

Weed Control with Balance Pro and Epic.

Project Code: 04-ARC-13-W90 Location: Agronomy Reseach Center
Investigator: Bryan Young

Investigator: Bryan Young, Associate Professor, Southern Illinois University

City State Zip Country: Carbondale IL 62901 USA
Trial Status: Final Updated: 9-1-04

Objective:

Evaluate weed control and crop injury from Balance Pro applied preplant, PPI and PRE.

Weed Code	Common Name	Scientific Name
1. BRAPP	signalgrass, broadleaf	Brachiaria platyphylla (Griseb.) Nash

Crop 1:	ZEAMX corn, field	Variety:	P33P67
Planting Method:	Seeded	Planting Date:	5-13-04
Rate:	28000 S/A	Depth:	1.5 IN
Row Spacing:	30 IN		

Plot Width, Unit:	10 FT	Plot Length, Unit:	33 FT	Reps:	3
Tillage Type:	Reduced-Till	Study Design:	Split-plot		
Previous Crop, Year:	ZEAMX, 2003				

Field Prep./Maintenance: N 150 LB/A, P205 50 LB/A, K20 150 LB/A

Soil Name: Weir	% OM: 1.4	pH: 6.1	CEC: 74
Texture: Silt loam	Fert. Level: P1: 69 LB/A,	K: 402 LB/A	

APPLICATION DESCRIPTION

	A	B	C
Application Date:	4-30-04	5-13-04	5-13-04
Time of Day:	15:00	10:00	13:00
Application Method:	Spray	Spray	Spray
Application Timing:	14EPP	PPI	PRE
Applic. Placement:	BROSOI	BROSOI	BROSOI
Air Temp., Unit:	75 F	72 F	76 F
% Relative Humidity:	63	88	73
Wind Velocity, Unit:	8-12 MPH	5-10 MPH	5-10 MPH
Dew Presence (Y/N):	N	N	N
Soil Temp., Unit:	63 F	69 F	69 F
Soil Moisture:	NORMAL	ABONOR	ABONOR
% Cloud Cover:	15	100	100

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMX NA	ZEAMX NA	ZEAMX NA
Height, Unit:	NA NA	NA NA	NA NA

WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code:	BRAPP	BRAPP	BRAPP

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan
Nozzle Size:	8003	8003	8003
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Incorporation Equip.:		FC2X	
Hours to Incorp.:		1	
Incorp. Depth, Unit:		2-4 IN	
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA

NOTES:

FC2X = field cultivator, 2 passes in opposite directions.

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Weed Code									BRAPP	BRAPP	BRAPP
Crop Code									ZEAMX	ZEAMX	ZEAMX
Rating Data Type									Injury	Injury	Injury
Rating Unit									Percent	Percent	Percent
Rating Date									5-27-04	6-10-04	7-8-04
Trt-Eval Interval									14 DAP	28 DAP	56 DAP
									Control	Control	Control
									Percent	Percent	Percent
									5-27-04	6-10-04	7-8-04
									14 DAP	28 DAP	56 DAP

