

MSU Weed Science Research Program

GRASS AND BROADLEAF WEED CONTROL WITH HPPD INHIBITORS IN CORN, 2008

Trial ID: C0208  
Conducted: CAMPUS

Study Dir.:  
Investigator: Wesley Everman

Date Planted: 5/5/08                      Row Spacing: 30 IN  
Variety: Pioneer 37Y14                      No. of Reps: 3  
Population: 30 K                              % OM: 3.4  
Soil Type: Clay Loam                        pH: 6.6  
Plot Size: 10 X 35 FT                        Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall Chisel, Spring Field Cultivated X2  
Fertilizer: 300 lbs/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.	AMARE	PIGWEEED, REDROOT	AMARANTHUS RETROFLEXUS L.
4.	AMBEL	RAGWEEED, COMMON	AMBROSIA ELATIOR L.
5.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
Crop	Code	Common Name	
1.	ZEAMX	CORN, FIELD	

Application Description

A  
Application Timing: POST  
Date Treated: 6/7/08  
Time Treated: 11:00 AM  
% Cloud Cover: 100  
Air Temp., Unit: 91 F  
% Relative Humidity: 55  
Wind Speed/Unit/Dir: 6 mph S  
Soil Temp., Unit: 71 F  
4  
Soil Moist (1=w 5=d): 1

Crop Stage at Each Application

A  
Crop Name: ZEAMX  
Height (In.): 4-8(5)  
Stage (L): V3-4(4)6L

Weed Stage at Each Application

A  
Weed 1 Name: ANGR  
Height (In.): .5-5(4)  
Stage (L): 3-8(6)  
Weed 2 Name: CHEAL  
Height (In.): .5-5(4)  
Stage (L): 4-12(8)  
Weed 3 Name: AMARE  
Height (In.): .5-3(2)  
Stage (L): .5-10(8)  
Weed 4 Name: AMBEL  
Height (In.): .5-6(4)  
Stage (L): 4-8(6)  
Weed 5 Name: ABUTH  
Height (In.): .5-4(2)  
Stage (L): 2-4(3)

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Weed Density (plants/sq. ft.)

1  
Date: 6/7/08  
Weed Name: ANGR  
Density: 21  
Date: 6/7/08  
Weed Name: CHEAL  
Density: 19  
Date: 6/7/08  
Weed Name: AMARE  
Density: 2  
Date: 6/7/08  
Weed Name: AMBEL  
Density: 8  
Date: 6/7/08  
Weed Name: ABUTH  
Density: 0

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom	GPA	Carrier	PSI
	Type	MPH	Type	Size	Height	Spacing	Width			
A	BackPack	3.5	FF	8003	23"	20"	100"	20	H20	30

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							anгр	cheal	amare	ambel	abuth			
							ZEAMX						ZEAMX	
							injury	control	control	control	control	control	injury	
							percent	percent	percent	percent	percent	percent	percent	percent
							6/13/08	6/13/08	6/13/08	6/13/08	6/13/08	6/13/08	6/20/08	
							7 DAPO	7 DAPO	7 DAPO	7 DAPO	7 DAPO	7 DAPO	14 DAPO	
Trt	Treatment	Form	Form	Rate	Grow	Stg	1	2	3	4	5	6	7	
No.	Name	Conc	Type	Rate	Unit									
1	Non-Treated						0	0	0	0	0	0	0	
2	Impact	2.8	SC	0.73	fl oz/a	POST	0	84	93	98	89	93	0	
2	Atrazine	4	L	0.5	qt/a	POST								
2	MSO		L	1	% v/v	POST								
2	UAN 28%		L	2.5	% v/v	POST								
3	Callisto	4	SC	3	fl oz/a	POST	32	70	92	100	90	93	13	
3	Atrazine	4	L	0.5	qt/a	POST								
3	MSO		L	1	% v/v	POST								
3	UAN 28%		L	2.5	% v/v	POST								
4	Laudis	3.5	SC	3	fl oz/a	POST	0	84	95	100	88	95	0	
4	Atrazine	4	L	0.5	qt/a	POST								
4	Herbimax		L	1	% v/v	POST								
4	UAN 28%		L	2.5	% v/v	POST								
5	Impact	2.8	SC	0.503	fl oz/a	POST	0	90	93	100	83	88	0	
5	Atrazine	4	L	0.5	qt/a	POST								
5	MSO		L	1	% v/v	POST								
5	UAN 28%		L	2.5	% v/v	POST								
6	Callisto	4	SC	2.02	fl oz/a	POST	8	68	94	100	87	97	0	
6	Atrazine	4	L	0.5	qt/a	POST								
6	Herbimax		L	1	% v/v	POST								
6	UAN 28%		L	2.5	% v/v	POST								
7	Laudis	3.5	SC	2.01	fl oz/a	POST	3	96	97	100	97	88	0	
7	Atrazine	4	L	0.5	qt/a	POST								
7	MSO		L	1	% v/v	POST								
7	UAN 28%		L	2.5	% v/v	POST								
8	Impact	2.8	SC	0.73	fl oz/a	POST	3	76	82	100	62	75	0	
8	MSO		L	1	% v/v	POST								
8	UAN 28%		L	2.5	% v/v	POST								
LSD (P=.05)							5.0	10.0	8.4	1.8	8.2	9.9	1.8	
Standard Deviation							2.9	5.7	4.8	1.0	4.7	5.7	1.0	
CV							49.04	8.06	5.92	1.17	6.25	7.21	61.24	

