

Weed control systems in RR2 Xtend and LibertyLink soybean - 2nd planting

Trial ID: SOY12.5-17 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus H6-8 Investigator: Christy Sprague

Planting Date: Jul-16-2017 **Row Spacing:** 30 IN
Variety: See comments **No. of Reps:** 4
Population: 155000 seeds/A **% OM:** 2.7
Soil Type: SCL sandy clay loam **pH:** 6.6
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plow; spring soil finish twice
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grass
2	CHEAL	lambquarters, common	Chenopodium album
3	AMAPO	amaranth, Powell	Amaranthus powellii
4	AMBEL	ragweed, common	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	Jul-17-2017	Aug-14-2017
Time Treated:	9:00 AM	8:45 AM
% Cloud Cover:	30	30
Air Temp., Unit:	66 F	65 F
% Relative Humidity:	75	69
Wind Speed/Unit/Dir:	1.5 mph SE	2 mph S
Soil Temp, Unit:	65 F	70 F
Leaf Moist/Dew Presence (Y/N):	5	4
Soil Moist:	3	5

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		8 "
Stage:		V3

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		4-6 " (5)
Stage:		6L-8L (6-8L)
Weed 2 Name:	CHEAL	CHEAL
Height:		2-4 " (3)
Stage:		6-10L
Weed 3 Name:	AMAPO	AMAPO
Height:		4-6 " (4)
Stage:		6-8L
Weed 4 Name:	AMBEL	AMBEL
Height:		4-6 " (5)
Stage:		6-8L
Weed 5 Name:	ABUTH	ABUTH
Height:		3 "
Stage:		2-3L

Weed Density

	1	2	3	4	5
Date:	Aug-14-2017	Aug-14-2017	Aug-14-2017	Aug-14-2017	Aug-14-2017
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Density:	17 FT2	7 FT2	7 FT2	3 FT2	1 FT2

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	Cub	3.8 MPH	See notes	11003	22 "	20 "	100 "	19 GPA	WATER	
B	Cub	3.8 MPH	See notes	11003	22 "	20 "	100 "	19 GPA	WATER	

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Comments: Varieties: AG25X6 and CZ2312LL Nozzles: AIXR at 30 PSI and TTI at 25 PSI

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Trial ID: SOY12.5-17

Location: Campus H6-8

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	GLXMA	GLXMA	ANGR	CHEAL	AMAPO
Crop Code	Aug-7-2017	Aug-14-2017	Aug-14-2017	Aug-14-2017	Aug-14-2017
Rating Date	injury	injury	control	control	control
Rating Type	percent	percent	percent	percent	percent
Rating Unit	21 DA-A	0 DA-B	0 DA-B	0 DA-B	0 DA-B
Trt-Eval Interval	0	0	0	0	0
Number of Decimals					

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*
1	RR2 Xtend soybean						0	0	0	0	0
1	Untreated										
2	RR2 Xtend soybean						0	0	96	100	100
2	*TTI - nozzles					A					
2	Rowel	51	WG	2	oz/a	A					
2	*TTI - nozzles					B					
2	XtendiMax	2.9	SL	22	fl oz/a	B					
2	Roundup PowerMax	4.5	SL	32	fl oz/a	B					
2	Intact		L	0.5	% v/v	B					
3	RR2 Xtend soybean						0	0	95	100	100
3	*TTI - nozzles					A					
3	Rowel	51	WG	2	oz/a	A					
3	XtendiMax	2.9	SL	22	fl oz/a	A					
3	*TTI - nozzles					B					
3	XtendiMax	2.9	SL	22	fl oz/a	B					
3	Roundup PowerMax	4.5	SL	32	fl oz/a	B					
3	Intact		L	0.5	% v/v	B					
4	RR2 Xtend soybean						0	0	94	100	100
4	*TTI - nozzles					A					
4	Rowel	51	WG	2	oz/a	A					
4	XtendiMax	2.9	SL	22	fl oz/a	A					
4	*TTI - nozzles					B					
4	Warrant	3	L	3	pt/a	B					
4	XtendiMax	2.9	SL	22	fl oz/a	B					
4	Roundup PowerMax	4.5	SL	32	fl oz/a	B					
4	Intact		L	0.5	% v/v	B					
5	LibertyLink soybean						0	0	0	0	0
5	Untreated										
6	LibertyLink soybean						0	0	96	100	100
6	*AIXR - nozzles					A					
6	Valor	51	WG	2	oz/a	A					
6	*AIXR - nozzles					B					
6	Liberty	2.34	L	29	fl oz/a	B					
6	AMS		WG	8.5	lb/100 gal	B					
7	LibertyLink soybean						0	0	97	100	100
7	*AIXR - nozzles					A					
7	Fierce	76	WG	3	oz/a	A					
7	*AIXR - nozzles					B					
7	Liberty	2.34	L	29	fl oz/a	B					
7	AMS		WG	8.5	lb/100 gal	B					

