

Evaluation of AE F130360.

00-22-N70

OBJECTIVE: Evaluate weed control, crop injury, and tank-mix compatibility of AE F130360 applied alone and in combinations with various adjuvants and broadleaf herbicides.

SUMMARY: No injury from postemergence applications of AE F130360-01 or AE F130360-02 was observed even at the 2X field rate of AE F130360-02. Giant foxtail control was improved with the addition of MSO compared to NIS. A benefit was also observed with the addition of 28% UAN. Tank-mixing AE F130360-01 or AE F130360-02 with ZA1296 (89 and 85% control, respectively) provided greater common waterhemp control than Accent plus Northstar (17%) at 56 DAT. Morningglory control with AE F130360-01 or AE F130360-02 was 43% or less. Overall weed control and corn yield was greatest in plots treated with a sequential application of Balance PRO plus Aatrex preemergence followed AE F130360-01 postemergence.

HERBICIDES

AATREX 90 WG
 ACCENT 75 WG
 AE F130360 01 70 WG
 AE F130360 02 62 WG
 BALANCE PRO 4 SC
 BASIS GOLD 90 WG
 NORTHSTAR 47.4 WG
 ZA1296 4 EC

WEEDS

FOXTAIL, GIANT
 MORNINGGLORY, IVYLEAF
 WATERHEMP, COMMON

CROP

CORN, FIELD

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Evaluation of AE F130360.

Project Code: 00-22-N70 Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

Weed Code	Common Name	Scientific Name
1. SETFA	FOXTAIL, GIANT	SETARIA FABERI HERRM.
2. IPOHE	MORNINGGLORY, IVYLEAF	IPOMOEA HEDERACEA (L.) JACQ.
3. AMATA	WATERHEMP, COMMON	AMARANTHUS RUDIS SAUER

Crop 1:	ZEAMX CORN, FIELD	Variety:	P33G28 LL
Planting Method:	SEEDED	Planting Date:	May-2-00
Rate:	28000 S/A	Depth:	1.5 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	27 FT	Reps:	3
Tillage Type:	REDUCED-TILL	Study Design:	RCB		
Previous Crop, Year:	GLXMA, 1999	Fertilizer applied:	N 150 LB/A,	P ₂ O ₅ 0 LB/A,	K ₂ O 0 LB/A

Soil Name:	CLARKSDALE	% OM:	2.5	pH:	6.3	CEC:	12
Texture:	SILT LOAM	P ₁ :	68 LB/A,	K:	441 LB/A		

APPLICATION DESCRIPTION

	A	B	C
Application Date:	May-3-00	May-25-00	May-30-00
Time of Day:	13:00	10:00	7:30
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	2-5"W-1	2-5"W-2
Applic. Placement:	BROSOI	BROFOL	BROFOL
Air Temp., Unit:	75 F	72 F	70 F
% Relative Humidity:	85	28	96
Wind Velocity, Unit:	5 MPH	1-2 MPH	1-2 MPH
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	75	0	10

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	NA	ZEAMX V4	ZEAMX V5
Height, Unit:	NA	8-11 IN	9-12 IN

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code:		SETFA	SETFA
Stage(leaves):		3-4	4-5
Height(inches):		3-6	3-7
Density:		HIGH	HIGH
Weed 2 Code:		IPOHE	IPOHE
Stage(leaves):		2-3	2-3
Height(inches):		3-4	3-4
Density:		MEDIUM	MEDIUM

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO ₂ SPRAY	CO ₂ SPRAY	CO ₂ SPRAY
Operating Pressure:	40 PSI	40 PSI	40 PSI
Nozzle Type:	FLAT FAN	FLAT FAN	FLAT FAN
Nozzle Size:	8003	8002	8002
Boom Length, Unit:	7.33 FT	7.33 FT	7.33 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA

NOTES:

Harvested Sep-26-00, (2) 30 inch rows by 24 ft.

