

Postemergence residual weed control options with Liberty Ultra

Trial ID: SOY11-25 Study Dir.: Stiles, Sprague
 Conducted: Campus, C-16 Investigator: Christy Sprague

Planting Date: May-14-2025 **Row Spacing:** 30 "
Variety: P23Z82E **No. of Reps:** 4
Population: 150000 S/A **% OM:** 2.1
Soil Type: L loam **pH:** 6.7
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

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

Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	annual grass	mostly giant foxtail and barnyardgrass
2	CHEAL	common lambsquarters	Chenopodium album
3	AMBEL	common ragweed	Ambrosia artemisiifolia
4	AMAPO	Powell amaranth	Amaranthus powellii
5	ABUTH	velvetleaf	Abutilon theophrasti

Crop	Code	Common Name
1	GLXMA	Soybean

Application Description

	A	B	C
Application Timing:	POST	LPOS	+7 day
Date Treated:	Jun-16-2025	Jun-20-2025	Jun-26-2025
Time Treated:	12:00 PM	3:40 PM	10:45 AM
% Cloud Cover:	15	76	1
Air Temp., Unit:	77 F	77 F	81 F
% Relative Humidity:	52	71	83
Wind Speed/Unit/Dir:	1.5 MPH E	4 MPH W	5 MPH SSW
Soil Temp, Unit:	83 F	79 F	80 F
Leaf Moist/Dew Presence (Y/N):	N	N	N
Soil Moist:	4	2	2

Crop Stage at Each Application

	A	B	C
Crop 1 Name:	GLXMA	GLXMA	GLXMA
Height:	4-5 " (4.5)	5-7 " (6)	8-10 " (9)
Stage:	V1	V2	V3/V4

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height:	4-6 " (5)	1-10 " (5.5)	5-8 " (6.5)
Stage:	2-4L	2-6L	4-6L
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height:	2-3 " (2.5)	1-5.5 " (3.25)	
Stage:	8-10L	4-30L	
Weed 3 Name:	AMBEL	AMBEL	AMBEL
Height:	4-8 " (6)	1-7 " (4)	
Stage:	4-6L	4-12L	
Weed 4 Name:	AMAPO	AMAPO	AMAPO
Height:		1 "	
Stage:		4-12L	
Weed 5 Name:	ABUTH	ABUTH	ABUTH
Height:		1-3 " (2)	
Stage:		8-10L	

Weed Density

	1	2	3	4	5
Date:	Jun-16-2025	Jun-16-2025	Jun-16-2025	Jun-16-2025	Jun-16-2025
Weed Name:	ANGR	CHEAL	AMBEL	AMAPO	ABUTH
Density:	3 FT2	3 FT2	10 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	24.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	24.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
C	CUB	3.8 MPH	AIXR	11003	30.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI

Comments:

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 Trial ID: SOY11-25
 Protocol ID: SOY11-25 Location: Campus, C-16 Trial Year: 2025
 Study Director: Stiles, Sprague Sponsor Contact:
 Investigator: Christy Sprague

