

Black Dot Foliar Fungicides (200 Series)

- Location:** Inkster, ND
Plot design: 4 rows X 30 feet X 4 reps; RCBD
All 4 rows were sprayed; foliar disease data was taken from the center 2 rows.
- Planting date:** May 9, 2010
Row width: 36 inches
Seed spacing: 14 inches
Cultivar: Russet Burbank
50% Emergence: June 5
- Herbicide:** Prowl (2.0 pt/a) + Matrix (1.0 oz/a) + Sencor (0.5 lb/a); June 2
- Fertilizer:** Broadcast: 61#N, 200#K, 30#S; April 27
Starter: 29#N, 100#P; May 9
Fertigation: 20#N; July 7, 16, 29
- Insecticide:** Admire Pro (8.7 oz/a) + Ultra Flourish (12.2 oz/a); in furrow at plant
Kaiso (2 oz/a); August 6
- Objective:** To determine the efficacy of standard fungicide chemistries and fungicide programs for the control of black dot caused by *Colletotrichum coccodes*.
- Black dot inoculation method:** Five *C. coccodes* isolates representing vegetative compatibility groups 3, and 6 were grown for 6 weeks on CV-8 agar medium. Microsclerotia were released from the agar using an electric blender and the microsclerotial suspension was adjusted to a concentration of 1.4×10^4 microsclerotia / ml in distilled water. The suspension was applied at a rate of 189 ml / 30 foot row to the outside two rows of each plot on the evening of June 28 using a converted ATV and modified spray equipment.
- Treatment application dates:** June 23, 30, July 7, 16, 20, 28, August 3, 11, 18, 25, September 1
- Treatment application method:** Fungicide were applied using a converted ATV (55 psi; 61 gpa; 11005XR nozzles).
- Fungicide overspray dates:**
- | | |
|-----------|---------------------------------------|
| July 16 | Revus (8.0 oz/a) |
| July 21 | Revus (8.0 oz/a) |
| July 28 | Presidio (4.0 oz/a) |
| August 3 | Presidio (4.0 oz/a) |
| August 11 | Revus (8.0 oz/a) + Curzate (3.2 oz/a) |

| | |
|--------------|--|
| August 18 | Presidio (4.0 oz/a) + Curzate (3.2 oz/a) |
| August 25 | Revus (8.0 oz/a) + Curzate (3.2 oz/a) |
| September 1 | Presidio (4.0 oz/a) |
| September 8 | Gavel (2.0 lb/a) |
| September 14 | Revus Top (7.0 oz/a) |

