

MSU Weed Science Research Program

WEED AND INSECT CONTROL STRATEGIES IN CORN, 2006

Trial ID: C2406
 Conducted:

Study Dir.:
 Investigator: Christy Sprague

Date Planted: 4/29/2006 **Row Spacing:** 30 IN
Variety: treatment list **No. of Reps:** 4
Population: 30,000 S/A **% OM:** 2.6
Soil Type: loam **pH:** 7.5
Plot Size: 10 X 35 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Spring Chisel, Spring Soil Finish x2

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	CHEAL	Common lambsquarters	Chenopodium album L.
2.	AMBEL	RAGWEED, COMMON	AMBROSIA ELATIOR 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:	4/29/2006	6/6/2006
Time Treated:	9:30 am	10:00 am
% Cloud Cover:	50	
Air Temp., Unit:	58 F	77 F
% Relative Humidity:	38	34
Wind Speed/Unit/Dir:	4 mph E	5 mph SW
Soil Temp., Unit:	50 F	69.6 F
Soil/Leaf Surface M:	5 5	5 5
Soil Moist (1=w 5=d):	5	5

Crop Stage at Each Application

	A	B
Crop Name:	ZEAMX	ZEAMX
Height (In.):		8-12(10)
Stage (L):		5-8(7)

Weed Stage at Each Application

	A	B
Weed 1 Name:	CHEAL	CHEAL
Height (In.):		1-5(3)
Stage (L):		2-6(4)
Weed 2 Name:	AMBEL	AMBEL
Height (In.):		1-4(3)
Stage (L):		4-8(6)
Weed 3 Name:	ABUTH	ABUTH
Height (In.):		.25-4(2)
Stage (L):		COT-6(4)

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
A	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	22"	20"	100"	20	H2O	30

Comments: * Evaluation of root damage due to corn rootworm. 0=No Damage, 3= Highest Damage. Data column reflects the average of 5 plants per plot.

** Yields were variable. Several plots in the first replication had poor stands of corn when the stand counts were taken May 30, 2006.

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Weed Code									ANGR	CHEAL	AMBEL	ABUTH			
Crop Code									ZEAMX	ZEAMX				ZEAMX	
Rating Data Type									count	injury	control	control	control	control	injury
Rating Unit									pl/175sq	percent	percent	percent	percent	percent	percent
Rating Date									5/30/2006	6/22/2006	6/22/2006	6/22/2006	6/22/2006	6/22/2006	7/6/2006
Trt-Eval Interval									AT V3	16 DAPO	16 DAPO	16 DAPO	16 DAPO	16 DAPO	30 DAPO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	1	2	3	4	5	6	7
1	MON TXP151-DT P250						104	0	100	96	100	98	0
1	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE							
1	Roundup WeatherMax	4.5	L	22	fl oz/a	POST							
1	Ammonium Sulfate		DF	17	lb/100 gal	POST							
2	MON 51-39 P250						110	0	100	100	100	99	0
2	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE							
2	Roundup WeatherMax	4.5	L	22	fl oz/a	POST							
2	Ammonium Sulfate		DF	17	lb/100 gal	POST							
3	MON 50-20 P250						88	0	100	97	100	97	0
3	Force (5oz/1000 row-ft)	3	G										
3	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE							
3	Roundup WeatherMax	4.5	L	22	fl oz/a	POST							
3	Ammonium Sulfate		DF	17	lb/100 gal	POST							
4	MON 50-20 P1250						75	0	99	100	100	96	0
4	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE							
4	Roundup WeatherMax	4.5	L	22	fl oz/a	POST							
4	Ammonium Sulfate		DF	17	lb/100 gal	POST							
5	MON 51-45 P250						106	0	98	99	100	96	0
5	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE							
5	Roundup WeatherMax	4.5	L	22	fl oz/a	POST							
5	Ammonium Sulfate		DF	17	lb/100 gal	POST							
6	Pioneer 38H62 P250						99	0	96	90	91	85	0
6	Lumax	3.94	SE	2.5	qt/a	PRE							
7	Pioneer 38H64 P250						98	0	98	93	95	91	0
7	Force (5oz/1000 row-ft)	3	G										
7	Lumax	3.94	SE	2.5	qt/a	PRE							
8	Pioneer 38H64 P1250						88	0	95	95	100	90	0
8	Lumax	3.94	SE	2.5	qt/a	PRE							
9	MON 5145 P250						107	0	99	94	95	87	0
9	Lumax	3.94	SE	2.5	qt/a	PRE							
10	Pioneer 38H62 P250						99	0	100	97	100	99	0
10	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE							
10	Roundup WeatherMax	4.5	L	22	fl oz/a	POST							
10	Ammonium Sulfate		DF	17	lb/100 gal	POST							
LSD (P=.05)							18.1	0.0	4.8	7.5	5.0	10.8	0.0
Standard Deviation							12.4	0.0	3.3	5.2	3.5	7.4	0.0
CV							12.78	0.0	3.33	5.38	3.53	7.94	0.0

