

CONTROL OF HELMINTHOSPORIUM, SNOW MOLD, DOLLAR SPOT,
SCLEROTINIA, FUSARIUM BLIGHT AND NEMATODES

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MSU Soils Farm Helminthosporium Study

The Helminthosporium leaf spot fungicide trials were conducted on a fescue and bluegrass plot area on the MSU Soils Research Farm. The study was divided into two parts, the fungicide plots in each part being laid out in three replications of a randomized block design. Part one consisted of fungicide treatments applied on a bi-weekly schedule whereas in part two, fungicide applications were made once a month. Part one (bi-weekly) was treated on April 29, May 12, and May 27. Part two (monthly) was treated on April 29 and May 27 only.

All fungicide applications were made foliarly with a CO₂ small plot sprayer at a volume of approximately 40 gallons per acre. The individual plots were of 3' x 6' dimensions.

The readings in Table 1 and 2 were taken on June 8.

TABLE 1. Helminthosporium Leaf Spot Plots. Appearance Rating when the fungicides were applied every 2 weeks.

Treatment	Rate/1000ft ²	Mean	Duncans Multiple Range (5%)
RP 26019	3 oz	1	A
RP 26019	4 oz	1	A
RP 26019	8 oz	1.3	AB
Bromosan	6 oz	1.7	AB
Daconil 2787	4 oz	2.0	AB
Acti-dione-RZ #2	2 oz	3.3	ABC
Acti-dione-RZ #4	2 oz	3.3	ABC
Daconil 2787	6 oz	3.7	ABCD
Acti-dione-RZ	2 oz	3.7	ABCD
Captan	6 oz	3.7	ABCD
Tersan 75	6 oz	3.7	ABCD
Tersan 75	4 oz	4.0	BCD
Captan	3 oz	5.0	CDE
Acti-dione-Thiram #2	2 oz	5.3	CDEF
Acti-dione-Thiram #3	2 oz	5.3	CDEF
Acti-dione-RZ #3	2 oz	5.3	CDEF
Bromosan	3 oz	5.7	CDEF
Acti-dione-Thiram #1	2 oz	5.7	CDEF
Acti-dione-RZ #1	2 oz	6.0	CDEF
Acti-dione-Thiram #4	2 oz	6.3	DEF
Acti-dione-Thiram	2 oz	7.3	EF
Check	-	8.0	F

NOTE: Upjohn experimentals numbered according to last digit of reference number.

1-9 Scale: 1-Best, 9-Worst

TABLE 2. Helminthosporium Leaf Spot Plots. Appearance Rating when fungicides were applied once a month.

Treatment	Rate/1000ft ²	Mean	Duncans Multiple Range (5%)
RP 26019	3 oz	2.7	A
Daconil 2787	6 oz	3.3	AB
RP 26019	6 oz	3.7	ABC
Daconil 2787	9.7 oz	3.7	ABC
RP 26019	12 oz	4.3	ABCD
Acti-dione-Thiram #1	4 oz	5.0	ABCDE
Acti-dione-Thiram #3	4 oz	5.0	ABCDE
Acti-dione-RZ	4 oz	5.0	ABCDE
Daconil 2787	4 oz	5.3	ABCDE
Acti-dione-RZ #1	4 oz	6.0	BCDE
Acti-dione-RZ #4	4 oz	6.0	BCDE
Acti-dione-RZ #3	4 oz	6.7	CDE
Acti-dione-Thiram	4 oz	7.0	DE
Check	-	7.0	DE
Acti-dione-Thiram #4	4 oz	7.3	DE
Acti-dione-Thiram #2	4 oz	8.0	E

NOTE: Upjohn experimentals numbered according to last digit of reference number.

1-9 Scale: 1-Best, 9-Worst

Results: Helminthosporium Leaf Spot

Every two weeks: The treatments which gave significant control over the untreated check were RP 26019, 3 oz, 4 oz, + 8 oz; Bromosan 6 oz; Daconil 2787 4 oz, + 6 oz; Acti-dione-RZ Experimental \$2, 4 oz; Acti-dione-RZ 2 oz; Captan 6 oz; and Tersan 75 6 oz. The RP 26019 is still the most outstanding fungicide we have ever tested for the control of *Helminthosporium vagans*. It should also be pointed out that Bromosan, which is a combination of a systemic fungicide (thiophanate) and a contact fungicide (Thiram), gave superior control compared to the contact Tersan 75 (active ingredient - Thiram) even though thiophanate by itself tends to increase the amount of *Helminthosporium* disease. Similar results have been observed before. (See 1974 and 1975 research reports.)

Once a month: RP 26019 3 oz + 6 oz and Daconil 2787 6 oz + 9.7 oz gave significant control when compared to the untreated check. The control was not as effective as when they were applied every two weeks, but it demonstrated that some control can be obtained even with monthly applications.

Fusarium Blight Study

The 1976 *Fusarium* blight study was conducted at the Northfield condominium complex in Troy, Michigan on irrigated *Fusarium*-infested Merion Kentucky bluegrass turf. The plots were of 6' x 10' and replicated three times in a randomized block design. The turf was maintained at a two inch height of cut.

This study consisted of fungicides, wetting agents and nematicides. All treatments were applied on July 23 with the fungicide and wetting agent plots receiving a second treatment on August 6. Application of both fungicides and wetting agents was accomplished with an Ortho hose jar applicator, while the