

Engenia weed control systems in RR2 Xtend soybean - "Stewarded"

Trial ID: SOY07-16 Study Dir.: Sprague, Powell, Stiles
 Conducted: Campus T-12 Investigator: Christy Sprague

Planting Date: May-19-2016 **Row Spacing:** 30 IN
Variety: AG25X6 **No. of Reps:** 4
Population: 152000 seeds/A **% OM:** 3.6
Soil Type: CL clay loam **pH:** 6.7
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	lambquarters, common	Chenopodium album
3	AMBEL	ragweed, common	Ambrosia artemisiifolia
4	AMAPO	amaranth, Powell	Amaranthus powellii
Crop	Code	Common Name	
1	GLXMA	Soybean	

Application Description

	A	B	C
Application Timing:	PRE	EPOS	POST
Date Treated:	May-19-2016	Jun-9-2016	Jun-13-2016
Time Treated:	2:15 PM	11:30 AM	1:30 PM
% Cloud Cover:	10	90	90
Air Temp., Unit:	70 F	66 F	79 F
% Relative Humidity:	29	45	34
Wind Speed/Unit/Dir:	2.5 mph S	3 mph S	1 mph NE
Soil Temp, Unit:	61.5 F	64 F	68 F
Leaf Moist/Dew Presence (Y/N):	5	5	5
Soil Moist:	3	4	5

Crop Stage at Each Application

	A	B	C
Crop 1 Name:	GLXMA	GLXMA	GLXMA
Height:	5 "	7 "	
Stage:	V1	V1-V2	

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height:		1-5 " (3)	1-7 " (4)
Stage:		2-4L	2-6L
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height:		2 "	2-3 " (2)
Stage:		6L	8L
Weed 3 Name:	AMBEL	AMBEL	AMBEL
Height:		1-2 " (1)	1-3 " (2)
Stage:		2-6L	2-6L
Weed 4 Name:	AMAPO	AMAPO	AMAPO
Height:		2 "	3 "
Stage:		4L	5L

Weed Density

	1	2	3	4
Date:	Jun-13-2016	Jun-13-2016	Jun-13-2016	Jun-13-2016
Weed Name:	ANGR	CHEAL	AMBEL	AMAPO
Density:	38 FT2	2 FT2	3 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	22 "	20 "	100 "	19 GAL/AC	WATER	30 PSI
B	CUB	3.8 mph	TTI	11003	24 "	20 "	100 "	19 GAL/AC	WATER	25 PSI
C	CUB	3.8 mph	TTI	11003	24 "	20 "	100 "	19 GAL/AC	WATER	25 PSI

Comments:

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Study Director: Sprague, Powell, Stiles

Pest Code		ANGR	CHEAL	AMBEL		ANGR
Crop Code	GLXMA				GLXMA	
Rating Date	Jun-13-2016	Jun-13-2016	Jun-13-2016	Jun-13-2016	Jun-20-2016	Jun-20-2016
Rating Type	injury	control	control	control	injury	control
Rating Unit	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	0 DA-C	0 DA-C	0 DA-C	0 DA-C	7 DA-C	7 DA-C
Number of Decimals	0	0	0	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code						
1	Untreated				0	0	0	0	0	0
2	Roundup PowerMax	32 fl oz/a	B		3	95	100	45	0	74
2	AMS	8.5 lb/100 gal	B							
3	Sonic	5 oz/a	A		0	19	98	58	11	99
3	Flexstar GT	3 pt/a	C							
3	Crop oil concentrate	1 % v/v	C							
3	AMS	8.5 lb/100 gal	C							
4	Zidua PRO	6 fl oz/a	A		0	31	94	61	5	98
4	Outlook	12 fl oz/a	C							
4	Engenia	12.8 fl oz/a	C							
4	Roundup PowerMax	32 fl oz/a	C							
5	Zidua PRO	6 fl oz/a	A		0	23	98	45	0	98
5	Engenia	12.8 fl oz/a	C							
5	Roundup PowerMax	32 fl oz/a	C							
6	BAS 18309H	16 fl oz/a	B		1	96	100	68	1	75
6	Roundup PowerMax	32 fl oz/a	B							
7	Zidua PRO	4 fl oz/a	A		0	21	98	56	0	96
7	Engenia	12.8 fl oz/a	C							
7	Roundup PowerMax	32 fl oz/a	C							
8	Zidua PRO	4 fl oz/a	A		0	14	90	55	0	98
8	Engenia	12.8 fl oz/a	C							
8	Roundup PowerMax	32 fl oz/a	C							
8	AMS	8.5 lb/100 gal	C							
9	Verdict	5 fl oz/a	A		0	28	99	65	0	96
9	Metribuzin	5 oz/a	A							
9	Engenia	12.8 fl oz/a	C							
9	Roundup PowerMax	32 fl oz/a	C							
10	Verdict	5 fl oz/a	A		0	33	97	48	0	95
10	Metribuzin	5 oz/a	A							
10	Outlook	5 fl oz/a	A							
10	Engenia	12.8 fl oz/a	C							
10	Roundup PowerMax	32 fl oz/a	C							
LSD P=.05					1.7	16.1	7.0	18.2	1.3	3.3
Standard Deviation					1.2	11.1	4.9	12.5	0.9	2.3
CV					311.64	31.05	5.56	25.09	51.7	2.74

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

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Pest Code	CHEAL	AMBEL	GLXMA	ANGR	CHEAL	AMBEL	GLXMA
Crop Code							
Rating Date	Jun-20-2016	Jun-20-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-5-2016	Jul-25-2016
Rating Type	control	control	injury	control	control	control	injury
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	7 DA-C	7 DA-C	22 DA-C	22 DA-C	22 DA-C	22 DA-C	42 DA-C
Number of Decimals	0	0	0	0	0	0	0

