

Enversa postemergence tank-mixtures in E3 soybean for waterhemp control

Trial ID: SOY18-24
 Conducted: Shiawassee County

Study Dir.: Sprague, Stiles
 Investigator: Christy Sprague

Planting Date: May-21-2024 **Row Spacing:** 30 IN
Variety: P25A16E **No. of Reps:** 4
Population: 150000 S/A **% OM:** 1.8
Soil Type: SL sandy loam **pH:** 6.5
Plot Size: 10 X 25 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops:
Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	AMATU	tall waterhemp	Amaranthus tuberculatus
2	ANGR	annual grass	(mostly crabgrass and foxtail sp.)
3	CHEAL	common lambsquarters	Chenopodium album
4	AMBEL	common ragweed	Ambrosia artemisiifolia
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	May-21-2024	Jun-27-2024
Time Treated:	3:30 PM	11:30 AM
% Cloud Cover:	10	35
Air Temp., Unit:	82	65 F
% Relative Humidity:	53	51
Wind Speed/Unit/Dir:	2 MPH SW	3 MPH NW
Soil Temp, Unit:	76 F	73 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:		6-10 " (8)
Stage:		V3

Weed Stage at Each Application

	A	B
Weed 1 Name:	AMATU	AMATU
Height:		2-10 " (6)
Stage:		8Lmany
Weed 2 Name:	ANGR	ANGR
Height:		4-18 " (8)
Stage:		6-12L
Weed 3 Name:	CHEAL	CHEAL
Height:		4-8 " (6)
Stage:		6Lmany
Weed 4 Name:	AMBEL	AMBEL
Height:		2-10 " (6)
Stage:		8Lmany

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	26.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI

Comments: Waterhemp at this location is Group 2 and Group 9 resistant.

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jun-24-2024	Jun-24-2024	Jun-24-2024	Jun-24-2024	Jun-24-2024	Jun-24-2024	Jul-2-2024	Jul-2-2024				
Rating Type	injury	control	control	control	control	control	injury	control				
Rating Unit	%	%	%	%	%	%	%	%				
Crop Type, Code	C, GLXMA					C, GLXMA						
Pest Code		AMATU	ANGR	CHEAL	AMBEL			AMATU				
Trt-Eval Interval	34 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A	5 DA-B	5 DA-B	5 DA-B				
Number of Decimals	0	0	0	0	0	0	0	0				
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing							
1	Sonic	1.5 oz/a	A	PRE		0	53	65	100	100	0	54
2	Sonic	1.5 oz/a	A	PRE		0	50	68	100	100	9	95
	Enlist One	32 fl oz/a	B	POST								
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
3	Sonic	1.5 oz/a	A	PRE		0	50	59	100	100	7	94
	Enversa	3 pt/a	B	POST								
	Enlist One	32 fl oz/a	B	POST								
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
4	Sonic	1.5 oz/a	A	PRE		0	56	63	100	100	5	96
	Warrant	3 pt/a	B	POST								
	Enlist One	32 fl oz/a	B	POST								
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
5	Sonic	1.5 oz/a	A	PRE		0	53	60	100	100	9	93
	Zidua SC	2.5 fl oz/a	B	POST								
	Enlist One	32 fl oz/a	B	POST								
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
6	Sonic	1.5 oz/a	A	PRE		0	54	71	100	100	14	94
	Everprex	16 fl oz/a	B	POST								
	Enlist One	32 fl oz/a	B	POST								
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
7	Untreated					0	0	0	0	0	0	0
8	Enlist One	32 fl oz/a	B	POST		0	0	0	0	0	14	83
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
	LSD P=.05					.	10.4	10.2	.	.	2.1	7.4
	Standard Deviation					0.0	7.0	6.9	0.0	0.0	1.4	5.0
	CV					0.0	17.9	14.38	0.0	0.0	20.05	6.63

Could not calculate LSD (% mean diff) or mean separation letters for columns 1,4,5,12,14 because error variance is 0. Mean separation letters are 'na' (not applicable) when error variance is 0

