

Glyphosate- and Glufosinate-Resistant Corn Weed Management Systems.

Trial ID: 08-2C-ME90 Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Belleville IL 62221 USA
 Trial Status: FINAL Initiation Date: 06-15-08

Objectives: Identify the most effective strategy for use of soil residual herbicides in glyphosate- and glufosinate-resistant corn.

Crop 1: ZEAMD Dent corn Variety: P33K44
 Planting Method: SEEDED Planting Date: 06-15-08
 Rate, Unit: 28000 S/A Depth, Unit: 1.5 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: PANDI Panicum dichotomiflorum Michx. panicum, fall
 Pest 2 Type: W Code: CYPES Cyperus esculentus L. nutsedge, yellow
 Pest 3 Type: W Code: IPOSS Ipomoea sp. morningglory, species
 Pest 4 Type: W Code: ABUTH Abutilon theophrasti Medicus velvetleaf
 Pest 5 Type: W Code: XANST Xanthium strumarium L. cocklebur, common
 Pest 6 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 27 FT Tillage Type: REDUCED-TILL
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2007

Field Prep./Maintenance: N 150 LB/A, P205 0 LB/A, K20 100 LB/A

% OM: 1.6 Texture: SILT LOAM
 pH: 6.4 Soil Name: PIERRON
 CEC: 8 Fert. Level: P1: 92 LB/A, K: 365 LB/A

	Application Description		
	A	B	C
Application Date:	06-16-08	07-01-08	07-04-08
Time of Day:	14:00	12:00	13:00
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	2"W	12-14"CN
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	TGM	DKT	BGY
Air Temperature, Unit:	82 F	82 F	72 F
% Relative Humidity:	51	42	91
Wind Velocity, Unit:	1 MPH	5 MPH	2 MPH
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	80 F	83 F	83 F
Soil Moisture:	ABONOR	NORMAL	ABONOR
% Cloud Cover:	10		100
Crop stage at application:	NA	V3	V4
Height Min, Max (inch):		6 10	10 14

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	Pest Stage At Each Application		
Application Date:	06-16-08	07-01-08	07-04-08
Weed Code:	PANDI	PANDI	PANDI
Stage Majority (leaves):	NA	2	3
Stage Min, Max:	1	4	1 5
Height Majority:	2	IN	3 IN
Height Min, Max:	1	5	1 5
Density, Unit:	1	FT2 2	FT2
Weed Code:	CYPES	CYPES	CYPES
Stage Majority (leaves):	NA	6	6
Stage Min, Max:	3	9	3 10
Height Majority:	4	IN	4 IN
Height Min, Max:	1.5	5	2 5
Density, Unit:	2	FT2 2	FT2
Weed Code:	IPOSS	IPOSS	IPOSS
Stage Majority (leaves):	NA	NA	1
Stage Min, Max:			COTY 6
Height Majority:			1.5 IN
Height Min, Max:			1 4
Density, Unit:			2 FT2
Weed Code:	ABUTH	ABUTH	ABUTH
Stage Majority (leaves):	NA	4	4
Stage Min, Max:		COTY 4	COTY 4
Height Majority:	2	IN	3 IN
Height Min, Max:	0.5	3	0.5 4
Density, Unit:	1	FT2 1	FT2
Weed Code:	XANST	XANST	XANST
Stage Majority (leaves):	NA	4	4
Stage Min, Max:	2	4	2 5
Height Majority:	2	IN	3 IN
Height Min, Max:	0.5	3	2 4
Density, Unit:	1	FT2 1	FT2
Weed Code:	AMATA	AMATA	AMATA
Stage Majority (leaves):	NA	NA	4
Stage Min, Max:			COTY 6
Height Majority:			2 IN
Height Min, Max:			0.5 3
Density, Unit:			1 FT2

Application Equipment

Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002	XR 8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

