

MSU Weed Science Research Program

WEED CONTROL IN CORN WITH KIH-485 WITH GLYPHOSATE, 2007

Trial ID: C1107
 Conducted: CAMPUS

Study Dir.:
 Investigator: James Kells

Date Planted: 5/7/07 **Row Spacing:** 30 IN
Variety: DKC 48-53 **No. of Reps:** 3
Population: 30,000 S/A **% OM:** 3.3
Soil Type: Sandy Loam **pH:** 6.5
Plot Size: 10 X 35 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Fall Chisel, Spring Field Cultivated X2
Fertilizer: 300lbs/A 46-0-0 Broadcast. 125lbs/A 19-19-19 in Row at Planting.

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ANGR	Annual Grasses	
2.	CHEAL	Common lambsquarters	Chenopodium album L.
3.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	ZEAMX	CORN, FIELD	

Application Description

	A	B
Application Timing:	PRE	POST
Date Treated:	5/8/07	6/6/07
Time Treated:	8:15AM	3:45PM
% Cloud Cover:	5	20
Air Temp., Unit:	67 F	77 F
% Relative Humidity:	58	40
Wind Speed/Unit/Dir:	7 mph SW	5 mph SW
Soil Temp., Unit:	56 F	74 F
Soil/Leaf Surface M:	5 5	5 5
Soil Moist (1=w 5=d):	5	2

Crop Stage at Each Application

	A	B
Crop Name:	ZEAMX	ZEAMX
Height (In.):		10-14(11)
Stage (L):		V4-5(5)8L

Weed Stage at Each Application

	A	B
Weed 1 Name:	ANGR	ANGR
Height (In.):		1
Stage (L):		2
Weed 2 Name:	CHEAL	CHEAL
Height (In.):		1-3(2)
Stage (L):		2-10(5)
Weed 3 Name:	ABUTH	ABUTH
Height (In.):		1-3(2)
Stage (L):		1-4(4)

Weed Density (plants/sq. ft.)

	1	2
Date:	5/8/07	6/6/07
Weed Name:	ANGR	ANGR
Density:		<1
Date:	5/8/07	6/6/07
Weed Name:	CHEAL	CHEAL
Density:		8
Date:	5/8/07	6/6/07
Weed Name:	ABUTH	ABUTH
Density:		1

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Boom				
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	CUB	3.5	FF	8003	18"	20"	100"	20	H2O	30
B	CUB	3.5	FF	8003	21"	20"	100"	20	H2O	30

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Weed Code							ANGR	ABUTH	ZEAMX	ANGR	CHEAL	AMARE	AMBEL
Crop Code							control	control	injury	control	control	control	control
Rating Data Type							percent	percent	percent	percent	percent	percent	percent
Rating Unit							5/21/07	5/21/07	6/7/07	6/7/07	6/7/07	6/7/07	6/7/07
Rating Date							13 DAPRE	13 DAPRE	AT POST	AT POST	AT POST	AT POST	AT POST
Trt-Eval Interval													
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	1	2	3	4	5	6	7
1	Untreated						0	0	0	0	0	0	0
2	KIH-485	85	WG	1.19	oz ai/a	PRE	99	93	0	90	75	100	85
3	KIH-485	85	WG	1.50	oz ai/a	PRE	98	99	0	95	88	100	88
4	KIH-485	85	WG	2.14	oz ai/a	PRE	100	98	0	97	95	100	100
5	KIH-485	85	WG	2.57	oz ai/a	PRE	100	98	0	99	96	100	98
6	KIH-485	85	WG	2.98	oz ai/a	PRE	96	98	0	98	99	99	99
7	KIH-485	85	WG	3.57	oz ai/a	PRE	98	99	0	97	99	100	100
8	Dual II Magnum	7.64	L	1.33	pt/a	PRE	99	90	0	96	70	100	83
9	KIH-485	85	WG	1.19	oz ai/a	PRE	98	98	0	95	82	100	95
9	Roundup OriginalMax	4.5	L	22	oz/a	POST							
9	Ammonium Sulfate		DF	17	lb/100 gal	POST							
10	KIH-485	85	WG	1.50	oz ai/a	PRE	99	97	0	90	83	100	99
10	Roundup OriginalMax	4.5	L	22	oz/a	POST							
10	Ammonium Sulfate		DF	17	lb/100 gal	POST							
11	KIH-485	85	WG	2.14	oz ai/a	PRE	98	99	0	96	92	100	92
11	Roundup OriginalMax	4.5	L	22	oz/a	POST							
11	Ammonium Sulfate		DF	17	lb/100 gal	POST							
12	KIH-485	85	WG	2.57	oz ai/a	PRE	99	100	0	99	97	100	100
12	Roundup OriginalMax	4.5	L	22	oz/a	POST							
12	Ammonium Sulfate		DF	17	lb/100 gal	POST							
13	KIH-485	85	WG	2.98	oz ai/a	PRE	99	99	0	98	96	100	100
13	Roundup OriginalMax	4.5	L	22	oz/a	POST							
13	Ammonium Sulfate		DF	17	lb/100 gal	POST							
14	KIH-485	85	WG	3.57	oz ai/a	PRE	100	100	0	99	99	100	100
14	Roundup OriginalMax	4.5	L	22	oz/a	POST							
14	Ammonium Sulfate		DF	17	lb/100 gal	POST							
15	Dual II Magnum	7.64	L	1.33	pt/a	PRE	99	96	0	98	64	100	98
15	Roundup OriginalMax	4.5	L	22	oz/a	POST							
15	Ammonium Sulfate		DF	17	lb/100 gal	POST							
16	Harness	7	L	1.8	pt/a	PRE	100	97	0	100	92	100	94
16	Roundup OriginalMax	4.5	L	22	oz/a	POST							
16	Ammonium Sulfate		DF	17	lb/100 gal	POST							
LSD (P=.05)							3.4	3.8	0.0	6.1	10.2	0.5	15.2
Standard Deviation							2.0	2.3	0.0	3.6	6.1	0.3	9.1
CV							2.18	2.5	0.0	4.03	7.36	0.31	10.22

