

Comparison of Liberty Link and Roundup Ready Soybean

Trial ID: SOY10-08
 Conducted: T-12 Botany

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Date Planted: 6/6/08
 Variety: See Comments
 Population: 210,000 seeds/Acre
 Soil Type: Loam
 Plot Size: 10 X 35 FT
 Row Spacing: 7.5 IN
 No. of Reps: 6
 % OM: 3.4
 pH: 7.3
 Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow, soil finish x2 on 5/8/08
 Triple "K" shallow field cultivated x 1 on 6/6/08 before replanting soybeans (due to frost).
 Fertilizer: None at planting

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ANGR	mainly foxtail species	SETARIA SP.
2.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISII FOLIA L.
3.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
4.	AMASS	REDROOT PIGWEED, POWELL AMARANTH	AMARANTHUS SP.
5.	BRAKA	MUSTARD, WILD	BRASSICA KABER
6.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
7.	SOLPT	NIGHTSHADE, EASTERN BLACK	SOLANUM PTYCANTHUM DUNAL
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

	A	B	C	D
Application Timing:	PRE	EPOS	MPOST	POST
Date Treated:	5/9/08	6/26/08	7/8/08	7/23/08
Time Treated:	11:30 AM	2:30 PM	3:20 PM	2:45 PM
% Cloud Cover:	50	30	97	20
Air Temp., Unit:	55 F	86 F	78 F	79 F
% Relative Humidity:	49	59	78	43
Wind Speed/Unit/Dir:	7 mph E	7 mph SW	4 mph SW	5 mph N
Soil Temp., Unit:	52 F	75 F	75 F	78 F
Soil/Leaf Surface M:	5 -	5 5	5 3	5 5
Soil Moist (1=w 5=d):	5	4	3	3

Crop Stage at Each Application

	A	B	C	D
Crop Name:	GLXMA	GLXMA	GLXMA	GLXMA
Height (In.):	--	3-4	6-10	20
Stage (L):	--	V1	V3	V10

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Weed Stage at Each Application

	A	B	C	D
Weed 1 Name:	ANGR	ANGR	ANGR	ANGR
Height (In.):	--	1-3	1-2	4-10
Stage (L):	--	1-3	2-4	3-5
Weed 2 Name:	AMBEL	AMBEL	AMBEL	AMBEL
Height (In.):	--	.5-3	1-8	4-9
Stage (L):	--	2-8	2-many	4-6
Weed 3 Name:	CHEAL	CHEAL	CHEAL	CHEAL
Height (In.):	--	.5-2	2-6	-
Stage (L):	--	4-8	2-6	-
Weed 4 Name:	AMASS	AMASS	AMASS	AMASS
Height (In.):	--	.5-2	4-12	2-10
Stage (L):	--	2-6	many	5-many
Weed 5 Name:	BRAKA	BRAKA	BRAKA	BRAKA
Height (In.):	--	1-3	-	9-15
Stage (L):	--	2-6	-	flowering
Weed 6 Name:	ABUTH	ABUTH	ABUTH	ABUTH
Height (In.):	-	-	-	-
Stage (L):	-	-	-	-
Weed 7 Name:	SOLPT	SOLPT	SOLPT	SOLPT
Height (In.):	-	-	-	-
Stage (L):	-	-	-	-

Weed Density (plants/sq. ft.)

	1	2	3	4	5	6	7
Date:	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08
Weed Name:	CHEAL	ABUTH	ANGR	BRAKA	AMBEL	AMAPO	SOLPT
Density:	7.25	0.25	72.5	0.625	12.25	2.75	1.25

Application Equipment

Appl	Sprayer Type	Speed MPH	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	GPA	Carrier	PSI
A	Cub	3.8	AirMix	11003	24	20	100	19	water	28
B	Cub	3.8	AirMix	11003	25	20	100	19	water	28
C	Cub	3.8	AirMix	11003	27	20	100	19	water	28
D	Cub	3.8	AirMix	11003	29	20	100	19	water	28

Comments: Previous Crop- Fallow

Variety: Liberty Link - Stine LL 5468333-05-02
 Roundup Ready - Dehl Fields DF8243 RR

5/27/08: Soybeans frosted!

