

Weed control systems in Enlist soybean

Trial ID: SOY05-19 Study Dir.: Sprague, Stiles, Powell
 Conducted: Campus, C-14 Investigator: Christy Sprague

Planting Date: May-15-2019 **Row Spacing:** 30 IN
Variety: Enlist E3 'P74312619' **No. of Reps:** 4
Population: 155000 seeds/A **% OM:** 3.1
Soil Type: L loam **pH:** 6.2
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall soil finish; spring soil finish (2X)
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
Application Timing:	PRE	POST
Date Treated:	May-15-2019	Jun-18-2019
Time Treated:	12:45 PM	1:00 PM
% Cloud Cover:	20	90
Air Temp., Unit:	65 F	72 F
% Relative Humidity:	50	64
Wind Speed/Unit/Dir:	8.5 mph W	3 mph E
Soil Temp, Unit:	55 F	67 F
Leaf Moist/Dew Presence (Y/N):	5	3
Soil Moist:	5	2

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		6 "
Stage:		V2

Weed Stage at Each Application

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

Weed Density

	1	2	3	4	5	6
Date:	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	SINAR	ABUTH
Density:	233 ft2	3 ft2	1 ft2	20 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	24 "	20 "	100 "	19 GPA	WATER	30 psi
B	CUB	3.8 mph	AIXR	11003	29 "	20 "	100 "	19 GPA	WATER	30 psi

Comments:

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Location: Campus, C-14

Investigator: Christy Sprague

Study Director: Sprague, Stiles, Powell

Pest Code						ANGR	CHEAL	AMAPO	AMBEL			
Crop Type, Code					GLXMA							
Rating Date					Jun-17-2019	Jun-17-2019	Jun-17-2019	Jun-17-2019	Jun-17-2019			
Rating Type					injury	control	control	control	control			
Rating Unit					percent	percent	percent	percent	percent			
Trt-Eval Interval					33 DA-A	33 DA-A	33 DA-A	33 DA-A	33 DA-A			
Number of Decimals					0	0	0	0	0			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code					
1	Sonic	70	WG	4.5 oz/a		PRE	A	4	75	100	100	61
1	Durango DMA	4	SL	32 fl oz/a		POST	B					
1	AMS		WG	17 lb/100 gal		POST	B					
2	Sonic	70	WG	4.5 oz/a		PRE	A	2	80	100	100	66
2	Enlist Duo	3.33	SL	3.5 pt/a		POST	B					
2	AMS		WG	17 lb/100 gal		POST	B					
3	Sonic	70	WG	4.5 oz/a		PRE	A	2	78	100	100	68
3	Enlist Duo	3.33	SL	4.67 pt/a		POST	B					
3	AMS		WG	17 lb/100 gal		POST	B					
4	Untreated							0	0	0	0	0
5	Sonic	70	WG	4.5 oz/a		PRE	A	5	77	100	100	67
5	Enlist One	3.8	SL	24 fl oz/a		POST	B					
5	Durango DMA	4	SL	24 fl oz/a		POST	B					
5	AMS		WG	17 lb/100 gal		POST	B					
6	Sonic	70	WG	4.5 oz/a		PRE	A	0	71	100	100	60
6	Enlist One	3.8	SL	32 fl oz/a		POST	B					
6	Durango DMA	4	SL	32 fl oz/a		POST	B					
6	AMS		WG	17 lb/100 gal		POST	B					
7	Sonic	70	WG	4.5 oz/a		PRE	A	3	76	100	100	64
7	Liberty	2.34	L	29 fl oz/a		POST	B					
7	AMS		WG	17 lb/100 gal		POST	B					
8	Sonic	70	WG	4.5 oz/a		PRE	A	1	70	100	100	58
8	Enlist One	3.8	SL	24 fl oz/a		POST	B					
8	Liberty	2.34	L	29 fl oz/a		POST	B					
8	AMS		WG	17 lb/100 gal		POST	B					
9	Sonic	70	WG	4.5 oz/a		PRE	A	2	78	100	100	61
9	Enlist One	3.8	SL	32 fl oz/a		POST	B					
9	Liberty	2.34	L	29 fl oz/a		POST	B					
9	AMS		WG	17 lb/100 gal		POST	B					
10	Zidua PRO	4.09	L	4.5 fl oz/a		PRE	A	14	100	100	100	98
10	Liberty	2.34	L	32 fl oz/a		POST	B					
10	AMS		WG	17 lb/100 gal		POST	B					
LSD P=.05								3.9	11.0	.	.	8.8
Standard Deviation								2.7	7.6	0.0	0.0	6.1
CV								88.0	10.78	0.0	0.0	10.08

Missing data estimates are included in columns: Average=19,20

Could not calculate LSD (% mean diff) for columns 3,4,6,9,10,15,16 because error mean square = 0.