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Pest Code														
Crop Code														
Rating Date														
Rating Data Type														
Rating Unit														
Rating Timing														
Trt-Eval Interval														
				ZEAMD 11-19-08		ZEAMD 11-19-08		ZEAMD 07-04-08		ZEAMD 07-25-08		ZEAMD 10-16-08		
				Moisture		Yield		Injury		Injury		Injury		
				Percent		bu/A		Percent		Percent		Percent		
								0 DA-C		21 DA-C		EOS		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	19.1 ab	199 abc	0 e	0 b	0 a
1	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12-14"CN	C					
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C					
2	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	18.7 ab	196 a-d	0 e	0 b	0 a
2	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12-14"CN	C					
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C					
3	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	18.7 ab	195 a-d	0 e	0 b	0 a
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-14"CN	C					
3	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C					
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C					
4	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	18.3 abc	206 a	0 e	0 b	0 a
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-14"CN	C					
4	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C					
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C					
5	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	18.9 ab	198 abc	0 e	0 b	0 a
5	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	12-14"CN	C					
5	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C					
5	DESTINY HC MSO	100	SL	0.5	% v/v	0.5	% v/v	12-14"CN	C					
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C					
6	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	17.1 c	169 de	0 e	0 b	0 a
6	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	12-14"CN	C					
6	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C					
6	DESTINY HC MSO	100	SL	0.5	% v/v	0.5	% v/v	12-14"CN	C					
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C					
7	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	19.0 ab	193 a-d	0 e	0 b	0 a
7	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	12-14"CN	C					
7	STATUS	56	WG	0.105	lb ai/a	3	oz/a	12-14"CN	C					
7	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	12-14"CN	C					
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C					
8	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	17.7 bc	199 abc	0 e	0 b	0 a
8	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	12-14"CN	C					
8	STATUS	56	WG	0.105	lb ai/a	3	oz/a	12-14"CN	C					
8	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	12-14"CN	C					
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C					
9	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	18.7 ab	191 a-d	2 de	0 b	0 a
9	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	2"W	B					
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B					
10	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	19.2 a	183 a-d	0 e	0 b	0 a
10	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	2"W	B					
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B					
11	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	18.7 ab	197 a-d	5 cd	0 b	0 a
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2"W	B					
11	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B					
12	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	18.5 abc	200 abc	7 c	0 b	0 a
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2"W	B					
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B					
13	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	18.8 ab	202 ab	8 c	0 b	0 a
13	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2"W	B					
13	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B					
13	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B					
14	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	18.9 ab	172 cd	23 b	0 b	0 a
14	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2"W	B					
14	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B					
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B					

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Pest Code	Crop Code	Rating Date	Rating Data Type	Rating Unit	Rating Timing	Trt-Eval Interval	ZEAMD 11-19-08	ZEAMD 11-19-08	ZEAMD 07-04-08	ZEAMD 07-25-08	ZEAMD 10-16-08
							Moisture Percent	Yield bu/A	Injury Percent	Injury Percent	Injury Percent
									0 DA-C	21 DA-C	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
15	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	18.7	ab	174	bcd	27 b
15	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2"W	B					0 b
15	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B					0 a
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B					
16	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	18.8	ab	188	a-d	32 a
16	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2"W	B					2 a
16	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B					0 a
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B					
17	NONTREATED									17.9	abc	141	e	0 e
18	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	19.1	ab	204	a	2 de
18	WEED FREE													0 b
														0 a
	LSD (P=.05)									1.49		29.6		4.6
	Replicate F									4.687		0.032		0.548
	Replicate Prob(F)									0.0159		0.9682		0.5829
	Treatment F									1.080		2.568		41.581
	Treatment Prob(F)									0.4096		0.0094		0.0001
														1.000
														0.000
														1.0000
														0.000
														1.0000

Means followed by same letter do not significantly differ (P=.05, LSD)