6/2/08: Sprayed RR soybeans with Liberty (32 oz/A + AMS)
 Sprayed LL soybeans with Roundup WeatherMax (22 oz/A + AMS)

6/6/08: Used Triple "K" x 1 over field before planting
 Replanted Liberty Link soybeans at 210,000 seeds/Acre with the same variety
 Replanted Roundup Ready soybeans with DF8243 at 210,000 seeds/Acre

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Weed Code	GLXMA	ANGR	CHEAL	AMAPO
Crop Code	injury	control	control	control
Rating Data Type	percent	percent	percent	percent
Rating Unit	7/9/08	7/9/08	7/9/08	7/9/08
Rating Date	61 DA-A	61 DA-A	61 DA-A	61 DA-A
Trt-Eval Interval				

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	GLXMA injury percent	ANGR control percent	CHEAL control percent	AMAPO control percent
1	Liberty Link Soybean							0	76	99	99
1	Valor XLT	40.3	WG	3	oz/a	PRE	A				
1	Ignite 280	2.33	SL	22	fl oz/a	MPOS	C				
1	Ammonium Sulfate		DF	17	lb/100 gal	MPOS	C				
2	Liberty Link Soybean							0	76	99	99
2	Ignite 280	2.33	SL	22	fl oz/a	EPOS	B				
2	Ammonium Sulfate		DF	17	lb/100 gal	EPOS	B				
2	Ignite 280	2.33	SL	22	fl oz/a	POST	D				
2	Ammonium Sulfate		DF	17	lb/100 gal	POST	D				
3	Roundup Ready Soybean							0	77	99	99
3	Valor XLT	40.3	WG	3	oz/a	PRE	A				
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS	C				
3	Ammonium Sulfate		DF	17	lb/100 gal	MPOS	C				
4	Roundup Ready Soybean							0	85	99	99
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS	B				
4	Ammonium Sulfate		DF	17	lb/100 gal	EPOS	B				
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	POST	D				
4	Ammonium Sulfate		DF	8.5	lb/100 gal	POST	D				
LSD (P=.10)								0.0	3.3	0.3	0.4
Standard Deviation								0.0	3.2	0.3	0.4
CV								0.0	4.09	0.35	0.41

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Weed Code	AMBEL	ABUTH	GLXMA	ANGR
Crop Code				
Rating Data Type	control	control	injury	control
Rating Unit	percent	percent	percent	percent
Rating Date	7/9/08	7/9/08	7/21/08	7/21/08
Trt-Eval Interval	61 DA-A	61 DA-A	73 DA-A	73 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	AMBEL	ABUTH	GLXMA	ANGR
1	Liberty Link Soybean							78	99	2	96
1	Valor XLT	40.3	WG	3	oz/a	PRE	A				
1	Ignite 280	2.33	SL	22	fl oz/a	MPOS	C				
1	Ammonium Sulfate		DF	17	lb/100 gal	MPOS	C				
2	Liberty Link Soybean							96	98	1	53
2	Ignite 280	2.33	SL	22	fl oz/a	EPOS	B				
2	Ammonium Sulfate		DF	17	lb/100 gal	EPOS	B				
2	Ignite 280	2.33	SL	22	fl oz/a	POST	D				
2	Ammonium Sulfate		DF	17	lb/100 gal	POST	D				
3	Roundup Ready Soybean							79	99	3	97
3	Valor XLT	40.3	WG	3	oz/a	PRE	A				
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS	C				
3	Ammonium Sulfate		DF	17	lb/100 gal	MPOS	C				
4	Roundup Ready Soybean							97	98	5	57
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS	B				
4	Ammonium Sulfate		DF	17	lb/100 gal	EPOS	B				
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	POST	D				
4	Ammonium Sulfate		DF	8.5	lb/100 gal	POST	D				
LSD (P=.10)								6.5	0.8	4.2	4.8
Standard Deviation								6.4	0.8	4.1	4.8
CV								7.3	0.82	154.82	6.34

