

Weed control systems in early-planted soybean

Trial ID: SOY01-25 Study Dir.: Stiles, Sprague
 Conducted: Campus, C-12 Investigator: Christy Sprague

Planting Date: Apr-15-2025 **Row Spacing:** 30 "
Variety: P23282E **No. of Reps:** 4
Population: 150000 S/A **% OM:** 2.9
Soil Type: SCL sandy clay loam **pH:** 7.4
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plow and soil finished; spring soil finished.

Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	annual grasses	mostly giant foxtail and barnyardgrass
2	CHEAL	common lambsquarters	Chenopodium album
3	AMBEL	common ragweed	Ambrosia artemisiifolia
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	Apr-16-2025	Jun-9-2025
Time Treated:	9:00 AM	10:00 AM
% Cloud Cover:	70	20
Air Temp., Unit:	35 F	70 F
% Relative Humidity:	70	60
Wind Speed/Unit/Dir:	7 MPH NW	8 MPH SSW
Soil Temp, Unit:	42 F	71 F
Leaf Moist/Dew Presence (Y/N):	N	N
Soil Moist:	4	5

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		5-6 " (6)
Stage:		V4

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		2 "
Stage:		3-4L
Weed 2 Name:	CHEAL	CHEAL
Height:		1-6 " (2.5)
Stage:		6-14L
Weed 3 Name:	AMBEL	AMBEL
Height:		1.5-3 " (2)
Stage:		4-8L

Weed Density

	1	2	3
Date:	Jun-9-2025	Jun-9-2025	Jun-9-2025
Weed Name:	ANGR	CHEAL	AMBEL
Density:	7 FT2	4 FT2	17 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	19.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	26.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI

Comments: Soybean emerged on April 29, 2025. Common ragweed at this location is Group 2 (ALS) resistant.

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Protocol ID: SOY01-25 Location: Campus, C-12 Trial Year: 2024

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date					May-12-2025	May-12-2025	May-12-2025	May-12-2025	May-19-2025	May-19-2025
Rating Type					injury	control	control	control	injury	control
Rating Unit					%	%	%	%	%	%
Crop Type, Code					C, GLXMA				C, GLXMA	
Pest Code						ANGR	CHEAL	AMBEL		ANGR
Treatment Appl. Interval					26 DA-A	26 DA-A	26 DA-A	26 DA-A	33 DA-A	33 DA-A
Number of Decimals					0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing					
1	Untreated					0	0	0	0	0
2	Tendovo	2.1 qt/a	A	PRE		5	100	93	88	5
	Enlist One	2 pt/a	B	POST						100
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	MSO	1 % v/v	B	POST						
	AMS	3 lb/a	B	POST						
3	Tendovo	2.1 qt/a	A	PRE		6	99	92	85	5
	Dual II Magnum	1.5 pt/a	B	POST						100
	Enlist One	2 pt/a	B	POST						
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	MSO	1 % v/v	B	POST						
	AMS	3 lb/a	B	POST						
4	Tendovo	2.1 qt/a	A	PRE		6	100	93	84	3
	Anthem Maxx	2.5 fl oz/a	B	POST						100
	Enlist One	2 pt/a	B	POST						
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	MSO	1 % v/v	B	POST						
	AMS	3 lb/a	B	POST						
5	Tendovo	2.1 qt/a	A	PRE		6	100	94	86	6
	Flexstar	1 pt/a	B	POST						100
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	AMS	3 lb/a	B	POST						
6	Zidua PRO	6 fl oz/a	A	PRE		9	100	95	69	3
	Zidua SC	2.5 fl oz/a	B	POST						100
	Enlist One	2 pt/a	B	POST						
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	MSO	1 % v/v	B	POST						
	AMS	3 lb/a	B	POST						
7	Fierce MTZ	1 pt/a	A	PRE		30	100	100	100	25
	Zidua SC	2.5 fl oz/a	B	POST						100
	Enlist One	2 pt/a	B	POST						
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	MSO	1 % v/v	B	POST						
	AMS	3 lb/a	B	POST						
LSD P=.05						3.4	0.8	5.9	8.6	3.3
Standard Deviation						2.3	0.6	3.9	5.8	2.2
CV						26.21	0.66	4.89	7.91	34.2

Could not calculate LSD (% mean diff) or mean separation letters for columns 6,14,19,20 because error variance is 0.
Mean separation letters are 'na' (not applicable) when error variance is 0

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Investigator: Christy Sprague

