

MSU Weed Science Research Program

Soybean tolerance to Cobra and Flexstar

Trial ID: SOY06-12
 Conducted: T-12 Campus

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Date Planted: May/17/2012 **Row Spacing:** 30 IN
Variety: Asgrow 2330 **No. of Reps:** 4
Population: 150,000 seeds/acre **% OM:** 3.2
Soil Type: Loam **pH:** 6.8
Plot Size: 10 X 35 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow, spring soil finish

Fertilizer: None at planting

Crop Code Common Name
 1. GLXMA SOYBEAN

	Application Description				
	A	B	C	D	E
Application Timing:	V2	V3	V6	R1	R3
Date Treated:	Jun/11/2012	Jun/12/2012	Jun/26/2012	Jul/10/2012	Jul/25/2012
Time Treated:	12:15 PM	5:00 PM	9:10 AM	8:50 AM	3:00 PM
% Cloud Cover:	90	10	0	5	20
Air Temp., Unit:	75 F	73 F	73 F	75 F	86 F
% Relative Humidity:	52	36	44	45	42
Wind Speed/Unit/Dir:	4 mph SE	12 mph NW	.5 mph S	1 mph N	6 mph S
Soil Temp., Unit:	73 F	76 F	71 F	75 F	82 F
Soil/Leaf Surface M:	5 5	5 5	5 5	5 5	5 5
Soil Moist (1=w 5=d):	4	5	5	5	5

	Crop Stage at Each Application				
	A	B	C	D	E
Crop Name:	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Height (In.):	7"	7"	10"	18"	27"
Stage (L):	V2	V3	V6	R1	R3

	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	AI XR	11003	22"	20"	100" 19 Water 28
B	Cub	3.8	AI XR	11003	24"	20"	100" 19 Water 28
C	Cub	3.8	AI XR	11003	27"	20"	100" 19 Water 28
D	Cub	3.8	AI XR	11003	32"	20"	100" 19 Water 28
E	Cub	3.8	AI XR	11003	37"	20"	100" 19 Water 28

Comments: Dual II Magnum (1.33 pt/A) was applied after planting to all treatments
 6/12/12- Broadcast application of Roundup PowerMax (22 fl oz/A) + AMS (17 lb/100 gal) to all treatments except treatment #4
 Weed densities for TRT#4 - CHEAL = 3, AMBEL = 6 per 0.25 m²

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Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Rating Data Type	injury	injury	injury	injury	injury
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/14/2012	Jun/18/2012	Jun/25/2012	Jun/29/2012	Jul/03/2012
Trt-Eval Interval	3 DA-A	7 DA-A	14 DA-A	3 DA-C	7 DA-C
ARM Action Codes					
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	Cobra	2	EC	8	fl oz/a	V2	A	25	23	11	5	1
	Herbimax (COC)		L	0.5	% v/v	V2	A					
2	Cobra	2	EC	12.5	fl oz/a	V2	A	30	29	16	8	3
	Herbimax (COC)		L	0.5	% v/v	V2	A					
3	Flexstar	1.88	L	1	pt/a	V2	A	8	10	4	2	1
	Herbimax (COC)		L	1	% v/v	V2	A					
	AMS		WG	8.5	lb/100 gal	V2	A					
4	Untreated							0	13	11	9	7
	Harmony SG	50	DF	0.125	oz/a	V3	B					
	NIS		L	0.25	% v/v	V3	B					
	AMS		WG	2	lb/a	V3	B					
5	Cobra	2	EC	8	fl oz/a	V6	C				15	19
	Herbimax (COC)		L	0.5	% v/v	V6	C					
6	Cobra	2	EC	12.5	fl oz/a	V6	C				14	16
	Herbimax (COC)		L	0.5	% v/v	V6	C					
7	Flexstar	1.88	L	1	pt/a	V6	C				7	8
	Herbimax (COC)		L	1	% v/v	V6	C					
	AMS		WG	8.5	lb/100 gal	V6	C					
8	Cobra	2	EC	8	fl oz/a	R1	D					
	Herbimax (COC)		L	0.5	% v/v	R1	D					
9	Cobra	2	EC	12.5	fl oz/a	R1	D					
	Herbimax (COC)		L	0.5	% v/v	R1	D					
10	Flexstar	1.88	L	1	pt/a	R1	D					
	Herbimax (COC)		L	1	% v/v	R1	D					
	AMS		WG	8.5	lb/100 gal	R1	D					
11	Cobra	2	EC	8	fl oz/a	R3	E					
	Herbimax (COC)		L	0.5	% v/v	R3	E					
12	Cobra	2	EC	12.5	fl oz/a	R3	E					
	Herbimax (COC)		L	0.5	% v/v	R3	E					
13	Flexstar	1.88	L	1	pt/a	R3	E					
	Herbimax (COC)		L	1	% v/v	R3	E					
	AMS		WG	8.5	lb/100 gal	R3	E					
14	Weed-free							0	0	0	0	0
LSD (P=.05)								3.3	5.0	3.6	3.5	2.7
CV								16.9	21.88	28.75	32.44	27.33

