

Liberty Link Soybean Programs - Glyphosate-Resistant Waterhemp - BRC Site 1.

Trial ID: 09-2A-W70

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: 06-30-09

Objectives: Determine which soil residual herbicide provides the greatest benefit for control of glyphosate-resistant waterhemp in a Liberty Link soybean system.

Crop 1: GLXMA Soybean Variety: S080122 Description: LL
 Planting Method: SEEDED Planting Date: 06-30-09
 Rate, Unit: 75 LB/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 30 IN

Pest 1 Type: W Code: GGGAN grasses, annual
 Pest 2 Type: W Code: AMATA Amaranthus rudis Sauer waterhemp, common
 Pest 3 Type: W Code: IPOHE Ipomoea hederacea (L.) Jacq. morningglory, ivyleaf
 Pest 4 Type: W Code: ABUTH Abutilon theophrasti Medicus velvetleaf
 Pest 5 Type: W Code: AMBEL Ambrosia artemisiifolia L. ragweed, common
 Pest 6 Type: W Code: AMBTR Ambrosia trifida L. ragweed, giant

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 2008

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

% OM: 1.6 Texture: SILT LOAM
 pH: 6.2 Soil Name: PIERRON
 CEC: 7 Fert. Level: P1:93 LB/A, K:448 LB/A

	Application Description			
	A	B	C	D
Application Date:	07-01-09	07-17-09	07-27-09	08-17-09
Time of Day:	6:00	6:00	8:30	11:00
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	3"W	22DAE	44DAE
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	DKP	DKP	NVH	DKP
Air Temperature, Unit:	70 F	68 F	70 F	85 F
% Relative Humidity:	92	82	92	92
Wind Velocity, Unit:	2 MPH	8 MPH	1 MPH	3 MPH
Wind Direction:	W	N	W	SW
Dew Presence (Y/N):	N	N	Y	N
Soil Moisture:	NORMAL	NORMAL	NORMAL	ABONOR
% Cloud Cover:	20	20	5	80
Crop stage at application:	NA	V1	V4	R1
Height Min, Max (inch):		3 6	6 8	20 22

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	Pest Stage At Each Application			
Application Date:	07-01-09	07-17-09	07-27-09	08-17-09
Weed Code:	GGGAN	GGGAN	GGGAN	GGGAN
Stage Majority (leaves):	NA	4	4	6
Stage Min, Max:		1 5	3 6	3 8
Height Majority:		3 IN	6 IN	8 IN
Height Min, Max:		0.5 4	3 9	4 13
Density, Unit:		4 FT2	0.8 FT2	0.5 FT2
Weed Code:	AMATA	AMATA	AMATA	AMATA
Stage Majority (leaves):	NA	COTY	5	6
Stage Min, Max:		COTY 2	3 8	4 8
Height Majority:		0.5 IN	3.5 IN	4 IN
Height Min, Max:		0.5 1	1 5	2 8
Density, Unit:		0.1 FT2	.001 FT2	.001 FT2
Weed Code:	IPOHE	IPOHE	IPOHE	IPOHE
Stage Majority (leaves):	NA	2	4	NA
Stage Min, Max:		COTY 2	2 6	
Height Majority:		3 IN	3.5 IN	
Height Min, Max:		1 3	2 4.5	
Density, Unit:		0.2 FT2	.001 FT2	
Weed Code:	ABUTH	ABUTH	ABUTH	ABUTH
Stage Majority (leaves):	NA	COTY	2	2
Stage Min, Max:		COTY 2	1 4	1 8
Height Majority:		1 IN	2 IN	2 IN
Height Min, Max:		0.5 2	1 3	1 16
Density, Unit:		0.2 FT2	.001 FT2	0.01 FT2
Weed Code:	AMBEL	AMBEL	AMBEL	AMBEL
Stage Majority (leaves):	NA	2	5	NA
Stage Min, Max:		COTY 4	2 8	
Height Majority:		3 IN	4.5 IN	
Height Min, Max:		0.5 4	3 7	
Density, Unit:		1.5 FT2	0.7 FT2	
Weed Code:	AMBTR	AMBTR	AMBTR	AMBTR
Stage Majority (leaves):	NA	2	4	NA
Stage Min, Max:		COTY 4	2 6	
Height Majority:		3 IN	4 IN	
Height Min, Max:		1 5	2.5 6	
Density, Unit:		0.1 FT2	.001 FT2	

