

MSU Weed Science Research Program

Comparison of preemergence herbicide programs in corn

Trial ID: C01-12 Study Dir.: Sprague, Powell
Conducted: T-17 Campus Investigator: Christy Sprague

Date Planted: May/21/2012 Row Spacing: 30 IN
Variety: Pioneer 9855HR No. of Reps: 4
Population: 31,000 seeds/acre % OM: 3.7
Soil Type: Loam pH: 6.0
Plot Size: 10 X 40 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Spring chisel plow, spring soil finish
Fertilizer: 300 lb/acre urea broadcast, 125 lb/acre 19-19-19 with planter

Crop Code Common Name
1. ZEAMX CORN

Application Description

Application Timing: A PRE
Date Treated: May/22/2012
Time Treated: 11:15 AM
% Cloud Cover: 100
Air Temp., Unit: 62 F
% Relative Humidity: 54
Wind Speed/Unit/Dir: 6 mph N
Soil Temp., Unit: 60 F
Soil/Leaf Surface M: 4 -
Soil Moist (1=w 5=d): 3

Crop Stage at Each Application

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

Weed Stage at Each Application

Height (In.): A -
Stage (L): -

Weed Density (plants/sq. ft.)

1
Date: Jul/09/2012
Weed Name: ANGR
Density: 6
Date: Jul/09/2012
Weed Name: CHEAL
Density: 14
Date: Jul/09/2012
Weed Name: AMAPO
Density: 2
Date: Jul/09/2012
Weed Name: AMBEL
Density: 8
Date: Jul/09/2010
Weed Name: ABUTH
Density: 2

Application Equipment

Appl Sprayer Speed 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 28

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Weed Code		ANGR	CHEAL	AMAPO	AMBEL
Crop Code	ZEAMX				
Rating Data Type	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/20/2012	Jun/20/2012	Jun/20/2012	Jun/20/2012	Jun/20/2012
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A	29 DA-A	29 DA-A
ARM Action Codes					
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	Bicep II Magnum	5.5	L	2.1	qt/a	PRE	A	0	88	65	75	63
2	Harness Xtra	5.6	L	2	qt/a	PRE	A	0	97	97	99	88
3	Verdict	5.57	L	15	fl oz/a	PRE	A	0	90	84	96	87
4	Verdict	5.57	L	15	fl oz/a	PRE	A	0	95	98	99	95
	AAtrex	4	L	1.5	qt/a	PRE	A					
5	Zidua	85	WG	2.5	oz/a	PRE	A	0	88	94	99	94
	Sharpen	2.85	L	3	fl oz/a	PRE	A					
	AAtrex	4	L	1.5	qt/a	PRE	A					
6	Untreated							0	0	0	0	0
7	Zemax	3.67	L	2	qt/a	PRE	A	0	88	95	95	95
8	Lumax	3.95	SL	2.5	qt/a	PRE	A	0	86	98	98	94
9	Lexar EZ	3.7	L	3	qt/a	PRE	A	0	90	99	98	97
10	Corvus	2.63	L	5.6	fl oz/a	PRE	A	0	91	93	96	94
11	Corvus	2.63	L	5.6	fl oz/a	PRE	A	0	93	99	99	98
	AAtrex	4	L	1.5	qt/a	PRE	A					
12	Corvus	2.63	L	5.6	fl oz/a	PRE	A	0	94	99	99	99
	Clarity	4	L	1	pt/a	PRE	A					
13	Surpass	6.4	L	2	pt/a	PRE	A	0	90	91	98	96
	Hornet WDG	68.5	WG	3	oz/a	PRE	A					
LSD (P=.05)								0.0	8.4	4.8	6.1	4.9
CV								0.0	7.03	3.9	4.84	4.07

