

Economics of weed control in LibertyLink soybean

Trial ID: SOY03-18 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus, T-10 Investigator: Christy Sprague

Planting Date: May-7-2018 **Row Spacing:** 30 IN
Variety: Credenz 2312 LL **No. of Reps:** 4
Population: 156000 seeds/A **% OM:** 2.4
Soil Type: L loam **pH:** 6.9
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plowed; spring soil finished twice
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	SINAR	mustard, wild	Sinapis arvensis
6	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B	C
Application Timing:	PRE	EPOS	POST
Date Treated:	May-7-2018	May-31-2018	Jun-12-2018
Time Treated:	6:20 PM	3:30 PM	5:00 PM
% Cloud Cover:	0	35	100
Air Temp., Unit:	70 F	83 F	75 F
% Relative Humidity:	24	55	72
Wind Speed/Unit/Dir:	3 mph SE	9.5 mph SW	7 mph S
Soil Temp, Unit:	64 F	80 F	76 F
Leaf Moist/Dew Presence (Y/N):	4	5	5
Soil Moist:	4	2	4

Crop Stage at Each Application

	A	B	C
Crop 1 Name:	GLXMA	GLXMA	GLXMA
Height:		4 "	6-8 " (7)
Stage:		V1	V2

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height:		1-4 " (2.5)	2-4 " (3)
Stage:		2-5L	2-4L
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height:		0.5-2 " (1.25)	
Stage:		4-7L	
Weed 3 Name:	AMAPO	AMAPO	AMAPO
Height:		1 "	
Stage:		2-5L	
Weed 4 Name:	AMBEL	AMBEL	AMBEL
Height:		0.5-2 " (1.25)	2-4 " (3)
Stage:		2-5L	4-6L
Weed 5 Name:	SINAR	SINAR	SINAR
Height:			
Stage:			
Weed 6 Name:	ABUTH	ABUTH	ABUTH
Height:			
Stage:			

Weed Density

	1	2	3	4	5	6
Date:	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	SINAR	ABUTH
Density:	21 FT2	2 FT2		10 FT2	1 FT2	1 FT2

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Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Application Equipment			Spray Volume	Carrier	Operation Pressure
					Nozzle Height	Nozzle Spacing	Boom Width			
A	CUB	3.8 mph	AIXR	11003	20 "	20 "	100 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 mph	AIXR	11003	22 "	20 "	100 "	19 GAL/AC	WATER	30 PSI
C	CUB	3.8 mph	AIXR	11003	24 "	20 "	100 "	19 GAL/AC	WATER	30 PSI

Comments:

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Location: Campus, T-10

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code				ANGR	CHEAL	AMBEL	ABUTH
Crop Code		GLXMA	GLXMA				
Rating Date		May-28-2018	Jun-4-2018	Jun-4-2018	Jun-4-2018	Jun-4-2018	Jun-4-2018
Rating Type		injury	injury	control	control	control	control
Rating Unit		percent	percent	percent	percent	percent	percent
Trt-Eval Interval		21 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A
Number of Decimals		0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code						
1	Fierce	76	WG	3 oz/a	A		5	11	98	100	98	100
1	Liberty	2.34	L	32 fl oz/a	C							
1	AMS		WG	8.5 lb/100 gal	C							
2	Boundary	6.5	L	2 pt/a	A		0	2	100	99	68	100
2	Liberty	2.34	L	32 fl oz/a	C							
2	AMS		WG	8.5 lb/100 gal	C							
3	Authority Elite	7	L	25 fl oz/a	A		2	2	100	100	45	100
3	Liberty	2.34	L	32 fl oz/a	C							
3	AMS		WG	8.5 lb/100 gal	C							
4	Zidua PRO	4.09	L	4.5 fl oz/a	A		3	8	100	100	66	100
4	Liberty	2.34	L	32 fl oz/a	C							
4	AMS		WG	8.5 lb/100 gal	C							
5	Untreated						0	0	0	0	0	0
6	Fierce MTZ	2.64	L	16 fl oz/a	A		3	6	98	100	94	99
6	Liberty	2.34	L	32 fl oz/a	C							
6	AMS		WG	8.5 lb/100 gal	C							
7	Fierce	76	WG	3.75 oz/a	A		5	11	95	100	93	100
7	Liberty	2.34	L	32 fl oz/a	C							
7	AMS		WG	8.5 lb/100 gal	C							
8	Authority Supreme	4.16	L	7.7 fl oz/a	A		4	11	100	100	76	100
8	Liberty	2.34	L	32 fl oz/a	C							
8	AMS		WG	8.5 lb/100 gal	C							
9	Authority MTZ	45	WG	14 oz/a	A		1	0	68	100	50	100
9	Liberty	2.34	L	32 fl oz/a	C							
9	AMS		WG	8.5 lb/100 gal	C							
10	Authority First	70	WG	6.4 oz/a	A		3	5	81	100	77	100
10	Liberty	2.34	L	32 fl oz/a	C							
10	AMS		WG	8.5 lb/100 gal	C							
11	Authority XL	70	WG	4 oz/a	A		0	2	77	100	65	100
11	Liberty	2.34	L	32 fl oz/a	C							
11	AMS		WG	8.5 lb/100 gal	C							
12	Moccasin MTZ	4.5	L	32 fl oz/a	A		0	2	99	100	65	100
12	Interline	2.34	L	32 fl oz/a	C							
12	AMS		WG	8.5 lb/100 gal	C							
13	Moccasin MTZ	4.5	L	40 fl oz/a	A		0	2	100	99	63	96
13	Interline	2.34	L	32 fl oz/a	C							
13	AMS		WG	8.5 lb/100 gal	C							

