

MSU Weed Science Research Program

WEED CONTROL IN CORN WITH GLYPHOSATE TANK-MIXES, 2008

Trial ID: C1308
 Conducted: CAMPUS

Study Dir.:
 Investigator: Wesley Everman

Date Planted: 4/30/08 **Row Spacing:** 30 IN
Variety: DKC 46-60 **No. of Reps:** 4
Population: 30,000 S/A **% OM:** 2.7
Soil Type: Clay Loam **pH:** 6.4
Plot Size: 10 X 35 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Fall Chisel, Spring Field Cultivation 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 Grass	
2.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
3.	AMBEL	RAGWEED, COMMON	AMBROSIA ELATIOR L.
4.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
5.	DATST	JIMSONWEED	DATURA STRAMONIUM L.
Crop	Code	Common Name	
1.	ZEAMX	CORN, FIELD	

Application Description

	A	B	C	D
Application Timing:	PRE	2" WEEDS	4" WEEDS	8"/ LP
Date Treated:	4/30/08	6/2/08	6/11/08	6/19/08
Time Treated:	4:30 PM	9:30 AM	9:30 AM	10:55 AM
% Cloud Cover:	10	30	10	100
Air Temp., Unit:	56 F	74 F	74 F	70 F
% Relative Humidity:	30	46	68	60
Wind Speed/Unit/Dir:	5 mph SW	7 mph W	5 mph W	7 mph W
Soil Temp., Unit:	60 F	62 F	64 F	60 F
Soil/Leaf Surface M:	0 0	5 5	5 5	4 4
Soil Moist (1=w 5=d):	4	4	2	5

Crop Stage at Each Application

	A	B	C	D
Crop Name:	ZEAMX	ZEAMX	ZEAMX	ZEAMX
Height (In.):		4-7(6)	10-13(12)	12-20(17)
Stage (L):		V3-4(4)6L	V5-6(5)8L	V6-7(7)9L

Weed Stage at Each Application

	A	B	C	D
Weed 1 Name:	ANGR	ANGR	ANGR	ANGR
Height (In.):		.3-2.5(2)	.5-8(4)	
Stage (L):		1-4(4)	2-5(2)	
Weed 2 Name:	CHEAL	CHEAL	CHEAL	CHEAL
Height (In.):		.3-3(1.5)	.5-8(4)	.5-3(1)
Stage (L):		Cot-5(3)	2-13(8)	2-8(6)
Weed 3 Name:	AMBEL	AMBEL	AMBEL	AMBEL
Height (In.):		.5-2.5(2)	.5-7(4)	.5-3(2)
Stage (L):		2-6(6)	2-12(10)	2-4(4)
Weed 4 Name:	ABUTH	ABUTH	ABUTH	ABUTH
Height (In.):		.3-2(1.5)	.5-6(5)	.5-2(2)
Stage (L):		2-4(2)	1-7(5)	2-3(3)
Weed 5 Name:	DATST	DATST	DATST	DATST
Height (In.):			.5-6(4)	1-3(2)
Stage (L):			2-5(4)	2-4(4)

MSU Weed Science Research Program

WEED CONTROL IN CORN WITH GLYPHOSATE TANK-MIXES, 2008

Trial ID: C1308
 Conducted: CAMPUS

Study Dir.:
 Investigator: Wesley Everman

Weed Density (plants/sq. ft.)

	1	2	3
Date:	4/30/08	6/2/08	6/11/08
Weed Name:	ANGR	ANGR	ANGR
Density:		10	7
Date:		6/2/08	6/11/08
Weed Name:	CHEAL	CHEAL	CHEAL
Density:		6	7
Date:		6/2/08	6/11/08
Weed Name:	AMBEL	AMBEL	AMBEL
Density:		8	8
Date:		6/2/08	6/11/08
Weed Name:	ABUTH	ABUTH	ABUTH
Density:		<1	<1
Date:		6/2/08	6/11/08
Weed Name:	DATST	DATST	DATST
Density:			<1

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	20"	20"	100"	20	H2O	30
C	CUB	3.5	FF	8003	26"	20"	100"	20	H2O	30
D	CUB	3.5	FF	8003	30"	20"	100"	20	H2O	30