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,2,4,5,6,7,9,10,11,12,13,16,17,18,19 because error mean square = 0.

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Trial ID: SOY12.5-17

Location: Campus H6-8

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code				ANGR	CHEAL	AMAPO
Crop Code		GLXMA	GLXMA			
Rating Date		Aug-7-2017	Aug-14-2017	Aug-14-2017	Aug-14-2017	Aug-14-2017
Rating Type		injury	injury	control	control	control
Rating Unit		percent	percent	percent	percent	percent
Trt-Eval Interval		21 DA-A	0 DA-B	0 DA-B	0 DA-B	0 DA-B
Number of Decimals		0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*
8	LibertyLink soybean						0	0	98	100	100
8	*AIXR - nozzles					A					
8	Valor	51	WG	2	oz/a	A					
8	*AIXR - nozzles					B					
8	Zidua	85	WG	2	oz/a	B					
8	Liberty	2.34	L	29	fl oz/a	B					
8	AMS		WG	8.5	lb/100 gal	B					
LSD P=.05							.	.	3.6	.	.
Standard Deviation							0.0	0.0	2.4	0.0	0.0
CV							0.0	0.0	3.27	0.0	0.0

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Trial ID: SOY12.5-17

Location: Campus H6-8

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	AMBEL	ABUTH	GLXMA	ANGR	CHEAL
Crop Code					
Rating Date	Aug-14-2017	Aug-14-2017	Aug-28-2017	Aug-28-2017	Aug-28-2017
Rating Type	control	control	injury	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	0 DA-B	0 DA-B	14 DA-B	14 DA-B	14 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*
1	RR2 Xtend soybean						0	0	0	0	0
1	Untreated										
2	RR2 Xtend soybean						100	100	0	100	100
2	*TTI - nozzles					A					
2	Rowel	51	WG	2	oz/a	A					
2	*TTI - nozzles					B					
2	XtendiMax	2.9	SL	22	fl oz/a	B					
2	Roundup PowerMax	4.5	SL	32	fl oz/a	B					
2	Intact		L	0.5	% v/v	B					
3	RR2 Xtend soybean						100	100	0	100	100
3	*TTI - nozzles					A					
3	Rowel	51	WG	2	oz/a	A					
3	XtendiMax	2.9	SL	22	fl oz/a	A					
3	*TTI - nozzles					B					
3	XtendiMax	2.9	SL	22	fl oz/a	B					
3	Roundup PowerMax	4.5	SL	32	fl oz/a	B					
3	Intact		L	0.5	% v/v	B					
4	RR2 Xtend soybean						100	100	0	100	100
4	*TTI - nozzles					A					
4	Rowel	51	WG	2	oz/a	A					
4	XtendiMax	2.9	SL	22	fl oz/a	A					
4	*TTI - nozzles					B					
4	Warrant	3	L	3	pt/a	B					
4	XtendiMax	2.9	SL	22	fl oz/a	B					
4	Roundup PowerMax	4.5	SL	32	fl oz/a	B					
4	Intact		L	0.5	% v/v	B					
5	LibertyLink soybean						0	0	0	0	0
5	Untreated										
6	LibertyLink soybean						100	100	0	100	100
6	*AIXR - nozzles					A					
6	Valor	51	WG	2	oz/a	A					
6	*AIXR - nozzles					B					
6	Liberty	2.34	L	29	fl oz/a	B					
6	AMS		WG	8.5	lb/100 gal	B					
7	LibertyLink soybean						100	100	0	100	100
7	*AIXR - nozzles					A					
7	Fierce	76	WG	3	oz/a	A					
7	*AIXR - nozzles					B					
7	Liberty	2.34	L	29	fl oz/a	B					
7	AMS		WG	8.5	lb/100 gal	B					

