

Effect of Three-Way Tank-Mixes on Weed Control when Soil-Applied in LL Soybean.

Trial ID: 16-52-ME130 Location: Belleville Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 6-9-16
Completion Date: 8-19-16

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Objectives:

Evaluate the efficacy of three-way soil herbicide combinations on weed control in a Liberty Link soybean system.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: P37T09L **BBCH Scale:** BSOY
Description: LL
Planting Rate, Unit: 140000 S/A **Planting Date:** 6-9-16
Depth, Unit: 1 IN **Planting Method:** SEEDED
Row Spacing, Unit: 30 IN

Pest Description

Pest 1 Type: W **Code:** ABUTH **Abutilon theophrasti** Medik.
Common Name: velvetleaf
Pest 2 Type: W **Code:** IPOHE **Ipomoea hederacea** (L.) Jacq.
Common Name: morningglory, ivyleaf
Pest 3 Type: W **Code:** GGGAN
Common Name: grasses, annual
Description: Mixture of SETFA 50% and PANDI 50%

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 25 FT **Total Plot Length:** 25 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOB� Randomized Complete Block (RCB)
Untreated Arrangement: NONE control is other than an untreated

No.	Previous Crop	Year
1.	ZEAMD	2015

Maintenance

No.	Maintenance Product Name
1.	N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Description

Description Name: 52_2013
% OM: 2.6 **Texture:** SIL silt loam
pH: 6.9 **Soil Name:** Pierron
CEC: 7

Additional Measured Elements

Element	Quantity	Unit
P1	77	lb/A
K	326	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

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No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-16					7	DAY	32	75	F
2.	4-6-16	0.49	IN	RAIN	rain	1	DAY			
3.	4-8-16					7	DAY	28	71	F
4.	4-10-16	0.97	IN	RAIN	rain	2	DAY			
5.	4-15-16					7	DAY	48	81	F
6.	4-20-16	0.45	IN	RAIN	rain	3	DAY			
7.	4-22-16					7	DAY	47	85	F
8.	4-26-16	1.74	IN	RAIN	rain	2	DAY			
9.	4-29-16					7	DAY	46	75	F
10.	4-29-16	1.94	IN	RAIN	rain	2	DAY			
11.	5-4-16	0.02	IN	RAIN	rain	1	DAY			
12.	5-6-16					7	DAY	44	87	F
13.	5-7-16	0.07	IN	RAIN	rain	1	DAY			
14.	5-9-16	2.12	IN	RAIN	rain	5	DAY			
15.	5-13-16					7	DAY	41	76	F
16.	5-16-16	1.06	IN	RAIN	rain	2	DAY			
17.	5-20-16					7	DAY	51	83	F
18.	5-20-16	0.06	IN	RAIN	rain	1	DAY			
19.	5-25-16	0.68	IN	RAIN	rain	3	DAY			
20.	5-27-16					7	DAY	62	88	F
21.	5-31-16	0.03	IN	RAIN	rain	2	DAY			
22.	6-3-16					7	DAY	55	89	F
23.	6-3-16	0.01	IN	RAIN	rain	1	DAY			
24.	6-4-16	0.72	IN	RAIN	rain	1	DAY			
25.	6-10-16					7	DAY	65	96	F
26.	6-13-16	0.03	IN	RAIN	rain	1	DAY			
27.	6-17-16					7	DAY	67	97	F
28.	6-21-16	0.01	IN	RAIN	rain	1	DAY			
29.	6-24-16					7	DAY	57	95	F
30.	6-25-16	0.02	IN	RAIN	rain	1	DAY			
31.	6-30-16	0.03	IN	RAIN	rain	1	DAY			
32.	7-1-16					7	DAY	60	91	F
33.	7-1-16	2.26	IN	RAIN	rain	4	DAY			
34.	7-6-16	0.32	IN	RAIN	rain	3	DAY			
35.	7-8-16					7	DAY	67	93	F
36.	7-13-16	0.49	IN	RAIN	rain	2	DAY			
37.	7-15-16					7	DAY	68	93	F
38.	7-17-16	0.02	IN	RAIN	rain	1	DAY			
39.	7-19-16	1.47	IN	RAIN	rain	2	DAY			
40.	7-22-16					7	DAY	72	94	F
41.	7-25-16	0.1	IN	RAIN	rain	1	DAY			
42.	7-29-16					7	DAY	69	91	F
43.	7-31-16	0.52	IN	RAIN	rain	3	DAY			
44.	8-3-16	0.75	IN	RAIN	rain	1	DAY			
45.	8-5-16					7	DAY	66	93	F
46.	8-5-16	0.06	IN	RAIN	rain	1	DAY			
47.	8-12-16					7	DAY	68	91	F
48.	8-12-16	4.85	IN	RAIN	rain	5	DAY			
49.	8-19-16					7	DAY	57	93	F

Comment:

Rainfall was recorded on station and provided by Illinois Climate Network.
Air temperature was recorded at Scott Air Force Base 2.5 miles north and provided by NOAA's National Centers for Environmental Information.
Air temperatures given are summarized as weekly high and low, detailed weather data is available on request.