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Pest Code										PANDI	PANDI	PANDI	PANDI	CYPES	CYPES	CYPES	CYPES
Crop Code										07-04-08	07-25-08	10-16-08	10-16-08	07-04-08	07-25-08	10-16-08	10-16-08
Rating Date										Control	Control	Control	Plants	Control	Control	Control	Plants
Rating Data Type										Percent	Percent	Percent	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Unit																	
Rating Timing																	
Tri-Eval Interval										0 DA-C	21 DA-C	EOS	EOS	0 DA-C	21 DA-C	EOS	EOS
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
1	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	85 ab	91 ab	99 a	0.3 f	83 a	92 abc	99 a	0.0 b
1	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12-14"CN	C								
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
2	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	82 ab	90 ab	99 a	0.2 f	78 ab	88 a-d	99 a	0.0 b
2	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12-14"CN	C								
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
3	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	73 ab	95 a	99 a	0.3 f	75 ab	91 abc	99 a	0.0 b
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-14"CN	C								
3	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
4	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	78 ab	95 a	99 a	0.7 ef	71 ab	95 a	99 a	0.0 b
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-14"CN	C								
4	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
5	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	83 ab	42 d	42 c	4.2 c	81 a	94 a	99 a	0.0 b
5	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	12-14"CN	C								
5	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
5	DESTINY HC MSO	100	SL	0.5	% v/v	0.5	% v/v	12-14"CN	C								
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
6	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	88 a	63 c	63 b	2.5 d	78 ab	93 ab	99 a	0.0 b
6	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	12-14"CN	C								
6	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
6	DESTINY HC MSO	100	SL	0.5	% v/v	0.5	% v/v	12-14"CN	C								
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
7	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	77 ab	90 ab	99 a	0.0 f	73 ab	85 cd	99 a	0.0 b
7	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	12-14"CN	C								
7	STATUS	56	WG	0.105	lb ai/a	3	oz/a	12-14"CN	C								
7	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	12-14"CN	C								
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
8	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	83 ab	93 a	99 a	0.0 f	75 ab	87 bcd	99 a	0.0 b
8	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	12-14"CN	C								
8	STATUS	56	WG	0.105	lb ai/a	3	oz/a	12-14"CN	C								
8	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	12-14"CN	C								
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
9	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	32 c	93 a	99 a	0.3 f	27 de	84 d	99 a	0.0 b
9	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	2"W	B								
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
10	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	20 cd	94 a	99 a	1.0 def	25 e	95 a	99 a	0.0 b
10	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	2"W	B								
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
11	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	30 c	88 ab	99 a	1.0 def	27 de	82 d	99 a	0.0 b
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2"W	B								
11	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
12	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	37 c	81 b	93 a	2.0 de	45 cd	94 a	99 a	0.0 b
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2"W	B								
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
13	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	27 c	28 e	28 d	4.5 bc	30 de	82 d	99 a	0.0 b
13	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2"W	B								
13	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B								
13	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
14	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	40 c	23 e	23 d	6.0 ab	43 cde	88 a-d	99 a	0.0 b
14	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2"W	B								
14	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B								
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								

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										PANDI	PANDI	PANDI	PANDI	CYPES	CYPES	CYPES	CYPES
										07-04-08	07-25-08	10-16-08	10-16-08	07-04-08	07-25-08	10-16-08	10-16-08
										Control	Control	Control	Plants	Control	Control	Control	Plants
										Percent	Percent	Percent	0.5 m2	Percent	Percent	Percent	0.5 m2
										0 DA-C	21 DA-C	EOS	EOS	0 DA-C	21 DA-C	EOS	EOS
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
15	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	33 c	94 a	99 a	0.3 f	28 de	82 d	99 a	0.0 b
15	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2"W	B								
15	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B								
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
16	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	33 c	96 a	99 a	0.0 f	27 de	93 ab	99 a	0.0 b
16	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2"W	B								
16	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B								
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
17	NONTREATED									0 d	0 f	0 e	6.3 a	0 f	0 e	0 b	0.2 a
18	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	65 b	97 a	99 a	0.5 ef	62 bc	93 ab	99 a	0.0 b
18	WEED FREE																
LSD (P=.05)										21.5	10.1	10.3	1.63	19.2	7.2	0.0	0.11
Replicate F										0.411	3.196	2.643	1.010	0.350	1.140	0.000	1.000
Replicate Prob(F)										0.6662	0.0535	0.0857	0.3748	0.7074	0.3318	1.0000	0.3784
Treatment F										14.250	75.230	85.180	14.179	15.471	74.784	0.000	1.000
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	1.0000	0.4813

