

Glyphosate- and Glufosinate-Resistant Corn Weed Management Systems.

Trial ID: 09-51W-N90

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: 06-27-09

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 Description: RR/LL
 Planting Method: SEEDDED Planting Date: 06-27-09
 Rate, Unit: 28000 S/A Depth, Unit: 1.5 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: AMBTR Ambrosia trifida L. ragweed, giant
 Pest 2 Type: W Code: IPOSS morningglory, species
 Pest 3 Type: W Code: ABUTH Abutilon theophrasti Medicus velvetleaf
 Pest 4 Type: W Code: GGGAN grasses, annual
 Pest 5 Type: W Code: CYPES Cyperus esculentus L. nutsedge, yellow

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. GLXMA 2008

Field Prep./Maintenance: N 150 LB/A, P2O5 0 LB/A, K2O 100 LB/A

% OM: 2.2 Texture: SILT LOAM
 pH: 6.5 Soil Name: PIERRON
 CEC: 11 Fert. Level: P1: 94 LB/A, K: 396 LB/A

	Application Description					
	A		B		C	
Application Date:	06-28-09	07-08-09	07-16-09			
Time of Day:	19:30	8:00	13:00			
Application Method:	Spray	Spray	Spray			
Application Timing:	PRE	2"W	12-14"CN			
Application Placement:	BROSOI	BROFOL	BROFOL			
Applied By:	DKP	NVH	NVH			
Air Temperature, Unit:	80 F	76 F	83 F			
% Relative Humidity:	56	92	68			
Wind Velocity, Unit:	3 MPH	2 MPH	3 MPH			
Wind Direction:	N	W	SW			
Dew Presence (Y/N):	N	Y	N			
Soil Moisture:	NORMAL	ABONOR	NORMAL			
% Cloud Cover:	0	0	10			

	06-28-09	07-08-09	07-16-09
Crop stage at application:	NA	V2	V4
Height Min, Max (inch):		6 8	12 14

	Pest Stage At Each Application					
	06-28-09		07-08-09		07-16-09	
Application Date:	06-28-09	07-08-09	07-16-09			
Weed Code:	AMBTR	AMBTR	AMBTR			
Stage Majority (leaves):	NA	2	1			
Stage Min, Max:		COTY 2	COTY 2			
Height Majority:		1.5 IN	1 IN			
Height Min, Max:		1 2	0.75 2			
Density, Unit:		1 FT2	0.1 FT2			
Weed Code:	IPOSS	IPOSS	IPOSS			
Stage Majority (leaves):	NA	COTY	1			
Stage Min, Max:		COTY 1	COTY 2			
Height Majority:		1 IN	1 IN			
Height Min, Max:		1 1.5	0.5 2			
Density, Unit:		0.3 FT2	0.1 FT2			
Weed Code:	ABUTH	ABUTH	ABUTH			
Stage Majority (leaves):	NA	COTY	COTY			
Stage Min, Max:		COTY 1	COTY 1			
Height Majority:		0.75 IN	0.5 IN			
Height Min, Max:		0.5 1	0.5 1			
Density, Unit:		0.02 FT2	.001 FT2			
Weed Code:	GGGAN	GGGAN	GGGAN			
Stage Majority (leaves):	NA	NA	1			
Stage Min, Max:			COTY 4			
Height Majority:			0.5 IN			
Height Min, Max:			0.25 3			
Density, Unit:			.001 FT2			
Weed Code:	CYPES	CYPES	CYPES			
Stage Majority (leaves):	NA	4	3			
Stage Min, Max:		3 5	2 6			
Height Majority:		4 IN	2 IN			
Height Min, Max:		3 6	1.5 4			
Density, Unit:		2 FT2	.002 FT2			

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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 07-12-09
Moisture
Percent

