

## Early Blight Standard Foliar Fungicides (1500 Series)

**Location:** Inkster, ND  
**Plot design:** 4 rows X 30 feet X 4 replicates; RCBD  
All four rows were sprayed; data taken from center two rows

**Planting date:** June 2, 2011  
**Row width:** 36 inches  
**Seed spacing:** 14 inches  
**Cultivar:** Ranger Russet  
**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 2  
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 early blight caused by *Alternaria solani*.

**Early blight inoculation method:** Eight *A. solani* isolates, four containing the F129L mutation and four wild-type were grown under constant light for 2 weeks on CV-8 medium. Conidia were dislodged and diluted in 0.25% gelatin to a concentration of  $3.3 \times 10^3$  conidia / ml. The conidial suspension was applied to the outside two rows of each four-row plot at a rate of 90 ml / row on the evening of August 2 using custom ATV spray equipment.

**Treatment application dates:** July 15, 22, 28, August 4, 11, 19, 23, September 1, 6

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

<b>Fungicide overspray dates:</b>	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)

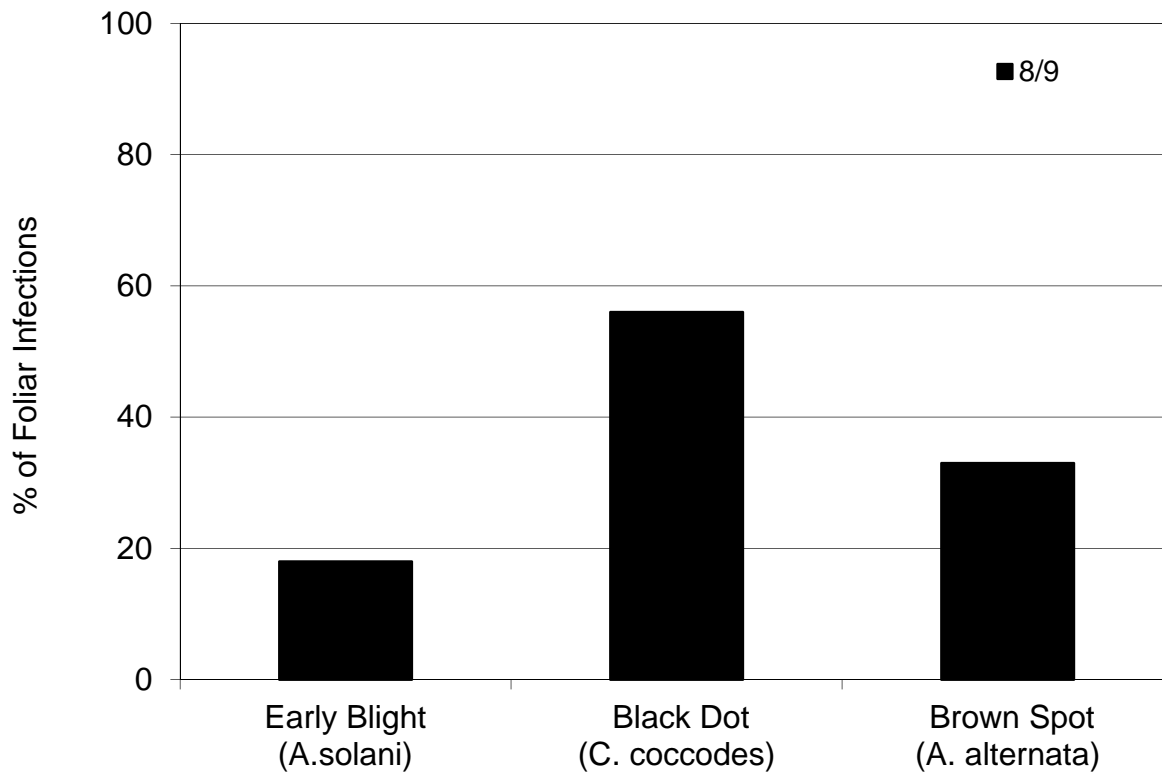
**Vinekill:** Killing frost; September 14  
Rotobeat; October 6  
**Harvest:** October 8-11





Treatment	Rate	Schedule	Foliar Disease (% Severity)											AUDPC	RAUDPC	Total Yield (cwt/a)
			7/13	7/20	7/27	8/2	8/9	8/18	8/24	9/1	9/8	9/14				
1520 Tanos + Manzate Vertisan EC + Activator 90	6.0 oz / a + 1.5 lb / a 1.0 pt / a + 0.25% v/v	1,3,5,7,9 2,4,6,8,10	0.00	1.0	1.8	2.3	2.4	4.0	3.5	5.1	3.9	3.5	181.0	0.029	525.2	
1521 Tanos + Manzate Endura	6.0 oz / a + 1.5 lb / a 3.0 oz / a	1,3,5,7,9 2,4,6,8,10	0.00	1.6	2.6	2.5	3.2	5.0	7.3	7.1	8.4	8.4	290.3	0.046	518.4	
1522 Manzate	2.0 lb / a	Full season	0.02	1.0	3.3	1.8	2.8	3.8	6.1	7.4	12.3	12.9	308.6	0.049	476.8	
1523 Bravo Zn	2.125 pt / a	Full season	0.00	2.3	3.5	3.8	6.8	8.1	9.3	11.2	16.8	22.1	504.0	0.080	456.6	
1524 Bravo Zn Headline + Manzate Endura + Manzate Scala + Manzate	2.125 pt / a 6.0 fl oz / a + 2.0 lb / a 2.5 oz / a + 2.0 lb / a 7.0 fl oz / a + 2.0 lb / a	1,3,4,6,8-10 2 5 7	0.00	1.9	2.6	1.9	3.1	3.5	6.6	7.0	10.3	14.0	301.4	0.048	490.7	
LSD <sub>P = 0.05</sub>			NS	0.6	1.2	1.3	1.6	2.3	2.8	2.7	4.2	6.1	168.6	0.027	49.2	

## Early Blight Standard Foliar Fungicides - Inkster Series 1500 Foliar Disease Complex



NOTE: The sum of the three pathogens recovered may be greater than 100% because in some cases, more than one pathogen was recovered from a single lesion.

Represents pathogens recovered from non-treated-inoculated leaves collected from all 4 replications.