

MSU Weed Science Research Program

Evaluation of CHS adjuvants with glyphosate

Trial ID: SOY17-13  
Conducted: Campus B-9

Study Dir.: Sprague, Powell  
Investigator: Christy Sprague

**Date Planted:** Jun/08/2013      **Row Spacing:** 30 IN  
**Variety:** Pioneer 92Y51      **No. of Reps:** 4  
**Population:** 156,000 seeds/A      **% OM:** 3.5  
**Soil Type:** Sandy Clay Loam      **pH:** 7.2  
**Plot Size:** 10 X 30 FT      **Design:** RANDOMIZED COMPLETE BLOCK

**Tillage:** Fall chisel, spring soil finish  
**Fertilizer:** None

**Crop and Weed Description**

Weed	Code	Common Name	Scientific Name
1.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
2.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISII FOLIA L.
3.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

**Application Description**

**Application Timing:** A  
POST  
**Date Treated:** Jun/19/2013  
**Time Treated:** 10:30 AM  
**% Cloud Cover:** 0  
**Air Temp., Unit:** 70 F  
**% Relative Humidity:** 47  
**Wind Speed/Unit/Dir:** 4 mph NE  
**Soil Temp., Unit:** 60 F  
**Soil/Leaf Surface M:** 2 4  
**Soil Moist (1=w 5=d):** 2

**Crop Stage at Each Application**

**Crop Name:** A  
GLXMA  
**Height (In.):** 7"  
**Stage (L):** V3

**Weed Stage at Each Application**

**Weed 1 Name:** A  
CHEAL  
**Height (In.):** 1"  
**Stage (L):** 4  
**Weed 2 Name:** AMBEL  
**Height (In.):** 3"  
**Stage (L):** 7  
**Weed 3 Name:** ABUTH  
**Height (In.):** 3"  
**Stage (L):** 6

**Weed Density (plants/sq. ft.)**

Date:	1	2	3
	Jul/11/2013	Jul/11/2013	Jul/11/2013
<b>Weed Name:</b>	CHEAL	AMBEL	ABUTH
<b>Density:</b>	1	3	2

**Application Equipment**

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom				
A	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI	
A	Cub	3.8	AIXR	11003	25"	20"	100"	19	water	35	

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Weed Code		CHEAL	AMBEL	ABUTH	
Crop Code	GLXMA				GLXMA
Rating Data Type	injury	control	control	control	injury
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/26/2013	Jun/26/2013	Jun/26/2013	Jun/26/2013	Jul/03/2013
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	7 DA-A	14 DA-A
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code				
1	Buccaneer Plus 3	SL	16	fl oz/a	POST	A	0	63	24	29	0
	WC051	L	0.25	% v/v	POST	A					
2	Buccaneer Plus 3	SL	16	fl oz/a	POST	A	0	70	26	38	0
	WC111	L	0.5	% v/v	POST	A					
3	Buccaneer Plus 3	SL	16	fl oz/a	POST	A	0	70	28	38	0
	WC037	L	0.5	% v/v	POST	A					
4	Buccaneer Plus 3	SL	16	fl oz/a	POST	A	0	65	24	32	0
	WC037	L	0.5	% v/v	POST	A					
	WC123	L	1	qt/a	POST	A					
	WC101	WG	12	oz/a	POST	A					
5	Buccaneer Plus 3	SL	16	fl oz/a	POST	A	0	54	25	38	0
	WC133	L	0.5	% v/v	POST	A					
6	Buccaneer Plus 3	SL	16	fl oz/a	POST	A	0	44	25	33	0
	WC141	L	0.5	% v/v	POST	A					
7	Buccaneer Plus 3	SL	16	fl oz/a	POST	A	0	55	26	43	0
	WC157	L	0.5	% v/v	POST	A					
8	Buccaneer Plus 3	SL	16	fl oz/a	POST	A	0	47	26	45	0
	WC148	L	0.5	% v/v	POST	A					
9	Buccaneer Plus 3	SL	16	fl oz/a	POST	A	0	48	24	42	0
	WC115	L	0.5	% v/v	POST	A					
	WC160	WG	4	oz/a	POST	A					
10	Buccaneer Plus 3	SL	16	fl oz/a	POST	A	0	50	23	34	0
	WC037	L	0.5	% v/v	POST	A					
	WC123	L	1	qt/a	POST	A					
11	Untreated						0	0	0	0	0
LSD (P=.05)							0.0	20.2	6.1	8.6	0.0
CV							0.0	26.16	18.51	17.56	0.0