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Weed Code							anгр	cheal	amare	ambel	abuth	anгр		
Crop Code												ZEAMX		
Rating Data Type							control	control	control	control	control	injury	control	
Rating Unit							percent	percent	percent	percent	percent	percent	percent	percent
Rating Date							6/20/08	6/20/08	6/20/08	6/20/08	6/20/08	7/3/08	7/3/08	
Trt-Eval Interval							14 DAPO	14 DAPO	14 DAPO	14 DAPO	14 DAPO	26 DAPO	26 DAPO	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Stg	8	9	10	11	12	13	14	
1	Non-Treated						0	0	0	0	0	0	0	
2	Impact	2.8	SC	0.73	fl oz/a	POST	96	100	100	98	100	0	91	
2	Atrazine	4	L	0.5	qt/a	POST								
2	MSO		L	1	% v/v	POST								
2	UAN 28%		L	2.5	% v/v	POST								
3	Callisto	4	SC	3	fl oz/a	POST	78	100	100	98	100	1	68	
3	Atrazine	4	L	0.5	qt/a	POST								
3	MSO		L	1	% v/v	POST								
3	UAN 28%		L	2.5	% v/v	POST								
4	Laudis	3.5	SC	3	fl oz/a	POST	97	100	100	99	99	0	89	
4	Atrazine	4	L	0.5	qt/a	POST								
4	Herbimax		L	1	% v/v	POST								
4	UAN 28%		L	2.5	% v/v	POST								
5	Impact	2.8	SC	0.503	fl oz/a	POST	96	100	97	92	96	0	85	
5	Atrazine	4	L	0.5	qt/a	POST								
5	MSO		L	1	% v/v	POST								
5	UAN 28%		L	2.5	% v/v	POST								
6	Callisto	4	SC	2.02	fl oz/a	POST	65	100	100	100	100	0	53	
6	Atrazine	4	L	0.5	qt/a	POST								
6	Herbimax		L	1	% v/v	POST								
6	UAN 28%		L	2.5	% v/v	POST								
7	Laudis	3.5	SC	2.01	fl oz/a	POST	98	100	100	99	100	0	90	
7	Atrazine	4	L	0.5	qt/a	POST								
7	MSO		L	1	% v/v	POST								
7	UAN 28%		L	2.5	% v/v	POST								
8	Impact	2.8	SC	0.73	fl oz/a	POST	92	100	98	89	87	0	81	
8	MSO		L	1	% v/v	POST								
8	UAN 28%		L	2.5	% v/v	POST								
LSD (P=.05)							6.1	0.0	4.1	4.0	3.6	1.1	7.1	
Standard Deviation							3.5	0.0	2.3	2.3	2.1	0.6	4.0	
CV							4.46	0.0	2.7	2.73	2.42	489.9	5.79	