ZEAMD 07-12-09
Yield
bu/A

ZEAMD 07-16-09
Injury
Percent

ZEAMD 08-06-09
Injury
Percent

ZEAMD 10-15-09
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					
1	BICEP II MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	23.6	ab	137	ab	0 a
1	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12-14"CN	C					0 a
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	22.6	b	148	a	0 a
2	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	12-14"CN	C					0 a
2	N-PAK AMS	100	SL	5	% v/v	5	% v/v	12-14"CN	C					
3	BICEP II MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	24.2	a	135	ab	0 a
3	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-14"CN	C					0 a
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	23.7	ab	144	a	0 a
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	12-14"CN	C					0 a
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 MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	24.1	a	141	ab	0 a
5	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	12-14"CN	C					0 a
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	23.4	ab	145	a	0 a
6	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	12-14"CN	C					0 a
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 MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	24.0	a	137	ab	0 a
7	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	12-14"CN	C					0 a
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	23.8	ab	133	ab	0 a
8	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	12-14"CN	C					0 a
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 MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	24.0	a	127	b	0 a
9	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	2"W	B					0 a
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	23.8	ab	140	ab	0 a
10	ROUNDUP P-MAX	4.5	SL	0.75	lb ae/a	21.3	fl oz/a	2"W	B					0 a
10	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B					
11	BICEP II MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	23.2	ab	137	ab	0 a
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2"W	B					0 a
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	24.2	a	141	ab	0 a
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2"W	B					0 a
12	N-PAK AMS	100	SL	5	% v/v	5	% v/v	2"W	B					
13	BICEP II MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	23.8	ab	134	ab	0 a
13	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2"W	B					0 a
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	23.9	a	137	ab	0 a
14	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2"W	B					0 a
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	ZEAMD	ZEAMD	ZEAMD	ZEAMD
07-12-09	07-12-09	07-16-09	08-06-09	10-15-09
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					
15	BICEP II MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	23.3	ab	140	ab	0 a
15	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2"W	B					0 a
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	23.2	ab	134	ab	0 a
16	STEADFAST	75	WG	0.035	lb ai/a	0.75	oz/a	2"W	B					0 a
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									23.6	ab	102	c	0 a
18	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	23.1	ab	142	ab	0 a
18	WEED FREE													0 a
LSD (P=.05)										1.30		17.1		0.0
Replicate F										0.969		21.663		0.000
Replicate Prob(F)										0.3896		0.0001		1.0000
Treatment F										0.958		2.823		0.000
Treatment Prob(F)										0.5216		0.0049		1.0000

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

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										AMBTR	AMBTR	AMBTR	AMBTR	IPOSS	IPOSS	IPOSS	IPOSS
Pest Code										07-16-09	08-06-09	10-15-09	10-15-09	07-16-09	08-06-09	10-15-09	10-15-09
Crop Code										Control	Control	Control	Plants	Control	Control	Control	Plants
Rating Date										Percent	Percent	Percent	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Data Type																	
Rating Unit																	
Rating Timing																	
Trt-Eval Interval										0 DA-C	21 DA-C	EOS	EOS	0 DA-C	21 DA-C	EOS	EOS
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl									
No.	Name	Conc	Type	Unit	Rate	Rate	Stage	Code									
1	BICEP II MAGNUM	5.5	SC	1.65 lb ai/a	1.2 qt/a		PRE	A	96 b	93 abc	97 def	1.0 cde	97 abc	95 a	98 bc	0.3 bc	
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	96 bc	95 abc	97 cde	0.3 de	97 abc	97 a	98 bc	0.3 bc	
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 MAGNUM	5.5	SC	1.65 lb ai/a	1.2 qt/a		PRE	A	94 d	93 abc	96 ef	1.3 b-e	97 ab	96 a	98 bc	1.0 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	96 bc	96 ab	98 a-d	0.7 cde	94 d	95 a	98 cd	0.3 bc	
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 MAGNUM	5.5	SC	1.65 lb ai/a	1.2 qt/a		PRE	A	95 bcd	93 bc	99 ab	0.3 de	96 bcd	95 a	98 b	0.7 bc	
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 bcd	95 abc	98 a-d	0.3 de	95 cd	96 a	99 a	0.0 c	
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 MAGNUM	5.5	SC	1.65 lb ai/a	1.2 qt/a		PRE	A	94 d	92 bc	97 b-e	1.0 cde	98 a	96 a	98 b	0.3 bc	
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	95 cd	94 abc	97 def	0.7 cde	98 a	96 a	98 b	0.3 bc	
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 MAGNUM	5.5	SC	1.65 lb ai/a	1.2 qt/a		2"W	B	96 bc	82 d	93 i	2.7 b	99 a	94 ab	99 a	0.0 c	
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	96 bc	93 bc	96 ef	1.3 b-e	99 a	96 a	99 a	0.0 c	
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 MAGNUM	5.5	SC	1.65 lb ai/a	1.2 qt/a		2"W	B	95 bcd	83 d	90 j	2.7 b	99 a	88 c	97 de	0.3 bc	
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	96 b	91 bc	94 hi	1.7 bcd	99 a	96 a	98 bc	0.3 bc	
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 MAGNUM	5.5	SC	1.65 lb ai/a	1.2 qt/a		2"W	B	96 b	90 c	95 gh	2.0 bc	99 a	95 a	97 e	0.3 bc	
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	96 bc	94 abc	95 fg	1.7 bcd	99 a	94 ab	98 cd	0.7 bc	
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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										AMBTR	AMBTR	AMBTR	AMBTR	IPOSS	IPOSS	IPOSS	IPOSS
Pest Code										07-16-09	08-06-09	10-15-09	10-15-09	07-16-09	08-06-09	10-15-09	10-15-09
Crop Code										Control	Control	Control	Plants	Control	Control	Control	Plants
Rating Date										Percent	Percent	Percent	0.5 m2	Percent	Percent	Percent	0.5 m2
Rating Data Type																	
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								
15	BICEP II MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	96 bc	82 d	91 j	2.7 b	99 a	89 bc	98 b	0.0 c
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	96 b	92 bc	98 abc	0.3 de	99 a	95 a	98 bc	0.3 bc
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 e	0 e	0 k	11.7 a	0 e	0 d	0 f	2.3 a
18	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	99 a	99 a	99 a	0.0 e	99 a	99 a	99 a	0.0 c
18	WEED FREE																
LSD (P=.05)										1.6	5.8	1.5	1.34	2.3	5.1	0.6	0.91
Replicate F										1.175	3.783	1.046	2.609	1.869	0.289	0.415	3.029
Replicate Prob(F)										0.3212	0.0328	0.3623	0.0883	0.1698	0.7510	0.6639	0.0616
Treatment F										1702.746	122.458	1826.354	31.637	854.115	164.320	11996.855	2.985
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0032