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

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Weed Code			ABUTH		ANGR	CHEAL	AMAPO					
Crop Code			control	ZEAMX	control	control	control					
Rating Data Type			percent	injury	percent	percent	percent					
Rating Unit			percent	percent	percent	percent	percent					
Rating Date			Jun/20/2012	Jul/20/2012	Jul/20/2012	Jul/20/2012	Jul/20/2012					
Trt-Eval Interval			29 DA-A	59 DA-A	59 DA-A	59 DA-A	59 DA-A					
ARM Action Codes												
# Subsamples, Dec.			0	0	0	0	0					
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code					
1	Bicep II Magnum	5.5	L	2.1	qt/a	PRE	A	64	0	60	53	92
2	Harness Xtra	5.6	L	2	qt/a	PRE	A	65	0	88	92	99
3	Verdict	5.57	L	15	fl oz/a	PRE	A	84	0	79	78	97
4	Verdict	5.57	L	15	fl oz/a	PRE	A	88	0	80	96	99
	AAtrex	4	L	1.5	qt/a	PRE	A					
5	Zidua	85	WG	2.5	oz/a	PRE	A	89	0	73	97	99
	Sharpen	2.85	L	3	fl oz/a	PRE	A					
	AAtrex	4	L	1.5	qt/a	PRE	A					
6	Untreated							0	0	0	0	0
7	Zemax	3.67	L	2	qt/a	PRE	A	98	0	77	96	99
8	Lumax	3.95	SL	2.5	qt/a	PRE	A	99	0	63	98	99
9	Lexar EZ	3.7	L	3	qt/a	PRE	A	99	0	73	99	99
10	Corvus	2.63	L	5.6	fl oz/a	PRE	A	91	0	78	95	98
11	Corvus	2.63	L	5.6	fl oz/a	PRE	A	92	0	73	99	99
	AAtrex	4	L	1.5	qt/a	PRE	A					
12	Corvus	2.63	L	5.6	fl oz/a	PRE	A	98	0	80	99	99
	Clarity	4	L	1	pt/a	PRE	A					
13	Surpass	6.4	L	2	pt/a	PRE	A	68	0	71	80	99
	Hornet WDG	68.5	WG	3	oz/a	PRE	A					
LSD (P=.05)								9.9	0.0	23.1	5.8	2.2
CV								8.7	0.0	23.55	4.87	1.73

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

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Weed Code		AMBEL	ABUTH									
Crop Code												
Rating Data Type		control	control			ZEAMX	ZEAMX	ZEAMX				
Rating Unit		percent	percent			moisture	test weight	yield				
Rating Date		Jul/20/2012	Jul/20/2012			percent	lb/bu	bu/acre				
Trt-Eval Interval		59 DA-A	59 DA-A			Nov/09/2012	Nov/09/2012	Nov/09/2012				
ARM Action Codes								at 15% M				
# Subsamples, Dec.		0	0			1	0	TY1				0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code					
1	Bicep II Magnum	5.5	L	2.1	qt/a	PRE	A	50	75	17.8	59	162
2	Harness Xtra	5.6	L	2	qt/a	PRE	A	70	71	18.8	59	198
3	Verdict	5.57	L	15	fl oz/a	PRE	A	93	93	18.9	60	192
4	Verdict	5.57	L	15	fl oz/a	PRE	A	94	90	19.1	59	202
	AAtrex	4	L	1.5	qt/a	PRE	A					
5	Zidua	85	WG	2.5	oz/a	PRE	A	92	96	18.7	60	204
	Sharpen	2.85	L	3	fl oz/a	PRE	A					
	AAtrex	4	L	1.5	qt/a	PRE	A					
6	Untreated							0	0	18.5	60	117
7	Zemax	3.67	L	2	qt/a	PRE	A	95	99	18.6	59	209
8	Lumax	3.95	SL	2.5	qt/a	PRE	A	94	99	19.2	59	201
9	Lexar EZ	3.7	L	3	qt/a	PRE	A	96	99	18.0	60	220
10	Corvus	2.63	L	5.6	fl oz/a	PRE	A	98	98	18.4	59	202
11	Corvus	2.63	L	5.6	fl oz/a	PRE	A	99	98	19.5	59	205
	AAtrex	4	L	1.5	qt/a	PRE	A					
12	Corvus	2.63	L	5.6	fl oz/a	PRE	A	99	99	19.0	59	212
	Clarity	4	L	1	pt/a	PRE	A					
13	Surpass	6.4	L	2	pt/a	PRE	A	98	93	18.7	60	210
	Hornet WDG	68.5	WG	3	oz/a	PRE	A					
LSD (P=.05)								5.1	7.8	1.23	1.3	17.7
CV								4.31	6.39	4.56	1.51	6.3

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