

MSU Weed Science Research Program

Weed control programs in non-GMO soybean

Trial ID: SOY05-10 Study Dir.: Sprague, Powell
Conducted: T-10 West Investigator: Christy Sprague

Date Planted: 5/28/2010 Row Spacing: 30 IN
Variety: ZFS725 Low Sat No. of Reps: 4
Population: 157,000 Seeds/Acre % OM: 2.7
Soil Type: Loam pH: 7.2
Plot Size: 10 X 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow and spring finish
Fertilizer: None

Crop and Weed Description

Table with 4 columns: Weed, Code, Common Name, Scientific Name. Lists weeds like ANGR, AMBEL, CHEAL, ABUTH, AMASS and crop GLXMA (SOYBEAN).

Application Description

Table with 4 columns: Application Timing, Date Treated, Time Treated, % Cloud Cover, Air Temp., % Relative Humidity, Wind Speed/Unit/Dir, Soil Temp., Soil/Leaf Surface M, Soil Moist. Lists treatments A, B, and C.

Crop Stage at Each Application

Table with 4 columns: Crop Name, Height (In.), Stage (L). Shows crop stages for GLXMA at applications A, B, and C.

Weed Stage at Each Application

Table with 4 columns: Weed Name, Height (In.), Stage (L). Lists weed stages for ANGR, AMBEL, CHEAL, ABUTH, and AMASS at applications A, B, and C.

Weed Density (plants/sq. ft.)

Table with 5 columns: Weed Name, Density. Shows densities for ANGR, CHEAL, AMBEL, ABUTH, and AMASS.

Application Equipment

Table with 11 columns: Appl, Sprayer Type, Speed MPH, Nozzle Type, Nozzle Size, Nozzle Height, Nozzle Spacing, Boom Width, GPA, Carrier, PSI. Lists equipment for applications A, B, and C.

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	# Subsamples, Dec.	GLXMA injury percent 6/16/2010 19 DA-A 0	GLXMA injury percent 6/28/2010 31 DA-A 0	ANGR control percent 6/28/2010 31 DA-A 0	CHEAL control percent 6/28/2010 31 DA-A 0	AMASS control percent 6/28/2010 31 DA-A 0	AMBEL control percent 6/28/2010 31 DA-A 0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Valor SX	51	WG	2.5	oz/a	PRE	A	33	11	83	98	96	87
1	Prowl H2O	3.8	L	2	pt/a	PRE	A						
2	Valor SX	51	WG	2.5	oz/a	PRE	A	35	10	82	99	94	89
2	Prowl H2O	3.8	L	2	pt/a	PRE	A						
2	Flexstar	1.88	L	12	fl oz/a	POST	B						
2	Select Max	0.97	L	9	fl oz/a	POST	B						
2	Herbimax (COC)		L	1	% v/v	POST	B						
3	Boundary	6.5	EC	2.4	pt/a	PRE	A	18	3	99	99	98	85
4	Boundary	6.5	EC	2.4	pt/a	PRE	A	15	0	99	99	98	86
4	Flexstar	1.88	L	1	pt/a	POST	B						
4	Herbimax (COC)		L	1	% v/v	POST	B						
5	Canopy	75	DF	4	oz/a	PRE	A	11	9	92	99	99	94
5	Prefix	5.29	L	1	pt/a	PRE	A						
6	Canopy	75	DF	4	oz/a	PRE	A	9	13	96	99	99	94
6	Prefix	5.29	L	1	pt/a	PRE	A						
6	Flexstar	1.88	L	12	fl oz/a	POST	B						
6	Select Max	0.97	L	9	fl oz/a	POST	B						
6	Herbimax (COC)		L	1	% v/v	POST	B						
7	Authority MTZ	45	DF	10	oz/a	PRE	A	20	5	93	99	99	95
7	Valor XLT	40.3	DG	3	oz/a	PRE	A						
8	Authority MTZ	45	DF	10	oz/a	PRE	A	24	11	93	99	99	97
8	Valor XLT	40.3	DG	3	oz/a	PRE	A						
8	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
8	Select Max	0.97	L	9	fl oz/a	LPOS	C						
8	Herbimax (COC)		L	1	% v/v	LPOS	C						
9	Untreated						A	0	0	0	0	0	0
10	Valor XLT	40.3	DG	4	oz/a	PRE	A	31	20	91	99	99	97
10	Sencor	75	DF	4	oz/a	PRE	A						
11	Valor XLT	40.3	DG	4	oz/a	PRE	A	33	19	92	99	99	97
11	Sencor	75	DF	4	oz/a	PRE	A						
11	Select Max	0.97	L	9	fl oz/a	LPOS	C						
11	Herbimax (COC)		L	1	% v/v	LPOS	C						
12	Canopy	75	DF	5.5	oz/a	PRE	A	15	16	98	99	99	90
12	IntRRo	4	EC	2	qt/a	PRE	A						
13	Canopy	75	DF	5.5	oz/a	PRE	A	18	16	99	99	99	90
13	IntRRo	4	EC	2	qt/a	PRE	A						
13	Flexstar	1.88	L	12	fl oz/a	POST	B						
13	Herbimax (COC)		L	1	% v/v	POST	B						
14	Python	80	DG	0.8	oz/a	PRE	A	16	5	98	99	99	95
14	Sencor	75	DF	8	oz/a	PRE	A						
14	Outlook	6	L	18	fl oz/a	PRE	A						

