

Weed control and crop tolerance with increasing rates of metribuzin in no-till soybean

Trial ID: NTS03-25 Study Dir.: Stiles, Sprague
 Conducted: Campus, C-13 Investigator: Christy Sprague

Planting Date: May-15-2025 **Row Spacing:** 30 "
Variety: P23Z82E **No. of Reps:** 4
Population: 150000 P/A **% OM:** 2.7
Soil Type: CL clay loam **pH:** 7.0
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: No-tilled into standing corn stubble.

Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ERICA	horseweed (marestail)	Erigeron canadensis
2	STEME	common chickweed	Stellaria media
3	TAROF	dandelion	Taraxacum officinale

Crop	Code	Common Name
1	GLXMA	Soybean

Application Description

Application Timing: A
Date Treated: 7EPP
Time Treated: May-9-2025
% Cloud Cover: 2:00 PM
Air Temp., Unit: 2
% Relative Humidity: 63 F
Wind Speed/Unit/Dir: 32
Soil Temp, Unit: 6 MPH W
Leaf Moist/Dew Presence (Y/N): 62 F
Soil Moist: N
 3

Crop Stage at Each Application

Crop 1 Name: A
 GLXMA
Height:
Stage:

Weed Stage at Each Application

Weed 1 Name: A
 ERICA
Height: 3.5 "
Stage: 8-10L
Weed 2 Name: STEME
Height: 5.5 "
Stage: 4-8L
Weed 3 Name: TAROF
Height: 2.5 "
Stage: rosett

Weed Density

	1	2	3
Date:	May-9-2025	May-9-2025	May-9-2025
Weed Name:	ERICA	STEME	TAROF
Density:	3 FT2	2 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	18.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	30 PSI

Comments: A blanket POST application of Roundup PowerMax 3 at 32 fl oz/A + AMS (17 lb/100 gal) was applied on June 30.

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Study Director: Stiles, Sprague Sponsor Contact:

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Rating Date					May-30-2025	May-30-2025	May-30-2025	Jun-13-2025	Jun-13-2025	Jun-30-2025
Rating Type					control	control	control	injury	control	injury
Rating Unit					%	%	%	%	%	%
Crop Type, Code								C, GLXMA		C, GLXMA
Pest Code					STEME	TAROF	ERICA		ERICA	
Treatment Appl. Interval					21 DA-A	21 DA-A	21 DA-A	35 DA-A	35 DA-A	52 DA-A
Number of Decimals					0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing					
1	Liberty	32 fl oz/a	A	7 EPP		100	100	88	0	0
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
2	Metribuzin	4 oz/a	A	7 EPP		100	100	99	0	93
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
3	Metribuzin	6 oz/a	A	7 EPP		100	100	100	0	100
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
4	Metribuzin	8 oz/a	A	7 EPP		100	100	100	0	98
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
5	Metribuzin	10 oz/a	A	7 EPP		100	100	100	0	100
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
6	Metribuzin	12 oz/a	A	7 EPP		100	100	100	0	100
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
7	Metribuzin	16 oz/a	A	7 EPP		100	100	100	0	100
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
LSD P=.05						.	.	1.9	.	5.0
Standard Deviation						0.0	0.0	1.3	0.0	3.4
CV						0.0	0.0	1.3	0.0	4.03

Missing data estimates are included in columns: Average=11,12

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

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

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Study Director: Stiles, Sprague Sponsor Contact:

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Rating Date					Jun-30-2025	Jul-16-2025	Jul-16-2025	Oct-1-2025	Oct-2-2025	Oct-2-2025
Rating Type					control	injury	control	control	moisture	yield
Rating Unit					%	%	%	%	%	bu/A
Crop Type, Code					C, GLXMA				C, GLXMA	C, GLXMA
Pest Code					ERICA		ERICA	ERICA		
Treatment Appl. Interval					52 DA-A	68 DA-A	68 DA-A	145 DA-A	146 DA-A	146 DA-A
Number of Decimals					0	0	0	0	1	1
Trt No.	Treatment Name	Rate	Unit	Appl Code	Appl Timing					
1	Liberty	32 fl oz/a	A	7 EPP		0	0	0	10.8	43.1
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
2	Metribuzin	4 oz/a	A	7 EPP	91	0	80	73	10.5	42.9
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
3	Metribuzin	6 oz/a	A	7 EPP	100	0	98	85	10.4	48.8
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
4	Metribuzin	8 oz/a	A	7 EPP	98	0	98	98	10.5	52.9
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
5	Metribuzin	10 oz/a	A	7 EPP	100	0	100	95	10.5	51.7
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
6	Metribuzin	12 oz/a	A	7 EPP	100	0	100	97	10.5	50.9
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
7	Metribuzin	16 oz/a	A	7 EPP	99	0	100	100	10.5	51.8
	Liberty	32 fl oz/a	A	7 EPP						
	Roundup PowerMax 3	30 fl oz/a	A	7 EPP						
	AMS	17 lb/100 gal	A	7 EPP						
LSD P=.05					6.9	.	4.9	3.4	0.19	8.33
Standard Deviation					4.7	0.0	3.3	2.3	0.12	5.58
CV					5.56	0.0	4.01	2.94	1.18	11.42

Missing data estimates are included in columns: Average=11,12

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