

Helminthosporium (Melting-Out) Study - 1979

The 1979 Helminthosporium melting-out (Helminthosporium vagans) fungicide trials were conducted at the MSU soils research farm on Park Kentucky bluegrass maintained at a 1 1/2" height of cut. Fungicide treatments were applied on a bi-weekly schedule on April 27, May 10 and May 31, except as noted on the data charts. All materials were applied with a CO₂ small plot sprayer at a volume of 40 gal/acre.

The plots were 3' x 6' and were replicated three times in a randomized block design. The plots were rated on June 6.

DPX 4424 plus Tersan 75 (1 + 3 oz), CGA 64251 (EC) (12 and 16 gm ai), Dyrene (6 oz), Bayleton (25 WP) + Dyrene (.5 oz ai + 6 oz), DPX 4424 (4, 2, 1 oz), Chipco 26019 (2 oz), BFN 8099 (.63 oz) and DPX 770-2 (7 oz) all gave significant control compared to the untreated check. Other fungicides which gave comparable control to these fungicides but were not significantly different from the untreated check were Acti-dione TGF plus iron sulfate (.69 + 2 oz), Tersan 1991 + Bayleton (25 WP) (1 oz + .5 oz ai), CGA-64251 (EC) (4 & 8 gm ai), Acti-dione RZ (.55 oz), Caddy + Bromosan FL (1 + 4 fl oz), Maneb/Zineb (3 fl oz), Daconil 2787 (wp) (6 oz), BFN 8099 (2.5 fl oz), Bromosan (4 fl oz) and BFN 8099 (6.3 fl oz).

In general the fungicides which gave the best disease control also had the best quality rating indicating that much of the turfgrass quality reduction was due to the H. vagans infection. It was also evident based on the quality reading that those fungicides which gave the best control were not phytotoxic.

Table 5.

M.S.U. Soils Farm Helminthosporium melting-out - Fungicide Study - 1979
 Disease Infection rating - Scale 1-9 (1, best - 9, worst)
 Rating taken - 6/7/79

<u>Treatment</u>	<u>Rate/1000 ft²</u>	<u>Replication</u>			AVE	DMR
		I	II	III		
DPX 4424 + Tersan 75	1 oz + 3 oz	1	2	1	1.3	A
CGA-64251 (EC)	12 gm ai	1	1	2	1.3	A
Dyrene	6 oz	2	3	1	2	AB
Bayleton (25 WP) + Dyrene	.5 oz ai + 6 oz	1	4	2	2.3	ABC
DPX 4424	4 oz	2	2	3	2.3	ABC
Chipco 26019	2 oz	2	3	2	2.3	ABC
BFN 8099	.63 oz	2	2	4	2.7	ABCD
DPX 4424	1 oz	4	2	2	2.7	ABCD
CGA-64251 (EC)	16 gm ai	3	3	2	2.7	ABCD
DPX 770-2	7 oz	1	3	5	3	ABCDE
DPX 4424	2 oz	3	3	3	3	ABCDE
Acti-dione TGF + Fe. Sulf.	.69 oz + 2 oz	4	3	5	4	ABCDEF
Tersan 1991 + Bayleton (25 WP)	1 oz + .5 oz ai	3	3	7	4.3	ABCDEFG
CGA-64251 (EC)	8 gm ai	9	2	2	4.3	ABCDEFG
Acti-dione RZ	.55 oz	3	3	8	4.7	ABCDEFG
Caddy + Bromosan FL* Maneb/Zineb*	1 fl oz + 4 fl oz	8	2	4	4.7	ABCDEFG
Daconil 2787 (WP)	6 oz	3	3	9	5	ABCDEFG
BFN 8099	2.5 fl oz	5	6	4	5	ABCDEFG
CGA-64251 (EC)	4 gm ai	9	6	1	5.3	ABCDEFG
Bromosan (fl)*	4 fl oz	8	6	2	5.3	ABCDEFG
BFN 8099	6.3 fl oz	5	2	9	5.3	ABCDEFG
BFN 8099	6.3 fl oz	8	2	7	5.7	ABCDEFG
Acti-dione TGF + Acti-dione RZ	.34 oz + .55 oz	4	7	6	5.7	ABCDEFG
Caddy	1 fl oz	7	2	8	5.7	ABCDEFG
Acti-dione RZ + Fer. Sulf.	.55 oz + 2 oz	8	7	4	6.3	BCDEFG
Bayleton (25 WP)	1 oz ai	4	7	8	6.3	BCDEFG
Tersan 1991 + Bayleton (25 WP)	1 oz + 1 oz ai	9	2	8	6.3	BCDEFG
Tersan 1991	1 oz	8	5	7	6.7	CDEFG
AD-TGF + AD-RZ + Fer. Sulf.	.34 oz + .55 oz + 2 oz	6	7	7	6.7	CDEFG
Daconil 2787-500	6 fl oz	9	7	5	7	DEFG
Acti-dione TGF	.69 oz	8	9	4	7	DEFG
Maneb/Zineb*	6 fl oz	5	9	8	7.3	EFG
Tersan 75	3 oz	9	7	7	7.7	FG
Bayleton (25 WP)	.5 oz ai	8	9	7	8	FG
Ferrous Sulfate	2 oz	9	8	9	8.7	G
Check	--	9	9	8	8.7	G

