

## MSU Weed Science Research Program

## Control of Volunteer Glyphosate-Tolerant Corn in Soybean

Trial ID: SOY05-07  
 Conducted: C-12W

Study Dir.: Sprague, Powell  
 Investigator: Christy Sprague

<b>Date Planted:</b> 5/8/07	<b>Row Spacing:</b> 30 IN
<b>Variety:</b> Pioneer 91M91	<b>No. of Reps:</b> 4
<b>Population:</b> 155,000 seeds/acre	<b>% OM:</b> 3.6
<b>Soil Type:</b> Loam	<b>pH:</b> 6.9
<b>Plot Size:</b> 10 X 28 FT	<b>Design:</b> RANDOMIZED COMPLETE BLOCK

**Tillage:** Fall Chisel Plow, Spring Soil Finish X2 5/8/07  
**Fertilizer:** None at planting

## Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ZEAMX	CORN, VOLUNTEER	ZEA MAYS L.
2.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
3.	ANGR	mostly foxtail species	SETARIA SP.
4.	AMAPO	AMARANTH, POWELL	AMARANTHUS POWELLII S.WATS.
5.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

## Application Description

**A**

**Application Timing:** Post  
**Date Treated:** 6/14/07  
**Time Treated:** 4:45 pm  
**% Cloud Cover:** 50  
**Air Temp., Unit:** 90 F  
**% Relative Humidity:** 20  
**Wind Speed/Unit/Dir:** 3 mph N  
**Soil Temp., Unit:** 90 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.):** 8-10"  
**Stage (L):** V2-V3

## Weed Stage at Each Application

**A**

**Weed 1 Name:** ZEAMX  
**Height (In.):** 9-12"  
**Stage (L):** V3

**Weed 2 Name:** AMBEL  
**Height (In.):** 7-9"  
**Stage (L):** 6-many

**Weed 3 Name:** ANGR  
**Height (In.):** 6-9"  
**Stage (L):** 3-5

**Weed 4 Name:** AMAPO  
**Height (In.):** -  
**Stage (L):** -

**Weed 5 Name:** ABUTH  
**Height (In.):** -  
**Stage (L):** -

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Weed Density (plants/sq. ft.)

	1	2	3	4	5	6
Date:	7/9/07	7/9/07	7/9/07	7/9/07	7/9/07	7/9/07
Weed Name:	ABUTH	ANGR	AMBEL	AMAPO	SOLPT	ZEAMA
Density:	1	37	8	3	< 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	28	20"	100"	19	Water	27	

Comments: Roundup Ready corn seed was hand-spread and shallowly incorporated into the soil prior to planting.

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Weed Code								ZEAMX	ZEAMX	ANGR	AMBEL	ABUTH	AMAPO	ZEAMX	ANGR	
Crop Code																
Rating Data Type								control	control	control	control	control	control	control	control	
Rating Unit								percent	percent	percent	percent	percent	percent	percent	percent	
Rating Date								6/22/07	6/29/07	6/29/07	6/29/07	6/29/07	6/29/07	7/13/07	7/13/07	
Trt-Eval Interval								8 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A	29 DA-A	29 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code									
1	Touchdown Total	4.17	SL	24	fl oz/a	POST	A	0	0	99	94	96	99	0	93	
1	AMS		WG	17	lb/100 gal	POST	A									
2	Fusilade DX	2	EC	4	fl oz/a	POST	A	66	78	99	96	96	99	75	84	
2	Touchdown Total	4.17	SL	24	fl oz/a	POST	A									
2	AMS		WG	17	lb/100 gal	POST	A									
3	Fusilade DX	2	EC	6	fl oz/a	POST	A	76	74	99	97	97	99	86	83	
3	Touchdown Total	4.17	SL	24	fl oz/a	POST	A									
3	AMS		WG	17	lb/100 gal	POST	A									
4	Select Max	0.97	EC	6	fl oz/a	POST	A	79	79	99	97	97	99	98	86	
4	Touchdown Total	4.17	SL	24	fl oz/a	POST	A									
4	AMS		WG	17	lb/100 gal	POST	A									
5	Untreated							0	0	0	0	0	0	0	0	
6	Targa	0.88	L	5	fl oz/a	POST	A	64	76	99	91	93	99	99	82	
6	Durango	4	SL	24	fl oz/a	POST	A									
6	Activator 90		L	0.125	% v/v	POST	A									
6	AMS		WG	17	lb/100 gal	POST	A									
7	Select	2	EC	4	fl oz/a	POST	A	79	78	99	90	92	99	93	86	
7	Durango	4	SL	24	fl oz/a	POST	A									
7	Activator 90		L	0.125	% v/v	POST	A									
7	AMS		WG	17	lb/100 gal	POST	A									
8	Fusion	2.56	EC	6	fl oz/a	POST	A	79	75	99	91	93	98	96	84	
8	Touchdown Total	4.17	SL	24	fl oz/a	POST	A									
8	AMS		WG	17	lb/100 gal	POST	A									
LSD (P=.05)								3.2	8.0	0.0	5.4	4.9	1.1	6.5	3.6	
Standard Deviation								2.2	5.4	0.0	3.6	3.4	0.7	4.4	2.4	
CV								3.99	9.45	0.0	4.45	4.06	0.86	6.52	3.24	

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Weed Code	AMBEL	AMAPO	ABUTH
Crop Code			
Rating Data Type	control	control	control
Rating Unit	percent	percent	percent
Rating Date	7/13/07	7/13/07	7/13/07
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	AMBEL	AMAPO	ABUTH
1	Touchdown Total	4.17	SL	24	fl oz/a	POST	A	97	99	97
1	AMS		WG	17	lb/100 gal	POST	A			
2	Fusilade DX	2	EC	4	fl oz/a	POST	A	95	99	92
2	Touchdown Total	4.17	SL	24	fl oz/a	POST	A			
2	AMS		WG	17	lb/100 gal	POST	A			
3	Fusilade DX	2	EC	6	fl oz/a	POST	A	97	99	96
3	Touchdown Total	4.17	SL	24	fl oz/a	POST	A			
3	AMS		WG	17	lb/100 gal	POST	A			
4	Select Max	0.97	EC	6	fl oz/a	POST	A	95	99	95
4	Touchdown Total	4.17	SL	24	fl oz/a	POST	A			
4	AMS		WG	17	lb/100 gal	POST	A			
5	Untreated							0	0	0
6	Targa	0.88	L	5	fl oz/a	POST	A	95	99	94
6	Durango	4	SL	24	fl oz/a	POST	A			
6	Activator 90		L	0.125	% v/v	POST	A			
6	AMS		WG	17	lb/100 gal	POST	A			
7	Select	2	EC	4	fl oz/a	POST	A	97	99	92
7	Durango	4	SL	24	fl oz/a	POST	A			
7	Activator 90		L	0.125	% v/v	POST	A			
7	AMS		WG	17	lb/100 gal	POST	A			
8	Fusion	2.56	EC	6	fl oz/a	POST	A	92	99	93
8	Touchdown Total	4.17	SL	24	fl oz/a	POST	A			
8	AMS		WG	17	lb/100 gal	POST	A			
LSD (P=.05)								5.6	0.0	3.9
Standard Deviation								3.8	0.0	2.6
CV								4.59	0.0	3.21