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Pest Code				ANGR	CHEAL	AMBEL	ABUTH
Crop Code		GLXMA	GLXMA				
Rating Date		May-28-2018	Jun-4-2018	Jun-4-2018	Jun-4-2018	Jun-4-2018	Jun-4-2018
Rating Type		injury	injury	control	control	control	control
Rating Unit		percent	percent	percent	percent	percent	percent
Trt-Eval Interval		21 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A
Number of Decimals		0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code						
14	Tripzin ZC	4	L	42 fl oz/a		A	2	3	85	100	60	98
14	Interline	2.34	L	32 fl oz/a		C						
14	AMS		WG	8.5 lb/100 gal		C						
15	Boundary	6.5	L	1.8 pt/a		A	1	1	100	100	58	100
15	Prefix	5.29	L	2 pt/a		C						
15	Liberty	2.34	L	32 fl oz/a		C						
15	AMS		WG	8.5 lb/100 gal		C						
16	Authority XL	70	WG	3 oz/a		A	3	3	72	100	62	100
16	Warrant	3	L	3 pt/a		C						
16	Liberty	2.34	L	32 fl oz/a		C						
16	AMS		WG	8.5 lb/100 gal		C						
17	Liberty	2.34	L	32 fl oz/a		B	0	4	99	100	100	100
17	AMS		WG	8.5 lb/100 gal		B						
17	Liberty	2.34	L	32 fl oz/a		C						
17	AMS		WG	8.5 lb/100 gal		C						
18	Fierce EZ	3.04	L	6 fl oz/a		A	5	10	98	100	94	100
18	Liberty	2.34	L	32 fl oz/a		C						
18	AMS		WG	8.5 lb/100 gal		C						
LSD P=.05							3.3	5.3	5.8	1.2	13.6	3.2
Standard Deviation							2.3	3.7	4.1	0.8	9.6	2.2
CV							116.18	83.74	4.72	0.89	13.95	2.38

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Study Director: Sprague, Powell, Stiles

Pest Code	SINAR	GLXMA	ANGR	CHEAL	AMAPO	AMBEL
Crop Code						
Rating Date	Jun-4-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018
Rating Type	control	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-A	36 DA-A	36 DA-A	36 DA-A	36 DA-A	36 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	SINAR	GLXMA	ANGR	CHEAL	AMAPO	AMBEL
1	Fierce	76	WG	3 oz/a		A	100	4	98	100	100	100
1	Liberty	2.34	L	32 fl oz/a		C						
1	AMS		WG	8.5 lb/100 gal		C						
2	Boundary	6.5	L	2 pt/a		A	100	0	99	100	100	65
2	Liberty	2.34	L	32 fl oz/a		C						
2	AMS		WG	8.5 lb/100 gal		C						
3	Authority Elite	7	L	25 fl oz/a		A	86	0	98	100	100	38
3	Liberty	2.34	L	32 fl oz/a		C						
3	AMS		WG	8.5 lb/100 gal		C						
4	Zidua PRO	4.09	L	4.5 fl oz/a		A	96	3	99	100	100	65
4	Liberty	2.34	L	32 fl oz/a		C						
4	AMS		WG	8.5 lb/100 gal		C						
5	Untreated						0	0	0	0	0	0
6	Fierce MTZ	2.64	L	16 fl oz/a		A	100	1	96	100	100	94
6	Liberty	2.34	L	32 fl oz/a		C						
6	AMS		WG	8.5 lb/100 gal		C						
7	Fierce	76	WG	3.75 oz/a		A	98	2	93	100	100	92
7	Liberty	2.34	L	32 fl oz/a		C						
7	AMS		WG	8.5 lb/100 gal		C						
8	Authority Supreme	4.16	L	7.7 fl oz/a		A	97	1	100	100	100	77
8	Liberty	2.34	L	32 fl oz/a		C						
8	AMS		WG	8.5 lb/100 gal		C						
9	Authority MTZ	45	WG	14 oz/a		A	100	0	67	100	100	53
9	Liberty	2.34	L	32 fl oz/a		C						
9	AMS		WG	8.5 lb/100 gal		C						
10	Authority First	70	WG	6.4 oz/a		A	100	2	81	100	100	77
10	Liberty	2.34	L	32 fl oz/a		C						
10	AMS		WG	8.5 lb/100 gal		C						
11	Authority XL	70	WG	4 oz/a		A	100	0	75	100	100	67
11	Liberty	2.34	L	32 fl oz/a		C						
11	AMS		WG	8.5 lb/100 gal		C						
12	Moccasin MTZ	4.5	L	32 fl oz/a		A	99	0	96	100	100	65
12	Interline	2.34	L	32 fl oz/a		C						
12	AMS		WG	8.5 lb/100 gal		C						
13	Moccasin MTZ	4.5	L	40 fl oz/a		A	100	0	96	98	100	67
13	Interline	2.34	L	32 fl oz/a		C						
13	AMS		WG	8.5 lb/100 gal		C						

Could not calculate LSD (% mean diff) for columns 11,16,17,20,23,24,27,30,32,33,34,38,42 because error mean square = 0.

