

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:** June 1, 2011
- Row width:** 36 inches
- Seed spacing:** 14 inches
- Cultivar:** Russet Burbank
- 50% Emergence:** June 22
- Herbicide:** Matrix (1.5 oz / a) + Ad-Wet 90 Plus (1.0 pt / 100gal); July 1
- Fertilizer:** Broadcast: 61#N, 200#K, 30#S; May 26
Starter: 29#N, 100#P; June 1
Fertigation: 30#N; August 9
20#N; August 16
- Insecticide:** Admire Pro (8.7 oz/a) + Ultra Flourish (12.2 oz/a); in furrow at plant
Kaiso (2.0 oz/a); August 11
- 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 2, and 6 were grown for 5 to 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 1.0×10^5 microsclerotia / ml in distilled water. The suspension was applied at a rate of 242 ml / 30 foot row to the outside two rows of each plot on the evening of July 20 using custom ATV spray equipment.

Treatment application dates: July 15, 22, 28, August 4, 11, 18, 25, 31, September 7

Treatment application method: Fungicides were applied using a converted ATV (55 psi; 61 gpa; 11005XR nozzles).

Fungicide overspray dates:	July 28	Presidio (4.0 oz/a)
	August 4	Presidio (4.0 oz/a)
	August 11	Ranman (2.75 oz/a)
	August 18	Ranman (2.75 oz/a)
	August 26	Presidio (4.0 oz/a)
	September 2	Revus (8 oz/a)
	September 8	Omega (5.5 oz/a)

Vinekill: Killing frost; September 14
Rotobeat; October 6

Harvest: October 7

2011 Black Dot Fungicides - Inkster Series 200

Treatment	Rate	Schedule	Black Dot (% Stem Incidence)				AUDPC	RAUDPC	Total Yield (cwt/a)
			8/16	8/22	8/29	9/12			
201 Non-treated / Non-inoculated	-	-	0.00	0.00	0.11	9.1	65.0	0.024	485.2
202 Non-treated / Inoculated	-	-	0.00	0.00	0.53	8.9	67.7	0.025	505.6
203 Reason + Bond + Dithane Echo Zn Echo Zn Luna Tranquility + Dithane Scala + Dithane	4.0 fl oz / a + 0.1% v/v + 1.5 lb / a 1.3 pt / a 2.125 pt / a 9.0 fl oz / a + 1.5 lb / a 7.0 fl oz / a + 1.5 lb / a	1,3 2 4,6,8-10 5 7 	0.00	0.00	0.00	3.7	25.8	0.010	542.3
204 Reason + Bond + Dithane Echo Zn Echo Zn Luna Tranquility + Dithane Scala + Dithane	6.9 fl oz / a + 0.1 % v/v + 1.5 lb / a 1.3 pt / a 2.125 pt / a 9.0 fl oz / a + 1.5 lb / a 7.0 fl oz / a + 1.5 lb / a	1,3 2 4,6,8-10 5 7 	0.24	0.24	0.24	5.3	42.1	0.016	514.1
205 Luna Tranquility + Dithane Echo Zn Echo Zn Luna Tranquility + Dithane Scala + Dithane	9.0 fl oz / a + 1.5 lb / a 1.3 pt / a 2.125 pt / a 9.0 fl oz / a + 1.5 lb / a 7.0 fl oz / a + 1.5 lb / a	1,3 2 4,6,8-10 5 7 	0.00	0.00	0.00	1.6	10.9	0.004	540.6