Rating Date				May-19-2025	May-19-2025	Jun-2-2025	Jun-2-2025	Jun-2-2025	Jun-2-2025	Jun-9-2025
Rating Type				control	control	injury	control	control	control	injury
Rating Unit				%	%	%	%	%	%	%
Crop Type, Code						C, GLXMA				C, GLXMA
Pest Code				CHEAL	AMBEL		ANGR	CHEAL	AMBEL	
Treatment Appl. Interval				33 DA-A	33 DA-A	47 DA-A	47 DA-A	47 DA-A	47 DA-A	54 DA-A
Number of Decimals				0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing					
1	Untreated					0	0	0	0	0
2	Tendovo	2.1 qt/a	A	PRE		98	89	6	99	81
	Enlist One	2 pt/a	B	POST						4
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	MSO	1 % v/v	B	POST						
	AMS	3 lb/a	B	POST						
3	Tendovo	2.1 qt/a	A	PRE		98	87	4	100	97
	Dual II Magnum	1.5 pt/a	B	POST						80
	Enlist One	2 pt/a	B	POST						4
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	MSO	1 % v/v	B	POST						
	AMS	3 lb/a	B	POST						
4	Tendovo	2.1 qt/a	A	PRE		94	85	4	100	92
	Anthem Maxx	2.5 fl oz/a	B	POST						77
	Enlist One	2 pt/a	B	POST						4
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	MSO	1 % v/v	B	POST						
	AMS	3 lb/a	B	POST						
5	Tendovo	2.1 qt/a	A	PRE		96	89	4	100	97
	Flexstar	1 pt/a	B	POST						85
	Liberty Ultra	24 fl oz/a	B	POST						4
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	AMS	3 lb/a	B	POST						
6	Zidua PRO	6 fl oz/a	A	PRE		94	75	3	99	94
	Zidua SC	2.5 fl oz/a	B	POST						75
	Enlist One	2 pt/a	B	POST						2
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	MSO	1 % v/v	B	POST						
	AMS	3 lb/a	B	POST						
7	Fierce MTZ	1 pt/a	A	PRE		99	97	29	100	99
	Zidua SC	2.5 fl oz/a	B	POST						95
	Enlist One	2 pt/a	B	POST						16
	Liberty Ultra	24 fl oz/a	B	POST						
	Roundup PowerMax 3	30 fl oz/a	B	POST						
	MSO	1 % v/v	B	POST						
	AMS	3 lb/a	B	POST						
LSD P=.05						4.9	6.6	3.5	1.1	3.2
Standard Deviation						3.3	4.5	2.4	0.7	2.2
CV						3.99	5.99	34.46	0.86	2.65
										6.8
										4.6
										39.65

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Investigator: Christy Sprague

Rating Date					Jun-9-2025	Jun-9-2025	Jun-9-2025	Jun-16-2025	Jun-23-2025	Jun-23-2025	Jun-23-2025
Rating Type					control	control	control	injury	injury	control	control
Rating Unit					%	%	%	%	%	%	%
Crop Type, Code								C, GLXMA	C, GLXMA		
Pest Code					ANGR	CHEAL	AMBEL			ANGR	CHEAL
Treatment Appl. Interval					54 DA-A	54 DA-A	54 DA-A	7 DA-B	14 DA-B	14 DA-B	14 DA-B
Number of Decimals					0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing						
1	Untreated					0	0	0	0	0	0
2	Tendovo	2.1 qt/a	A	PRE		100	92	75	5	2	100
	Enlist One	2 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	MSO	1 % v/v	B	POST							
	AMS	3 lb/a	B	POST							
3	Tendovo	2.1 qt/a	A	PRE	100	91	73	12	9	100	100
	Dual II Magnum	1.5 pt/a	B	POST							
	Enlist One	2 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	MSO	1 % v/v	B	POST							
	AMS	3 lb/a	B	POST							
4	Tendovo	2.1 qt/a	A	PRE	100	86	71	21	7	100	100
	Anthem Maxx	2.5 fl oz/a	B	POST							
	Enlist One	2 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	MSO	1 % v/v	B	POST							
	AMS	3 lb/a	B	POST							
5	Tendovo	2.1 qt/a	A	PRE	100	98	76	18	9	100	100
	Flexstar	1 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	AMS	3 lb/a	B	POST							
6	Zidua PRO	6 fl oz/a	A	PRE	100	94	70	4	3	100	100
	Zidua SC	2.5 fl oz/a	B	POST							
	Enlist One	2 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	MSO	1 % v/v	B	POST							
	AMS	3 lb/a	B	POST							
7	Fierce MTZ	1 pt/a	A	PRE	100	94	90	19	14	100	100
	Zidua SC	2.5 fl oz/a	B	POST							
	Enlist One	2 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	MSO	1 % v/v	B	POST							
	AMS	3 lb/a	B	POST							
LSD P=.05						.	7.7	6.4	4.9	3.9	.
Standard Deviation						0.0	5.2	4.3	3.3	2.6	0.0
CV						0.0	6.54	6.64	29.85	41.89	0.0

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Investigator: Christy Sprague

