

MSU Weed Science Research Program

CONTROL OF EMERGED ROUNDUP READY CORN WITH LIBERTY AND GRAMOXONE MAX, 2006

Trial ID: C2006
 Conducted: CAMPUS

Study Dir.:
 Investigator: Christy Sprague

Date Planted: 4/18/2006 **Row Spacing:** 30 IN
Variety: DKC42-95 **No. of Reps:** 4
Population: 30,000 S/A **% OM:** 2.4
Soil Type: loam **pH:** 7.0
Plot Size: 10 X 35 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Fall Chisel, Spring Soil Finish x2
Fertilizer: 200 lbs/A 19-19-19 in row at planting

Crop Code Common Name
 1. ZEAMX CORN, FIELD

Application Description

	A	B	C
Application Timing:	PRE*	1-3 ZE	3-6 ZE
Date Treated:	4/18/2006	5/8/2006	5/29/2006
Time Treated:	3:15 pm	10:10 am	5:45 pm
% Cloud Cover:	0	0	40
Air Temp., Unit:	71 F	69 F	89 F
% Relative Humidity:	34	28	35
Wind Speed/Unit/Dir:	5 mph E	2 mph S	7 mph SW
Soil Temp., Unit:	55 F	56 F	91 F
Soil/Leaf Surface M:	5 5	5 5	5 5
Soil Moist (1=w 5=d):		4	5

Crop Stage at Each Application

	A	B	C
Crop Name:	ZEAMX	ZEAMX	ZEAMX
Height (In.):		2-3(3)	3-9(7)
Stage (L):		2-3(3)	5-8(7)

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI	
A	cub	3.5	FF	8003	18"	20"	120"	20	H2O	30
B	cub	3.5	FF	8003	21"	20"	100"	20	H2O	30
C	cub	3.5	FF	8003	25"	20"	100"	20	H2O	30

Comments: * Entire study recieved Harness Xtra 5.6 at 2 qt/a

ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX
ZEAMX					
LR dead	LR injur	LR healt	LR dead	RR dead	RR injur
healt					RR
count*	count*	count*	count*	count*	count*
count*					

LR dead= Left Row count of number of plants dead
 LR injur= Left Row count of number of injured plants
 LR healt= Left Row count of number of healthy plants

Same format follows for RR which represents Right Row of plot.

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Crop Code							control	LR dead	LR injur	LR heat	RR dead	RR injur	RR heat	control
Rating Data Type							percent	count*	count*	count*	count*	count*	count*	percent
Rating Unit														
Rating Date														
Trt-Eval Interval							7 DAT	7 DAT	7 DAT	7 DAT	7 DAT	7 DAT	7 DAT	14 DAT
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	1	2	3	4	5	6	7	8
1	Harness Xtra 5.6 ENTIRE	5.6	L	2	qt/a	PRE	38	0	57	1	0	57	0	76
1	Liberty	1.67	L	0.42	lb ai/a	1-3" ZE								
1	Ammonium Sulfate		DF	3	lb/a	1-3" ZE								
2	Liberty	1.67	L	0.42	lb ai/a	3-6" ZE	89	39	17	0	52	6	0	98
2	Ammonium Sulfate		DF	3	lb/a	3-6" ZE								
3	Gramoxone Max	3	L	0.5625	lb ai/a	1-3" ZE	92	51	4	1	52	3	0	96
3	Herbimax		L	1	% v/v	1-3" ZE								
4	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	91	40	15	0	46	9	0	94
4	Herbimax		L	1	% v/v	3-6" ZE								
5	Gramoxone Max	3	L	0.28	lb ai/a	1-3" ZE	74	6	48	1	21	33	0	91
5	Herbimax		L	1	% v/v	1-3" ZE								
6	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	88	44	14	0	44	12	0	92
6	Herbimax		L	1	% v/v	3-6" ZE								
7	Gramoxone Max	3	L	0.28	lb ai/a	1-3" ZE	78	12	40	1	15	42	0	91
7	Herbimax		L	1	% v/v	1-3" ZE								
7	Sencor	75	DF	0.14	lb ai/a	1-3" ZE								
8	Gramoxone Max	3	L	0.28	lb ai/a	3-6" ZE	80	35	23	0	19	36	0	88
8	Herbimax		L	1	% v/v	3-6" ZE								
8	Sencor	75	DF	0.14	lb ai/a	3-6" ZE								
9	Gramoxone Max	3	L	0.5625	lb ai/a	1-3" ZE	92	48	5	1	49	5	1	98
9	Herbimax		L	1	% v/v	1-3" ZE								
9	Sencor	75	DF	0.14	lb ai/a	1-3" ZE								
10	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	96	53	3	0	53	2	0	99
10	Herbimax		L	1	% v/v	3-6" ZE								
10	Sencor	75	DF	0.14	lb ai/a	3-6" ZE								
11	Gramoxone Max	3	L	0.28	lb ai/a	1-3" ZE	75	10	43	1	14	45	0	90
11	Herbimax		L	1	% v/v	1-3" ZE								
11	Lorox	50	DF	0.5	lb ai/a	1-3" ZE								
12	Gramoxone Max	3	L	0.28	lb ai/a	3-6" ZE	80	18	31	0	13	45	0	85
12	Herbimax		L	1	% v/v	3-6" ZE								
12	Lorox	50	DF	0.5	lb ai/a	3-6" ZE								
13	Gramoxone Max	3	L	0.5625	lb ai/a	1-3" ZE	89	35	19	1	48	6	0	98
13	Herbimax		L	1	% v/v	1-3" ZE								
13	Lorox	50	DF	0.5	lb ai/a	1-3" ZE								
14	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	94	48	6	0	52	5	0	98
14	Herbimax		L	1	% v/v	3-6" ZE								
14	Lorox	50	DF	0.5	lb ai/a	3-6" ZE								
15	Untreated						0	0	0	56	0	0	57	0
LSD (P=.05)							7.7	15.7	14.9	1.7	15.1	14.8	2.5	3.8
Standard Deviation							5.4	11.0	10.4	1.2	10.5	10.3	1.8	2.7
CV							6.97	37.79	48.34	28.59	33.09	51.3	45.94	3.11

