

Weed control systems in BOLT soybean

Trial ID: SOY15-16 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus T-11 Investigator: Christy Sprague

Planting Date: May-19-2016 **Row Spacing:** 30 IN
Variety: BOLT soybean **No. of Reps:** 4
Population: 140000 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-19-2016	Jun-21-2016
Time Treated:	5:00 PM	9:30 AM
% Cloud Cover:	20	0
Air Temp., Unit:	70 F	73 F
% Relative Humidity:	30	30
Wind Speed/Unit/Dir:	6 mph NW	3.5 mph SE
Soil Temp, Unit:	62 F	70 F
Leaf Moist/Dew Presence (Y/N):	5	5
Soil Moist:	3	3

Crop Stage at Each Application

	A	B
Crop 1 Name:	GLXMA	GLXMA
Height:		7 "
Stage:		V3

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height:		4 "
Stage:		3-4L
Weed 2 Name:	CHEAL	CHEAL
Height:		4 "
Stage:		5-8L
Weed 3 Name:	AMAPO	AMAPO
Height:		3 "
Stage:		6L
Weed 4 Name:	AMBEL	AMBEL
Height:		4 "
Stage:		6L
Weed 5 Name:	ABUTH	ABUTH
Height:		5 "
Stage:		6L

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 GAL/AC	WATER	30 PSI
B	CUB	3.8 mph	AIXR	11003	24 "	20 "	100 "	19 GAL/AC	WATER	30 PSI

Comments:

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Pest Code			ANGR	CHEAL	AMAPO	AMBEL
Crop Code	GLXMA	GLXMA				
Rating Date	Jun-10-2016	Jun-28-2016	Jun-28-2016	Jun-28-2016	Jun-28-2016	Jun-28-2016
Rating Type	injury	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	22 DA-A	7 DA-B	7 DA-B	7 DA-B	7 DA-B	7 DA-B
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code						
1	Basis Blend	1.25 oz/a	A		1	0	100	89	100	88
1	Roundup PowerMax	22 fl oz/a	B							
1	Harmony	0.5 oz/a	B							
1	AMS	17 lb/100 gal	B							
2	Basis Blend	1.25 oz/a	A		3	0	100	89	100	95
2	Valor	2 oz/a	A							
2	Roundup PowerMax	22 fl oz/a	B							
2	Harmony	0.5 oz/a	B							
2	AMS	17 lb/100 gal	B							
3	Basis Blend	1.25 oz/a	A		3	0	98	98	100	92
3	Enlite	2.8 oz/a	A							
3	Roundup PowerMax	22 fl oz/a	B							
3	Harmony	0.5 oz/a	B							
3	AMS	17 lb/100 gal	B							
4	Basis Blend	1.25 oz/a	A		3	0	96	84	100	89
4	Afforia	2.5 oz/a	A							
4	Roundup PowerMax	22 fl oz/a	B							
4	Harmony	0.5 oz/a	B							
4	AMS	17 lb/100 gal	B							
5	Untreated				0	0	0	0	0	0
6	Diligent	4 oz/a	A		1	0	98	93	100	96
6	Roundup PowerMax	22 fl oz/a	B							
6	Harmony	0.5 oz/a	B							
6	AMS	17 lb/100 gal	B							
7	Enlite	2.8 oz/a	A		0	0	100	94	100	95
7	Roundup PowerMax	22 fl oz/a	B							
7	Harmony	0.5 oz/a	B							
7	AMS	17 lb/100 gal	B							
8	Valor	2 oz/a	A		0	0	98	81	100	84
8	Roundup PowerMax	22 fl oz/a	B							
8	Harmony	0.5 oz/a	B							
8	AMS	17 lb/100 gal	B							
9	Authority MTZ	16 oz/a	A		0	0	94	85	100	88
9	Roundup PowerMax	22 fl oz/a	B							
9	Harmony	0.5 oz/a	B							
9	AMS	17 lb/100 gal	B							
LSD P=.05		3.1	.		5.2	12.3	.	7.3		
Standard Deviation		2.1	0.0		3.6	8.4	0.0	5.0		
CV		189.98	0.0		4.11	10.62	0.0	6.17		

Could not calculate LSD (% mean diff) for columns 2,5,8,11,16 because error mean square = 0.