Rating Date				Jun-30-2025	Jun-30-2025	Jun-30-2025	Jun-30-2025	Jun-30-2025	Jul-7-2025	Jul-7-2025
Rating Type				injury	control	control	control	control	injury	control
Rating Unit				%	%	%	%	%	%	%
Crop Type, Code				C, GLXMA					C, GLXMA	
Pest Code					ANGR	CHEAL	AMAPO	AMBEL		ANGR
Treatment Appl. Interval				14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A	21 DA-A	21 DA-A
Number of Decimals				0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Timing					
1	Untreated					0	0	0	0	0
2	Dual II Magnum	16 fl oz/a	A	POST		12	91	71	98	100
	Interline	36 fl oz/a	A	POST						
	AMS	1.5 lb/a	A	POST						
3	Zidua SC	2.5 fl oz/a	A	POST		5	98	96	98	100
	Liberty Ultra	24 fl oz/a	A	POST						
	AMS	1.5 lb/a	A	POST						
4	Dual II Magnum	16 fl oz/a	A	POST		10	75	100	98	100
	Enlist One	32 fl oz/a	A	POST						
	Optify HSCOC	0.5 % v/v	A	POST						
	AMS	1.5 lb/a	A	POST						
	SelectMax (if needed)	9 fl oz/a	B	LPOS						
	Surfactant	0.25 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
5	Zidua SC	2.5 fl oz/a	A	POST		4	98	100	100	100
	Liberty Ultra	24 fl oz/a	A	POST						
	Enlist One	32 fl oz/a	A	POST						
	Optify HSCOC	0.5 % v/v	A	POST						
	AMS	1.5 lb/a	A	POST						
6	Dual II Magnum	16 fl oz/a	B	LPOS		16	100	99	98	100
	Interline	43 fl oz/a	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
7	Zidua SC	2.5 fl oz/a	B	LPOS		8	100	100	98	100
	Liberty Ultra	29 fl oz/a	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
8	Zidua SC	2.5 fl oz/a	B	LPOS		9	99	100	99	100
	Liberty Ultra	34 fl oz/a	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
9	Dual II Magnum	16 fl oz/a	B	LPOS		9	0	90	84	100
	Enlist One	32 fl oz/a	B	LPOS						
	Optify HSCOC	0.5 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
	SelectMax (if needed)	9 fl oz/a	C	+ 7 d						
	Surfactant	0.25 % v/v	C	+ 7 d						
	AMS	1.5 lb/a	C	+ 7 d						
10	Zidua SC	2.5 fl oz/a	B	LPOS		9	100	100	100	100
	Liberty Ultra	34 fl oz/a	B	LPOS						
	Enlist One	32 fl oz/a	B	LPOS						
	Optify HSCOC	0.5 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
LSD P=.05						4.1	5.4	4.7	5.1	.
Standard Deviation						2.8	3.7	3.2	3.5	0.0
CV						34.4	4.9	3.76	4.0	0.0

Could not calculate LSD (% mean diff) or mean separation letters for columns 5,23 because error variance is 0.
 Mean separation letters are 'na' (not applicable) when error variance is 0

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Postemergence residual weed control options with Liberty Ultra
 Trial ID: SOY11-25
 Protocol ID: SOY11-25 Location: Campus, C-16 Trial Year: 2025
 Study Director: Stiles, Sprague Sponsor Contact:
 Investigator: Christy Sprague

Rating Date				Jul-7-2025	Jul-7-2025	Jul-7-2025	Jul-14-2025	Jul-14-2025	Jul-14-2025	Jul-14-2025
Rating Type				control	control	control	injury	CANOPY	control	control
Rating Unit				%	%	%	%	%	%	%
Crop Type, Code							C, GLXMA	C, GLXMA		
Pest Code				CHEAL	AMAPO	AMBEL			ANGR	CHEAL
Treatment Appl. Interval				21 DA-A	21 DA-A	21 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A
Number of Decimals				0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing					
1	Untreated					0	0	98	0	0
2	Dual II Magnum	16 fl oz/a	A	POST		66	96	73	91	70
	Interline	36 fl oz/a	A	POST						
	AMS	1.5 lb/a	A	POST						
3	Zidua SC	2.5 fl oz/a	A	POST		90	99	75	90	93
	Liberty Ultra	24 fl oz/a	A	POST						
	AMS	1.5 lb/a	A	POST						
4	Dual II Magnum	16 fl oz/a	A	POST		100	99	69	84	100
	Enlist One	32 fl oz/a	A	POST						
	Optify HSCOC	0.5 % v/v	A	POST						
	AMS	1.5 lb/a	A	POST						
	SelectMax (if needed)	9 fl oz/a	B	LPOS						
	Surfactant	0.25 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
5	Zidua SC	2.5 fl oz/a	A	POST		100	100	72	92	100
	Liberty Ultra	24 fl oz/a	A	POST						
	Enlist One	32 fl oz/a	A	POST						
	Optify HSCOC	0.5 % v/v	A	POST						
	AMS	1.5 lb/a	A	POST						
6	Dual II Magnum	16 fl oz/a	B	LPOS		90	100	63	95	85
	Interline	43 fl oz/a	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
7	Zidua SC	2.5 fl oz/a	B	LPOS		98	100	66	96	96
	Liberty Ultra	29 fl oz/a	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
8	Zidua SC	2.5 fl oz/a	B	LPOS		99	100	61	95	98
	Liberty Ultra	34 fl oz/a	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
9	Dual II Magnum	16 fl oz/a	B	LPOS		99	99	62	85	91
	Enlist One	32 fl oz/a	B	LPOS						
	Optify HSCOC	0.5 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
	SelectMax (if needed)	9 fl oz/a	C	+ 7 d						
	Surfactant	0.25 % v/v	C	+ 7 d						
	AMS	1.5 lb/a	C	+ 7 d						
10	Zidua SC	2.5 fl oz/a	B	LPOS		100	100	66	97	100
	Liberty Ultra	34 fl oz/a	B	LPOS						
	Enlist One	32 fl oz/a	B	LPOS						
	Optify HSCOC	0.5 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
LSD P=.05						4.8	3.7	7.8	7.1	9.4
Standard Deviation						3.3	2.6	5.4	4.9	6.5
CV						3.97	2.87	7.67	5.94	7.83

