

Liberty Link Soybean Product Concepts.

Trial ID: 12-2B-W60

Location: Belleville Res. Center

Investigator: Bryan Young

General Trial Information

Study Director: Bryan Young
Investigator: Bryan Young **Title:** Professor

Trial Status: F - one-year/final
Initiation Date: 5-22-12

Trial Location

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

Objectives:

Evaluate the efficacy of several product concepts with Liberty in Liberty Link soybean.

Personnel

Study Director: Bryan Young
Investigator: Bryan Young **Title:** Professor
Affiliation: Southern Illinois University
Address: 1205 Lincoln Drive - AG 176 - MC 4415
Location: Carbondale IL
Postal Code: 62901 **E-mail:** bgyoung@siu.edu
Phone No.: 618-453-7679 **Mobile No.:** 618-713-6471

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: HS 43L12 **Description:** LL
BBCH Scale: BSOY **Planting Date:** 5-22-12
Planting Method: SEEDED Seeded **Rate, Unit:** 75 LB/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN

Pest Description

Pest 1 Type: W **Code:** AMBTR - Ambrosia trifida L.
Common Name: ragweed, giant

Pest 2 Type: W **Code:** IPOSS
Common Name: morningglory, species
Description: Mostly IPOHE, some PHBPU (tall mg.)

Pest 3 Type: W **Code:** GGGAN
Common Name: grasses, annual
Description: Mixture of SETFA and PANDI

Pest 4 Type: W **Code:** AMATA - Amaranthus rudis Sauer
Common Name: waterhemp, common

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 28 FT
Plot Area, Unit: 280 FT2 **Tillage Type:** REDTIL reduced-till
Replications: 3 **Study Design:** RACOB� Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2011

Maintenance

No.	Maintenance Treatment Name
1.	N 0 LB/A, P205 50 LB/A, K20 150 LB/A

Soil Description

% OM: 1.6 **Texture:** SIL SILT LOAM
pH: 6.8 **Soil Name:** PIERRON
CEC: 8

Additional Measured Elements

Element	Quantity	Unit
P1	77	LB/A
K	252	LB/A

Southern Illinois University

Liberty Link Soybean Product Concepts.

Trial ID: 12-2B-W60

Location: Belleville Res. Center

Investigator: Bryan Young

Moisture and Weather Conditions

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

No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-24-12					7	DAY	42.6	74.3	F
2.	4-29-12	3.06	IN	RAIN	rain					
3.	4-30-12	0.66	IN	RAIN	rain					
4.	5-1-12	0.13	IN	RAIN	rain					
5.	5-1-12					7	DAY	33.5	76	F
6.	5-4-12	0.25	IN	RAIN	rain					
7.	5-7-12	0.29	IN	RAIN	rain					
8.	5-8-12					7	DAY	47.5	87.8	F
9.	5-15-12					7	DAY	37.7	81.3	F
10.	5-21-12	0.18	IN	RAIN	rain					
11.	5-22-12					7	DAY	47.6	82.3	F
12.	5-29-12					7	DAY	48.1	90	F
13.	5-30-12	0.07	IN	RAIN	rain					
14.	5-31-12	0.21	IN	RAIN	rain					
15.	6-5-12					7	DAY	50.2	90.1	F
16.	6-11-12	0.75	IN	RAIN	rain					
17.	6-12-12					7	DAY	52.4	93.6	F
18.	6-17-12	0.36	IN	RAIN	rain					
19.	6-19-12					7	DAY	56.3	94	F
20.	6-26-12					7	DAY	51.8	105.4	F
21.	7-3-12					7	DAY	68.9	104.7	F
22.	7-8-12	0.28	IN	RAIN	rain					
23.	7-10-12					7	DAY	63.4	95	F
24.	7-17-12					7	DAY	61	102.2	F
25.	7-24-12					7	DAY	61	103	F
26.	7-29-12	0.15	IN	RAIN	rain					
27.	7-31-12					7	DAY	60.2	99.1	F
28.	8-5-12	0.18	IN	RAIN	rain					
29.	8-7-12					7	DAY	50.2	99.8	F
30.	8-13-12	0.88	IN	RAIN	rain					
31.	8-14-12					7	DAY	51	95.6	F
32.	8-17-12	1.19	IN	RAIN	rain					
33.	8-21-12					7	DAY	54.7	94.2	F
34.	8-26-12	0.04	IN	RAIN	rain					
35.	8-27-12	1.66	IN	RAIN	rain					
36.	8-31-12	0.11	IN	RAIN	rain					

