 (SC) + X-77	6 gm ai + .05% v/v	"	42	62	70	58.0	ABCDEF
DPX-H6573	.15 oz ai	"	50	73	50	57.7	ABCDEF
Rizolex + Ditek	2 oz ai + .5 oz ai	"	42	58	71 ^Y	57.0	ABCDEF
Bayleton TOF	4 oz	"	62	50	50 ^Y	54.0	ABCDEF
RH 3486	3 oz ai	"	54	55	50	53.0	ABCDEF
Dac. 2787 (F) + SDS 66533	3 fl oz + 1 fl oz	"	47	60	50	52.3	ABCDEF
PP523 (SC) + X-77	8 gm ai + .05% v/v	"	43	60	50	51.0	ABCDEF
PP523 (SC) + X-77	4 gm ai + .05% v/v	"	0	67	83	50.0	ABCDEF
Rizolex + CH. 26019	2 oz ai + 1 oz ai	"	80	31	38	49.7	ABCDEF
Dac. 2787 (F) + SDS 66533	6 fl oz + 2 fl oz	"	47	50	50	49.0	ABCDEF
HWG 1608 (1.2EC)	.25 oz ai	"	20	36	88	48.0	ABCDEF
Bayleton (G)	.5 oz ai	"	30	38	60	42.7	ABCDEF
RH 3486	1.5 oz ai	"	47	67	13	42.3	ABCDEF
Ditek	1 oz ai	"	46	25	56	42.3	ABCDEF
Fungo 50	3 oz	"	13	75	33	40.3	ABCDEF
Dac. 2787 (F)	6 fl oz	"	47	50	13	36.7	ABCDEF
Control	-	-	53	29	27	36.3	ABCDEF
FBC 39865	1 oz	monthly	43	20	42	35.0	ABCDEF
Rizolex	3 oz ai	"	42	36	25	34.3	ABCDEF
Rubigan (W)	1 oz	"	20	50	33	34.3	ABCDEF
Agrilite w/Ureaformal	10 lbs (.9 lb N)	"	20	69	14	34.3	ABCDEF
HWG 1608 (1.2EC)	.125 oz ai	"	20	27	55	34.0	ABCDEF
Lawn Restore	10 lbs (.9 lb N)	"	30	36	30	32.0	BCDEF
Fertilizer (20-0-2) ³	.4 lb N	-	30	38	27	31.7	BCDEF
Nutra Aid + Green Magic ³	.2 qt + 1 qt	-	46	25	20	30.3	BCDEF
Rizolex	1 oz ai	"	40	17	33	30.0	BCDEF
PP523 (G)	4 gm ai	"	23	33	33	29.7	BCDEF

Rating Dates: 7/27/87 and 9/8/87 (cont.)

TREATMENT	RATE/1000 ft ²	INTERVAL	I	II	III	AVE	DMR ¹
Rizolex	2 oz ai	"	36	23	29	29.3	BCDEFGHIJK
Rubigan (W)	.5 oz	"	39	27	17	27.7	CDEFGHIJK
Fertilizer (9-4-4) ³	5 lbs (.45 lb N)	-	40	20	22	27.3	CDEFGHIJK
Agrilite w/o Ureaformal	10 lbs	monthly	13	69	0	27.3	CDEFGHIJK
Green Magic (20-0-2) ³	1 qt (.4 lb N)	-	36	10	27	24.3	CDEFGHIJKL
Dyrene (F)	2 oz ai	14 days	-14	62	13	20.3	DEFGHIJKL
PMAS	1/2 fl oz	monthly	25	31	0	18.7	EFGHIJKL
Cleary Sulfur (F)	1 pt	"	-17	50	20	17.7	FGHIJKL
BioControl	1.6 oz each of A,B,C	"	13	11	20	14.7	GHIJKL
Dyrene (F)	4 oz ai	14 days	-29	67	0	12.7	HIJKL
Phosphorus (0-46-0)	1 lb	monthly	-17	27	25	11.7	HIJKL
Rubigan AS	7.5 fl oz	"	17	-20	38	11.7	HIJKL
Dyrene (F)	1 oz ai	14 days	11	36	-20	9.0	IJKL
Green Magic (20-0-2) ²	2 qts (.8 lb N)	-	10	23	-8	8.3	IJKL
Fertilizer (20-0-2) ²	.8 lb N	-	0	25	0	8.3	IJKL
Rubigan (W)	2 oz	"	14	-25 ^Y	13 ^Y	.7	JKL
Fertilizer (9-4-4) ²	10 lbs (.9 lb N)	-	17	8	-38	-4.3	KL
Nutra Aid + Green Magic ²	.4 qt + 2 qt (.8 lb N)	-	-50	33	-33	-16.7	L

¹Treatments followed by same letter are not significantly different at 5% level of significance.

²Plots severely burned on 7/27 and no further applications made.

³Plots treated in two applications (8/14 and 8/24).
Ratings represent percent recovery between 8/14 and 9/8.