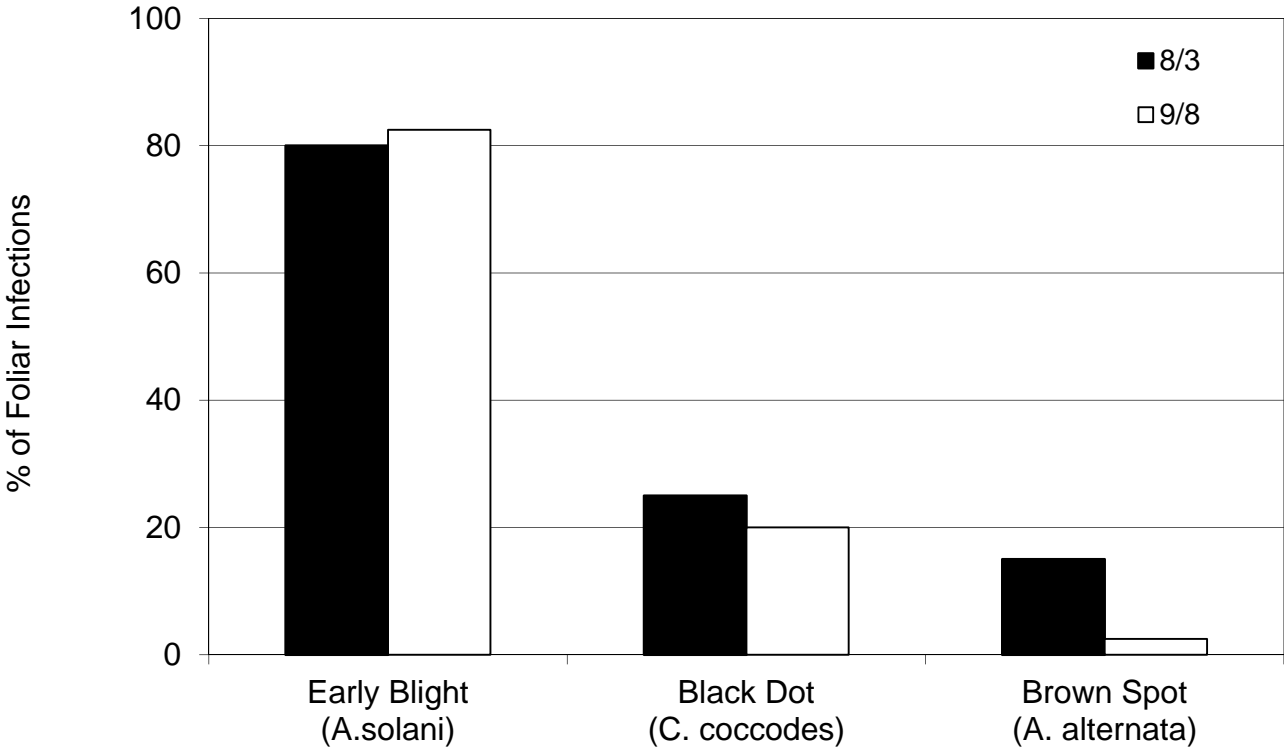
Vinekill: Rotobeat; September 22

Harvest: September 22, October 1

| Treatment | Rate | Schedule | Black Dot (% Stem Incidence) | | | | | | | | | | AUDPC | RAUDPC | Total Yield (cwt/a) |
|-------------------------|------------------|--------------|------------------------------|------|-----|-----|------|------|-----|------|------|-------|-------|--------|---------------------|
| | | | 7/20 | 7/26 | 8/2 | 8/9 | 8/16 | 8/23 | 9/1 | 9/7 | 9/14 | | | | |
| 207 LEM17 EC | 12.0 fl oz / a + | 1,3,5,7,9,11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 7.6 | 25.1 | 26.9 | 328.7 | 0.043 | 535.5 | |
| Induce | 0.25% v/v | | | | | | | | | | | | | | |
| Tanos + | 6.0 oz / a + | 2,4,6,8,10 | | | | | | | | | | | | | |
| Manzate | 1.5 lb / a | | | | | | | | | | | | | | |
| 208 LEM17 EC | 16.0 fl oz / a + | 1,3,5,7,9,11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.6 | 2.0 | 5.9 | 15.4 | 114.4 | 0.015 | 554.9 | |
| Induce | 0.25% v/v | | | | | | | | | | | | | | |
| Tanos + | 6.0 oz / a + | 2,4,6,8,10 | | | | | | | | | | | | | |
| Manzate | 1.5 lb / a | | | | | | | | | | | | | | |
| 209 LEM17 EC | 24.0 fl oz / a + | 1,3,5,7,9,11 | 0.0 | 0.2 | 0.2 | 0.2 | 0.8 | 1.2 | 5.7 | 10.6 | 18.2 | 194.1 | 0.026 | 584.8 | |
| Induce | 0.25% v/v | | | | | | | | | | | | | | |
| Tanos + | 6.0 oz / a + | 2,4,6,8,10 | | | | | | | | | | | | | |
| Manzate | 1.5 lb / a | | | | | | | | | | | | | | |
| 212 Endura | 2.5 oz / a | 1,3,5,7,9,11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 1.0 | 5.0 | 10.3 | 19.0 | 181.3 | 0.024 | 583.9 | |
| Tanos + | 6.0 oz / a + | 2,4,6,8,10 | | | | | | | | | | | | | |
| Manzate | 1.5 lb / a | | | | | | | | | | | | | | |
| 213 Evito | 3.8 fl oz / a | 1,3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.9 | 1.9 | 5.0 | 12.9 | 102.1 | 0.013 | 573.4 | |
| Bravo Zn | 2.125 pt / a | 2,4-11 | | | | | | | | | | | | | |
| 214 Manzate | 2.0 lb / a | Full season | 0.3 | 1.5 | 1.9 | 2.0 | 2.8 | 4.8 | 8.8 | 18.7 | 24.3 | 368.6 | 0.049 | 560.4 | |
| 215 Headline | 9.0 fl oz / a | 1,3 | 0.0 | 0.2 | 0.2 | 0.2 | 0.5 | 0.8 | 7.1 | 12.4 | 22.4 | 225.3 | 0.030 | 590.5 | |
| Bravo Zn | 2.125 pt / a | 2,4-11 | | | | | | | | | | | | | |
| 216 Quadris | 9.0 fl oz / a | 1,3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 3.1 | 5.4 | 11.1 | 103.3 | 0.014 | 621.0 | |
| Bravo Zn | 2.125 pt / a | 2,4-11 | | | | | | | | | | | | | |
| LSD _{P = 0.05} | | | NS | NS | NS | NS | NS | 3.1 | 5.9 | 12.8 | 15.1 | 292.1 | 0.038 | NS | |

