

MSU Weed Science Research Program

Early Preplant Comparison of KIH-485 and Acetamide Herbicides

Trial ID: NTS02-08  
 Conducted: H5 Soils

Study Dir.: Sprague, Powell  
 Investigator: Christy Sprague

Date Planted: 5/13/08  
 Variety: Asgrow 2107  
 Population: 210,000 seeds/Acre  
 Soil Type: Sandy loam  
 Plot Size: 10 X 35 FT

Row Spacing: 7.5 IN  
 No. of Reps: 3  
 % OM: 2.3  
 pH: 6.3  
 Design: RANDOMIZED COMPLETE BLOCK

Tillage: No-till in standing corn stubble  
 Fertilizer: none at planting

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	STEME	CHICKWEED, COMMON	STELLARIA MEDIA (L.)
2.	POAAN	BLUEGRASS, ANNUAL	POA ANNUA
3.	THLAR	PENNYCRESS, FIELD	THLASPI ARVENSE L.
4.	ANGR	mainly foxtail species	SETARIA SP.
5.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
6.	AMBEL	RAGWEED, COMMON	AMBROSIA ARTEMISII FOLIA L.
Crop	Code	Common Name	
1.	GLXMA	SOYBEAN	

Application Description

**A**  
 Application Timing: 45 EPP  
 Date Treated: 4/8/08  
 Time Treated: 12:15 PM  
 % Cloud Cover: 100  
 Air Temp., Unit: 62 F  
 % Relative Humidity: 65  
 Wind Speed/Unit/Dir: 6 mph SE  
 Soil Temp., Unit: 49 F  
 Soil/Leaf Surface M: 2 5  
 Soil Moist (1=w 5=d): 2

Crop Stage at Each Application

**A**  
 Crop Name: GLXMA  
 Height (In.): --  
 Stage (L): --

Weed Stage at Each Application

**A**  
 Weed 1 Name: STEME  
 Height (In.): .25  
 Stage (L): veg-flwr  
 Weed 2 Name: POAAN  
 Height (In.): .5-2  
 Stage (L): veg  
 Weed 3 Name: THLAR  
 Height (In.): -  
 Stage (L): -  
 Weed 4 Name: ANGR  
 Height (In.): -  
 Stage (L): -  
 Weed 5 Name: CHEAL  
 Height (In.): -  
 Stage (L): -  
 Weed 6 Name: AMBEL  
 Height (In.): -  
 Stage (L): -

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Weed Density (plants/sq. ft.)

	1	2	3	4	5
Date:	7/25/08	7/25/08	7/25/08	7/25/08	7/25/08
Weed Name:	STEME	THLAR	ANGR	CHEAL	AMBEL
Density:	2	0.5	2	1	0.25

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom	GPA	Carrier	PSI
A	Type	MPH	Type	Size	Height	Spacing	Width			
	Cub	3.8	AirMix	11003	25	20	100	19	water	28

Comments: 6/24/08: Roundup WeatherMax + AMS (22 oz + 17 lb/100 gal) applied to all treatments.

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Weed Code								STEME	THLAR	TAROF	AMBEL
Crop Code											
Rating Data Type								control	control	control	control
Rating Unit								percent	percent	percent	percent
Rating Date								5/12/08	5/12/08	5/12/08	5/12/08
Trt-Eval Interval								34 DA-A	34 DA-A	34 DA-A	34 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A	98	33	96	0
1	AMS		WG	17	lb/100 gal	45 EPP	A				
2	KIH-485	85	WG	2	oz/a	45 EPP	A	99	83	87	45
2	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
2	AMS		WG	17	lb/100 gal	45 EPP	A				
3	KIH-485	85	WG	2.8	oz/a	45 EPP	A	96	93	96	62
3	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
3	AMS		WG	17	lb/100 gal	45 EPP	A				
4	KIH-485	85	WG	3.5	oz/a	45 EPP	A	99	95	96	94
4	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
4	AMS		WG	17	lb/100 gal	45 EPP	A				
5	KIH-485	85	WG	5.8	oz/a	45 EPP	A	96	96	98	95
5	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
5	AMS		WG	17	lb/100 gal	45 EPP	A				
6	Dual II Magnum	7.64	EC	1.33	pt/a	45 EPP	A	99	35	91	25
6	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
6	AMS		WG	17	lb/100 gal	45 EPP	A				
7	Outlook	6	EC	18	fl oz/a	45 EPP	A	98	58	96	25
7	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
7	AMS		WG	17	lb/100 gal	45 EPP	A				
8	Untreated							0	0	0	0
LSD (P=.10)								4.1	13.4	7.1	16.0
Standard Deviation								2.8	9.3	4.9	11.1
CV								3.3	15.12	5.92	25.8

