

Liberty Link Soybean Evaluation.

Trial ID: 11-2A-E65

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: 6-6-11

Objectives: Evaluate residual herbicides with the first application of Ignite compared with either a preemergence followed by postemergence or postemergence applications alone

Crop 1: GLXMA Soybean Variety: HS 42L02 Description: LL  
 Planting Method: SEEDED Planting Date: 6-6-11  
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN  
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: SETFA Setaria faberi Herrm. foxtail, giant  
 Pest 2 Type: W Code: CYPES Cyperus esculentus L. nutsedge, yellow  
 Pest 3 Type: W Code: AMBTR Ambrosia trifida L. ragweed, giant  
 Pest 4 Type: W Code: XANST Xanthium strumarium L. cocklebur, common  
 Pest 5 Type: W Code: AMBEL Ambrosia artemisiifolia L. ragweed, common  
 Pest 6 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common

Plot Width, Unit: 10 FT Site Type: FIELD  
 Plot Length, Unit: 28 FT Tillage Type: REDUCED-TILL  
 Replications: 3 Study Design: Randomized Complete Block

Prior Crops, Year  
 1. ZEAMD 2010

Field Prep./Maintenance: N 0 LB/A, P205 50 LB/A, K20 150 LB/A

% OM: 1.6 Texture: SILT LOAM  
 pH: 5.9 Soil Name: PIERRON  
 CEC: 6 Fert. Level: P1:41 LB/A, K:257 LB/A

Application Description

	A	B	C
Application Date:	6-7-11	6-24-11	7-1-11
Time of Day:	10:00	8:45	6:45
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	V1-2	3-4"W
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	MJA	MJA	CME
Air Temperature, Unit:	91 F	72 F	74 F
% Relative Humidity:	45	62	84
Wind Velocity, Unit:	7 MPH	7 MPH	0 MPH
Wind Direction:	SW	NW	
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	76 F	74 F	78 F
Soil Moisture:	NORMAL	ABONOR	NORMAL
% Cloud Cover:	0	0	0

Crop stage at application: 7-6-11 24-6-11 1-7-11  
 Height Min, Max (inch): NA V1-V2 V2  
 3 6 4 7

Pest Stage At Each Application

	6-7-11	6-24-11	7-1-11
Application Date:	6-7-11	6-24-11	7-1-11
Weed Code:	SETFA	SETFA	SETFA
Stage Majority (leaves):	NA	NA	NA
Weed Code:	CYPES	CYPES	CYPES
Stage Majority (leaves):	NA	6	5
Stage Min, Max:		3 7	3 10
Height Majority:		4 IN	3 IN
Height Min, Max:		1 6	1 6
Density, Unit:		0.1 FT2	0.2 FT2
Weed Code:	AMBTR	AMBTR	AMBTR
Stage Majority (leaves):	NA	4	4
Stage Min, Max:		coty 6	3 8
Height Majority:		2 IN	3 IN
Height Min, Max:		1 4	1 6
Density, Unit:		1 FT2	0.1 FT2
Weed Code:	XANST	XANST	XANST
Stage Majority (leaves):	NA	5	5
Stage Min, Max:		coty 6	3 6
Height Majority:		3 IN	2 IN
Height Min, Max:		1 4	1 4
Density, Unit:		1 FT2	0.1 FT2
Weed Code:	AMBEL	AMBEL	AMBEL
Stage Majority (leaves):	NA	4	3
Stage Min, Max:		coty 5	4 8
Height Majority:		0.5 IN	2 IN
Height Min, Max:		0.5 2	1 4
Density, Unit:		0.5 FT2	0.1 FT2
Weed Code:	AMATA	AMATA	AMATA
Stage Majority (leaves):	NA	NA	NA