MSU Weed Science Research Program

WEED CONTROL IN CORN WITH GLYPHOSATE TANK-MIXES, 2008

Trial ID: C1308
 Conducted: CAMPUS

Study Dir.:
 Investigator: Wesley Everman

							anгр	cheal	ambel	abuth	anгр	cheal	
							ZEAMX						
							injury	control	control	control	control	control	control
							percent	percent	percent	percent	percent	percent	percent
							17 DAT	17 DAT	17 DAT	17 DAT	17 DAT	41 DA-D	41 DA-D
Trt	Treatment	Form	Form	Rate	Rate	Grow							
No.	Name	Conc	Type	Rate	Unit	Stg	1	2	3	4	5	6	7
1	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	100	97	78	85	100	74
1	Impact	2.8	SC	0.503	fl oz/a	2"WDS							
1	Herbimax		L	1	% v/v	2"WDS							
1	Ammonium Sulfate	100	DF	2	% w/w	2"WDS							
2	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	100	97	80	95	100	73
2	Impact	2.8	SC	0.503	fl oz/a	2"WDS							
2	Roundup PowerMAX	4.5	L	21.3	fl oz/a	2"WDS							
2	Ammonium Sulfate	100	DF	2	% w/w	2"WDS							
3	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	99	99	78	81	100	77
3	Impact	2.8	SC	0.73	fl oz/a	2"WDS							
3	Herbimax		L	1	% v/v	2"WDS							
3	Ammonium Sulfate	100	DF	2	% w/w	2"WDS							
4	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	100	98	77	95	100	82
4	Impact	2.8	SC	0.73	fl oz/a	2"WDS							
4	Roundup PowerMAX	4.5	L	21.3	fl oz/a	2"WDS							
4	Ammonium Sulfate	100	DF	2	% w/w	2"WDS							
5	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	56	78	80	81	53	75
5	Status	56	DF	2.71	oz/a	2"WDS							
5	Herbimax		L	1	% v/v	2"WDS							
5	Ammonium Sulfate	100	DF	2	% w/w	2"WDS							
6	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	99	91	86	95	99	70
6	Status	56	DF	2.71	oz/a	2"WDS							
6	Roundup PowerMAX	4.5	L	21.3	fl oz/a	2"WDS							
6	Ammonium Sulfate	100	DF	2	% w/w	2"WDS							
7	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	61	87	86	89	62	85
7	Status	56	DF	5.43	oz/a	2"WDS							
7	Herbimax		L	1	% v/v	2"WDS							
7	Ammonium Sulfate	100	DF	2	% w/w	2"WDS							
7	Impact	2.8	SC	0.73	fl oz/a	2"WDS							
8	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	100	97	84	98	100	75
8	Status	56	DF	5.43	oz/a	2"WDS							
8	Roundup PowerMAX	4.5	L	21.3	fl oz/a	2"WDS							
8	Ammonium Sulfate	100	DF	2	% w/w	2"WDS							
9	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	96	86	95	98	100	78
9	Roundup PowerMAX	4.5	L	21.3	fl oz/a	2"WDS							
9	Ammonium Sulfate	100	DF	2	% w/w	2"WDS							
9	Roundup PowerMAX	4.5	L	21.3	fl oz/a	8"WDS							
9	Ammonium Sulfate	100	DF	2	% w/w	8"WDS							
10	Dual II Magnum	7.64	L	1.26	pt/a	PRE	1	98	76	84	87	89	68
10	Impact	2.8	SC	0.503	fl oz/a	4"WDS							
10	Herbimax		L	1	% v/v	4"WDS							
10	Ammonium Sulfate	100	DF	2	% w/w	4"WDS							

