

MSU Weed Science Research Program

Evaluation of KIH-485 for Weed Control in Soybean

Trial ID: SOY05-06
 Conducted: T-10

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Date Planted: 5/8/2006	Row Spacing: 30 IN
Variety: Pioneer 91M91	No. of Reps: 4
Population: 152,000 seed/acre	% OM: 2.8
Soil Type: Sandy Loam	pH: 6.9
Plot Size: 10 X 35 FT	Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall moldboard plow
 Soil finish X 2 5/8/06
Fertilizer: None at planting

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	BRAKA/SINAR	MUSTARD, WILD	BRASSICA KABER
2.	AMARE	PIGWEEED, REDROOT	AMARANTHUS RETROFLEXUS L.
3.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
4.	ANGR	Annual grass	mainly foxtail, panicum
5.	AMBEL	RAGWEED, COMMON	AMBROSIA ELATIOR L.
6.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
7.	CAPBP	SHEPHERDSPURSE	CAPSELLA BURSA-PASTORIS (L.) MEDIK.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	5/8/2006	6/9/2006
Time Treated:	8:35 pm	10:30 am
% Cloud Cover:	5	95
Air Temp., Unit:	66 F	63 F
% Relative Humidity:	36	42
Wind Speed/Unit/Dir:	- -	6 mph N
Soil Temp., Unit:	66 F	64 F
Soil/Leaf Surface M:	5 -	5 5
Soil Moist (1=w 5=d):	5	5

Crop Stage at Each Application

	A	B
Crop Name:	GLXMA	GLXMA
Height (In.):	-	4-6"
Stage (L):	-	1-2

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Weed Stage at Each Application

	A	B
Weed 1 Name:	BRAKA/SINAR	BRAKA/SINAR
Height (In.):	-	2-8"
Stage (L):	-	6-8
Weed 2 Name:	AMARE	AMARE
Height (In.):	-	2-3"
Stage (L):	-	4-8
Weed 3 Name:	ABUTH	ABUTH
Height (In.):	-	2-3"
Stage (L):	-	2-4
Weed 4 Name:	ANGR	ANGR
Height (In.):	-	2-4"
Stage (L):	-	2-4
Weed 5 Name:	AMBEL	AMBEL
Height (In.):	-	1-6"
Stage (L):	-	4-8
Weed 6 Name:	CHEAL	CHEAL
Height (In.):	-	1-3"
Stage (L):	-	4-6
Weed 7 Name:	CAPBP	CAPBP
Height (In.):	-	1-2"
Stage (L):	-	6-10

Weed Density (plants/sq. ft.)

	1	2	3	4	5	6
Date:	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006
Weed Name:	CHEAL	ABUTH	ANGR	BRAKA	AMBEL	AMARE
Density:	4	<1	5	1	4	<1
	7					
Date:	7/21/2006					
Weed Name:	SOLPT					
Density:	<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	20"	20"	100"	19	water	27
B	CUB	3.8	AirMix	11003	22"	20"	100"	19	water	27