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Study Director: Sprague, Powell, Stiles

Pest Code	SINAR	GLXMA	ANGR	CHEAL	AMAPO	AMBEL
Crop Code						
Rating Date	Jun-4-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018
Rating Type	control	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-A	36 DA-A	36 DA-A	36 DA-A	36 DA-A	36 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code						
14	Tripzin ZC	4	L	42 fl oz/a		A	98	0	76	100	100	63
14	Interline	2.34	L	32 fl oz/a		C						
14	AMS		WG	8.5 lb/100 gal		C						
15	Boundary	6.5	L	1.8 pt/a		A	100	0	99	100	100	50
15	Prefix	5.29	L	2 pt/a		C						
15	Liberty	2.34	L	32 fl oz/a		C						
15	AMS		WG	8.5 lb/100 gal		C						
16	Authority XL	70	WG	3 oz/a		A	100	0	78	100	100	59
16	Warrant	3	L	3 pt/a		C						
16	Liberty	2.34	L	32 fl oz/a		C						
16	AMS		WG	8.5 lb/100 gal		C						
17	Liberty	2.34	L	32 fl oz/a		B	99	3	99	100	100	100
17	AMS		WG	8.5 lb/100 gal		B						
17	Liberty	2.34	L	32 fl oz/a		C						
17	AMS		WG	8.5 lb/100 gal		C						
18	Fierce EZ	3.04	L	6 fl oz/a		A	100	2	98	100	100	98
18	Liberty	2.34	L	32 fl oz/a		C						
18	AMS		WG	8.5 lb/100 gal		C						
LSD P=.05							4.8	1.8	6.7	1.7	.	17.0
Standard Deviation							3.4	1.3	4.7	1.2	0.0	12.0
CV							3.63	140.66	5.46	1.25	0.0	17.53

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Location: Campus, T-10

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	SINAR	GLXMA	ANGR	CHEAL	AMAPO
Crop Code					
Rating Date	Jun-12-2018	Jun-19-2018	Jun-19-2018	Jun-19-2018	Jun-19-2018
Rating Type	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	36 DA-A	7 DA-C	7 DA-C	7 DA-C	7 DA-C
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code				
1	Fierce	76	WG	3 oz/a	A	100	3	100	100	100
1	Liberty	2.34	L	32 fl oz/a	C					
1	AMS		WG	8.5 lb/100 gal	C					
2	Boundary	6.5	L	2 pt/a	A	100	0	100	100	100
2	Liberty	2.34	L	32 fl oz/a	C					
2	AMS		WG	8.5 lb/100 gal	C					
3	Authority Elite	7	L	25 fl oz/a	A	86	2	100	100	100
3	Liberty	2.34	L	32 fl oz/a	C					
3	AMS		WG	8.5 lb/100 gal	C					
4	Zidua PRO	4.09	L	4.5 fl oz/a	A	100	5	100	100	100
4	Liberty	2.34	L	32 fl oz/a	C					
4	AMS		WG	8.5 lb/100 gal	C					
5	Untreated					0	0	0	0	0
6	Fierce MTZ	2.64	L	16 fl oz/a	A	100	3	99	100	100
6	Liberty	2.34	L	32 fl oz/a	C					
6	AMS		WG	8.5 lb/100 gal	C					
7	Fierce	76	WG	3.75 oz/a	A	100	4	100	100	100
7	Liberty	2.34	L	32 fl oz/a	C					
7	AMS		WG	8.5 lb/100 gal	C					
8	Authority Supreme	4.16	L	7.7 fl oz/a	A	100	4	100	100	100
8	Liberty	2.34	L	32 fl oz/a	C					
8	AMS		WG	8.5 lb/100 gal	C					
9	Authority MTZ	45	WG	14 oz/a	A	100	0	99	100	100
9	Liberty	2.34	L	32 fl oz/a	C					
9	AMS		WG	8.5 lb/100 gal	C					
10	Authority First	70	WG	6.4 oz/a	A	100	3	100	100	100
10	Liberty	2.34	L	32 fl oz/a	C					
10	AMS		WG	8.5 lb/100 gal	C					
11	Authority XL	70	WG	4 oz/a	A	100	0	97	100	100
11	Liberty	2.34	L	32 fl oz/a	C					
11	AMS		WG	8.5 lb/100 gal	C					
12	Moccasin MTZ	4.5	L	32 fl oz/a	A	100	1	100	100	100
12	Interline	2.34	L	32 fl oz/a	C					
12	AMS		WG	8.5 lb/100 gal	C					
13	Moccasin MTZ	4.5	L	40 fl oz/a	A	100	2	100	100	100
13	Interline	2.34	L	32 fl oz/a	C					
13	AMS		WG	8.5 lb/100 gal	C					

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Study Director: Sprague, Powell, Stiles

