

MSU Weed Science Research Program

WEED CONTROL IN CORN WITH ET HERBICIDE, 2006

Trial ID: C2206
 Conducted: CAMPUS

Study Dir.:
 Investigator: Christy Sprague

Date Planted: 4/25/2006 **Row Spacing:** 30 IN
Variety: DKC42-05 **No. of Reps:** 3
Population: 30,000 S/A **% OM:** 2.1
Soil Type: sandy clay loam **pH:** 6.0
Plot Size: 10 X 35 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Spring Chisel, Spring Soil Finish x2
Fertilizer: 285 lbs/A 46-0-0 broadcast. 200 lbs/A 19-19-19 in row at planting.

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ANGR	Annual Grasses	
2.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
3.	AMASS	Redroot pigweed, Powell amaranth	Amaranthus sp.
4.	AMBEL	RAGWEED, COMMON	AMBROSIA ELATIOR L.
5.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	ZEAMX	CORN, FIELD	

Application Description

	A	B
Application Timing:	PRE*	POST
Date Treated:	4/25/2006	6/5/2006
Time Treated:	4:00 pm	10:00 am
% Cloud Cover:	65	20
Air Temp., Unit:	52 F	83 F
% Relative Humidity:	45	30
Wind Speed/Unit/Dir:	6 mph	1 mph W
Soil Temp., Unit:	55.6 F	64 F
Soil/Leaf Surface M:	5 5	4 4
Soil Moist (1=w 5=d):	3	5

Crop Stage at Each Application

	A	B
Crop Name:	ZEAMX	ZEAMX
Height (In.):		8-12 (9)
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.):		.25-6 (3)
Stage (L):		3-10 (6)
Weed 3 Name:	AMASS	AMASS
Height (In.):		.5-3 (1)
Stage (L):		4-6 (4)
Weed 4 Name:	AMBEL	AMBEL
Height (In.):		.5-6 (4)
Stage (L):		4-8 (6)
Weed 5 Name:	ABUTH	ABUTH
Height (In.):		2
Stage (L):		3

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Weed Density (plants/sq. ft.)

	1	2
Date:	4/25/2006	6/5/2006
Weed Name:	ANGR	ANGR
Density:		0
Date:	4/25/2006	6/5/2006
Weed Name:	CHEAL	CHEAL
Density:		3
Date:	4/25/2006	6/5/2006
Weed Name:	AMARE	AMARE
Density:		<1
Date:	4/25/2006	6/5/2006
Weed Name:	AMBEL	AMBEL
Density:		13
Date:	4/25/2006	6/5/2006
Weed Name:	ABUTH	ABUTH
Density:		0

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	25"	20"	120"	20	H2O	30	

Comments: * Entire study received Dual II Magnum at 0.67 pt/a preemergence on April 25, 2006.

- * SPECK Percent of speckling on corn.
- * CHLORO Percent chlorosis
- * MALFO Percent of corn population with malformities.
- * GRRED Percent of corn population exhibiting a growth reduction.

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Weed Code										CHEAL	AMBEL			
Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	ZEAMX SPECK*	ZEAMX CHLORO*	ZEAMX MALFO*	ZEAMX GRRED*	percent	percent	percent	percent	ZEAMX SPECK*	ZEAMX CHLORO*
					6/8/2006 3 DAPO	6/8/2006 3 DAPO	6/8/2006 3 DAPO	6/8/2006 3 DAPO	6/8/2006 3 DAPO	6/8/2006 3 DAPO	6/8/2006 3 DAPO	6/12/2006 7 DAPO	6/12/2006 7 DAPO	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	1	2	3	4	5	6	7	8
1	Dual II Magnum ENTIRE	7.64	L	0.67	pt/a	PRE	0	22	0	25	43	48	0	13
1	Banvel	4	L	8	fl oz/a	POST								
1	Activator 90		L	0.25	% v/v	POST								
1	Ammonium Sulfate		DF	2	% w/w	POST								
2	ET	0.2	L	0.5	fl oz/a	POST	57	40	33	35	62	67	38	22
2	Banvel	4	L	8	fl oz/a	POST								
2	Activator 90		L	0.25	% v/v	POST								
2	Ammonium Sulfate		DF	2	% w/w	POST								
3	ET	0.2	L	0.75	fl oz/a	POST	53	40	20	28	65	67	37	22
3	Banvel	4	L	8	fl oz/a	POST								
3	Activator 90		L	0.25	% v/v	POST								
3	Ammonium Sulfate		DF	2	% w/w	POST								
4	Glyphosate	3	L	0.75	lb ae/a	POST	0	0	0	0	23	30	0	0
4	Activator 90		L	0.25	% v/v	POST								
4	Ammonium Sulfate		DF	2	% w/w	POST								
5	ET	0.2	L	0.5	fl oz/a	POST	53	42	18	32	75	67	35	20
5	Glyphosate	3	L	0.75	lb ae/a	POST								
5	Activator 90		L	0.25	% v/v	POST								
5	Ammonium Sulfate		DF	2	% w/w	POST								
6	ET	0.2	L	0.75	fl oz/a	POST	53	43	40	42	82	70	43	25
6	Glyphosate	3	L	0.75	lb ae/a	POST								
6	Activator 90		L	0.25	% v/v	POST								
6	Ammonium Sulfate		DF	2	% w/w	POST								
7	ET	0.2	L	0.5	fl oz/a	POST	48	40	30	30	67	60	37	27
7	Banvel	4	L	4	fl oz/a	POST								
7	Glyphosate	3	L	0.75	lb ae/a	POST								
7	Activator 90		L	0.25	% v/v	POST								
7	Ammonium Sulfate		DF	2	% w/w	POST								
8	ET	0.2	L	0.5	fl oz/a	POST	43	33	15	25	57	65	32	13
8	Banvel	4	L	4	fl oz/a	POST								
8	Activator 90		L	0.25	% v/v	POST								
8	Ammonium Sulfate		DF	2	% w/w	POST								
9	Untreated						0	0	0	0	0	0	0	0
LSD (P=.05)							9.8	16.6	22.9	12.9	15.7	9.9	6.7	8.8
Standard Deviation							5.7	9.6	13.3	7.4	9.0	5.7	3.9	5.1
CV							16.56	33.27	76.12	30.93	17.2	10.84	15.81	32.35