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jul-2-2024	Jul-11-2024	Jul-11-2024	Jul-11-2024	Jul-18-2024	Jul-18-2024	Aug-11-2024					
Rating Type	control	injury	control	control	injury	control	injury					
Rating Unit	%	%	%	%	%	%	%					
Crop Type, Code	C, GLXMA		C, GLXMA		C, GLXMA		C, GLXMA					
Pest Code	ANGR		AMATU	ANGR		AMATU						
Trt-Eval Interval	5 DA-B	14 DA-B	14 DA-B	14 DA-B	21 DA-B	21 DA-B	45 DA-B					
Number of Decimals	0	0	0	0	0	0	0					
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing							
1	Sonic	1.5 oz/a	A	PRE		69	0	44	28	0	28	0
2	Sonic	1.5 oz/a	A	PRE		93	4	100	99	0	99	0
	Enlist One	32 fl oz/a	B	POST								
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
3	Sonic	1.5 oz/a	A	PRE		89	0	99	95	0	98	0
	Enversa	3 pt/a	B	POST								
	Enlist One	32 fl oz/a	B	POST								
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
4	Sonic	1.5 oz/a	A	PRE		90	2	100	98	0	100	0
	Warrant	3 pt/a	B	POST								
	Enlist One	32 fl oz/a	B	POST								
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
5	Sonic	1.5 oz/a	A	PRE		91	3	99	98	0	100	0
	Zidua SC	2.5 fl oz/a	B	POST								
	Enlist One	32 fl oz/a	B	POST								
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
6	Sonic	1.5 oz/a	A	PRE		94	2	100	100	0	100	0
	Everprex	16 fl oz/a	B	POST								
	Enlist One	32 fl oz/a	B	POST								
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
7	Untreated					0	0	0	0	0	0	0
8	Enlist One	32 fl oz/a	B	POST		81	0	84	84	0	86	0
	Liberty	32 fl oz/a	B	POST								
	Crop oil concentrate	0.5 % v/v	B	POST								
	AMSOL	5 % v/v	B	POST								
	LSD P=.05					5.3	2.4	3.6	6.1	.	8.1	.
	Standard Deviation					3.6	1.6	2.4	4.2	0.0	5.5	0.0
	CV					4.76	127.99	3.12	5.56	0.0	7.19	0.0

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Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date Aug-11-2024
 Rating Type control
 Rating Unit %
 Crop Type, Code
 Pest Code AMATU
 Trt-Eval Interval 45 DA-B
 Number of Decimals 0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing	
1	Sonic	1.5 oz/a	A		PRE	38
2	Sonic	1.5 oz/a	A		PRE	96
	Enlist One	32 fl oz/a	B		POST	
	Liberty	32 fl oz/a	B		POST	
	Crop oil concentrate	0.5 % v/v	B		POST	
	AMSOL	5 % v/v	B		POST	
3	Sonic	1.5 oz/a	A		PRE	96
	Enversa	3 pt/a	B		POST	
	Enlist One	32 fl oz/a	B		POST	
	Liberty	32 fl oz/a	B		POST	
	Crop oil concentrate	0.5 % v/v	B		POST	
	AMSOL	5 % v/v	B		POST	
4	Sonic	1.5 oz/a	A		PRE	100
	Warrant	3 pt/a	B		POST	
	Enlist One	32 fl oz/a	B		POST	
	Liberty	32 fl oz/a	B		POST	
	Crop oil concentrate	0.5 % v/v	B		POST	
	AMSOL	5 % v/v	B		POST	
5	Sonic	1.5 oz/a	A		PRE	100
	Zidua SC	2.5 fl oz/a	B		POST	
	Enlist One	32 fl oz/a	B		POST	
	Liberty	32 fl oz/a	B		POST	
	Crop oil concentrate	0.5 % v/v	B		POST	
	AMSOL	5 % v/v	B		POST	
6	Sonic	1.5 oz/a	A		PRE	100
	Everprex	16 fl oz/a	B		POST	
	Enlist One	32 fl oz/a	B		POST	
	Liberty	32 fl oz/a	B		POST	
	Crop oil concentrate	0.5 % v/v	B		POST	
	AMSOL	5 % v/v	B		POST	
7	Untreated					0
8	Enlist One	32 fl oz/a	B		POST	82
	Liberty	32 fl oz/a	B		POST	
	Crop oil concentrate	0.5 % v/v	B		POST	
	AMSOL	5 % v/v	B		POST	
	LSD P=.05					8.0
	Standard Deviation					5.4
	CV					7.08

Could not calculate LSD (% mean diff) or mean separation letters for columns 1,4,5,12,14 because error variance is 0. Mean separation letters are 'na' (not applicable) when error variance is 0