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Weed Code								ANGR	CHEAL	AMASS	AMBEL		
Crop Code		GLXMA	GLXMA					control	control	control	control		
Rating Data Type		injury	injury					percent	percent	percent	percent		
Rating Unit		percent	percent					6/28/2010	6/28/2010	6/28/2010	6/28/2010		
Rating Date		6/16/2010	6/28/2010					31 DA-A	31 DA-A	31 DA-A	31 DA-A		
Trt-Eval Interval		19 DA-A	31 DA-A					0	0	0	0		
# Subsamples, Dec.		0	0					0	0	0	0		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
15	Python	80	DG	0.8	oz/a	PRE	A	13	3	98	99	99	94
15	Sencor	75	DF	8	oz/a	PRE	A						
15	Outlook	6	L	18	fl oz/a	PRE	A						
15	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
15	Herbimax (COC)		L	1	% v/v	LPOS	C						
16	Authority XL (3.8 oz)					PRE	A	11	5	99	99	99	93
16	Classic	25	DF	1.14	oz/a	PRE	A						
16	Authority	75	DG	2.38	oz/a	PRE	A						
16	Boundary	6.5	EC	2	pt/a	PRE	A						
17	Authority XL (3.8 oz)					PRE	A	14	8	99	99	99	94
17	Classic	25	DF	1.14	oz/a	PRE	A						
17	Authority	75	DG	2.38	oz/a	PRE	A						
17	Boundary	6.5	EC	2	pt/a	PRE	A						
17	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
17	Herbimax (COC)		L	1	% v/v	LPOS	C						
18	Optill	68	DG	2	oz/a	PRE	A	14	1	99	99	99	92
18	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A						
19	Optill	68	DG	2	oz/a	PRE	A	13	1	97	99	99	92
19	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A						
19	Flexstar	1.88	L	1	pt/a	LPOS	C						
19	Herbimax (COC)		L	1	% v/v	LPOS	C						
20	Envive (3.5 oz)					PRE	A	34	19	91	99	99	98
20	Classic	25	DF	1.28	oz/a	PRE	A						
20	Harmony SG	50	DF	0.208	oz/a	PRE	A						
20	Valor SX	51	WG	2	oz/a	PRE	A						
20	Prowl H2O	3.8	L	2	pt/a	PRE	A						
21	Envive (3.5 oz)					PRE	A	30	18	94	99	99	91
21	Classic	25	DF	1.28	oz/a	PRE	A						
21	Harmony SG	50	DF	0.208	oz/a	PRE	A						
21	Valor SX	51	WG	2	oz/a	PRE	A						
21	Prowl H2O	3.8	L	2	pt/a	PRE	A						
21	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
21	Select Max	0.97	L	9	fl oz/a	LPOS	C						
21	Herbimax (COC)		L	1	% v/v	LPOS	C						
22	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A		0	99	99	99	90
22	Lorox	50	DF	1	lb/a	PRE	A						
22	Sencor	75	DF	5	oz/a	PRE	A						
23	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A		0	99	99	99	90
23	Lorox	50	DF	1	lb/a	PRE	A						
23	Sencor	75	DF	5	oz/a	PRE	A						
23	Flexstar	1.88	L	12	oz/a	LPOS	C						
23	Herbimax (COC)		L	1	% v/v	LPOS	C						
LSD (P=.05)								5.4	8.0	3.4	0.7	2.4	6.6
Standard Deviation								3.8	5.6	2.4	0.5	1.7	4.7
CV								19.73	67.69	2.68	0.51	1.78	5.33