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Crop Code										ZEAMX	ZEAMX	ZEAMX	
Rating Data Type										SPECK*	CHLORO*	MALFO*	
Rating Unit								percent	percent	percent	percent	percent	
Rating Date								6/12/2006	6/12/2006	6/12/2006	6/12/2006	6/19/2006	6/19/2006
Trt-Eval Interval								7 DAPO	7 DAPO	7 DAPO	7 DAPO	14 DAPO	14 DAPO
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	9	10	11	12	13	14	15
1	Dual II Magnum ENTIRE	7.64	L	0.67	pt/a	PRE	0	22	57	63	0	0	0
1	Banvel	4	L	8	fl oz/a	POST							
1	Activator 90		L	0.25	% v/v	POST							
1	Ammonium Sulfate		DF	2	% w/w	POST							
2	ET	0.2	L	0.5	fl oz/a	POST	13	30	71	78	22	8	0
2	Banvel	4	L	8	fl oz/a	POST							
2	Activator 90		L	0.25	% v/v	POST							
2	Ammonium Sulfate		DF	2	% w/w	POST							
3	ET	0.2	L	0.75	fl oz/a	POST	10	23	78	91	28	13	5
3	Banvel	4	L	8	fl oz/a	POST							
3	Activator 90		L	0.25	% v/v	POST							
3	Ammonium Sulfate		DF	2	% w/w	POST							
4	Glyphosate	3	L	0.75	lb ae/a	POST	0	0	97	100	0	0	0
4	Activator 90		L	0.25	% v/v	POST							
4	Ammonium Sulfate		DF	2	% w/w	POST							
5	ET	0.2	L	0.5	fl oz/a	POST	3	28	82	100	32	0	0
5	Glyphosate	3	L	0.75	lb ae/a	POST							
5	Activator 90		L	0.25	% v/v	POST							
5	Ammonium Sulfate		DF	2	% w/w	POST							
6	ET	0.2	L	0.75	fl oz/a	POST	7	33	88	100	27	3	3
6	Glyphosate	3	L	0.75	lb ae/a	POST							
6	Activator 90		L	0.25	% v/v	POST							
6	Ammonium Sulfate		DF	2	% w/w	POST							
7	ET	0.2	L	0.5	fl oz/a	POST	13	25	81	99	22	0	7
7	Banvel	4	L	4	fl oz/a	POST							
7	Glyphosate	3	L	0.75	lb ae/a	POST							
7	Activator 90		L	0.25	% v/v	POST							
7	Ammonium Sulfate		DF	2	% w/w	POST							
8	ET	0.2	L	0.5	fl oz/a	POST	3	17	68	85	23	3	0
8	Banvel	4	L	4	fl oz/a	POST							
8	Activator 90		L	0.25	% v/v	POST							
8	Ammonium Sulfate		DF	2	% w/w	POST							
9	Untreated						0	0	0	0	0	0	0
LSD (P=.05)							9.8	11.3	7.4	7.9	7.9	12.6	8.8
Standard Deviation							5.7	6.5	4.3	4.5	4.6	7.3	5.1
CV							101.73	32.94	6.16	5.71	26.72	231.27	304.14