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Pest Code	ABUTH	GLXMA	ANGR	CHEAL	AMAPO	AMBEL
Crop Type, Code						
Rating Date	Jun-17-2019	Jul-2-2019	Jul-2-2019	Jul-2-2019	Jul-2-2019	Jul-2-2019
Rating Type	control	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	33 DA-A	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code	ABUTH	GLXMA	ANGR	CHEAL	AMAPO	AMBEL
1	Sonic	70	WG	4.5 oz/a		PRE	A	100	1	99	100	100	98
1	Durango DMA	4	SL	32 fl oz/a		POST	B						
1	AMS		WG	17 lb/100 gal		POST	B						
2	Sonic	70	WG	4.5 oz/a		PRE	A	100	2	99	100	100	100
2	Enlist Duo	3.33	SL	3.5 pt/a		POST	B						
2	AMS		WG	17 lb/100 gal		POST	B						
3	Sonic	70	WG	4.5 oz/a		PRE	A	100	4	99	100	100	100
3	Enlist Duo	3.33	SL	4.67 pt/a		POST	B						
3	AMS		WG	17 lb/100 gal		POST	B						
4	Untreated							0	0	0	0	0	0
5	Sonic	70	WG	4.5 oz/a		PRE	A	100	2	97	100	100	100
5	Enlist One	3.8	SL	24 fl oz/a		POST	B						
5	Durango DMA	4	SL	24 fl oz/a		POST	B						
5	AMS		WG	17 lb/100 gal		POST	B						
6	Sonic	70	WG	4.5 oz/a		PRE	A	100	1	98	100	100	100
6	Enlist One	3.8	SL	32 fl oz/a		POST	B						
6	Durango DMA	4	SL	32 fl oz/a		POST	B						
6	AMS		WG	17 lb/100 gal		POST	B						
7	Sonic	70	WG	4.5 oz/a		PRE	A	100	3	93	100	100	97
7	Liberty	2.34	L	29 fl oz/a		POST	B						
7	AMS		WG	17 lb/100 gal		POST	B						
8	Sonic	70	WG	4.5 oz/a		PRE	A	100	5	99	100	100	100
8	Enlist One	3.8	SL	24 fl oz/a		POST	B						
8	Liberty	2.34	L	29 fl oz/a		POST	B						
8	AMS		WG	17 lb/100 gal		POST	B						
9	Sonic	70	WG	4.5 oz/a		PRE	A	100	3	98	100	100	100
9	Enlist One	3.8	SL	32 fl oz/a		POST	B						
9	Liberty	2.34	L	29 fl oz/a		POST	B						
9	AMS		WG	17 lb/100 gal		POST	B						
10	Zidua PRO	4.09	L	4.5 fl oz/a		PRE	A	100	11	100	100	100	99
10	Liberty	2.34	L	32 fl oz/a		POST	B						
10	AMS		WG	17 lb/100 gal		POST	B						
LSD	P=.05							.	4.2	3.4	.	.	2.4
Standard Deviation								0.0	2.9	2.3	0.0	0.0	1.7
CV								0.0	88.83	2.66	0.0	0.0	1.86

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Study Director: Sprague, Stiles, Powell

