

Metribuzin tank-mixtures for waterhemp control

Trial ID: SOY25-23 Study Dir.: Sprague, Stiles
 Conducted: Shiawassee County Investigator: Christy Sprague

Planting Date: May-23-2023 **Row Spacing:** 30 IN
Variety: AG26XF3 **No. of Reps:** 4
Population: 150000 seeds/A **% OM:** 1.3
Soil Type: L loam **pH:** 6.1
Plot Size: 10 X 25 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Spring chisel plow and disked, followed by soil finisher twice.

Fertilizer:

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	AMATU	waterhemp	Amaranthus tuberculatus
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

Application Timing: A
Date Treated: PRE
Time Treated: May-23-2023
% Cloud Cover: 2:20 PM
Air Temp., Unit: 0
% Relative Humidity: 75 F
Wind Speed/Unit/Dir: 37
Soil Temp, Unit: 1 MPH NW
Leaf Moist/Dew Presence (Y/N): 69 F
Soil Moist: N
 5

Crop Stage at Each Application

Crop 1 Name: A
 GLXMA
Height:
Stage:

Weed Stage at Each Application

Weed 1 Name: A
 AMATU
Height:
Stage:

Weed Density

Date: 1
 May-23-2023
Weed Name: AMATU
Density: 14 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	22.0 "	20.0 "	100.0 "	19 GPA	WATER	30 PSI

Comments:

The waterhemp population at this location is glyphosate (Group 9) and ALS- (Group 2) resistant. The lack of precipitation preceding and soon after soybean planting resulted in high variability of soybean growth and waterhemp emergence and herbicide effectiveness. Roundup PowerMax 3 (30 fl oz/A) + AMS was applied to reps 1, 2, and 3 on June 21.

Michigan State University

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Trial ID: S0Y25-23
 Protocol ID: S0Y25-23 Location: Shiawassee County Trial Year: 2023
 Study Director: Sprague, Stiles Sponsor Contact:
 Investigator: Christy Sprague

Rating Date		Jun-20-2023	Jun-20-2023	Jun-27-2023	Jun-27-2023	Jul-5-2023	Jul-5-2023	Jul-18-2023	Jul-18-2023
Rating Type		injury	control	injury	control	injury	control	injury	control
Rating Unit/Min/Max		%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Type, Code		C, GLXMA		C, GLXMA		C, GLXMA		C, GLXMA	
Pest Code			AMATU		AMATU		AMATU		AMATU
Trt-Eval Interval		28 DA-A	28 DA-A	35 DA-A	35 DA-A	43 DA-A	43 DA-A	56 DA-A	56 DA-A
Number of Decimals		0	0	0	0	0	0	0	0
Trt No.	Treatment Name	Rate	Appl Unit	Appl Code	Appl Timing				
1	Untreated					0	0	0	0
2	Metribuzin	6 oz/a	A	PRE		0	60	0	53
3	Metribuzin	10 oz/a	A	PRE		0	70	0	67
4	Valor EZ	2 fl oz/a	A	PRE		18	95	13	85
5	Valor EZ	2 fl oz/a	A	PRE		16	84	9	75
	Metribuzin	6 oz/a	A	PRE					
6	Valor EZ	2 fl oz/a	A	PRE		14	90	12	85
	Metribuzin	10 oz/a	A	PRE					
7	Zidua SC	3.5 fl oz/a	A	PRE		0	81	0	78
8	Zidua SC	3.5 fl oz/a	A	PRE		0	89	0	86
	Metribuzin	6 oz/a	A	PRE					
9	Zidua SC	3.5 fl oz/a	A	PRE		0	78	0	80
	Metribuzin	10 oz/a	A	PRE					
10	Fierce EZ	6 fl oz/a	A	PRE		13	95	8	95
11	Fierce EZ	6 fl oz/a	A	PRE		19	96	13	98
	Metribuzin	6 oz/a	A	PRE					
12	Fierce EZ	6 fl oz/a	A	PRE		16	96	15	98
	Metribuzin	10 oz/a	A	PRE					
13	Fierce MTZ	1 pt/a	A	PRE		18	96	9	89
14	Boundary	1.8 pt/a	A	PRE		0	89	0	90
15	Boundary	1.8 pt/a	A	PRE		0	94	0	97
	Metribuzin	4 oz/a	A	PRE					
16	Boundary	1.8 pt/a	A	PRE		0	95	0	90
	Metribuzin	6 oz/a	A	PRE					
	LSD P=.05					3.6	12.9	3.6	12.1
	Standard Deviation					2.5	9.0	2.5	8.5
	CV					35.45	11.05	51.2	10.76

Missing data estimates are included in columns: Average=1,2,3,4,5,6,7,8