

Weed control systems in Enlist E3 soybean

Trial ID: SOY05-23 Study Dir.: Sprague, Stiles
 Conducted: Campus, C-12 Investigator: Christy Sprague

Planting Date: May-10-2023 **Row Spacing:** 30 IN
Variety: P25A16E **No. of Reps:** 4
Population: 150000 seeds/A **% OM:** 3
Soil Type: CL clay loam **pH:** 7.4
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plowed, fall soil finished twice, spring soil finished twice
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	annual grass	mainly foxtail species
2	CHEAL	common lambsquarters	Chenopodium album
3	AMAPO	Powell amaranth	Amaranthus powellii
4	AMBEL	common ragweed	Ambrosia artemisiifolia
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	May-10-2023	Jun-16-2023
Time Treated:	3:10 PM	9:40 AM
% Cloud Cover:	5	100
Air Temp., Unit:	76 F	59 F
% Relative Humidity:	30	85
Wind Speed/Unit/Dir:	5 MPH W	7.5 MPH N
Soil Temp, Unit:	70 F	64 F
Leaf Moist/Dew Presence (Y/N):	N	N
Soil Moist:	5	5

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		6 "
Stage:		V2-V3

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		3-6 " (5)
Stage:		3-4L
Weed 2 Name:	CHEAL	CHEAL
Height:		1-5 " (4)
Stage:		6-20L
Weed 3 Name:	AMAPO	AMAPO
Height:		2-4 " (3)
Stage:		10L
Weed 4 Name:	AMBEL	AMBEL
Height:		1-5 " (4)
Stage:		4-12L

Weed Density

	1	2	3	4
Date:	Jun-16-2023	Jun-16-2023	Jun-16-2023	Jun-16-2023
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL
Density:	2 FT2	2 FT2	1 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	AIXR	11003	18.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	22.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI

Comments: Common ragweed (AMBEL) at this location is resistant to the Group 2 (ALS-inhibiting) herbicides.

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Rating Date	Jun-14-2023	Jun-14-2023	Jun-14-2023	Jun-14-2023	Jun-23-2023	Jun-23-2023
Rating Type	injury	control	control	control	injury	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code	C, GLXMA				C, GLXMA	
Pest Code		ANGR	CHEAL	AMBEL		ANGR
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A	35 DA-A	7 DA-B	7 DA-B
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	Jun-14-2023 injury	Jun-14-2023 control	Jun-14-2023 control	Jun-14-2023 control	Jun-23-2023 injury	Jun-23-2023 control
1	Untreated					0	0	0	0	0	0
2	Kyber	1 pt/a		A	PRE	0	80	76	57	6	97
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
3	Kyber	1 pt/a		A	PRE	0	83	81	63	15	96
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
4	Kyber	0.5 pt/a		A	PRE	0	46	45	45	5	94
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
5	Kyber	0.5 pt/a		A	PRE	0	49	52	47	2	99
	Enlist One	32 fl oz/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
6	Kyber	0.5 pt/a		A	PRE	0	44	51	39	16	95
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
7	Kyber	0.5 pt/a		A	PRE	0	48	53	49	9	99
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
8	Kyber	0.5 pt/a		A	PRE	0	43	44	33	20	99
	Flexstar	1 pt/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
9	Kyber	0.5 pt/a		A	PRE	0	41	46	46	20	100
	Flexstar	1 pt/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
10	Kyber	0.5 pt/a		A	PRE	0	41	42	41	12	98
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
	LSD P=.05						18.8	17.4	18.0	2.3	4.5
	Standard Deviation					0.0	12.9	12.0	12.4	1.6	3.1
	CV					0.0	27.29	24.46	29.53	15.16	3.51

Could not calculate LSD (% mean diff) for columns 1,10,11,13,15,17,20 because error mean square = 0.

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Rating Date	Jun-23-2023	Jun-23-2023	Jun-30-2023	Jun-30-2023	Jun-30-2023	Jun-30-2023
Rating Type	control	control	injury	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code			C, GLXMA			
Pest Code	CHEAL	AMBEL		ANGR	CHEAL	AMBEL
Trt-Eval Interval	7 DA-B	7 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	Rate	Unit	Appl Code	Appl Timing	Jun-23-2023 control	Jun-23-2023 control	Jun-30-2023 injury	Jun-30-2023 control	Jun-30-2023 control	Jun-30-2023 control
1	Untreated					0	0	0	0	0	0
2	Kyber	1 pt/a		A	PRE	100	98	2	100	100	100
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
3	Kyber	1 pt/a		A	PRE	100	97	15	100	100	100
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
4	Kyber	0.5 pt/a		A	PRE	100	99	1	100	100	100
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
5	Kyber	0.5 pt/a		A	PRE	99	88	1	100	100	100
	Enlist One	32 fl oz/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
6	Kyber	0.5 pt/a		A	PRE	100	97	15	100	100	100
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
7	Kyber	0.5 pt/a		A	PRE	99	89	11	100	100	100
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
8	Kyber	0.5 pt/a		A	PRE	100	100	9	100	100	100
	Flexstar	1 pt/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
9	Kyber	0.5 pt/a		A	PRE	100	93	10	100	100	99
	Flexstar	1 pt/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
10	Kyber	0.5 pt/a		A	PRE	100	99	13	100	100	100
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
	LSD P=.05					1.7	5.7	3.1	.	.	0.7
	Standard Deviation					1.1	4.0	2.2	0.0	0.0	0.5
	CV					1.27	4.6	28.51	0.0	0.0	0.53