Application Description

	A	B	C	D	E	F	G
Application Date:	5-23-12	6-11-12	6-20-12	6-25-12	6-25-12	7-3-12	7-2-12
Time of Day:	18:30	6:45	7:00	8:15	8:15	10:00	10:00
Application Method:	Spray	Spray	Spray	Spray	Spray	Spray	Spray
Application Timing:	PRE	10-14DAE	V3	12"W	12-16DA-B	3-4"W-IN	5-7DA-D
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	RJW	LAH	RFK	JRK	JRK	TAR	TAR
Air Temperature, Unit:	76 F	74 F	76 F	81 F	81 F	92 F	91 F
% Relative Humidity:	40	94	71	63	63	50	54
Wind Velocity, Unit:	8 MPH	4 MPH	3 MPH	3 MPH	3 MPH	3 MPH	0 MPH
Wind Direction:	S	S	S	NE	NE	W	
Dew Presence (Y/N):	N no	N no	N no	N no	N no	N no	N no
Soil Temperature, Unit:	67 F	73 F	77 F	77 F	77 F	81 F	81 F
Soil Moisture:	BELNOR	BELNOR	NORMAL	NORMAL	NORMAL	BELNOR	BELNOR
% Cloud Cover:	10	50	0	5	5	0	0
Next Rain Occurred On:	5-31-12	6-11-12	7-8-12	7-8-12	7-8-12	7-8-12	7-8-12

Southern Illinois University

Liberty Link Soybean Product Concepts.

Trial ID: 12-2B-W60

Location: Belleville Res. Center

Investigator: Bryan Young

Crop Stage At Each Application							
	A	B	C	D	E	F	G
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:	DESC	DESC	DESC	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	V2	V3	V5	V5	V6	V6
Stage Minimum, Percent:		V1	V3	V4	V4	V5	V5
Stage Maximum, Percent:		V2	V3	V5	V5	V6	V6
Height, Unit:		7 IN	9 IN	12 IN	12 IN	12 IN	12 IN
Height Minimum, Maximum:		4 7	6 9	8 12	8 12	10 12	10 12

Pest Stage At Each Application							
	A	B	C	D	E	F	
Pest 1 Code, Type, Scale:	AMBTR W DESC	AMBTR W DESC	AMBTR W DESC	AMBTR W DESC	AMBTR W DESC	AMBTR W DESC	AMBTR W DESC
Stage Majority, Percent:	NA	6	10+	10	10	10+	
Stage Minimum, Percent:		4	4	2	2	4	
Stage Maximum, Percent:		8	10+	15	15	10+	
Height, Unit:		3 IN	6 IN	13 IN	13 IN	4 IN	4 IN
Height Minimum, Maximum:		2 6	2 8	4 16	4 16	4 6	
Density, Unit:		2 FT2	0.5 FT2	0.5 FT2	0.5 FT2	0.001 FT2	
Pest 2 Code, Type, Scale:	IPOSS W DESC	IPOSS W DESC	IPOSS W DESC	IPOSS W DESC	IPOSS W DESC	IPOSS W DESC	IPOSS W DESC
Stage Majority, Percent:	NA	NA	2	2	6	6	
Stage Minimum, Percent:			2	Coty	Coty	4	
Stage Maximum, Percent:			8	2	8	8	
Height, Unit:			1 IN	1 IN	2 IN	3 IN	
Height Minimum, Maximum:			1 4	0.5 1	1 3	1 3	
Density, Unit:			4 FT2	0.01 FT2	0.1 FT2	0.001 FT2	
Pest 3 Code, Type, Scale:	GGGAN W DESC	GGGAN W DESC	GGGAN W DESC	GGGAN W DESC	GGGAN W DESC	GGGAN W DESC	GGGAN W DESC
Stage Majority, Percent:	NA	3	10+	NA	5	NA	
Stage Minimum, Percent:		2	2		2		
Stage Maximum, Percent:		6	10+		7		
Height, Unit:		3 IN	10 IN		6 IN		
Height Minimum, Maximum:		0.5 4	3 10		1 8		
Density, Unit:		0.5 FT2	1 FT2		0.3 FT2		
Pest 4 Code, Type, Scale:	AMATA W DESC	AMATA W DESC	AMATA W DESC	AMATA W DESC	AMATA W DESC	AMATA W DESC	AMATA W DESC
Stage Majority, Percent:	NA	4	10+	4	15	NA	
Stage Minimum, Percent:		2	10	2	4		
Stage Maximum, Percent:		6	10+	6	20		
Height, Unit:		2 IN	8 IN	2 IN	8 IN		
Height Minimum, Maximum:		0.5 3	4 12	1 3	3 12		
Density, Unit:		0.1 FT2	0.01 FT2	0.01 FT2	0.01 FT2		

Liberty Link Soybean Product Concepts.

