

## Balance and Balance Pro Comparisons.

00-22-M70

**OBJECTIVE:** Evaluate crop response and weed control for Balance and Balance Pro formulations in preemergence applications compared to commercial herbicide standards.

**SUMMARY:** Corn injury was 3 to 20% at 14 days after treatment (DAT) from treatments that contained Balance PRO or EXP31430A. Injury declined to 5% or less by 28 DAT and was no longer visible by 56 DAT.

Giant foxtail control was 63 and 77%, respectively, from Balance PRO and EXP31430A at 56 DAT. Tank mixing Aatrex or Bicep II Magnum with Balance PRO and EXP31430A increased giant foxtail control. Yellow nutsedge control was highly variable, tending to be greatest with treatments that included Bicep II Magnum. Balance PRO controlled only 53% of ivyleaf morningglory whereas EXP31430A controlled 90%. Tank mixing atrazine or Bicep II Magnum with Balance PRO increased ivyleaf morningglory control. Velvetleaf control was excellent with all treatments except Bicep II Magnum alone.

Corn yield ranged from 108 to 193 bu/A. The lowest corn yield was observed in plots treated with Balance PRO alone, likely due to poor control of giant foxtail and ivyleaf morningglory.

### HERBICIDES

AATREX 90 WG  
BALANCE 75 WG  
BALANCE PRO 4 SC  
BICEP II MAGNUM 5.5 L  
DUAL II MAGNUM 7.64 EC  
EXP31430A 4.3 SC  
HORNET 68.5 WG  
ICIA5676/ZA1296 3.5 CS

### WEEDS

FOXTAIL, GIANT  
MORNINGGLORY, IVYLEAF  
NUTSEDGE, YELLOW  
VELVETLEAF

### CROP

CORN, FIELD

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## Balance and Balance Pro Comparisons.

Project Code: 00-22-M70      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. CYPES	NUTSEDGE, YELLOW	CYPERUS ESCULENTUS L.
3. IPOHE	MORNINGGLORY, IVYLEAF	IPOMOEA HEDERACEA (L.) JACQ.
4. ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDICUS

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 <sub>2</sub> O <sub>5</sub> 50 LB/A,	K <sub>2</sub> O 150 LB/A

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

## APPLICATION DESCRIPTION

	A
Application Date:	May-3-00
Time of Day:	14:00
Application Method:	SPRAY
Application Timing:	PRE
Applic. Placement:	BROSOI
Air Temp., Unit:	72 F
% Relative Humidity:	90
Wind Velocity, Unit:	5 MPH
Soil Moisture:	DRY
% Cloud Cover:	75

## CROP STAGE AT EACH APPLICATION

	A
Crop 1 Code, Stage:	NA
Height, Unit:	NA

## WEED STAGE AT EACH APPLICATION

	A
Weed 1 Code:	NA

## APPLICATION EQUIPMENT

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

## NOTES:

Harvested Sep-22-00, (2) 30 inch rows by 24 ft.

TABLE. BALANCE AND BALANCE PRO COMPARISONS. PROJECT CODE:00-22-M70

TREATMENT	FORM.	RATE	UNIT	PROD RATE	APPL TIME	APPL CODE	YIELD	ZEAMX INJURY			CONTROL, DAYS AFTER PRE							
								DA PRE			SETFA		CYPES		IPOHE		ABUTH	
								14	28	56	28	56	28	56	28	56	28	56
			BU/A	%	%	%	%	%	%	%	%	%	%					
1 BALANCE PRO	4 SC	0.094	LB A/A	3.0 OZ/A	PRE	A	108	17	0	0	95	63	75	55	62	53	99	99
2 BALANCE PRO	4 SC	0.094	LB A/A	3.0 OZ/A	PRE	A	152	18	2	0	96	75	67	47	96	87	98	99
2 AATREX	90 WG	1.25	LB A/A	1.4 LB/A	PRE	A												
3 EXP31430A	4.3 SC	1.34	LB A/A	40.0 OZ/A	PRE	A	173	13	2	0	97	77	83	77	98	90	98	99
4 BALANCE PRO	4 SC	0.094	LB A/A	3.0 OZ/A	PRE	A	166	13	3	0	99	95	91	85	97	93	99	99
4 AATREX	90 WG	1.25	LB A/A	1.4 LB/A	PRE	A												
4 BICEP II MAGNUM	5.5 L	1.45	LB A/A	1.05 QT/A	PRE	A												
5 EXP31430A	4.3 SC	1.34	LB A/A	40.0 OZ/A	PRE	A	169	13	5	0	99	96	96	93	98	92	99	99
5 BICEP II MAGNUM	5.5 L	1.45	LB A/A	1.05 QT/A	PRE	A												
6 BALANCE PRO	4 SC	0.094	LB A/A	3.0 OZ/A	PRE	A	166	13	5	0	98	88	68	43	96	88	99	99
6 AATREX	90 WG	1.0	LB A/A	1.11 LB/A	PRE	A												
7 BALANCE	75 WG	0.094	LB A/A	2.0 OZ/A	PRE	A	179	12	2	0	98	95	60	33	96	90	99	98
7 AATREX	90 WG	1.0	LB A/A	1.11 LB/A	PRE	A												
8 BALANCE PRO	4 SC	0.094	LB A/A	3.0 OZ/A	PRE	A	177	3	2	0	99	93	96	93	98	85	99	99
8 BICEP II MAGNUM	5.5 L	2.17	LB A/A	1.58 QT/A	PRE	A												
9 BALANCE	75 WG	0.094	LB A/A	2.0 OZ/A	PRE	A	168	20	5	0	99	96	95	88	95	87	99	99
9 BICEP II MAGNUM	5.5 L	2.17	LB A/A	1.58 QT/A	PRE	A												
10 BICEP II MAGNUM	5.5 L	2.89	LB A/A	2.1 QT/A	PRE	A	182	2	2	0	99	97	97	95	96	87	99	87
11 ICIA5676/ZA1296	3.5 CS	2.19	LB A/A	5.0 PT/A	PRE	A	157	0	2	0	99	96	97	97	97	92	99	99
11 AATREX	90 WG	1.0	LB A/A	1.11 LB/A	PRE	A												
12 BICEP II MAGNUM	5.5 L	2.89	LB A/A	2.1 QT/A	PRE	A	193	0	3	0	99	95	97	93	98	90	98	99
12 HORNET	68.5 WG	0.128	LB A/A	3.0 OZ/A	PRE	A												
13 DUAL II MAGNUM	7.64 EC	1.27	LB A/A	1.33 PT/A	PRE	A	152	0	0	0	99	92	98	98	70	53	99	99
13 HORNET	68.5 WG	0.171	LB A/A	4.0 OZ/A	PRE	A												
14 NONTREATED							113	0	0	0	0	0	0	0	0	0	0	0
LSD							33	8	4	0	2	6	23	34	7	11	0.8	4
P							0.01	0.01	0.2	1.0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

1. PROTOCOL: AVENTIS TRTS 1-9 (C2D AND C2I); DOW TRT 12+13.

2. RATING DATES:

14 DA PRE, 28 DA PRE, AND 56 DA PRE ON MAY-17-00, MAY-31-00, AND JUN-28-00, RESPECTIVELY.