Pest Code	ABUTH		GLXMA		ANGR	CHEAL	AMAPO	AMBEL										
Crop Type, Code	Jul-2-2019	Jul-16-2019	Jul-16-2019	Jul-16-2019	Jul-16-2019	Jul-16-2019	Jul-16-2019	Jul-16-2019										
Rating Date	control	injury	control	control	control	control	control	control										
Rating Type	percent	percent	percent	percent	percent	percent	percent	percent										
Rating Unit	14 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B										
Trt-Eval Interval	0	0	0	0	0	0	0	0										
Number of Decimals	0	0	0	0	0	0	0	0										
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code											
1	Sonic	70	WG	4.5 oz/a		PRE	A	99	0	92	100	100	94					
1	Durango DMA	4	SL	32 fl oz/a		POST	B											
1	AMS		WG	17 lb/100 gal		POST	B											
2	Sonic	70	WG	4.5 oz/a		PRE	A	100	0	91	100	100	100					
2	Enlist Duo	3.33	SL	3.5 pt/a		POST	B											
2	AMS		WG	17 lb/100 gal		POST	B											
3	Sonic	70	WG	4.5 oz/a		PRE	A	100	0	95	100	100	100					
3	Enlist Duo	3.33	SL	4.67 pt/a		POST	B											
3	AMS		WG	17 lb/100 gal		POST	B											
4	Untreated							0	0	0	0	0	0					
5	Sonic	70	WG	4.5 oz/a		PRE	A	100	0	88	100	100	99					
5	Enlist One	3.8	SL	24 fl oz/a		POST	B											
5	Durango DMA	4	SL	24 fl oz/a		POST	B											
5	AMS		WG	17 lb/100 gal		POST	B											
6	Sonic	70	WG	4.5 oz/a		PRE	A	100	0	93	100	100	98					
6	Enlist One	3.8	SL	32 fl oz/a		POST	B											
6	Durango DMA	4	SL	32 fl oz/a		POST	B											
6	AMS		WG	17 lb/100 gal		POST	B											
7	Sonic	70	WG	4.5 oz/a		PRE	A	100	0	86	100	100	94					
7	Liberty	2.34	L	29 fl oz/a		POST	B											
7	AMS		WG	17 lb/100 gal		POST	B											
8	Sonic	70	WG	4.5 oz/a		PRE	A	100	0	90	100	100	99					
8	Enlist One	3.8	SL	24 fl oz/a		POST	B											
8	Liberty	2.34	L	29 fl oz/a		POST	B											
8	AMS		WG	17 lb/100 gal		POST	B											
9	Sonic	70	WG	4.5 oz/a		PRE	A	100	0	91	100	100	100					
9	Enlist One	3.8	SL	32 fl oz/a		POST	B											
9	Liberty	2.34	L	29 fl oz/a		POST	B											
9	AMS		WG	17 lb/100 gal		POST	B											
10	Zidua PRO	4.09	L	4.5 fl oz/a		PRE	A	100	3	95	100	100	96					
10	Liberty	2.34	L	32 fl oz/a		POST	B											
10	AMS		WG	17 lb/100 gal		POST	B											
LSD	P=.05							0.7	0.9	4.4	.	.	4.0					
Standard Deviation								0.5	0.7	3.0	0.0	0.0	2.8					
CV								0.53	237.06	3.66	0.0	0.0	3.16					

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Pest Code	ABUTH		
Crop Type, Code		GLXMA	GLXMA
Rating Date	Jul-16-2019	Oct-8-2019	Oct-8-2019
Rating Type	control	moisture	yield
Rating Unit	percent	percent	bu/acre
Trt-Eval Interval	28 DA-B	112 DA-B	at 13% M
Number of Decimals	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code			
1	Sonic	70	WG	4.5 oz/a		PRE	A	100	11.6	44.2
1	Durango DMA	4	SL	32 fl oz/a		POST	B			
1	AMS		WG	17 lb/100 gal		POST	B			
2	Sonic	70	WG	4.5 oz/a		PRE	A	100	11.5	45.3
2	Enlist Duo	3.33	SL	3.5 pt/a		POST	B			
2	AMS		WG	17 lb/100 gal		POST	B			
3	Sonic	70	WG	4.5 oz/a		PRE	A	100	11.5	45.6
3	Enlist Duo	3.33	SL	4.67 pt/a		POST	B			
3	AMS		WG	17 lb/100 gal		POST	B			
4	Untreated							0	11.4	10.5
5	Sonic	70	WG	4.5 oz/a		PRE	A	100	11.5	41.8
5	Enlist One	3.8	SL	24 fl oz/a		POST	B			
5	Durango DMA	4	SL	24 fl oz/a		POST	B			
5	AMS		WG	17 lb/100 gal		POST	B			
6	Sonic	70	WG	4.5 oz/a		PRE	A	99	11.4	47.9
6	Enlist One	3.8	SL	32 fl oz/a		POST	B			
6	Durango DMA	4	SL	32 fl oz/a		POST	B			
6	AMS		WG	17 lb/100 gal		POST	B			
7	Sonic	70	WG	4.5 oz/a		PRE	A	100	11.6	45.7
7	Liberty	2.34	L	29 fl oz/a		POST	B			
7	AMS		WG	17 lb/100 gal		POST	B			
8	Sonic	70	WG	4.5 oz/a		PRE	A	100	11.7	50.3
8	Enlist One	3.8	SL	24 fl oz/a		POST	B			
8	Liberty	2.34	L	29 fl oz/a		POST	B			
8	AMS		WG	17 lb/100 gal		POST	B			
9	Sonic	70	WG	4.5 oz/a		PRE	A	100	11.4	48.8
9	Enlist One	3.8	SL	32 fl oz/a		POST	B			
9	Liberty	2.34	L	29 fl oz/a		POST	B			
9	AMS		WG	17 lb/100 gal		POST	B			
10	Zidua PRO	4.09	L	4.5 fl oz/a		PRE	A	100	11.5	43.8
10	Liberty	2.34	L	32 fl oz/a		POST	B			
10	AMS		WG	17 lb/100 gal		POST	B			
	LSD P=.05							0.7	0.21	6.59
	Standard Deviation							0.5	0.15	4.52
	CV							0.53	1.27	10.67

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