Means followed by same letter do not significantly differ (P=.05, LSD)

Glyphosate- and Glufosinate-Resistant Corn Weed Management Systems.

Trial ID: 08-2C-ME90

Location: Belleville Res. Center

Pest Code										IPOSS	IPOSS	IPOSS	IPOSS	ABUTH	ABUTH	ABUTH	ABUTH
Crop Code										07-04-08	07-25-08	10-16-08	10-16-08	07-04-08	07-25-08	10-16-08	10-16-08
Rating Date										Control	Control	Control	Plants	Control	Control	Control	Plants
Rating Data Type										Percent	Percent	Percent	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Unit																	
Rating Timing																	
Trt-Eval Interval										0 DA-C	21 DA-C	EOS	EOS	0 DA-C	21 DA-C	EOS	EOS
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
1	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	86 ab	89 de	99 a	0.2 b	91 abc	98 a	99 a	0.0 b
1	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12-14"CN	C								
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
2	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	88 a	90 de	99 a	0.0 b	97 a	99 a	99 a	0.0 b
2	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12-14"CN	C								
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
3	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	90 a	95 ab	99 a	0.2 b	96 ab	99 a	99 a	0.0 b
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-14"CN	C								
3	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
4	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	89 a	96 a	99 a	0.0 b	98 a	99 a	99 a	0.0 b
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-14"CN	C								
4	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
5	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	86 ab	92 b-e	99 a	0.0 b	93 abc	99 a	99 a	0.0 b
5	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	12-14"CN	C								
5	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
5	DESTINY HC MSO	100	SL	0.5	% v/v	0.5	% v/v	12-14"CN	C								
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
6	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	90 a	91 cde	99 a	0.0 b	98 a	99 a	99 a	0.0 b
6	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	12-14"CN	C								
6	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
6	DESTINY HC MSO	100	SL	0.5	% v/v	0.5	% v/v	12-14"CN	C								
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
7	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	87 ab	89 e	99 a	0.2 b	94 ab	98 a	99 a	0.0 b
7	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	12-14"CN	C								
7	STATUS	56	WG	0.105	lb ai/a	3	oz/a	12-14"CN	C								
7	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	12-14"CN	C								
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
8	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	88 a	91 cde	99 a	0.0 b	99 a	99 a	99 a	0.0 b
8	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	12-14"CN	C								
8	STATUS	56	WG	0.105	lb ai/a	3	oz/a	12-14"CN	C								
8	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	12-14"CN	C								
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
9	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	78 bc	89 de	99 a	0.0 b	88 bcd	96 b	99 a	0.2 b
9	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	2"W	B								
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
10	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	60 f	93 a-d	99 a	0.0 b	82 d	99 a	99 a	0.0 b
10	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	2"W	B								
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
11	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	72 cde	91 cde	99 a	0.0 b	92 abc	99 a	99 a	0.0 b
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2"W	B								
11	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
12	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	87 ab	94 abc	99 a	0.0 b	95 ab	99 a	99 a	0.0 b
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2"W	B								
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
13	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	75 cd	96 ab	99 a	0.2 b	93 abc	99 a	99 a	0.0 b
13	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2"W	B								
13	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B								
13	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
14	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	88 a	96 a	99 a	0.3 b	99 a	99 a	99 a	0.0 b
14	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2"W	B								
14	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B								
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								

Glyphosate- and Glufosinate-Resistant Corn Weed Management Systems.