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Application Description

	A	B
Application Date:	6-10-16	6-24-16
Appl. Start Time:	14:00	14:00
Appl. Stop Time:	15:00	15:00
Application Method:	Spray	Spray
Application Timing:	PRE	4-6"W
Application Placement:	BROSOI	BROFOL
Applied By:	BD	RFK
Air Temperature, Unit:	92 F	91 F
% Relative Humidity:	44	42
Wind Velocity, Unit:	3 MPH	2 MPH
Wind Direction:	S	W
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	75 F	80 F
Soil Moisture:	NORMAL	BELNOR
% Cloud Cover:	0	25
Next Moisture Occurred On:	6-30-16	6-30-16
Time to Next Moisture, Unit:	20 DAY	6 DAY

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	NA	V3
Stage Minimum, Percent:		V2
Stage Maximum, Percent:		V3
Height, Unit:		5 IN
Height Minimum, Maximum:		3 5

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W
Stage Majority, Percent:	NA	4
Stage Minimum, Percent:		3
Stage Maximum, Percent:		4
Height, Unit:		4 IN
Height Minimum, Maximum:		3 5
Density, Unit:		0.1 FT2
Pest 2 Code, Type, Scale:	IPOHE W	IPOHE W
Stage Majority, Percent:	NA	5
Stage Minimum, Percent:		4
Stage Maximum, Percent:		8
Height, Unit:		4 IN
Height Minimum, Maximum:		3 5
Density, Unit:		0.1 FT2
Pest 3 Code, Type, Scale:	GGGAN W	GGGAN W
Stage Majority, Percent:	NA	4
Stage Minimum, Percent:		3
Stage Maximum, Percent:		4
Height, Unit:		5 IN
Height Minimum, Maximum:		2 6
Density, Unit:		4.5 FT2

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Trial ID: 16-52-ME130 Location: Belleville Res. Center Trial Year: 2016
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	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	XR	XR
Nozzle Size:	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA

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Pest Code							GLXMA	ABUTH	ABUTH	ABUTH		
Crop Code							7-8-16	7-8-16	7-22-16	8-19-16		
Rating Date							Injury	Control	Control	Control		
Rating Type							Percent	Percent	Percent	Percent		
Rating Unit							14 DA-B	14 DA-B	28 DA-B	56 DA-B		
Rating Timing												
Trt-Eval Interval							28 DA-A	28 DA-A	42 DA-A	70 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Stage	Appl Code				
1	NO PRE HERBICIDE								0 a	87 cd	76 f	76 f
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
2	PREFIX	5.29	EC	1.65 lb ai/a	2.5 pt/a	PRE	A		0 a	93 abc	88 cde	88 cde
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
3	PREFIX	5.29	EC	1.65 lb ai/a	2.5 pt/a	PRE	A		0 a	89 bcd	85 def	85 def
	CLASSIC	25	WG	0.02 lb ai/a	1.28 oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
4	PREFIX	5.29	EC	1.65 lb ai/a	2.5 pt/a	PRE	A		0 a	92 a-d	90 a-d	90 a-d
	FIRSTRATE	84	WG	0.031 lb ai/a	0.6 oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
5	PREFIX	5.29	EC	1.65 lb ai/a	2.5 pt/a	PRE	A		0 a	98 a	97 abc	97 abc
	PURSUIT	2	SL	0.063 lb ai/a	4 fl oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
6	PREFIX	5.29	EC	1.65 lb ai/a	2.5 pt/a	PRE	A		0 a	97 ab	96 a-d	96 a-d
	SCEPTER	70	WG	0.125 lb ai/a	2.86 oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
7	BOUNDARY	6.5	EC	1.63 lb ai/a	2 pt/a	PRE	A		0 a	92 a-d	90 a-d	90 a-d
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
8	BOUNDARY	6.5	EC	1.63 lb ai/a	2 pt/a	PRE	A		0 a	92 a-d	88 a-e	88 a-e
	CLASSIC	25	WG	0.02 lb ai/a	1.28 oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
9	BOUNDARY	6.5	EC	1.63 lb ai/a	2 pt/a	PRE	A		0 a	92 a-d	88 b-e	88 b-e
	FIRSTRATE	84	WG	0.031 lb ai/a	0.6 oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
10	BOUNDARY	6.5	EC	1.63 lb ai/a	2 pt/a	PRE	A		0 a	92 a-d	91 a-d	91 a-d
	PURSUIT	2	SL	0.063 lb ai/a	4 fl oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
11	BOUNDARY	6.5	EC	1.63 lb ai/a	2 pt/a	PRE	A		0 a	89 bcd	88 b-e	88 b-e
	SCEPTER	70	WG	0.125 lb ai/a	2.86 oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					
12	FIERCE	76	WG	0.1544 lb ai/a	3.25 oz/a	PRE	A		0 a	97 ab	98 abc	98 abc
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	4-6"W	B					
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v	4-6"W	B					