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Weed Code				ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	
Crop Code				LR dead	LR injur	LR healt	RR dead	RR injur	RR healt	control		LR dead		
Rating Data Type				count*	count*	count*	count*	count*	count*	percent		count*		
Rating Unit														
Rating Date														
Trt-Eval Interval				14 DAT	14 DAT	14 DAT	14 DAT	14 DAT	14 DAT	14 DAT	21 DAT	21 DAT		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Stg	9	10	11	12	13	14	15	16
1	Harness Xtra 5.6 ENTIRE	5.6	L	2	qt/a	PRE	2	55	0	1	57	0	43	16
1	Liberty	1.67	L	0.42	lb ai/a	1-3" ZE								
1	Ammonium Sulfate		DF	3	lb/a	1-3" ZE								
2	Liberty	1.67	L	0.42	lb ai/a	3-6" ZE	56	1	0	57	2	0	100	55
2	Ammonium Sulfate		DF	3	lb/a	3-6" ZE								
3	Gramoxone Max	3	L	0.5625	lb ai/a	1-3" ZE	49	3	0	53	3	0	95	51
3	Herbimax		L	1	% v/v	1-3" ZE								
4	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	47	6	0	51	4	0	94	50
4	Herbimax		L	1	% v/v	3-6" ZE								
5	Gramoxone Max	3	L	0.28	lb ai/a	1-3" ZE	45	9	0	46	7	0	86	44
5	Herbimax		L	1	% v/v	1-3" ZE								
6	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	49	7	0	51	5	0	96	53
6	Herbimax		L	1	% v/v	3-6" ZE								
7	Gramoxone Max	3	L	0.28	lb ai/a	1-3" ZE	39	10	0	42	9	0	86	43
7	Herbimax		L	1	% v/v	1-3" ZE								
7	Sencor	75	DF	0.14	lb ai/a	1-3" ZE								
8	Gramoxone Max	3	L	0.28	lb ai/a	3-6" ZE	36	18	0	37	19	0	91	43
8	Herbimax		L	1	% v/v	3-6" ZE								
8	Sencor	75	DF	0.14	lb ai/a	3-6" ZE								
9	Gramoxone Max	3	L	0.5625	lb ai/a	1-3" ZE	46	1	0	44	2	0	95	50
9	Herbimax		L	1	% v/v	1-3" ZE								
9	Sencor	75	DF	0.14	lb ai/a	1-3" ZE								
10	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	54	1	0	55	1	0	100	55
10	Herbimax		L	1	% v/v	3-6" ZE								
10	Sencor	75	DF	0.14	lb ai/a	3-6" ZE								
11	Gramoxone Max	3	L	0.28	lb ai/a	1-3" ZE	39	11	0	43	6	0	86	43
11	Herbimax		L	1	% v/v	1-3" ZE								
11	Lorox	50	DF	0.5	lb ai/a	1-3" ZE								
12	Gramoxone Max	3	L	0.28	lb ai/a	3-6" ZE	14	39	0	22	36	0	85	13
12	Herbimax		L	1	% v/v	3-6" ZE								
12	Lorox	50	DF	0.5	lb ai/a	3-6" ZE								
13	Gramoxone Max	3	L	0.5625	lb ai/a	1-3" ZE	50	2	0	46	4	0	95	51
13	Herbimax		L	1	% v/v	1-3" ZE								
13	Lorox	50	DF	0.5	lb ai/a	1-3" ZE								
14	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	51	2	0	55	1	0	99	52
14	Herbimax		L	1	% v/v	3-6" ZE								
14	Lorox	50	DF	0.5	lb ai/a	3-6" ZE								
15	Untreated						0	0	56	0	0	57	0	0
LSD (P=.05)							8.6	7.0	1.3	9.6	6.8	2.5	4.9	11.1
Standard Deviation							6.1	4.9	0.9	6.7	4.7	1.8	3.5	7.8
CV							15.81	44.68	23.43	16.82	46.2	46.01	4.15	18.94