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

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Crop Code	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Rating Data Type	injury	injury	injury	injury	injury
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jul/10/2012	Jul/13/2012	Jul/17/2012	Jul/30/2012	Aug/02/2012
Trt-Eval Interval	14 DA-C	3 DA-D	7 DA-D	5 DA-E	8 DA-E
ARM Action Codes					
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	Cobra	2	EC	8	fl oz/a	V2	A	1	0	0	0	0
	Herbimax (COC)	L		0.5	% v/v	V2	A					
2	Cobra	2	EC	12.5	fl oz/a	V2	A	2	1	0	0	0
	Herbimax (COC)	L		0.5	% v/v	V2	A					
3	Flexstar	1.88	L	1	pt/a	V2	A	0	0	0	0	0
	Herbimax (COC)	L		1	% v/v	V2	A					
	AMS	WG		8.5	lb/100 gal	V2	A					
4	Untreated							5	4	3	3	3
	Harmony SG	50	DF	0.125	oz/a	V3	B					
	NIS	L		0.25	% v/v	V3	B					
	AMS	WG		2	lb/a	V3	B					
5	Cobra	2	EC	8	fl oz/a	V6	C	9	4	3	0	0
	Herbimax (COC)	L		0.5	% v/v	V6	C					
6	Cobra	2	EC	12.5	fl oz/a	V6	C	7	5	3	0	0
	Herbimax (COC)	L		0.5	% v/v	V6	C					
7	Flexstar	1.88	L	1	pt/a	V6	C	6	3	1	0	0
	Herbimax (COC)	L		1	% v/v	V6	C					
	AMS	WG		8.5	lb/100 gal	V6	C					
8	Cobra	2	EC	8	fl oz/a	R1	D		9	14	5	6
	Herbimax (COC)	L		0.5	% v/v	R1	D					
9	Cobra	2	EC	12.5	fl oz/a	R1	D		13	14	7	8
	Herbimax (COC)	L		0.5	% v/v	R1	D					
10	Flexstar	1.88	L	1	pt/a	R1	D		2	4	0	0
	Herbimax (COC)	L		1	% v/v	R1	D					
	AMS	WG		8.5	lb/100 gal	R1	D					
11	Cobra	2	EC	8	fl oz/a	R3	E				7	8
	Herbimax (COC)	L		0.5	% v/v	R3	E					
12	Cobra	2	EC	12.5	fl oz/a	R3	E				7	8
	Herbimax (COC)	L		0.5	% v/v	R3	E					
13	Flexstar	1.88	L	1	pt/a	R3	E				2	3
	Herbimax (COC)	L		1	% v/v	R3	E					
	AMS	WG		8.5	lb/100 gal	R3	E					
14	Weed-free							0	0	0	0	0
LSD (P=.05)								2.2	1.7	1.9	1.5	1.7
CV								43.64	31.52	34.48	48.72	46.09

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

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Crop Code	GLXMA	GLXMA	GLXMA
Rating Data Type	injury	moisture	yield
Rating Unit	percent	percent	bu/acre
Rating Date	Aug/08/2012	Oct/02/2012	Oct/02/2012
Trt-Eval Interval	14 DA-E	69 DA-E	at 13% M
ARM Action Codes			TY1
# Subsamples, Dec.	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	Cobra	2	EC	8	fl oz/a	V2	A	0	10.7	47.2
	Herbimax (COC)		L	0.5	% v/v	V2	A			
2	Cobra	2	EC	12.5	fl oz/a	V2	A	0	10.6	47.1
	Herbimax (COC)		L	0.5	% v/v	V2	A			
3	Flexstar	1.88	L	1	pt/a	V2	A	0	10.4	47.7
	Herbimax (COC)		L	1	% v/v	V2	A			
	AMS		WG	8.5	lb/100 gal	V2	A			
4	Untreated							0	12.7	28.4
	Harmony SG	50	DF	0.125	oz/a	V3	B			
	NIS		L	0.25	% v/v	V3	B			
	AMS		WG	2	lb/a	V3	B			
5	Cobra	2	EC	8	fl oz/a	V6	C	0	10.5	47.1
	Herbimax (COC)		L	0.5	% v/v	V6	C			
6	Cobra	2	EC	12.5	fl oz/a	V6	C	0	10.5	46.7
	Herbimax (COC)		L	0.5	% v/v	V6	C			
7	Flexstar	1.88	L	1	pt/a	V6	C	0	10.6	49.4
	Herbimax (COC)		L	1	% v/v	V6	C			
	AMS		WG	8.5	lb/100 gal	V6	C			
8	Cobra	2	EC	8	fl oz/a	R1	D	5	10.5	47.2
	Herbimax (COC)		L	0.5	% v/v	R1	D			
9	Cobra	2	EC	12.5	fl oz/a	R1	D	1	10.2	49.1
	Herbimax (COC)		L	0.5	% v/v	R1	D			
10	Flexstar	1.88	L	1	pt/a	R1	D	0	10.4	50.3
	Herbimax (COC)		L	1	% v/v	R1	D			
	AMS		WG	8.5	lb/100 gal	R1	D			
11	Cobra	2	EC	8	fl oz/a	R3	E	7	10.6	43.7
	Herbimax (COC)		L	0.5	% v/v	R3	E			
12	Cobra	2	EC	12.5	fl oz/a	R3	E	6	10.2	42.2
	Herbimax (COC)		L	0.5	% v/v	R3	E			
13	Flexstar	1.88	L	1	pt/a	R3	E	1	10.3	47.1
	Herbimax (COC)		L	1	% v/v	R3	E			
	AMS		WG	8.5	lb/100 gal	R3	E			
14	Weed-free							0	10.3	51.6
LSD (P=.05)								1.6	0.74	5.51
CV								82.76	4.9	8.38

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