

Residual weed control from Engenia PRE in XtendFlex soybean

Trial ID: SOY12-22 Study Dir.: Sprague, Stiles, Powell
 Conducted: Campus, T-10 Investigator:

Planting Date: May-16-2022 **Row Spacing:** 30 IN
Variety: AG24XF1 **No. of Reps:** 4
Population: 150000 seeds/A **% OM:** 2.2
Soil Type: CL clay loam **pH:** 7.2
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chiesl plow; Spring soil finish twice.
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	annual grass	mainly foxtail species and barnyardgrass
2	CHEAL	common lambsquarters	Chenopodium album
3	AMAPO	Powell amaranth	Amaranthus powellii
4	AMBEL	common ragweed	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
6	SINAR	wild mustard	Sinapis arvensis
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

Application Timing: A PRE
Date Treated: May-17-2022
Time Treated: 9:20 AM
% Cloud Cover: 0
Air Temp., Unit: 52 F
% Relative Humidity: 59
Wind Speed/Unit/Dir: 8 MPH NW
Soil Temp, Unit: 54 F
Leaf Moist/Dew Presence (Y/N): N
Soil Moist: 5

Crop Stage at Each Application

A
Crop 1 Name: GLXMA
Height:
Stage:

Weed Stage at Each Application

A
Weed 1 Name: ANGR
Height:
Stage:
Weed 2 Name: CHEAL
Height:
Stage:
Weed 3 Name: AMAPO
Height:
Stage:
Weed 4 Name: AMBEL
Height:
Stage:
Weed 5 Name: ABUTH
Height:
Stage:
Weed 6 Name: SINAR
Height:
Stage:

Weed Density

	1	2	3	4	5	6
Date:	May-17-2022	May-17-2022	May-17-2022	May-17-2022	May-17-2022	May-17-2022
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	SINAR
Density:	2 FT2	2 FT2	1 FT2	5 FT2	2 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	TT1	11003	18 "	20 "	100 "	19 GAL/AC	WATER	25 PSI

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Comments: The soybean variety AG24XF1 is reported to have some sensitivity to the Group 14 herbicides. A POST application of Roundup PowerMax3 at 30 fl oz/A + AMS (17 lb/100 gal) was applied on July 5.

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 Project ID: Project ID 2: Project ID 3:
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 Investigator (Creator): Christy Sprague

Pest Code	C, GLXMA		ANGR	CHEAL	AMBEL	SINAR	C, GLXMA	
Crop Type, Code	May-31-2022	Jun-8-2022	Jun-8-2022	Jun-8-2022	Jun-8-2022	Jun-8-2022	Jun-14-2022	
Rating Date	injury	injury	control	control	control	control	injury	
Rating Type	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Rating Unit/Min/Max								
Trt-Eval Interval	14 DA-A	22 DA-A	22 DA-A	22 DA-A	22 DA-A	22 DA-A	22 DA-A	28 DA-A
Number of Decimals	0	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Timing	Code						
1	Untreated					0	0	0	0	0	0
2	Engenia	12.8 fl oz/a	PRE	A		0	2	98	100	100	100
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
3	Zidua SC	3.25 fl oz/a	PRE	A		0	2	100	100	98	99
4	Zidua SC	3.25 fl oz/a	PRE	A		0	3	100	100	99	100
	Engenia	12.8 fl oz/a	PRE	A							
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
5	Zidua PRO	6 fl oz/a	PRE	A		36	30	100	100	100	100
6	Zidua PRO	6 fl oz/a	PRE	A		36	31	100	100	100	100
	Engenia	12.8 fl oz/a	PRE	A							
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
7	Boundary	2 pt/a	PRE	A		0	1	100	100	98	100
8	Boundary	2 pt/a	PRE	A		0	2	100	100	100	100
	Engenia	12.8 fl oz/a	PRE	A							
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
9	Engenia Prime	16 fl oz/a	PRE	A		0	4	100	100	100	100
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
	LSD P=.05					2.6	3.1	1.0	.	3.0	1.2
	Standard Deviation					1.8	2.1	0.7	0.0	2.1	0.8
	CV					21.74	25.9	0.78	0.0	2.34	0.94

Could not calculate LSD (% mean diff) for columns 4,9,10,12 because error mean square = 0.

