

Weed control and crop tolerance in Balance GT soybean - "Stewarded"

Trial ID: SOY16-16 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus T-11 Investigator: Christy Sprague

Planting Date: May-31-2016 **Row Spacing:** 30 IN
Variety: Balance soybean (FG72LL55) **No. of Reps:** 4
Population: 150000 seeds/A **% OM:** 2.8
Soil Type: L loam **pH:** 6.8
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plowed; spring soil finished 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	AMAPO	amaranth, Powell	Amaranthus powellii
4	AMBEL	ragweed, common	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	May-31-2016	Jul-12-2016
Time Treated:	3:45 PM	8:00 AM
% Cloud Cover:	40	0
Air Temp., Unit:	82 F	75 F
% Relative Humidity:	44	
Wind Speed/Unit/Dir:	4.5 mph NE	3 mph S
Soil Temp, Unit:	77 F	72 F
Leaf Moist/Dew Presence (Y/N):	5	5
Soil Moist:	4	5

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		12-14 " (14)
Stage:		V4

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		8-20 " (10)
Stage:		14-26L
Weed 2 Name:	CHEAL	CHEAL
Height:		4-10 " (4)
Stage:		many
Weed 3 Name:	AMAPO	AMAPO
Height:		6-10 " (6)
Stage:		many
Weed 4 Name:	AMBEL	AMBEL
Height:		6-12 " (6)
Stage:		many
Weed 5 Name:	ABUTH	ABUTH
Height:		12 "
Stage:		8-10L

Weed Density

	1	2	3	4	5
Date:	Jul-12-2016	Jul-12-2016	Jul-12-2016	Jul-12-2016	Jul-12-2016
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Density:	1 FT2	2 FT2	1 FT2	1 FT2	1 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	30 "	20 "	100 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 mph	AIXR	11003	30 "	20 "	100 "	19 GAL/AC	WATER	30 PSI

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Comments: The trial was early crop destruct, so there were no evaluations after the 8 d after POST. There were very few weeds in this trial due to the delayed planting and dry conditions.

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Location: Campus T-11

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code		CHEAL	AMBEL	ABUTH		ANGR	CHEAL
Crop Code	GLXMA				GLXMA		
Rating Date	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-12-2016	Jul-12-2016	Jul-12-2016
Rating Type	injury	control	control	control	injury	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A	35 DA-A	0 DA-B	0 DA-B	0 DA-B
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Appl Code							
1	Balance Bean	2 fl oz/a		A	0	85	88	89	0	96	82
	1 Metribuzin	5.33 oz/a		A							
	1 Liberty	29 fl oz/a		B							
	1 AMS	8.5 lb/100 gal		B							
2	Balance Bean	3 fl oz/a		A	0	98	96	97	0	99	97
	2 Metribuzin	5.33 oz/a		A							
	2 Liberty	29 fl oz/a		B							
	2 AMS	8.5 lb/100 gal		B							
3	Balance Bean	2 fl oz/a		A	0	83	79	91	0	100	83
	3 Dual II Magnum	1 pt/a		A							
	3 Liberty	29 fl oz/a		B							
	3 AMS	8.5 lb/100 gal		B							
4	Balance Bean	3 fl oz/a		A	0	93	100	98	9	98	92
	4 Zidua SC	2.46 fl oz/a		A							
	4 Liberty	29 fl oz/a		B							
	4 AMS	8.5 lb/100 gal		B							
5	Balance Bean	3 fl oz/a		A	0	84	94	99	0	97	84
	5 Authority XL	4 oz/a		A							
	5 Liberty	29 fl oz/a		B							
	5 AMS	8.5 lb/100 gal		B							
6	Untreated				0	0	0	0	0	0	0
7	Balance Bean	2 fl oz/a		A	0	86	98	95	0	99	85
	7 Prefix	2 pt/a		A							
	7 Liberty	29 fl oz/a		B							
	7 AMS	8.5 lb/100 gal		B							
8	Fierce	3 oz/a		A	0	67	64	79	6	100	69
	8 Liberty	29 fl oz/a		B							
	8 AMS	8.5 lb/100 gal		B							
LSD P=.05					.	12.3	8.8	8.0	1.5	3.7	10.2
Standard Deviation					0.0	8.4	6.0	5.4	1.0	2.5	6.9
CV					0.0	11.23	7.73	6.73	52.07	2.92	9.35

Could not calculate LSD (% mean diff) for columns 1,10,13 because error mean square = 0.

