

## Balance Pro Burndown in No-Till Corn.

00-5B

**OBJECTIVE:** Evaluate the burndown activity of Balance Pro combinations in no-till corn.

**SUMMARY:** No corn injury was observed from any treatment. All treatments, including Balance Pro alone, provided excellent burndown control of henbit, mouseear chickweed, and horseweed. Giant foxtail control was poor from all treatments at 56 days after planting (DAP). Balance Pro alone controlled 82% of common ragweed and common waterhemp at 28 DAP. Tank mixing Aatrex with Balance Pro increased control of common ragweed to at least 90%. By 56 DAP, only ZA 1296 controlled greater than 60% of common waterhemp. Extrazine II, ZA 1296, Fieldmaster, and Balance Pro plus Aatrex plus Liberty plus AMS provided the greatest control of common ragweed at 56 DAP.

Corn yield ranged from 36 bu/A in nontreated plots to 145 bu/A. Corn yield was significantly reduced in plots where giant foxtail control was less than 10% at 28 DAP.

### HERBICIDES

AATREX 90 WG  
 AE F130360 02 62 WG  
 BALANCE PRO 4 SC  
 EXTRAZINE II 90 WG  
 FIELDMASTER 4.25 L  
 LIBERTY 1.67 EC  
 ROUNDUP ULTRA 3 SL  
 WEEDONE 638 2.8 EC  
 ZA1296 4 EC

### WEEDS

CHICKWEED, MOUSEEAR  
 FOXTAIL, GIANT  
 GARLIC, WILD  
 HENBIT  
 HORSEWEED  
 RAGWEED, COMMON  
 WATERHEMP, COMMON

### CROP

CORN, FIELD

Bryan Young

PLANT, SOIL AND GENERAL AGRICULTURE DEPARTMENT

SOUTHERN ILLINOIS UNIVERSITY

Balance Pro Burndown in No-Till Corn.

Project Code: 00-5B

Location: Belleville Research Center

Investigator: Bryan Young, Assistant Professor, Southern Illinois University

Weed Code	Common Name	Scientific Name
1. LAMAM	HENBIT	LAMIUM AMPLEXICAULE L.
2. ERICA	HORSEWEED	CONYZA CANADENSIS (L.) CRONG.
3. ALLVI	GARLIC, WILD	ALLIUM VINEALE L.
4. CERVU	CHICKWEED, MOUSEEAR	CERASTIUM VULGATUM L.
5. SETFA	FOXTAIL, GIANT	SETARIA FABERI HERRM.
6. AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
7. AMATA	WATERHEMP, COMMON	AMARANTHUS RUDIS SAUER

Crop 1:	ZEAMX CORN, FIELD	Variety:	P33G28 LL
Planting Method:	SEEDED	Planting Date:	May-11-00
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:	NO-TILL	Study Design:	RCB		
Previous Crop, Year:	ZEAMX, 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:	STOY	% OM:	2.3	pH:	6.5
Texture:	SILT LOAM	P <sub>1</sub> :	70 LB/A,	K:	348 LB/A
				CEC:	8

#### APPLICATION DESCRIPTION

A  
 Application Date: Apr-18-00  
 Time of Day: 13:00  
 Application Method: SPRAY  
 Application Timing: EPP21  
 Applic. Placement: BROFOL  
 Air Temp., Unit: 60 F  
 % Relative Humidity: 74  
 Wind Velocity, Unit: 3 MPH  
 Soil Moisture: NORMAL

#### CROP STAGE AT EACH APPLICATION

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

#### WEED STAGE AT EACH APPLICATION

A  
 Weed 1 Code: LAMAM  
 Stage(leaves): 10+  
 Height(inches): 3-5

Weed 2 Code: ERICA  
 Stage(leaves): 10+  
 Height(inches): 3-4  
 Density: LOW

Weed 3 Code: ALLVI  
 Stage(leaves): 3-4  
 Height(inches): 6-14  
 Density: MEDIUM