| Treatment | Rate | Schedule | Foliar Disease (% Severity) | | | | | | | | | | | | | AUDPC | RAUDPC |
|-------------------------|------------------|--------------|-----------------------------|------|------|------|------|------|-----|-----|------|------|------|------|------|--------|--------|
| | | | 6/23 | 6/30 | 7/7 | 7/13 | 7/20 | 7/26 | 8/2 | 8/9 | 8/16 | 8/23 | 9/1 | 9/7 | 9/14 | | |
| 207 LEM17 EC | 12.0 fl oz / a + | 1,3,5,7,9,11 | 0.0 | 0.09 | 0.19 | 0.24 | 0.29 | 0.36 | 0.3 | 0.3 | 2.3 | 4.7 | 22.9 | 47.2 | 76.7 | 811.6 | 0.107 |
| Induce | 0.25% v/v | | | | | | | | | | | | | | | | |
| Tanos + | 6.0 oz / a + | 2,4,6,8,10 | | | | | | | | | | | | | | | |
| Manzate | 1.5 lb / a | | | | | | | | | | | | | | | | |
| 208 LEM17 EC | 16.0 fl oz / a + | 1,3,5,7,9,11 | 0.0 | 0.07 | 0.19 | 0.18 | 0.36 | 0.29 | 0.4 | 0.3 | 1.2 | 1.9 | 14.3 | 29.5 | 63.3 | 555.9 | 0.073 |
| Induce | 0.25% v/v | | | | | | | | | | | | | | | | |
| Tanos + | 6.0 oz / a + | 2,4,6,8,10 | | | | | | | | | | | | | | | |
| Manzate | 1.5 lb / a | | | | | | | | | | | | | | | | |
| 209 LEM17 EC | 24.0 fl oz / a + | 1,3,5,7,9,11 | 0.0 | 0.06 | 0.17 | 0.19 | 0.18 | 0.19 | 0.2 | 0.2 | 0.2 | 0.4 | 18.3 | 27.8 | 60.8 | 543.8 | 0.072 |
| Induce | 0.25% v/v | | | | | | | | | | | | | | | | |
| Tanos + | 6.0 oz / a + | 2,4,6,8,10 | | | | | | | | | | | | | | | |
| Manzate | 1.5 lb / a | | | | | | | | | | | | | | | | |
| 212 Endura | 2.5 oz / a | 1,3,5,7,9,11 | 0.0 | 0.09 | 0.13 | 0.18 | 0.29 | 0.11 | 0.1 | 0.5 | 2.3 | 5.2 | 18.9 | 48.8 | 79.3 | 803.2 | 0.106 |
| Tanos + | 6.0 oz / a + | 2,4,6,8,10 | | | | | | | | | | | | | | | |
| Manzate | 1.5 lb / a | | | | | | | | | | | | | | | | |
| 213 Evito | 3.8 fl oz / a | 1,3 | 0.0 | 0.04 | 0.19 | 0.27 | 0.33 | 0.31 | 0.7 | 2.0 | 6.8 | 10.3 | 25.8 | 57.5 | 88.8 | 1033.6 | 0.136 |
| Bravo Zn | 2.125 pt / a | 2,4-11 | | | | | | | | | | | | | | | |
| 214 Manzate | 2.0 lb / a | Full season | 0.0 | 0.08 | 0.23 | 0.16 | 0.24 | 0.24 | 0.6 | 1.2 | 4.9 | 15.4 | 28.6 | 49.9 | 74.6 | 975.5 | 0.128 |
| 215 Headline | 9.0 fl oz / a | 1,3 | 0.0 | 0.03 | 0.12 | 0.17 | 0.24 | 0.66 | 0.7 | 1.1 | 5.3 | 10.7 | 27.3 | 44.7 | 70.1 | 884.2 | 0.116 |
| Bravo Zn | 2.125 pt / a | 2,4-11 | | | | | | | | | | | | | | | |
| 216 Quadris | 9.0 fl oz / a | 1,3 | 0.0 | 0.09 | 0.28 | 0.15 | 0.39 | 0.18 | 0.7 | 0.6 | 1.6 | 3.3 | 11.2 | 26.3 | 48.6 | 478.7 | 0.063 |
| Bravo Zn | 2.125 pt / a | 2,4-11 | | | | | | | | | | | | | | | |
| LSD _{P = 0.05} | | | . | 0.06 | 0.08 | 0.10 | NS | 0.35 | 0.7 | 1.6 | 4.3 | 9.1 | 15.2 | 17.7 | 19.0 | 681.0 | 0.090 |

2010 Black Dot Foliar Fungicides - Inkster Series 200 Foliar Disease Complex



NOTE: The sum of the three pathogens recovered is greater than 100% because in some cases, more than one pathogen was recovered from a single lesion. Represents pathogens recovered from non-treated-inoculated treatments. Leaves were collected from all 4 replications at 2 points during the growing season.