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Weed Code							cheal	amare	ambel	abuth	angr	cheal	amare
Crop Code													
Rating Data Type							control	control	control	control	control	control	control
Rating Unit							percent	percent	percent	percent	percent	percent	percent
Rating Date							7/3/08	7/3/08	7/3/08	7/3/08	8/1/08	8/1/08	8/1/08
Trt-Eval Interval							26 DAPO	26 DAPO	26 DAPO	26 DAPO	55 DAPO	55 DAPO	55 DAPO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	15	16	17	18	19	20	21
1	Non-Treated						0	0	0	0	0	0	0
2	Impact	2.8	SC	0.73	fl oz/a	POST	95	100	87	97	76	98	98
2	Atrazine	4	L	0.5	qt/a	POST							
2	MSO		L	1	% v/v	POST							
2	UAN 28%		L	2.5	% v/v	POST							
3	Callisto	4	SC	3	fl oz/a	POST	100	100	93	100	37	100	99
3	Atrazine	4	L	0.5	qt/a	POST							
3	MSO		L	1	% v/v	POST							
3	UAN 28%		L	2.5	% v/v	POST							
4	Laudis	3.5	SC	3	fl oz/a	POST	100	97	92	96	75	98	98
4	Atrazine	4	L	0.5	qt/a	POST							
4	Herbimax		L	1	% v/v	POST							
4	UAN 28%		L	2.5	% v/v	POST							
5	Impact	2.8	SC	0.503	fl oz/a	POST	94	93	82	93	77	98	93
5	Atrazine	4	L	0.5	qt/a	POST							
5	MSO		L	1	% v/v	POST							
5	UAN 28%		L	2.5	% v/v	POST							
6	Callisto	4	SC	2.02	fl oz/a	POST	100	100	92	100	23	100	100
6	Atrazine	4	L	0.5	qt/a	POST							
6	Herbimax		L	1	% v/v	POST							
6	UAN 28%		L	2.5	% v/v	POST							
7	Laudis	3.5	SC	2.01	fl oz/a	POST	100	100	93	100	78	100	100
7	Atrazine	4	L	0.5	qt/a	POST							
7	MSO		L	1	% v/v	POST							
7	UAN 28%		L	2.5	% v/v	POST							
8	Impact	2.8	SC	0.73	fl oz/a	POST	80	88	75	80	73	95	73
8	MSO		L	1	% v/v	POST							
8	UAN 28%		L	2.5	% v/v	POST							
LSD (P=.05)							5.6	9.0	8.4	7.1	11.5	4.5	5.9
Standard Deviation							3.2	5.2	4.8	4.1	6.5	2.6	3.4
CV							3.79	6.09	6.26	4.89	11.94	2.96	4.06

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Weed Code		ambel	abuth	
Crop Code				ZEAMX
Rating Data Type		control	control	yield
Rating Unit		percent	percent	bu/ac
Rating Date		8/1/08	8/1/08	10/17/08
Trt-Eval Interval		55 DAPO	55 DAPO	HARVEST

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	ambel	abuth	ZEAMX
1	Non-Treated						0	0	30
2	Impact	2.8	SC	0.73	fl oz/a	POST	81	100	211
2	Atrazine	4	L	0.5	qt/a	POST			
2	MSO		L	1	% v/v	POST			
2	UAN 28%		L	2.5	% v/v	POST			
3	Callisto	4	SC	3	fl oz/a	POST	92	100	186
3	Atrazine	4	L	0.5	qt/a	POST			
3	MSO		L	1	% v/v	POST			
3	UAN 28%		L	2.5	% v/v	POST			
4	Laudis	3.5	SC	3	fl oz/a	POST	93	100	210
4	Atrazine	4	L	0.5	qt/a	POST			
4	Herbimax		L	1	% v/v	POST			
4	UAN 28%		L	2.5	% v/v	POST			
5	Impact	2.8	SC	0.503	fl oz/a	POST	73	96	210
5	Atrazine	4	L	0.5	qt/a	POST			
5	MSO		L	1	% v/v	POST			
5	UAN 28%		L	2.5	% v/v	POST			
6	Callisto	4	SC	2.02	fl oz/a	POST	100	100	169
6	Atrazine	4	L	0.5	qt/a	POST			
6	Herbimax		L	1	% v/v	POST			
6	UAN 28%		L	2.5	% v/v	POST			
7	Laudis	3.5	SC	2.01	fl oz/a	POST	89	100	207
7	Atrazine	4	L	0.5	qt/a	POST			
7	MSO		L	1	% v/v	POST			
7	UAN 28%		L	2.5	% v/v	POST			
8	Impact	2.8	SC	0.73	fl oz/a	POST	68	72	203
8	MSO		L	1	% v/v	POST			
8	UAN 28%		L	2.5	% v/v	POST			

LSD (P=.05)	13.2	8.8	25.0
Standard Deviation	7.5	5.0	14.3
CV	10.09	6.04	8.02