

MSU Weed Science Research Program

Soybean response to Warrant applications at two planting dates

Trial ID: NTS03-11 Study Dir.: Sprague, Powell
 Conducted: C-13W Crops Investigator: Christy Sprague

Date Planted: Row Spacing: 30 IN
Variety: Asgrow 2330 RR2 No. of Reps: 4
Population: 157,000 % OM: 2.7
Soil Type: Silt Loam pH: 7.6
Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: No-tilled into standing corn stubble

Fertilizer: None at planting

Crop	Code	Common Name
1.	GLXMA	SOYBEAN

Application Description

	A	B	C	D	E	F
Application Timing:	14 EPP 1	PRE 1	V3 SOY 1	14 EPP2	PRE 2	V3 SOY 2
Date Treated:	4/22/2011	5/5/2011	6/19/2011	5/31/2011	6/13/2011	7/13/2011
Time Treated:	3:30 PM	8:30 PM	10:50 AM	10:00 AM	4:45 PM	2:45 PM
% Cloud Cover:	100	100	95	0	50	70
Air Temp., Unit:	44 F	55 F	66 F	77 F	77 F	75 F
% Relative Humidity:	70	27	62	70	36	50
Wind Speed/Unit/Dir:	8 mph E	8 mph SW	5 mph S	7 mph SW	6 mph NW	6 mph NE
Soil Temp., Unit:	43 F	54 F	63 F	65 F	73 F	76 F
Soil/Leaf Surface M:	1 -	5 -	5 5	2 -	5 -	5 5
Soil Moist (1=w 5=d):	1	3	3	2	3	3

Crop Stage at Each Application

	A	B	C	D	E	F
Crop Name:	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Height (In.):	-	-	5-6"	-	-	8-9"
Stage (L):	-	-	V2-V3	-	-	V3-V4

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	24"	20"	100"	19	water	28
B	Cub	3.8	AirMix	11003	24"	20"	100"	19	Water	28
C	Cub	3.8	AirMix	11003	23"	20"	100"	19	Water	28
D	Cub	3.8	AirMix	11003	24"	20"	100"	19	Water	28
E	Cub	3.8	AirMix	11003	24"	20"	100"	19	Water	28
F	Cub	3.8	AirMix	11003	24"	20"	100"	19	Water	28

Comments: First planting: 5/5/11
 Second planting: 6/13/11

Study was maintained weed-free throughout the growing season with applications of Roundup PowerMax (22 fl oz/A)+ AMS (17 lb/100 gal).

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Weed Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Crop Code	injury	injury	injury	injury	injury	injury
Rating Data Type	percent	percent	percent	percent	percent	percent
Rating Unit	6/8/2011	6/23/2011	6/27/2011	7/12/2011	7/19/2011	7/29/2011
Rating Date	34 DA-B	49 DA-B	14 DA-E	29 DA-E	36 DA-E	46 DA-E
Trt-Eval Interval	0	0	0	0	0	0
# Subsamples, Dec.						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	GLXMA 6/8/2011	GLXMA 6/23/2011	GLXMA 6/27/2011	GLXMA 7/12/2011	GLXMA 7/19/2011	GLXMA 7/29/2011
1	Early planting date Warrant	3	CS	3	pt/a	14 EPP	A	0	1	0	0	0	0
2	Early planting date Warrant	3	CS	6	pt/a	14 EPP	A	0	1	0	0	0	0
3	Early planting date Warrant	3	CS	3	pt/a	PRE	B	13	0	0	0	0	0
4	Early planting date Warrant	3	CS	6	pt/a	PRE	B	20	1	0	0	0	0
5	Early planting date Warrant	3	CS	3	pt/a	V3	C	0	0	0	5	0	0
6	Early planting date Warrant	3	CS	6	pt/a	V3	C	0	0	11	11	1	0
7	Early planting date Valor	51	WG	2	oz/a	PRE	B	14	1	0	0	0	0
8	Early planting date Roundup PowerMax AMS	4.5	SL WG	22 17	fl oz/a lb/100 gal	V3 V3	C C	0	0	0	0	0	0
9	Late planting date Warrant	3	CS	3	pt/a	14 EPP	D			0	0	0	0
10	Late planting date Warrant	3	CS	6	pt/a	14 EPP	D			0	7	0	0
11	Late planting date Warrant	3	CS	3	pt/a	PRE	E			0	0	0	0
12	Late planting date Warrant	3	CS	6	pt/a	PRE	E			0	15	4	0
13	Late planting date Warrant	3	CS	3	pt/a	V3	F			0	0	0	0
14	Late planting date Warrant	3	CS	6	pt/a	V3	F			0	0	0	0
15	Late planting date Valor	51	WG	2	oz/a	PRE	E			0	0	0	0
16	Late planting date Roundup PowerMax AMS	4.5	SL WG	22 17	fl oz/a lb/100 gal	V3 V3	F F			0	0	0	0
LSD (P=.05)								3.7	1.9	0.9	1.6	0.7	0.0
Standard Deviation								2.5	1.3	0.6	1.1	0.5	0.0
CV								43.88	294.56	88.89	47.36	162.35	0.0

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
 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval
 # Subsamples, Dec.

GLXMA moisture percent	GLXMA yield bu/acre	GLXMA yield bu/acre
10/31/2011	10/31/2011	10/31/2011
192 DA-A	1stplant	2ndplant
1	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	Early planting date Warrant	3	CS	3	pt/a	14 EPP	A	14.6	66.8	
2	Early planting date Warrant	3	CS	6	pt/a	14 EPP	A	14.5	69.0	
3	Early planting date Warrant	3	CS	3	pt/a	PRE	B	14.5	66.2	
4	Early planting date Warrant	3	CS	6	pt/a	PRE	B	14.4	66.2	
5	Early planting date Warrant	3	CS	3	pt/a	V3	C	14.6	66.3	
6	Early planting date Warrant	3	CS	6	pt/a	V3	C	14.5	65.5	
7	Early planting date Valor	51	WG	2	oz/a	PRE	B	14.4	66.9	
8	Early planting date Roundup PowerMax AMS	4.5	SL WG	22 17	fl oz/a lb/100 gal	V3 V3	C C	14.5	69.6	
9	Late planting date Warrant	3	CS	3	pt/a	14 EPP	D	14.2		49.2
10	Late planting date Warrant	3	CS	6	pt/a	14 EPP	D	14.4		50.5
11	Late planting date Warrant	3	CS	3	pt/a	PRE	E	14.4		49.9
12	Late planting date Warrant	3	CS	6	pt/a	PRE	E	14.2		52.5
13	Late planting date Warrant	3	CS	3	pt/a	V3	F	14.4		48.1
14	Late planting date Warrant	3	CS	6	pt/a	V3	F	14.4		43.5
15	Late planting date Valor	51	WG	2	oz/a	PRE	E	14.3		50.6
16	Late planting date Roundup PowerMax AMS	4.5	SL WG	22 17	fl oz/a lb/100 gal	V3 V3	F F	14.4		48.3
LSD (P=.05)								0.22	5.74	6.67
Standard Deviation								0.16	3.90	4.54
CV								1.09	5.82	9.24

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.