

Fungicide and Insecticide Studies, Corn or Soybean

Southern Illinois University

General Foliar Fungicides Evaluation in Corn.

Trial ID: 10-18-MMW100

Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu

City State Zip Country: Belleville IL 62221 USA

Trial Status: FINAL **Initiation Date:** 06-01-10

Objectives: Evaluate the performance of various foliar corn fungicides applied at the VT corn growth stage.

Crop 1: ZEAMD Dent corn

Variety: DKC 61-21 GENSS

Description: RR2/LL

Planting Method: SEED

Planting Date: 06-01-10

Rate, Unit: 28000 S/A

Depth, Unit: 1.5 IN

Row Spacing, Unit: 30 IN

Pest 1 Type: D **Code:** CERCZM Cercospora zeae-maydis

Gray leaf spot of corn

Plot Width, Unit: 10 FT

Site Type: FIELD

Plot Length, Unit: 30 FT

Tillage Type: REDUCED-TILL

Replications: 4

Study Design: Randomized Complete Block

Prior Crops, Year

1. GLXMA 2009

Field Prep./Maintenance: N 150 LB/A, P205 0 LB/A, K20 0 LB/A

% OM: 1.9

Texture: SILT LOAM

pH: 7

Soil Name: BETHALTO

CEC: 12

Fert. Level: P1 89 LB/A, K 359 LB/A

Application Description

A

Application Date: 07-21-10

Time of Day: 11:30

Application Method: Spray

Application Timing: VT

Application Placement: BROFOL

Applied By: JRK

Air Temperature, Unit: 85 F

% Relative Humidity: 72

Wind Velocity, Unit: 1 MPH

Wind Direction: SW

Dew Presence (Y/N): N

Soil Moisture: ABONOR

% Cloud Cover: 40

07-21-10

Crop stage at application: VT

Height Min, Max (inch): 98 100

Pest Stage At Each Application

Application Date: 07-21-10

Weed Code: CERCZM

Stage Majority (leaves): NA

Application Equipment

Appl. Equipment: CO2 sprayer

Operating Pressure: 40 PSI

Nozzle Type: Flat fan

Nozzle Size: XR 8002

Boom Length, Unit: 5 FT

Spray Volume, Unit: 20 GPA

General Foliar Fungicides Evaluation in Corn.

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Location: Belleville Res. Center

Pest Code	Crop Code	Rating Date	Rating Data Type	Rating Unit	Rating Timing	Trt-Eval Interval									CERCZM	CERCZM	CERCZM	CERCZM		
							ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD				
							10-14-10	10-14-10	10-14-10	08-11-10	08-11-10	08-11-10	09-01-10	09-01-10	09-01-10	09-01-10				
							Moisture	Test wt.	Yield	Incidence	Severity	Incidence	Severity	Incidence	Severity	Severity				
							Percent	lb/bu	bu/A	Percent	Percent	Percent	Percent	Percent	Percent	Percent				
										21 DA-A	21 DA-A	42 DA-A	42 DA-A							
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate Unit	Growth Stage	Appl Code												
1	NONTREATED								13.2 c	61.8 a	176 b	90 a	2 a	90 a	18 a					
2	VERTISAN (LEM17)	1.67	EC	0.188 lb ai/a	14.4 fl oz/a		VT	A	13.6 ab	61.6 a-d	192 a	90 a	2 a	90 a	13 bc					
2	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25 % v/v		VT	A												
3	PICOXY	100	SL	8 fl oz/a	8 fl oz/a		VT	A	13.5 bc	61.7 ab	185 ab	90 a	1 b	90 a	14 b					
3	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25 % v/v		VT	A												
4	(Q8478)LEM+PICOXY	100	SL	18 fl oz/a	18 fl oz/a		VT	A	13.6 ab	61.5 bcd	190 ab	90 a	1 b	90 a	13 bc					
4	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25 % v/v		VT	A												
5	QUILT XCEL	2.2	SC	0.18 lb ai/a	10.5 fl oz/a		VT	A	13.9 a	61.2 e	195 a	38 b	1 b	90 a	9 d					
5	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25 % v/v		VT	A												
6	QUILT XCEL	2.2	SC	0.18 lb ai/a	10.5 fl oz/a		VT	A	13.9 a	61.2 de	195 a	38 b	1 b	90 a	9 d					
6	WARRIOR II	2.09	CS	0.0245 lb ai/a	1.5 fl oz/a		VT	A												
6	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25 % v/v		VT	A												
7	HEADLINE	2.09	EC	0.098 lb ai/a	6 fl oz/a		VT	A	13.7 ab	61.4 b-e	194 a	25 c	1 b	90 a	9 d					
7	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25 % v/v		VT	A												
8	HEADLINE AMP	1.68	SC	0.131 lb ai/a	10 fl oz/a		VT	A	13.8 ab	61.3 cde	189 ab	25 c	1 b	90 a	10 cd					
8	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25 % v/v		VT	A												
9	STRATEGO	2.08	EC	0.163 lb ai/a	10 fl oz/a		VT	A	13.5 bc	61.6 abc	187 ab	31 bc	1 b	90 a	11 bcd					
9	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v	0.25 % v/v		VT	A												
LSD (P=.05)									0.35	0.32	14.7	11.6	0.0	0.0	2.7					
Replicate F									2.102	1.885	0.445	1.000	0.000	0.000	13.000					
Replicate Prob(F)									0.1265	0.1591	0.7233	0.4098	1.0000	1.0000	0.0001					
Treatment F									3.341	3.799	1.409	61.473	0.000	0.000	9.800					
Treatment Prob(F)									0.0103	0.0052	0.2431	0.0001	1.0000	1.0000	0.0001					

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: DuPont, BASF, Syngenta, Bayer.
2. Ratings: DI/DS at 21 DAT and prior to harvest (but prior to leaf senescence).
3. Yield.
4. CERCZM = Gray leaf spot (*Cercospora zeae-maydis*).
VT = Corn vegetative stage T (tassel). R5 = Corn reproductive stage 5 (dent).
5. Harvested 10-14-10, (2) 30 inch rows by 27 ft.