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Location: Campus H6-8

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	AMBEL	ABUTH	GLXMA	ANGR	CHEAL
Crop Code					
Rating Date	Aug-14-2017	Aug-14-2017	Aug-28-2017	Aug-28-2017	Aug-28-2017
Rating Type	control	control	injury	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	0 DA-B	0 DA-B	14 DA-B	14 DA-B	14 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*
8	LibertyLink soybean						100	100	9	100	100
8	*AIXR - nozzles					A					
8	Valor	51	WG	2	oz/a	A					
8	*AIXR - nozzles					B					
8	Zidua	85	WG	2	oz/a	B					
8	Liberty	2.34	L	29	fl oz/a	B					
8	AMS		WG	8.5	lb/100 gal	B					
LSD	P=.05						.	.	0.8	.	.
Standard Deviation							0.0	0.0	0.5	0.0	0.0
CV							0.0	0.0	45.48	0.0	0.0

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Pest Code	AMAPO	AMBEL	ABUTH	GLXMA	ANGR
Crop Code					
Rating Date	Aug-28-2017	Aug-28-2017	Aug-28-2017	Sep-30-2017	Sep-30-2017
Rating Type	control	control	control	injury	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-B	14 DA-B	14 DA-B	47 DA-B	47 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*
1	RR2 Xtend soybean						0	0	0	0	0
1	Untreated										
2	RR2 Xtend soybean						100	100	100	0	100
2	*TTI - nozzles					A					
2	Rowel	51	WG	2	oz/a	A					
2	*TTI - nozzles					B					
2	XtendiMax	2.9	SL	22	fl oz/a	B					
2	Roundup PowerMax	4.5	SL	32	fl oz/a	B					
2	Intact		L	0.5	% v/v	B					
3	RR2 Xtend soybean						100	100	100	0	100
3	*TTI - nozzles					A					
3	Rowel	51	WG	2	oz/a	A					
3	XtendiMax	2.9	SL	22	fl oz/a	A					
3	*TTI - nozzles					B					
3	XtendiMax	2.9	SL	22	fl oz/a	B					
3	Roundup PowerMax	4.5	SL	32	fl oz/a	B					
3	Intact		L	0.5	% v/v	B					
4	RR2 Xtend soybean						100	100	100	0	100
4	*TTI - nozzles					A					
4	Rowel	51	WG	2	oz/a	A					
4	XtendiMax	2.9	SL	22	fl oz/a	A					
4	*TTI - nozzles					B					
4	Warrant	3	L	3	pt/a	B					
4	XtendiMax	2.9	SL	22	fl oz/a	B					
4	Roundup PowerMax	4.5	SL	32	fl oz/a	B					
4	Intact		L	0.5	% v/v	B					
5	LibertyLink soybean						0	0	0	0	0
5	Untreated										
6	LibertyLink soybean						100	100	100	3	96
6	*AIXR - nozzles					A					
6	Valor	51	WG	2	oz/a	A					
6	*AIXR - nozzles					B					
6	Liberty	2.34	L	29	fl oz/a	B					
6	AMS		WG	8.5	lb/100 gal	B					
7	LibertyLink soybean						100	100	100	3	100
7	*AIXR - nozzles					A					
7	Fierce	76	WG	3	oz/a	A					
7	*AIXR - nozzles					B					
7	Liberty	2.34	L	29	fl oz/a	B					
7	AMS		WG	8.5	lb/100 gal	B					

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Location: Campus H6-8

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Study Director: Sprague, Powell, Stiles