Application Equipment

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

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Pest Code										GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Code										11-07-09	11-07-09	07-17-09	07-27-09	07-31-09	08-10-09
Rating Date										Moisture	Yield	Injury	Injury	Injury	Injury
Rating Data Type										Percent	bu/A	Percent	Percent	Percent	Percent
Rating Unit												16 DA-A	10 DA-B	4 DA-C	
Rating Timing												0 DA-B	0 DA-C	14 DA-B	14 DA-C
Trt-Eval Interval															
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NONTREATED									12.1 a	20 b	0 c	0 c	0 c	0 a
2	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	11.8 abc	46 a	5 a	2 ab	3 b	0 a
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
3	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	11.7 abc	45 a	5 a	3 a	4 b	0 a
3	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C						
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
4	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	11.7 bc	45 a	0 c	0 c	3 b	0 a
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
5	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	11.7 abc	42 a	0 c	0 c	5 a	0 a
5	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C						
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
6	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C	11.7 abc	46 a			6 a	0 a
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	3"W	B	11.7 abc	41 a		3 a	4 b	0 a
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3"W	B						
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
8	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	PRE	A	12.0 ab	42 a	0 c	0 c	3 b	0 a
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
9	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	11.7 abc	44 a	1 c	1 bc	3 b	0 a
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
10	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	11.7 abc	44 a	6 a	2 ab	3 b	0 a
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
11	VALOR XLT	40.3	WG			3	oz/a	PRE	A	11.6 c	46 a	3 b	2 abc	3 b	0 a
11	VALOR SX	51	WG	0.056	lb ai/a			PRE	A						
11	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A						
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
12	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	11.6 bc	47 a	5 a	2 abc	3 b	0 a
12	CLASSIC	25	WG	0.02	lb ai/a			PRE	A						
12	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A						
12	VALOR SX	51	WG	0.0635	lb ai/a			PRE	A						
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
13	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	PRE	A	11.9 abc	46 a	0 c	0 c	3 b	0 a
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
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Rating Date	Moisture	Yield	Injury	Injury	Injury	Injury
Rating Data Type	Percent	bu/A	Percent	Percent	Percent	Percent
Rating Unit			16 DA-A	10 DA-B	4 DA-C	
Rating Timing			0 DA-B	0 DA-C	14 DA-B	14 DA-C
Trt-Eval Interval						

Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
LSD (P=.05)					0.41	7.3	1.6	2.1	0.9	0.0
Replicate F					0.262	3.347	1.617	0.239	1.000	0.000
Replicate Prob(F)					0.7718	0.0522	0.2234	0.7896	0.3827	1.0000
Treatment F					1.130	7.784	20.059	3.199	16.500	0.000
Treatment Prob(F)					0.3829	0.0001	0.0001	0.0098	0.0001	1.0000

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

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Crop Code														
Rating Date										07-17-09	07-27-09	07-31-09	08-10-09	08-31-09
Rating Data Type										Control	Control	Control	Control	Control
Rating Unit										Percent	Percent	Percent	Percent	Percent
Rating Timing										16 DA-A	10 DA-B	4 DA-C		
Trt-Eval Interval										0 DA-B	0 DA-C	14 DA-B	14 DA-C	35 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	NONTREATED									0 d	0 d	0 e	0 e	0 e
2	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	97 a	93 b	97 a	97 c	97 abc
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
3	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	97 a	97 ab	97 a	98 bc	97 abc
3	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C					
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
4	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	96 abc	93 b	96 a	97 bc	98 abc
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
5	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	97 ab	94 b	96 a	97 c	96 c
5	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C					
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
6	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C			58 d	98 ab	97 bc
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	3"W	B		98 a	99 a	96 d	94 d
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3"W	B					
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
8	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	PRE	A	0 d	0 d	58 d	98 ab	98 ab
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
9	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	93 c	87 c	93 b	97 bc	98 abc
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
10	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	97 a	95 ab	97 a	99 a	99 ab
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
11	VALOR XLT	40.3	WG			3	oz/a	PRE	A	97 ab	96 ab	98 a	97 c	98 abc
11	VALOR SX	51	WG	0.056	lb ai/a			PRE	A					
11	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A					
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
12	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	97 ab	96 ab	98 a	97 c	97 abc
12	CLASSIC	25	WG	0.02	lb ai/a			PRE	A					
12	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A					
12	VALOR SX	51	WG	0.0635	lb ai/a			PRE	A					
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
13	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	PRE	A	94 bc	89 c	82 c	99 a	99 a
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					