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code								ABUTH		ANGR	CHEAL	AMASS	AMBEL	ABUTH
Crop Code									GLXMA					
Rating Data Type								control	injury	control	control	control	control	control
Rating Unit								percent	percent	percent	percent	percent	percent	percent
Rating Date								6/28/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010
Trt-Eval Interval								31 DA-A	7 DA-B	7 DA-B	7 DA-B	7 DA-B	7 DA-B	7 DA-B
# Subsamples, Dec.								0	0	0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code							
1	Valor SX	51	WG	2.5	oz/a	PRE	A	99	2	80	99	91	84	99
1	Prowl H2O	3.8	L	2	pt/a	PRE	A							
2	Valor SX	51	WG	2.5	oz/a	PRE	A	99	14	94	99	99	96	99
2	Prowl H2O	3.8	L	2	pt/a	PRE	A							
2	Flexstar	1.88	L	12	fl oz/a	POST	B							
2	Select Max	0.97	L	9	fl oz/a	POST	B							
2	Herbimax (COC)		L	1	% v/v	POST	B							
3	Boundary	6.5	EC	2.4	pt/a	PRE	A	99	1	98	98	98	77	99
4	Boundary	6.5	EC	2.4	pt/a	PRE	A	99	10	99	99	99	97	99
4	Flexstar	1.88	L	1	pt/a	POST	B							
4	Herbimax (COC)		L	1	% v/v	POST	B							
5	Canopy	75	DF	4	oz/a	PRE	A	99	4	92	99	99	90	99
5	Prefix	5.29	L	1	pt/a	PRE	A							
6	Canopy	75	DF	4	oz/a	PRE	A	99	17	99	99	99	99	99
6	Prefix	5.29	L	1	pt/a	PRE	A							
6	Flexstar	1.88	L	12	fl oz/a	POST	B							
6	Select Max	0.97	L	9	fl oz/a	POST	B							
6	Herbimax (COC)		L	1	% v/v	POST	B							
7	Authority MTZ	45	DF	10	oz/a	PRE	A	99	0	90	99	99	92	99
7	Valor XLT	40.3	DG	3	oz/a	PRE	A							
8	Authority MTZ	45	DF	10	oz/a	PRE	A	99	0	91	99	99	95	99
8	Valor XLT	40.3	DG	3	oz/a	PRE	A							
8	Flexstar	1.88	L	12	fl oz/a	LPOS	C							
8	Select Max	0.97	L	9	fl oz/a	LPOS	C							
8	Herbimax (COC)		L	1	% v/v	LPOS	C							
9	Untreated						A	0	0	0	0	0	0	0
10	Valor XLT	40.3	DG	4	oz/a	PRE	A	99	6	88	99	99	95	99
10	Sencor	75	DF	4	oz/a	PRE	A							
11	Valor XLT	40.3	DG	4	oz/a	PRE	A	99	10	86	99	99	95	99
11	Sencor	75	DF	4	oz/a	PRE	A							
11	Select Max	0.97	L	9	fl oz/a	LPOS	C							
11	Herbimax (COC)		L	1	% v/v	LPOS	C							
12	Canopy	75	DF	5.5	oz/a	PRE	A	99	13	96	99	99	86	99
12	IntRRo	4	EC	2	qt/a	PRE	A							
13	Canopy	75	DF	5.5	oz/a	PRE	A	99	21	98	99	99	97	99
13	IntRRo	4	EC	2	qt/a	PRE	A							
13	Flexstar	1.88	L	12	fl oz/a	POST	B							
13	Herbimax (COC)		L	1	% v/v	POST	B							
14	Python	80	DG	0.8	oz/a	PRE	A	99	5	91	99	99	92	99
14	Sencor	75	DF	8	oz/a	PRE	A							
14	Outlook	6	L	18	fl oz/a	PRE	A							