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	ZEAMX LR injur count*	ZEAMX LR healt count*	ZEAMX RR dead count*	ZEAMX RR injur count*	ZEAMX RR healt count*	
						21 DAT	21 DAT	21 DAT	21 DAT	21 DAT	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	17	18	19	20	21
1	Harness Xtra 5.6 ENTIRE	5.6	L	2	qt/a	PRE	39	3	13	38	6
1	Liberty	1.67	L	0.42	lb ai/a	1-3" ZE					
1	Ammonium Sulfate		DF	3	lb/a	1-3" ZE					
2	Liberty	1.67	L	0.42	lb ai/a	3-6" ZE	1	0	58	0	0
2	Ammonium Sulfate		DF	3	lb/a	3-6" ZE					
3	Gramoxone Max	3	L	0.5625	lb ai/a	1-3" ZE	2	4	50	1	4
3	Herbimax		L	1	% v/v	1-3" ZE					
4	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	5	0	51	3	0
4	Herbimax		L	1	% v/v	3-6" ZE					
5	Gramoxone Max	3	L	0.28	lb ai/a	1-3" ZE	6	6	44	2	8
5	Herbimax		L	1	% v/v	1-3" ZE					
6	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	5	0	53	3	0
6	Herbimax		L	1	% v/v	3-6" ZE					
7	Gramoxone Max	3	L	0.28	lb ai/a	1-3" ZE	5	6	44	5	10
7	Herbimax		L	1	% v/v	1-3" ZE					
7	Sencor	75	DF	0.14	lb ai/a	1-3" ZE					
8	Gramoxone Max	3	L	0.28	lb ai/a	3-6" ZE	15	0	44	12	0
8	Herbimax		L	1	% v/v	3-6" ZE					
8	Sencor	75	DF	0.14	lb ai/a	3-6" ZE					
9	Gramoxone Max	3	L	0.5625	lb ai/a	1-3" ZE	1	2	49	2	4
9	Herbimax		L	1	% v/v	1-3" ZE					
9	Sencor	75	DF	0.14	lb ai/a	1-3" ZE					
10	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	1	0	55	0	0
10	Herbimax		L	1	% v/v	3-6" ZE					
10	Sencor	75	DF	0.14	lb ai/a	3-6" ZE					
11	Gramoxone Max	3	L	0.28	lb ai/a	1-3" ZE	5	6	46	5	8
11	Herbimax		L	1	% v/v	1-3" ZE					
11	Lorox	50	DF	0.5	lb ai/a	1-3" ZE					
12	Gramoxone Max	3	L	0.28	lb ai/a	3-6" ZE	35	0	24	31	0
12	Herbimax		L	1	% v/v	3-6" ZE					
12	Lorox	50	DF	0.5	lb ai/a	3-6" ZE					
13	Gramoxone Max	3	L	0.5625	lb ai/a	1-3" ZE	1	2	50	1	4
13	Herbimax		L	1	% v/v	1-3" ZE					
13	Lorox	50	DF	0.5	lb ai/a	1-3" ZE					
14	Gramoxone Max	3	L	0.6375	lb ai/a	3-6" ZE	1	0	56	1	0
14	Herbimax		L	1	% v/v	3-6" ZE					
14	Lorox	50	DF	0.5	lb ai/a	3-6" ZE					
15	Untreated						0	57	0	0	58
LSD (P=.05)							7.6	2.9	11.5	7.4	4.1
Standard Deviation							5.3	2.0	8.0	5.1	2.9
CV							66.75	35.73	19.0	75.32	42.33