

Waterhemp control options in XtendFlex soybean

Trial ID: SOY12-21 Study Dir.: Sprague, Stiles, Powell
 Conducted: Shiawassee County Investigator: Christy Sprague

Planting Date: 5-20-21 **Row Spacing:** 30 IN
Variety: AG24XF1 **No. of Reps:** 4
Population: 155000 seeds/A **% OM:** 4.2
Soil Type: CL clay loam **pH:** 6.6
Plot Size: 10 X 25 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Spring disked corn stubble
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

	A	B	C
Application Timing:	PRE	EPOS	POST
Date Treated:	5-20-21	6-23-21	7-7-21
Time Treated:	11:55 AM	11:30 AM	10:45 AM
% Cloud Cover:	50	75	95
Air Temp., Unit:	86 F	67 F	76 F
% Relative Humidity:	35	58	79
Wind Speed/Unit/Dir:	7 MPH S	6 MPH S	2 MPH W
Soil Temp, Unit:	66.4 F	68 F	79 F
Leaf Moist/Dew Presence (Y/N):	N	N	N
Soil Moist:	5	4	5

Crop Stage at Each Application

	A	B	C
Crop 1 Name:	GLXMA	GLXMA	GLXMA
Height:		6-8 " (7)	17-18 " (17.5)
Stage:		V2-V3 (V3)	V6

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	AMATU	AMATU	AMATU
Height:		1-6 " (3)	3-9 " (6)
Stage:		4L-24L (14L)	12L-20L (16L)

Weed Density

Date:	1 7-7-21
Weed Name:	AMATU
Density:	15 FT ²

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	TTI	11003	22.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	25 PSI
B	CUB	3.8 MPH	TTI	11003	26.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	25 PSI
C	CUB	3.8 MPH	TTI	11003	28.0 "	20.0 "	100.0 "	19 GAL/AC	WATER	25 PSI

Comments: Waterhemp at this location is Group 2 & 9 (ALS & glyphosate) resistant.

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Pest Code	AMATU	AMATU	AMATU	AMATU
Crop Type, Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
Rating Date	7-7-21	7-21-21	7-21-21	8-11-21 8-11-21 9-30-21
Rating Type	control	injury	control	injury control control
Rating Unit	%	%	%	% % %
Trt-Eval Interval	14 DA-B	14 DA-C	14 DA-C	35 DA-C 35 DA-C 85 DA-C

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code						
1	Valor	2 oz/a		A	80	0	76	0	77	75
	1 Roundup PowerMax	32 fl oz/a		C						
	1 AMS	17 lb/100 gal		C						
2	Valor	2 oz/a		A	80	0	98	0	92	92
	2 Liberty	32 fl oz/a		C						
	2 Roundup PowerMax	32 fl oz/a		C						
	2 AMS	17 lb/100 gal		C						
3	Valor	2 oz/a		A	80	0	95	0	98	97
	3 XtendiMax	22 fl oz/a		C						
	3 Roundup PowerMax	32 fl oz/a		C						
	3 MON 51817	20 fl oz/a		C						
	3 Intact	0.5 % v/v		C						
4	Valor	2 oz/a		A	76	0	93	0	92	94
	4 XtendiMax	22 fl oz/a		C						
	4 Liberty	32 fl oz/a		C						
	4 MON 51817	20 fl oz/a		C						
	4 Intact	0.5 % v/v		C						
5	Valor	2 oz/a		A	76	0	94	0	88	87
	5 Warrant	3 pt/a		C						
	5 Liberty	32 fl oz/a		C						
	5 Roundup PowerMax	32 fl oz/a		C						
	5 AMS	17 lb/100 gal		C						
6	Valor	2 oz/a		A	78	0	94	0	96	97
	6 Warrant	3 pt/a		C						
	6 XtendiMax	22 fl oz/a		C						
	6 Roundup PowerMax	32 fl oz/a		C						
	6 MON 51817	20 fl oz/a		C						
	6 Intact	0.5 % v/v		C						
7	Valor	2 oz/a		A	78	10	94	0	90	92
	7 Warrant Ultra	50 fl oz/a		C						
	7 Roundup PowerMax	32 fl oz/a		C						
	7 Crop oil concentrate	1 % v/v		C						
	7 AMS	17 lb/100 gal		C						
8	XtendiMax	22 fl oz/a		A	30	0	87	0	75	76
	8 Liberty	32 fl oz/a		C						
	8 Roundup PowerMax	32 fl oz/a		C						
	8 AMS	17 lb/100 gal		C						
9	Roundup PowerMax	32 fl oz/a		B	0	0	0	0	0	0
	9 AMS	17 lb/100 gal		B						
10	Liberty	32 fl oz/a		B	80	0	66	0	55	54
	10 Roundup PowerMax	32 fl oz/a		B						
	10 AMS	17 lb/100 gal		B						
11	XtendiMax	22 fl oz/a		B	82	0	73	0	66	66
	11 Roundup PowerMax	32 fl oz/a		B						
	11 MON 51817	20 fl oz/a		B						
	11 Intact	0.5 % v/v		B						

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Rating Date	7-7-21	7-21-21	7-21-21	8-11-21 9-30-21
Rating Type	control	injury	control	injury control control
Rating Unit	%	%	%	% % %
Trt-Eval Interval	14 DA-B	14 DA-C	14 DA-C	35 DA-C 35 DA-C 85 DA-C

Trt No.	Treatment Name	Rate Unit	Appl Code					
12	XtendiMax	22 fl oz/a	B	84	0	68	0	55 50
12	Liberty	32 fl oz/a	B					
12	MON 51817	20 fl oz/a	B					
12	Intact	0.5 % v/v	B					
LSD P=.05				7.9	.	7.0	.	6.7 9.3
Standard Deviation				5.5	0.0	4.9	0.0	4.7 6.5
CV				8.03	0.0	6.25	0.0	6.32 8.84