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Weed Code								ABUTH		ANGR	CHEAL	AMASS	AMBEL	ABUTH
Crop Code								GLXMA						
Rating Data Type								control	injury	control	control	control	control	control
Rating Unit								percent	percent	percent	percent	percent	percent	percent
Rating Date								6/28/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010	7/8/2010
Trt-Eval Interval								31 DA-A	7 DA-B	7 DA-B	7 DA-B	7 DA-B	7 DA-B	7 DA-B
# Subsamples, Dec.								0	0	0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code							
15	Python	80	DG	0.8	oz/a	PRE	A	99	1	95	99	99	91	99
15	Sencor	75	DF	8	oz/a	PRE	A							
15	Outlook	6	L	18	fl oz/a	PRE	A							
15	Flexstar	1.88	L	12	fl oz/a	LPOS	C							
15	Herbimax (COC)		L	1	% v/v	LPOS	C							
16	Authority XL (3.8 oz)					PRE	A	99	4	98	99	99	90	99
16	Classic	25	DF	1.14	oz/a	PRE	A							
16	Authority	75	DG	2.38	oz/a	PRE	A							
16	Boundary	6.5	EC	2	pt/a	PRE	A							
17	Authority XL (3.8 oz)					PRE	A	99	6	98	99	99	92	99
17	Classic	25	DF	1.14	oz/a	PRE	A							
17	Authority	75	DG	2.38	oz/a	PRE	A							
17	Boundary	6.5	EC	2	pt/a	PRE	A							
17	Flexstar	1.88	L	12	fl oz/a	LPOS	C							
17	Herbimax (COC)		L	1	% v/v	LPOS	C							
18	Optill	68	DG	2	oz/a	PRE	A	99	0	99	97	99	89	99
18	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A							
19	Optill	68	DG	2	oz/a	PRE	A	99	0	96	99	99	88	99
19	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A							
19	Flexstar	1.88	L	1	pt/a	LPOS	C							
19	Herbimax (COC)		L	1	% v/v	LPOS	C							
20	Envive (3.5 oz)					PRE	A	99	11	87	99	99	97	99
20	Classic	25	DF	1.28	oz/a	PRE	A							
20	Harmony SG	50	DF	0.208	oz/a	PRE	A							
20	Valor SX	51	WG	2	oz/a	PRE	A							
20	Prowl H2O	3.8	L	2	pt/a	PRE	A							
21	Envive (3.5 oz)					PRE	A	99	11	93	99	99	90	99
21	Classic	25	DF	1.28	oz/a	PRE	A							
21	Harmony SG	50	DF	0.208	oz/a	PRE	A							
21	Valor SX	51	WG	2	oz/a	PRE	A							
21	Prowl H2O	3.8	L	2	pt/a	PRE	A							
21	Flexstar	1.88	L	12	fl oz/a	LPOS	C							
21	Select Max	0.97	L	9	fl oz/a	LPOS	C							
21	Herbimax (COC)		L	1	% v/v	LPOS	C							
22	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	99	0	99	99	99	81	99
22	Lorox	50	DF	1	lb/a	PRE	A							
22	Sencor	75	DF	5	oz/a	PRE	A							
23	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	99	0	99	99	99	81	99
23	Lorox	50	DF	1	lb/a	PRE	A							
23	Sencor	75	DF	5	oz/a	PRE	A							
23	Flexstar	1.88	L	12	oz/a	LPOS	C							
23	Herbimax (COC)		L	1	% v/v	LPOS	C							
LSD (P=.05)								0.0	6.9	3.7	0.9	2.0	7.3	0.0
Standard Deviation								0.0	4.9	2.6	0.6	1.4	5.2	0.0
CV								0.0	84.17	2.95	0.68	1.46	5.97	0.0

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	# Subsamples, Dec.	GLXMA injury percent 7/26/2010 14 DA-C	ANGR control percent 7/26/2010 14 DA-C	CHEAL control percent 7/26/2010 14 DA-C	AMASS control percent 7/26/2010 14 DA-C	AMBEL control percent 7/26/2010 14 DA-C	ABUTH control percent 7/26/2010 14 DA-C	
1	Valor SX	51	WG	2.5	oz/a	PRE	A	0	65	99	98	79	99
1	Prowl H2O	3.8	L	2	pt/a	PRE	A						
2	Valor SX	51	WG	2.5	oz/a	PRE	A	1	99	99	99	96	99
2	Prowl H2O	3.8	L	2	pt/a	PRE	A						
2	Flexstar	1.88	L	12	fl oz/a	POST	B						
2	Select Max	0.97	L	9	fl oz/a	POST	B						
2	Herbimax (COC)		L	1	% v/v	POST	B						
3	Boundary	6.5	EC	2.4	pt/a	PRE	A	1	99	99	98	78	99
4	Boundary	6.5	EC	2.4	pt/a	PRE	A	0	99	99	99	99	99
4	Flexstar	1.88	L	1	pt/a	POST	B						
4	Herbimax (COC)		L	1	% v/v	POST	B						
5	Canopy	75	DF	4	oz/a	PRE	A	1	84	99	99	91	99
5	Prefix	5.29	L	1	pt/a	PRE	A						
6	Canopy	75	DF	4	oz/a	PRE	A	4	99	99	99	98	98
6	Prefix	5.29	L	1	pt/a	PRE	A						
6	Flexstar	1.88	L	12	fl oz/a	POST	B						
6	Select Max	0.97	L	9	fl oz/a	POST	B						
6	Herbimax (COC)		L	1	% v/v	POST	B						
7	Authority MTZ	45	DF	10	oz/a	PRE	A	0	84	99	99	90	99
7	Valor XLT	40.3	DG	3	oz/a	PRE	A						
8	Authority MTZ	45	DF	10	oz/a	PRE	A	4	98	99	99	99	99
8	Valor XLT	40.3	DG	3	oz/a	PRE	A						
8	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
8	Select Max	0.97	L	9	fl oz/a	LPOS	C						
8	Herbimax (COC)		L	1	% v/v	LPOS	C						
9	Untreated						A	0	0	0	0	0	0
10	Valor XLT	40.3	DG	4	oz/a	PRE	A	0	74	99	99	94	99
10	Sencor	75	DF	4	oz/a	PRE	A						
11	Valor XLT	40.3	DG	4	oz/a	PRE	A	1	97	99	99	92	99
11	Sencor	75	DF	4	oz/a	PRE	A						
11	Select Max	0.97	L	9	fl oz/a	LPOS	C						
11	Herbimax (COC)		L	1	% v/v	LPOS	C						
12	Canopy	75	DF	5.5	oz/a	PRE	A	5	88	99	99	86	99
12	IntRRo	4	EC	2	qt/a	PRE	A						
13	Canopy	75	DF	5.5	oz/a	PRE	A	4	91	99	99	96	99
13	IntRRo	4	EC	2	qt/a	PRE	A						
13	Flexstar	1.88	L	12	fl oz/a	POST	B						
13	Herbimax (COC)		L	1	% v/v	POST	B						
14	Python	80	DG	0.8	oz/a	PRE	A	0	86	99	99	93	99
14	Sencor	75	DF	8	oz/a	PRE	A						
14	Outlook	6	L	18	fl oz/a	PRE	A						

