Dollarspot Fungicide Studies 1982 Hancock Turfgrass Research Center, MSU

Two dollarspot (<u>Sclerotinia homoeocarpa</u>) studies were conducted this year. One was established preventatively on an Emerald creeping bentgrass green and another was established curatively on an annual bluegrass area. Liquid applications were made with a CO₂ small plot sprayer at a volume of 40 gal./acre (except as noted on data sheets). Granular formulations were applied by hand.

Emerald Creeping Bentgrass Study

Treatments were applied preventatively to three replications of 3' x 6' plots in a random block design on an Emerald bentgrass green which was irrigated and fertilized as needed. This area was mowed daily at 1/4" height and clippings were removed.

All treatments were applied on August 3 with subsequent applications being made at the intervals indicated following each treatment on the data table. The last treatments were applied on September 16, at which time the 10 day treatments had been applied 5 times, the 14 day treatments - 4 times, the 21 day treatments - 3 times, the 28 day treatments - twice, and 30 day treatments - twice. The rating was taken on September 23. (Table 5)

Annual Bluegrass Study

Treatments were applied curatively to three replications of 6' x 6' plots in a random block design on an annual bluegrass (<u>Poa annua</u>) plot area which was irrigated and fertilized as needed. This area was mowed three times a week at 5/8" height of cut with clippings returned.

All treatments were applied on August 26 with subsequent treatments being applied at the intervals indicated on the data table. The last treatments were applied on September 14 with the 10 day treatments being applied three times, the 14 and the 21 day treatments - twice, and the 28 and 30 day treatments - once. The ratings were taken on September 23 and on September 29. (Tables 6 and 7)

> Anthracnose Fungicide Study - 1982 Glen Gary Golf Club, Sylvania, Ohio

The 1982 anthracnose (<u>Colletotrichum graminicola</u>) fungicide studies were established in two locations, one at Glen Gary Country Club in Sylvania, Ohio, on an irrigated <u>Poa</u> annua (annual bluegrass) fairway mowed at 1/2" height of cut. The study was laid out in three repetitions of a random block design, utilizing 6' x 9' plots. All liquid applications were made with a CO₂ small-plot sprayer, while granular formulations were applied by hand.

Applications were made curatively on July 7 with subsequent applications being made at the intervals indicated on the data chart. The last applications were made on August 5 at which time the 10 day treatments had 4 applications, the 14 day treatements had 3 applications, and the 21 and 30 days treatments had received 2 applications.

The plots were rated on August 5 and August 17. (Tables 8 and 9)

