

## Black Dot Foliar Fungicides (200 Series)

**Location:** Tappen, 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 20, 2008  
**Row width:** 36 inches  
**Seed spacing:** 14 inches

**Cultivar:** Russet Burbank  
**50% Emergence:** June 18

**Fertilizer:** Broadcast: 209#N, 52#P, 200#K, 1#B; May 7

**Herbicide:** Prowl (2.0 pt/a) + Matrix (1.0 oz/a); June 10

**Insecticide:** Belay in-furrow (12.0 oz/a); May 20

**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 1, 2, 3, 5 and 6 were grown for 7 to 28 days on CV-8 agar medium. Microsclerotia were released from the agar using an electric blender and as much agar as possible was removed by centrifugation. The microsclerotial suspension was adjusted to a concentration of  $1.0 \times 10^2$  microsclerotia / ml and applied at a rate of 175 ml / 30 foot row to all four-rows of each plot on the evening of July 7<sup>th</sup> using a converted ATV and modified spray equipment.

**Fungicide application dates:** July 3, 10, 15, 24, 30, August 5, 14, 24, 27, September 3

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

**Vinekill:** Rotobeat; September 22

**Harvest:** September 29

# Black Dot Fungicide Screening - Tappen Series 200

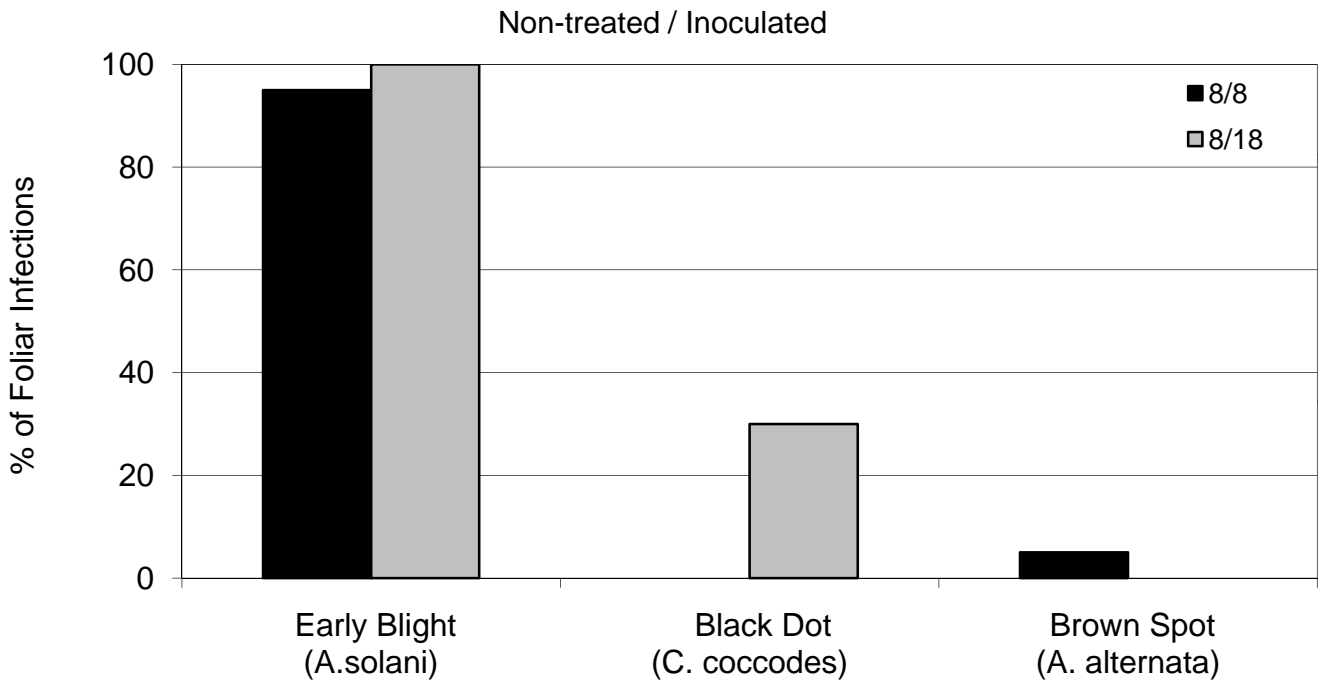
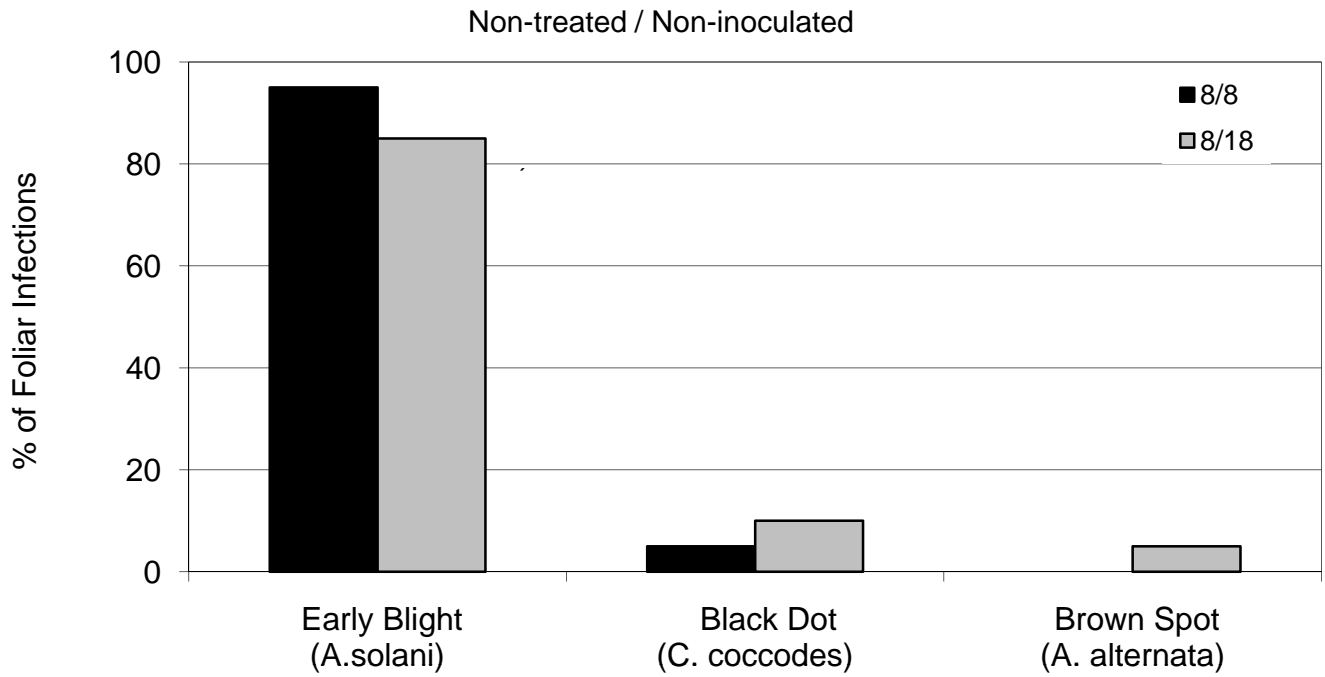
**Treatments 213, 214 and 216 - 219 are confidential**