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Weed Code									ANGR	CHEAL	AMASS	AMBEL	ABUTH
Crop Code							GLXMA		control	control	control	control	control
Rating Data Type							injury	percent	percent	percent	percent	percent	percent
Rating Unit							7/26/2010	7/26/2010	7/26/2010	7/26/2010	7/26/2010	7/26/2010	7/26/2010
Rating Date							14 DA-C	14 DA-C	14 DA-C	14 DA-C	14 DA-C	14 DA-C	14 DA-C
Trt-Eval Interval							0	0	0	0	0	0	0
# Subsamples, Dec.							0	0	0	0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
15	Python	80	DG	0.8	oz/a	PRE	A	3	91	99	99	99	99
15	Sencor	75	DF	8	oz/a	PRE	A						
15	Outlook	6	L	18	fl oz/a	PRE	A						
15	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
15	Herbimax (COC)		L	1	% v/v	LPOS	C						
16	Authority XL (3.8 oz)					PRE	A	0	98	99	99	89	99
16	Classic	25	DF	1.14	oz/a	PRE	A						
16	Authority	75	DG	2.38	oz/a	PRE	A						
16	Boundary	6.5	EC	2	pt/a	PRE	A						
17	Authority XL (3.8 oz)					PRE	A	4	99	99	99	99	99
17	Classic	25	DF	1.14	oz/a	PRE	A						
17	Authority	75	DG	2.38	oz/a	PRE	A						
17	Boundary	6.5	EC	2	pt/a	PRE	A						
17	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
17	Herbimax (COC)		L	1	% v/v	LPOS	C						
18	Optill	68	DG	2	oz/a	PRE	A	0	99	99	99	92	99
18	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A						
19	Optill	68	DG	2	oz/a	PRE	A	4	98	99	99	99	99
19	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A						
19	Flexstar	1.88	L	1	pt/a	LPOS	C						
19	Herbimax (COC)		L	1	% v/v	LPOS	C						
20	Envive (3.5 oz)					PRE	A	1	77	99	99	96	99
20	Classic	25	DF	1.28	oz/a	PRE	A						
20	Harmony SG	50	DF	0.208	oz/a	PRE	A						
20	Valor SX	51	WG	2	oz/a	PRE	A						
20	Prowl H2O	3.8	L	2	pt/a	PRE	A						
21	Envive (3.5 oz)					PRE	A	10	99	99	99	99	99
21	Classic	25	DF	1.28	oz/a	PRE	A						
21	Harmony SG	50	DF	0.208	oz/a	PRE	A						
21	Valor SX	51	WG	2	oz/a	PRE	A						
21	Prowl H2O	3.8	L	2	pt/a	PRE	A						
21	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
21	Select Max	0.97	L	9	fl oz/a	LPOS	C						
21	Herbimax (COC)		L	1	% v/v	LPOS	C						
22	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	0	99	99	99	77	99
22	Lorox	50	DF	1	lb/a	PRE	A						
22	Sencor	75	DF	5	oz/a	PRE	A						
23	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	5	99	99	99	99	99
23	Lorox	50	DF	1	lb/a	PRE	A						
23	Sencor	75	DF	5	oz/a	PRE	A						
23	Flexstar	1.88	L	12	oz/a	LPOS	C						
23	Herbimax (COC)		L	1	% v/v	LPOS	C						
LSD (P=.05)								3.1	7.2	0.0	0.8	5.8	0.6
Standard Deviation								2.2	5.1	0.0	0.6	4.1	0.4
CV								107.34	5.77	0.0	0.63	4.6	0.42

