

MSU Weed Science Research Program

Comparison of preemergence herbicide programs in corn

Trial ID: C02-13 Study Dir.: Sprague, Powell
Conducted: Campus C-27 Investigator: Christy Sprague

Date Planted: May/06/2013 Row Spacing: 30 IN
Variety: P9807 No. of Reps: 4
Population: 32,000 seeds/A % OM: 2.8
Soil Type: Sandy clay loam pH: 6.5
Plot Size: 10 X 40 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow, spring soil finished x2
Fertilizer: 300 lb urea broadcast, 150 lb 19-19-19 starter

Crop Code Common Name
1. ZEAMX CORN, FIELD

Application Description

Application Timing: A PRE
Date Treated: May/06/2013
Time Treated: 8:45 PM
% Cloud Cover: 20
Air Temp., Unit: 72 F
% Relative Humidity: 33
Wind Speed/Unit/Dir: 0 mph
Soil Temp., Unit: 66 F
Soil/Leaf Surface M: 3 -
Soil Moist (1=w 5=d): 3

Crop Stage at Each Application

Crop Name: A ZEAMX
Height (In.): -
Stage (L): -

Weed Density (plants/sq. ft.)

1 2 3 4 5
Date: Jul/11/2013 Jul/11/2013 Jul/11/2013 Jul/11/2013 Jul/11/2013
Weed Name: ANGR CHEAL AMAPO AMBEL ABUTH
Density: 8 13 1 3 <1

Application Equipment

Appl Sprayer Speed Nozzle Nozzle Nozzle Nozzle Boom
Type MPH Type Size Height Spacing Width GPA Carrier PSI
A Cub 3.8 AIXR 11003 22" 20" 100" 19 water 30

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Trial ID: C02-13 Study Dir.: Sprague, Powell  
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Weed Code	ANGR	CHEAL	AMAPO	AMBEL
Crop Code	ZEAMX			
Rating Data Type	injury	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	Jun/05/2013	Jun/05/2013	Jun/05/2013	Jun/05/2013
Trt-Eval Interval	30 DA-A	30 DA-A	30 DA-A	30 DA-A
# Subsamples, Dec.	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code					
1	Bicep II Magnum	5.5	L	2.1	qt/a	PRE	A	0	98	99	99	99
2	Harness Xtra	5.6	L	2	qt/a	PRE	A	0	99	99	99	99
3	Verdict	5.57	L	15	fl oz/a	PRE	A	0	90	96	99	99
4	Verdict AAtrex	5.57 4	L L	15 1.5	fl oz/a qt/a	PRE	A	0	98	99	99	99
5	Zidua Sharpen	85 2.85	WG L	2.5 3	oz/a fl oz/a	PRE	A	0	85	96	99	99
6	Zidua Sharpen AAtrex	85 2.85 4	WG L L	2.5 3 1.5	oz/a fl oz/a qt/a	PRE	A	0	98	99	99	99
7	Zidua Verdict	85 5.57	WG L	2.5 10	oz/a fl oz/a	PRE	A	0	92	99	99	98
8	Untreated							0	0	0	0	0
9	Balance Flexx	2	L	6	fl oz/a	PRE	A	0	97	98	99	99
10	Balance Flexx Bicep II Magnum	2 5.5	L L	6 2	fl oz/a qt/a	PRE	A	0	99	99	99	99
11	Corvus AAtrex	2.63 4	L L	5.6 1.5	fl oz/a qt/a	PRE	A	0	99	99	99	99
12	Lumax EZ	3.67	L	2.7	qt/a	PRE	A	0	92	98	99	99
13	Lexar EZ	3.7	L	3	qt/a	PRE	A	0	98	99	99	99
14	Instigate (6 oz/A) Rimsulfuron (Premix) Mesotrione dry (Premix) AAtrex	25 50 4	WG WG L	1 5 1.5	oz/a oz/a qt/a	PRE	A	0	91	99	99	99
15	TripleFLEX AAtrex	4.16 4	L L	2 1.5	pt/a qt/a	PRE	A	0	97	99	99	99
LSD (P=.05)								0.0	8.8	1.6	0.0	0.6
CV								0.0	6.9	1.22	0.0	0.45

