

MSU Weed Science Research Program

Fall Applied Herbicides for Soybean Weed Control

Trial ID: FSB01-06
 Conducted: T-16 Center

Study Dir.: Sprague, Powell
 Investigator: MSU Crop and Soil Science Weed Control

Date Planted: 5/8/2006	Row Spacing: 7.5 IN
Variety: Asgrow 2107	No. of Reps: 4
Population: 205,000 seeds/acre	% OM: 2.8
Soil Type: Clay Loam	pH: 6.8
Plot Size: 10 X 45 FT	Design: RANDOMIZED COMPLETE BLOCK

Tillage: No-till into corn stubble
Fertilizer: None

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	TAROF	DANDELION, COMMON	TARAXACUM OFFICINALE WEBER IN WIGGERS
2.	SOLPT	NIGHTSHADE, EASTERN BLACK	SOLANUM PTYCANTHUM DUNAL
3.	SONOL	SOWTHISTLE, ANNUAL	SONCHUS OLERACEUS L.
4.	W Annual	Winter Annual Weeds	combined rating
5.	ANGR	Annual grass	mainly foxtail, panicum
6.	CHEAL	Common lambsquarters	Chenopodium album L.
7.	VERPG	SPEEDWELL, PURSLANE	VERONICA PEREGRINA L.
8.	TAROF	DANDELION, COMMON	TARAXACUM OFFICINALE WEBER IN WIGGERS
9.	MELAL	COCKLE, WHITE	MELANDRIUM ALBUM (MILL.) GARCKE
10.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA
11.	POLPY	SMARTWEED, PENNSYLVANIA	POLYGONUM PENSYLVANICUM L.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

A
Date Treated: 11/7/2005
Time Treated: 3:30 pm
% Cloud Cover: 30
Air Temp., Unit: 56 F
% Relative Humidity: 57
Wind Speed/Unit/Dir: 5 mph SW
Soil Temp., Unit: 51 F
Soil/Leaf Surface M: 5 4
Soil Moist (1=w 5=d): 4

Crop Stage at Each Application

A
Crop Name: GLXMA
Height (In.): -
Stage (L): -

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Weed Stage at Each Application

A

Weed 1 Name: TAROF
 Height (In.): 2"-4" dia
 Stage (L): 4-6
 Weed 2 Name: SOLPT
 Height (In.): 1/8"-3"
 Stage (L): many
 Weed 3 Name: SONOL
 Height (In.): 2"-4" dia
 Stage (L): 5-12
 Weed 4 Name: W Annual
 Height (In.): -
 Stage (L): -
 Weed 5 Name: ANGR
 Height (In.): -
 Stage (L): -
 Weed 6 Name: CHEAL
 Height (In.): -
 Stage (L): -
 Weed 7 Name: VERPG
 Height (In.): -
 Stage (L): -
 Weed 8 Name: TAROF
 Height (In.): -
 Stage (L): -
 Weed 9 Name: MELAL
 Height (In.): -
 Stage (L): -
 Weed10 Name: AMBEL
 Height (In.): -
 Stage (L): -
 Weed11 Name: POLPY
 Height (In.): -
 Stage (L): -

Weed Density (plants/sq. ft.)

	1	2	3
Date:	7/21/2006	7/21/2006	7/21/2006
Weed Name:	CHEAL	ANGR	TAROF
Density:	<1	1	<1

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI	
A	Cub	3.8	AirMix	11003	21	20"	100"	19	Water	27

Comments: 6/26/06- Glyphosate (Mirage Plus) applied to all treatments at 1 qt product/acre with Willmar self-propelled sprayer.

Previous Crop: Corn. Previous Herbicide: Roundup, Distinct.

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Weed Code	VERPG	TAROF	MELAL	CHEAL	ANGR	CHEAL	AMBEL
Crop Code							
Rating Data Type	control	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Rating Date	5/8/2006	5/8/2006	5/8/2006	5/8/2006	6/14/2006	6/14/2006	6/14/2006
Trt-Eval Interval	182 DA-A	182 DA-A	182 DA-A	182 DA-A	219 DA-A	219 DA-A	219 DA-A

Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code	VERPG	TAROF	MELAL	CHEAL	ANGR	CHEAL	AMBEL
1	Canopy 75 DF (2.5 oz)				Fall	A	99	96	97	99	85	99	99
1	Sencor 75 DF	75	2.2	oz/a	Fall	A							
1	Classic	25	1.06	oz/a	Fall	A							
1	Express	75	0.1	oz/a	Fall	A							
1	2,4-D Ester	3.8	1	pt/a	Fall	A							
1	Herbimax		1	% v/v	Fall	A							
2	Scepter	70	2.1	oz/a	Fall	A	84	98	97	86	88	77	92
2	Buccaneer	3	1.5	pt/a	Fall	A							
2	2,4-D Ester	3.8	1	pt/a	Fall	A							
2	Activator 90 NIS		0.25	% v/v	Fall	A							
2	Ammonium sulfate		17	lb/100 gal	Fall	A							
3	iodosulfuron (Autumn)	10	0.33	oz/a	Fall	A	55	63	67	67	65	46	85
3	2,4-D Ester	3.8	1	pt/a	Fall	A							
3	Herbimax		1	% v/v	Fall	A							
3	28% N		1.5	qt/a	Fall	A							
4	Extreme	2.17	3	pt/a	Fall	A	95	89	94	99	83	79	96
4	2,4-D Ester	3.8	1	pt/a	Fall	A							
4	Activator 90 NIS		0.25	% v/v	Fall	A							
4	Ammonium sulfate		17	lb/100 gal	Fall	A							
5	Canopy EX (2.2 oz)						99	99	83	99	86	99	99
5	Classic	25	2	oz/a	Fall	A							
5	Express	75	0.2	oz/a	Fall	A							
5	Herbimax COC		1	% v/v	Fall	A							
5	2,4-D Ester	3.8	1	pt/a	Fall	A							
6	Canopy EX (1.65 oz)						99	99	90	99	78	99	99
6	Classic	25	1.5	oz/a	Fall	A							
6	Express	75	0.15	oz/a	Fall	A							
6	Herbimax COC		1	% v/v	Fall	A							
6	2,4-D Ester	3.8	1	pt/a	Fall	A							
7	Canopy EX (1.1 oz)						98	99	84	99	87	98	99
7	Classic	25	1	oz/a	Fall	A							
7	Express	75	0.1	oz/a	Fall	A							
7	Herbimax COC		1	% v/v	Fall	A							
7	2,4-D Ester	3.8	1	pt/a	Fall	A							
8	Roundup WeatherMax	4.5	22	fl oz/a	Fall	A	99	92	96	99	92	80	96
8	Ammonium sulfate		17	lb/100 gal	Fall	A							
8	2,4-D Ester	3.8	1	pt/a	Fall	A							
8	Valor	51	2	oz/a	Fall	A							
9	Roundup WeatherMax	4.5	22	fl oz/a	Fall	A	90	95	99	1		0	0
9	Ammonium sulfate		17	lb/100 gal	Fall	A							
9	2,4-D Ester	3.8	1	pt/a	Fall	A							
10	Valor	51	2	oz/a	Fall	A	99	96	92	97	91	98	97
10	Glyphos Xtra	3	1	qt/a	Fall	A							
10	Ammonium sulfate		17	lb/100 gal	Fall	A							
11	Valor	51	2	oz/a	Fall	A	99	74	96	99	94	92	99
11	Glyphos Xtra	3	1	pt/a	Fall	A							
11	2,4-D Ester	3.8	1	pt/a	Fall	A							
11	Ammonium sulfate		17	lb/100 gal	Fall	A							

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Weed Code	VERPG	TAROF	MELAL	CHEAL	ANGR	CHEAL	AMBEL
Crop Code							
Rating Data Type	control	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Rating Date	5/8/2006	5/8/2006	5/8/2006	5/8/2006	6/14/2006	6/14/2006	6/14/2006
Trt-Eval Interval	182 DA-A	182 DA-A	182 DA-A	182 DA-A	219 DA-A	219 DA-A	219 DA-A

Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code	VERPG	TAROF	MELAL	CHEAL	ANGR	CHEAL	AMBEL
12	Valor	51	2	oz/a	Fall	A	99	98	99	99	96	99	99
12	Classic	25	1.5	oz/a	Fall	A							
12	Glyphos Xtra	3	1	pt/a	Fall	A							
12	Ammonium sulfate		17	lb/100 gal	Fall	A							
13	Untreated Control				Fall	A	0	0	0	0	0	0	0
LSD (P=.05)							21.2	19.5	18.0	18.9	22.0	19.7	9.5
Standard Deviation							14.9	13.6	12.6	13.1	15.2	13.6	6.6
CV							17.35	16.18	15.02	16.29	19.32	18.35	8.08

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Weed Code	POLPY	SOLPT	GLXMA	W Annual overall	ANGR	CHEAL	SOLPT
Crop Code				control	control	control	control
Rating Data Type	control	control	injury	percent	percent	percent	percent
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Rating Date	6/14/2006	6/14/2006	6/26/2006	6/26/2006	6/26/2006	6/26/2006	6/26/2006
Trt-Eval Interval	219 DA-A	219 DA-A	231 DA-A	231 DA-A	231 DA-A	231 DA-A	231 DA-A

Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code	POLPY	SOLPT	GLXMA	W Annual overall	ANGR	CHEAL	SOLPT
1	Canopy 75 DF (2.5 oz)				Fall	A	99	82	0	95	78	98	28
1	Sencor 75 DF	75	2.2	oz/a	Fall	A							
1	Classic	25	1.06	oz/a	Fall	A							
1	Express	75	0.1	oz/a	Fall	A							
1	2,4-D Ester	3.8	1	pt/a	Fall	A							
1	Herbimax		1	% v/v	Fall	A							
2	Scepter	70	2.1	oz/a	Fall	A	86	82	0	93	77	46	52
2	Buccaneer	3	1.5	pt/a	Fall	A							
2	2,4-D Ester	3.8	1	pt/a	Fall	A							
2	Activator 90 NIS		0.25	% v/v	Fall	A							
2	Ammonium sulfate		17	lb/100 gal	Fall	A							
3	iodosulfuron (Autumn)	10	0.33	oz/a	Fall	A	96	73	0	69	43	28	20
3	2,4-D Ester	3.8	1	pt/a	Fall	A							
3	Herbimax		1	% v/v	Fall	A							
3	28% N		1.5	qt/a	Fall	A							
4	Extreme	2.17	3	pt/a	Fall	A	92	91	0	82	75	53	80
4	2,4-D Ester	3.8	1	pt/a	Fall	A							
4	Activator 90 NIS		0.25	% v/v	Fall	A							
4	Ammonium sulfate		17	lb/100 gal	Fall	A							
5	Canopy EX (2.2 oz)						99	80	0	87	67	96	33
5	Classic	25	2	oz/a	Fall	A							
5	Express	75	0.2	oz/a	Fall	A							
5	Herbimax COC		1	% v/v	Fall	A							
5	2,4-D Ester	3.8	1	pt/a	Fall	A							
6	Canopy EX (1.65 oz)						98	80	0	85	59	98	45
6	Classic	25	1.5	oz/a	Fall	A							
6	Express	75	0.15	oz/a	Fall	A							
6	Herbimax COC		1	% v/v	Fall	A							
6	2,4-D Ester	3.8	1	pt/a	Fall	A							
7	Canopy EX (1.1 oz)						97	91	0	74	58	93	40
7	Classic	25	1	oz/a	Fall	A							
7	Express	75	0.1	oz/a	Fall	A							
7	Herbimax COC		1	% v/v	Fall	A							
7	2,4-D Ester	3.8	1	pt/a	Fall	A							
8	Roundup WeatherMax	4.5	22	fl oz/a	Fall	A	97	95	0	94	69	89	86
8	Ammonium sulfate		17	lb/100 gal	Fall	A							
8	2,4-D Ester	3.8	1	pt/a	Fall	A							
8	Valor	51	2	oz/a	Fall	A							
9	Roundup WeatherMax	4.5	22	fl oz/a	Fall	A	0		0	88	50	30	23
9	Ammonium sulfate		17	lb/100 gal	Fall	A							
9	2,4-D Ester	3.8	1	pt/a	Fall	A							
10	Valor	51	2	oz/a	Fall	A	88	88	0	91	81	90	85
10	Glyphos Xtra	3	1	qt/a	Fall	A							
10	Ammonium sulfate		17	lb/100 gal	Fall	A							
11	Valor	51	2	oz/a	Fall	A	91	94	0	79	75	90	63
11	Glyphos Xtra	3	1	pt/a	Fall	A							
11	2,4-D Ester	3.8	1	pt/a	Fall	A							
11	Ammonium sulfate		17	lb/100 gal	Fall	A							

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Crop Code							
Rating Data Type	control	control	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Rating Date	6/14/2006	6/14/2006	6/26/2006	6/26/2006	6/26/2006	6/26/2006	6/26/2006
Trt-Eval Interval	219 DA-A	219 DA-A	231 DA-A	231 DA-A	231 DA-A	231 DA-A	231 DA-A

Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code	POLPY	SOLPT	GLXMA	W Annual	ANGR	CHEAL	SOLPT
12	Valor	51	2	oz/a	Fall	A	99	99	0	94	87	98	83
12	Classic	25	1.5	oz/a	Fall	A							
12	Glyphos Xtra	3	1	pt/a	Fall	A							
12	Ammonium sulfate		17	lb/100 gal	Fall	A							
13	Untreated Control				Fall	A	0	0	0	0	0	0	0

LSD (P=.05)	10.7	15.8	0.0	17.8	30.9	26.9	33.0
Standard Deviation	7.4	10.9	0.0	12.5	21.4	18.8	22.8
CV	9.27	13.74	0.0	15.76	34.02	26.98	46.56