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Crop Code					
Rating Date	07-17-09	07-27-09	07-31-09	08-10-09	08-31-09
Rating Data Type	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent
Rating Timing	16 DA-A	10 DA-B	4 DA-C		
Trt-Eval Interval	0 DA-B	0 DA-C	14 DA-B	14 DA-C	35 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Other Rate	Other Rate	Growth Unit	Stage	Appl Code
LSD (P=.05)				3.0	3.6	2.9	0.8	1.8	
Replicate F				1.681	0.870	0.327	0.117	0.826	
Replicate Prob(F)				0.2114	0.4328	0.7241	0.8905	0.4499	
Treatment F				1473.080	910.222	806.318	9969.477	1960.918	
Treatment Prob(F)				0.0001	0.0001	0.0001	0.0001	0.0001	

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

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Crop Code						
Rating Date		07-17-09	07-27-09	07-31-09	08-10-09	08-31-09
Rating Data Type		Control	Control	Control	Control	Control
Rating Unit		Percent	Percent	Percent	Percent	Percent
Rating Timing		16 DA-A	10 DA-B	4 DA-C		
Trt-Eval Interval		0 DA-B	0 DA-C	14 DA-B	14 DA-C	35 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NONTREATED										0 d	0 d	0 e	0 c	0 b
2	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a	
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
3	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a	
3	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C						
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
4	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	99 a	98 a	98 a	99 a	99 a	
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
5	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	99 a	98 a	99 a	99 a	99 a	
5	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C						
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
6	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C			70 d	97 b	99 a	
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	3"W	B		99 a	99 a	99 a	99 a	
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3"W	B						
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
8	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	PRE	A	57 c	40 c	73 d	98 b	99 a	
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
9	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	90 a	63 b	91 b	98 ab	99 a	
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
10	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	99 a	99 a	99 a	99 a	99 a	
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
11	VALOR XLT	40.3	WG			3	oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a	
11	VALOR SX	51	WG	0.056	lb ai/a			PRE	A						
11	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A						
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
12	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a	
12	CLASSIC	25	WG	0.02	lb ai/a			PRE	A						
12	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A						
12	VALOR SX	51	WG	0.0635	lb ai/a			PRE	A						
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						
13	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	PRE	A	77 b	63 b	82 c	98 ab	99 a	
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C						
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C						
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D						
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D						

Liberty Link Soybean Programs - Glyphosate-Resistant Waterhemp - BRC Site 1.

Trial ID: 09-2A-W70

Location: Belleville Res. Center

Pest Code	AMATA	AMATA	AMATA	AMATA	AMATA
Crop Code					
Rating Date	07-17-09	07-27-09	07-31-09	08-10-09	08-31-09
Rating Data Type	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent
Rating Timing	16 DA-A	10 DA-B	4 DA-C		
Trt-Eval Interval	0 DA-B	0 DA-C	14 DA-B	14 DA-C	35 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code
LSD (P=.05)									
Replicate F									
Replicate Prob(F)									
Treatment F									
Treatment Prob(F)									

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

Liberty Link Soybean Programs - Glyphosate-Resistant Waterhemp - BRC Site 1.

