

MSU Weed Science Research Program

Evaluation of Oil Adjuvants in Glyphosate-Sulfonylurea Tank-Mixes in STS-Soybean

Trial ID: SOY09-06
 Conducted: T-12 west

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Date Planted: 5/9/2006	Row Spacing: 30 IN
Variety: Garst 1827 RR/STS	No. of Reps: 4
Population: 155,000 seed/acre	% OM: 3.5
Soil Type: Loam	pH: 6.8
Plot Size: 10 X 35 FT	Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall moldboard plow
 Soil finish 5/08/06, 5/09/06
Fertilizer: None at planting

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	BRAKA/SINAR	MUSTARD, WILD	BRASSICA KABER
2.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
3.	ANGR	Annual grass	mainly foxtail, panicum
4.	AMARE	PIGWEEED, REDROOT	AMARANTHUS RETROFLEXUS L.
5.	AMBEL	RAGWEEED, COMMON	AMBROSIA ELATIOR L.
6.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
7.	SOLPT	NIGHTSHADE, EASTERN BLACK	SOLANUM PTYCANTHUM DUNAL
8.	LAMAM	HENBIT	LAMIUM AMPLEXICAULE L.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

A
Application Timing: POST
Date Treated: 6/9/2006
Time Treated: 11:40 am
% Cloud Cover: 100
Air Temp., Unit: 65 F
% Relative Humidity: 53
Wind Speed/Unit/Dir: 6 mph N
Soil Temp., Unit: 64 F
Soil/Leaf Surface M: 5 5
Soil Moist (1=w 5=d): 5

Crop Stage at Each Application

A
Crop Name: GLXMA
Height (In.): 4-6"
Stage (L): 1-2 tri

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Weed Stage at Each Application

A

Weed 1 Name: BRAKA/SINAR
Height (In.): 1-6"
Stage (L): 6-10
Weed 2 Name: CHEAL
Height (In.): 1-3"
Stage (L): 6-12
Weed 3 Name: ANGR
Height (In.): 2-4"
Stage (L): 2-5
Weed 4 Name: AMARE
Height (In.): 1-3"
Stage (L): 4-8
Weed 5 Name: AMBEL
Height (In.): 1-4"
Stage (L): 4-8
Weed 6 Name: ABUTH
Height (In.): 1-3"
Stage (L): 2-4
Weed 7 Name: SOLPT
Height (In.): .5-1.5"
Stage (L): 2-4
Weed 8 Name: LAMAM
Height (In.): 1-2"
Stage (L): 6-8

Weed Density (plants/sq. ft.)

	1	2	3	4	5
Date:	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006
Weed Name:	CHEAL	ABUTH	ANGR	BRAKA	AMBEL
Density:	1	1	12	7	4

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Boom					
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI	
A	CUB	3.8	AirMix	11003	22"	20"	100"	19	water	27	

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Weed Code						ANGR	CHEAL	AMAPO	AMBEL	ABUTH	BRAKA		
Crop Code						GLYMX							
Rating Data Type						injury	control	control	control	control	control	control	
Rating Unit						percent	percent	percent	percent	percent	percent	percent	
Rating Date						6/24/2006	6/24/2006	6/24/2006	6/24/2006	6/24/2006	6/24/2006	6/24/2006	
Trt-Eval Interval						15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	
Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code							
1	Buccaneer	3	1	pt/a	POST	A	6	78	79	97	82	86	96
1	Synchrony XP (0.75 oz/A)												
1	Classic	25	0.64	oz/a	POST	A							
1	Harmony GT (50%)	50	0.1	oz/a	POST	A							
2	Buccaneer	3	1	pt/a	POST	A	8	93	87	99	90	91	98
2	Synchrony XP (0.75 oz/A)												
2	Classic	25	0.64	oz/a	POST	A							
2	Harmony GT (50%)	50	0.1	oz/a	POST	A							
2	Prime Oil		1	% v/v	POST	A							
2	N-PAK AMS Liquid		2.5	% v/v	POST	A							
3	Buccaneer	3	1	pt/a	POST	A	9	96	89	98	87	91	97
3	Synchrony XP (0.75 oz/A)												
3	Classic	25	0.64	oz/a	POST	A							
3	Harmony GT (50%)	50	0.1	oz/a	POST	A							
3	Superb HC		0.5	% v/v	POST	A							
3	N-PAK AMS Liquid		2.5	% v/v	POST	A							
4	Buccaneer	3	1	pt/a	POST	A	6	98	96	99	88	94	98
4	Synchrony XP (0.75 oz/A)												
4	Classic	25	0.64	oz/a	POST	A							
4	Harmony GT (50%)	50	0.1	oz/a	POST	A							
4	Destiny		1	% v/v	POST	A							
4	N-PAK AMS Liquid		2.5	% v/v	POST	A							
5	Buccaneer	3	1	pt/a	POST	A	4	95	88	99	89	96	97
5	Synchrony XP (0.75 oz/A)												
5	Classic	25	0.64	oz/a	POST	A							
5	Harmony GT (50%)	50	0.1	oz/a	POST	A							
5	AG 05006		1	% v/v	POST	A							
5	N-PAK AMS Liquid		2.5	% v/v	POST	A							
6	Buccaneer	3	1	pt/a	POST	A	6	95	93	99	89	93	99
6	Synchrony XP (0.75 oz/A)												
6	Classic	25	0.64	oz/a	POST	A							
6	Harmony GT (50%)	50	0.1	oz/a	POST	A							
6	AG 05006		0.75	% v/v	POST	A							
6	N-PAK AMS Liquid		2.5	% v/v	POST	A							
7	Buccaneer	3	1	pt/a	POST	A	8	96	94	98	89	90	98
7	Synchrony XP (0.75 oz/A)												
7	Classic	25	0.64	oz/a	POST	A							
7	Harmony GT (50%)	50	0.1	oz/a	POST	A							
7	AG 05006		0.5	% v/v	POST	A							
7	N-PAK AMS Liquid		2.5	% v/v	POST	A							
8	Untreated						0	0	0	0	0	0	0
9	Buccaneer	3	1	pt/a	POST	A	4	96	93	97	89	96	97
9	Classic	25	0.64	oz/a	POST	A							
9	Harmony GT (50%)	50	0.1	oz/a	POST	A							
9	AG 03002		2.5	% v/v	POST	A							
10	Buccaneer	3	1	pt/a	POST	A	9	95	94	99	93	97	97
10	Classic	25	0.64	oz/a	POST	A							
10	Harmony GT (50%)	50	0.1	oz/a	POST	A							
10	AG 05055		2.5	% v/v	POST	A							
LSD (P=.05)							6.3	4.5	6.5	2.6	5.1	6.4	3.0
Standard Deviation							4.4	3.1	4.5	1.8	3.5	4.4	2.1
CV							74.29	3.7	5.52	2.0	4.43	5.29	2.35