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Rating Date	Jul-7-2023	Jul-7-2023	Jul-7-2023	Jul-7-2023	Jul-14-2023	Jul-14-2023	Jul-14-2023
Rating Type	injury	control	control	control	injury	control	control
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Crop Type, Code	C, GLXMA				C, GLXMA		
Pest Code		ANGR	CHEAL	AMBEL		ANGR	CHEAL
Trt-Eval Interval	21 DA-B	21 DA-B	21 DA-B	21 DA-B	28 DA-B	28 DA-B	28 DA-B
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	0	0	0	0	0	0
1	Untreated					0	0	0	0	0	0
2	Kyber	1 pt/a		A	PRE	0	100	100	100	0	100
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
3	Kyber	1 pt/a		A	PRE	0	100	100	100	0	100
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
4	Kyber	0.5 pt/a		A	PRE	0	100	100	100	0	100
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
5	Kyber	0.5 pt/a		A	PRE	0	100	100	100	0	100
	Enlist One	32 fl oz/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
6	Kyber	0.5 pt/a		A	PRE	0	100	100	100	0	100
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
7	Kyber	0.5 pt/a		A	PRE	0	100	100	100	0	100
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
8	Kyber	0.5 pt/a		A	PRE	0	100	100	100	0	100
	Flexstar	1 pt/a		B	POST						99
	Liberty	32 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
9	Kyber	0.5 pt/a		A	PRE	0	100	100	98	0	100
	Flexstar	1 pt/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
10	Kyber	0.5 pt/a		A	PRE	0	100	100	100	0	100
	EverpreX	1.3 pt/a		B	POST						
	Enlist One	32 fl oz/a		B	POST						
	Liberty	32 fl oz/a		B	POST						
	Roundup PowerMax 3	30 fl oz/a		B	POST						
	AMS	8.5 lb/100 gal		B	POST						
	LSD P=.05					.	0.3	.	1.0	.	0.7
	Standard Deviation					0.0	0.2	0.0	0.7	0.0	0.5
	CV					0.0	0.25	0.0	0.78	0.0	0.61

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jul-14-2023	Jul-14-2023
Rating Type	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100
Crop Type, Code		
Pest Code	AMAPO	AMBEL
Trt-Eval Interval	28 DA-B	28 DA-B
Number of Decimals	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing	Jul-14-2023 control	Jul-14-2023 control
1	Untreated					0	0
2	Kyber	1 pt/a		A	PRE	100	100
	Enlist One	32 fl oz/a		B	POST		
	Liberty	32 fl oz/a		B	POST		
	AMS	8.5 lb/100 gal		B	POST		
3	Kyber	1 pt/a		A	PRE	100	100
	EverpreX	1.3 pt/a		B	POST		
	Enlist One	32 fl oz/a		B	POST		
	Liberty	32 fl oz/a		B	POST		
	AMS	8.5 lb/100 gal		B	POST		
4	Kyber	0.5 pt/a		A	PRE	100	100
	Enlist One	32 fl oz/a		B	POST		
	Liberty	32 fl oz/a		B	POST		
	AMS	8.5 lb/100 gal		B	POST		
5	Kyber	0.5 pt/a		A	PRE	100	100
	Enlist One	32 fl oz/a		B	POST		
	Roundup PowerMax 3	30 fl oz/a		B	POST		
	AMS	8.5 lb/100 gal		B	POST		
6	Kyber	0.5 pt/a		A	PRE	100	100
	EverpreX	1.3 pt/a		B	POST		
	Enlist One	32 fl oz/a		B	POST		
	Liberty	32 fl oz/a		B	POST		
	AMS	8.5 lb/100 gal		B	POST		
7	Kyber	0.5 pt/a		A	PRE	100	100
	EverpreX	1.3 pt/a		B	POST		
	Enlist One	32 fl oz/a		B	POST		
	Roundup PowerMax 3	30 fl oz/a		B	POST		
	AMS	8.5 lb/100 gal		B	POST		
8	Kyber	0.5 pt/a		A	PRE	100	98
	Flexstar	1 pt/a		B	POST		
	Liberty	32 fl oz/a		B	POST		
	AMS	8.5 lb/100 gal		B	POST		
9	Kyber	0.5 pt/a		A	PRE	100	95
	Flexstar	1 pt/a		B	POST		
	Roundup PowerMax 3	30 fl oz/a		B	POST		
	AMS	8.5 lb/100 gal		B	POST		
10	Kyber	0.5 pt/a		A	PRE	100	100
	EverpreX	1.3 pt/a		B	POST		
	Enlist One	32 fl oz/a		B	POST		
	Liberty	32 fl oz/a		B	POST		
	Roundup PowerMax 3	30 fl oz/a		B	POST		
	AMS	8.5 lb/100 gal		B	POST		
	LSD P=.05					.	3.9
	Standard Deviation					0.0	2.7
	CV					0.0	3.05

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