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

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Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	GLXMA 7-8-16 Injury Percent 14 DA-B	ABUTH 7-8-16 Control Percent 14 DA-B	ABUTH 7-22-16 Control Percent 28 DA-B	ABUTH 8-19-16 Control Percent 56 DA-B
							28 DA-A	28 DA-A	42 DA-A	70 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Stage	Appl Code		
13	FIERCE	76	WG	0.1544 lb ai/a	3.25 oz/a		PRE	A	0 a	99 a
	CLASSIC	25	WG	0.02 lb ai/a	1.28 oz/a		PRE	A		99 ab
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B		99 ab
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B		
14	FIERCE	76	WG	0.1544 lb ai/a	3.25 oz/a		PRE	A	0 a	99 a
	FIRSTRATE	84	WG	0.031 lb ai/a	0.6 oz/a		PRE	A		99 ab
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B		99 ab
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B		
15	FIERCE	76	WG	0.1544 lb ai/a	3.25 oz/a		PRE	A	0 a	99 a
	PURSUIT	2	SL	0.063 lb ai/a	4 fl oz/a		PRE	A		99 a
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B		99 a
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B		
16	FIERCE	76	WG	0.1544 lb ai/a	3.25 oz/a		PRE	A	0 a	99 a
	SCEPTER	70	WG	0.125 lb ai/a	2.86 oz/a		PRE	A		99 a
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B		99 a
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B		
17	AUTHORITY XL	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	0 a	99 a
	DUAL MAGNUM	7.62	EC	1.27 lb ai/a	1.33 pt/a		PRE	A		98 abc
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B		98 abc
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B		
18	AUTHORITY XL	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	0 a	99 a
	ZIDUA	85	WG	0.086 lb ai/a	1.62 oz/a		PRE	A		99 a
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B		99 a
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B		
19	AUTHORITY FIRST DF	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	0 a	99 a
	DUAL MAGNUM	7.62	EC	1.27 lb ai/a	1.33 pt/a		PRE	A		99 ab
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B		99 ab
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B		
20	AUTHORITY FIRST DF	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	0 a	94 abc
	ZIDUA	85	WG	0.086 lb ai/a	1.62 oz/a		PRE	A		97 abc
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B		97 abc
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B		
21	FIERCE XLT	62.41	WG	0.176 lb ai/a	4.5 oz/a		PRE	A	0 a	99 a
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B		99 a
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B		
22	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B	0 a	84 d
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B		77 ef
LSD P=.05										8.9
Standard Deviation										6.3
CV										7.8
Replicate F										8.45
Replicate Prob(F)										0.000
Treatment F										4.188
Treatment Prob(F)										0.0091
										3.724
										0.0157
										3.264
										0.0001

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OS.
Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