Trial ID: 09-2A-W70

Location: Belleville Res. Center

Pest Code Crop Code Rating Date Rating Data Type Rating Unit Rating Timing Trt-Eval Interval										IPOHE	IPOHE	IPOHE	IPOHE	IPOHE
										07-17-09 Control Percent 16 DA-A 0 DA-B	07-27-09 Control Percent 10 DA-B 0 DA-C	07-31-09 Control Percent 4 DA-C 14 DA-B	08-10-09 Control Percent 14 DA-C	08-31-09 Control Percent 35 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	NONTREATED									0 f	0 e	0 d	0 c	0 b
2	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	99 a	98 a	99 a	99 a	99 a
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
3	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	98 a	98 a	98 a	99 a	99 a
3	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C					
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
4	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	99 a	98 a	99 a	98 ab	99 a
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
5	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	99 a	99 a	99 a	99 a	98 a
5	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C					
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
6	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C			77 bc	99 a	99 a
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	3"W	B		99 a	99 a	98 ab	98 a
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3"W	B					
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
8	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	PRE	A	35 d	33 cd	70 c	99 a	99 a
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
9	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	80 b	60 b	81 b	98 ab	99 a
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
10	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	47 c	35 c	73 bc	97 b	99 a
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
11	VALOR XLT	40.3	WG			3	oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a
11	VALOR SX	51	WG	0.056	lb ai/a			PRE	A					
11	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A					
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
12	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	99 a	99 a	99 a	99 a	98 a
12	CLASSIC	25	WG	0.02	lb ai/a			PRE	A					
12	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A					
12	VALOR SX	51	WG	0.0635	lb ai/a			PRE	A					
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
13	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	PRE	A	23 e	20 d	72 c	99 a	99 a
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					

Liberty Link Soybean Programs - Glyphosate-Resistant Waterhemp - BRC Site 1.

Trial ID: 09-2A-W70

Location: Belleville Res. Center

Pest Code	IPOHE	IPOHE	IPOHE	IPOHE	IPOHE
Crop Code					
Rating Date	07-17-09	07-27-09	07-31-09	08-10-09	08-31-09
Rating Data Type	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent
Rating Timing	16 DA-A	10 DA-B	4 DA-C		
Trt-Eval Interval	0 DA-B	0 DA-C	14 DA-B	14 DA-C	35 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code
LSD (P=.05)					8.1	13.7	8.9	1.1	1.0
Replicate F					2.567	2.395	2.949	2.114	0.270
Replicate Prob(F)					0.1030	0.1156	0.0716	0.1426	0.7659
Treatment F					187.938	66.855	81.107	5011.115	5920.641
Treatment Prob(F)					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 Programs - Glyphosate-Resistant Waterhemp - BRC Site 1.

Trial ID: 09-2A-W70

Location: Belleville Res. Center

Pest Code										ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
Crop Code										07-17-09	07-27-09	07-31-09	08-10-09	08-31-09
Rating Date										Control	Control	Control	Control	Control
Rating Data Type										Percent	Percent	Percent	Percent	Percent
Rating Unit										16 DA-A	10 DA-B	4 DA-C	14 DA-C	35 DA-C
Rating Timing										0 DA-B	0 DA-C	14 DA-B	14 DA-C	35 DA-C
Trt-Eval Interval														
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	NONTREATED									0 c	0 c	0 e	0 d	0 b
2	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	98 a	97 a	99 a	98 abc	99 a
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
3	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	91 a	92 a	98 a	99 ab	99 a
3	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C					
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
4	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	97 a	98 a	99 a	98 abc	99 a
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
5	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	98 a	98 a	99 a	99 a	99 a
5	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C					
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
6	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C			72 d	97 c	99 a
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	3"W	B		99 a	99 a	98 abc	98 a
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3"W	B					
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
8	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	PRE	A	0 c	33 b	78 bc	98 abc	99 a
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
9	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	99 a	96 a	99 a	99 ab	99 a
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
10	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	58 b	47 b	82 b	98 abc	99 a
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
11	VALOR XLT	40.3	WG			3	oz/a	PRE	A	98 a	98 a	99 a	98 abc	99 a
11	VALOR SX	51	WG	0.056	lb ai/a			PRE	A					
11	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A					
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
12	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	99 a	99 a	99 a	98 ab	99 a
12	CLASSIC	25	WG	0.02	lb ai/a			PRE	A					
12	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A					
12	VALOR SX	51	WG	0.0635	lb ai/a			PRE	A					
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
13	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	PRE	A	0 c	0 c	77 c	98 bc	99 a
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					

Liberty Link Soybean Programs - Glyphosate-Resistant Waterhemp - BRC Site 1.