Pest Code	AMAPO	AMBEL	ABUTH	GLXMA	ANGR
Crop Code					
Rating Date	Aug-28-2017	Aug-28-2017	Aug-28-2017	Sep-30-2017	Sep-30-2017
Rating Type	control	control	control	injury	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-B	14 DA-B	14 DA-B	47 DA-B	47 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*
8	LibertyLink soybean						100	100	100	6	100
8	*AIXR - nozzles					A					
8	Valor	51	WG	2	oz/a	A					
8	*AIXR - nozzles					B					
8	Zidua	85	WG	2	oz/a	B					
8	Liberty	2.34	L	29	fl oz/a	B					
8	AMS		WG	8.5	lb/100 gal	B					
LSD P=.05							.	.	.	2.1	2.6
Standard Deviation							0.0	0.0	0.0	1.5	1.7
CV							0.0	0.0	0.0	99.91	2.25

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Location: Campus H6-8

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Study Director: Sprague, Powell, Stiles

Pest Code	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code				
Rating Date	Sep-30-2017	Sep-30-2017	Sep-30-2017	Sep-30-2017
Rating Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Trt-Eval Interval	47 DA-B	47 DA-B	47 DA-B	47 DA-B
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*
1	RR2 Xtend soybean						0	0	0	0
1	Untreated									
2	RR2 Xtend soybean						100	100	100	100
2	*TTI - nozzles					A				
2	Rowel	51	WG	2	oz/a	A				
2	*TTI - nozzles					B				
2	XtendiMax	2.9	SL	22	fl oz/a	B				
2	Roundup PowerMax	4.5	SL	32	fl oz/a	B				
2	Intact		L	0.5	% v/v	B				
3	RR2 Xtend soybean						100	100	100	100
3	*TTI - nozzles					A				
3	Rowel	51	WG	2	oz/a	A				
3	XtendiMax	2.9	SL	22	fl oz/a	A				
3	*TTI - nozzles					B				
3	XtendiMax	2.9	SL	22	fl oz/a	B				
3	Roundup PowerMax	4.5	SL	32	fl oz/a	B				
3	Intact		L	0.5	% v/v	B				
4	RR2 Xtend soybean						100	100	100	100
4	*TTI - nozzles					A				
4	Rowel	51	WG	2	oz/a	A				
4	XtendiMax	2.9	SL	22	fl oz/a	A				
4	*TTI - nozzles					B				
4	Warrant	3	L	3	pt/a	B				
4	XtendiMax	2.9	SL	22	fl oz/a	B				
4	Roundup PowerMax	4.5	SL	32	fl oz/a	B				
4	Intact		L	0.5	% v/v	B				
5	LibertyLink soybean						0	0	0	0
5	Untreated									
6	LibertyLink soybean						100	100	100	100
6	*AIXR - nozzles					A				
6	Valor	51	WG	2	oz/a	A				
6	*AIXR - nozzles					B				
6	Liberty	2.34	L	29	fl oz/a	B				
6	AMS		WG	8.5	lb/100 gal	B				
7	LibertyLink soybean						100	100	100	100
7	*AIXR - nozzles					A				
7	Fierce	76	WG	3	oz/a	A				
7	*AIXR - nozzles					B				
7	Liberty	2.34	L	29	fl oz/a	B				
7	AMS		WG	8.5	lb/100 gal	B				

* Adjusted means

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Pest Code	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code				
Rating Date	Sep-30-2017	Sep-30-2017	Sep-30-2017	Sep-30-2017
Rating Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Trt-Eval Interval	47 DA-B	47 DA-B	47 DA-B	47 DA-B
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*
8	LibertyLink soybean						100	100	100	100
8	*AIXR - nozzles					A				
8	Valor	51	WG	2	oz/a	A				
8	*AIXR - nozzles					B				
8	Zidua	85	WG	2	oz/a	B				
8	Liberty	2.34	L	29	fl oz/a	B				
8	AMS		WG	8.5	lb/100 gal	B				
LSD P=.05						
Standard Deviation							0.0	0.0	0.0	0.0
CV							0.0	0.0	0.0	0.0

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,2,4,5,6,7,9,10,11,12,13,16,17,18,19 because error mean square = 0.