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code	ABUTH		ANGR	CHEAL	AMAPO
Crop Code		ZEAMX			
Rating Data Type	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/05/2013	Jul/05/2013	Jul/05/2013	Jul/05/2013	Jul/05/2013
Trt-Eval Interval	30 DA-A	60 DA-A	60 DA-A	60 DA-A	60 DA-A
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	ABUTH	ZEAMX	ANGR	CHEAL	AMAPO
1	Bicep II Magnum	5.5	L	2.1	qt/a	PRE	A	80	0	95	97	99
2	Harness Xtra	5.6	L	2	qt/a	PRE	A	62	0	98	99	99
3	Verdict	5.57	L	15	fl oz/a	PRE	A	97	0	75	85	99
4	Verdict	5.57	L	15	fl oz/a	PRE	A	99	0	95	99	99
	AAtrex	4	L	1.5	qt/a	PRE	A					
5	Zidua	85	WG	2.5	oz/a	PRE	A	99	0	84	90	99
	Sharpen	2.85	L	3	fl oz/a	PRE	A					
6	Zidua	85	WG	2.5	oz/a	PRE	A	99	0	96	99	99
	Sharpen	2.85	L	3	fl oz/a	PRE	A					
	AAtrex	4	L	1.5	qt/a	PRE	A					
7	Zidua	85	WG	2.5	oz/a	PRE	A	99	0	93	99	99
	Verdict	5.57	L	10	fl oz/a	PRE	A					
8	Untreated							0	0	0	0	0
9	Balance Flexx	2	L	6	fl oz/a	PRE	A	99	0	85	98	95
10	Balance Flexx	2	L	6	fl oz/a	PRE	A	99	0	99	99	99
	Bicep II Magnum	5.5	L	2	qt/a	PRE	A					
11	Corvus	2.63	L	5.6	fl oz/a	PRE	A	99	0	98	99	99
	AAtrex	4	L	1.5	qt/a	PRE	A					
12	Lumax EZ	3.67	L	2.7	qt/a	PRE	A	99	0	89	98	99
13	Lexar EZ	3.7	L	3	qt/a	PRE	A	99	0	96	99	99
14	Instigate (6 oz/A)							99	0	91	99	99
	Rimsulfuron (Premix)	25	WG	1	oz/a	PRE	A					
	Mesotrione dry (Premix)	50	WG	5	oz/a	PRE	A					
	AAtrex	4	L	1.5	qt/a	PRE	A					
15	TripleFLEX	4.16	L	2	pt/a	PRE	A	93	0	91	99	99
	AAtrex	4	L	1.5	qt/a	PRE	A					
LSD (P=.05)								5.2	0.0	8.5	3.2	2.5
CV								4.1	0.0	6.96	2.48	1.89

Means followed by same letter do not significantly differ (P=.05, LSD)

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Weed Code	AMBEL	ABUTH		
Crop Code			ZEAMX	ZEAMX
Rating Data Type	control	control	moisture	yield
Rating Unit	percent	percent	percent	bu/acre
Rating Date	Jul/05/2013	Jul/05/2013	Nov/23/2013	Nov/23/2013
Trt-Eval Interval	60 DA-A	60 DA-A	201 DA-A	at 15% M
# Subsamples, Dec.	0	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	AMBEL	ABUTH	ZEAMX moisture	ZEAMX yield
1	Bicep II Magnum	5.5	L	2.1	qt/a	PRE	A	97	81	17.2	228.5
2	Harness Xtra	5.6	L	2	qt/a	PRE	A	97	75	17.4	227.3
3	Verdict	5.57	L	15	fl oz/a	PRE	A	80	97	17.3	223.4
4	Verdict	5.57	L	15	fl oz/a	PRE	A	97	99	17.2	223.8
	AAtrex	4	L	1.5	qt/a	PRE	A				
5	Zidua	85	WG	2.5	oz/a	PRE	A	93	99	17.3	223.9
	Sharpen	2.85	L	3	fl oz/a	PRE	A				
6	Zidua	85	WG	2.5	oz/a	PRE	A	99	99	17.2	221.1
	Sharpen	2.85	L	3	fl oz/a	PRE	A				
	AAtrex	4	L	1.5	qt/a	PRE	A				
7	Zidua	85	WG	2.5	oz/a	PRE	A	98	99	17.2	206.5
	Verdict	5.57	L	10	fl oz/a	PRE	A				
8	Untreated							0	0	17.6	118.0
9	Balance Flexx	2	L	6	fl oz/a	PRE	A	99	99	17.1	213.1
10	Balance Flexx	2	L	6	fl oz/a	PRE	A	99	99	17.2	207.3
	Bicep II Magnum	5.5	L	2	qt/a	PRE	A				
11	Corvus	2.63	L	5.6	fl oz/a	PRE	A	99	99	17.4	218.7
	AAtrex	4	L	1.5	qt/a	PRE	A				
12	Lumax EZ	3.67	L	2.7	qt/a	PRE	A	97	99	17.4	218.7
13	Lexar EZ	3.7	L	3	qt/a	PRE	A	99	99	17.4	218.2
14	Instigate (6 oz/A)							99	99	17.2	212.2
	Rimsulfuron (Premix)	25	WG	1	oz/a	PRE	A				
	Mesotrione dry (Premix)	50	WG	5	oz/a	PRE	A				
	AAtrex	4	L	1.5	qt/a	PRE	A				
15	TripleFLEX	4.16	L	2	pt/a	PRE	A	91	98	17.5	222.8
	AAtrex	4	L	1.5	qt/a	PRE	A				
LSD (P=.05)								5.5	4.1	0.58	26.39
CV								4.32	3.21	2.36	8.7

Means followed by same letter do not significantly differ (P=.05, LSD)