

MSU Weed Science Research Program  
Weed Spectrum of Several Soil-Applied Foundation Products

Trial ID: SOY07-07 SPEC                      Study Dir.: Sprague, Powell  
Conducted: C-14E                              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> 2.5
<b>Soil Type:</b> Sandy Clay Loam	<b>pH:</b> 6.4
<b>Plot Size:</b> 10 X 30 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.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISIIFOLIA L.
2.	ANGR	mainly foxtail species	SETARIA SP.
3.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
4.	AMAPO	AMARANTH, POWELL	AMARANTHUS POWELLII S.WATS.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

**Application Description**

	A	B
<b>Application Timing:</b>	PRE	POST
<b>Date Treated:</b>	5/8/07	6/14/07
<b>Time Treated:</b>	5:45 pm	5:15 pm
<b>% Cloud Cover:</b>	40	50
<b>Air Temp., Unit:</b>	82 F	90 F
<b>% Relative Humidity:</b>	26	20
<b>Wind Speed/Unit/Dir:</b>	2 mph W	3 mph N
<b>Soil Temp., Unit:</b>	75 F	90 F
<b>Soil/Leaf Surface M:</b>	5 5	5 5
<b>Soil Moist (1=w 5=d):</b>	5	5

**Crop Stage at Each Application**

	A	B
<b>Crop Name:</b>	GLXMA	GLXMA
<b>Height (In.):</b>	-	6-7"
<b>Stage (L):</b>	-	V2-V3

**Weed Stage at Each Application**

	A	B
<b>Weed 1 Name:</b>	AMBEL	AMBEL
<b>Height (In.):</b>	-	1-6"
<b>Stage (L):</b>	-	4-many
<b>Weed 2 Name:</b>	ANGR	ANGR
<b>Height (In.):</b>	-	1/2-6"
<b>Stage (L):</b>	-	2-4
<b>Weed 3 Name:</b>	ABUTH	ABUTH
<b>Height (In.):</b>	-	1-3"
<b>Stage (L):</b>	-	2-4
<b>Weed 4 Name:</b>	AMAPO	AMAPO
<b>Height (In.):</b>	-	-
<b>Stage (L):</b>	-	-

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

	1	2	3	4
<b>Date:</b>	7/9/07	7/9/07	7/9/07	7/9/07
<b>Weed Name:</b>	ABUTH	ANGR	AMBEL	AMAPO
<b>Density:</b>	1	39	< 1	2

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**Application Equipment**

<b>Appl</b>	<b>Sprayer</b>	<b>Speed</b>	<b>Nozzle</b>	<b>Nozzle</b>	<b>Nozzle</b>	<b>Nozzle</b>	<b>Boom</b>			
	<b>Type</b>	<b>MPH</b>	<b>Type</b>	<b>Size</b>	<b>Height</b>	<b>Spacing</b>	<b>Width</b>	<b>GPA</b>	<b>Carrier</b>	<b>PSI</b>
<b>A</b>	Cub	3.8	AirMix	11003	23"	20"	100"	19	Water	27
<b>B</b>	Cub	3.8	AirMix	11003	28"	20"	100"	19	Water	27

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Weed Code							ANGR	ABUTH	AMBEL	AMAPO				
Crop Code							GLXMA						GLXMA	GLXMA
Rating Data Type							injury	control	control	control	control	injury	injury	
Rating Unit							percent	percent	percent	percent	percent	percent	percent	
Rating Date							6/1/07	6/1/07	6/1/07	6/1/07	6/1/07	6/7/07	6/15/07	
Trt-Eval Interval							24 DA-A	24 DA-A	24 DA-A	24 DA-A	24 DA-A	30 DA-A	38 DA-A	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	1	2	3	4	5	6	7
1	Prefix (2 pt/A)					PRE	A	5	99	84	96	99	8	5
1	Dual Magnum	7.62	EC	1	pt/a	PRE	A							
1	Reflex	2	L	1	pt/a	PRE	A							
2	Prefix (2 pt/A)					PRE	A	4	99	90	98	99	6	3
2	Dual Magnum	7.62	EC	1	pt/a	PRE	A							
2	Reflex	2	L	1	pt/a	PRE	A							
2	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
2	AMS		WG	17	lb/100 gal	POST	B							
3	Boundary	6.5	EC	1.5	pt/a	PRE	A	1	97	95	76	99	3	0
4	Boundary	6.5	EC	1.5	pt/a	PRE	A	6	98	94	73	99	3	1
4	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
4	AMS		WG	17	lb/100 gal	POST	B							
5	Sonic	70	DF	3.2	oz/a	PRE	A	3	74	99	78	99	1	1
6	Sonic	70	DF	3.2	oz/a	PRE	A	4	75	99	80	99	1	1
6	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
6	AMS		WG	17	lb/100 gal	POST	B							
7	Untreated							0	0	0	0	0	0	0
8	Valor XLT	40.3	WG	3	oz/a	PRE	A	14	85	97	93	99	16	13
9	Valor XLT	40.3	WG	3	oz/a	PRE	A	14	84	99	91	99	15	18
9	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
9	AMS		WG	17	lb/100 gal	POST	B							
10	Gangster Co-Pack					PRE	A	4	80	99	91	99	3	3
10	Gangster V (Valor)	51	WG	1.5	oz/a	PRE	A							
10	Gangster FR (FirstRate)	84	WG	0.3	oz/a	PRE	A							
11	Gangster Co-Pack					PRE	A	5	78	99	91	99	3	5
11	Gangster V (Valor)	51	WG	1.5	oz/a	PRE	A							
11	Gangster FR (FirstRate)	84	WG	0.3	oz/a	PRE	A							
11	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
11	AMS		WG	17	lb/100 gal	POST	B							
12	Canopy	75	DF	3	oz/a	PRE	A	9	74	97	81	99	4	11
13	Canopy	75	DF	3	oz/a	PRE	A	5	70	98	66	99	4	8
13	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
13	AMS		WG	17	lb/100 gal	POST	B							
14	Touchdown Total	4.17	SL	24	fl oz/a	POST	B	0	0	0	0	0	0	0
14	AMS		WG	17	lb/100 gal	POST	B							
LSD (P=.05)								7.7	8.6	5.4	8.7	0.0	3.3	5.7
Standard Deviation								5.4	6.0	3.8	6.1	0.0	2.3	4.0
CV								103.96	8.3	4.59	8.41	0.0	48.25	82.99