MSU Weed Science Research Program

WEED CONTROL IN CORN WITH GLYPHOSATE TANK-MIXES, 2008

Trial ID: C1308
 Conducted: CAMPUS

Study Dir.:
 Investigator: Wesley Everman

Weed Code							anгр	cheal	ambel	abuth	anгр	cheal	
Crop Code							ZEAMX						
Rating Data Type							injury	control	control	control	control	control	
Rating Unit							percent	percent	percent	percent	percent	percent	
Rating Date											7/30/08	7/30/08	
Trt-Eval Interval							17 DAT	17 DAT	17 DAT	17 DAT	17 DAT	41 DA-D	41 DA-D
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	1	2	3	4	5	6	7
11	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	100	100	92	100	100	99
11	Impact	2.8	SC	0.503	fl oz/a	4"WDS							
11	Roundup PowerMAX	4.5	L	21.3	fl oz/a	4"WDS							
11	Ammonium Sulfate	100	DF	2	% w/w	4"WDS							
12	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	97	80	85	89	98	73
12	Impact	2.8	SC	0.73	fl oz/a	4"WDS							
12	Herbimax		L	1	% v/v	4"WDS							
12	Ammonium Sulfate	100	DF	2	% w/w	4"WDS							
13	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	100	100	94	100	99	95
13	Impact	2.8	SC	0.73	fl oz/a	4"WDS							
13	Roundup PowerMAX	4.5	L	21.3	fl oz/a	4"WDS							
13	Ammonium Sulfate	100	DF	2	% w/w	4"WDS							
14	Dual II Magnum	7.64	L	1.26	pt/a	PRE	1	81	72	78	76	65	100
14	Status	56	DF	2.71	oz/a	4"WDS							
14	Herbimax		L	1	% v/v	4"WDS							
14	Ammonium Sulfate	100	DF	2	% w/w	4"WDS							
15	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	100	100	98	100	99	100
15	Status	56	DF	2.71	oz/a	4"WDS							
15	Roundup PowerMAX	4.5	L	21.3	fl oz/a	4"WDS							
15	Ammonium Sulfate	100	DF	2	% w/w	4"WDS							
16	Dual II Magnum	7.64	L	1.26	pt/a	PRE	1	79	75	78	78	72	100
16	Status	56	DF	5.43	oz/a	4"WDS							
16	Herbimax		L	1	% v/v	4"WDS							
16	Ammonium Sulfate	100	DF	2	% w/w	4"WDS							
17	Dual II Magnum	7.64	L	1.26	pt/a	PRE	1	100	100	99	100	99	100
17	Status	56	DF	5.43	oz/a	4"WDS							
17	Roundup PowerMAX	4.5	L	21.3	fl oz/a	4"WDS							
17	Ammonium Sulfate	100	DF	2	% w/w	4"WDS							
18	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	98	99	98	100	100	100
18	Roundup PowerMAX	4.5	L	21.3	fl oz/a	4"WDS							
18	Ammonium Sulfate	100	DF	2	% w/w	4"WDS							
18	Roundup PowerMAX	4.5	L	21.3	fl oz/a	LP							
18	Ammonium Sulfate	100	DF	2	% w/w	LP							
19	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	100	0	0	0	95	0
19	Non-Treated												
LSD (P=.05)							1.4	6.6	5.5	6.9	8.7	6.8	6.4
Standard Deviation							1.0	4.7	3.9	4.9	6.2	4.8	4.5
CV							449.1	5.04	4.52	5.98	7.13	5.3	5.68

MSU Weed Science Research Program

WEED CONTROL IN CORN WITH GLYPHOSATE TANK-MIXES, 2008

Trial ID: C1308
 Conducted: CAMPUS

Study Dir.:
 Investigator: Wesley Everman

Weed Code						ambel	abuth		
Crop Code								ZEAMX	
Rating Data Type						control	control	yield	
Rating Unit						percent	percent	bu/ac	
Rating Date						7/30/08	7/30/08	10/19/08	
Trt-Eval Interval						41 DA-D	41 DA-D	HARVEST	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Stg	8	9	10
1	Dual II Magnum	7.64	L	1.26	pt/a	PRE	66	82	154
1	Impact	2.8	SC	0.503	fl oz/a	2"WDS			
1	Herbimax		L	1	% v/v	2"WDS			
1	Ammonium Sulfate	100	DF	2	% w/w	2"WDS			
2	Dual II Magnum	7.64	L	1.26	pt/a	PRE	67	96	146
2	Impact	2.8	SC	0.503	fl oz/a	2"WDS			
2	Roundup PowerMAX	4.5	L	21.3	fl oz/a	2"WDS			
2	Ammonium Sulfate	100	DF	2	% w/w	2"WDS			
3	Dual II Magnum	7.64	L	1.26	pt/a	PRE	67	90	168
3	Impact	2.8	SC	0.73	fl oz/a	2"WDS			
3	Herbimax		L	1	% v/v	2"WDS			
3	Ammonium Sulfate	100	DF	2	% w/w	2"WDS			
4	Dual II Magnum	7.64	L	1.26	pt/a	PRE	67	93	163
4	Impact	2.8	SC	0.73	fl oz/a	2"WDS			
4	Roundup PowerMAX	4.5	L	21.3	fl oz/a	2"WDS			
4	Ammonium Sulfate	100	DF	2	% w/w	2"WDS			
5	Dual II Magnum	7.64	L	1.26	pt/a	PRE	67	95	167
5	Status	56	DF	2.71	oz/a	2"WDS			
5	Herbimax		L	1	% v/v	2"WDS			
5	Ammonium Sulfate	100	DF	2	% w/w	2"WDS			
6	Dual II Magnum	7.64	L	1.26	pt/a	PRE	69	99	188
6	Status	56	DF	2.71	oz/a	2"WDS			
6	Roundup PowerMAX	4.5	L	21.3	fl oz/a	2"WDS			
6	Ammonium Sulfate	100	DF	2	% w/w	2"WDS			
7	Dual II Magnum	7.64	L	1.26	pt/a	PRE	71	98	167
7	Status	56	DF	5.43	oz/a	2"WDS			
7	Herbimax		L	1	% v/v	2"WDS			
7	Ammonium Sulfate	100	DF	2	% w/w	2"WDS			
7	Impact	2.8	SC	0.73	fl oz/a	2"WDS			
8	Dual II Magnum	7.64	L	1.26	pt/a	PRE	72	98	197
8	Status	56	DF	5.43	oz/a	2"WDS			
8	Roundup PowerMAX	4.5	L	21.3	fl oz/a	2"WDS			
8	Ammonium Sulfate	100	DF	2	% w/w	2"WDS			
9	Dual II Magnum	7.64	L	1.26	pt/a	PRE	95	100	177
9	Roundup PowerMAX	4.5	L	21.3	fl oz/a	2"WDS			
9	Ammonium Sulfate	100	DF	2	% w/w	2"WDS			
9	Roundup PowerMAX	4.5	L	21.3	fl oz/a	8"WDS			
9	Ammonium Sulfate	100	DF	2	% w/w	8"WDS			
10	Dual II Magnum	7.64	L	1.26	pt/a	PRE	91	100	167
10	Impact	2.8	SC	0.503	fl oz/a	4"WDS			
10	Herbimax		L	1	% v/v	4"WDS			
10	Ammonium Sulfate	100	DF	2	% w/w	4"WDS			

