

**Metribuzin tank-mixtures for waterhemp control**

Trial ID: SOY19-24                      Study Dir.: Sprague, Stiles  
 Conducted: Shiawassee County        Investigator: Christy Sprague

**Planting Date:** May-21-2024                      **Row Spacing:** 30 IN  
**Variety:** P25A16E                                      **No. of Reps:** 4  
**Population:** 150000 seeds/A                      **% OM:** 1.8  
**Soil Type:** SL sandy loam                              **pH:** 6.5  
**Plot Size:** 10 X 25 FT                              **Study Design:** Randomized Complete Block (RCB)

**Tillage/Previous Crops:** Fall chisel plow followed by spring disking and cultipacker  
**Fertilizer:**

**Crop and Weed Description**

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

**Application Description**

**A**  
**Application Timing:** PRE  
**Date Treated:** May-21-2024  
**Time Treated:** 3:30 PM  
**% Cloud Cover:** 10  
**Air Temp., Unit:** 82 F  
**% Relative Humidity:** 53  
**Wind Speed/Unit/Dir:** 2 MPH SW  
**Soil Temp, Unit:** 76 F  
**Leaf Moist/Dew Presence (Y/N):** N  
**Soil Moist:** 5

**Crop Stage at Each Application**

**A**  
**Crop 1 Name:** GLXMA  
**Height:**  
**Stage:**

**Weed Stage at Each Application**

**A**  
**Weed 1 Name:** AMATU  
**Height:**  
**Stage:**

**Weed Density**

**1**  
**Date:** May-21-2024  
**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	18.0 "	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.

Michigan State University

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Protocol ID: SOY19-24 Location: Shiawassee County Trial Year: 2024

Study Director: Sprague, Stiles Sponsor Contact:

Investigator: Christy Sprague

Rating Date	Jun-11-2024	Jun-11-2024	Jun-18-2024	Jun-18-2024	Jun-25-2024	Jun-25-2024	Jul-2-2024	Jul-2-2024
Rating Type	injury	control	injury	control	injury	control	injury	control
Rating Unit	%	%	%	%	%	%	%	%
Crop Type, Code	C, GLXMA		C, GLXMA		C, GLXMA		C, GLXMA	
Pest Code	AMATU		AMATU		AMATU		AMATU	
Trt-Eval Interval	21 DA-A	21 DA-A	28 DA-A	28 DA-A	35 DA-A	35 DA-A	42 DA-A	42 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	0	0
2	Metribuzin	6 oz/a	A	PRE		3	98	0	97	0	93
3	Metribuzin	10 oz/a	A	PRE		7	100	4	100	1	99
4	Valor EZ	2 fl oz/a	A	PRE		28	100	14	100	7	100
5	Valor EZ	2 fl oz/a	A	PRE		28	100	16	100	9	100
	Metribuzin	6 oz/a	A	PRE							
6	Valor EZ	2 fl oz/a	A	PRE		31	100	16	100	9	100
	Metribuzin	10 oz/a	A	PRE							
7	Zidua SC	3.5 fl oz/a	A	PRE		8	100	5	100	3	100
8	Zidua SC	3.5 fl oz/a	A	PRE		10	100	6	100	2	100
	Metribuzin	6 oz/a	A	PRE							
9	Zidua SC	3.5 fl oz/a	A	PRE		4	100	6	100	6	100
	Metribuzin	10 oz/a	A	PRE							
10	Fierce EZ	6 fl oz/a	A	PRE		30	100	21	100	18	100
11	Fierce EZ	6 fl oz/a	A	PRE		31	100	23	100	18	100
	Metribuzin	6 oz/a	A	PRE							
12	Fierce EZ	6 fl oz/a	A	PRE		29	100	19	100	16	100
	Metribuzin	10 oz/a	A	PRE							
13	Fierce MTZ	1 pt/a	A	PRE		28	100	16	100	8	100
14	Boundary	1.8 pt/a	A	PRE		13	100	9	100	7	100
15	Boundary	1.8 pt/a	A	PRE		11	100	11	100	9	100
	Metribuzin	4 oz/a	A	PRE							
16	Boundary	1.8 pt/a	A	PRE		13	100	9	100	7	100
	Metribuzin	6 oz/a	A	PRE							
	LSD P=.05					7.6	1.8	5.6	1.7	3.5	1.8
	Standard Deviation					5.4	1.3	3.9	1.2	2.4	1.3
	CV					31.61	1.34	35.97	1.26	33.04	1.39