Trial ID: 08-2C-ME90 Location: Belleville Res. Center

										IPOSS	IPOSS	IPOSS	IPOSS	ABUTH	ABUTH	ABUTH	ABUTH								
										07-04-08	07-25-08	10-16-08	10-16-08	07-04-08	07-25-08	10-16-08	10-16-08								
										Control	Control	Control	Plants	Control	Control	Control	Plants								
										Percent	Percent	Percent	0.5 m2	Percent	Percent	Percent	0.5 m2								
										0 DA-C	21 DA-C	EOS	EOS	0 DA-C	21 DA-C	EOS	EOS								
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code																
15	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	68	def	89	e	99	a	0.2	b	88	bcd	98	a	99	a	0.0	b
15	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2"W	B																
15	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B																
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B																
16	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	65	ef	95	abc	99	a	0.0	b	85	cd	99	a	99	a	0.0	b
16	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2"W	B																
16	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B																
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B																
17	NONTREATED									0	g	0	f	0	b	1.2	a	0	e	0	c	0	b	0.5	a
18	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	92	a	96	a	99	a	0.2	b	99	a	99	a	99	a	0.0	b
18	WEED FREE																								
LSD (P=.05)										9.1	4.0	0.0	0.38	8.7	1.5	0.0	0.23								
Replicate F										0.835	3.150	0.000	0.262	0.610	2.099	0.000	0.239								
Replicate Prob(F)										0.4424	0.0556	1.0000	0.7714	0.5494	0.1382	1.0000	0.7884								
Treatment F										47.196	247.219	0.000	4.292	55.768	2019.312	0.000	2.310								
Treatment Prob(F)										0.0001	0.0001	1.0000	0.0001	0.0001	0.0001	1.0000	0.0185								

Means followed by same letter do not significantly differ (P=.05, LSD)

Glyphosate- and Glufosinate-Resistant Corn Weed Management Systems.

Trial ID: 08-2C-ME90

Location: Belleville Res. Center

Pest Code										XANST	XANST	XANST	XANST	AMATA	AMATA	AMATA	AMATA
Crop Code										07-04-08	07-25-08	10-16-08	10-16-08	07-04-08	07-25-08	10-16-08	10-16-08
Rating Date										Control	Control	Control	Plants	Control	Control	Control	Plants
Rating Data Type										Percent	Percent	Percent	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Unit																	
Rating Timing																	
Trt-Eval Interval										0 DA-C	21 DA-C	EOS	EOS	0 DA-C	21 DA-C	EOS	EOS
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
1	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	96 ab	83 f	99 a	0.5 a	99 a	97 b	99 a	0.0 b
1	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12-14"CN	C								
1	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
2	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	92 abc	88 de	99 a	0.0 b	99 a	99 a	99 a	0.0 b
2	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12-14"CN	C								
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
3	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	83 cd	88 de	99 a	0.0 b	99 a	99 a	99 a	0.0 b
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-14"CN	C								
3	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
3	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
4	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	92 abc	96 abc	99 a	0.0 b	99 a	99 a	99 a	0.0 b
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-14"CN	C								
4	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
4	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
5	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	83 cd	98 ab	99 a	0.2 b	99 a	99 a	99 a	0.0 b
5	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	12-14"CN	C								
5	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
5	DESTINY HC MSO	100	SL	0.5	% v/v	0.5	% v/v	12-14"CN	C								
5	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
6	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	95 ab	98 ab	99 a	0.0 b	99 a	99 a	99 a	0.0 b
6	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	12-14"CN	C								
6	AATREX NINE-O	90	WG	0.5	lb ai/a	0.556	lb/a	12-14"CN	C								
6	DESTINY HC MSO	100	SL	0.5	% v/v	0.5	% v/v	12-14"CN	C								
6	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
7	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	91 abc	93 bcd	99 a	0.0 b	99 a	99 a	99 a	0.0 b
7	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	12-14"CN	C								
7	STATUS	56	WG	0.105	lb ai/a	3	oz/a	12-14"CN	C								
7	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	12-14"CN	C								
7	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
8	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	PRE	A	94 abc	96 abc	99 a	0.0 b	99 a	99 a	99 a	0.0 b
8	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	12-14"CN	C								
8	STATUS	56	WG	0.105	lb ai/a	3	oz/a	12-14"CN	C								
8	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	12-14"CN	C								
8	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C								
9	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	67 e	87 ef	99 a	0.0 b	91 cd	96 c	99 a	0.2 b
9	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	2"W	B								
9	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
10	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	67 e	98 a	99 a	0.0 b	83 e	99 a	99 a	0.0 b
10	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	2"W	B								
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
11	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	85 bcd	90 de	99 a	0.0 b	95 abc	99 a	99 a	0.0 b
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2"W	B								
11	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
12	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	87 bcd	95 abc	99 a	0.0 b	96 ab	99 a	99 a	0.0 b
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2"W	B								
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
13	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	79 d	99 a	99 a	0.0 b	93 bcd	99 a	99 a	0.2 b
13	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2"W	B								
13	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B								
13	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
14	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	83 cd	99 a	99 a	0.0 b	99 a	99 a	99 a	0.0 b
14	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2"W	B								
14	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B								
14	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								