MSU Weed Science Research Program

WEED CONTROL IN CORN WITH GLYPHOSATE TANK-MIXES, 2008

Trial ID: C1308
 Conducted: CAMPUS

Study Dir.:
 Investigator: Wesley Everman

Weed Code		ambel	abuth	
Crop Code				ZEAMX
Rating Data Type		control	control	yield
Rating Unit		percent	percent	bu/ac
Rating Date		7/30/08	7/30/08	10/19/08
Trt-Eval Interval		41 DA-D	41 DA-D	HARVEST

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Grow Unit	Stg	8	9	10
11	Dual II Magnum	7.64	L	1.26	pt/a	PRE	87	100	157
11	Impact	2.8	SC	0.503	fl oz/a	4"WDS			
11	Roundup PowerMAX	4.5	L	21.3	fl oz/a	4"WDS			
11	Ammonium Sulfate	100	DF	2	% w/w	4"WDS			
12	Dual II Magnum	7.64	L	1.26	pt/a	PRE	91	100	170
12	Impact	2.8	SC	0.73	fl oz/a	4"WDS			
12	Herbimax		L	1	% v/v	4"WDS			
12	Ammonium Sulfate	100	DF	2	% w/w	4"WDS			
13	Dual II Magnum	7.64	L	1.26	pt/a	PRE	86	100	173
13	Impact	2.8	SC	0.73	fl oz/a	4"WDS			
13	Roundup PowerMAX	4.5	L	21.3	fl oz/a	4"WDS			
13	Ammonium Sulfate	100	DF	2	% w/w	4"WDS			
14	Dual II Magnum	7.64	L	1.26	pt/a	PRE	99	100	203
14	Status	56	DF	2.71	oz/a	4"WDS			
14	Herbimax		L	1	% v/v	4"WDS			
14	Ammonium Sulfate	100	DF	2	% w/w	4"WDS			
15	Dual II Magnum	7.64	L	1.26	pt/a	PRE	100	100	180
15	Status	56	DF	2.71	oz/a	4"WDS			
15	Roundup PowerMAX	4.5	L	21.3	fl oz/a	4"WDS			
15	Ammonium Sulfate	100	DF	2	% w/w	4"WDS			
16	Dual II Magnum	7.64	L	1.26	pt/a	PRE	100	100	181
16	Status	56	DF	5.43	oz/a	4"WDS			
16	Herbimax		L	1	% v/v	4"WDS			
16	Ammonium Sulfate	100	DF	2	% w/w	4"WDS			
17	Dual II Magnum	7.64	L	1.26	pt/a	PRE	100	100	179
17	Status	56	DF	5.43	oz/a	4"WDS			
17	Roundup PowerMAX	4.5	L	21.3	fl oz/a	4"WDS			
17	Ammonium Sulfate	100	DF	2	% w/w	4"WDS			
18	Dual II Magnum	7.64	L	1.26	pt/a	PRE	99	100	157
18	Roundup PowerMAX	4.5	L	21.3	fl oz/a	4"WDS			
18	Ammonium Sulfate	100	DF	2	% w/w	4"WDS			
18	Roundup PowerMAX	4.5	L	21.3	fl oz/a	LP			
18	Ammonium Sulfate	100	DF	2	% w/w	LP			
19	Dual II Magnum	7.64	L	1.26	pt/a	PRE	0	0	48
19	Non-Treated								

LSD (P=.05)	6.6	7.9	30.3
Standard Deviation	4.7	5.6	21.4
CV	5.96	6.07	12.94