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Weed Code								ANGR	CHEAL	AMARE	AMBEL	ABUTH	BRAKA	GLXMA
Crop Code						GLYMX		injury	control	control	control	control	control	injury
Rating Data Type						injury		percent	percent	percent	percent	percent	percent	percent
Rating Unit						percent		6/9/2006	6/9/2006	6/9/2006	6/9/2006	6/9/2006	6/9/2006	6/22/2006
Rating Date						percent		32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A	45 DA-A
Trt-Eval Interval						percent		32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A	32 DA-A	45 DA-A
Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code								
1	KIH-485	85	2	oz/a	PRE	A	14	99	97	99	91	99	91	24
2	KIH-485	85	2.3	oz/a	PRE	A	15	99	98	99	87	97	94	26
3	KIH-485	85	3.6	oz/a	PRE	A	18	99	99	99	99	99	99	34
4	Dual II Magnum	7.64	1.33	pt/a	PRE	A	0	99	54	93	0	0	0	9
5	Outlook	6	16	fl oz/a	PRE	A	13	99	73	99	41	64	51	35
6	KIH-485	85	2	oz/a	PRE	A	6	99	97	99	88	92	95	19
6	Roundup WeatherMax	4.5	22	fl oz/a	POST	B								
6	AMS		17	lb/100 gal	POST	B								
7	Untreated						0	0	0	0	0	0	0	0
8	KIH-485	85	1.68	oz/a	POST	B								9
8	Roundup WeatherMax	4.5	22	fl oz/a	POST	B								
8	AMS		17	lb/100 gal	POST	B								
9	KIH-485	85	3.36	oz/a	POST	B								19
9	Roundup WeatherMax	4.5	22	fl oz/a	POST	B								
9	AMS		17	lb/100 gal	POST	B								
10	Roundup WeatherMax	4.5	22	fl oz/a	POST	B								5
10	AMS		17	lb/100 gal	POST	B								
LSD (P=.05)							6.4	0.8	18.1	6.7	16.4	24.3	19.6	7.5
Standard Deviation							4.3	0.5	12.2	4.5	11.0	16.3	13.2	5.2
CV							46.63	0.65	16.47	5.35	19.01	25.39	21.47	28.98

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Weed Code		Crop Code		Rating Data Type		Rating Unit		Rating Date		Trt-Eval Interval		ANGR	CHEAL	AMARE	AMBEL	ABUTH	SOLPT	BRAKA	
				control		control		6/22/2006		45 DA-A		control	control	control	control	control	control	control	
				percent		percent		6/22/2006		45 DA-A		percent	percent	percent	percent	percent	percent	percent	
				6/22/2006		6/22/2006		6/22/2006		45 DA-A		6/22/2006	6/22/2006	6/22/2006	6/22/2006	6/22/2006	6/22/2006	6/22/2006	
				45 DA-A		45 DA-A		45 DA-A		45 DA-A		45 DA-A	45 DA-A	45 DA-A	45 DA-A	45 DA-A	45 DA-A	45 DA-A	
Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code													
1	KIH-485	85	2	oz/a	PRE	A	99	83	99	75	87	99	88						
2	KIH-485	85	2.3	oz/a	PRE	A	99	89	99	70	93	99	88						
3	KIH-485	85	3.6	oz/a	PRE	A	99	95	99	95	99	99	99						
4	Dual II Magnum	7.64	1.33	pt/a	PRE	A	99	50	94	11	45	99	6						
5	Outlook	6	16	fl oz/a	PRE	A	98	50	77	13	51	99	35						
6	KIH-485	85	2	oz/a	PRE	A	98	99	99	99	98	99	99						
6	Roundup WeatherMax	4.5	22	fl oz/a	POST	B													
6	AMS		17	lb/100 gal	POST	B													
7	Untreated						0	0	0	0	0	0	0						
8	KIH-485	85	1.68	oz/a	POST	B	99	99	99	99	99	98	99						
8	Roundup WeatherMax	4.5	22	fl oz/a	POST	B													
8	AMS		17	lb/100 gal	POST	B													
9	KIH-485	85	3.36	oz/a	POST	B	99	99	99	98	99	99	99						
9	Roundup WeatherMax	4.5	22	fl oz/a	POST	B													
9	AMS		17	lb/100 gal	POST	B													
10	Roundup WeatherMax	4.5	22	fl oz/a	POST	B	98	98	99	98	99	99	99						
10	AMS		17	lb/100 gal	POST	B													
LSD (P=.05)							1.3	10.7	11.1	13.6	13.9	1.2	16.4						
Standard Deviation							0.9	7.4	7.7	9.4	9.5	0.8	11.3						
CV							1.03	9.7	8.89	14.32	12.41	0.91	15.91						

