

Headline Corn Application Timing.

Trial ID: 08-WF-SW-MN50 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: 06-15-08

Objectives: Develop yield response curve with Headline application timing.

Crop 1: ZEAMD Dent corn Variety: DKC 60-18  
 Planting Method: SEEDED Planting Date: 06-15-08  
 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: 36 FT Tillage Type: REDUCED-TILL  
 Replications: 6 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: 2.8 Texture: SILT LOAM  
 pH: 6.3 Soil Name: BETHALTO  
 CEC: 11 Fert. Level: P1: 76 LB/A, K: 407 LB/A

Application Description

	A	B	C	D	E
Application Date:	08-04-08	08-11-08	08-18-08	08-25-08	09-01-08
Time of Day:	9:15	9:30	11:00	9:00	14:00
Application Method:	Spray	Spray	Spray	Spray	Spray
Application Timing:	VT	VT+7D	VT+14D	VT+21D	VT+28D
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	DKT	DKT	RFK	RFK	DKT
Air Temperature, Unit:	80 F	60 F	80 F	65 F	90 F
% Relative Humidity:	92	90	50	80	50
Wind Velocity, Unit:	2 MPH	3 MPH	0 MPH	0 MPH	0 MPH
Dew Presence (Y/N):	Y	Y	N	N	N
Soil Moisture:	ABONOR	ABONOR	NORMAL	NORMAL	NORMAL

	08-04-08	08-11-08	08-18-08	08-25-08	09-01-08
Crop stage at application:	VT	R1	R2	R3	R4
Height Min, Max (inch):	108 110	108 110	110 110	110 110	110 110

Application Equipment

	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	45 PSI	45 PSI	45 PSI	45 PSI	45 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002	XR 8002	XR 8002	XR 8002
Boom Length, Unit:	5 FT	5 FT	5 FT	5 FT	5 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA	20 GPA	20 GPA



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Pest Code	CERCZM	CERCZM	CERCZM	CERCZM	CERCZM	CERCZM
Crop Code	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD
Rating Date	Incidence	Severity	Incidence	Severity	Incidence	Severity
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	14 DAT	14 DAT	28 DAT	28 DAT	42 DAT	42 DAT
Rating Timing						
Trt-Eval Interval						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	A	0.0	b	0.0	b	0.0	b
1	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	VT	A	0.0	b	0.0	b	0.0	b
2	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT+7D	B	0.0	b	0.0	b	0.8	a
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	VT+7D	B	0.0	b	0.0	b	0.4	ab
3	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT+14D	C	0.0	b	0.0	b	0.7	a
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	VT+14D	C	0.0	b	0.0	b	0.3	b
4	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT+21D	D	1.0	a	0.5	a	1.0	a
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	VT+21D	D	0.5	ab	1.0	a	1.0	a
5	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT+28D	E	0.8	a	0.5	a	1.0	a
5	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	VT+28D	E	0.6	a	1.0	a	1.0	a
LSD (P=.05)										0.22	0.17	0.37	0.21	0.00	0.11
Replicate F										1.000	1.000	0.643	1.143	0.000	1.000
Replicate Prob(F)										0.4430	0.4430	0.6699	0.3707	1.0000	0.4430
Treatment F										46.000	22.500	11.071	10.429	0.000	76.000
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	1.0000	0.0001

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

Trial Comments

1. Protocol: BASF.
2. Ratings: CI/DI/DS at 0, 14, 28 + 42 DAT.
3. Corn lodging at or near harvest, 0-100%, use stalk "push test" at harvest time.  
Push 20 stalks per plot at shoulder height one arm length.
4. Corn stay green. (1-2 weeks prior to harvest). Visual estimation of % green plant material.
5. Yield.
6. Maintain proper fertility and weed and insect management.  
Lexar (2.9 lbai/A) plus Aatrex (1.25 lbai/A) was applied PRE on 6-15-08.
7. CERCZM = Gray leaf spot (Cercospora zeae-maydis).  
DAT = Days after various applications.  
Ratings at 14 days after the VT, VT+7D, VT+14D, VT+21D, and VT+28D were on 8-18-08, 8-25-08, 9-1-08, 9-8-08, and 9-15-08, respectively.  
Ratings at 28 days after the VT, VT+7D, VT+14D, VT+21D, and VT+28D were on 9-1-08, 9-8-08, 9-15-08, 9-22-08, and 9-29-08, respectively.  
Ratings at 42 days after the VT, VT+7D, VT+14D, VT+21D, and VT+28D were on 9-15-08, 9-22-08, 9-29-08, 10-6-08, and 10-13-08, respectively.
8. Not possible to perform "push test" due to wind damage.
9. Harvested 11-22-08, (2) 30 inch rows by 33 ft.