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Crop Code						GLXMA							
Rating Data Type						injury	control	control	control	control	control		
Rating Unit						percent	percent	percent	percent	percent	percent		
Rating Date						7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006		
Trt-Eval Interval						28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A		
Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code							
1	Buccaneer	3	1	pt/a	POST	A	3	84	76	99	90	92	98
1	Synchrony XP (0.75 oz/A)												
1	Classic	25	0.64	oz/a	POST	A							
1	Harmony GT (50%)	50	0.1	oz/a	POST	A							
2	Buccaneer	3	1	pt/a	POST	A	23	90	90	97	95	97	99
2	Synchrony XP (0.75 oz/A)												
2	Classic	25	0.64	oz/a	POST	A							
2	Harmony GT (50%)	50	0.1	oz/a	POST	A							
2	Prime Oil		1	% v/v	POST	A							
2	N-PAK AMS Liquid		2.5	% v/v	POST	A							
3	Buccaneer	3	1	pt/a	POST	A	0	97	83	99	91	92	97
3	Synchrony XP (0.75 oz/A)												
3	Classic	25	0.64	oz/a	POST	A							
3	Harmony GT (50%)	50	0.1	oz/a	POST	A							
3	Superb HC		0.5	% v/v	POST	A							
3	N-PAK AMS Liquid		2.5	% v/v	POST	A							
4	Buccaneer	3	1	pt/a	POST	A	0	94	90	99	92	95	99
4	Synchrony XP (0.75 oz/A)												
4	Classic	25	0.64	oz/a	POST	A							
4	Harmony GT (50%)	50	0.1	oz/a	POST	A							
4	Destiny		1	% v/v	POST	A							
4	N-PAK AMS Liquid		2.5	% v/v	POST	A							
5	Buccaneer	3	1	pt/a	POST	A	0	93	91	99	93	95	99
5	Synchrony XP (0.75 oz/A)												
5	Classic	25	0.64	oz/a	POST	A							
5	Harmony GT (50%)	50	0.1	oz/a	POST	A							
5	AG 05006		1	% v/v	POST	A							
5	N-PAK AMS Liquid		2.5	% v/v	POST	A							
6	Buccaneer	3	1	pt/a	POST	A	0	94	94	99	95	98	99
6	Synchrony XP (0.75 oz/A)												
6	Classic	25	0.64	oz/a	POST	A							
6	Harmony GT (50%)	50	0.1	oz/a	POST	A							
6	AG 05006		0.75	% v/v	POST	A							
6	N-PAK AMS Liquid		2.5	% v/v	POST	A							
7	Buccaneer	3	1	pt/a	POST	A	0	93	91	99	91	97	99
7	Synchrony XP (0.75 oz/A)												
7	Classic	25	0.64	oz/a	POST	A							
7	Harmony GT (50%)	50	0.1	oz/a	POST	A							
7	AG 05006		0.5	% v/v	POST	A							
7	N-PAK AMS Liquid		2.5	% v/v	POST	A							
8	Untreated						0	0	0	0	0	0	0
9	Buccaneer	3	1	pt/a	POST	A	0	93	94	99	92	96	97
9	Classic	25	0.64	oz/a	POST	A							
9	Harmony GT (50%)	50	0.1	oz/a	POST	A							
9	AG 03002		2.5	% v/v	POST	A							
10	Buccaneer	3	1	pt/a	POST	A	1	96	90	99	95	95	98
10	Classic	25	0.64	oz/a	POST	A							
10	Harmony GT (50%)	50	0.1	oz/a	POST	A							
10	AG 05055		2.5	% v/v	POST	A							
LSD (P=.05)							20.7	7.2	10.0	2.1	5.1	6.0	2.0
Standard Deviation							14.3	4.9	6.9	1.5	3.5	4.2	1.4
CV							543.06	5.92	8.6	1.65	4.23	4.87	1.56