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

## MSU Weed Science Research Program

Weed Code	CHEAL	AMBEL	ABUTH	GLXMA	CHEAL	AMBEL							
Crop Code													
Rating Data Type	control	control	control	injury	control	control							
Rating Unit	percent	percent	percent	percent	percent	percent							
Rating Date	Jul/03/2013	Jul/03/2013	Jul/03/2013	Jul/19/2013	Jul/19/2013	Jul/19/2013							
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	30 DA-A	30 DA-A	30 DA-A							
# Subsamples, Dec.	0	0	0	0	0	0							
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code	CHEAL	AMBEL	ABUTH	GLXMA	CHEAL	AMBEL
1	Buccaneer Plus 3	SL	16	fl oz/a	POST A		A	85	49	55	0	99	75
	WC051	L	0.25	% v/v	POST A		A						
2	Buccaneer Plus 3	SL	16	fl oz/a	POST A		A	93	54	40	0	99	86
	WC111	L	0.5	% v/v	POST A		A						
3	Buccaneer Plus 3	SL	16	fl oz/a	POST A		A	90	55	48	0	99	84
	WC037	L	0.5	% v/v	POST A		A						
4	Buccaneer Plus 3	SL	16	fl oz/a	POST A		A	85	59	50	0	99	81
	WC037	L	0.5	% v/v	POST A		A						
	WC123	L	1	qt/a	POST A		A						
	WC101	WG	12	oz/a	POST A		A						
5	Buccaneer Plus 3	SL	16	fl oz/a	POST A		A	78	51	41	0	97	84
	WC133	L	0.5	% v/v	POST A		A						
6	Buccaneer Plus 3	SL	16	fl oz/a	POST A		A	81	53	59	0	99	76
	WC141	L	0.5	% v/v	POST A		A						
7	Buccaneer Plus 3	SL	16	fl oz/a	POST A		A	99	55	53	0	99	85
	WC157	L	0.5	% v/v	POST A		A						
8	Buccaneer Plus 3	SL	16	fl oz/a	POST A		A	73	55	58	0	98	81
	WC148	L	0.5	% v/v	POST A		A						
9	Buccaneer Plus 3	SL	16	fl oz/a	POST A		A	78	60	58	0	99	76
	WC115	L	0.5	% v/v	POST A		A						
	WC160	WG	4	oz/a	POST A		A						
10	Buccaneer Plus 3	SL	16	fl oz/a	POST A		A	93	60	60	0	99	67
	WC037	L	0.5	% v/v	POST A		A						
	WC123	L	1	qt/a	POST A		A						
11	Untreated							0	0	0	0	0	0
LSD (P=.05)								11.1	11.9	14.8	0.0	2.6	13.5
CV								9.54	16.44	21.37	0.0	1.96	12.92

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

## MSU Weed Science Research Program

Weed Code	ABUTH		
Crop Code		GLXMA	GLXMA
Rating Data Type	control	moisture	yield
Rating Unit	percent	percent	bu/acre
Rating Date	Jul/19/2013	Oct/11/2013	Oct/11/2013
Trt-Eval Interval	30 DA-A	114 DA-A	at 13% M
# Subsamples, Dec.	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code			
1	Buccaneer Plus 3	SL	16	fl oz/a	POST A	88		10.8		64.2
	WC051	L	0.25	% v/v	POST A					
2	Buccaneer Plus 3	SL	16	fl oz/a	POST A	82		10.7		62.3
	WC111	L	0.5	% v/v	POST A					
3	Buccaneer Plus 3	SL	16	fl oz/a	POST A	85		10.8		65.3
	WC037	L	0.5	% v/v	POST A					
4	Buccaneer Plus 3	SL	16	fl oz/a	POST A	72		10.7		59.7
	WC037	L	0.5	% v/v	POST A					
	WC123	L	1	qt/a	POST A					
	WC101	WG	12	oz/a	POST A					
5	Buccaneer Plus 3	SL	16	fl oz/a	POST A	74		10.7		62.0
	WC133	L	0.5	% v/v	POST A					
6	Buccaneer Plus 3	SL	16	fl oz/a	POST A	87		10.7		63.6
	WC141	L	0.5	% v/v	POST A					
7	Buccaneer Plus 3	SL	16	fl oz/a	POST A	78		10.7		63.1
	WC157	L	0.5	% v/v	POST A					
8	Buccaneer Plus 3	SL	16	fl oz/a	POST A	82		10.7		65.6
	WC148	L	0.5	% v/v	POST A					
9	Buccaneer Plus 3	SL	16	fl oz/a	POST A	80		10.7		63.7
	WC115	L	0.5	% v/v	POST A					
	WC160	WG	4	oz/a	POST A					
10	Buccaneer Plus 3	SL	16	fl oz/a	POST A	70		10.7		64.0
	WC037	L	0.5	% v/v	POST A					
	WC123	L	1	qt/a	POST A					
11	Untreated					0		11.2		43.7
LSD (P=.05)							19.8	0.21	6.64	
CV							18.8	1.38	7.46	

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