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

MSU Weed Science Research Program

Weed control programs in non-GMO soybean

Trial ID: SOY05-10
Conducted: T-10 WestStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code								ANGR	CHEAL	AMASS	AMBEL	ABUTH	GLXMA
Crop Code													moisture
Rating Data Type								control	control	control	control	control	percent
Rating Unit								percent	percent	percent	percent	percent	percent
Rating Date								10/6/2010	10/6/2010	10/6/2010	10/6/2010	10/6/2010	10/11/2010
Trt-Eval Interval								86 DA-C	86 DA-C	86 DA-C	86 DA-C	86 DA-C	91 DA-C
# Subsamples, Dec.								0	0	0	0	0	1
Trt	Treatment	Form	Form	Rate	Rate	Grow	Appl						
No.	Name	Conc	Type	Rate	Unit	Stg	Code						
1	Valor SX	51	WG	2.5	oz/a	PRE	A	70	99	93	75	99	9.1
1	Prowl H2O	3.8	L	2	pt/a	PRE	A						
2	Valor SX	51	WG	2.5	oz/a	PRE	A	99	99	99	99	99	8.9
2	Prowl H2O	3.8	L	2	pt/a	PRE	A						
2	Flexstar	1.88	L	12	fl oz/a	POST	B						
2	Select Max	0.97	L	9	fl oz/a	POST	B						
2	Herbimax (COC)		L	1	% v/v	POST	B						
3	Boundary	6.5	EC	2.4	pt/a	PRE	A	99	99	97	76	99	9.3
4	Boundary	6.5	EC	2.4	pt/a	PRE	A	99	99	99	99	99	9.2
4	Flexstar	1.88	L	1	pt/a	POST	B						
4	Herbimax (COC)		L	1	% v/v	POST	B						
5	Canopy	75	DF	4	oz/a	PRE	A	85	99	99	90	99	8.8
5	Prefix	5.29	L	1	pt/a	PRE	A						
6	Canopy	75	DF	4	oz/a	PRE	A	99	99	99	99	98	8.6
6	Prefix	5.29	L	1	pt/a	PRE	A						
6	Flexstar	1.88	L	12	fl oz/a	POST	B						
6	Select Max	0.97	L	9	fl oz/a	POST	B						
6	Herbimax (COC)		L	1	% v/v	POST	B						
7	Authority MTZ	45	DF	10	oz/a	PRE	A	83	99	99	90	99	9.0
7	Valor XLT	40.3	DG	3	oz/a	PRE	A						
8	Authority MTZ	45	DF	10	oz/a	PRE	A	99	99	99	99	99	8.8
8	Valor XLT	40.3	DG	3	oz/a	PRE	A						
8	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
8	Select Max	0.97	L	9	fl oz/a	LPOS	C						
8	Herbimax (COC)		L	1	% v/v	LPOS	C						
9	Untreated						A	0	0	0	0	0	7.1
10	Valor XLT	40.3	DG	4	oz/a	PRE	A	66	99	99	95	99	9.0
10	Sencor	75	DF	4	oz/a	PRE	A						
11	Valor XLT	40.3	DG	4	oz/a	PRE	A	99	99	99	96	99	9.1
11	Sencor	75	DF	4	oz/a	PRE	A						
11	Select Max	0.97	L	9	fl oz/a	LPOS	C						
11	Herbimax (COC)		L	1	% v/v	LPOS	C						
12	Canopy	75	DF	5.5	oz/a	PRE	A	86	99	99	86	99	8.8
12	IntRRo	4	EC	2	qt/a	PRE	A						
13	Canopy	75	DF	5.5	oz/a	PRE	A	93	99	99	98	99	9.0
13	IntRRo	4	EC	2	qt/a	PRE	A						
13	Flexstar	1.88	L	12	fl oz/a	POST	B						
13	Herbimax (COC)		L	1	% v/v	POST	B						
14	Python	80	DG	0.8	oz/a	PRE	A	86	99	99	94	99	8.9
14	Sencor	75	DF	8	oz/a	PRE	A						
14	Outlook	6	L	18	fl oz/a	PRE	A						

