

Weed control systems comparisons in Roundup Ready 2 Xtend and LibertyLink soybean II - GOWER

Trial ID: SOY17-18 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus, B-10 Investigator: Christy Sprague

Planting Date: May-29-2018 **Row Spacing:** 30 IN
Variety: 8 different varieties **No. of Reps:** 1
Population: 130000 seeds/A **% OM:** 2.8
Soil Type: L loam **pH:** 6.9
Plot Size: 20 X 415 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plowed; spring soil finished three times
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grass
2	CHEAL	lambsquarters, 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:	May-29-2018	Jul-2-2018
Time Treated:	9:30 PM	11:00 AM
% Cloud Cover:	5	30
Air Temp., Unit:	83 F	79 F
% Relative Humidity:	50	57
Wind Speed/Unit/Dir:	0 mph	5 mph NW
Soil Temp, Unit:	80 F	82 F
Leaf Moist/Dew Presence (Y/N):	5	5
Soil Moist:	4	4

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		7-12 " (9.5)
Stage:		V3-V4

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		2-14 " (8)
Stage:		5-50L
Weed 2 Name:	CHEAL	CHEAL
Height:		2-10 " (6)
Stage:		10-20L
Weed 3 Name:	AMAPO	AMAPO
Height:		2-5 " (3.5)
Stage:		7-10L
Weed 4 Name:	AMBEL	AMBEL
Height:		7-10 " (8.5)
Stage:		2-12L
Weed 5 Name:	ABUTH	ABUTH
Height:		
Stage:		

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	AIXR	11003	24 "	20 "	120 "	19 GPA	WATER	30 PSI
B	CUB	3.8 mph	TTI/AIXR	11003	28 "	20 "	120 "	19 GPA	WATER	25 PSI

Comments:

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Pest Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code	GLXMA				
Rating Date	Jul-2-2018	Jul-2-2018	Jul-2-2018	Jul-2-2018	Jul-2-2018
Rating Type	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	34 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code						
1	'Asgrow 21X7' RR2 Xtend						0	70	98	98	70	98
	1 Valor	51	WG	2 oz/a		A						
	1 Warrant	3	L	3 pt/a		B						
	1 XtendiMax	2.9	SL	22 fl oz/a		B						
	1 Roundup PowerMax	4.5	SL	32 fl oz/a		B						
	1 Intact		L	0.5 % v/v		B						
	1 Class Act Ridion		L	1 % v/v		B						
2	'Asgrow 23X8' RR2 Xtend						0	70	98	98	70	98
	2 Valor	51	WG	2 oz/a		A						
	2 Warrant	3	L	3 pt/a		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						
	2 Class Act Ridion		L	1 % v/v		B						
3	'Asgrow 26X8' RR2 Xtend						0	70	98	98	70	98
	3 Valor	51	WG	2 oz/a		A						
	3 Warrant	3	L	3 pt/a		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	'Asgrow 30X8' RR2 Xtend						0	70	98	98	70	98
	4 Valor	51	WG	2 oz/a		A						
	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	'P22T10' LibertyLink						0	70	98	98	70	98
	5 Valor	51	WG	2 oz/a		A						
	5 Warrant	3	L	3 pt/a		B						
	5 Liberty	2.34	L	32 fl oz/a		B						
	5 AMS		WG	8.5 lb/100 gal		B						
6	'CZ2312LL' LibertyLink						0	70	98	98	70	98
	6 Valor	51	WG	2 oz/a		A						
	6 Warrant	3	L	3 pt/a		B						
	6 Liberty	2.34	L	32 fl oz/a		B						
	6 AMS		WG	8.5 lb/100 gal		B						
7	'P24T56' LibertyLink						0	70	98	98	70	98
	7 Valor	51	WG	2 oz/a		A						
	7 Warrant	3	L	3 pt/a		B						
	7 Liberty	2.34	L	32 fl oz/a		B						
	7 AMS		WG	8.5 lb/100 gal		B						

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Crop Code	GLXMA					
Rating Date	Jul-2-2018	Jul-2-2018	Jul-2-2018	Jul-2-2018	Jul-2-2018	Jul-2-2018
Rating Type	injury	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	34 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code						
8	'P26T07' LibertyLink						0	70	98	98	70	98
8	Valor	51	WG	2	oz/a	A						
8	Warrant	3	L	3	pt/a	B						
8	Liberty	2.34	L	32	fl oz/a	B						
8	AMS		WG	8.5	lb/100 gal	B						
	LSD P=.05					
	Standard Deviation					
	CV					