Trial ID: 12-2B-W60

Location: Belleville Res. Center

Investigator: Bryan Young

	G	
Pest 1 Code, Type, Scale:	AMBTR	W DESC
Stage Majority, Percent:	10	
Stage Minimum, Percent:	2	
Stage Maximum, Percent:	15	
Height, Unit:	12	IN
Height Minimum, Maximum:	4	16
Density, Unit:	0.5	FT2
Pest 2 Code, Type, Scale:	IPOSS	W DESC
Stage Majority, Percent:	6	
Stage Minimum, Percent:	Coty	
Stage Maximum, Percent:	8	
Height, Unit:	2	IN
Height Minimum, Maximum:	1	3
Density, Unit:	0.1	FT2
Pest 3 Code, Type, Scale:	GGGAN	W DESC
Stage Majority, Percent:	5	
Stage Minimum, Percent:	2	
Stage Maximum, Percent:	7	
Height, Unit:	6	IN
Height Minimum, Maximum:	1	8
Density, Unit:	0.3	FT2
Pest 4 Code, Type, Scale:	AMATA	W DESC
Stage Majority, Percent:	15	
Stage Minimum, Percent:	4	
Stage Maximum, Percent:	20	
Height, Unit:	8	IN
Height Minimum, Maximum:	3	12
Density, Unit:	0.01	FT2

Application Equipment						
	A	B	C	D	E	F
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR	XR	XR	XR
Nozzle Size:	8002	8002	8002	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA

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

Southern Illinois University

Liberty Link Soybean Product Concepts.

Trial ID: 12-2B-W60

Location: Belleville Res. Center

Investigator: Bryan Young

Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	GLXMA 5-29-12 Injury Percent	GLXMA 6-5-12 Injury Percent	GLXMA 6-19-12 Injury Percent	GLXMA 7-3-12 Injury Percent	GLXMA 7-17-12 Injury Percent
							7 DAP	14 DAP	28 DAP	42 DAP	56 DAP
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Stage	Appl Code			
1	NONTREATED								0 a	0 a	0 c
2	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	0 a	11 ab
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B			0 e
	DUAL II MAGNUM	7.64 EC		1.27 lb ai/a	21.3 fl oz/a		10-14DAE	B			0 b
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B			
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F			
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F			
3	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	0 a	10 b
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B			0 e
	DUAL II MAGNUM	7.64 EC		1.24 lb ai/a	1.3 pt/a		10-14DAE	B			0 b
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B			
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		12-16DA-B	E			
	WARRANT	3 CS		1.13 lb ai/a	3 pt/a		12-16DA-B	E			
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12-16DA-B	E			
4	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	0 a	0 c
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		V3	C			4 d
	DUAL II MAGNUM	7.64 EC		1.24 lb ai/a	1.3 pt/a		V3	C			0 b
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		V3	C			
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F			
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F			
5	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	0 a	11 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B			0 e
	ZIDUA	85 WG		0.133 lb ai/a	2.5 oz/a		10-14DAE	B			0 b
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B			
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F			
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F			
6	LIBERTY 280	2.34 EC		0.79 lb ai/a	43 fl oz/a		12"W	D			3 d
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D			0 b
	LIBERTY 280	2.34 EC		0.79 lb ai/a	43 fl oz/a		5-7DA-D	G			
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		5-7DA-D	G			
7	LIBERTY 280	2.34 EC		0.66 lb ai/a	36 fl oz/a		12"W	D			3 d
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D			0 b
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		5-7DA-D	G			
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		5-7DA-D	G			
8	LIBERTY 280	2.34 EC		1.59 lb ai/a	87 fl oz/a		12"W	D			6 c
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D			3 a
9	BOUNDARY	6.5 EC		1.63 lb ai/a	2 pt/a		PRE	A	0 a	0 a	0 c
	PREFIX	5.29 EC		1.65 lb ai/a	2.5 pt/a		V3	C			14 a
	NIS (ACTIVATOR 90)	100 SL		0.25 % v/v	0.25 % v/v		V3	C			3 a
10	FIERCE XLT	55.68 WG		0.104 lb ai/a	3 oz/a		PRE	A	0 a	0 a	0 c
	FLEXSTAR	1.88 EC		0.352 lb ai/a	1.5 pt/a		V3	C			12 b
	MSO (MSO ULTRA)	100 SL		1 % v/v	1 % v/v		V3	C			0 b
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		V3	C			
LSD (P=.05)							0.0	0.0	1.2	1.3	1.4
Standard Deviation							0.0	0.0	0.7	0.8	0.8
CV							0.0	0.0	14.58	18.39	140.44
Replicate F							0.000	0.000	0.000	0.503	1.000
Replicate Prob(F)							1.0000	1.0000	1.0000	0.6129	0.3874
Treatment F							0.000	0.000	220.429	131.453	6.789
Treatment Prob(F)							1.0000	1.0000	0.0001	0.0001	0.0003

