

Soybean tolerance to glufosinate applied to various soybean growth stages

Trial ID: SOY12-25 Study Dir.: Stiles, Sprague
 Conducted: Campus, C-18 Investigator: Christy Sprague

Planting Date: May-14-2025 **Row Spacing:** 30 "
Variety: P23Z82E **No. of Reps:** 4
Population: 150000 S/A **% OM:** 2.3
Soil Type: CL clay loam **pH:** 6.8
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plow; fall soil finish; spring soil finish (2-times).

Fertilizer:

Crop and Weed Description

Weed Code Common Name Scientific Name

1

Crop Code Common Name

1 GLXMA Soybean

Application Description

	A	B	C	D	E	F
Application Timing:	V5-6	R1	R2	R3	R4	R4
Date Treated:	Jun-27-2025	Jul-2-2025	Jul-13-2025	Jul-24-2025	Jul-29-2025	Aug-7-2025
Time Treated:	9:15 AM	2:10 PM	12:20 PM	9:30 AM	3:00 PM	1:00 PM
% Cloud Cover:	1	32	0	0	25	70
Air Temp., Unit:	74 F	84 F	84 F	81 F	86 F	85 F
% Relative Humidity:	92	44	47	83	60	54
Wind Speed/Unit/Dir:	5 MPH S	7 MPH W	6 MPH W	4 MPH SW	6 MPH W	3 MPH S
Soil Temp, Unit:	77 F	78 F	82 F	80 F	80 F	76 F
Leaf Moist/Dew Presence (Y/N):	Y	N	N	N	N	N
Soil Moist:	1	5	5	5	5	5

Crop Stage at Each Application

	A	B	C	D	E	F
Crop 1 Name:	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Height:	8-10 " (9)	14 "	20-24 " (22)	24-28 " (26)	30-38 " (34)	39 "
Stage:	V5-6	R1	R2	R3	R4	R5

Weed Stage at Each Application

A B C D E F

Weed 1 Name:

Height:

Stage:

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	30.0 "	20.0 "	120.0 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	30.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
C	CUB	3.8 MPH	AIXR	11003	40.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
D	CUB	3.8 MPH	AIXR	11003	42.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
E	CUB	3.8 MPH	AIXR	11003	42.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI
F	CUB	3.8 MPH	AIXR	11003	44.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI

Comments:

5-14-25 - Dual II Magnum (1.3 pt) + Sonic (5 oz) was applied PRE 6-27-25 - # of nodes plant 1 = 4, plant 2 = 5, plant 3 = 4, plant 4 = 5, plant 5 = 5.
 6-30-25 - Roundup PowerMax 3 (30 fl oz) + AMS was applied POST 7-13-25 - # of nodes plant 1 = 7, plant 2 = 9, plant 3 = 9, plant 4 = 9, plant 5 = 8.
 7-24-25 - # of nodes plant 1 = 10, plant 2 = 9, plant 3 = 11, plant 4 = 10, plant 5 = 10. 7-29-25 - # of nodes plant 1 = 12, plant 2 = 13, plant 3 = 12, plant 4 = 13, plant 5 = 13. 8-7-25 - # of nodes plant 1 = 15, plant 2 = 15, plant 3 = 14, plant 4 = 15, plant 5 = 15.

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Rating Date									
Rating Type									
Rating Unit									
Crop Type, Code									
Treatment Appl. Interval									
Number of Decimals									
Trt No.	Treatment Name	Rate	Appl Code	Appl Timing					
		Rate Unit							
1	Untreated				0	0	0	0	0
2	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
3	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
4	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal B	B	R1					
5	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal B	B	R1					
6	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal C	C	R2					
7	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal C	C	R2					
8	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal D	D	R3					
9	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal D	D	R3					
10	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal E	E	R4					
11	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal E	E	R4					
12	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
	Liberty Ultra AMS	24 fl oz/a 17 lb/100 gal F	F	R5					
13	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal A	A	V5-6	0	0	0	0	0
	Liberty Ultra AMS	29 fl oz/a 17 lb/100 gal F	F	R5					
LSD P=.05					0.0	0.0	0.0	0.0	0.0
Standard Deviation					0.0	0.0	0.0	0.0	0.0
CV					0.0	0.0	0.0	0.0	0.0

Could not calculate LSD (% mean diff) or mean separation letters for columns 1,2,3,4,5,6,7,8,9 because error variance is 0.

Mean separation letters are 'na' (not applicable) when error variance is 0

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Rating Date	Aug-11-2025	Aug-15-2025	Oct-28-2025	Oct-28-2025
Rating Type	injury	injury	moisture	yield
Rating Unit	%	%	%	bu/A
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
Treatment Appl. Interval	13 DA-E	8 DA-F		@13% M
Number of Decimals	0	0	1	1
Trt No.	Treatment Name	Rate	Appl Code	Appl Timing
		Rate Unit		
1	Untreated			
2	Liberty Ultra	24 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
3	Liberty Ultra	29 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
4	Liberty Ultra	24 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
	Liberty Ultra	24 fl oz/a	B	R1
	AMS	17 lb/100 gal	B	R1
5	Liberty Ultra	29 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
	Liberty Ultra	29 fl oz/a	B	R1
	AMS	17 lb/100 gal	B	R1
6	Liberty Ultra	24 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
	Liberty Ultra	24 fl oz/a	C	R2
	AMS	17 lb/100 gal	C	R2
7	Liberty Ultra	29 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
	Liberty Ultra	29 fl oz/a	C	R2
	AMS	17 lb/100 gal	C	R2
8	Liberty Ultra	24 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
	Liberty Ultra	24 fl oz/a	D	R3
	AMS	17 lb/100 gal	D	R3
9	Liberty Ultra	29 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
	Liberty Ultra	29 fl oz/a	D	R3
	AMS	17 lb/100 gal	D	R3
10	Liberty Ultra	24 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
	Liberty Ultra	24 fl oz/a	E	R4
	AMS	17 lb/100 gal	E	R4
11	Liberty Ultra	29 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
	Liberty Ultra	29 fl oz/a	E	R4
	AMS	17 lb/100 gal	E	R4
12	Liberty Ultra	24 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
	Liberty Ultra	24 fl oz/a	F	R5
	AMS	17 lb/100 gal	F	R5
13	Liberty Ultra	29 fl oz/a	A	V5-6
	AMS	17 lb/100 gal	A	V5-6
	Liberty Ultra	29 fl oz/a	F	R5
	AMS	17 lb/100 gal	F	R5
LSD P=.05				
Standard Deviation		0.0	0.0	0.58
CV		0.0	0.0	3.31
				4.70
				3.28
				6.76

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