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Weed Code	ABUTH	ANGR	CHEAL	AMARE	AMBEL	ABUTH
Crop Code						
Rating Data Type	control	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Rating Date	6/7/07	8/8/07	8/8/07	8/8/07	8/8/07	8/8/07
Trt-Eval Interval	AT POST	92 DA-A	92 DA-A	92 DA-A	92 DA-A	92 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	8	9	10	11	12	13
1	Untreated						0	0	0	0	0	0
2	KIH-485	85	WG	1.19	oz ai/a	PRE	83	75	58	100	70	87
3	KIH-485	85	WG	1.50	oz ai/a	PRE	87	82	67	100	82	87
4	KIH-485	85	WG	2.14	oz ai/a	PRE	91	85	71	100	88	87
5	KIH-485	85	WG	2.57	oz ai/a	PRE	95	87	73	100	85	100
6	KIH-485	85	WG	2.98	oz ai/a	PRE	100	89	81	100	95	97
7	KIH-485	85	WG	3.57	oz ai/a	PRE	98	82	80	100	95	97
8	Dual II Magnum	7.64	L	1.33	pt/a	PRE	70	94	30	100	77	62
9	KIH-485	85	WG	1.19	oz ai/a	PRE	85	94	87	100	100	100
9	Roundup OriginalMax	4.5	L	22	oz/a	POST						
9	Ammonium Sulfate		DF	17	lb/100 gal	POST						
10	KIH-485	85	WG	1.50	oz ai/a	PRE	89	92	84	100	100	98
10	Roundup OriginalMax	4.5	L	22	oz/a	POST						
10	Ammonium Sulfate		DF	17	lb/100 gal	POST						
11	KIH-485	85	WG	2.14	oz ai/a	PRE	91	96	93	100	100	100
11	Roundup OriginalMax	4.5	L	22	oz/a	POST						
11	Ammonium Sulfate		DF	17	lb/100 gal	POST						
12	KIH-485	85	WG	2.57	oz ai/a	PRE	98	96	93	100	100	100
12	Roundup OriginalMax	4.5	L	22	oz/a	POST						
12	Ammonium Sulfate		DF	17	lb/100 gal	POST						
13	KIH-485	85	WG	2.98	oz ai/a	PRE	99	98	97	100	100	100
13	Roundup OriginalMax	4.5	L	22	oz/a	POST						
13	Ammonium Sulfate		DF	17	lb/100 gal	POST						
14	KIH-485	85	WG	3.57	oz ai/a	PRE	98	98	100	100	100	100
14	Roundup OriginalMax	4.5	L	22	oz/a	POST						
14	Ammonium Sulfate		DF	17	lb/100 gal	POST						
15	Dual II Magnum	7.64	L	1.33	pt/a	PRE	65	97	83	98	100	100
15	Roundup OriginalMax	4.5	L	22	oz/a	POST						
15	Ammonium Sulfate		DF	17	lb/100 gal	POST						
16	Harness	7	L	1.8	pt/a	PRE	82	94	82	100	100	100
16	Roundup OriginalMax	4.5	L	22	oz/a	POST						
16	Ammonium Sulfate		DF	17	lb/100 gal	POST						
LSD (P=.05)							14.9	11.2	10.3	1.2	20.9	18.0
Standard Deviation							8.9	6.7	6.2	0.7	12.6	10.8
CV							10.73	7.9	8.42	0.77	14.45	12.26