

BAS556 and Headline in Corn.

Trial ID: 08-WF-SW-N90 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: Evaluate BAS 556 formulations for disease control and yield (plant health effects) and compare BAS 556 CS formulation to tank-mix of Headline plus Caramba.

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: NO-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
Application Date:	07-11-08	08-04-08
Time of Day:	12:30	9:00
Application Method:	Spray	Spray
Application Timing:	V6	VT
Application Placement:	BROFOL	BROFOL
Applied By:	TGM	NRJ DKT
Air Temperature, Unit:	82 F	80 F
% Relative Humidity:	92	92
Wind Velocity, Unit:	4 MPH	2 MPH
Dew Presence (Y/N):	N	N
Soil Moisture:	ABONOR	ABONOR
% Cloud Cover:	30	

Crop stage at application: 07-11-08 08-04-08  
 V6 VT  
 Height Min, Max (inch): 23 28 108 110

Application Equipment

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

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Pest Code		ZEAMD						CERCZM									
Crop Code		11-23-08	11-23-08	11-23-08	11-23-08	11-23-08	11-23-08	10-09-08	ZEAMD								
Rating Date		Moisture	Yield	Injury	Injury	Injury	Injury	Greenness	Incidence								
Rating Data Type		Percent	bu/A	Percent	Percent	Percent	Percent	Percent	Percent								
Rating Unit				0 DAT	14 DAT	28 DAT	42 DAT		0 DAT								
Rating Timing																	
Trt-Eval Interval																	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Stage	Appl Code									
1	NONTREATED								17.1 c	202 a	0 a	0 a	0 a	0 a	10 c	0.0 a	0.0 a
2	HEADLINE	2.09	EC	0.098 lb ai/a	6 fl oz/a		VT	B	17.9 a	208 a	0 a	0 a	0 a	0 a	45 a	0.0 a	0.0 a
2	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v		VT	B									
3	BAS 556 UUF	1.67	SC	0.13 lb ai/a	10 fl oz/a		VT	B	17.9 a	206 a	0 a	0 a	0 a	0 a	50 a	0.0 a	0.0 a
3	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v		VT	B									
4	HEADLINE	2.09	EC	0.09 lb ai/a	5.5 fl oz/a		VT	B	17.9 a	209 a	0 a	0 a	0 a	0 a	50 a	0.0 a	0.0 a
4	CARAMBA	0.75	SL	0.04 lb ai/a	6.8 fl oz/a		VT	B									
4	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v		VT	B									
5	QUILT	1.66	SC	0.182 lb ai/a	14 fl oz/a		VT	B	17.2 bc	215 a	0 a	0 a	0 a	0 a	40 ab	0.0 a	0.0 a
5	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v		VT	B									
6	STRATEGO	2.08	EC	0.163 lb ai/a	10 fl oz/a		VT	B	17.1 c	210 a	0 a	0 a	0 a	0 a	30 b	0.0 a	0.0 a
6	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v		VT	B									
7	HEADLINE	2.09	EC	0.147 lb ai/a	9 fl oz/a		VT	B	17.8 ab	208 a	0 a	0 a	0 a	0 a	50 a	0.0 a	0.0 a
7	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v		VT	B									
8	HEADLINE	2.09	EC	0.049 lb ai/a	3 fl oz/a		V6	A	17.9 ab	217 a	0 a	0 a	0 a	0 a	45 a	0.0 a	0.0 a
8	HEADLINE	2.09	EC	0.098 lb ai/a	6 fl oz/a		VT	B									
8	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v		VT	B									
LSD (P=.05)									0.68	17.0	0.0	0.0	0.0	0.0	10.9	0.00	0.00
Replicate F									9.699	12.204	0.000	0.000	0.000	0.000	0.875	0.000	0.000
Replicate Prob(F)									0.0001	0.0001	1.0000	1.0000	1.0000	1.0000	0.4913	1.0000	1.0000
Treatment F									2.988	0.647	0.000	0.000	0.000	0.000	13.500	0.000	0.000
Treatment Prob(F)									0.0144	0.7141	1.0000	1.0000	1.0000	1.0000	0.0001	1.0000	1.0000

