

Weed control and crop tolerance with Balance Bean

Trial ID: SOY11-17 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus C-18 Investigator: Christy Sprague

Planting Date: May-10-2017 **Row Spacing:** 30 IN
Variety: Balance LL **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	lambsquarters, common	Chenopodium album
3	AMBEL	ragweed, common	Ambrosia artemisiifolia
4	SINAR	mustard, wild	Sinapis arvensis
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	May-10-2017	Jun-20-2017
Time Treated:	10:45 AM	8:00 AM
% Cloud Cover:	80	0
Air Temp., Unit:	55 F	59 F
% Relative Humidity:	38	82
Wind Speed/Unit/Dir:	2 mph E	6 mph W
Soil Temp, Unit:	53 F	63 F
Leaf Moist/Dew Presence (Y/N):	5	3
Soil Moist:	4	2

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		8 "
Stage:		V3

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		6 "
Stage:		4-5L
Weed 2 Name:	CHEAL	CHEAL
Height:		6-8 " (4)
Stage:		8-10L
Weed 3 Name:	AMBEL	AMBEL
Height:		6-8 " (4)
Stage:		8-10L
Weed 4 Name:	SINAR	SINAR
Height:		10-12 " (11)
Stage:		flower

Weed Density

	1	2	3	4
Date:	Jun-20-2017	Jun-20-2017	Jun-20-2017	Jun-20-2017
Weed Name:	ANGR	CHEAL	AMBEL	SINAR
Density:	14 FT2	9 FT2	6 FT2	4 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
B	Cub	3.8 MPH	AIXR	11003	25 "	20 "	100 "	19 GPA	WATER	30 PSI

Comments: 'Regulated trial' - plot was destroyed prior to flowering.

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Location: Campus C-18

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	ANGL	CHEAL	AMBEL	SINAR	GLXMA
Crop Code	GLXMA				GLXMA
Rating Date	Jun-7-2017	Jun-7-2017	Jun-7-2017	Jun-7-2017	Jun-20-2017
Rating Type	injury	control	control	control	injury
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	41 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	
1	Balance Bean	4 L		3 fl oz/a		A	4	92	100	99	100	5
1	Liberty	2.34 L		32 fl oz/a		B						
1	AMS		WG	8.5 lb/100 gal		B						
2	Balance Bean	4 L		3 fl oz/a		A	5	99	100	100	100	5
2	Metribuzin	75 WG		5.33 oz/a		A						
2	Liberty	2.34 L		32 fl oz/a		B						
2	AMS		WG	8.5 lb/100 gal		B						
3	Balance Bean	4 L		3 fl oz/a		A	3	96	100	97	99	3
3	Spartan	4 L		5 fl oz/a		A						
3	Liberty	2.34 L		32 fl oz/a		B						
3	AMS		WG	8.5 lb/100 gal		B						
4	Balance Bean	4 L		3 fl oz/a		A	5	100	100	100	100	5
4	Authority MTZ	45 WG		16 oz/a		A						
4	Liberty	2.34 L		32 fl oz/a		B						
4	AMS		WG	8.5 lb/100 gal		B						
5	Untreated						0	0	0	0	0	0
6	Balance Bean	4 L		3 fl oz/a		A	4	100	100	100	100	6
6	Zidua	85 WG		1.5 oz/a		A						
6	Liberty	2.34 L		32 fl oz/a		B						
6	AMS		WG	8.5 lb/100 gal		B						
7	Balance Bean	4 L		3 fl oz/a		A	11	100	100	100	100	6
7	Warrant	3 L		3 pt/a		A						
7	Liberty	2.34 L		32 fl oz/a		B						
7	AMS		WG	8.5 lb/100 gal		B						
8	Balance Bean	4 L		3 fl oz/a		A	13	100	100	100	100	8
8	Dual II Magnum	7.64 L		16 fl oz/a		A						
8	Liberty	2.34 L		32 fl oz/a		B						
8	AMS		WG	8.5 lb/100 gal		B						
9	Balance Bean	4 L		3 fl oz/a		A	14	100	99	100	100	6
9	Prefix	5.29 L		2 pt/a		A						
9	Liberty	2.34 L		32 fl oz/a		B						
9	AMS		WG	8.5 lb/100 gal		B						
10	Fierce	76 WG		3 oz/a		A	15	100	100	98	100	2
10	Liberty	2.34 L		32 fl oz/a		B						
10	AMS		WG	8.5 lb/100 gal		B						
LSD	P=.05						4.1	4.3	0.7	3.3	0.7	2.5
Standard Deviation							2.8	2.9	0.5	2.3	0.5	1.8
CV							38.52	3.31	0.53	2.53	0.53	40.17

* Adjusted means

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Study Director: Sprague, Powell, Stiles