Trt No.	Treatment Name	Rate Unit	Appl Code	CHEAL	AMBEL	GLXMA	ANGR	CHEAL	AMBEL	GLXMA
1	Untreated			0	0	0	0	0	0	0
2	Roundup PowerMax	32 fl oz/a	B	99	97	0	50	65	18	0
2	AMS	8.5 lb/100 gal	B							
3	Sonic	5 oz/a	A	100	99	10	92	93	91	0
3	Flexstar GT	3 pt/a	C							
3	Crop oil concentrate	1 % v/v	C							
3	AMS	8.5 lb/100 gal	C							
4	Zidua PRO	6 fl oz/a	A	99	97	5	95	99	99	0
4	Outlook	12 fl oz/a	C							
4	Engenia	12.8 fl oz/a	C							
4	Roundup PowerMax	32 fl oz/a	C							
5	Zidua PRO	6 fl oz/a	A	100	93	0	94	100	98	0
5	Engenia	12.8 fl oz/a	C							
5	Roundup PowerMax	32 fl oz/a	C							
6	BAS 18309H	16 fl oz/a	B	100	100	0	63	99	95	0
6	Roundup PowerMax	32 fl oz/a	B							
7	Zidua PRO	4 fl oz/a	A	100	95	0	94	98	99	0
7	Engenia	12.8 fl oz/a	C							
7	Roundup PowerMax	32 fl oz/a	C							
8	Zidua PRO	4 fl oz/a	A	100	97	0	96	99	99	0
8	Engenia	12.8 fl oz/a	C							
8	Roundup PowerMax	32 fl oz/a	C							
8	AMS	8.5 lb/100 gal	C							
9	Verdict	5 fl oz/a	A	100	97	1	91	98	99	0
9	Metribuzin	5 oz/a	A							
9	Engenia	12.8 fl oz/a	C							
9	Roundup PowerMax	32 fl oz/a	C							
10	Verdict	5 fl oz/a	A	100	94	0	94	100	99	0
10	Metribuzin	5 oz/a	A							
10	Outlook	5 fl oz/a	A							
10	Engenia	12.8 fl oz/a	C							
10	Roundup PowerMax	32 fl oz/a	C							
LSD P=.05				1.2	3.0	2.2	8.0	6.8	5.7	.
Standard Deviation				0.8	2.1	1.5	5.5	4.7	4.0	0.0
CV				0.88	2.38	93.16	7.19	5.54	4.96	0.0

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Pest Code	ANGR	CHEAL	AMAPO	AMBEL		
Crop Code					GLXMA	GLXMA
Rating Date	Jul-25-2016	Jul-25-2016	Jul-25-2016	Jul-25-2016	Nov-1-2016	Nov-1-2016
Rating Type	control	control	control	control	moisture	yield
Rating Unit	percent	percent	percent	percent	percent	bu/acre
Trt-Eval Interval	42 DA-C	42 DA-C	42 DA-C	42 DA-C	141 DA-C	141 DA-C
Number of Decimals	0	0	0	0	1	1

Trt No.	Treatment Name	Rate Unit	Appl Code	ANGR	CHEAL	AMAPO	AMBEL	GLXMA moisture	GLXMA yield
1	Untreated			0	0	0	0	17.7	28.5
2	Roundup PowerMax	32 fl oz/a	B	43	33	58	43	15.5	59.2
2	AMS	8.5 lb/100 gal	B						
3	Sonic	5 oz/a	A	76	96	99	99	15.1	70.9
3	Flexstar GT	3 pt/a	C						
3	Crop oil concentrate	1 % v/v	C						
3	AMS	8.5 lb/100 gal	C						
4	Zidua PRO	6 fl oz/a	A	81	99	100	100	15.3	71.8
4	Outlook	12 fl oz/a	C						
4	Engenia	12.8 fl oz/a	C						
4	Roundup PowerMax	32 fl oz/a	C						
5	Zidua PRO	6 fl oz/a	A	80	100	100	100	15.3	68.9
5	Engenia	12.8 fl oz/a	C						
5	Roundup PowerMax	32 fl oz/a	C						
6	BAS 18309H	16 fl oz/a	B	51	100	95	94	15.4	62.4
6	Roundup PowerMax	32 fl oz/a	B						
7	Zidua PRO	4 fl oz/a	A	78	100	100	100	15.3	74.9
7	Engenia	12.8 fl oz/a	C						
7	Roundup PowerMax	32 fl oz/a	C						
8	Zidua PRO	4 fl oz/a	A	78	100	100	100	15.4	74.4
8	Engenia	12.8 fl oz/a	C						
8	Roundup PowerMax	32 fl oz/a	C						
8	AMS	8.5 lb/100 gal	C						
9	Verdict	5 fl oz/a	A	73	100	100	100	15.2	75.1
9	Metribuzin	5 oz/a	A						
9	Engenia	12.8 fl oz/a	C						
9	Roundup PowerMax	32 fl oz/a	C						
10	Verdict	5 fl oz/a	A	80	100	100	100	15.4	71.8
10	Metribuzin	5 oz/a	A						
10	Outlook	5 fl oz/a	A						
10	Engenia	12.8 fl oz/a	C						
10	Roundup PowerMax	32 fl oz/a	C						
LSD P=.05				5.9	11.9	6.1	4.2	0.70	7.99
Standard Deviation				4.0	8.2	4.2	2.9	0.48	5.51
CV				6.31	9.89	4.96	3.5	3.08	8.37