Pest Code	SINAR	GLXMA	ANGR	CHEAL	AMAPO
Crop Code					
Rating Date	Jun-12-2018	Jun-19-2018	Jun-19-2018	Jun-19-2018	Jun-19-2018
Rating Type	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	36 DA-A	7 DA-C	7 DA-C	7 DA-C	7 DA-C
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
14	Tripzin ZC	4 L		42 fl oz/a		A	100	0	100	100	100
14	Interline	2.34 L		32 fl oz/a		C					
14	AMS		WG	8.5 lb/100 gal		C					
15	Boundary	6.5 L		1.8 pt/a		A	100	16	100	100	100
15	Prefix	5.29 L		2 pt/a		C					
15	Liberty	2.34 L		32 fl oz/a		C					
15	AMS		WG	8.5 lb/100 gal		C					
16	Authority XL	70 WG		3 oz/a		A	100	6	100	100	100
16	Warrant	3 L		3 pt/a		C					
16	Liberty	2.34 L		32 fl oz/a		C					
16	AMS		WG	8.5 lb/100 gal		C					
17	Liberty	2.34 L		32 fl oz/a		B	100	1	98	100	100
17	AMS		WG	8.5 lb/100 gal		B					
17	Liberty	2.34 L		32 fl oz/a		C					
17	AMS		WG	8.5 lb/100 gal		C					
18	Fierce EZ	3.04 L		6 fl oz/a		A	100	2	99	100	100
18	Liberty	2.34 L		32 fl oz/a		C					
18	AMS		WG	8.5 lb/100 gal		C					
LSD P=.05							5.5	3.2	2.2	.	.
Standard Deviation							3.9	2.2	1.5	0.0	0.0
CV							4.15	80.5	1.63	0.0	0.0

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Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	AMBEL	SINAR	ABUTH	GLXMA	ANGR
Crop Code					
Rating Date	Jun-19-2018	Jun-19-2018	Jun-19-2018	Jun-26-2018	Jun-26-2018
Rating Type	control	control	control	injury	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-C	7 DA-C	7 DA-C	14 DA-C	14 DA-C
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	AMBEL	SINAR	ABUTH	GLXMA	ANGR
1	Fierce	76	WG	3 oz/a		A	100	100	100	2	99
1	Liberty	2.34	L	32 fl oz/a		C					
1	AMS		WG	8.5 lb/100 gal		C					
2	Boundary	6.5	L	2 pt/a		A	100	100	100	0	100
2	Liberty	2.34	L	32 fl oz/a		C					
2	AMS		WG	8.5 lb/100 gal		C					
3	Authority Elite	7	L	25 fl oz/a		A	100	99	100	1	100
3	Liberty	2.34	L	32 fl oz/a		C					
3	AMS		WG	8.5 lb/100 gal		C					
4	Zidua PRO	4.09	L	4.5 fl oz/a		A	100	100	100	2	99
4	Liberty	2.34	L	32 fl oz/a		C					
4	AMS		WG	8.5 lb/100 gal		C					
5	Untreated						0	0	0	0	0
6	Fierce MTZ	2.64	L	16 fl oz/a		A	99	100	100	0	97
6	Liberty	2.34	L	32 fl oz/a		C					
6	AMS		WG	8.5 lb/100 gal		C					
7	Fierce	76	WG	3.75 oz/a		A	100	100	100	2	98
7	Liberty	2.34	L	32 fl oz/a		C					
7	AMS		WG	8.5 lb/100 gal		C					
8	Authority Supreme	4.16	L	7.7 fl oz/a		A	100	100	100	2	100
8	Liberty	2.34	L	32 fl oz/a		C					
8	AMS		WG	8.5 lb/100 gal		C					
9	Authority MTZ	45	WG	14 oz/a		A	100	100	100	0	98
9	Liberty	2.34	L	32 fl oz/a		C					
9	AMS		WG	8.5 lb/100 gal		C					
10	Authority First	70	WG	6.4 oz/a		A	100	100	100	1	100
10	Liberty	2.34	L	32 fl oz/a		C					
10	AMS		WG	8.5 lb/100 gal		C					
11	Authority XL	70	WG	4 oz/a		A	100	100	100	0	96
11	Liberty	2.34	L	32 fl oz/a		C					
11	AMS		WG	8.5 lb/100 gal		C					
12	Moccasin MTZ	4.5	L	32 fl oz/a		A	100	100	100	0	99
12	Interline	2.34	L	32 fl oz/a		C					
12	AMS		WG	8.5 lb/100 gal		C					
13	Moccasin MTZ	4.5	L	40 fl oz/a		A	100	100	100	0	100
13	Interline	2.34	L	32 fl oz/a		C					
13	AMS		WG	8.5 lb/100 gal		C					

Could not calculate LSD (% mean diff) for columns 11,16,17,20,23,24,27,30,32,33,34,38,42 because error mean square = 0.

Economics of weed control in LibertyLink soybean

Trial ID: SOY03-18

Location: Campus, T-10

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	AMBEL	SINAR	ABUTH	GLXMA	ANGR
Crop Code					
Rating Date	Jun-19-2018	Jun-19-2018	Jun-19-2018	Jun-26-2018	Jun-26-2018
Rating Type	control	control	control	injury	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-C	7 DA-C	7 DA-C	14 DA-C	14 DA-C
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	AMBEL	SINAR	ABUTH	GLXMA	ANGR
14	Tripzin ZC	4	L	42 fl oz/a		A	100	100	100	0	98
14	Interline	2.34	L	32 fl oz/a		C					
14	AMS		WG	8.5 lb/100 gal		C					
15	Boundary	6.5	L	1.8 pt/a		A	100	100	100	14	100
15	Prefix	5.29	L	2 pt/a		C					
15	Liberty	2.34	L	32 fl oz/a		C					
15	AMS		WG	8.5 lb/100 gal		C					
16	Authority XL	70	WG	3 oz/a		A	100	100	100	4	99
16	Warrant	3	L	3 pt/a		C					
16	Liberty	2.34	L	32 fl oz/a		C					
16	AMS		WG	8.5 lb/100 gal		C					
17	Liberty	2.34	L	32 fl oz/a		B	100	100	100	0	95
17	AMS		WG	8.5 lb/100 gal		B					
17	Liberty	2.34	L	32 fl oz/a		C					
17	AMS		WG	8.5 lb/100 gal		C					
18	Fierce EZ	3.04	L	6 fl oz/a		A	100	100	100	0	98
18	Liberty	2.34	L	32 fl oz/a		C					
18	AMS		WG	8.5 lb/100 gal		C					
LSD P=.05							0.8	0.9	.	2.4	2.3
Standard Deviation							0.6	0.6	0.0	1.7	1.6
CV							0.59	0.68	0.0	113.38	1.73