Table 8

Glen Gary Anthracnose Fungicide Study - 1982

Disease Rating - % plot area infected 8/5/82

| Treatment | Rate/1000 ft ² + Interval | | Repetition | | | | | |
|-----------------------------|--------------------------------------|----|------------|-----|------|---------|--|--|
| | | I | II | III | AVE | DMR | | |
| F-9648R | 2X (21 day sch.) | 5 | 5 | 5 | 5 | А | | |
| Tersan 1991 | 1 oz. (21 day sch.) | 0 | 5 | 20 | 8.3 | A | | |
| Bayleton | 2 oz. (30 day sch.) | 0 | 15 | 20 | 11.7 | AB | | |
| F-9648R | 1X (21 day sch.) | 10 | 25 | 10 | 15 | ABC | | |
| Bayleton ¹ | 1 oz. (one app. only) | 10 | 20 | 25 | 18.3 | ABCD | | |
| Bayleton | 1 oz. (30 day sch.) | 10 | 25 | 25 | 20 | ABCDE | | |
| CGA-64250 (1.125 EC) | .5 oz. (21 day sch.) | 5 | 10 | 45 | 20 | ABCDE | | |
| CGA-64250 (1.125 EC) | 1 oz. (21 day sch.) | 5 | 45 | 15 | 21.7 | ABCDEF | | |
| Duosan | 4 oz. (21 day sch.) | 10 | 30 | 25 | 21.7 | ABCDEF | | |
| Tersan 1991 | 1 oz. + 3 fl. oz. | 25 | 25 | 20 | 23.3 | ABCDEF | | |
| + Daconil 2787 | (21 day sch.) | 20 | 20 | 20 | 2010 | 100051 | | |
| Fungo 50 | 1 oz. (21 day sch.) | 10 | 35 | 40 | 28.3 | BCDEFG | | |
| Prochloraz ³ | 1.5 oz. ai. (21 day sch.) | 25 | 35 | 30 | 30 | BCDEFGH | | |
| Cleary 3336 | 1 oz. (21 day sch.) | 25 | 40 | 25 | 30 | BCDEFGH | | |
| BTS 41661 ³ | 3 oz. ai. (21 day sch.) | 35 | 35 | 25 | 31.7 | CDEFGH | | |
| Daconil 2787 FL | 2 fl. oz. (10 day sch.) | 35 | 30 | 35 | 33.3 | CDEFGHI | | |
| Bayleton (GR) ⁴ | 6.25 lbs. (one app. only) | 25 | 40 | 45 | 36.7 | DEFGHIJ | | |
| BAS 43603F | .62 oz. ai. (21 day sch.) | 15 | 45 | 50 | 36.7 | DEFGHIJ | | |
| Daconil 2787 FL | 6 fl. oz. (14 day sch.) | 45 | 35 | 35 | 38.3 | EFGHIJ | | |
| BTS 41661 ³ | 1.5 oz. ai. (21 day sch.) | 35 | 40 | 45 | 40 | FGHIJK | | |
| Daconil 2787 FL | 3 fl. oz. (14 day sch.) | 30 | 50 | 40 | 40 | FGHIJK | | |
| BAS 43603F | .21 oz. ai. (21 day sch.) | 55 | 30 | 50 | 45 | GHIJKL | | |
| Daconil 2787 FL | 1.5 oz. (14 day sch.) | 35 | 55 | 50 | 46.7 | GHIJKL | | |
| Acti-dione TGF ² | .34 oz. (1 app. only) | 40 | 45 | 60 | 48.3 | HIJKL | | |
| Actidione TGF | .34 oz. + .55 oz. | 20 | 65 | 60 | 48.3 | HIJKL | | |
| + Acti-dione RZ | (14 day sch.) | | | | | | | |
| Vorlan | 2 oz. (21 day sch.) | 40 | 60 | 45 | 48.3 | HIJKL | | |
| BAS 43603 F | .28 oz. ai. (21 day sch.) | 50 | 70 | 35 | 51.7 | IJKL | | |
| Vorlan | 1 oz. (21 day sch.) | 50 | 50 | 65 | 55 | JKL | | |
| Oximide | 1/2 lb. N. (30 day sch.) | 50 | 60 | 55 | 55 | JKL | | |
| Check | - | 55 | 70 | 50 | 58.3 | KL | | |
| Acti-dione RZ | .55 oz. (14 day sch.) | 50 | 70 | 60 | 60 | L | | |
| Oximide | 1 lb. N. (30 day sch.) | 50 | 65 | 70 | 61.7 | L | | |
| | | | | | | | | |

¹Bayleton applied 7/7 to cure plots of anthracnose, AD-TGF applied on 7/21. No phytotoxicity.

 2 AD-TGF applied at .34 oz. to plots with anthracnose infections on 7/21. No phytotoxicity.

³Applied in a 2X water rate.

⁴Applied on 7/16.