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**Application Equipment**

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

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Pest Code												SETFA	SETFA	SETFA											
Crop Code												GLXMA	GLXMA	GLXMA											
Rating Date												10-21-11	10-21-11	6-29-11	7-8-11	8-5-11									
Rating Data Type												Moisture	Yield	Injury	Injury	Injury									
Rating Unit												Percent	bu/A	Percent	Percent	Percent									
Rating Timing																	5 DA-B	14 DA-B	35 DA-C						
Trt-Eval Interval																	-1 DA-C	14 DA-B	35 DA-C						
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code																
1	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	12.8	b	53	a	0	d	0	b	0	a	98	a	99	a	95	a
1	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C																
1	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C																
2	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	12.5	b	50	a	0	d	0	b	0	a	97	a	99	a	87	c
2	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C																
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C																
3	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	12.8	b	54	a	11	a	4	a	0	a	98	a	99	a	92	abc
3	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	V1-2	B																
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B																
4	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	12.7	b	55	a	6	b	4	a	0	a	97	a	98	a	93	ab
4	DUAL II MAGNUM	7.64	EC	1.27	lb ai/a	1.33	pt/a	V1-2	B																
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B																
5	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	12.9	b	58	a	0	d	0	b	0	a	96	a	99	a	87	c
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B																
5	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C																
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C																
6	VALOR XLT	40.3	WG			3	oz/a	PRE	A	12.5	b	54	a	0	d	0	b	0	a	98	a	99	a	88	bc
6	VALOR SX	51	WG	0.056	lb ai/a			PRE	A																
6	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A																
6	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C																
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C																
7	AUTHORITY MTZ	45	WG	0.28	lb ai/a	10	oz/a	PRE	A	12.8	b	47	a	0	d	0	b	0	a	91	b	98	a	88	bc
7	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C																
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C																
8	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	12.6	b	54	a	4	c	1	b	0	a	98	a	99	a	94	a
8	ZIDUA	85	WG	0.106	lb ai/a	2	oz/a	V1-2	B																
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B																
9	NONTREATED									13.7	a	11	b	0	d	0	b	0	a	0	c	0	b	0	d
LSD (P=.05)										0.57		13.6		1.2		1.4		0.0		4.4		1.5		5.9	
Replicate F										0.342		0.178		0.308		0.384		0.000		1.741		0.571		1.208	
Replicate Prob(F)										0.7160		0.8385		0.7394		0.6875		1.0000		0.2070		0.5758		0.3246	
Treatment F										3.788		10.159		91.288		15.630		0.000		484.086		4180.072		237.216	
Treatment Prob(F)										0.0144		0.0001		0.0001		0.0001		1.0000		0.0001		0.0001		0.0001	

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

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Trial ID: 11-2A-E65

Location: Belleville Res. Center

Pest Code	CYPES	CYPES	CYPES	AMBTR	AMBTR	AMBTR
Crop Code						
Rating Date	6-30-11	7-8-11	8-5-11	6-30-11	7-8-11	8-5-11
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Timing						
Trt-Eval Interval	-1 DA-C	14 DA-B	35 DA-C	-1 DA-C	14 DA-B	35 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	95 a	99 a	84 a	73 b	99 a	93 a
1	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C						
1	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C						
2	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	97 a	96 ab	85 a	92 a	98 ab	93 a
2	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C						
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C						
3	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	50 bc	88 c	87 a	99 a	98 ab	88 a
3	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	V1-2	B						
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B						
4	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	63 b	89 bc	72 a	98 a	98 ab	93 a
4	DUAL II MAGNUM	7.64	EC	1.27	lb ai/a	1.33	pt/a	V1-2	B						
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B						
5	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	43 c	91 bc	92 a	98 a	99 a	93 a
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B						
5	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C						
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C						
6	VALOR XLT	40.3	WG			3	oz/a	PRE	A	99 a	99 a	94 a	97 a	99 a	93 a
6	VALOR SX	51	WG	0.056	lb ai/a			PRE	A						
6	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A						
6	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C						
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C						
7	AUTHORITY MTZ	45	WG	0.28	lb ai/a	10	oz/a	PRE	A	92 a	96 abc	87 a	62 b	98 ab	93 a
7	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C						
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C						
8	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	57 bc	89 bc	80 a	98 a	96 b	83 a
8	ZIDUA	85	WG	0.106	lb ai/a	2	oz/a	V1-2	B						
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B						
9	NONTREATED									0 d	0 d	0 b	0 c	0 c	0 b
LSD (P=.05)										13.4	7.8	21.9	18.2	2.7	11.4
Replicate F										4.175	3.240	3.752	2.618	1.459	2.589
Replicate Prob(F)										0.0348	0.0659	0.0461	0.1039	0.2618	0.1061
Treatment F										55.127	145.972	15.872	28.843	1360.271	64.267
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)

Liberty Link Soybean Evaluation.