MSU Weed Science Research Program

Weed control programs in non-GMO soybean

Trial ID: SOY05-10
 Conducted: T-10 West

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Weed Code								ANGR	CHEAL	AMASS	AMBEL	ABUTH	GLXMA
Crop Code													
Rating Data Type								control	control	control	control	control	moisture
Rating Unit								percent	percent	percent	percent	percent	percent
Rating Date								10/6/2010	10/6/2010	10/6/2010	10/6/2010	10/6/2010	10/11/2010
Trt-Eval Interval								86 DA-C	86 DA-C	86 DA-C	86 DA-C	86 DA-C	91 DA-C
# Subsamples, Dec.								0	0	0	0	0	1
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
15	Python	80	DG	0.8	oz/a	PRE	A	92	99	99	99	99	9.0
15	Sencor	75	DF	8	oz/a	PRE	A						
15	Outlook	6	L	18	fl oz/a	PRE	A						
15	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
15	Herbimax (COC)		L	1	% v/v	LPOS	C						
16	Authority XL (3.8 oz)					PRE	A	99	99	99	86	99	9.0
16	Classic	25	DF	1.14	oz/a	PRE	A						
16	Authority	75	DG	2.38	oz/a	PRE	A						
16	Boundary	6.5	EC	2	pt/a	PRE	A						
17	Authority XL (3.8 oz)					PRE	A	99	99	99	99	99	9.2
17	Classic	25	DF	1.14	oz/a	PRE	A						
17	Authority	75	DG	2.38	oz/a	PRE	A						
17	Boundary	6.5	EC	2	pt/a	PRE	A						
17	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
17	Herbimax (COC)		L	1	% v/v	LPOS	C						
18	Optill	68	DG	2	oz/a	PRE	A	99	96	99	87	98	9.0
18	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A						
19	Optill	68	DG	2	oz/a	PRE	A	99	99	99	99	99	9.1
19	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A						
19	Flexstar	1.88	L	1	pt/a	LPOS	C						
19	Herbimax (COC)		L	1	% v/v	LPOS	C						
20	Envive (3.5 oz)					PRE	A	74	99	99	92	99	8.8
20	Classic	25	DF	1.28	oz/a	PRE	A						
20	Harmony SG	50	DF	0.208	oz/a	PRE	A						
20	Valor SX	51	WG	2	oz/a	PRE	A						
20	Prowl H2O	3.8	L	2	pt/a	PRE	A						
21	Envive (3.5 oz)					PRE	A	99	99	99	99	99	8.9
21	Classic	25	DF	1.28	oz/a	PRE	A						
21	Harmony SG	50	DF	0.208	oz/a	PRE	A						
21	Valor SX	51	WG	2	oz/a	PRE	A						
21	Prowl H2O	3.8	L	2	pt/a	PRE	A						
21	Flexstar	1.88	L	12	fl oz/a	LPOS	C						
21	Select Max	0.97	L	9	fl oz/a	LPOS	C						
21	Herbimax (COC)		L	1	% v/v	LPOS	C						
22	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	99	99	99	76	99	9.3
22	Lorox	50	DF	1	lb/a	PRE	A						
22	Sencor	75	DF	5	oz/a	PRE	A						
23	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	99	99	99	99	99	9.4
23	Lorox	50	DF	1	lb/a	PRE	A						
23	Sencor	75	DF	5	oz/a	PRE	A						
23	Flexstar	1.88	L	12	oz/a	LPOS	C						
23	Herbimax (COC)		L	1	% v/v	LPOS	C						
LSD (P=.05)								6.6	1.3	2.8	6.0	0.8	0.47
Standard Deviation								4.7	0.9	2.0	4.3	0.6	0.33
CV								5.31	0.96	2.1	4.83	0.62	3.71

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

MSU Weed Science Research Program

Weed control programs in non-GMO soybean

Trial ID: SOY05-10
Conducted: T-10 WestStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code
Crop Code
Rating Data Type
Rating Unit
Rating Date
Trt-Eval Interval
Subsamples, Dec.