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

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								CERCZM	CERCZM	CERCZM	CERCZM	CERCZM	CERCZM	
								ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	
								Incidence	Severity	Incidence	Severity	Incidence	Severity	
								Percent	Percent	Percent	Percent	Percent	Percent	
								14 DAT	14 DAT	28 DAT	28 DAT	42 DAT	42 DAT	
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl						
No.	Name	Conc	Type	Unit	Rate	Rate	Stage	Code						
1	NONTREATED								0.0 a	0.0 a	0.3 a	0.2 a	0.8 a	0.7 a
2	HEADLINE	2.09	EC	0.098	lb ai/a	6 fl oz/a	VT	B	0.0 a	0.0 a	0.0 b	0.0 b	0.2 b	0.1 b
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25 % v/v	VT	B						
3	BAS 556 UUF	1.67	SC	0.13	lb ai/a	10 fl oz/a	VT	B	0.0 a	0.0 a	0.0 b	0.0 b	0.0 b	0.0 b
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25 % v/v	VT	B						
4	HEADLINE	2.09	EC	0.09	lb ai/a	5.5 fl oz/a	VT	B	0.0 a	0.0 a	0.0 b	0.0 b	0.2 b	0.1 b
4	CARAMBA	0.75	SL	0.04	lb ai/a	6.8 fl oz/a	VT	B						
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25 % v/v	VT	B						
5	QUILT	1.66	SC	0.182	lb ai/a	14 fl oz/a	VT	B	0.0 a	0.0 a	0.0 b	0.0 b	0.3 b	0.2 b
5	ACTIVATOR 90	100	SL	0.25	% v/v	0.25 % v/v	VT	B						
6	STRATEGO	2.08	EC	0.163	lb ai/a	10 fl oz/a	VT	B	0.0 a	0.0 a	0.0 b	0.0 b	0.2 b	0.1 b
6	ACTIVATOR 90	100	SL	0.25	% v/v	0.25 % v/v	VT	B						
7	HEADLINE	2.09	EC	0.147	lb ai/a	9 fl oz/a	VT	B	0.0 a	0.0 a	0.0 b	0.0 b	0.0 b	0.0 b
7	ACTIVATOR 90	100	SL	0.25	% v/v	0.25 % v/v	VT	B						
8	HEADLINE	2.09	EC	0.049	lb ai/a	3 fl oz/a	V6	A	0.0 a	0.0 a	0.0 b	0.0 b	0.0 b	0.0 b
8	HEADLINE	2.09	EC	0.098	lb ai/a	6 fl oz/a	VT	B						
8	ACTIVATOR 90	100	SL	0.25	% v/v	0.25 % v/v	VT	B						
LSD (P=.05)								0.00	0.00	0.22	0.11	0.40	0.35	
Replicate F								0.000	0.000	1.000	1.000	1.167	0.641	
Replicate Prob(F)								1.0000	1.0000	0.4321	0.4321	0.3450	0.6701	
Treatment F								0.000	0.000	2.500	2.500	4.063	3.446	
Treatment Prob(F)								1.0000	1.0000	0.0341	0.0341	0.0023	0.0066	

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

## Trial Comments

1. Protocol: BASF.
2. Ratings: C/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 either the V6 or VT application.  
Ratings at 14 DAT were on 7-25-08 and 8-18-08 for the V6 and VT applications, respectively.  
Ratings at 28 DAT were on 8-8-08 and 9-1-08 for the V6 and VT applications, respectively.  
Ratings at 42 DAT were on 8-22-08 and 9-15-08 for the V6 and VT applications, respectively.
8. Not possible to perform "push test" due to wind damage.
9. Harvested 11-23-08, (2) 30 inch rows by 33 ft.