*Received only 1 treatment prior to rating

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

Table 6.

MSU Soils Farm Leafspot-Fungicide Study
Turf Quality Rating - Scale 1 (best) - 9 (worst)
Rating taken 6/7/79

Treatment	Rate/1000 ft ²	Replication			AVE	DMR
		I	II	III		
Bayleton (25 WP) +						
Dyrene	.5 oz ai + 6 oz	3	2	3	2.7	A
Dyrene	6 oz	3	3	2	2.7	A
Chipco 26019	2 oz	3	2	3	2.7	A
CGA-64251 (EC)	12 gm ai	4	3	2	3	AB
DPX 4424	2 oz	4	3	2	3	AB
DPX 770-2	7 oz	2	3	4	3	AB
BFN 8099	.63 fl oz	3	3	3	3	AB
DPX 4424	4 oz	3	4	3	3.3	ABC
DPX 4424 + Tersan 75	1 oz + 3 oz	3	4	3	3.3	ABC
BFN 8099	6.3 fl oz	4	3	4	3.7	ABCD
Tersan 1991 +						
Bayleton (25 WP)	1 oz + .5 oz ai	2	2	8	4	ABCDE
CGA-64251 (EC)	8 gm ai	7	2	3	4	ABCDE
BFN 8099	2.5 fl oz	8	4	2	4.7	ABCDEF
Acti-dione TGF +						
Fer. Sulf.	.69 oz + 2 oz	6	3	5	4.7	ABCDEF
Acti-dione RZ	.55 oz	6	3	5	4.7	ABCDEF
Caddy + Bromosan fl*	1 fl oz + 4 fl oz	9	3	2	4.7	ABCDEF
Bromosan fl*	4 fl oz	3	3	8	4.7	ABCDEF
Tersan 1991 +						
Bayleton (25 WP)	1 oz + 1 oz ai	6	2	8	5.3	ABCDEF
DPX 4424	1 oz	6	4	6	5.3	ABCDEF
CGA-64251 (EC)	4 gm ai	7	7	2	5.3	ABCDEF
CGA-64251 (EC)	16 gm ai	5	6	5	5.3	ABCDEF
AD-TGF +						
RZ + Fer. Sulf.	.34 oz + .55 oz + 2 oz	8	5	4	5.7	ABCDEF
Bayleton (25 WP)	1 oz ai	3	6	8	5.7	ABCDEF
Daconil 2787 WP	6 oz	4	6	8	6	ABCDEF
Caddy	1 fl oz	8	2	9	6.3	ABCDEF
Maneb/Zineb*	3 fl oz	2	8	9	6.3	ABCDEF
Daconil 2787-500 FL	6 fl oz	7	6	7	6.7	BCDEF
Acti-dione TGF	.69 oz	8	6	6	6.7	BCDEF
Acti-dione TGF +						
Acti-dione RZ	.34 oz + .55 oz	6	8	6	6.7	BCDEF
Acti-dione RZ +						
Fer. Sulf.	.55 oz + 2 oz	6	6	8	6.7	BCDEF
Ferrous Sulfate	2 oz	9	4	8	7	CDEF
Bayleton (25 WP)	.5 oz ai	4	9	9	7.3	DEF
Tersan 1991	1 oz	7	7	8	7.3	DEF
Check	--	7	8	8	7.7	EF
Maneb/Zineb*	6 fl oz	8	9	8	8.3	F
Tersan 75	3 oz	7	9	9	8.3	F

*Received only one treatment prior to rating

NOTE: Treatments followed by same letter are not significantly different at 5% level.