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Weed Code							ANGR	CHEAL	AMBEL	ABUTH	ZEAMX	ZEAMX
Crop Code							control	control	control	control	root dmg.*	yield**
Rating Data Type							percent	percent	percent	percent	0-3	bu/ac
Rating Unit							7/6/2006	7/6/2006	7/6/2006	7/6/2006	8/2/2006	10/29/2006
Rating Date							30 DAPO	30 DAPO	30 DAPO	30 DAPO	AV 5/pl	HARVEST
Trt-Eval Interval												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	8	9	10	11	12	13
1	MON TXP151-DT P250						100	98	100	99	0.0595	220
1	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE						
1	Roundup WeatherMax	4.5	L	22	fl oz/a	POST						
1	Ammonium Sulfate		DF	17	lb/100 gal	POST						
2	MON 51-39 P250						100	100	100	98	0.1000	196
2	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE						
2	Roundup WeatherMax	4.5	L	22	fl oz/a	POST						
2	Ammonium Sulfate		DF	17	lb/100 gal	POST						
3	MON 50-20 P250						100	97	100	97	0.1738	163
3	Force (5oz/1000 row-ft)	3	G									
3	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE						
3	Roundup WeatherMax	4.5	L	22	fl oz/a	POST						
3	Ammonium Sulfate		DF	17	lb/100 gal	POST						
4	MON 50-20 P1250						98	99	100	94	0.2018	123
4	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE						
4	Roundup WeatherMax	4.5	L	22	fl oz/a	POST						
4	Ammonium Sulfate		DF	17	lb/100 gal	POST						
5	MON 51-45 P250						96	98	100	98	0.8338	176
5	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE						
5	Roundup WeatherMax	4.5	L	22	fl oz/a	POST						
5	Ammonium Sulfate		DF	17	lb/100 gal	POST						
6	Pioneer 38H62 P250						97	86	93	79	0.0588	157
6	Lumax	3.94	SE	2.5	qt/a	PRE						
7	Pioneer 38H64 P250						96	88	98	86	0.2675	130
7	Force (5oz/1000 row-ft)	3	G									
7	Lumax	3.94	SE	2.5	qt/a	PRE						
8	Pioneer 38H64 P1250						96	91	98	88	0.4300	121
8	Lumax	3.94	SE	2.5	qt/a	PRE						
9	MON 5145 P250						97	94	93	91	0.8338	185
9	Lumax	3.94	SE	2.5	qt/a	PRE						
10	Pioneer 38H62 P250						99	97	100	98	0.0473	135
10	Harness Xtra 5.6	5.6	L	1.5	qt/a	PRE						
10	Roundup WeatherMax	4.5	L	22	fl oz/a	POST						
10	Ammonium Sulfate		DF	17	lb/100 gal	POST						
LSD (P=.05)							4.5	12.1	4.9	10.6	0.37099	50.4
Standard Deviation							3.1	8.3	3.4	7.3	0.25568	34.8
CV							3.18	8.76	3.48	7.87	85.06	21.65