Treatment	Rate	Schedule	Black Dot (% Stem Incidence)				AUDPC	RAUDPC	Total Yield (cwt/a)
			8/16	8/22	8/29	9/12			
206 Luna Tranquility + Dithane Echo Zn Echo Zn Luna Tranquility + Dithane Scala + Dithane	11.0 fl oz / a + 1.5 lb / a 1.3 pt / a 2.125 pt / a 11.0 fl oz / a + 1.5 lb / a 7.0 fl oz / a + 1.5 lb / a	1,3 2 4,6,8-10 5 7	0.00 	0.00 	0.00 	1.9 	13.6 	0.005 	523.4
208 Cabrio Plus Bravo Zn	2.9 lb / a 2.125 pt / a	1,3 2,4-10	0.00 	0.00 	0.00 	4.7 	32.8 	0.012 	526.0
209 Vertisan EC + Activator 90 Bravo Zn	1.0 pt / a + 0.25% v/v 2.125 pt / a	1,3 2,4-10	0.00 	0.00 	0.00 	3.3 	23.2 	0.009 	552.2
210 Endura Bravo Zn	3.0 oz / a 2.125 pt / a	1,3 2,4-10	0.00 	0.00 	0.00 	7.0 	49.1 	0.018 	530.0
211 Aproach Bravo Zn	9.0 fl oz / a 2.125 pt / a	1,3 2,4-10	0.00 	0.00 	0.00 	4.1 	28.6 	0.011 	556.3
212 Headline Bravo Zn	9.0 fl oz / a 2.125 pt / a	1,3 2,4-10	0.00 	0.00 	0.00 	6.4 	45.1 	0.017 	529.9
213 Quadris Bravo Zn	9.0 fl oz / a 2.125 pt / a	1,3 2,4-10	0.00 	0.22 	0.00 	5.1 	37.0 	0.014 	517.8
214 Manzate	2.0 lb / a	Full Season	0.00	0.00	0.00	5.2	36.7	0.014	505.3
LSD _{P = 0.05}			0.11	0.16	0.30	4.4	NS	NS	NS

Treatment	Rate	Schedule	Foliar Disease (% Severity)										AUDPC	RAUDPC
			7/13	7/20	7/27	8/2	8/9	8/16	8/22	8/29	9/12			
206 Luna Tranquility +	11.0 fl oz / a +	1,3	0.00	0.16	0.28	0.14	0.2	0.1	0.3	0.2	0.2	10.7	0.002	
Dithane	1.5 lb / a													
Echo Zn	1.3 pt / a	2												
Echo Zn	2.125 pt / a	4,6,8-10												
Luna Tranquility +	11.0 fl oz / a +	5												
Dithane	1.5 lb / a													
Scala +	7.0 fl oz / a +	7												
Dithane	1.5 lb / a													
208 Cabrio Plus	2.9 lb / a	1,3	0.00	0.23	0.54	0.26	1.9	1.9	1.3	3.5	12.1	162.0	0.027	
Bravo Zn	2.125 pt / a	2,4-10												
209 Vertisan EC +	1.0 pt / a +	1,3	0.02	0.29	0.38	0.34	0.8	1.1	1.2	2.1	16.8	167.7	0.027	
Activator 90	0.25% v/v													
Bravo Zn	2.125 pt / a	2,4-10												
210 Endura	3.0 oz / a	1,3	0.01	0.16	0.21	0.28	0.6	0.5	0.9	0.4	2.6	39.7	0.007	
Bravo Zn	2.125 pt / a	2,4-10												
211 Aproach	9.0 fl oz / a	1,3	0.00	0.22	0.28	0.27	0.4	1.0	1.8	1.7	16.0	155.3	0.025	
Bravo Zn	2.125 pt / a	2,4-10												
212 Headline	9.0 fl oz / a	1,3	0.00	0.19	0.23	0.28	1.5	2.3	2.6	0.9	15.2	161.9	0.027	
Bravo Zn	2.125 pt / a	2,4-10												
213 Quadris	9.0 fl oz / a	1,3	0.00	0.41	0.34	0.54	2.6	3.3	3.4	3.7	14.8	212.9	0.035	
Bravo Zn	2.125 pt / a	2,4-10												
214 Manzate	2.0 lb / a	Full Season	0.00	0.19	0.29	0.44	1.0	0.5	1.7	6.1	8.6	152.0	0.025	
LSD _{P = 0.05}			NS	0.11	0.28	0.32	1.2	1.3	1.7	2.7	10.9	225.1	0.037	