GLXMA
yield
bu/acre
10/11/2010
at 13% M
1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
1	Valor SX	51	WG	2.5	oz/a	PRE	A	38.1
1	Prowl H2O	3.8	L	2	pt/a	PRE	A	
2	Valor SX	51	WG	2.5	oz/a	PRE	A	42.9
2	Prowl H2O	3.8	L	2	pt/a	PRE	A	
2	Flexstar	1.88	L	12	fl oz/a	POST	B	
2	Select Max	0.97	L	9	fl oz/a	POST	B	
2	Herbimax (COC)		L	1	% v/v	POST	B	
3	Boundary	6.5	EC	2.4	pt/a	PRE	A	41.5
4	Boundary	6.5	EC	2.4	pt/a	PRE	A	44.0
4	Flexstar	1.88	L	1	pt/a	POST	B	
4	Herbimax (COC)		L	1	% v/v	POST	B	
5	Canopy	75	DF	4	oz/a	PRE	A	47.1
5	Prefix	5.29	L	1	pt/a	PRE	A	
6	Canopy	75	DF	4	oz/a	PRE	A	44.6
6	Prefix	5.29	L	1	pt/a	PRE	A	
6	Flexstar	1.88	L	12	fl oz/a	POST	B	
6	Select Max	0.97	L	9	fl oz/a	POST	B	
6	Herbimax (COC)		L	1	% v/v	POST	B	
7	Authority MTZ	45	DF	10	oz/a	PRE	A	41.8
7	Valor XLT	40.3	DG	3	oz/a	PRE	A	
8	Authority MTZ	45	DF	10	oz/a	PRE	A	41.8
8	Valor XLT	40.3	DG	3	oz/a	PRE	A	
8	Flexstar	1.88	L	12	fl oz/a	LPOS	C	
8	Select Max	0.97	L	9	fl oz/a	LPOS	C	
8	Herbimax (COC)		L	1	% v/v	LPOS	C	
9	Untreated						A	10.0
10	Valor XLT	40.3	DG	4	oz/a	PRE	A	38.5
10	Sencor	75	DF	4	oz/a	PRE	A	
11	Valor XLT	40.3	DG	4	oz/a	PRE	A	38.5
11	Sencor	75	DF	4	oz/a	PRE	A	
11	Select Max	0.97	L	9	fl oz/a	LPOS	C	
11	Herbimax (COC)		L	1	% v/v	LPOS	C	
12	Canopy	75	DF	5.5	oz/a	PRE	A	40.9
12	IntRRo	4	EC	2	qt/a	PRE	A	
13	Canopy	75	DF	5.5	oz/a	PRE	A	44.5
13	IntRRo	4	EC	2	qt/a	PRE	A	
13	Flexstar	1.88	L	12	fl oz/a	POST	B	
13	Herbimax (COC)		L	1	% v/v	POST	B	
14	Python	80	DG	0.8	oz/a	PRE	A	42.7
14	Sencor	75	DF	8	oz/a	PRE	A	
14	Outlook	6	L	18	fl oz/a	PRE	A	

MSU Weed Science Research Program

Weed control programs in non-GMO soybean

Trial ID: SOY05-10
Conducted: T-10 WestStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Weed Code
Crop Code
Rating Data Type
Rating Unit
Rating Date
Trt-Eval Interval
Subsamples, Dec.

GLXMA
yield
bu/acre
10/11/2010
at 13% M
1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
15	Python	80	DG	0.8	oz/a	PRE	A	44.5
15	Sencor	75	DF	8	oz/a	PRE	A	
15	Outlook	6	L	18	fl oz/a	PRE	A	
15	Flexstar	1.88	L	12	fl oz/a	LPOS	C	
15	Herbimax (COC)		L	1	% v/v	LPOS	C	
16	Authority XL (3.8 oz)					PRE	A	42.3
16	Classic	25	DF	1.14	oz/a	PRE	A	
16	Authority	75	DG	2.38	oz/a	PRE	A	
16	Boundary	6.5	EC	2	pt/a	PRE	A	
17	Authority XL (3.8 oz)					PRE	A	39.4
17	Classic	25	DF	1.14	oz/a	PRE	A	
17	Authority	75	DG	2.38	oz/a	PRE	A	
17	Boundary	6.5	EC	2	pt/a	PRE	A	
17	Flexstar	1.88	L	12	fl oz/a	LPOS	C	
17	Herbimax (COC)		L	1	% v/v	LPOS	C	
18	Optill	68	DG	2	oz/a	PRE	A	40.4
18	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	
19	Optill	68	DG	2	oz/a	PRE	A	43.4
19	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	
19	Flexstar	1.88	L	1	pt/a	LPOS	C	
19	Herbimax (COC)		L	1	% v/v	LPOS	C	
20	Envive (3.5 oz)					PRE	A	41.3
20	Classic	25	DF	1.28	oz/a	PRE	A	
20	Harmony SG	50	DF	0.208	oz/a	PRE	A	
20	Valor SX	51	WG	2	oz/a	PRE	A	
20	Prowl H2O	3.8	L	2	pt/a	PRE	A	
21	Envive (3.5 oz)					PRE	A	40.6
21	Classic	25	DF	1.28	oz/a	PRE	A	
21	Harmony SG	50	DF	0.208	oz/a	PRE	A	
21	Valor SX	51	WG	2	oz/a	PRE	A	
21	Prowl H2O	3.8	L	2	pt/a	PRE	A	
21	Flexstar	1.88	L	12	fl oz/a	LPOS	C	
21	Select Max	0.97	L	9	fl oz/a	LPOS	C	
21	Herbimax (COC)		L	1	% v/v	LPOS	C	
22	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	
22	Lorox	50	DF	1	lb/a	PRE	A	
22	Sencor	75	DF	5	oz/a	PRE	A	
23	Dual II Magnum	7.64	L	1.33	pt/a	PRE	A	
23	Lorox	50	DF	1	lb/a	PRE	A	
23	Sencor	75	DF	5	oz/a	PRE	A	
23	Flexstar	1.88	L	12	oz/a	LPOS	C	
23	Herbimax (COC)		L	1	% v/v	LPOS	C	

LSD (P=.05) 8.51
Standard Deviation 6.02
CV 14.9

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.