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Southern Illinois University

Liberty Link Soybean Product Concepts.

Trial ID: 12-2B-W60

Location: Belleville Res. Center

Investigator: Bryan Young

Pest Code	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR								
Crop Code	5-29-12	6-5-12	6-19-12	7-3-12	7-17-12								
Rating Date	Control	Control	Control	Control	Control								
Rating Type	Percent	Percent	Percent	Percent	Percent								
Rating Unit													
Rating Timing													
Trt-Eval Interval	7 DAP	14 DAP	28 DAP	42 DAP	56 DAP								
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	NONTREATED								0 a	0 a	0 b	0 e	0 c
2	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	10 a	98 a	98 ab	99 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B					
	DUAL II MAGNUM	7.64 EC		1.27 lb ai/a	21.3 fl oz/a		10-14DAE	B					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B					
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F					
3	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	10 a	99 a	99 a	99 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B					
	DUAL II MAGNUM	7.64 EC		1.24 lb ai/a	1.3 pt/a		10-14DAE	B					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B					
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		12-16DA-B	E					
	WARRANT	3 CS		1.13 lb ai/a	3 pt/a		12-16DA-B	E					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12-16DA-B	E					
4	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	3 a	3 b	98 ab	99 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		V3	C					
	DUAL II MAGNUM	7.64 EC		1.24 lb ai/a	1.3 pt/a		V3	C					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		V3	C					
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F					
5	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	7 a	98 a	98 ab	99 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B					
	ZIDUA	85 WG		0.133 lb ai/a	2.5 oz/a		10-14DAE	B					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B					
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F					
6	LIBERTY 280	2.34 EC		0.79 lb ai/a	43 fl oz/a		12"W	D			95 bc		99 a
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D					
	LIBERTY 280	2.34 EC		0.79 lb ai/a	43 fl oz/a		5-7DA-D	G					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		5-7DA-D	G					
7	LIBERTY 280	2.34 EC		0.66 lb ai/a	36 fl oz/a		12"W	D			93 c		99 a
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D					
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		5-7DA-D	G					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		5-7DA-D	G					
8	LIBERTY 280	2.34 EC		1.59 lb ai/a	87 fl oz/a		12"W	D			96 abc		99 a
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D					
9	BOUNDARY	6.5 EC		1.63 lb ai/a	2 pt/a		PRE	A	0 a	0 a	0 b	89 d	78 b
	PREFIX	5.29 EC		1.65 lb ai/a	2.5 pt/a		V3	C					
	NIS (ACTIVATOR 90)	100 SL		0.25 % v/v	0.25 % v/v		V3	C					
10	FIERCE XLT	55.68 WG		0.104 lb ai/a	3 oz/a		PRE	A	0 a	0 a	0 b	96 abc	97 a
	FLEXSTAR	1.88 EC		0.352 lb ai/a	1.5 pt/a		V3	C					
	MSO (MSO ULTRA)	100 SL		1 % v/v	1 % v/v		V3	C					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		V3	C					
LSD (P=.05)									0.0	11.2	4.1	3.6	8.6
Standard Deviation									0.0	6.3	2.3	2.1	5.0
CV									0.0	146.99	5.41	2.46	5.79
Replicate F									0.000	3.240	0.750	0.185	0.763
Replicate Prob(F)									1.0000	0.0750	0.4933	0.8325	0.4808
Treatment F									0.0000	1.6000	1535.572	618.141	115.383
Treatment Prob(F)									1.0000	0.2298	0.0001	0.0001	0.0001

Southern Illinois University

Liberty Link Soybean Product Concepts.