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Postemergence residual weed control options with Liberty Ultra

Trial ID: SOY11-25

Protocol ID: SOY11-25 Location: Campus, C-16 Trial Year: 2025

Study Director: Stiles, Sprague Sponsor Contact:

Investigator: Christy Sprague

Rating Date				Jul-14-2025	Jul-14-2025	Jul-14-2025	Jul-21-2025	Jul-21-2025	Jul-21-2025	Jul-21-2025
Rating Type				control	control	CANOPY	injury	control	control	control
Rating Unit				%	%	%	%	%	%	%
Crop Type, Code						C, GLXMA	C, GLXMA			
Pest Code				AMAPO	AMBEL			ANGR	CHEAL	AMBEL
Treatment Appl. Interval				28 DA-A	28 DA-A	28 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A
Number of Decimals				0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing					
1	Untreated					0	0	98	0	0
2	Dual II Magnum	16 fl oz/a	A	POST		95	85	73	0	89
	Interline	36 fl oz/a	A	POST						67
	AMS	1.5 lb/a	A	POST						85
3	Zidua SC	2.5 fl oz/a	A	POST		98	88	75	0	92
	Liberty Ultra	24 fl oz/a	A	POST						94
	AMS	1.5 lb/a	A	POST						90
4	Dual II Magnum	16 fl oz/a	A	POST		98	89	69	0	84
	Enlist One	32 fl oz/a	A	POST						100
	Optify HSCOC	0.5 % v/v	A	POST						90
	AMS	1.5 lb/a	A	POST						
	SelectMax (if needed)	9 fl oz/a	B	LPOS						
	Surfactant	0.25 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
5	Zidua SC	2.5 fl oz/a	A	POST		100	100	72	0	92
	Liberty Ultra	24 fl oz/a	A	POST						100
	Enlist One	32 fl oz/a	A	POST						
	Optify HSCOC	0.5 % v/v	A	POST						
	AMS	1.5 lb/a	A	POST						
6	Dual II Magnum	16 fl oz/a	B	LPOS		100	85	63	0	94
	Interline	43 fl oz/a	B	LPOS						82
	AMS	1.5 lb/a	B	LPOS						84
7	Zidua SC	2.5 fl oz/a	B	LPOS		100	88	66	0	94
	Liberty Ultra	29 fl oz/a	B	LPOS						98
	AMS	1.5 lb/a	B	LPOS						89
8	Zidua SC	2.5 fl oz/a	B	LPOS		100	90	61	0	93
	Liberty Ultra	34 fl oz/a	B	LPOS						96
	AMS	1.5 lb/a	B	LPOS						95
9	Dual II Magnum	16 fl oz/a	B	LPOS		100	96	62	3	75
	Enlist One	32 fl oz/a	B	LPOS						98
	Optify HSCOC	0.5 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
	SelectMax (if needed)	9 fl oz/a	C	+ 7 d						
	Surfactant	0.25 % v/v	C	+ 7 d						
	AMS	1.5 lb/a	C	+ 7 d						
10	Zidua SC	2.5 fl oz/a	B	LPOS		100	98	66	1	98
	Liberty Ultra	34 fl oz/a	B	LPOS						100
	Enlist One	32 fl oz/a	B	LPOS						97
	Optify HSCOC	0.5 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
LSD P=.05						5.9	5.7	7.8	1.5	8.3
Standard Deviation						4.1	3.9	5.4	1.0	5.7
CV						4.56	4.8	7.67	308.12	7.08
										4.54
										5.6
										3.9
										4.71

