

Comparison of glufosinate products in soybean

Trial ID: SOY09-24 Study Dir.: Sprague, Stiles
 Conducted: Campus, T-12 Investigator: Christy Sprague

Planting Date: May-15-2024 **Row Spacing:** 30 IN
Variety: P25A16E **No. of Reps:** 4
Population: 150000 S/A **% OM:** 3.1
Soil Type: CL clay loam **pH:** 6.8
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plow; spring soil finish (3-times)
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	AMAPO	Powell amaranth	Amaranthus powellii
4	AMBEL	common ragweed	Ambrosia artemisiifolia
5	SINAR	wild mustard	Sinapis arvensis
6	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	May-15-2024	Jun-14-2024
Time Treated:	11:00 AM	10:00 AM
% Cloud Cover:	10	1
Air Temp., Unit:	66 F	71
% Relative Humidity:	53	60
Wind Speed/Unit/Dir:	9 MPH E	3 MPH NE
Soil Temp, Unit:	60.7 F	77 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:		9 "
Stage:		V5

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		3-10 " (6.5)
Stage:		3
Weed 2 Name:	CHEAL	CHEAL
Height:		4-5 " (5)
Stage:		4-8L
Weed 3 Name:	AMAPO	AMAPO
Height:		4-5 " (5)
Stage:		4-8L
Weed 4 Name:	AMBEL	AMBEL
Height:		8-12 " (10)
Stage:		6-10L
Weed 5 Name:	SINAR	SINAR
Height:		4 "
Stage:		bolt
Weed 6 Name:	ABUTH	ABUTH
Height:		3-6 " (4)
Stage:		4L

Weed Density

	1	2	3	4	5	6
Date:	Jun-14-2024	Jun-14-2024	Jun-14-2024	Jun-14-2024	Jun-14-2024	Jun-14-2024
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	SINAR	ABUTH
Density:	9 FT2	7 FT2	9 FT2	4 FT2	1 FT2	1 FT2

Application Equipment

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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	16.0 "	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

Comments: Common ragweed is Group 2 (ALS) resistant.

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Rating Date	Jun-14-2024	Jun-14-2024	Jun-14-2024	Jun-14-2024	Jun-14-2024	Jun-14-2024					
Rating Type	injury	control	control	control	control	control					
Rating Unit	%	%	%	%	%	%					
Crop Type, Code	C, GLXMA										
Pest Code		ANGR	CHEAL	AMAPO	AMBEL	SINAR					
Trt-Eval Interval	30 DA-A	30 DA-A	30 DA-A	30 DA-A	30 DA-A	30 DA-A					
Number of Decimals	0	0	0	0	0	0					
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing						
1	Zidua PRO	6 fl oz/a	A	PRE		0	76	68	93	71	100
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	Zidua SC	2.5 fl oz/a	B	POST							
	AMS	1.5 lb/a	B	POST							
2	Liberty Ultra	24 fl oz/a	B	POST		0	0	0	0	0	0
3	Surmise 5	16.4 fl oz/a	B	POST		0	0	0	0	0	0
4	Interline	32 fl oz/a	B	POST		0	0	0	0	0	0
5	Untreated					0	0	0	0	0	0
6	Liberty Ultra	24 fl oz/a	B	POST		0	0	0	0	0	0
	AMS	1.5 lb/a	B	POST							
7	Surmise 5	16.4 fl oz/a	B	POST		0	0	0	0	0	0
	AMS	1.5 lb/a	B	POST							
8	Interline	32 fl oz/a	B	POST		0	0	0	0	0	0
	AMS	1.5 lb/a	B	POST							
	LSD P=.05					.	2.3	6.9	2.6	2.5	.
	Standard Deviation					0.0	1.5	4.7	1.8	1.7	0.0
	CV					0.0	16.24	55.43	15.29	18.97	0.0

Could not calculate LSD (% mean diff) or mean separation letters for columns 1,6 because error variance is 0.
 Mean separation letters are 'na' (not applicable) when error variance is 0

