

Anthracnose (*Colletotrichum graminicola*)

The anthracnose study was set up on an annual bluegrass fairway at the Hancock Turfgrass Research Center in E. Lansing, MI. It was mowed at 1/2". The design was a randomized complete block with 4 replicates of each treatment. Plots were 6' x 6'. Treatments were applied using a CO₂ backpack sprayer with a double 8002E flat fan TeeJet nozzle boom at 48 GPA and 34 PSI. Plots were fertilized at about 3/8#N/1000 ft²/month. A 2 oz/1000 ft² rate of Chipco 26GT was applied on 19 June, 1 July, 11 July, 25 July, 6 August, and 21 August for dollar spot control. All preventive treatments were applied beginning on 4 July (except for the Program treatment which was applied as per the Table 4) with subsequent applications of the 14-day treatments on 16 July, 23 July, 30 July, and 15 August. Re-applications of the 28-day treatments were made on 30 July. Curative treatments were applied beginning on 18 July with subsequent applications on 30 July and 15 Aug. Plots were rated for percent area with anthracnose. Data are shown in Table 4 and represent the mean percent plot area with anthracnose. Data were analyzed using ANOVA and means separated with LSD (p=0.05).

On the July 19 rating, disease pressure was light with the control exhibiting 8% disease, and no significant differences occurring between treatments. As can be seen by the August 20 means, disease pressure remained light. However by this time, several treatments provided significant anthracnose control compared to the untreated control including the preventive treatments such as Banner Maxx and Daconil Ultrex, alone and in combination, Cleary's 3336, the Program treatment (see Table 4), and the curative treatments Spectro and Endorse (6 oz/1000 ft²). Surprisingly, Heritage did not provide disease control as expected. No phytotoxicity was observed in this study this year.

Table 4. Mean Anthracnose Ratings

| Location: Hancock Turfgrass Research Center, E. Lansing, MI | | | | | | | |
|---|-----------------|-------------------|------------------|--------|-----|-----------------------------------|-----|
| Rating Scale: Mean % plot area with anthracnose | | | | | | | |
| Treatment and Rate/1000 sq ft | Interval (Days) | 19-Jul | | 20-Aug | | % Recovery by Aug 20 ^c | |
| | | Mean ^a | LSD ^b | Mean | LSD | Mean | LSD |
| Daconil Ultrex 82.5WG 3.2 oz + Banner Maxx 1 fl oz | 14 | 6.8 | A | 0.0 | A | 100.0 | A |
| Daconil Ultrex 82.5WG 3.2 oz | 14 | 5.5 | A | 0.0 | A | 100.0 | A |
| Program Treatment: ^d | | | | | | | |
| Banner Maxx 2 fl oz + Daconil Ultrex 1.8 oz | 5/21 | 4.5 | A | 0.0 | A | 100.0 | A |
| Banner Maxx 1 fl oz + Daconil Ultrex 1.8 oz | 6/7 | | | | | | |
| Cleary's 3336F 4 fl oz + Daconil Ultrex 1.8 oz | 6/19 | | | | | | |
| Cleary's 3336F 4 fl oz + Daconil Ultrex 1.8 oz | 7/4 | | | | | | |
| Heritage 0.4 oz + Daconil Ultrex 3.2 oz | 7/16 | | | | | | |
| Daconil Ultrex 1.8 oz | 7/30 | | | | | | |
| Heritage 0.4 oz + Banner Maxx 1 fl oz | 8/15 | | | | | | |
| Subdue Maxx 0.5 fl oz + Daconil Ultrex 1.8 oz | 14 | | | | | | |
| Heritage 0.4 oz + Banner Maxx 1 fl oz | 14 | | | | | | |
| Subdue Maxx 1 fl oz + Daconil Ultrex 1.8 oz | 14 | | | | | | |
| Banner Maxx 1 fl oz + Daconil Ultrex 1.8 oz | 14 | | | | | | |
| Cleary's 3336F 4 fl oz + Daconil Ultrex 1.8 oz | 14 | | | | | | |

| Heritage 0.4 oz + Banner Maxx 2 fl oz | | | | | | | |
|---|-----|-----|---|-----|-----|------|-----|
| Banner Maxx 1 fl oz | 14 | 4.5 | A | 0.3 | A | 91.7 | A-C |
| Banner Maxx 2 fl oz | 14 | 6.3 | A | 0.3 | A | 97.5 | AB |
| Spectro 4oz + Alliance 3 fl oz ^e | 14 | 4.5 | A | 0.9 | AB | 63.2 | B-F |
| Endorse 6 oz ^e | 14 | 9.3 | A | 1.3 | AB | 89.6 | A-C |
| Spectro 4 oz ^e | 14 | 8.8 | A | 2.5 | A-C | 79.2 | A-D |
| Cleary's 3336F 2 fl oz | 14 | 8.0 | A | 2.8 | A-C | 66.7 | A-E |
| Cleary's 3336 WDG 4 oz ^e | 14 | 7.0 | A | 3.4 | B-D | 43.0 | D-G |
| Endorse 4 oz ^e | 14 | 8.3 | A | 3.6 | B-E | 55.4 | C-F |
| Heritage 50WG 0.2 oz | 14 | 5.8 | A | 4.8 | C-E | 12.5 | G |
| Heritage 50WG 0.4 oz | 14 | 7.5 | A | 5.0 | C-E | 16.7 | G |
| Untreated Control | --- | 8.0 | A | 5.8 | DE | 27.5 | FG |
| Heritage 0.4 oz | 28 | 8.0 | A | 6.3 | E | 15.5 | G |

^a Represents the mean of 4 replicate plots.

^b Means followed by the same letter do not significantly differ (LSD, p=0.05).

^c Represents percent recovery from the July 19 rating until the August 20 rating.

^d Program treatments were applied on the dates indicated with the last 6 combinations not being applied since the disease pressure waned.

^e Treatments applied curatively on 7/18, 7/30, and 8/15.

Melting Out (*Dreschlera poae*)

This study was set up on an irrigated Kenblue Kentucky bluegrass block at Hancock Turfgrass Research Center, E. Lansing, MI. The study consisted of 4 replicates of each treatment, set up in a randomized complete block design with plots measuring 6' x 9' with 1' alleys. Plots were mowed at 2.5". Treatments were applied preventively, beginning on May 15 using a CO₂ backpack sprayer at 34 PSI with 8002E flat fan nozzles. Subsequent applications for the 14-day treatments were made on May 29 and June 11. The spray volume used was 2 gallons per 1000 ft². Fertilizer was applied as follows: May 15 (1/4#N), May 28 (1/4#N), and June 11 (1/4#N). Plots were rated on a 0-10 scale where 0= no disease and 10=100% leaves infected (see Table 5.) Data were analyzed with ANOVA and means separated with LSD (p=0.05). No phytotoxicity was observed in this study this season.

As the data in Table 5 indicate, Endorse gave statistically significant control of melting out through the June 21 rating. Disease pressure was relatively light this year as we experienced a cool, dry spring. This low disease pressure resulted in poor statistical separation between the untreated control and the Chipco 26GT. No significant quality differences or phytotoxicity was observed.