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							ANGR	AMBEL	GLXMA	ANGR	AMBEL	AMAPO	ABUTH	
Crop Code							control	control	injury	control	control	control	control	
Rating Data Type							percent	percent	percent	percent	percent	percent	percent	
Rating Unit							6/15/07	6/15/07	7/11/07	7/11/07	7/11/07	7/11/07	7/11/07	
Rating Date							38 DA-A	38 DA-A	64 DA-A	64 DA-A	64 DA-A	64 DA-A	64 DA-A	
Trt-Eval Interval														
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	8	9	10	11	12	13	14
1	Prefix (2 pt/A)					PRE	A	94	80	0	84	73	96	40
1	Dual Magnum	7.62	EC	1	pt/a	PRE	A							
1	Reflex	2	L	1	pt/a	PRE	A							
2	Prefix (2 pt/A)					PRE	A	97	96	0	96	99	99	96
2	Dual Magnum	7.62	EC	1	pt/a	PRE	A							
2	Reflex	2	L	1	pt/a	PRE	A							
2	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
2	AMS		WG	17	lb/100 gal	POST	B							
3	Boundary	6.5	EC	1.5	pt/a	PRE	A	96	57	0	81	23	99	93
4	Boundary	6.5	EC	1.5	pt/a	PRE	A	95	59	0	93	98	94	95
4	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
4	AMS		WG	17	lb/100 gal	POST	B							
5	Sonic	70	DF	3.2	oz/a	PRE	A	61	44	0	46	18	99	99
6	Sonic	70	DF	3.2	oz/a	PRE	A	63	40	0	94	95	99	99
6	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
6	AMS		WG	17	lb/100 gal	POST	B							
7	Untreated							0	0	0	0	0	0	0
8	Valor XLT	40.3	WG	3	oz/a	PRE	A	80	84	6	58	68	99	99
9	Valor XLT	40.3	WG	3	oz/a	PRE	A	78	82	11	88	98	99	98
9	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
9	AMS		WG	17	lb/100 gal	POST	B							
10	Gangster Co-Pack					PRE	A	68	83	0	38	68	99	99
10	Gangster V (Valor)	51	WG	1.5	oz/a	PRE	A							
10	Gangster FR (FirstRate)	84	WG	0.3	oz/a	PRE	A							
11	Gangster Co-Pack					PRE	A	75	84	0	88	99	96	97
11	Gangster V (Valor)	51	WG	1.5	oz/a	PRE	A							
11	Gangster FR (FirstRate)	84	WG	0.3	oz/a	PRE	A							
11	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
11	AMS		WG	17	lb/100 gal	POST	B							
12	Canopy	75	DF	3	oz/a	PRE	A	73	56	4	54	19	99	99
13	Canopy	75	DF	3	oz/a	PRE	A	75	60	8	91	99	99	98
13	Touchdown Total	4.17	SL	24	fl oz/a	POST	B							
13	AMS		WG	17	lb/100 gal	POST	B							
14	Touchdown Total	4.17	SL	24	fl oz/a	POST	B	0	0	5	89	93	92	94
14	AMS		WG	17	lb/100 gal	POST	B							
LSD (P=.05)							9.4	11.2	5.8	11.3	6.4	3.4	6.9	
Standard Deviation							6.6	7.8	4.0	7.9	4.5	2.3	4.8	
CV							9.66	13.32	167.65	11.06	6.64	2.59	5.61	

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