Economics of weed control in LibertyLink soybean

Trial ID: SOY03-18

Location: Campus, T-10

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	CHEAL	AMAPO	AMBEL	SINAR	ABUTH
Crop Code					
Rating Date	Jun-26-2018	Jun-26-2018	Jun-26-2018	Jun-26-2018	Jun-26-2018
Rating Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	14 DA-C	14 DA-C
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
1	Fierce	76	WG	3 oz/a		A	100	100	100	100	100
1	Liberty	2.34	L	32 fl oz/a		C					
1	AMS		WG	8.5 lb/100 gal		C					
2	Boundary	6.5	L	2 pt/a		A	100	100	100	100	100
2	Liberty	2.34	L	32 fl oz/a		C					
2	AMS		WG	8.5 lb/100 gal		C					
3	Authority Elite	7	L	25 fl oz/a		A	100	100	99	99	100
3	Liberty	2.34	L	32 fl oz/a		C					
3	AMS		WG	8.5 lb/100 gal		C					
4	Zidua PRO	4.09	L	4.5 fl oz/a		A	100	100	100	100	100
4	Liberty	2.34	L	32 fl oz/a		C					
4	AMS		WG	8.5 lb/100 gal		C					
5	Untreated						0	0	0	0	0
6	Fierce MTZ	2.64	L	16 fl oz/a		A	100	100	100	100	100
6	Liberty	2.34	L	32 fl oz/a		C					
6	AMS		WG	8.5 lb/100 gal		C					
7	Fierce	76	WG	3.75 oz/a		A	100	100	100	100	100
7	Liberty	2.34	L	32 fl oz/a		C					
7	AMS		WG	8.5 lb/100 gal		C					
8	Authority Supreme	4.16	L	7.7 fl oz/a		A	100	100	100	100	100
8	Liberty	2.34	L	32 fl oz/a		C					
8	AMS		WG	8.5 lb/100 gal		C					
9	Authority MTZ	45	WG	14 oz/a		A	100	100	100	100	100
9	Liberty	2.34	L	32 fl oz/a		C					
9	AMS		WG	8.5 lb/100 gal		C					
10	Authority First	70	WG	6.4 oz/a		A	100	100	100	100	100
10	Liberty	2.34	L	32 fl oz/a		C					
10	AMS		WG	8.5 lb/100 gal		C					
11	Authority XL	70	WG	4 oz/a		A	100	100	100	100	100
11	Liberty	2.34	L	32 fl oz/a		C					
11	AMS		WG	8.5 lb/100 gal		C					
12	Moccasin MTZ	4.5	L	32 fl oz/a		A	100	100	100	100	100
12	Interline	2.34	L	32 fl oz/a		C					
12	AMS		WG	8.5 lb/100 gal		C					
13	Moccasin MTZ	4.5	L	40 fl oz/a		A	100	100	100	100	100
13	Interline	2.34	L	32 fl oz/a		C					
13	AMS		WG	8.5 lb/100 gal		C					

Could not calculate LSD (% mean diff) for columns 11,16,17,20,23,24,27,30,32,33,34,38,42 because error mean square = 0.

Economics of weed control in LibertyLink soybean

Trial ID: SOY03-18

Location: Campus, T-10

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	CHEAL	AMAPO	AMBEL	SINAR	ABUTH
Crop Code					
Rating Date	Jun-26-2018	Jun-26-2018	Jun-26-2018	Jun-26-2018	Jun-26-2018
Rating Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	14 DA-C	14 DA-C	14 DA-C	14 DA-C	14 DA-C
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
14	Tripzin ZC	4	L	42 fl oz/a		A	100	100	99	100	100
14	Interline	2.34	L	32 fl oz/a		C					
14	AMS		WG	8.5 lb/100 gal		C					
15	Boundary	6.5	L	1.8 pt/a		A	100	100	100	100	100
15	Prefix	5.29	L	2 pt/a		C					
15	Liberty	2.34	L	32 fl oz/a		C					
15	AMS		WG	8.5 lb/100 gal		C					
16	Authority XL	70	WG	3 oz/a		A	100	100	100	100	100
16	Warrant	3	L	3 pt/a		C					
16	Liberty	2.34	L	32 fl oz/a		C					
16	AMS		WG	8.5 lb/100 gal		C					
17	Liberty	2.34	L	32 fl oz/a		B	100	100	100	100	100
17	AMS		WG	8.5 lb/100 gal		B					
17	Liberty	2.34	L	32 fl oz/a		C					
17	AMS		WG	8.5 lb/100 gal		C					
18	Fierce EZ	3.04	L	6 fl oz/a		A	100	100	99	100	100
18	Liberty	2.34	L	32 fl oz/a		C					
18	AMS		WG	8.5 lb/100 gal		C					
LSD	P=.05								1.3	0.5	.
Standard Deviation							0.0	0.0	0.9	0.4	0.0
CV							0.0	0.0	0.96	0.37	0.0