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Weed Code	CHEAL	THLAR	ANGR	CHEAL
Crop Code				
Rating Data Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	5/12/08	6/13/08	6/13/08	6/13/08
Trt-Eval Interval	34 DA-A	66 DA-A	66 DA-A	66 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A	0	0	0	0
1	AMS		WG	17	lb/100 gal	45 EPP	A				
2	KIH-485	85	WG	2	oz/a	45 EPP	A	99	87	80	77
2	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
2	AMS		WG	17	lb/100 gal	45 EPP	A				
3	KIH-485	85	WG	2.8	oz/a	45 EPP	A	99	90	90	90
3	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
3	AMS		WG	17	lb/100 gal	45 EPP	A				
4	KIH-485	85	WG	3.5	oz/a	45 EPP	A	98	93	92	87
4	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
4	AMS		WG	17	lb/100 gal	45 EPP	A				
5	KIH-485	85	WG	5.8	oz/a	45 EPP	A	99	96	98	88
5	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
5	AMS		WG	17	lb/100 gal	45 EPP	A				
6	Dual II Magnum	7.64	EC	1.33	pt/a	45 EPP	A	45	0	75	20
6	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
6	AMS		WG	17	lb/100 gal	45 EPP	A				
7	Outlook	6	EC	18	fl oz/a	45 EPP	A	80	72	68	57
7	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
7	AMS		WG	17	lb/100 gal	45 EPP	A				
8	Untreated							0	0	0	0
LSD (P=.10)								20.2	7.3	12.2	11.5
Standard Deviation								14.0	5.1	8.4	8.0
CV								21.55	9.25	13.39	15.34

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Early Preplant Comparison of KIH-485 and Acetamido Herbicides

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 Conducted: H5 Soils

Study Dir.: Sprague, Powell  
 Investigator: Christy Sprague

Weed Code	AMBEL	ANGR	CHEAL	AMBEL
Crop Code				
Rating Data Type	control	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	6/13/08	6/25/08	6/25/08	6/25/08
Trt-Eval Interval	66 DA-A	78 DA-A	78 DA-A	78 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A	0	0	0	0
1	AMS		WG	17	lb/100 gal	45 EPP	A				
2	KIH-485	85	WG	2	oz/a	45 EPP	A	33	90	87	18
2	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
2	AMS		WG	17	lb/100 gal	45 EPP	A				
3	KIH-485	85	WG	2.8	oz/a	45 EPP	A	53	98	96	30
3	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
3	AMS		WG	17	lb/100 gal	45 EPP	A				
4	KIH-485	85	WG	3.5	oz/a	45 EPP	A	62	97	81	50
4	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
4	AMS		WG	17	lb/100 gal	45 EPP	A				
5	KIH-485	85	WG	5.8	oz/a	45 EPP	A	73	99	73	67
5	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
5	AMS		WG	17	lb/100 gal	45 EPP	A				
6	Dual II Magnum	7.64	EC	1.33	pt/a	45 EPP	A	20	94	2	8
6	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
6	AMS		WG	17	lb/100 gal	45 EPP	A				
7	Outlook	6	EC	18	fl oz/a	45 EPP	A	23	74	42	12
7	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A				
7	AMS		WG	17	lb/100 gal	45 EPP	A				
8	Untreated							0	0	0	0
LSD (P=.10)								16.9	8.6	19.3	9.9
Standard Deviation								11.8	6.0	13.4	6.9
CV								35.48	8.72	28.09	29.7

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Weed Code								GLXMA	GLXMA
Crop Code								moisture	YIELD
Rating Data Type								percent	bu/acre
Rating Unit								10/20/08	10/20/08
Rating Date								195 DA-A	at 13% M
Trt-Eval Interval									

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code		
1	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A	12.2	44.1
1	AMS		WG	17	lb/100 gal	45 EPP	A		
2	KIH-485	85	WG	2	oz/a	45 EPP	A	12.0	46.8
2	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A		
2	AMS		WG	17	lb/100 gal	45 EPP	A		
3	KIH-485	85	WG	2.8	oz/a	45 EPP	A	12.0	48.5
3	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A		
3	AMS		WG	17	lb/100 gal	45 EPP	A		
4	KIH-485	85	WG	3.5	oz/a	45 EPP	A	11.9	49.5
4	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A		
4	AMS		WG	17	lb/100 gal	45 EPP	A		
5	KIH-485	85	WG	5.8	oz/a	45 EPP	A	12.1	49.6
5	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A		
5	AMS		WG	17	lb/100 gal	45 EPP	A		
6	Dual II Magnum	7.64	EC	1.33	pt/a	45 EPP	A	12.0	48.2
6	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A		
6	AMS		WG	17	lb/100 gal	45 EPP	A		
7	Outlook	6	EC	18	fl oz/a	45 EPP	A	11.9	48.9
7	Roundup WeatherMax	4.5	L	22	fl oz/a	45 EPP	A		
7	AMS		WG	17	lb/100 gal	45 EPP	A		
8	Untreated							11.9	44.0
LSD (P=.10)								0.31	4.75
Standard Deviation								0.21	3.30
CV								1.77	6.96