Rating Date					Jun-23-2025	Jul-7-2025	Jul-7-2025	Jul-7-2025	Jul-7-2025	Oct-3-2025	Oct-3-2025
Rating Type					control	injury	control	control	control	control	control
Rating Unit					%	%	%	%	%	%	%
Crop Type, Code					C, GLXMA						
Pest Code					AMBEL		ANGR	CHEAL	AMBEL	ANGR	CHEAL
Treatment Appl. Interval					14 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B	116 DA-B	116 DA-B
Number of Decimals					0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing						
1	Untreated					0	0	0	0	0	0
2	Tendovo	2.1 qt/a	A	PRE		99	0	97	100	97	99
	Enlist One	2 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	MSO	1 % v/v	B	POST							
	AMS	3 lb/a	B	POST							
3	Tendovo	2.1 qt/a	A	PRE	100	0	100	100	99	100	100
	Dual II Magnum	1.5 pt/a	B	POST							
	Enlist One	2 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	MSO	1 % v/v	B	POST							
	AMS	3 lb/a	B	POST							
4	Tendovo	2.1 qt/a	A	PRE	100	0	100	100	100	99	100
	Anthem Maxx	2.5 fl oz/a	B	POST							
	Enlist One	2 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	MSO	1 % v/v	B	POST							
	AMS	3 lb/a	B	POST							
5	Tendovo	2.1 qt/a	A	PRE	100	1	99	95	100	99	90
	Flexstar	1 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	AMS	3 lb/a	B	POST							
6	Zidua PRO	6 fl oz/a	A	PRE	100	0	100	100	100	99	100
	Zidua SC	2.5 fl oz/a	B	POST							
	Enlist One	2 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	MSO	1 % v/v	B	POST							
	AMS	3 lb/a	B	POST							
7	Fierce MTZ	1 pt/a	A	PRE	100	4	100	100	100	99	100
	Zidua SC	2.5 fl oz/a	B	POST							
	Enlist One	2 pt/a	B	POST							
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	MSO	1 % v/v	B	POST							
	AMS	3 lb/a	B	POST							
LSD P=.05						0.8	2.3	1.4	4.1	2.2	5.4
Standard Deviation						0.6	1.6	0.9	2.7	1.5	3.6
CV						0.66	259.8	1.11	3.21	1.73	4.32

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Protocol ID: SOY01-25 Location: Campus, C-12 Trial Year: 2024

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date					Oct-3-2025	Oct-3-2025	Oct-3-2025	
Rating Type					control	moisture	yield	
Rating Unit					%	%	bu/A	
Crop Type, Code						C, GLXMA	C, GLXMA	
Pest Code					AMBEL			
Treatment Appl. Interval					116 DA-B			
Number of Decimals					0	1	1	
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Timing			
1	Untreated					0	11.5	13.4
2	Tendovo	2.1 qt/a	A	PRE		91	9.9	50.7
	Enlist One	2 pt/a	B	POST				
	Liberty Ultra	24 fl oz/a	B	POST				
	Roundup PowerMax 3	30 fl oz/a	B	POST				
	MSO	1 % v/v	B	POST				
	AMS	3 lb/a	B	POST				
3	Tendovo	2.1 qt/a	A	PRE		99	9.8	52.5
	Dual II Magnum	1.5 pt/a	B	POST				
	Enlist One	2 pt/a	B	POST				
	Liberty Ultra	24 fl oz/a	B	POST				
	Roundup PowerMax 3	30 fl oz/a	B	POST				
	MSO	1 % v/v	B	POST				
	AMS	3 lb/a	B	POST				
4	Tendovo	2.1 qt/a	A	PRE		98	9.8	52.7
	Anthem Maxx	2.5 fl oz/a	B	POST				
	Enlist One	2 pt/a	B	POST				
	Liberty Ultra	24 fl oz/a	B	POST				
	Roundup PowerMax 3	30 fl oz/a	B	POST				
	MSO	1 % v/v	B	POST				
	AMS	3 lb/a	B	POST				
5	Tendovo	2.1 qt/a	A	PRE		99	9.9	50.8
	Flexstar	1 pt/a	B	POST				
	Liberty Ultra	24 fl oz/a	B	POST				
	Roundup PowerMax 3	30 fl oz/a	B	POST				
	AMS	3 lb/a	B	POST				
6	Zidua PRO	6 fl oz/a	A	PRE		100	9.8	53.8
	Zidua SC	2.5 fl oz/a	B	POST				
	Enlist One	2 pt/a	B	POST				
	Liberty Ultra	24 fl oz/a	B	POST				
	Roundup PowerMax 3	30 fl oz/a	B	POST				
	MSO	1 % v/v	B	POST				
	AMS	3 lb/a	B	POST				
7	Fierce MTZ	1 pt/a	A	PRE		99	9.8	50.5
	Zidua SC	2.5 fl oz/a	B	POST				
	Enlist One	2 pt/a	B	POST				
	Liberty Ultra	24 fl oz/a	B	POST				
	Roundup PowerMax 3	30 fl oz/a	B	POST				
	MSO	1 % v/v	B	POST				
	AMS	3 lb/a	B	POST				
LSD P=.05						5.6	0.89	6.83
Standard Deviation						3.7	0.60	4.59
CV						4.47	5.97	9.91

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