Economics of weed control in LibertyLink soybean

Trial ID: SOY03-18

Location: Campus, T-10

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code		ANGR	CHEAL	AMBEL	SINAR	ABUTH
Crop Code	GLXMA					
Rating Date	Jul-10-2018	Jul-10-2018	Jul-10-2018	Jul-10-2018	Jul-10-2018	Jul-10-2018
Rating Type	injury	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-C	28 DA-C	28 DA-C	28 DA-C	28 DA-C	28 DA-C
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
1	Fierce	76	WG	3 oz/a	A		0	93	100	100	100
1	Liberty	2.34	L	32 fl oz/a	C						
1	AMS		WG	8.5 lb/100 gal	C						
2	Boundary	6.5	L	2 pt/a	A		0	98	100	100	100
2	Liberty	2.34	L	32 fl oz/a	C						
2	AMS		WG	8.5 lb/100 gal	C						
3	Authority Elite	7	L	25 fl oz/a	A		2	99	100	99	100
3	Liberty	2.34	L	32 fl oz/a	C						
3	AMS		WG	8.5 lb/100 gal	C						
4	Zidua PRO	4.09	L	4.5 fl oz/a	A		1	95	100	100	100
4	Liberty	2.34	L	32 fl oz/a	C						
4	AMS		WG	8.5 lb/100 gal	C						
5	Untreated						0	0	0	0	0
6	Fierce MTZ	2.64	L	16 fl oz/a	A		0	91	100	98	100
6	Liberty	2.34	L	32 fl oz/a	C						
6	AMS		WG	8.5 lb/100 gal	C						
7	Fierce	76	WG	3.75 oz/a	A		1	93	100	100	100
7	Liberty	2.34	L	32 fl oz/a	C						
7	AMS		WG	8.5 lb/100 gal	C						
8	Authority Supreme	4.16	L	7.7 fl oz/a	A		2	97	100	100	100
8	Liberty	2.34	L	32 fl oz/a	C						
8	AMS		WG	8.5 lb/100 gal	C						
9	Authority MTZ	45	WG	14 oz/a	A		0	93	100	100	100
9	Liberty	2.34	L	32 fl oz/a	C						
9	AMS		WG	8.5 lb/100 gal	C						
10	Authority First	70	WG	6.4 oz/a	A		0	96	100	100	100
10	Liberty	2.34	L	32 fl oz/a	C						
10	AMS		WG	8.5 lb/100 gal	C						
11	Authority XL	70	WG	4 oz/a	A		0	93	100	98	100
11	Liberty	2.34	L	32 fl oz/a	C						
11	AMS		WG	8.5 lb/100 gal	C						
12	Moccasin MTZ	4.5	L	32 fl oz/a	A		0	97	100	100	100
12	Interline	2.34	L	32 fl oz/a	C						
12	AMS		WG	8.5 lb/100 gal	C						
13	Moccasin MTZ	4.5	L	40 fl oz/a	A		0	96	100	99	100
13	Interline	2.34	L	32 fl oz/a	C						
13	AMS		WG	8.5 lb/100 gal	C						

Could not calculate LSD (% mean diff) for columns 11,16,17,20,23,24,27,30,32,33,34,38,42 because error mean square = 0.

Economics of weed control in LibertyLink soybean

Trial ID: SOY03-18

Location: Campus, T-10

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code		ANGR	CHEAL	AMBEL	SINAR	ABUTH
Crop Code	GLXMA					
Rating Date	Jul-10-2018	Jul-10-2018	Jul-10-2018	Jul-10-2018	Jul-10-2018	Jul-10-2018
Rating Type	injury	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-C	28 DA-C	28 DA-C	28 DA-C	28 DA-C	28 DA-C
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
14	Tripzin ZC	4	L	42 fl oz/a		A	0	97	100	98	100
14	Interline	2.34	L	32 fl oz/a		C					
14	AMS		WG	8.5 lb/100 gal		C					
15	Boundary	6.5	L	1.8 pt/a		A	6	100	100	100	100
15	Prefix	5.29	L	2 pt/a		C					
15	Liberty	2.34	L	32 fl oz/a		C					
15	AMS		WG	8.5 lb/100 gal		C					
16	Authority XL	70	WG	3 oz/a		A	1	94	100	99	100
16	Warrant	3	L	3 pt/a		C					
16	Liberty	2.34	L	32 fl oz/a		C					
16	AMS		WG	8.5 lb/100 gal		C					
17	Liberty	2.34	L	32 fl oz/a		B	0	90	100	100	100
17	AMS		WG	8.5 lb/100 gal		B					
17	Liberty	2.34	L	32 fl oz/a		C					
17	AMS		WG	8.5 lb/100 gal		C					
18	Fierce EZ	3.04	L	6 fl oz/a		A	0	91	100	99	100
18	Liberty	2.34	L	32 fl oz/a		C					
18	AMS		WG	8.5 lb/100 gal		C					
LSD P=.05							2.1	4.5	.	3.1	.
Standard Deviation							1.4	3.1	0.0	2.2	0.0
CV							221.76	3.5	0.0	2.35	0.0