Trial ID: 12-2B-W60

Location: Belleville Res. Center

Investigator: Bryan Young

Pest Code							IPOSS	IPOSS	IPOSS	IPOSS	IPOSS		
Crop Code							5-29-12	6-5-12	6-19-12	7-3-12	7-17-12		
Rating Date							Control	Control	Control	Control	Control		
Rating Type							Percent	Percent	Percent	Percent	Percent		
Rating Unit							7 DAP	14 DAP	28 DAP	42 DAP	56 DAP		
Rating Timing													
Trt-Eval Interval													
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code					
1	NONTREATED								0 a	0 c	0 c	0 c	0 d
2	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	13 b	98 a	98 a	99 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B					
	DUAL II MAGNUM	7.64 EC		1.27 lb ai/a	21.3 fl oz/a		10-14DAE	B					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B					
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F					
3	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	30 a	98 a	99 a	99 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B					
	DUAL II MAGNUM	7.64 EC		1.24 lb ai/a	1.3 pt/a		10-14DAE	B					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B					
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		12-16DA-B	E					
	WARRANT	3 CS		1.13 lb ai/a	3 pt/a		12-16DA-B	E					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12-16DA-B	E					
4	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	20 ab	20 b	99 a	99 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		V3	C					
	DUAL II MAGNUM	7.64 EC		1.24 lb ai/a	1.3 pt/a		V3	C					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		V3	C					
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F					
5	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	0 a	10 bc	99 a	99 a	99 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B					
	ZIDUA	85 WG		0.133 lb ai/a	2.5 oz/a		10-14DAE	B					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B					
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F					
6	LIBERTY 280	2.34 EC		0.79 lb ai/a	43 fl oz/a		12"W	D			99 a	99 a	
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D					
	LIBERTY 280	2.34 EC		0.79 lb ai/a	43 fl oz/a		5-7DA-D	G					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		5-7DA-D	G					
7	LIBERTY 280	2.34 EC		0.66 lb ai/a	36 fl oz/a		12"W	D			98 a	99 a	
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D					
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		5-7DA-D	G					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		5-7DA-D	G					
8	LIBERTY 280	2.34 EC		1.59 lb ai/a	87 fl oz/a		12"W	D			98 a	99 a	
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D					
9	BOUNDARY	6.5 EC		1.63 lb ai/a	2 pt/a		PRE	A	0 a	0 c	0 c	85 b	95 c
	PREFIX	5.29 EC		1.65 lb ai/a	2.5 pt/a		V3	C					
	NIS (ACTIVATOR 90)	100 SL		0.25 % v/v	0.25 % v/v		V3	C					
10	FIERCE XLT	55.68 WG		0.104 lb ai/a	3 oz/a		PRE	A	0 a	17 b	7 c	96 a	97 b
	FLEXSTAR	1.88 EC		0.352 lb ai/a	1.5 pt/a		V3	C					
	MSO (MSO ULTRA)	100 SL		1 % v/v	1 % v/v		V3	C					
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		V3	C					
LSD (P=.05)							0.0	10.5	8.3	3.3	1.1		
Standard Deviation							0.0	5.9	4.7	1.9	0.6		
CV							0.0	45.96	10.11	2.18	0.71		
Replicate F							0.000	1.636	0.272	1.082	1.000		
Replicate Prob(F)							1.0000	0.2353	0.7662	0.3599	0.3874		
Treatment F							0.000	10.000	339.943	794.801	7265.417		
Treatment Prob(F)							1.0000	0.0004	0.0001	0.0001	0.0001		

Southern Illinois University

Liberty Link Soybean Product Concepts.