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Crop Code						GLXMA		control	control	control	control	control	control	control
Rating Data Type						injury		percent	percent	percent	percent	percent	percent	percent
Rating Unit						percent		7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006	7/7/2006
Rating Date						7/7/2006		60 DA-A	60 DA-A	60 DA-A	60 DA-A	60 DA-A	60 DA-A	60 DA-A
Trt-Eval Interval						60 DA-A		60 DA-A	60 DA-A	60 DA-A	60 DA-A	60 DA-A	60 DA-A	60 DA-A
Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code								
1	KIH-485	85	2	oz/a	PRE	A	8	98	82	99	54	80	67	99
2	KIH-485	85	2.3	oz/a	PRE	A	11	97	87	92	66	87	81	99
3	KIH-485	85	3.6	oz/a	PRE	A	18	98	92	98	93	99	99	99
4	Dual II Magnum	7.64	1.33	pt/a	PRE	A	0	99	50	99	5	21	14	99
5	Outlook	6	16	fl oz/a	PRE	A	12	97	53	97	5	29	23	99
6	KIH-485	85	2	oz/a	PRE	A	6	97	96	99	99	99	99	99
6	Roundup WeatherMax	4.5	22	fl oz/a	POST	B								
6	AMS		17	lb/100 gal	POST	B								
7	Untreated						0	0	0	0	0	0	0	0
8	KIH-485	85	1.68	oz/a	POST	B	0	98	99	99	99	99	99	99
8	Roundup WeatherMax	4.5	22	fl oz/a	POST	B								
8	AMS		17	lb/100 gal	POST	B								
9	KIH-485	85	3.36	oz/a	POST	B	5	76	97	99	98	99	99	99
9	Roundup WeatherMax	4.5	22	fl oz/a	POST	B								
9	AMS		17	lb/100 gal	POST	B								
10	Roundup WeatherMax	4.5	22	fl oz/a	POST	B	0	88	98	81	99	95	99	97
10	AMS		17	lb/100 gal	POST	B								
LSD (P=.05)							4.2	22.1	10.2	7.1	18.5	17.0	18.0	1.1
Standard Deviation							2.9	15.3	7.0	4.9	12.8	11.7	12.4	0.7
CV							48.61	18.04	9.32	5.64	20.7	16.58	18.21	0.82

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Weed Code
 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

GLXMA moisture percent
 GLXMA YIELD BU
 10/26/2006 10/26/2006
 171 DA-A

Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code	GLXMA moisture percent	GLXMA YIELD BU
1	KIH-485	85	2	oz/a	PRE	A	16.7	35.0
2	KIH-485	85	2.3	oz/a	PRE	A	16.8	38.0
3	KIH-485	85	3.6	oz/a	PRE	A	16.3	46.6
4	Dual II Magnum	7.64	1.33	pt/a	PRE	A	15.9	12.0
5	Outlook	6	16	fl oz/a	PRE	A	18.6	9.2
6	KIH-485	85	2	oz/a	PRE	A	16.3	51.8
6	Roundup WeatherMax	4.5	22	fl oz/a	POST	B		
6	AMS		17	lb/100 gal	POST	B		
7	Untreated						18.5	12.1
8	KIH-485	85	1.68	oz/a	POST	B	16.5	54.4
8	Roundup WeatherMax	4.5	22	fl oz/a	POST	B		
8	AMS		17	lb/100 gal	POST	B		
9	KIH-485	85	3.36	oz/a	POST	B	16.5	54.1
9	Roundup WeatherMax	4.5	22	fl oz/a	POST	B		
9	AMS		17	lb/100 gal	POST	B		
10	Roundup WeatherMax	4.5	22	fl oz/a	POST	B	16.3	56.5
10	AMS		17	lb/100 gal	POST	B		
LSD (P=.05)							2.02	6.15
Standard Deviation							1.39	4.24
CV							8.29	11.47