#### 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 Oct-10-00, (2) 30 inch rows by 24 ft.

TABLE. BALANCE PRO BURNDOWN IN NO-TILL CORN. PROJECT CODE:00-5B

TREATMENT	FORM.	RATE	UNIT	PROD RATE	APPL TIME	APPL CODE	YIELD	ZEAMX			CONTROL, DAYS AFTER EPP21			CONTROL											
								INJURY, DAP			CERVU	ALLVI	LAMAM	ERICA			SETFA		AMBEL		AMATA				
								14	28	56				21 DA	DAP		DAP		DAP		DAP				
BU/A	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%							
1 BALANCE PRO	4 SC	0.09375	LB A/A	3.0	OZ/A	EPP21 A	125	0	0	0	96	42	99	96	96	99	65	28	82	30	82	27			
1 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			
2 BALANCE PRO	4 SC	0.04688	LB A/A	1.5	OZ/A	EPP21 A	124	0	0	0	99	53	99	99	99	99	70	27	93	63	85	30			
2 AATREX	90 WG	1.0	LB A/A	1.11	LB/A	EPP21 A																			
2 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			
3 BALANCE PRO	4 SC	0.07031	LB A/A	2.25	OZ/A	EPP21 A	128	0	0	0	99	63	99	99	99	99	72	37	90	66	73	13			
3 AATREX	90 WG	1.0	LB A/A	1.11	LB/A	EPP21 A																			
3 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			
4 BALANCE PRO	4 SC	0.09375	LB A/A	3.0	OZ/A	EPP21 A	129	0	0	0	99	77	99	99	99	99	75	45	96	76	95	60			
4 AATREX	90 WG	1.0	LB A/A	1.11	LB/A	EPP21 A																			
4 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			
5 BALANCE PRO	4 SC	0.1172	LB A/A	3.75	OZ/A	EPP21 A	131	0	0	0	99	87	99	99	99	99	83	57	98	83	93	50			
5 AATREX	90 WG	1.0	LB A/A	1.11	LB/A	EPP21 A																			
5 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			
6 BALANCE PRO	4 SC	0.07031	LB A/A	2.25	OZ/A	EPP21 A	137	0	0	0	99	84	99	99	99	99	68	52	93	70	83	30			
6 AATREX	90 WG	1.0	LB A/A	1.11	LB/A	EPP21 A																			
6 WEEDONE 638	2.8 EC	0.5	LB A/A	1.43	PT/A	EPP21 A																			
6 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			
7 BALANCE PRO	4 SC	0.07031	LB A/A	2.25	OZ/A	EPP21 A	100	0	0	0	96	80	99	99	99	99	80	53	83	7	82	10			
7 WEEDONE 638	2.8 EC	0.5	LB A/A	1.43	PT/A	EPP21 A																			
7 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			
8 ROUNDUP ULTRA	3 SL	0.375	LB AE/A	0.5	QT/A	EPP21 A	53	0	0	0	99	73	98	99	99	99	0	0	0	0	0	0			
8 WEEDONE 638	2.8 EC	0.5	LB A/A	1.43	PT/A	EPP21 A																			
9 EXTRAZINE II	90 WG	4.0	LB A/A	4.44	LB/A	EPP21 A	140	0	0	0	99	85	99	99	99	99	87	60	98	94	90	17			
9 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			
10 BALANCE PRO	4 SC	0.07031	LB A/A	2.25	OZ/A	EPP21 A	145	0	0	0	99	80	99	99	99	99	65	37	99	86	88	35			
10 AATREX	90 WG	1.0	LB A/A	1.11	LB/A	EPP21 A																			
10 AE F130360 02	62 WG	0.04844	LB A/A	1.25	OZ/A	EPP21 A																			
10 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			
11 BALANCE PRO	4 SC	0.07031	LB A/A	2.25	OZ/A	EPP21 A	101	0	0	0	96	72	98	98	99	99	60	32	85	76	70	10			
11 AE F130360 02	62 WG	0.04844	LB A/A	1.25	OZ/A	EPP21 A																			
11 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			