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Pest Code							IPOHE	IPOHE	IPOHE	GGGAN	GGGAN			
Crop Code							7-8-16	7-22-16	8-19-16	7-22-16	8-19-16			
Rating Date							Control	Control	Control	Control	Control			
Rating Type							Percent	Percent	Percent	Percent	Percent			
Rating Unit							14 DA-B	28 DA-B	56 DA-B	28 DA-B	56 DA-B			
Rating Timing														
Trt-Eval Interval							28 DA-A	42 DA-A	70 DA-A	42 DA-A	70 DA-A			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	NO PRE HERBICIDE LIBERTY 280 AMS - LIQUID	2.34 EC 100 SL		0.53 lb ai/a 5 % v/v		29 fl oz/a 5 % v/v		4-6"W 4-6"W	B B	78 d	74 e	74 e	87 bc	87 bc
2	PREFIX LIBERTY 280 AMS - LIQUID	5.29 EC 2.34 EC 100 SL		1.65 lb ai/a 0.53 lb ai/a 5 % v/v		2.5 pt/a 29 fl oz/a 5 % v/v		PRE 4-6"W 4-6"W	A B B	94 abc	90 a-d	90 a-d	94 ab	94 ab
3	PREFIX CLASSIC LIBERTY 280 AMS - LIQUID	5.29 EC 25 WG 2.34 EC 100 SL		1.65 lb ai/a 0.02 lb ai/a 0.53 lb ai/a 5 % v/v		2.5 pt/a 1.28 oz/a 29 fl oz/a 5 % v/v		PRE PRE 4-6"W 4-6"W	A A B B	94 abc	89 bcd	89 bcd	86 c	86 c
4	PREFIX FIRSTRATE LIBERTY 280 AMS - LIQUID	5.29 EC 84 WG 2.34 EC 100 SL		1.65 lb ai/a 0.031 lb ai/a 0.53 lb ai/a 5 % v/v		2.5 pt/a 0.6 oz/a 29 fl oz/a 5 % v/v		PRE PRE 4-6"W 4-6"W	A A B B	95 abc	92 a-d	92 a-d	93 abc	93 abc
5	PREFIX PURSUIT LIBERTY 280 AMS - LIQUID	5.29 EC 2 SL 2.34 EC 100 SL		1.65 lb ai/a 0.063 lb ai/a 0.53 lb ai/a 5 % v/v		2.5 pt/a 4 fl oz/a 29 fl oz/a 5 % v/v		PRE PRE 4-6"W 4-6"W	A A B B	95 abc	91 a-d	91 a-d	99 a	99 a
6	PREFIX SCEPTER LIBERTY 280 AMS - LIQUID	5.29 EC 70 WG 2.34 EC 100 SL		1.65 lb ai/a 0.125 lb ai/a 0.53 lb ai/a 5 % v/v		2.5 pt/a 2.86 oz/a 29 fl oz/a 5 % v/v		PRE PRE 4-6"W 4-6"W	A A B B	87 c	90 a-d	90 a-d	97 a	97 a
7	BOUNDARY LIBERTY 280 AMS - LIQUID	6.5 EC 2.34 EC 100 SL		1.63 lb ai/a 0.53 lb ai/a 5 % v/v		2 pt/a 29 fl oz/a 5 % v/v		PRE 4-6"W 4-6"W	A B B	87 c	85 cd	85 cd	93 abc	93 abc
8	BOUNDARY CLASSIC LIBERTY 280 AMS - LIQUID	6.5 EC 25 WG 2.34 EC 100 SL		1.63 lb ai/a 0.02 lb ai/a 0.53 lb ai/a 5 % v/v		2 pt/a 1.28 oz/a 29 fl oz/a 5 % v/v		PRE PRE 4-6"W 4-6"W	A A B B	89 c	85 cd	85 cd	93 abc	93 abc
9	BOUNDARY FIRSTRATE LIBERTY 280 AMS - LIQUID	6.5 EC 84 WG 2.34 EC 100 SL		1.63 lb ai/a 0.031 lb ai/a 0.53 lb ai/a 5 % v/v		2 pt/a 0.6 oz/a 29 fl oz/a 5 % v/v		PRE PRE 4-6"W 4-6"W	A A B B	99 ab	92 abc	92 abc	97 a	97 a
10	BOUNDARY PURSUIT LIBERTY 280 AMS - LIQUID	6.5 EC 2 SL 2.34 EC 100 SL		1.63 lb ai/a 0.063 lb ai/a 0.53 lb ai/a 5 % v/v		2 pt/a 4 fl oz/a 29 fl oz/a 5 % v/v		PRE PRE 4-6"W 4-6"W	A A B B	93 abc	90 a-d	90 a-d	95 ab	95 ab
11	BOUNDARY SCEPTER LIBERTY 280 AMS - LIQUID	6.5 EC 70 WG 2.34 EC 100 SL		1.63 lb ai/a 0.125 lb ai/a 0.53 lb ai/a 5 % v/v		2 pt/a 2.86 oz/a 29 fl oz/a 5 % v/v		PRE PRE 4-6"W 4-6"W	A A B B	91 bc	88 cd	88 cd	97 a	97 a
12	FIERCE LIBERTY 280 AMS - LIQUID	76 WG 2.34 EC 100 SL		0.1544 lb ai/a 0.53 lb ai/a 5 % v/v		3.25 oz/a 29 fl oz/a 5 % v/v		PRE 4-6"W 4-6"W	A B B	99 ab	99 ab	99 ab	99 a	99 a

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

Effect of Three-Way Tank-Mixes on Weed Control when Soil-Applied in LL Soybean.