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

Glyphosate- and Glufosinate-Resistant Corn Weed Management Systems.

Trial ID: 09-51W-N90

Location: Belleville Res. Center

									ABUTH	ABUTH	GGGAN	GGGAN	CYPES	CYPES
Pest Code									07-16-09	08-06-09	07-16-09	08-06-09	07-16-09	08-06-09
Crop Code									Control	Control	Control	Control	Control	Control
Rating Date									Percent	Percent	Percent	Percent	Percent	Percent
Rating Data Type														
Rating Unit														
Rating Timing														
Trt-Eval Interval									0 DA-C	21 DA-C	0 DA-C	21 DA-C	0 DA-C	21 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	BICEP II MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	98 ab	97 abc	99 b	99 a	97 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	98 ab	98 ab	99 a	99 a	97 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 MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	98 ab	98 abc	99 a	99 a	96 ab
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	99 a	98 ab	99 a	99 a	97 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 MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	97 b	97 abc	99 a	96 a	97 abc
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	98 ab	99 a	99 a	96 a	99 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 MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	PRE	A	99 a	98 abc	99 a	99 a	98 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	98 ab	98 ab	99 a	99 a	98 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 MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	99 a	96 bc	99 a	99 a	94 cd
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	99 a	98 ab	99 a	97 a	99 ab
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 MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	99 a	97 abc	99 a	99 a	96 abc
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	99 a	98 ab	99 a	99 a	98 ab
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 MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	98 ab	97 abc	99 a	99 a	93 d
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	99 a	99 a	99 a	95 a	96 abc
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: 09-51W-N90

Location: Belleville Res. Center

Pest Code	ABUTH	ABUTH	GGGAN	GGGAN	CYPES	CYPES
Crop Code						
Rating Date	07-16-09	08-06-09	07-16-09	08-06-09	07-16-09	08-06-09
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Timing						
Trt-Eval Interval	0 DA-C	21 DA-C	0 DA-C	21 DA-C	0 DA-C	21 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
15	BICEP II MAGNUM	5.5	SC	1.65	lb ai/a	1.2	qt/a	2"W	B	99 a	95 c	99 a	99 a	96 bcd	77 d
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	99 a	98 abc	99 a	99 a	96 bcd	84 bcd
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 c	0 d	0 c	0 b	0 e	0 e
18	LEXAR	3.7	SC	2.78	lb ai/a	3	qt/a	PRE	A	99 a	99 a	99 a	99 a	99 a	99 a
18	WEED FREE														
LSD (P=.05)										1.4	2.9	0.2	3.7	3.3	12.2
Replicate F										3.099	0.880	1.000	1.794	2.482	0.798
Replicate Prob(F)										0.0581	0.4239	0.3784	0.1817	0.0986	0.4585
Treatment F										2440.567	510.501	88175.071	324.972	401.373	29.921
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	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, count per species but not weed size.
3. Yield.
4. GGGAN = Annual grasses including SETFA (giant foxtail) and PANDI (fall panicum).
IPOSS = Morningglory species including IPOHE (ivyleaf morningglory) and PHBPU (tall morningglory).
EOS = End of season. 0.5 m2 = 0.5 square meter.
For weed counts at the end of season, only AMBTR and IPOSS were found, no other weeds were present.
5. Harvested 12-12-09, (2) 30 inch rows by 24 ft.