TABLE. EVALUATION OF AE F130360. PROJECT CODE:00-22-N70

TREATMENT	FORM.	RATE	UNIT	PROD RATE	APPL TIME	APPL CODE	YIELD	ZEAMX INJURY			CONTROL, DAYS AFTER TREATMENT									
								21	DAT		SETFA			AMATA			IPOHE			
								DAP	14	28	14	28	56	14	28	56	14	28	56	
BU/A	%	%	%	%	%	%	%	%	%	%	%	%	%	%						
1 AE F130360 01	70 WG	0.05469	LB A/A	1.25	OZ/A	2-5"W-1	B	119		0	0	95	96	87	0	0	0	80	57	43
1 DESTINY MSO	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-1	B													
1 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-1	B													
2 ACCENT	75 WG	0.0313	LB A/A	0.67	OZ/A	2-5"W-1	B	107		0	0	95	98	90	0	0	0	80	63	50
2 PRIME OIL COC	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-1	B													
2 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-1	B													
3 AE F130360 02	62 WG	0.04844	LB A/A	1.25	OZ/A	2-5"W-1	B	97		0	0	94	97	88	0	0	0	70	53	37
3 DESTINY MSO	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-1	B													
3 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-1	B													
4 AE F130360 02	62 WG	0.04844	LB A/A	1.25	OZ/A	2-5"W-1	B	107		0	0	90	91	77	0	0	0	70	47	35
4 DESTINY MSO	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-1	B													
5 AE F130360 02	62 WG	0.04844	LB A/A	1.25	OZ/A	2-5"W-1	B	86		0	0	93	93	83	0	0	0	77	50	43
5 ACTIVATOR 90	100 LIQ	0.5	% V/V	0.5	%V/V	2-5"W-1	B													
5 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-1	B													
6 AE F130360 02	62 WG	0.04844	LB A/A	1.25	OZ/A	2-5"W-1	B	117		0	0	95	93	86	0	0	0	77	50	30
6 PRIME OIL COC	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-1	B													
6 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-1	B													
7 BALANCE PRO	4 SC	0.0703	LB A/A	2.25	OZ/A	PRE	A	183	2	0	0	98	97	91	99	91	88	98	80	73
7 AATREX	90 WG	1.0	LB A/A	1.11	LB/A	PRE	A													
7 AE F130360 01	70 WG	0.05469	LB A/A	1.25	OZ/A	2-5"W-2	C													
7 DESTINY MSO	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-2	C													
7 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-2	C													
8 BALANCE PRO	4 SC	0.0703	LB A/A	2.25	OZ/A	PRE	A	165	1	0	0	97	97	93	86	60	73	78	77	83
8 AE F130360 02	62 WG	0.04844	LB A/A	1.25	OZ/A	2-5"W-2	C													
8 DESTINY MSO	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-2	C													
8 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-2	C													
9 AE F130360 01	70 WG	0.05469	LB A/A	1.25	OZ/A	2-5"W-1	B	150		0	0	95	95	88	95	90	89	92	78	43
9 ZA1296	4 EC	0.094	LB A/A	3.0	OZ/A	2-5"W-1	B													
9 PRIME OIL COC	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-1	B													
9 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-1	B													
10 AE F130360 02	62 WG	0.04844	LB A/A	1.25	OZ/A	2-5"W-1	B	137		0	0	90	93	85	72	86	85	88	77	65
10 ZA1296	4 EC	0.094	LB A/A	3.0	OZ/A	2-5"W-1	B													
10 PRIME OIL COC	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-1	B													
10 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-1	B													
11 ACCENT	75 WG	0.0313	LB A/A	0.67	OZ/A	2-5"W-1	B	99		0	0	97	99	93	75	50	17	87	78	85
11 NORTHSTAR	47.4 WG	0.148	LB A/A	5.0	OZ/A	2-5"W-1	B													
11 PRIME OIL COC	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-1	B													
11 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-1	B													
12 BASIS GOLD	90 WG	0.7875	LB A/A	14.0	OZ/A	2-5"W-1	B	151		0	0	93	98	92	72	93	88	90	93	80
12 PRIME OIL COC	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-1	B													
12 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-1	B													
13 AE F130360 02	62 WG	0.09688	LB A/A	2.5	OZ/A	2-5"W-1	B	117		0	0	97	97	88	0	0	0	82	53	30
13 DESTINY MSO	100 LIQ	1.5	PT/A	1.5	PT/A	2-5"W-1	B													
13 28% UAN	100 LIQ	2.0	QT/A	2.0	QT/A	2-5"W-1	B													
14 NONTREATED								40		0	0	0	0	0	0	0	0	0	0	0
LSD								35		4	0	0	2	2	5	15	11	13	6	11
P								0.01		0.4	1.0	1.0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

1. PROTOCOL: AVENTIS CES.

2. DAT = DAYS AFTER TREATMENT. DAP = DAYS AFTER PLANTING.

3. RATING DATES:

21 DAP ON MAY-24-00.

14 DAYS AFTER 2-5"W-1 AND 2-5"W-2 APPLICATIONS ON JUN-8-00 AND JUN-14-00, RESPECTIVELY.

28 DAYS AFTER 2-5"W-1 AND 2-5"W-2 APPLICATIONS ON JUN-22-00 AND JUN-28-00, RESPECTIVELY.

56 DAYS AFTER 2-5"W-1 AND 2-5"W-2 APPLICATIONS ON JUL-20-00 AND JUL-26-00, RESPECTIVELY.