Economics of weed control in LibertyLink soybean

Trial ID: SOY03-18

Location: Campus, T-10

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code		ANGR	CHEAL	AMBEL	SINAR	ANGR
Crop Code	GLXMA					
Rating Date	Aug-7-2018	Aug-7-2018	Aug-7-2018	Aug-7-2018	Aug-7-2018	Oct-9-2018
Rating Type	injury	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	56 DA-C	56 DA-C	56 DA-C	56 DA-C	56 DA-C	119 DA-C
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code						
1	Fierce	76	WG	3 oz/a	A		0	93	100	100	100	89
1	Liberty	2.34	L	32 fl oz/a	C							
1	AMS		WG	8.5 lb/100 gal	C							
2	Boundary	6.5	L	2 pt/a	A		0	98	100	100	100	97
2	Liberty	2.34	L	32 fl oz/a	C							
2	AMS		WG	8.5 lb/100 gal	C							
3	Authority Elite	7	L	25 fl oz/a	A		0	98	100	98	100	95
3	Liberty	2.34	L	32 fl oz/a	C							
3	AMS		WG	8.5 lb/100 gal	C							
4	Zidua PRO	4.09	L	4.5 fl oz/a	A		0	91	100	99	100	86
4	Liberty	2.34	L	32 fl oz/a	C							
4	AMS		WG	8.5 lb/100 gal	C							
5	Untreated						0	0	0	0	0	0
6	Fierce MTZ	2.64	L	16 fl oz/a	A		0	94	100	99	100	87
6	Liberty	2.34	L	32 fl oz/a	C							
6	AMS		WG	8.5 lb/100 gal	C							
7	Fierce	76	WG	3.75 oz/a	A		0	93	100	100	100	87
7	Liberty	2.34	L	32 fl oz/a	C							
7	AMS		WG	8.5 lb/100 gal	C							
8	Authority Supreme	4.16	L	7.7 fl oz/a	A		0	98	100	99	100	93
8	Liberty	2.34	L	32 fl oz/a	C							
8	AMS		WG	8.5 lb/100 gal	C							
9	Authority MTZ	45	WG	14 oz/a	A		0	91	100	100	100	86
9	Liberty	2.34	L	32 fl oz/a	C							
9	AMS		WG	8.5 lb/100 gal	C							
10	Authority First	70	WG	6.4 oz/a	A		0	95	100	100	100	94
10	Liberty	2.34	L	32 fl oz/a	C							
10	AMS		WG	8.5 lb/100 gal	C							
11	Authority XL	70	WG	4 oz/a	A		0	90	100	100	100	85
11	Liberty	2.34	L	32 fl oz/a	C							
11	AMS		WG	8.5 lb/100 gal	C							
12	Moccasin MTZ	4.5	L	32 fl oz/a	A		0	94	100	99	100	90
12	Interline	2.34	L	32 fl oz/a	C							
12	AMS		WG	8.5 lb/100 gal	C							
13	Moccasin MTZ	4.5	L	40 fl oz/a	A		0	98	100	99	100	98
13	Interline	2.34	L	32 fl oz/a	C							
13	AMS		WG	8.5 lb/100 gal	C							

Could not calculate LSD (% mean diff) for columns 11,16,17,20,23,24,27,30,32,33,34,38,42 because error mean square = 0.

Economics of weed control in LibertyLink soybean
Trial ID: SOY03-18 **Location: Campus, T-10**
Investigator: Christy Sprague
Study Director: Sprague, Powell, Stiles

Pest Code		ANGR	CHEAL	AMBEL	SINAR	ANGR
Crop Code	GLXMA					
Rating Date	Aug-7-2018	Aug-7-2018	Aug-7-2018	Aug-7-2018	Aug-7-2018	Oct-9-2018
Rating Type	injury	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	56 DA-C	56 DA-C	56 DA-C	56 DA-C	56 DA-C	119 DA-C
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code						
14	Tripzin ZC	4 L		42 fl oz/a		A	0	94	100	99	100	93
14	Interline	2.34 L		32 fl oz/a		C						
14	AMS	WG		8.5 lb/100 gal		C						
15	Boundary	6.5 L		1.8 pt/a		A	0	100	100	98	100	99
15	Prefix	5.29 L		2 pt/a		C						
15	Liberty	2.34 L		32 fl oz/a		C						
15	AMS	WG		8.5 lb/100 gal		C						
16	Authority XL	70 WG		3 oz/a		A	0	93	100	97	100	88
16	Warrant	3 L		3 pt/a		C						
16	Liberty	2.34 L		32 fl oz/a		C						
16	AMS	WG		8.5 lb/100 gal		C						
17	Liberty	2.34 L		32 fl oz/a		B	0	88	100	99	100	82
17	AMS	WG		8.5 lb/100 gal		B						
17	Liberty	2.34 L		32 fl oz/a		C						
17	AMS	WG		8.5 lb/100 gal		C						
18	Fierce EZ	3.04 L		6 fl oz/a		A	0	92	100	98	100	87
18	Liberty	2.34 L		32 fl oz/a		C						
18	AMS	WG		8.5 lb/100 gal		C						
LSD P=.05							.	4.8	0.5	3.8	.	7.4
Standard Deviation							0.0	3.4	0.3	2.7	0.0	5.2
CV							0.0	3.79	0.36	2.9	0.0	6.13