Trial ID: 16-52-ME130 Location: Belleville Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.

Pest Code								IPOHE	IPOHE	IPOHE	GGGAN	GGGAN
Crop Code								7-8-16	7-22-16	8-19-16	7-22-16	8-19-16
Rating Date								Control	Control	Control	Control	Control
Rating Type								Percent	Percent	Percent	Percent	Percent
Rating Unit								14 DA-B	28 DA-B	56 DA-B	28 DA-B	56 DA-B
Rating Timing												
Trt-Eval Interval								28 DA-A	42 DA-A	70 DA-A	42 DA-A	70 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Stage	Appl Code				
13	FIERCE	76	WG	0.1544 lb ai/a	3.25 oz/a		PRE	A	99 a	99 a	99 a	99 a
	CLASSIC	25	WG	0.02 lb ai/a	1.28 oz/a		PRE	A				
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B				
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B				
14	FIERCE	76	WG	0.1544 lb ai/a	3.25 oz/a		PRE	A	99 ab	98 ab	98 ab	98 a
	FIRSTRATE	84	WG	0.031 lb ai/a	0.6 oz/a		PRE	A				
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B				
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B				
15	FIERCE	76	WG	0.1544 lb ai/a	3.25 oz/a		PRE	A	99 a	99 a	99 a	99 a
	PURSUIT	2	SL	0.063 lb ai/a	4 fl oz/a		PRE	A				
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B				
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B				
16	FIERCE	76	WG	0.1544 lb ai/a	3.25 oz/a		PRE	A	99 a	99 a	99 a	94 ab
	SCEPTER	70	WG	0.125 lb ai/a	2.86 oz/a		PRE	A				
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B				
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B				
17	AUTHORITY XL	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	99 a	99 a	99 a	99 a
	DUAL MAGNUM	7.62	EC	1.27 lb ai/a	1.33 pt/a		PRE	A				
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B				
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B				
18	AUTHORITY XL	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	99 a	99 a	99 a	99 a
	ZIDUA	85	WG	0.086 lb ai/a	1.62 oz/a		PRE	A				
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B				
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B				
19	AUTHORITY FIRST DF	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	99 a	99 a	99 a	99 a
	DUAL MAGNUM	7.62	EC	1.27 lb ai/a	1.33 pt/a		PRE	A				
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B				
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B				
20	AUTHORITY FIRST DF	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	99 a	99 ab	99 ab	98 a
	ZIDUA	85	WG	0.086 lb ai/a	1.62 oz/a		PRE	A				
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B				
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B				
21	FIERCE XLT	62.41	WG	0.176 lb ai/a	4.5 oz/a		PRE	A	99 a	94 abc	94 abc	98 a
	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B				
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B				
22	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a		4-6"W	B	89 c	82 de	82 de	88 bc
	AMS - LIQUID	100	SL	5 % v/v	5 % v/v		4-6"W	B				
LSD P=.05								8.0	9.7	9.7	7.7	7.7
Standard Deviation								5.6	6.9	6.9	5.4	5.4
CV								5.97	7.43	7.43	5.67	5.67
Replicate F								3.970	4.812	4.812	4.952	4.952
Replicate Prob(F)								0.0118	0.0044	0.0044	0.0038	0.0038
Treatment F								4.088	4.057	4.057	2.246	2.246
Treatment Prob(F)								0.0001	0.0001	0.0001	0.0072	0.0072

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

Effect of Three-Way Tank-Mixes on Weed Control when Soil-Applied in LL Soybean.

Trial ID: 16-52-ME130 Location: Belleville Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: SIU/RFK.
2. Ratings:
CI 14, and 28 DA-A; 0, 14, 28, and 56 DA-B.
WC 14, and 28 DA-A; 0, 14, 28, and 56 DA-B.
Rate before spray application B.
3. Yield to be determined.
4. Photos not requested, but as appropriate, probably at 0 DA-B if differences.
Photos of crop injury from application A if differences would be a good idea.
5. Rainfall following the PRE application A was 2.61 inch over 9 days beginning 20 days later.
Rainfall following the 4-6"W application B was 2.61 inch over 9 days beginning 6 days later.
6. Because there was no rainfall for the PRE application A for more than 2 weeks after application, the 4-6"W application B was applied as a blanket application to the entire area at 14 DA-A.
The planned 14 DA-A and 0 DA-B ratings were not made, PREs were not activated.
7. Not harvested.