Trial ID: 09-2A-W70

Location: Belleville Res. Center

Pest Code	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
Crop Code					
Rating Date	07-17-09	07-27-09	07-31-09	08-10-09	08-31-09
Rating Data Type	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent
Rating Timing	16 DA-A	10 DA-B	4 DA-C		
Trt-Eval Interval	0 DA-B	0 DA-C	14 DA-B	14 DA-C	35 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
LSD (P=.05)					17.3		31.7	4.9	1.1	0.7
Replicate F					1.851		2.849	1.066	8.313	1.000
Replicate Prob(F)					0.1830		0.0794	0.3601	0.0018	0.3827
Treatment F					58.282		13.690	270.320	5416.313	12566.715
Treatment Prob(F)					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 Programs - Glyphosate-Resistant Waterhemp - BRC Site 1.

Trial ID: 09-2A-W70

Location: Belleville Res. Center

Pest Code										AMBEL	AMBEL	AMBEL	AMBEL	AMBEL
Crop Code										07-17-09	07-27-09	07-31-09	08-10-09	08-31-09
Rating Date										Control	Control	Control	Control	Control
Rating Data Type										Percent	Percent	Percent	Percent	Percent
Rating Unit										16 DA-A	10 DA-B	4 DA-C		
Rating Timing										16 DA-B	0 DA-C	14 DA-B	14 DA-C	35 DA-C
Trt-Eval Interval														
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	NONTREATED									0 d	0 c	0 d	0 c	0 c
2	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	95 a	92 a	98 a	99 a	99 a
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
3	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	98 a	95 a	97 a	99 a	99 a
3	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C					
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
4	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	98 a	97 a	99 a	99 a	99 a
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
5	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	97 a	96 a	99 a	99 a	99 a
5	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C					
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
6	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C			72 c	99 b	99 b
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	3"W	B		99 a	99 a	99 a	99 a
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3"W	B					
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
8	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	PRE	A	5 d	41 b	75 c	99 a	99 a
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
9	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	40 c	37 b	82 b	99 a	99 a
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
10	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	60 b	50 b	86 b	99 a	99 a
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
11	VALOR XLT	40.3	WG			3	oz/a	PRE	A	99 a	98 a	99 a	99 a	99 a
11	VALOR SX	51	WG	0.056	lb ai/a			PRE	A					
11	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A					
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
12	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	98 a	98 a	99 a	99 a	99 a
12	CLASSIC	25	WG	0.02	lb ai/a			PRE	A					
12	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A					
12	VALOR SX	51	WG	0.0635	lb ai/a			PRE	A					
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					
13	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	PRE	A	3 d	3 c	72 c	99 a	99 a
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C					
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C					
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D					
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D					

Liberty Link Soybean Programs - Glyphosate-Resistant Waterhemp - BRC Site 1.

Trial ID: 09-2A-W70

Location: Belleville Res. Center

Pest Code	AMBEL	AMBEL	AMBEL	AMBEL	AMBEL
Crop Code					
Rating Date	07-17-09	07-27-09	07-31-09	08-10-09	08-31-09
Rating Data Type	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent
Rating Timing	16 DA-A	10 DA-B	4 DA-C		
Trt-Eval Interval	0 DA-B	0 DA-C	14 DA-B	14 DA-C	35 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Other Rate	Other Rate	Growth Stage	Appl Code
LSD (P=.05)				8.4	25.1	3.8	0.3	0.3
Replicate F				1.557	1.434	0.321	1.000	1.000
Replicate Prob(F)				0.2353	0.2598	0.7285	0.3827	0.3827
Treatment F				229.268	20.518	443.608	88160.509	88160.509
Treatment Prob(F)				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 Programs - Glyphosate-Resistant Waterhemp - BRC Site 1.