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Crop Code								ZEAMX				SPECK*	CHLORO*	MALFO*	GRRED*
Rating Data Type								percent	percent	percent	percent	percent	percent	percent	percent
Rating Unit								6/19/2006	6/19/2006	6/19/2006	7/3/2006	7/3/2006	7/3/2006	7/3/2006	7/3/2006
Rating Date								14 DAPO	14 DAPO	14 DAPO	28 DAPO	28 DAPO	28 DAPO	28 DAPO	28 DAPO
Trt-Eval Interval															
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	16	17	18	19	20	21	22		
1	Dual II Magnum ENTIRE	7.64	L	0.67	pt/a	PRE	18	88	78	0	0	0	8		
1	Banvel	4	L	8	fl oz/a	POST									
1	Activator 90		L	0.25	% v/v	POST									
1	Ammonium Sulfate		DF	2	% w/w	POST									
2	ET	0.2	L	0.5	fl oz/a	POST	13	97	86	8	0	0	10		
2	Banvel	4	L	8	fl oz/a	POST									
2	Activator 90		L	0.25	% v/v	POST									
2	Ammonium Sulfate		DF	2	% w/w	POST									
3	ET	0.2	L	0.75	fl oz/a	POST	12	98	87	12	0	0	8		
3	Banvel	4	L	8	fl oz/a	POST									
3	Activator 90		L	0.25	% v/v	POST									
3	Ammonium Sulfate		DF	2	% w/w	POST									
4	Glyphosate	3	L	0.75	lb ae/a	POST	0	100	98	0	0	0	0		
4	Activator 90		L	0.25	% v/v	POST									
4	Ammonium Sulfate		DF	2	% w/w	POST									
5	ET	0.2	L	0.5	fl oz/a	POST	18	100	81	12	0	0	8		
5	Glyphosate	3	L	0.75	lb ae/a	POST									
5	Activator 90		L	0.25	% v/v	POST									
5	Ammonium Sulfate		DF	2	% w/w	POST									
6	ET	0.2	L	0.75	fl oz/a	POST	20	99	81	10	0	0	13		
6	Glyphosate	3	L	0.75	lb ae/a	POST									
6	Activator 90		L	0.25	% v/v	POST									
6	Ammonium Sulfate		DF	2	% w/w	POST									
7	ET	0.2	L	0.5	fl oz/a	POST	17	100	88	12	0	0	10		
7	Banvel	4	L	4	fl oz/a	POST									
7	Glyphosate	3	L	0.75	lb ae/a	POST									
7	Activator 90		L	0.25	% v/v	POST									
7	Ammonium Sulfate		DF	2	% w/w	POST									
8	ET	0.2	L	0.5	fl oz/a	POST	18	97	72	12	0	0	7		
8	Banvel	4	L	4	fl oz/a	POST									
8	Activator 90		L	0.25	% v/v	POST									
8	Ammonium Sulfate		DF	2	% w/w	POST									
9	Untreated						0	0	0	0	0	0	0		
LSD (P=.05)							11.7	2.5	9.6	3.5	0.0	0.0	10.3		
Standard Deviation							6.7	1.5	5.5	2.0	0.0	0.0	6.0		
CV							51.96	1.7	7.42	28.26	0.0	0.0	82.4		

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Crop Code		
Rating Data Type		
Rating Unit	percent	percent
Rating Date	7/3/2006	7/3/2006
Trt-Eval Interval	28 DAPO	28 DAPO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	CHEAL	AMBEL
1	Dual II Magnum ENTIRE	7.64	L	0.67	pt/a	PRE	100	99
1	Banvel	4	L	8	fl oz/a	POST		
1	Activator 90		L	0.25	% v/v	POST		
1	Ammonium Sulfate		DF	2	% w/w	POST		
2	ET	0.2	L	0.5	fl oz/a	POST	100	100
2	Banvel	4	L	8	fl oz/a	POST		
2	Activator 90		L	0.25	% v/v	POST		
2	Ammonium Sulfate		DF	2	% w/w	POST		
3	ET	0.2	L	0.75	fl oz/a	POST	100	100
3	Banvel	4	L	8	fl oz/a	POST		
3	Activator 90		L	0.25	% v/v	POST		
3	Ammonium Sulfate		DF	2	% w/w	POST		
4	Glyphosate	3	L	0.75	lb ae/a	POST	100	97
4	Activator 90		L	0.25	% v/v	POST		
4	Ammonium Sulfate		DF	2	% w/w	POST		
5	ET	0.2	L	0.5	fl oz/a	POST	99	83
5	Glyphosate	3	L	0.75	lb ae/a	POST		
5	Activator 90		L	0.25	% v/v	POST		
5	Ammonium Sulfate		DF	2	% w/w	POST		
6	ET	0.2	L	0.75	fl oz/a	POST	99	85
6	Glyphosate	3	L	0.75	lb ae/a	POST		
6	Activator 90		L	0.25	% v/v	POST		
6	Ammonium Sulfate		DF	2	% w/w	POST		
7	ET	0.2	L	0.5	fl oz/a	POST	100	97
7	Banvel	4	L	4	fl oz/a	POST		
7	Glyphosate	3	L	0.75	lb ae/a	POST		
7	Activator 90		L	0.25	% v/v	POST		
7	Ammonium Sulfate		DF	2	% w/w	POST		
8	ET	0.2	L	0.5	fl oz/a	POST	100	95
8	Banvel	4	L	4	fl oz/a	POST		
8	Activator 90		L	0.25	% v/v	POST		
8	Ammonium Sulfate		DF	2	% w/w	POST		
9	Untreated						0	0
LSD (P=.05)							1.0	4.5
Standard Deviation							0.6	2.6
CV							0.63	3.07