Treatment	Rate	Schedule	Black Dot (% Stem Incidence)									AUDPC	RAUDPC	Total Yield (cwt/a)
			7/16	7/23	7/30	8/6	8/13	8/19	8/27	9/3	9/10			
201 Non-treated / Non-Inoculated*	-	-	0.00	0.00	0.00	0.12	0.74	2.1	3.1	5.8	9.9	119.6	0.021	403.9
202 Non-treated / Inoculated	-	-	0.00	0.13	0.13	0.13	0.54	3.0	5.2	8.1	14.4	173.4	0.031	384.1
203 HeadsUp	1.0 g / L	Seed Treatment	0.00	0.00	0.00	0.18	0.26	2.0	3.2	4.1	5.0	86.5	0.015	430.4
Quadris	8.0 oz / a	In-furrow	-											
Bravo Zn	2.125 pt / a	1,3,5,7,9												
Manzate	2.0 lb / a	2,4,6,8,10												
204 Revus Top +	7.0 fl oz / a +	1,2,4,5,7,8,10	0.00	0.00	0.00	0.00	0.10	0.4	2.0	3.9	8.5	75.4	0.013	420.1
Activator 90	0.125% v / v													
Bravo WS	1.5 pt / a	3,6,9												
205 Revus Top +	7.0 fl oz / a +	1,2,4,5,7,8,10	0.00	0.00	0.00	0.10	0.20	0.2	1.1	2.6	6.4	52.2	0.009	453.6
Activator 90	0.125% v / v													
Endura	2.5 oz / a	3,6,9												
206 A13703 +	8.4 fl oz / a +	1,3,5,7,9	0.00	0.13	0.13	0.13	0.13	0.4	1.5	2.9	7.0	62.7	0.011	424.9
Activator 90	0.125% v / v													
Bravo WS	1.5 pt / a	2,4,6,8,10												
207 Endura	2.5 oz / a	1,2,4,5,7,8,10	0.00	0.15	0.15	0.15	0.51	1.2	1.2	2.0	4.5	54.1	0.010	439.0
Bravo WS	1.5 pt / a	3,6,9												
208 Tanos +	6.0 oz / a +	1,3,5,7,9	0.00	0.11	0.23	0.35	0.36	1.3	2.4	3.9	5.8	82.1	0.015	442.5
Manzate	1.5 lb / a													
Bravo WS	1.5 pt / a	2,4,6,8,10												
209 Quash WG	2.0 oz / a	1,3,5,7	0.00	0.00	0.23	0.49	0.81	1.8	2.0	3.6	5.2	81.1	0.014	461.5
Bravo Zn	2.125 pt / a	2,4,6,8-10												
210 Quash DC	4.0 fl oz / a	1,3,5,7	0.00	0.00	0.00	0.00	0.00	0.3	1.6	2.0	4.2	43.1	0.008	466.8
Bravo Zn	2.125 pt / a	2,4,6,8-10												
211 Quash WG	4.0 oz / a	1,3,5,7	0.00	0.00	0.10	0.37	0.97	1.8	3.1	3.8	3.9	85.8	0.015	467.8
Bravo Zn	2.125 pt / a	2,4,6,8-10												
212 Quash DC	8.0 fl oz / a	1,3,5,7	0.00	0.00	0.00	0.11	0.22	0.3	1.5	2.0	4.6	46.0	0.008	477.5
Bravo Zn	2.125 pt / a	2,4,6,8-10												
<b>213 Confidential</b>			0.00	0.00	0.11	0.11	0.23	1.0	2.3	3.5	7.0	76.6	0.014	441.4