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Crop Code	GLXMA				
Rating Date	Jul-17-2018	Jul-17-2018	Jul-17-2018	Jul-17-2018	Jul-17-2018
Rating Type	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	15 DA-B	15 DA-B	15 DA-B	15 DA-B	15 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
1	'Asgrow 21X7' RR2 Xtend						0	88	100	100	90
1	Valor	51	WG	2 oz/a		A					
1	Warrant	3	L	3 pt/a		B					
1	XtendiMax	2.9	SL	22 fl oz/a		B					
1	Roundup PowerMax	4.5	SL	32 fl oz/a		B					
1	Intact		L	0.5 % v/v		B					
1	Class Act Ridion		L	1 % v/v		B					
2	'Asgrow 23X8' RR2 Xtend						0	88	100	100	90
2	Valor	51	WG	2 oz/a		A					
2	Warrant	3	L	3 pt/a		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					
2	Class Act Ridion		L	1 % v/v		B					
3	'Asgrow 26X8' RR2 Xtend						0	88	100	100	90
3	Valor	51	WG	2 oz/a		A					
3	Warrant	3	L	3 pt/a		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	'Asgrow 30X8' RR2 Xtend						0	88	100	100	90
4	Valor	51	WG	2 oz/a		A					
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	'P22T10' LibertyLink						0	100	99	100	100
5	Valor	51	WG	2 oz/a		A					
5	Warrant	3	L	3 pt/a		B					
5	Liberty	2.34	L	32 fl oz/a		B					
5	AMS		WG	8.5 lb/100 gal		B					
6	'CZ2312LL' LibertyLink						0	100	99	100	100
6	Valor	51	WG	2 oz/a		A					
6	Warrant	3	L	3 pt/a		B					
6	Liberty	2.34	L	32 fl oz/a		B					
6	AMS		WG	8.5 lb/100 gal		B					
7	'P24T56' LibertyLink						0	100	99	100	100
7	Valor	51	WG	2 oz/a		A					
7	Warrant	3	L	3 pt/a		B					
7	Liberty	2.34	L	32 fl oz/a		B					
7	AMS		WG	8.5 lb/100 gal		B					

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Crop Code	GLXMA				
Rating Date	Jul-17-2018	Jul-17-2018	Jul-17-2018	Jul-17-2018	Jul-17-2018
Rating Type	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	15 DA-B	15 DA-B	15 DA-B	15 DA-B	15 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
8	'P26T07' LibertyLink						0	100	99	100	100
8	Valor	51	WG	2	oz/a	A					
8	Warrant	3	L	3	pt/a	B					
8	Liberty	2.34	L	32	fl oz/a	B					
8	AMS		WG	8.5	lb/100 gal	B					
	LSD P=.05					
	Standard Deviation					
	CV					

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Pest Code	ANGR	CHEAL	AMAPO	AMBEL
Crop Code	GLXMA			
Rating Date	Jul-30-2018	Jul-30-2018	Jul-30-2018	Jul-30-2018
Rating Type	injury	control	control	control
Rating Unit	percent	percent	percent	percent
Trt-Eval Interval	28 DA-B	28 DA-B	28 DA-B	28 DA-B
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
1	'Asgrow 21X7' RR2 Xtend						0	100	100	100	100
	1 Valor	51	WG	2 oz/a		A					
	1 Warrant	3	L	3 pt/a		B					
	1 XtendiMax	2.9	SL	22 fl oz/a		B					
	1 Roundup PowerMax	4.5	SL	32 fl oz/a		B					
	1 Intact		L	0.5 % v/v		B					
	1 Class Act Ridion		L	1 % v/v		B					
2	'Asgrow 23X8' RR2 Xtend						0	100	100	100	100
	2 Valor	51	WG	2 oz/a		A					
	2 Warrant	3	L	3 pt/a		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					
	2 Class Act Ridion		L	1 % v/v		B					
3	'Asgrow 26X8' RR2 Xtend						0	100	100	100	100
	3 Valor	51	WG	2 oz/a		A					
	3 Warrant	3	L	3 pt/a		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	'Asgrow 30X8' RR2 Xtend						0	100	100	100	100
	4 Valor	51	WG	2 oz/a		A					
	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	'P22T10' LibertyLink						0	100	100	100	100
	5 Valor	51	WG	2 oz/a		A					
	5 Warrant	3	L	3 pt/a		B					
	5 Liberty	2.34	L	32 fl oz/a		B					
	5 AMS		WG	8.5 lb/100 gal		B					
6	'CZ2312LL' LibertyLink						0	100	100	100	100
	6 Valor	51	WG	2 oz/a		A					
	6 Warrant	3	L	3 pt/a		B					
	6 Liberty	2.34	L	32 fl oz/a		B					
	6 AMS		WG	8.5 lb/100 gal		B					
7	'P24T56' LibertyLink						0	100	100	100	100
	7 Valor	51	WG	2 oz/a		A					
	7 Warrant	3	L	3 pt/a		B					
	7 Liberty	2.34	L	32 fl oz/a		B					
	7 AMS		WG	8.5 lb/100 gal		B					