Trial ID: 12-2B-W60

Location: Belleville Res. Center

Investigator: Bryan Young

Pest Code							GGGAN	GGGAN	GGGAN	AMATA	AMATA	AMATA
Crop Code							6-19-12	7-3-12	7-17-12	6-19-12	7-3-12	7-17-12
Rating Date							Control	Control	Control	Control	Control	Control
Rating Type							Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit							28 DAP	42 DAP	56 DAP	28 DAP	42 DAP	56 DAP
Rating Timing												
Trt-Eval Interval												
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	NONTREATED								0 d	0 e	0 e	0 b
2	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	98 a	98 a	99 a	98 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B				
	DUAL II MAGNUM	7.64 EC		1.27 lb ai/a	21.3 fl oz/a		10-14DAE	B				
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B				
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F				
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F				
3	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	98 a	99 a	99 a	98 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B				
	DUAL II MAGNUM	7.64 EC		1.24 lb ai/a	1.3 pt/a		10-14DAE	B				
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B				
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		12-16DA-B	E				
	WARRANT	3 CS		1.13 lb ai/a	3 pt/a		12-16DA-B	E				
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12-16DA-B	E				
4	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	23 b	98 a	99 a	7 b
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		V3	C				
	DUAL II MAGNUM	7.64 EC		1.24 lb ai/a	1.3 pt/a		V3	C				
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		V3	C				
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F				
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F				
5	AUTHORITY FIRST	70 WG		0.284 lb ai/a	6.5 oz/a		PRE	A	98 a	98 a	99 a	99 a
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		10-14DAE	B				
	ZIDUA	85 WG		0.133 lb ai/a	2.5 oz/a		10-14DAE	B				
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		10-14DAE	B				
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		3-4"W-IN	F				
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		3-4"W-IN	F				
6	LIBERTY 280	2.34 EC		0.79 lb ai/a	43 fl oz/a		12"W	D		83 c	99 a	93 b
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D				
	LIBERTY 280	2.34 EC		0.79 lb ai/a	43 fl oz/a		5-7DA-D	G				
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		5-7DA-D	G				
7	LIBERTY 280	2.34 EC		0.66 lb ai/a	36 fl oz/a		12"W	D		82 c	99 a	92 b
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D				
	LIBERTY 280	2.34 EC		0.53 lb ai/a	29 fl oz/a		5-7DA-D	G				
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		5-7DA-D	G				
8	LIBERTY 280	2.34 EC		1.59 lb ai/a	87 fl oz/a		12"W	D		89 b	98 b	93 b
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		12"W	D				
9	BOUNDARY	6.5 EC		1.63 lb ai/a	2 pt/a		PRE	A	7 cd	23 d	60 d	0 b
	PREFIX	5.29 EC		1.65 lb ai/a	2.5 pt/a		V3	C				99 a
	NIS (ACTIVATOR 90)	100 SL		0.25 % v/v	0.25 % v/v		V3	C				99 a
10	FIERCE XLT	55.68 WG		0.104 lb ai/a	3 oz/a		PRE	A	13 c	27 d	70 c	0 b
	FLEXSTAR	1.88 EC		0.352 lb ai/a	1.5 pt/a		V3	C				98 a
	MISO (MISO ULTRA)	100 SL		1 % v/v	1 % v/v		V3	C				98 a
	N-PAK AMS	3.4 SL		1.5 lb ai/a	1.5 lb ai/a		V3	C				
LSD (P=.05)							8.9	5.1	0.6	7.8	2.9	2.3
Standard Deviation							5.0	3.0	0.4	4.4	1.7	1.3
CV							10.39	4.27	0.44	10.22	1.96	1.52
Replicate F							2.280	1.526	1.000	1.011	1.943	0.512
Replicate Prob(F)							0.1448	0.2443	0.3874	0.3927	0.1757	0.6077
Treatment F							265.790	482.878	23327.918	413.812	967.491	1597.335
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Liberty Link Soybean Product Concepts.

Trial ID: 12-2B-W60

Location: Belleville Res. Center

Investigator: Bryan Young

Trial Comments

1. Protocol: Bayer (MRA).
2. Ratings: CI/WC at 7, 14, 28, 42, and 56 DAP.
3. GGGAN = Annual grasses including SETFA (giant foxtail) and PANDI (fall panicum).
IPOSS = Morningglory species including IPOHE (ivyleaf morningglory) and PHBPU (tall morningglory).
4. For weed control ratings at 7 DAP weed pressure was light and variable.
5. Rainfall following the PRE application was 0.28 inch 8 days later and 0.75 inch 19 days later.
Rainfall following the 10-14DAE application was 0.75 inch on the same day, 4 hours after application,
0.36 inch 6 days later, and 0.28 inch 27 days later.
6. Not harvested.