

Corn Fungicide Studies

Southern Illinois University

Headline Adjuvant Evaluation in Corn.

Trial ID: 08-18-MW150 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:** 06-12-08

Objectives: Determine the efficacy of experimental adjuvants for use with foliar applications of Headline in corn.

Crop 1: ZEAMD Dent corn **Variety:** DKC 60-18
Planting Method: SEEDED **Planting Date:** 06-12-08
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 maize

Plot Width, Unit: 10 FT **Site Type:** FIELD
Plot Length, Unit: 33 FT **Tillage Type:** REDUCED-TILL
Replications: 4 **Study Design:** Randomized Complete Block

Prior Crops, Year
1. GLXMA 2007

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

% OM: 2.6 **Texture:** SILT LOAM
pH: 5.9 **Soil Name:** BETHALTO
CEC: 14 **Fert. Level:** P1 74 LB/A, K 445 LB/A

Application Description

A

Application Date: 07-31-08
Time of Day: 19:00
Application Method: Spray
Application Timing: VT
Application Placement: BROFOL
Applied By: NRJ
Air Temperature, Unit: 80 F
% Relative Humidity: 60
Wind Velocity, Unit: 1 MPH
Dew Presence (Y/N): N
Soil Temperature, Unit: 83 F
Soil Moisture: ABONOR
% Cloud Cover: 25

Crop stage at application: 07-31-08 VT
Height Min, Max (inch): 144 148

Application Equipment

Appl. Equipment: CO2 sprayer
Operating Pressure: 30 PSI
Nozzle Type: Flat fan
Nozzle Size: XR 8002
Boom Length, Unit: 5 FT
Spray Volume, Unit: 20 GPA

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Pest Code	Crop Code	Rating Date	Rating Data Type	Rating Unit	Rating Timing	Trt-Eval Interval	ZEAMD		ZEAMD		CERCZM		CERCZM	
							11-20-08	Moisture Percent	11-20-08	Yield bu/A	08-21-08	Injury Percent	08-21-08	Incidence Percent
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
1	NONTREATED									16.7 b	223 d	0 a	0 a	0 a
2	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.2 ab	244 a	0 a	0 a	0 a
3	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.1 ab	234 a-d	0 a	0 a	0 a
3	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	VT	A					
3	INTERLOCK	100	SL	2	fl oz/a	2	fl oz/a	VT	A					
4	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.5 a	242 ab	0 a	0 a	0 a
4	AG 06011	100	SL	6	fl oz/a	6	fl oz/a	VT	A					
5	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.4 a	240 abc	0 a	0 a	0 a
5	AG 07010	100	SL	1	pt/a	1	pt/a	VT	A					
6	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.2 ab	240 ab	0 a	0 a	0 a
6	AG 07011	100	SL	1	pt/a	1	pt/a	VT	A					
7	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.2 ab	241 ab	0 a	0 a	0 a
7	AG 07015	100	SL	1	pt/a	1	pt/a	VT	A					
8	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	16.7 b	232 a-d	0 a	0 a	0 a
8	AG 08001	100	SL	1	pt/a	1	pt/a	VT	A					
9	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.3 a	242 ab	0 a	0 a	0 a
9	AG 06037	100	SL	0.5	% v/v	0.5	% v/v	VT	A					
10	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.3 a	244 a	0 a	0 a	0 a
10	CH0801	100	SL	4	fl oz/a	4	fl oz/a	VT	A					
11	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.2 ab	228 bcd	0 a	0 a	0 a
11	CH0801	100	SL	8	fl oz/a	8	fl oz/a	VT	A					
12	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.5 a	244 a	0 a	0 a	0 a
12	CH0802	100	SL	4	fl oz/a	4	fl oz/a	VT	A					
13	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.3 a	240 abc	0 a	0 a	0 a
13	CH0802	100	SL	8	fl oz/a	8	fl oz/a	VT	A					
14	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.4 a	236 a-d	0 a	0 a	0 a
14	CH0803	100	SL	0.5	% v/v	0.5	% v/v	VT	A					
15	HEADLINE	2.09	EC	0.065	lb ai/a	4	fl oz/a	VT	A	17.4 a	224 cd	0 a	0 a	0 a
15	CH0803	100	SL	0.75	% v/v	0.75	% v/v	VT	A					
LSD (P=.05)										0.54	16.1	0.0	0.0	0.0
Replicate F										10.718	6.830	0.000	0.000	0.000
Replicate Prob(F)										0.0001	0.0007	1.0000	1.0000	1.0000
Treatment F										1.730	1.659	0.000	0.000	0.000
Treatment Prob(F)										0.0855	0.1027	1.0000	1.0000	1.0000

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

Trial Comments

1. Protocol: Winfield Solutions; Chemorse.
2. Ratings: CI/DI/DS at 21 DAT.
3. Yield.
4. Manage trial as weed-free (ex. Lumax-PRE) applied 6-13-08, and use progressive insect management to reduce the impact of insects.
5. DA-A = Days after the VT application.
6. CERCZM = Gray leaf spot (*Cercospora zeae-maydis*).
7. Harvested 11-20-08, (2) 30 inch rows by 30 ft.