

Herbicide-resistant waterhemp control with Balance Bean - "REGULATED"

Trial ID: SOY20-17 Study Dir.: Sprague, Powell, Stiles
 Conducted: Isabella Co. Investigator: Christy Sprague

Planting Date: May-18-2017 **Row Spacing:** 30 IN
Variety: Balance LL **No. of Reps:** 4
Population: 152000 S/A **% OM:** 2.8
Soil Type: SL sandy loam **pH:** 6.8
Plot Size: 10 X 25 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Spring disced and culti-mulched
Fertilizer: None at planting

Crop and Weed Description

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

Application Description

A
Application Timing: PRE
Date Treated: May-19-2017
Time Treated: 7:40 AM
% Cloud Cover: 100
Air Temp., Unit: 44 F
% Relative Humidity: 78
Wind Speed/Unit/Dir: 2 mph N
Soil Temp, Unit: 50 F
Leaf Moist/Dew Presence (Y/N): 3
Soil Moist: 2

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-19-2017
Weed Name: AMATU
Density: 74 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	24 "	20 "	100 "	19 GPA	WATER	30 PSI

Comments: 'Regulated trial' - plot was destroyed prior to soybean flowering, POST Liberty treatments were not applied, since the plot was destroyed prior to waterhemp control breaks.

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Pest Code			AMATU		AMATU		AMATU					
Crop Code			GLXMA	AMATU	GLXMA	AMATU	GLXMA	AMATU				
Rating Date			Jun-7-2017	Jun-7-2017	Jun-15-2017	Jun-15-2017	Jul-5-2017	Jul-5-2017				
Rating Type			injury	control	injury	control	injury	control				
Rating Unit			percent	percent	percent	percent	percent	percent				
Trt-Eval Interval			19 DA-A	19 DA-A	27 DA-A	27 DA-A	47 DA-A	47 DA-A				
Number of Decimals			0	0	0	0	0	0				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Appl Code	*	*	*	*	*	*
1	Balance Bean	4 L		3 fl oz/a		A	0	100	1	95	0	90
1	Liberty	2.34 L		32 fl oz/a								
1	AMS		WG	8.5 lb/100 gal								
2	Balance Bean	4 L		3 fl oz/a		A	0	100	1	98	0	90
2	Metribuzin	75 WG		5.33 oz/a		A						
2	Liberty	2.34 L		32 fl oz/a								
2	AMS		WG	8.5 lb/100 gal								
3	Balance Bean	4 L		3 fl oz/a		A	0	100	0	96	0	95
3	Spartan	4 L		5 fl oz/a		A						
3	Liberty	2.34 L		32 fl oz/a								
3	AMS		WG	8.5 lb/100 gal								
4	Balance Bean	4 L		3 fl oz/a		A	0	100	0	94	0	97
4	Authority MTZ	45 WG		16 oz/a		A						
4	Liberty	2.34 L		32 fl oz/a								
4	AMS		WG	8.5 lb/100 gal								
5	Untreated						0	0	0	0	0	0
6	Balance Bean	4 L		3 fl oz/a		A	0	100	0	100	0	100
6	Zidua	85 WG		1.5 oz/a		A						
6	Liberty	2.34 L		32 fl oz/a								
6	AMS		WG	8.5 lb/100 gal								
7	Balance Bean	4 L		3 fl oz/a		A	0	100	7	99	0	100
7	Warrant	3 L		3 pt/a		A						
7	Liberty	2.34 L		32 fl oz/a								
7	AMS		WG	8.5 lb/100 gal								
8	Balance Bean	4 L		3 fl oz/a		A	0	100	11	100	0	100
8	Dual II Magnum	7.64 L		16 fl oz/a		A						
8	Liberty	2.34 L		32 fl oz/a								
8	AMS		WG	8.5 lb/100 gal								
9	Balance Bean	4 L		3 fl oz/a		A	0	100	11	100	0	98
9	Prefix	5.29 L		2 pt/a		A						
9	Liberty	2.34 L		32 fl oz/a								
9	AMS		WG	8.5 lb/100 gal								
10	Fierce	76 WG		3 oz/a		A	0	100	16	100	0	100
10	Liberty	2.34 L		32 fl oz/a								
10	AMS		WG	8.5 lb/100 gal								

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,5 because error mean square = 0.

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Rating Type	injury	control	injury	control	injury	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	19 DA-A	19 DA-A	27 DA-A	27 DA-A	47 DA-A	47 DA-A
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*
11	Balance Bean	4 L		3 fl oz/a		A	0	100	2	96	0	94
11	Metribuzin	75 WG		5.33 oz/a		A						
11	Prefix	5.29 L		2 pt/a								
11	Liberty	2.34 L		32 fl oz/a								
11	AMS	WG		8.5 lb/100 gal								
12	Balance Bean	4 L		3 fl oz/a		A	0	100	3	94	0	93
12	Metribuzin	75 WG		5.33 oz/a		A						
12	Warrant	5.29 L		2 pt/a								
12	Liberty	2.34 L		32 fl oz/a								
12	AMS	WG		8.5 lb/100 gal								
LSD P=.05							.	0.5	8.2	6.5	.	4.0
Standard Deviation							0.0	0.4	5.7	4.5	0.0	2.8
CV							0.0	0.4	132.15	5.08	0.0	3.18

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