Trial ID: 11-2A-E65

Location: Belleville Res. Center

Pest Code	XANST	XANST	XANST	AMBEL	AMBEL	AMBEL
Crop Code						
Rating Date	6-30-11	7-8-11	8-5-11	6-30-11	7-8-11	8-5-11
Rating Data Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent	Percent
Rating Timing						
Trt-Eval Interval	-1 DA-C	14 DA-B	35 DA-C	-1 DA-C	14 DA-B	35 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code											
1	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	63	b	98	ab	91	a					
1	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C											
1	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C											
2	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	96	a	99	a	95	a					
2	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C											
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C											
3	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	99	a	98	ab	87	ab					
3	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	V1-2	B											
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B											
4	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	98	a	96	b	73	b					
4	DUAL II MAGNUM	7.64	EC	1.27	lb ai/a	1.33	pt/a	V1-2	B											
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B											
5	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	98	a	99	a	95	a					
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B											
5	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C											
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C											
6	VALOR XLT	40.3	WG			3	oz/a	PRE	A	99	a	99	a	97	a					
6	VALOR SX	51	WG	0.056	lb ai/a			PRE	A											
6	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A											
6	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C											
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C											
7	AUTHORITY MTZ	45	WG	0.28	lb ai/a	10	oz/a	PRE	A	72	b	99	a	92	a					
7	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C											
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C											
8	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	99	a	99	a	83	ab					
8	ZIDUA	85	WG	0.106	lb ai/a	2	oz/a	V1-2	B											
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B											
9	NONTREATED									0	c	0	c	0	c					
LSD (P=.05)										14.6		2.3		13.8		5.8		0.0		13.1
Replicate F										0.675		1.095		1.203		0.899		0.000		1.593
Replicate Prob(F)										0.5229		0.3584		0.3259		0.4265		1.0000		0.2340
Treatment F										45.972		1836.621		43.989		285.343		0.000		50.926
Treatment Prob(F)										0.0001		0.0001		0.0001		0.0001		1.0000		0.0001

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

## Liberty Link Soybean Evaluation.

Trial ID: 11-2A-E65

Location: Belleville Res. Center

Pest Code	AMATA	AMATA	AMATA
Crop Code			
Rating Date	6-30-11	7-8-11	8-5-11
Rating Data Type	Control	Control	Control
Rating Unit	Percent	Percent	Percent
Rating Timing			
Trt-Eval Interval	-1 DA-C	14 DA-B	35 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	99 a	99 a	94 ab
1	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C			
1	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C			
2	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	99 a	99 a	94 ab
2	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C			
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C			
3	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	99 a	99 a	96 a
3	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	V1-2	B			
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B			
4	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	99 a	99 a	83 c
4	DUAL II MAGNUM	7.64	EC	1.27	lb ai/a	1.33	pt/a	V1-2	B			
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B			
5	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	99 a	99 a	88 bc
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B			
5	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C			
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C			
6	VALOR XLT	40.3	WG			3	oz/a	PRE	A	99 a	99 a	88 bc
6	VALOR SX	51	WG	0.056	lb ai/a			PRE	A			
6	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A			
6	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C			
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C			
7	AUTHORITY MTZ	45	WG	0.28	lb ai/a	10	oz/a	PRE	A	99 a	99 a	92 ab
7	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W	C			
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	C			
8	IGNITE 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V1-2	B	99 a	99 a	94 ab
8	ZIDUA	85	WG	0.106	lb ai/a	2	oz/a	V1-2	B			
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	V1-2	B			
9	NONTREATED									0 b	0 b	0 d
LSD (P=.05)										0.0	0.0	7.5
Replicate F										0.000	0.000	0.215
Replicate Prob(F)										1.0000	1.0000	0.8086
Treatment F										0.000	0.000	152.054
Treatment Prob(F)										1.0000	1.0000	0.0001

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

## Trial Comments

1. Protocol: Bayer (MRA).
2. CI at 5 and 14 DA-B and at 0 and 35 DA-C; WC at 14 DA-B and at 0 and 35 DA-C.
3. Yield.
4. Ratings at -1 DA-C were also 23 DA-A and 6 DA-B.  
Ratings at 14 DA-B were also 31 DA-A and 7 DA-C.  
Ratings at 35 DA-C were also 59 DA-A and 42 DA-B.
5. Harvested 10-21-11, (2) 30 inch rows by 25 ft.