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 Investigator (Creator): Christy Sprague

Pest Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	SINAR	C, GLXMA
Crop Type, Code							
Rating Date	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-27-2022
Rating Type	control	control	control	control	control	control	injury
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	41 DA-A
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Timing	Code						
1	Untreated					0	0	0	0	0	0
2	Engenia	12.8 fl oz/a	PRE	A		81	100	100	99	100	100
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
3	Zidua SC	3.25 fl oz/a	PRE	A		100	100	100	88	100	96
4	Zidua SC	3.25 fl oz/a	PRE	A		100	100	100	100	100	100
	Engenia	12.8 fl oz/a	PRE	A							
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
5	Zidua PRO	6 fl oz/a	PRE	A		100	100	100	100	100	100
6	Zidua PRO	6 fl oz/a	PRE	A		100	100	100	100	100	100
	Engenia	12.8 fl oz/a	PRE	A							
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
7	Boundary	2 pt/a	PRE	A		100	100	100	94	100	100
8	Boundary	2 pt/a	PRE	A		100	100	100	100	100	100
	Engenia	12.8 fl oz/a	PRE	A							
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
9	Engenia Prime	16 fl oz/a	PRE	A		100	100	100	100	100	100
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
	LSD P=.05					3.1	.	.	5.7	.	3.6
	Standard Deviation					2.1	0.0	0.0	3.9	0.0	2.5
	CV					2.42	0.0	0.0	4.48	0.0	2.83

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Pest Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	SINAR	ANGR
Crop Type, Code							
Rating Date	Jun-27-2022	Jun-27-2022	Jun-27-2022	Jun-27-2022	Jun-27-2022	Jun-27-2022	Oct-7-2022
Rating Type	control	control	control	control	control	control	control
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Trt-Eval Interval	41 DA-A	41 DA-A	41 DA-A	41 DA-A	41 DA-A	41 DA-A	143 DA-A
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Timing	Code						
1	Untreated					0	0	0	0	0	0
2	Engenia	12.8 fl oz/a	PRE	A		76	89	95	91	99	92
	Sentris	8 fl oz/a	PRE	A							80
	Cognitive 1	0.5 % v/v	PRE	A							
3	Zidua SC	3.25 fl oz/a	PRE	A		100	99	100	75	93	89
4	Zidua SC	3.25 fl oz/a	PRE	A		99	98	100	99	100	100
	Engenia	12.8 fl oz/a	PRE	A							94
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
5	Zidua PRO	6 fl oz/a	PRE	A		100	100	100	100	100	100
6	Zidua PRO	6 fl oz/a	PRE	A		100	100	100	100	100	100
	Engenia	12.8 fl oz/a	PRE	A							96
	Sentris	8 fl oz/a	PRE	A							95
	Cognitive 1	0.5 % v/v	PRE	A							
7	Boundary	2 pt/a	PRE	A		100	100	100	81	100	100
8	Boundary	2 pt/a	PRE	A		100	100	100	98	100	100
	Engenia	12.8 fl oz/a	PRE	A							
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
9	Engenia Prime	16 fl oz/a	PRE	A		100	100	100	99	100	100
	Sentris	8 fl oz/a	PRE	A							99
	Cognitive 1	0.5 % v/v	PRE	A							
	LSD P=.05					2.1	4.7	2.8	5.8	7.4	5.0
	Standard Deviation					1.5	3.2	1.9	4.0	5.1	3.5
	CV					1.7	3.68	2.18	4.79	5.8	3.99

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Pest Code	CHEAL	AMAPO	AMBEL	ABUTH	C, GLXMA	C, GLXMA
Crop Type, Code						
Rating Date	Oct-7-2022	Oct-7-2022	Oct-7-2022	Oct-7-2022	Oct-21-2022	Oct-21-2022
Rating Type	control	control	control	control	moisture	yield
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	bu/A, -, -
Trt-Eval Interval	143 DA-A	143 DA-A	143 DA-A	143 DA-A	157 DA-A	157 DA-A
Number of Decimals	0	0	0	0	1	1

Trt No.	Treatment Name	Rate	Appl Unit	Appl Timing	Appl Code						
1	Untreated					0	0	0	0	12.6	21.8
2	Engenia	12.8 fl oz/a	PRE	A		88	93	83	99	15.7	46.8
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
3	Zidua SC	3.25 fl oz/a	PRE	A		99	100	70	100	15.5	41.0
4	Zidua SC	3.25 fl oz/a	PRE	A		92	100	91	100	15.4	51.8
	Engenia	12.8 fl oz/a	PRE	A							
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
5	Zidua PRO	6 fl oz/a	PRE	A		100	100	98	100	13.9	45.3
6	Zidua PRO	6 fl oz/a	PRE	A		100	100	95	100	14.7	46.6
	Engenia	12.8 fl oz/a	PRE	A							
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
7	Boundary	2 pt/a	PRE	A		100	100	79	96	14.6	49.5
8	Boundary	2 pt/a	PRE	A		100	100	91	95	15.1	52.8
	Engenia	12.8 fl oz/a	PRE	A							
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
9	Engenia Prime	16 fl oz/a	PRE	A		100	100	96	100	14.1	55.8
	Sentris	8 fl oz/a	PRE	A							
	Cognitive 1	0.5 % v/v	PRE	A							
	LSD P=.05					3.5	4.7	6.6	6.3	2.88	4.36
	Standard Deviation					2.4	3.2	4.5	4.3	1.98	2.98
	CV					2.75	3.62	5.77	4.91	13.54	6.53

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