Glyphosate- and Glufosinate-Resistant Corn Weed Management Systems.

Trial ID: 08-2C-ME90

Location: Belleville Res. Center

Pest Code	XANST	XANST	XANST	XANST	AMATA	AMATA	AMATA	AMATA
Crop Code								
Rating Date	07-04-08	07-25-08	10-16-08	10-16-08	07-04-08	07-25-08	10-16-08	10-16-08
Rating Data Type	Control	Control	Control	Plants	Control	Control	Control	Plants
Rating Unit	Percent	Percent	Percent	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Timing								
Trt-Eval Interval	0 DA-C	21 DA-C	EOS	EOS	0 DA-C	21 DA-C	EOS	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
15	BICEP II MAG	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	63 e	92 cd	99 a	0.0 b	91 cd	99 a	99 a	0.0 b
15	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2"W	B								
15	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B								
15	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
16	LEXAR	3.7	SC	1.85	lb ai/a	2	qt/a	2"W	B	62 e	98 ab	99 a	0.0 b	89 d	99 a	99 a	0.0 b
16	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2"W	B								
16	PRIME OIL COC	100	SL	1	% v/v	1	% v/v	2"W	B								
16	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B								
17	NONTREATED									0 f	0 g	0 b	0.0 b	0 f	0 d	0 b	0.8 a
18	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	98 a	98 a	99 a	0.0 b	99 a	99 a	99 a	0.0 b
18	WEED FREE																
LSD (P=.05)										11.3	5.0	0.0	0.23	4.9	1.0	0.0	0.28
Replicate F										1.923	4.849	0.000	0.239	1.366	1.059	0.000	1.178
Replicate Prob(F)										0.1618	0.0140	1.0000	0.7884	0.2687	0.3580	1.0000	0.3201
Treatment F										33.849	170.986	0.000	2.310	187.147	4893.971	0.000	4.327
Treatment Prob(F)										0.0001	0.0001	1.0000	0.0185	0.0001	0.0001	1.0000	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

Trial Comments

1. Protocol: Purdue/OSU/UW/SIU.
2. Ratings: CI/WC at 0 and 21 da"C" and at harvest; weed counts at harvest.
3. Yield.
4. DA-C = Days after the 12-14"CN application. IPOSS = Morningglory species including IPOHE and IPOLA.
EOS = End of season. 0.5 m2 = 0.5 square meter.
5. At the Belleville Research Center the above normal rainfall in spring 2008 (no more than four consecutive rain-free days between March 22 and June 15) delayed corn and soybean planting until mid-June.
6. Following the PRE application on June 16, rainfall was 0.29 inch 4 days later and 0.35 inch 11 days later.
7. Harvested 11-19-08, (2) 30 inch rows by 25 ft.