

Weed control and soybean tolerance with increasing rates of metribuzin

Trial ID: SOY13-17 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus C-18 Investigator: Christy Sprague

Planting Date: May-10-2017 **Row Spacing:** 30 IN
Variety: See Comments **No. of Reps:** 4
Population: 155000 seeds/A **% OM:** 2.4
Soil Type: L loam **pH:** 7.2
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

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

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grass
2	CHEAL	lambquarters, common	Chenopodium album
3	AMBEL	ragweed, common	Ambrosia artemisiifolia
4	SINAR	mustard, wild	Sinapis arvensis
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

Application Timing: A PRE
Date Treated: May-10-2017
Time Treated: 11:00 AM
% Cloud Cover: 80
Air Temp., Unit: 56 F
% Relative Humidity: 38
Wind Speed/Unit/Dir: 2 mph S
Soil Temp, Unit: 53 F
Leaf Moist/Dew Presence (Y/N): 5
Soil Moist: 4

Crop Stage at Each Application

A
Crop 1 Name: GLXMA
Height:
Stage:

Weed Stage at Each Application

A
Weed 1 Name: ANGR
Height:
Stage:
Weed 2 Name: CHEAL
Height:
Stage:
Weed 3 Name: AMBEL
Height:
Stage:
Weed 4 Name: SINAR
Height:
Stage:

Weed Density

	1	2	3	4
Date:	May-10-2017	May-10-2017	May-10-2017	May-10-2017
Weed Name:	ANGR	CHEAL	AMBEL	SINAR
Density:	16 FT2	3 FT2	12 FT2	6 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	22 "	20 "	100 "	19 GPA	WATER	30 PSI

Comments: Varieties: Pioneer 24T84X was planted in rows 1&2 and Asgrow 25X6 was planted in rows 3&4. Roundup PowerMax at 32 fl oz/A + AMS was broadcast applied across the entire plot area on June 30.

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Pest Code					ANGR	CHEAL	AMBEL
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA			
Rating Date	May-31-2017	May-31-2017	Jun-7-2017	Jun-7-2017	Jun-7-2017	Jun-7-2017	Jun-7-2017
Rating Type	injury L	injury R	injury L	injury R	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	21 DA-A	21 DA-A	28 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	Form Conc	Form Type	Rate	Appl Unit	Code	*	*	*	*	*	*	
1	Untreated						0	0	0	0	0	0	
2	Metribuzin	75 WG		4 oz/a	A		0	0	2	0	53	89	45
3	Metribuzin	75 WG		6 oz/a	A		0	0	2	0	69	98	61
4	Metribuzin	75 WG		8 oz/a	A		1	0	2	2	73	99	70
5	Metribuzin	75 WG		10 oz/a	A		6	11	4	8	97	100	95
6	Metribuzin	75 WG		12 oz/a	A		19	19	14	13	99	100	98
7	Metribuzin	75 WG		16 oz/a	A		34	34	15	16	99	100	99
LSD P=.05							4.1	2.4	4.4	4.0	11.7	6.5	13.9
Standard Deviation							2.7	1.6	3.0	2.7	7.8	4.4	9.4
CV							32.1	17.58	54.41	48.59	11.25	5.26	14.05

* Adjusted means

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Pest Code	SINAR	GLXMA	GLXMA	ANGR	CHEAL	AMBEL	SINAR
Crop Code							
Rating Date	Jun-7-2017	Jun-21-2017	Jun-21-2017	Jun-21-2017	Jun-21-2017	Jun-21-2017	Jun-21-2017
Rating Type	control	injury L	injury R	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-A	42 DA-A	42 DA-A	42 DA-A	42 DA-A	42 DA-A	42 DA-A
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Appl Unit	Code	*	*	*	*	*	*	
1	Untreated						0	0	0	0	0	0	
2	Metribuzin	75 WG		4 oz/a	A		95	0	0	39	84	46	90
3	Metribuzin	75 WG		6 oz/a	A		96	0	0	49	96	54	99
4	Metribuzin	75 WG		8 oz/a	A		100	0	0	57	93	63	100
5	Metribuzin	75 WG		10 oz/a	A		100	2	2	78	100	86	100
6	Metribuzin	75 WG		12 oz/a	A		100	3	2	80	99	85	100
7	Metribuzin	75 WG		16 oz/a	A		100	7	6	85	100	95	100
LSD P=.05							5.1	1.7	1.8	12.3	9.1	9.6	4.8
Standard Deviation							3.4	1.1	1.2	8.2	6.1	6.4	3.2
CV							4.03	74.85	85.21	14.9	7.48	10.52	3.84

* Adjusted means

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Pest Code		
Crop Code	GLXMA	GLXMA
Rating Date	Oct-19-2017	Oct-19-2017
Rating Type	moisture	yield
Rating Unit	percent	bu/acre
Trt-Eval Interval	162 DA-A	at 13% M
Number of Decimals	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Appl Unit	Code	*	*
1	Untreated						11.5	23.8
2	Metribuzin	75 WG		4 oz/a	A		11.8	36.9
3	Metribuzin	75 WG		6 oz/a	A		11.8	37.2
4	Metribuzin	75 WG		8 oz/a	A		11.7	40.6
5	Metribuzin	75 WG		10 oz/a	A		11.9	40.4
6	Metribuzin	75 WG		12 oz/a	A		11.9	43.0
7	Metribuzin	75 WG		16 oz/a	A		12.0	46.2
LSD P=.05							0.26	9.69
Standard Deviation							0.17	6.52
CV							1.48	17.02

* Adjusted means