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Rating Date	Jun-21-2024	Jun-21-2024	Jun-21-2024	Jun-21-2024	Jun-21-2024	Jun-28-2024
Rating Type	injury	control	control	control	control	injury
Rating Unit	%	%	%	%	%	%
Crop Type, Code	C, GLXMA					C, GLXMA
Pest Code		ANGR	CHEAL	AMAPO	AMBEL	
Trt-Eval Interval	7 DA-B	7 DA-B	7 DA-B	7 DA-B	7 DA-B	14 DA-B
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing						
1	Zidua PRO	6 fl oz/a	A	PRE		7	90	98	98	99	4
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	Zidua SC	2.5 fl oz/a	B	POST							
	AMS	1.5 lb/a	B	POST							
2	Liberty Ultra	24 fl oz/a	B	POST		0	83	82	80	91	0
3	Surmise 5	16.4 fl oz/a	B	POST		0	49	13	60	88	0
4	Interline	32 fl oz/a	B	POST		1	65	30	64	86	0
5	Untreated					0	0	0	0	0	0
6	Liberty Ultra	24 fl oz/a	B	POST		0	87	81	85	93	0
	AMS	1.5 lb/a	B	POST							
7	Surmise 5	16.4 fl oz/a	B	POST		0	72	20	65	89	0
	AMS	1.5 lb/a	B	POST							
8	Interline	32 fl oz/a	B	POST		1	71	28	81	90	0
	AMS	1.5 lb/a	B	POST							
	LSD P=.05					1.1	9.0	8.9	15.8	7.1	1.3
	Standard Deviation					0.8	6.1	6.1	10.7	4.8	0.9
	CV					72.25	9.48	13.81	16.16	6.07	188.56

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Rating Date	Jun-28-2024	Jun-28-2024	Jun-28-2024	Jun-28-2024	Jun-28-2024	Jun-28-2024	Jul-5-2024	Jul-5-2024			
Rating Type	control	control	control	control	control	control	injury	control			
Rating Unit	%	%	%	%	%	%	%	%			
Crop Type, Code								C, GLXMA			
Pest Code	ANGR	CHEAL	AMAPO	AMBEL	SINAR			ANGR			
Trt-Eval Interval	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B	21 DA-B	21 DA-B			
Number of Decimals	0	0	0	0	0	0	0	0			
Trt Treatment	Rate	Appl	Appl								
No. Name	Rate Unit	Code	Timing								
1	Zidua PRO	6 fl oz/a	A	PRE	90	94	99	98	100	5	88
	Liberty Ultra	24 fl oz/a	B	POST							
	Roundup PowerMax 3	30 fl oz/a	B	POST							
	Zidua SC	2.5 fl oz/a	B	POST							
	AMS	1.5 lb/a	B	POST							
2	Liberty Ultra	24 fl oz/a	B	POST	80	84	83	97	98	0	80
3	Surmise 5	16.4 fl oz/a	B	POST	58	46	69	77	95	0	58
4	Interline	32 fl oz/a	B	POST	66	50	76	86	100	0	70
5	Untreated				0	0	0	0	0	0	0
6	Liberty Ultra	24 fl oz/a	B	POST	80	82	78	89	99	0	84
	AMS	1.5 lb/a	B	POST							
7	Surmise 5	16.4 fl oz/a	B	POST	68	58	76	93	99	0	73
	AMS	1.5 lb/a	B	POST							
8	Interline	32 fl oz/a	B	POST	71	51	71	93	100	0	70
	AMS	1.5 lb/a	B	POST							
LSD P=.05					5.9	13.2	9.5	7.1	5.2	0.5	10.0
Standard Deviation					4.0	9.0	6.5	4.8	3.5	0.4	6.8
CV					6.29	15.48	9.39	6.1	4.1	62.85	10.38

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Rating Date	Jul-5-2024	Jul-5-2024	Jul-5-2024	Jul-5-2024
Rating Type	control	control	control	control
Rating Unit	%	%	%	%
Crop Type, Code				
Pest Code	CHEAL	AMBEL	SINAR	ABUTH
Trt-Eval Interval	21 DA-B	21 DA-B	21 DA-B	21 DA-B
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Timing				
1	Zidua PRO	6 fl oz/a	A	PRE		100	99	100	100
	Liberty Ultra	24 fl oz/a	B	POST					
	Roundup PowerMax 3	30 fl oz/a	B	POST					
	Zidua SC	2.5 fl oz/a	B	POST					
	AMS	1.5 lb/a	B	POST					
2	Liberty Ultra	24 fl oz/a	B	POST		81	81	98	88
3	Surmise 5	16.4 fl oz/a	B	POST		59	82	95	78
4	Interline	32 fl oz/a	B	POST		63	74	100	76
5	Untreated					0	0	0	0
6	Liberty Ultra	24 fl oz/a	B	POST		82	85	99	98
	AMS	1.5 lb/a	B	POST					
7	Surmise 5	16.4 fl oz/a	B	POST		61	84	99	91
	AMS	1.5 lb/a	B	POST					
8	Interline	32 fl oz/a	B	POST		59	83	100	84
	AMS	1.5 lb/a	B	POST					
	LSD P=.05					10.4	10.1	5.2	13.1
	Standard Deviation					7.0	6.8	3.5	8.9
	CV					11.21	9.32	4.1	11.61

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