(CONTINUED)

TABLE. BALANCE PRO BURNDOWN IN NO-TILL CORN. PROJECT CODE:00-5B (CONTINUED)

TREATMENT	FORM.	RATE	UNIT	PROD RATE	TIME	APPL CODE	YIELD	ZEAMX			CONTROL, DAYS AFTER EPP21			CONTROL											
								INJURY, DAP			CERVU	ALLVI	LAMAM	ERICA			SETFA		AMBEL		AMATA				
								14	28	56				21 DA	DAP		DAP		DAP		DAP				
BU/A	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%							
12 BALANCE PRO	4 SC	0.07031	LB A/A	2.25	OZ/A	EPP21 A	137	0	0	0	99	77	99	99	99	99	67	40	96	89	93	33			
12 AATREX	90 WG	1.0	LB A/A	1.11	LB/A	EPP21 A																			
12 LIBERTY	1.67 EC	0.2088	LB A/A	16.0	OZ/A	EPP21 A																			
12 PRIME OIL COC	100 LIQ	1.0	QT/A	1.0	QT/A	EPP21 A																			
13 BALANCE PRO	4 SC	0.07031	LB A/A	2.25	OZ/A	EPP21 A	113	0	0	0	99	72	99	98	98	99	73	43	98	99	90	33			
13 AATREX	90 WG	1.0	LB A/A	1.11	LB/A	EPP21 A																			
13 LIBERTY	1.67 EC	0.2088	LB A/A	16.0	OZ/A	EPP21 A																			
13 AMS	100 DRY	3.0	LB/A	3.0	LB/A	EPP21 A																			
14 ROUNDUP ULTRA	3 SL	0.375	LB AE/A	0.5	QT/A	EPP21 A	65	0	0	0	99	85	95	98	99	99	0	0	0	0	0	0			
14 LIBERTY	1.67 EC	0.2088	LB A/A	16.0	OZ/A	EPP21 A																			
14 AMS	100 DRY	3.0	LB/A	3.0	LB/A	EPP21 A																			
15 FIELDMASTER	4.25 L	4.25	LB A/A	4.0	QT/A	EPP21 A	113	0	0	0	99	92	99	99	99	99	72	52	96	99	87	30			
15 AMS	100 DRY	2.0	% W/W	17.0	LB/10C	EPP21 A																			
16 ZA1296	4 EC	0.18	LB A/A	5.76	OZ/A	EPP21 A	41	0	0	0	98	78	99	99	99	99	7	0	50	89	83	99			
16 PRIME OIL COC	100 LIQ	1.0	% V/V	1.0	%V/V	EPP21 A																			
17 ZA1296	4 EC	0.18	LB A/A	5.76	OZ/A	EPP21 A	111	0	0	0	99	83	99	99	99	99	70	48	98	99	90	43			
17 AATREX	90 WG	1.0	LB A/A	1.11	LB/A	EPP21 A																			
17 PRIME OIL COC	100 LIQ	1.0	% V/V	1.0	%V/V	EPP21 A																			
18 NONTREATED							36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
LSD							35	0	0	0	2	24	2	2	2	0	15	13	12	28	15	31			
P							0.01	1.0	1.0	1.0	0.01	0.01	0.01	0.01	0.01	1.0	0.01	0.01	0.01	0.01	0.01	0.01			

1. PROTOCOL: AVENTIS C26.
2. DAP = DAYS AFTER PLANTING.
3. RATING DATES:  
21 DAT, 14 DAP, 28 DAP, AND 56 DAP ON MAY-9-00, MAY-25-00, JUN-8-00, AND JUL-6-00, RESPECTIVELY.