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Location: Campus T-11

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Study Director: Sprague, Powell, Stiles

Pest Code	AMBEL	ABUTH	GLXMA	ANGR	CHEAL	AMAPO	AMBEL
Crop Code							
Rating Date	Jul-12-2016	Jul-12-2016	Jul-20-2016	Jul-20-2016	Jul-20-2016	Jul-20-2016	Jul-20-2016
Rating Type	control	control	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	0 DA-B	0 DA-B	8 DA-B	8 DA-B	8 DA-B	8 DA-B	8 DA-B
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate Unit	Appl Code	AMBEL	ABUTH	GLXMA	ANGR	CHEAL	AMAPO	AMBEL
1	Balance Bean	2 fl oz/a	A	85	88	0	99	96	100	99
	1 Metribuzin	5.33 oz/a	A							
	1 Liberty	29 fl oz/a	B							
	1 AMS	8.5 lb/100 gal	B							
2	Balance Bean	3 fl oz/a	A	96	94	0	99	99	100	100
	2 Metribuzin	5.33 oz/a	A							
	2 Liberty	29 fl oz/a	B							
	2 AMS	8.5 lb/100 gal	B							
3	Balance Bean	2 fl oz/a	A	79	91	0	98	92	100	100
	3 Dual II Magnum	1 pt/a	A							
	3 Liberty	29 fl oz/a	B							
	3 AMS	8.5 lb/100 gal	B							
4	Balance Bean	3 fl oz/a	A	98	96	0	99	95	100	100
	4 Zidua SC	2.46 fl oz/a	A							
	4 Liberty	29 fl oz/a	B							
	4 AMS	8.5 lb/100 gal	B							
5	Balance Bean	3 fl oz/a	A	93	96	0	94	97	100	100
	5 Authority XL	4 oz/a	A							
	5 Liberty	29 fl oz/a	B							
	5 AMS	8.5 lb/100 gal	B							
6	Untreated			0	0	0	0	0	0	0
7	Balance Bean	2 fl oz/a	A	97	91	0	100	96	100	100
	7 Prefix	2 pt/a	A							
	7 Liberty	29 fl oz/a	B							
	7 AMS	8.5 lb/100 gal	B							
8	Fierce	3 oz/a	A	66	79	0	99	78	100	100
	8 Liberty	29 fl oz/a	B							
	8 AMS	8.5 lb/100 gal	B							
LSD P=.05				6.9	10.9	.	4.8	7.3	.	0.8
Standard Deviation				4.7	7.4	0.0	3.3	5.0	0.0	0.5
CV				6.1	9.34	0.0	3.8	6.1	0.0	0.61

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Pest Code	ABUTH
Crop Code	
Rating Date	Jul-20-2016
Rating Type	control
Rating Unit	percent
Trt-Eval Interval	8 DA-B
Number of Decimals	0

Trt No.	Treatment Name	Rate	Unit	Appl Code	
1	Balance Bean	2 fl oz/a		A	100
1	Metribuzin	5.33 oz/a		A	
1	Liberty	29 fl oz/a		B	
1	AMS	8.5 lb/100 gal		B	
2	Balance Bean	3 fl oz/a		A	100
2	Metribuzin	5.33 oz/a		A	
2	Liberty	29 fl oz/a		B	
2	AMS	8.5 lb/100 gal		B	
3	Balance Bean	2 fl oz/a		A	95
3	Dual II Magnum	1 pt/a		A	
3	Liberty	29 fl oz/a		B	
3	AMS	8.5 lb/100 gal		B	
4	Balance Bean	3 fl oz/a		A	100
4	Zidua SC	2.46 fl oz/a		A	
4	Liberty	29 fl oz/a		B	
4	AMS	8.5 lb/100 gal		B	
5	Balance Bean	3 fl oz/a		A	100
5	Authority XL	4 oz/a		A	
5	Liberty	29 fl oz/a		B	
5	AMS	8.5 lb/100 gal		B	
6	Untreated				0
7	Balance Bean	2 fl oz/a		A	100
7	Prefix	2 pt/a		A	
7	Liberty	29 fl oz/a		B	
7	AMS	8.5 lb/100 gal		B	
8	Fierce	3 oz/a		A	94
8	Liberty	29 fl oz/a		B	
8	AMS	8.5 lb/100 gal		B	
	LSD P=.05				3.0
	Standard Deviation				2.0
	CV				2.37