Economics of weed control in LibertyLink soybean

Trial ID: SOY03-18

Location: Campus, T-10

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	CHEAL	AMBEL	SINAR	GLXMA	GLXMA
Crop Code					
Rating Date	Oct-9-2018	Oct-9-2018	Oct-9-2018	Oct-24-2018	Oct-24-2018
Rating Type	control	control	control	moisture	yield
Rating Unit	percent	percent	percent	percent	bu/acre
Trt-Eval Interval	119 DA-C	119 DA-C	119 DA-C	134 DA-C	at 13% m
Number of Decimals	0	0	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	CHEAL	AMBEL	SINAR	GLXMA moisture	GLXMA yield
1	Fierce	76	WG	3 oz/a		A	100	100	100	12.7	69.1
1	Liberty	2.34	L	32 fl oz/a		C					
1	AMS		WG	8.5 lb/100 gal		C					
2	Boundary	6.5	L	2 pt/a		A	100	97	100	12.6	73.7
2	Liberty	2.34	L	32 fl oz/a		C					
2	AMS		WG	8.5 lb/100 gal		C					
3	Authority Elite	7	L	25 fl oz/a		A	100	100	100	12.7	69.1
3	Liberty	2.34	L	32 fl oz/a		C					
3	AMS		WG	8.5 lb/100 gal		C					
4	Zidua PRO	4.09	L	4.5 fl oz/a		A	100	99	100	12.7	63.8
4	Liberty	2.34	L	32 fl oz/a		C					
4	AMS		WG	8.5 lb/100 gal		C					
5	Untreated						0	0	0	10.4	17.1
6	Fierce MTZ	2.64	L	16 fl oz/a		A	100	100	100	12.8	75.1
6	Liberty	2.34	L	32 fl oz/a		C					
6	AMS		WG	8.5 lb/100 gal		C					
7	Fierce	76	WG	3.75 oz/a		A	100	99	100	12.6	68.5
7	Liberty	2.34	L	32 fl oz/a		C					
7	AMS		WG	8.5 lb/100 gal		C					
8	Authority Supreme	4.16	L	7.7 fl oz/a		A	100	98	100	12.9	63.4
8	Liberty	2.34	L	32 fl oz/a		C					
8	AMS		WG	8.5 lb/100 gal		C					
9	Authority MTZ	45	WG	14 oz/a		A	100	98	100	12.7	65.9
9	Liberty	2.34	L	32 fl oz/a		C					
9	AMS		WG	8.5 lb/100 gal		C					
10	Authority First	70	WG	6.4 oz/a		A	100	100	100	12.7	70.4
10	Liberty	2.34	L	32 fl oz/a		C					
10	AMS		WG	8.5 lb/100 gal		C					
11	Authority XL	70	WG	4 oz/a		A	100	100	100	12.7	75.2
11	Liberty	2.34	L	32 fl oz/a		C					
11	AMS		WG	8.5 lb/100 gal		C					
12	Moccasin MTZ	4.5	L	32 fl oz/a		A	97	97	100	12.7	69.6
12	Interline	2.34	L	32 fl oz/a		C					
12	AMS		WG	8.5 lb/100 gal		C					
13	Moccasin MTZ	4.5	L	40 fl oz/a		A	100	98	100	12.8	76.0
13	Interline	2.34	L	32 fl oz/a		C					
13	AMS		WG	8.5 lb/100 gal		C					

Could not calculate LSD (% mean diff) for columns 11,16,17,20,23,24,27,30,32,33,34,38,42 because error mean square = 0.

Economics of weed control in LibertyLink soybean

Trial ID: SOY03-18

Location: Campus, T-10

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	CHEAL	AMBEL	SINAR	GLXMA	GLXMA
Crop Code					
Rating Date	Oct-9-2018	Oct-9-2018	Oct-9-2018	Oct-24-2018	Oct-24-2018
Rating Type	control	control	control	moisture	yield
Rating Unit	percent	percent	percent	percent	bu/acre
Trt-Eval Interval	119 DA-C	119 DA-C	119 DA-C	134 DA-C	at 13% m
Number of Decimals	0	0	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code					
14	Tripzin ZC	4 L		42 fl oz/a		A	100	99	100	12.9	73.7
14	Interline	2.34 L		32 fl oz/a		C					
14	AMS		WG	8.5 lb/100 gal		C					
15	Boundary	6.5 L		1.8 pt/a		A	100	96	100	12.8	71.9
15	Prefix	5.29 L		2 pt/a		C					
15	Liberty	2.34 L		32 fl oz/a		C					
15	AMS		WG	8.5 lb/100 gal		C					
16	Authority XL	70 WG		3 oz/a		A	100	98	100	12.8	72.9
16	Warrant	3 L		3 pt/a		C					
16	Liberty	2.34 L		32 fl oz/a		C					
16	AMS		WG	8.5 lb/100 gal		C					
17	Liberty	2.34 L		32 fl oz/a		B	100	100	100	13.0	67.9
17	AMS		WG	8.5 lb/100 gal		B					
17	Liberty	2.34 L		32 fl oz/a		C					
17	AMS		WG	8.5 lb/100 gal		C					
18	Fierce EZ	3.04 L		6 fl oz/a		A	100	98	100	12.7	67.9
18	Liberty	2.34 L		32 fl oz/a		C					
18	AMS		WG	8.5 lb/100 gal		C					
LSD P=.05							2.0	4.7	.	0.87	14.83
Standard Deviation							1.4	3.3	0.0	0.61	10.45
CV							1.5	3.58	0.0	4.86	15.52