

Early Applications of Headline in Corn.

Project Code: 06-20A-MW110 Location: Belleville Research Center
 Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Belleville IL 62221 USA
Trial Status: Final **Updated:** 10-30-06

Objective:

Evaluate applications of Headline in corn for disease management and yield enhancement.

Crop 1: ZEAMX corn, field **Variety:** 33K44RR
Planting Method: Seeded **Planting Date:** 5-20-06
Rate: 28000 S/A **Depth:** 1.5 IN
Row Spacing: 30 IN

Plot Width, Unit: 10 FT **Plot Length, Unit:** 54 FT **Reps:** 4
Tillage Type: Reduced-Till **Study Design:** Randomized complete block
Previous Crop, Year: GLXMA, 2005
Field Prep./Maintenance: N 150 LB/A, P205 50 LB/A, K20 100 LB/A

Soil Name: Ebbert **% OM:** 2.6 **pH:** 6.1 **CEC:** 13
Texture: Silt loam **Fert. Level:** P1: 78 LB/A, K: 423 LB/A

APPLICATION DESCRIPTION

	A	B	C	D
Application Date:	6-19-06	6-27-06	7-3-06	7-18-06
Time of Day:	9:30	11:00	11:00	9:00
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	2FT-CN	4FT-CN	6FT-CN	VT
Applic. Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	78 F	76 F	87 F	80 F
% Relative Humidity:	90	72	74	92
Wind Velocity, Unit:	1-2 MPH	2-3 MPH	3-4 MPH	2-4 MPH
Soil Moisture:	NORMAL	NORMAL	NORMAL	NORMAL

CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	ZEAMX V7	ZEAMX V9	ZEAMX V11	ZEAMX R1
Height, Unit:	24 IN	48 IN	72 IN	136 IN

APPLICATION EQUIPMENT

	A	B	C	D
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	50 PSI	50 PSI	50 PSI	50 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002	XR 8002	XR 8002
Boom Length, Unit:	5 FT	5 FT	5 FT	5 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA	20 GPA

NOTES:

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Weed Code
 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

ZEAMX ZEAMX ZEAMX ZEAMX ZEAMX ZEAMX
 Moisture Yield Grey LS Grey LS Grey LS Grey LS
 Percent bu/A % Incid % Sever % Incid % Sever
 10-10-06 10-10-06
 21 DAT 21 DAT 42 DAT 42 DAT

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Prod Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ZEAMX Moisture Percent 10-10-06	ZEAMX Yield bu/A 10-10-06	ZEAMX Grey LS % Incid 21 DAT	ZEAMX Grey LS % Sever 21 DAT	ZEAMX Grey LS % Incid 42 DAT	ZEAMX Grey LS % Sever 42 DAT
1	HEADLINE	2.09	EC	0.049	lb ai/a	3	fl oz/a	2FT-CN	A	16.9	212	0	0	0	0
1	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	2FT-CN	A						
2	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	2FT-CN	A	16.7	209	0	0	0	0
2	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	2FT-CN	A						
3	HEADLINE	2.09	EC	0.049	lb ai/a	3	fl oz/a	4FT-CN	B	16.9	210	0	0	1	1
3	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	4FT-CN	B						
4	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	4FT-CN	B	16.5	214	0	0	0	0
4	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	4FT-CN	B						
5	HEADLINE	2.09	EC	0.049	lb ai/a	3	fl oz/a	6FT-CN	C	16.9	209	0	0	0	0
5	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	6FT-CN	C						
6	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	6FT-CN	C	17.0	207	0	0	0	0
6	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	6FT-CN	C						
7	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	D	17.1	215	0	0	0	0
7	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	VT	D						
8	NONTREATED									16.7	211	1	1	1	5
9	HEADLINE	2.09	EC	0.049	lb ai/a	3	fl oz/a	2FT-CN	A	17.2	218	0	0	0	0
9	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	2FT-CN	A						
9	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	VT	D						
9	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	VT	D						
10	HEADLINE	2.09	EC	0.049	lb ai/a	3	fl oz/a	2FT-CN	A	16.9	215	0	0	0	0
10	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	2FT-CN	A						
10	HEADLINE	2.09	EC	0.049	lb ai/a	3	fl oz/a	VT	D						
10	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	VT	D						
LSD (P=.05)										0.50	7.6	0.0	0.0	0.3	0.3
Replicate F										7.055	4.234	0.000	0.000	1.678	1.678
Replicate Prob(F)										0.0012	0.0141	1.0000	1.0000	0.1952	0.1952
Treatment F										1.673	1.822	0.000	0.000	8.186	179.034
Treatment Prob(F)										0.1447	0.1102	1.0000	1.0000	0.0001	0.0001

Trial Comments

1. Protocol: BASF.
2. Ratings: DI/DS 21 + 42 DAT.
3. Yield.
4. Blanket PRE application of Lexar (3.0 qt/A).
5. Grey LS = Gray leafspot. DAT = Days after treatment. % Incid = Percent incidence.
 % Sever = Percent severity.
6. Ratings at 21 DAT were on 7-10-06, 7-18-06, 7-24-06, and 8-8-06 for the 2FT-CN, 4FT-CN, 6FT-CN, and VT applications, respectively.
 Ratings at 42 DAT were on 7-31-06, 8-8-06, 8-14-06, and 8-29-06 for the 2FT-CN, 4FT-CN, 6FT-CN, and VT applications, respectively.
7. The nontreated plots were rated at 21 and 42 days after the 2FT-CN application with 0% incidence and 0% severity. The nontreated plots were rated again at 21 and 42 days after the VT application with 1% incidence and 1% severity at 21 DAT and 1% incidence and 5% severity at 42 DAT. In the table, ratings in the nontreated plots at 21 and 42 days after treatment are the maximum incidence and severity observed.
8. Harvested 10-10-06, (2) 30 inch rows by 51 ft.