

2012 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 17, 2012
Row width: 36 inches
Seed spacing: 14 inches
Cultivar: Russet Burbank
50% Emergence: June 10

Fertilizer: Broadcast: 190#N, 200#K, 61#P, 33#S; April 23

Herbicide: Prowl (2 pts/a) + Sencor (0.5 lb/a) + Matrix (1.5 oz/a); June 1

Insecticide: Admire Pro (8.7 oz/a) + Ultra Flourish (12.2 oz/a); IF at plant
Coragen (5 oz/a) July 11, August 10

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 250 ml / 30 foot row to the outside two rows of each plot on the evening of July 9 using custom ATV spray equipment.

Treatment application dates: July 3, 11, 18, 24, 31, August 9, 14, 21, 31, Sept. 6

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

Vinekill: Killing frost, September 22

Harvest: October 31

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Treatment	Rate	Schedule	Foliar Disease (% Severity)										AUDPC	RAUDPC		
			6/28	7/12	7/18	7/24	7/30	8/6	8/15	8/20	8/27	9/4				
201	Non-treated / Non-inoculated	-	-	0.0	0.0	0.2	0.1	0.1	0.2	0.5	0.4	0.5	4.6	11.0	78.0	0.011
202	Non-treated / inoculated	-	-	0.0	0.0	0.1	0.1	0.1	0.2	0.6	0.5	0.6	5.0	12.0	85.9	0.012
203	Reason + Bond + Dithane Echo Zn Echo Zn Luna Tranquility + Dithane Scala + Dithane	4 fl oz / a + 0.1% v/v + 2 lb / a 1.3 pt / a 2.125 pt / a 8 fl oz / a + 2 lb / a 7 fl oz / a + 2 lb / a	1,3 4,6,8,10 5 7	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.4	9.2	0.001
204	Reason + Bond + Dithane Echo Zn Echo Zn Luna Tranquility + Dithane Scala + Dithane	6.9 fl oz / a + 0.1% v/v + 2 lb / a 1.3 pt / a 2.125 pt / a 8 fl oz / a + 2 lb / a 7 fl oz / a + 2 lb / a	1,3 4,6,8,10 5 7	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.7	0.6	11.3	0.002
205	Priaxor Echo Zn	4 fl oz / a 2.125 pt / a	1,3 2,4-10	0.0	0.0	0.2	0.0	0.1	0.1	0.1	0.1	0.2	0.2	1.5	10.0	0.001
206	Priaxor Echo Zn	6 fl oz / a 2.125 pt / a	1,3 2,4-10	0.0	0.0	0.2	0.0	0.0	0.1	0.1	0.1	0.2	0.3	5.6	0.001	
207	Headline Echo Zn	9 fl oz / a 2.125 pt / a	1 2,3,4,5,6,7,8,9,10	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.7	0.9	12.6	0.002
208	Echo Zn Headline Echo Zn	2.125 pt / a 9 fl oz / a 2.125 pt / a	1 2 3,4,5,6,7,8,9,10	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.6	0.9	10.5	0.001	
LSD _{P = 0.05}			NS	NS	0.1	0.0	NS	0.1	0.2	0.2	0.3	2.2	5.1	52.7	0.007	

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Treatment	Rate	Schedule	Black Dot (% Stem Incidence)										AUDPC	RAUDPC	Yield (cwt/a)	
			6/28	7/12	7/18	7/24	7/30	8/8	8/15	8/20	8/27	9/4				
201	Non-treated / Non-inoculated	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.2	9.6	57.2	0.027	488.0
202	Non-treated / inoculated	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.4	11.6	54.7	0.026	488.8
203	Reason + Bond + Dithane Echo Zn Echo Zn Luna Tranquility + Dithane Scala + Dithane	4 fl oz / a + 0.1% v/v + 2 lb / a 1.3 pt / a 2.125 pt / a 8 fl oz / a + 2 lb / a 7 fl oz / a + 2 lb / a	1,3 4,6,8,10 	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	2.7	11.6	0.006	496.6
204	Reason + Bond + Dithane Echo Zn Echo Zn Luna Tranquility + Dithane Scala + Dithane	6.9 fl oz / a + 0.1% v/v + 2 lb / a 1.3 pt / a 2.125 pt / a 8 fl oz / a + 2 lb / a 7 fl oz / a + 2 lb / a	1,3 4,6,8,10 	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.9	12.6	0.006	477.8
205	Priaxor Echo Zn	4 fl oz / a 2.125 pt / a	1,3 2,4-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.9	4.1	28.2	0.013	480.3
206	Priaxor Echo Zn	6 fl oz / a 2.125 pt / a	1,3 2,4-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	1.4	9.3	0.004	509.8
207	Headline Echo Zn	9 fl oz / a 2.125 pt / a	1 2,3,4,5,6,7,8,9,10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.6	3.8	23.6	0.011	481.3
208	Echo Zn Headline Echo Zn	2.125 pt / a 9 fl oz / a 2.125 pt / a	1 2 3,4,5,6,7,8,9,10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4	2.4	18.2	0.009	510.1
$LSD_{P=0.05}$													5.0	NS	NS	NS