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Crop Code	GLXMA				
Rating Date	Jul-30-2018	Jul-30-2018	Jul-30-2018	Jul-30-2018	Jul-30-2018
Rating Type	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
8	'P26T07' LibertyLink						0	100	100	100	100
8	Valor	51	WG	2	oz/a	A					
8	Warrant	3	L	3	pt/a	B					
8	Liberty	2.34	L	32	fl oz/a	B					
8	AMS		WG	8.5	lb/100 gal	B					
	LSD P=.05					
	Standard Deviation					
	CV					

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Pest Code	ABUTH		
Crop Code		GLXMA	GLXMA
Rating Date	Jul-30-2018	Oct-25-2018	Oct-25-2018
Rating Type	control	moisture	yield
Rating Unit	percent	percent	bu/acre
Trt-Eval Interval	28 DA-B	115 DA-B	at 13% M
Number of Decimals	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code			
1	'Asgrow 21X7' RR2 Xtend						100	11.7	70.6
1	Valor	51	WG	2 oz/a		A			
1	Warrant	3	L	3 pt/a		B			
1	XtendiMax	2.9	SL	22 fl oz/a		B			
1	Roundup PowerMax	4.5	SL	32 fl oz/a		B			
1	Intact		L	0.5 % v/v		B			
1	Class Act Ridion		L	1 % v/v		B			
2	'Asgrow 23X8' RR2 Xtend						100	11.1	71.3
2	Valor	51	WG	2 oz/a		A			
2	Warrant	3	L	3 pt/a		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			
2	Class Act Ridion		L	1 % v/v		B			
3	'Asgrow 26X8' RR2 Xtend						100	11.0	71.8
3	Valor	51	WG	2 oz/a		A			
3	Warrant	3	L	3 pt/a		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	'Asgrow 30X8' RR2 Xtend						100	12.3	65.8
4	Valor	51	WG	2 oz/a		A			
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	'P22T10' LibertyLink						100	11.7	71.4
5	Valor	51	WG	2 oz/a		A			
5	Warrant	3	L	3 pt/a		B			
5	Liberty	2.34	L	32 fl oz/a		B			
5	AMS		WG	8.5 lb/100 gal		B			
6	'CZ2312LL' LibertyLink						100	9.8	78.0
6	Valor	51	WG	2 oz/a		A			
6	Warrant	3	L	3 pt/a		B			
6	Liberty	2.34	L	32 fl oz/a		B			
6	AMS		WG	8.5 lb/100 gal		B			
7	'P24T56' LibertyLink						100	11.7	72.6
7	Valor	51	WG	2 oz/a		A			
7	Warrant	3	L	3 pt/a		B			
7	Liberty	2.34	L	32 fl oz/a		B			
7	AMS		WG	8.5 lb/100 gal		B			

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Rating Date	Jul-30-2018	Oct-25-2018	Oct-25-2018
Rating Type	control	moisture	yield
Rating Unit	percent	percent	bu/acre
Trt-Eval Interval	28 DA-B	115 DA-B	at 13% M
Number of Decimals	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code			
8	'P26T07' LibertyLink						100	12.0	65.2
8	Valor	51	WG	2	oz/a	A			
8	Warrant	3	L	3	pt/a	B			
8	Liberty	2.34	L	32	fl oz/a	B			
8	AMS		WG	8.5	lb/100 gal	B			

LSD P=.05	.	.	.
Standard Deviation	.	.	.
CV	.	.	.