Pest Code	ANGR	CHEAL	AMBEL	SINAR	GLXMA	ANGR
Crop Code						
Rating Date	Jun-20-2017	Jun-20-2017	Jun-20-2017	Jun-20-2017	Jul-5-2017	Jul-5-2017
Rating Type	control	control	control	control	injury	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	41 DA-A	41 DA-A	41 DA-A	41 DA-A	15 DA-B	15 DA-B
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*
1	Balance Bean	4 L		3 fl oz/a		A	82	100	99	99	0	93
1	Liberty	2.34 L		32 fl oz/a		B						
1	AMS		WG	8.5 lb/100 gal		B						
2	Balance Bean	4 L		3 fl oz/a		A	88	100	100	100	0	92
2	Metribuzin	75 WG		5.33 oz/a		A						
2	Liberty	2.34 L		32 fl oz/a		B						
2	AMS		WG	8.5 lb/100 gal		B						
3	Balance Bean	4 L		3 fl oz/a		A	83	100	100	100	0	93
3	Spartan	4 L		5 fl oz/a		A						
3	Liberty	2.34 L		32 fl oz/a		B						
3	AMS		WG	8.5 lb/100 gal		B						
4	Balance Bean	4 L		3 fl oz/a		A	96	100	100	100	1	99
4	Authority MTZ	45 WG		16 oz/a		A						
4	Liberty	2.34 L		32 fl oz/a		B						
4	AMS		WG	8.5 lb/100 gal		B						
5	Untreated						0	0	0	0	0	0
6	Balance Bean	4 L		3 fl oz/a		A	97	99	99	100	1	99
6	Zidua	85 WG		1.5 oz/a		A						
6	Liberty	2.34 L		32 fl oz/a		B						
6	AMS		WG	8.5 lb/100 gal		B						
7	Balance Bean	4 L		3 fl oz/a		A	94	98	98	100	1	99
7	Warrant	3 L		3 pt/a		A						
7	Liberty	2.34 L		32 fl oz/a		B						
7	AMS		WG	8.5 lb/100 gal		B						
8	Balance Bean	4 L		3 fl oz/a		A	99	99	100	100	0	100
8	Dual II Magnum	7.64 L		16 fl oz/a		A						
8	Liberty	2.34 L		32 fl oz/a		B						
8	AMS		WG	8.5 lb/100 gal		B						
9	Balance Bean	4 L		3 fl oz/a		A	100	98	98	100	1	100
9	Prefix	5.29 L		2 pt/a		A						
9	Liberty	2.34 L		32 fl oz/a		B						
9	AMS		WG	8.5 lb/100 gal		B						
10	Fierce	76 WG		3 oz/a		A	89	94	88	100	0	100
10	Liberty	2.34 L		32 fl oz/a		B						
10	AMS		WG	8.5 lb/100 gal		B						
	LSD P=.05						8.1	3.6	6.1	1.1	1.4	3.1
	Standard Deviation						5.6	2.5	4.2	0.8	1.0	2.1
	CV						6.76	2.83	4.78	0.88	322.03	2.44

* Adjusted means

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Location: Campus C-18

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Study Director: Sprague, Powell, Stiles

Pest Code	CHEAL	AMBEL	SINAR
Crop Code			
Rating Date	Jul-5-2017	Jul-5-2017	Jul-5-2017
Rating Type	control	control	control
Rating Unit	percent	percent	percent
Trt-Eval Interval	15 DA-B	15 DA-B	15 DA-B
Number of Decimals	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*
1	Balance Bean	4	L	3 fl oz/a		A	100	100	99
1	Liberty	2.34	L	32 fl oz/a		B			
1	AMS		WG	8.5 lb/100 gal		B			
2	Balance Bean	4	L	3 fl oz/a		A	100	98	99
2	Metribuzin	75	WG	5.33 oz/a		A			
2	Liberty	2.34	L	32 fl oz/a		B			
2	AMS		WG	8.5 lb/100 gal		B			
3	Balance Bean	4	L	3 fl oz/a		A	100	100	100
3	Spartan	4	L	5 fl oz/a		A			
3	Liberty	2.34	L	32 fl oz/a		B			
3	AMS		WG	8.5 lb/100 gal		B			
4	Balance Bean	4	L	3 fl oz/a		A	100	99	100
4	Authority MTZ	45	WG	16 oz/a		A			
4	Liberty	2.34	L	32 fl oz/a		B			
4	AMS		WG	8.5 lb/100 gal		B			
5	Untreated						0	0	0
6	Balance Bean	4	L	3 fl oz/a		A	100	99	100
6	Zidua	85	WG	1.5 oz/a		A			
6	Liberty	2.34	L	32 fl oz/a		B			
6	AMS		WG	8.5 lb/100 gal		B			
7	Balance Bean	4	L	3 fl oz/a		A	100	100	100
7	Warrant	3	L	3 pt/a		A			
7	Liberty	2.34	L	32 fl oz/a		B			
7	AMS		WG	8.5 lb/100 gal		B			
8	Balance Bean	4	L	3 fl oz/a		A	100	100	100
8	Dual II Magnum	7.64	L	16 fl oz/a		A			
8	Liberty	2.34	L	32 fl oz/a		B			
8	AMS		WG	8.5 lb/100 gal		B			
9	Balance Bean	4	L	3 fl oz/a		A	100	100	100
9	Prefix	5.29	L	2 pt/a		A			
9	Liberty	2.34	L	32 fl oz/a		B			
9	AMS		WG	8.5 lb/100 gal		B			
10	Fierce	76	WG	3 oz/a		A	99	100	100
10	Liberty	2.34	L	32 fl oz/a		B			
10	AMS		WG	8.5 lb/100 gal		B			
	LSD P=.05						0.8	1.5	1.4
	Standard Deviation						0.6	1.1	0.9
	CV						0.65	1.19	1.04

* Adjusted means