Trial ID: 09-2A-W70

Location: Belleville Res. Center

Pest Code		AMBTR		AMBTR		AMBTR		AMBTR		AMBTR	
Crop Code		07-17-09		07-27-09		07-31-09		08-10-09		08-31-09	
Rating Date		Control		Control		Control		Control		Control	
Rating Data Type		Percent		Percent		Percent		Percent		Percent	
Rating Unit		16 DA-A		10 DA-B		4 DA-C		14 DA-C		35 DA-C	
Rating Timing		0 DA-B		0 DA-C		14 DA-B		14 DA-C		35 DA-C	
Trt-Eval Interval											
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	NONTREATED									0 b	0 c
2	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	93 a	92 a
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C	94 a	99 a
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C		
2	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D		
2	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D		
3	VALOR SX	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	91 a	89 a
3	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C	96 a	99 a
3	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C	99 a	99 a
4	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	99 a	97 a
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C	99 a	99 a
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C		
4	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D		
4	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D		
5	AUTHORITY FIRST	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	95 a	93 a
5	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C	98 a	98 a
5	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C	98 a	98 b
6	IGNITE 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	22DAE	C	70 c	99 a
6	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C	99 a	99 a
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	3"W	B	99 a	99 a
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3"W	B		
7	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C		
7	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C		
8	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	PRE	A	0 b	33 b
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C	70 c	99 a
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C	99 a	99 a
8	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D		
8	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D		
9	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	0 b	0 c
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C	70 c	99 a
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C	99 a	99 a
9	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D		
9	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D		
10	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A	7 b	7 bc
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C	83 b	99 a
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C	99 a	99 a
10	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D		
10	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D		
11	VALOR XLT	40.3	WG			3	oz/a	PRE	A	95 a	95 a
11	VALOR SX	51	WG	0.056	lb ai/a			PRE	A	98 a	99 a
11	CLASSIC	25	WG	0.0194	lb ai/a			PRE	A	99 a	99 a
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C		
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C		
11	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D		
11	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D		
12	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	97 a	96 a
12	CLASSIC	25	WG	0.02	lb ai/a			PRE	A	97 a	99 a
12	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A	97 a	99 a
12	VALOR SX	51	WG	0.0635	lb ai/a			PRE	A		
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C		
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C		
12	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D		
12	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D		
13	PROWL H2O	3.8	CS	1.19	lb ai/a	2.5	pt/a	PRE	A	0 b	0 c
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	22DAE	C	68 c	97 b
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	22DAE	C	99 a	
13	IGNITE 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	44DAE	D		
13	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	44DAE	D		

Liberty Link Soybean Programs - Glyphosate-Resistant Waterhemp - BRC Site 1.

Trial ID: 09-2A-W70

Location: Belleville Res. Center

Pest Code	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
Crop Code					
Rating Date	07-17-09	07-27-09	07-31-09	08-10-09	08-31-09
Rating Data Type	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent	Percent
Rating Timing	16 DA-A	10 DA-B	4 DA-C		
Trt-Eval Interval	0 DA-B	0 DA-C	14 DA-B	14 DA-C	35 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Other Rate	Other Rate	Growth Unit	Stage	Appl Code
LSD (P=.05)				9.4	29.8	6.9	0.9	0.5	
Replicate F				3.030	1.414	0.362	2.282	1.000	
Replicate Prob(F)				0.0709	0.2644	0.7000	0.1238	0.3827	
Treatment F				234.732	19.985	133.113	7418.902	22028.502	
Treatment Prob(F)				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: Bayer (MRC).
2. Ratings: CI/WC at 0 + 14 da B and C; WC at 35 da C.
3. All POST applications should be 3-4"W or less, the D application is only if necessary.
4. Stand reduction due to standing water was observed and recorded by plot.
5. GGGAN = Annual grasses including SETFA (giant foxtail) and PANDI (fall panicum).
Crop injury was chlorosis and stunting.
6. Harvested 11-7-09, (2) 30 inch rows by 25 ft.