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 Trial ID: S0Y11-25
 Protocol ID: S0Y11-25 Location: Campus, C-16 Trial Year: 2025
 Study Director: Stiles, Sprague Sponsor Contact:
 Investigator: Christy Sprague

Rating Date				Jul-21-2025	Jul-29-2025	Jul-29-2025	Jul-29-2025	Jul-29-2025	Jul-29-2025	Jul-29-2025
Rating Type				control	injury	control	control	control	control	control
Rating Unit				%	%	%	%	%	%	%
Crop Type, Code				C, GLXMA						
Pest Code				AMAPO		ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Treatment Appl. Interval				35 DA-A	39 DA-B	39 DA-B	39 DA-B	39 DA-B	39 DA-B	39 DA-B
Number of Decimals				0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Timing					
1	Untreated					0	0	0	0	0
2	Dual II Magnum	16 fl oz/a	A	POST		98	0	90	61	97
	Interline	36 fl oz/a	A	POST						
	AMS	1.5 lb/a	A	POST						
3	Zidua SC	2.5 fl oz/a	A	POST		98	0	92	93	97
	Liberty Ultra	24 fl oz/a	A	POST						
	AMS	1.5 lb/a	A	POST						
4	Dual II Magnum	16 fl oz/a	A	POST		98	0	83	100	96
	Enlist One	32 fl oz/a	A	POST						
	Optify HSCOC	0.5 % v/v	A	POST						
	AMS	1.5 lb/a	A	POST						
	SelectMax (if needed)	9 fl oz/a	B	LPOS						
	Surfactant	0.25 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
5	Zidua SC	2.5 fl oz/a	A	POST		100	0	93	100	100
	Liberty Ultra	24 fl oz/a	A	POST						
	Enlist One	32 fl oz/a	A	POST						
	Optify HSCOC	0.5 % v/v	A	POST						
	AMS	1.5 lb/a	A	POST						
6	Dual II Magnum	16 fl oz/a	B	LPOS		99	0	95	85	99
	Interline	43 fl oz/a	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
7	Zidua SC	2.5 fl oz/a	B	LPOS		100	0	93	99	100
	Liberty Ultra	29 fl oz/a	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
8	Zidua SC	2.5 fl oz/a	B	LPOS		100	0	94	98	100
	Liberty Ultra	34 fl oz/a	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
9	Dual II Magnum	16 fl oz/a	B	LPOS		100	0	71	96	100
	Enlist One	32 fl oz/a	B	LPOS						
	Optify HSCOC	0.5 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
	SelectMax (if needed)	9 fl oz/a	C	+ 7 d						
	Surfactant	0.25 % v/v	C	+ 7 d						
	AMS	1.5 lb/a	C	+ 7 d						
10	Zidua SC	2.5 fl oz/a	B	LPOS		100	0	98	100	100
	Liberty Ultra	34 fl oz/a	B	LPOS						
	Enlist One	32 fl oz/a	B	LPOS						
	Optify HSCOC	0.5 % v/v	B	LPOS						
	AMS	1.5 lb/a	B	LPOS						
LSD P=.05						4.2	.	8.3	6.7	5.4
Standard Deviation						2.9	0.0	5.7	4.6	3.7
CV						3.22	0.0	7.07	5.6	4.16

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