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Weed Code	CHEAL	AMBEL	AMAPO	ANGR
Crop Code				
Rating Data Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	7/21/08	7/21/08	7/21/08	8/12/08
Trt-Eval Interval	73 DA-A	73 DA-A	73 DA-A	95 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Liberty Link Soybean							99	99	99	99
1	Valor XLT	40.3	WG	3	oz/a	PRE	A				
1	Ignite 280	2.33	SL	22	fl oz/a	MPOS	C				
1	Ammonium Sulfate		DF	17	lb/100 gal	MPOS	C				
2	Liberty Link Soybean							93	82	85	99
2	Ignite 280	2.33	SL	22	fl oz/a	EPOS	B				
2	Ammonium Sulfate		DF	17	lb/100 gal	EPOS	B				
2	Ignite 280	2.33	SL	22	fl oz/a	POST	D				
2	Ammonium Sulfate		DF	17	lb/100 gal	POST	D				
3	Roundup Ready Soybean							99	98	99	99
3	Valor XLT	40.3	WG	3	oz/a	PRE	A				
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS	C				
3	Ammonium Sulfate		DF	17	lb/100 gal	MPOS	C				
4	Roundup Ready Soybean							97	89	86	99
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS	B				
4	Ammonium Sulfate		DF	17	lb/100 gal	EPOS	B				
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	POST	D				
4	Ammonium Sulfate		DF	8.5	lb/100 gal	POST	D				
LSD (P=.10)								4.1	4.1	5.6	0.0
Standard Deviation								4.1	4.0	5.6	0.0
CV								4.23	4.37	6.03	0.0

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Weed Code						AMBEL	CHEAL				
Crop Code								GLXMA	GLXMA		
Rating Data Type						control	control	moisture	yield		
Rating Unit						percent	percent	percent	bu/acre		
Rating Date						8/12/08	8/12/08	10/30/08	10/30/08		
Trt-Eval Interval						95 DA-A	95 DA-A	174 DA-A	at 13% M		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Liberty Link Soybean							99	99		
1	Valor XLT	40.3	WG	3	oz/a	PRE	A		14.3		
1	Ignite 280	2.33	SL	22	fl oz/a	MPOS	C		56.8		
1	Ammonium Sulfate		DF	17	lb/100 gal	MPOS	C				
2	Liberty Link Soybean							99	99		
2	Ignite 280	2.33	SL	22	fl oz/a	EPOS	B		14.1		
2	Ammonium Sulfate		DF	17	lb/100 gal	EPOS	B		59.5		
2	Ignite 280	2.33	SL	22	fl oz/a	POST	D				
2	Ammonium Sulfate		DF	17	lb/100 gal	POST	D				
3	Roundup Ready Soybean							99	99		
3	Valor XLT	40.3	WG	3	oz/a	PRE	A		14.5		
3	Roundup WeatherMax	4.5	SL	22	fl oz/a	MPOS	C		49.0		
3	Ammonium Sulfate		DF	17	lb/100 gal	MPOS	C				
4	Roundup Ready Soybean							99	99		
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	EPOS	B		14.6		
4	Ammonium Sulfate		DF	17	lb/100 gal	EPOS	B		52.7		
4	Roundup WeatherMax	4.5	SL	22	fl oz/a	POST	D				
4	Ammonium Sulfate		DF	8.5	lb/100 gal	POST	D				
LSD (P=.10)								0.0	0.0	0.28	7.21
Standard Deviation								0.0	0.0	0.27	7.12
CV								0.0	0.0	1.9	13.06