Treatment	Rate	Schedule	Black Dot (% Stem Incidence)									AUDPC	RAUDPC	Total Yield (cwt/a)
			7/16	7/23	7/30	8/6	8/13	8/19	8/27	9/3	9/10			
<b>214 Confidential</b>			0.00	0.00	0.00	0.11	0.22	0.5	1.9	2.6	4.2	52.6	0.009	451.6
215 Headline	9.0 oz / a	1,3,5,7	0.00	0.00	0.00	0.23	0.38	1.4	1.9	2.0	2.4	50.8	0.009	466.2
Bravo Zn	2.125 pt / a	2,4,6,8-10												
<b>216 Confidential</b>			0.00	0.00	0.00	0.13	0.26	0.3	0.6	2.0	3.5	35.1	0.006	441.9
<b>217 Confidential</b>			0.00	0.00	0.00	0.00	0.24	1.6	2.0	2.4	5.8	64.2	0.011	450.7
<b>218 Confidential</b>			0.00	0.00	0.00	0.00	0.24	0.5	1.5	1.8	3.1	40.0	0.007	433.9
<b>219 Confidential</b>			0.00	0.00	0.15	0.44	0.44	1.1	1.4	2.3	3.0	51.8	0.009	433.5
220 Manzate	2.0 lb / a	Full Season	0.00	0.00	0.00	0.22	0.34	1.5	2.3	3.4	5.1	73.1	0.013	449.5
221 Headline	9.0 oz / a	1,3	0.00	0.00	0.00	0.00	0.00	0.9	1.2	1.8	4.1	42.3	0.008	449.3
Bravo Zn	2.125 pt / a	2,4-10												
222 Quadris	9.0 oz / a	1,3	0.00	0.00	0.00	0.00	0.00	1.0	1.1	1.0	1.8	28.2	0.005	464.4
Bravo Zn	2.125 pt / a	2,4-10												
LSD <sub>P=0.05</sub>			.	NS	NS	NS	0.6	1.2	2.0	2.6	3.6	66.8	0.012	30.8

\*All other treatments inoculated with microsclerotia of *Colletotrichum coccodes*, the causal agent of black dot.

## Black Dot Foliar Fungicides - Tappen 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.