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code			
1	TILLAGE 14EPP									0	0	0
1	NONTREATED											
2	TILLAGE AT PLANTING									0	0	0
2	NONTREATED									70	50	12
3	TILLAGE AT PLANTING									0	0	0
3	NONTREATED									70	53	18
4	TILLAGE 14EPP									3	0	0
4	BALANCE PRO	4 SC		0.094	LB A/A	3	FL OZ/A	14EPP	A	63	70	47
4	AATREX	90 WG		1.0	LB A/A	1.11	LB/A	14EPP	A			
5	TILLAGE AT PLANTING									3	0	0
5	BALANCE PRO	4 SC		0.078	LB A/A	2.5	FL OZ/A	PPI	B	92	93	53
5	AATREX	90 WG		1.0	LB A/A	1.11	LB/A	PPI	B			
6	TILLAGE AT PLANTING									3	0	0
6	BALANCE PRO	4 SC		0.0625	LB A/A	2.0	FL OZ/A	PRE	C	94	91	63
6	AATREX	90 WG		1.0	LB A/A	1.11	LB/A	PRE	C			
7	TILLAGE 14EPP									3	0	0
7	BALANCE PRO	4 SC		0.094	LB A/A	3	FL OZ/A	14EPP	A	87	83	62
7	DEFINE	4 SC		0.5	LB A/A	16	FL OZ/A	14EPP	A			
8	TILLAGE AT PLANTING									3	0	0
8	BALANCE PRO	4 SC		0.078	LB A/A	2.5	FL OZ/A	PPI	B	97	93	68
8	DEFINE	4 SC		0.5	LB A/A	16	FL OZ/A	PPI	B			
9	TILLAGE AT PLANTING									4	0	0
9	BALANCE PRO	4 SC		0.0625	LB A/A	2.0	FL OZ/A	PRE	C	98	98	87
9	DEFINE	4 SC		0.5	LB A/A	16	FL OZ/A	PRE	C			
10	TILLAGE 14EPP									3	0	0
10	EPIC	58 WG		0.725	LB A/A	20	OZ/A	14EPP	A	98	94	58
11	TILLAGE AT PLANTING									4	0	0
11	EPIC	58 WG		0.544	LB A/A	15	OZ/A	PPI	B	98	95	57
12	TILLAGE AT PLANTING									6	0	0
12	EPIC	58 WG		0.544	LB A/A	15	OZ/A	PRE	C	98	96	77
13	TILLAGE 14EPP									3	0	0
13	BALANCE PRO	4 SC		0.094	LB A/A	3	FL OZ/A	14EPP	A	97	90	62
13	DEFINE	4 SC		0.5	LB A/A	16	FL OZ/A	14EPP	A			
13	AATREX	90 WG		1.0	LB A/A	1.11	LB/A	14EPP	A			
14	TILLAGE AT PLANTING									4	0	0
14	BALANCE PRO	4 SC		0.078	LB A/A	2.5	FL OZ/A	PPI	B	96	96	70
14	DEFINE	4 SC		0.5	LB A/A	16	FL OZ/A	PPI	B			
14	AATREX	90 WG		1.0	LB A/A	1.11	LB/A	PPI	B			

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	ZEAMX Injury Percent	ZEAMX Injury Percent	ZEAMX Injury Percent	BRAPP Control Percent	BRAPP Control Percent	BRAPP Control Percent
										5-27-04 14 DAP	6-10-04 28 DAP	7-8-04 56 DAP	5-27-04 14 DAP	6-10-04 28 DAP	7-8-04 56 DAP
15	TILLAGE AT PLANTING									5	0	0	99	99	82
15	BALANCE PRO	4	SC	0.0625	LB A/A	2.0	FL OZ/A	PRE	C						
15	DEFINE	4	SC	0.5	LB A/A	16	FL OZ/A	PRE	C						
15	AATREX	90	WG	1.0	LB A/A	1.11	LB/A	PRE	C						
16	TILLAGE AT PLANTING									3	0	0	99	99	82
16	LUMAX	3.94	L	2.95	LB A/A	3.0	QT/A	14EPP	A						
17	TILLAGE AT PLANTING									3	0	0	99	99	85
17	LUMAX	3.94	L	2.46	LB A/A	2.5	QT/A	PPI	B						
18	TILLAGE AT PLANTING									3	0	0	99	99	96
18	LUMAX	3.94	L	2.46	LB A/A	2.5	QT/A	PRE	C						
LSD (P=.05)										1.7	0.0	0.0	4.0	4.5	9.4
Replicate F										2.259	0.000	0.000	0.361	0.095	0.499
Replicate Prob(F)										0.1199	1.0000	1.0000	0.6994	0.9099	0.6113
Treatment F										6.889	0.000	0.000	310.519	272.373	67.003
Treatment Prob(F)										0.0001	1.0000	1.0000	0.0001	0.0001	0.0001

Trial Comments

1. Protocol: Bayer.
2. Ratings: CI and WC 14 and 28 DAP, WC 56 DAP.
3. Tillage in strips:
 - a. 14 days before planting, for 14EPP plots only, prior to 14EPP herbicide application;
 - b. at planting, for PPI and PRE plots only, prior to PPI and PRE herbicide applications;
 - c. incorporate herbicides for PPI plots only;
 - d. plant all plots;
 - e. apply PRE herbicide application before corn emergence.
4. DAP = Days after planting.