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

Table 9

Glen Gary Anthracnose Fungicide Study - 1982

Disease Rating - % plot area infected 8/17/82

| Treatment | Rate/1000 ft ² + Interval | Repetition | | | | |
|-----------------------------|--------------------------------------|------------|----|-----|------|--------|
| | | I | II | III | AVE | DMR |
| | | | | | | |
| Tersan 1991 | 1 oz. (21 day sch.) | 0 | 0 | 2 | .7 | A |
| Bayleton | 2 oz. (30 day sch.) | 0 | 0 | 5 | 1.7 | A |
| Bayleton | 1 oz. (30 day sch.) | 0 | 5 | 2 | 2.3 | A |
| F-9648R | 1X (21 day sch.) | 0 | 10 | 0 | 3.3 | A |
| F-9648R | 2X (21 day sch.) | 0 | 5 | 10 | 5 | AB |
| CGA-64250 (1.125 EC) | 1 fl. oz. (21 day sch.) | 0 | 15 | 0 | 5 | AB |
| Bayleton ¹ | 1 oz. (one app. only) | 2 | 10 | 5 | 5.7 | ABC |
| BTS 41661 ³ | 3 oz. ai. (21 day sch.) | 5 | 10 | 2 | 5.7 | ABC |
| Duosan | 4 oz. (21 day sch.) | 5 | 15 | 5 | 8.3 | ABCD |
| Bayleton (GR)=4 | 6.25 lbs. (one app. only) | 5 | 5 | 20 | 10 | ABCDE |
| CGA-64250 (1.125 EC) | .5 fl. oz. (21 day sch.) | 2 | 5 | 25 | 10.7 | ABCDE |
| Prochloraz ³ | 1.5 oz. ai. (21 day sch.) | 10 | 25 | 10 | 15 | ABCDE |
| Tersan 1991 | 1 oz. + 3 fl. oz. | 15 | 25 | 10 | 16.7 | ABCDEF |
| + Daconil 2787 | (21 day sch.) | | | | | |
| Cleary 3336 | 1 oz. (21 day sch.) | 15 | 40 | 0 | 18.3 | ABCDEF |
| Fungo 50 | 1 oz. (21 day sch.) | 2 | 15 | 40 | 19 | ABCDEF |
| Daconil 2787 FL | 2 oz. (10 day sch.) | 20 | 20 | 35 | 25 | BCDEF |
| BTS 41661 ³ | 1.5 oz. ai. (21 day sch.) | 15 | 30 | 35 | 26.7 | CDEFG |
| Daconil 2787 FL | 3 fl. oz. (14 day sch.) | 20 | 30 | 30 | 26.7 | CDEFG |
| Daconil 2787 FL | 6 fl. oz. (14 day sch.) | 25 | 20 | 40 | 28.3 | DEFG |
| BAS 43603F | .62 oz. ai. (21 day sch.) | 15 | 35 | 40 | 30 | EFGH |
| Vorlan | 2 oz. (21 day sch.) | 50 | 50 | 10 | 36.7 | FGHI |
| Daconil 2787 FL | 1.5 oz. (14 day sch.) | 35 | 60 | 45 | 46.7 | GHIJ |
| BAS 43603F | .28 oz. ai. (21 day sch.) | 50 | 60 | 30 | 46.7 | GHIJ |
| Acti-dione TGF ² | .34 oz. (14 day sch.) | 40 | 40 | 70 | 50 | HIJ |
| Oximide | 1/2 lb. N. (30 day sch.) | 50 | 60 | 40 | 50 | HIJ |
| BAS 43603 F | .21 oz. ai. (21 day sch.) | 60 | 30 | 60 | 50 | HIJ |
| Oximide | 1 lb. N. (30 day sch.) | 35 | 60 | 60 | 51.7 | IJ |
| Vorlan | 1 oz. (21 day sch.) | 50 | 60 | 70 | 60 | J |
| Acti-dione RZ | .55 oz. (14 day sch.) | 60 | 70 | 50 | 60 | J |
| Actidione TGF | .34 oz. + .55 oz. | 50 | 70 | 75 | 65 | J |
| + Acti-dione RZ | (14 day sch.) | | | | | |
| Check | | 70 | 70 | 60 | 66.7 | J |

¹Bayleton applied 7/7, plots cured of anthracnose damage, then AD-TGF at .34 oz. applied 7/21, 8/5. No phytotoxicity observed.

 2 AD-TGF applied at .34 oz. to plots with anthracnose damage evident on 7/21 and 8/5. No phytotoxicity observed.

³Applied in a 2X water rate.

⁴Applied on 7/16.

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