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Pest Code	ABUTH		ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code		GLXMA					
Rating Date	Jun-28-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016
Rating Type	control	injury	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	ABUTH	GLXMA	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
1	Basis Blend	1.25 oz/a		A	100	0	100	100	100	96	100
1	Roundup PowerMax	22 fl oz/a		B							
1	Harmony	0.5 oz/a		B							
1	AMS	17 lb/100 gal		B							
2	Basis Blend	1.25 oz/a		A	100	0	100	97	100	99	100
2	Valor	2 oz/a		A							
2	Roundup PowerMax	22 fl oz/a		B							
2	Harmony	0.5 oz/a		B							
2	AMS	17 lb/100 gal		B							
3	Basis Blend	1.25 oz/a		A	100	0	100	100	100	98	100
3	Enlite	2.8 oz/a		A							
3	Roundup PowerMax	22 fl oz/a		B							
3	Harmony	0.5 oz/a		B							
3	AMS	17 lb/100 gal		B							
4	Basis Blend	1.25 oz/a		A	100	0	98	96	100	98	98
4	Afforia	2.5 oz/a		A							
4	Roundup PowerMax	22 fl oz/a		B							
4	Harmony	0.5 oz/a		B							
4	AMS	17 lb/100 gal		B							
5	Untreated				0	0	0	0	0	0	0
6	Diligent	4 oz/a		A	100	0	100	100	100	96	100
6	Roundup PowerMax	22 fl oz/a		B							
6	Harmony	0.5 oz/a		B							
6	AMS	17 lb/100 gal		B							
7	Enlite	2.8 oz/a		A	100	0	100	100	100	100	100
7	Roundup PowerMax	22 fl oz/a		B							
7	Harmony	0.5 oz/a		B							
7	AMS	17 lb/100 gal		B							
8	Valor	2 oz/a		A	100	0	100	98	100	96	100
8	Roundup PowerMax	22 fl oz/a		B							
8	Harmony	0.5 oz/a		B							
8	AMS	17 lb/100 gal		B							
9	Authority MTZ	16 oz/a		A	100	0	100	97	100	96	100
9	Roundup PowerMax	22 fl oz/a		B							
9	Harmony	0.5 oz/a		B							
9	AMS	17 lb/100 gal		B							
LSD P=.05					0.7	.	1.9	3.0	.	5.2	1.4
Standard Deviation					0.5	0.0	1.3	2.1	0.0	3.6	1.0
CV					0.54	0.0	1.49	2.37	0.0	4.16	1.09

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Pest Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code					
Rating Date	Jul-19-2016	Jul-20-2016	Jul-20-2016	Jul-20-2016	Jul-20-2016
Rating Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-B	28 DA-B	28 DA-B	28 DA-B	28 DA-B
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
1	Basis Blend	1.25 oz/a		A	100	100	100	96	100
1	Roundup PowerMax	22 fl oz/a		B					
1	Harmony	0.5 oz/a		B					
1	AMS	17 lb/100 gal		B					
2	Basis Blend	1.25 oz/a		A	100	96	100	98	100
2	Valor	2 oz/a		A					
2	Roundup PowerMax	22 fl oz/a		B					
2	Harmony	0.5 oz/a		B					
2	AMS	17 lb/100 gal		B					
3	Basis Blend	1.25 oz/a		A	100	100	100	98	99
3	Enlite	2.8 oz/a		A					
3	Roundup PowerMax	22 fl oz/a		B					
3	Harmony	0.5 oz/a		B					
3	AMS	17 lb/100 gal		B					
4	Basis Blend	1.25 oz/a		A	94	99	100	96	99
4	Afforia	2.5 oz/a		A					
4	Roundup PowerMax	22 fl oz/a		B					
4	Harmony	0.5 oz/a		B					
4	AMS	17 lb/100 gal		B					
5	Untreated				0	0	0	0	0
6	Diligent	4 oz/a		A	100	100	100	96	100
6	Roundup PowerMax	22 fl oz/a		B					
6	Harmony	0.5 oz/a		B					
6	AMS	17 lb/100 gal		B					
7	Enlite	2.8 oz/a		A	100	100	100	100	100
7	Roundup PowerMax	22 fl oz/a		B					
7	Harmony	0.5 oz/a		B					
7	AMS	17 lb/100 gal		B					
8	Valor	2 oz/a		A	99	99	100	96	100
8	Roundup PowerMax	22 fl oz/a		B					
8	Harmony	0.5 oz/a		B					
8	AMS	17 lb/100 gal		B					
9	Authority MTZ	16 oz/a		A	99	98	100	100	100
9	Roundup PowerMax	22 fl oz/a		B					
9	Harmony	0.5 oz/a		B					
9	AMS	17 lb/100 gal		B					
LSD P=.05					3.5	1.6	.	7.3	1.8
Standard Deviation					2.4	1.1	0.0	5.0	1.2
CV					2.73	1.26	0.0	5.78	1.36