

MSU Weed Science Research Program

Weed control programs in Enlist corn

Trial ID: C12-18 Study Dir.: Burns, Stiles, Powell, Craft
 Conducted: Campus T-16 Investigator: Erin Burns

Planting Date: May-30-2018 **Row Spacing:** 30 IN
Variety: MY00T28 SS DOW **No. of Reps:** 4
Population: 34600 S/A **% OM:** 2.5
Soil Type: LOAM **pH:** 5.6
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall chisel plowed; spring soil finished twice
Fertilizer: 300lbs/A urea incorporated
 150lbs/A 19-19-19 starter

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grass
2	CHEAL	common lambsquarters	Chenopodium album
3	AMAPO	Powell amaranth	Amaranthus powellii
4	AMBEL	Common ragweed	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	ZEAMX	Corn	

Application Description

	A	B	C
Application Timing:	PRE	EPOS	POST
Date Treated:	Jun-1-2018	Jun-15-2018	Jun-25-2018
Time Treated:	7:45 PM	9:40 AM	11:30 AM
% Cloud Cover:	30	10	85
Air Temp., Unit:	75 F	83 F	69 F
% Relative Humidity:	67	35	67
Wind Speed/Unit/Dir:	5.3 MPH NE	3 MPH E	7 MPH E
Soil Temp, Unit:	73 F	69 F	72 F
Leaf Moist/Dew Presence (Y/N):	4	4	3
Soil Moist:	4	4	3

Crop Stage at Each Application

	A	B	C
Crop 1 Name:	ZEAMX	ZEAMX	ZEAMX
Height:			
Stage:		V2	V4

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ANGR	ANGR	ANGR
Height:	1 IN	1 IN	
Stage:	2 L	4 L	
Weed 2 Name:	CHEAL	CHEAL	CHEAL
Height:	0.5 IN	1.5 IN	
Stage:	2 L	8 L	
Weed 3 Name:	AMAPO	AMAPO	AMAPO
Height:		1.5 IN	
Stage:		8 L	
Weed 4 Name:	AMBEL	AMBEL	AMBEL
Height:	0.25 IN	1.5 IN	
Stage:	4 L	6 L	
Weed 5 Name:	ABUTH	ABUTH	ABUTH
Height:		1.5 IN	
Stage:		6 L	

Weed Density

	1	2	3	4	5
Date:	Jun-15-2018	Jun-15-2018	Jun-15-2018	Jun-15-2018	Jun-15-2018
Weed Name:	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Density:	1 FT2	2 FT2	1 FT2	1 FT2	1 FT2

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 MPH	AIXR	11003	22 "	20 "	100 "	19 GPA	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	24 "	20 "	100 "	19 GPA	WATER	30 PSI
C	CUB	3.8 MPH	AIXR	11003	26 "	20 "	100 "	19 GPA	WATER	30 PSI

Comments:

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 Sponsor Contact:

Pest Code			ANGR	CHEAL	AMAPO	AMBEL	ABUTH	ZEAMX		
Crop Code										
Rating Date			Jun-13-2018	Jun-13-2018	Jun-13-2018	Jun-13-2018	Jun-13-2018	Jun-28-2018		
Rating Type			injury	control	control	control	control	injury		
Rating Unit			percent	percent	percent	percent	percent	percent		
Trt-Eval Interval			12 DA-A	12 DA-A	12 DA-A	12 DA-A	12 DA-A	13 DA-B		
Trt No.	Treatment Name	Rate Unit	Appl Code							
1	Cinch ATZ	1 qt/a	A	0	100	100	100	100	100	0
1	Revulin Q	3.4 oz/a	C							
1	COC	1 % v/v	C							
1	AMS	8.5 lb/100 gal	C							
2	Cinch ATZ	1 qt/a	A	0	100	100	100	100	100	0
2	Resolve Q	1.25 oz/a	C							
2	Abundit Edge	36 fl oz/a	C							
2	COC	1 % v/v	C							
2	AMS	8.5 lb/100 gal	C							
3	Resicore	1.25 qt/a	B							0
3	Atrazine	1.1 lb/a	B							
3	Abundit Edge	36 fl oz/a	B							
3	AMS	8.5 lb/100 gal	B							
4	Resicore	1.25 qt/a	A	0	100	100	100	100	100	0
4	Keystone NXT	1 qt/a	A							
4	Abundit Edge	36 fl oz/a	C							
4	AMS	8.5 lb/100 gal	C							
5	SureStart II	2 pt/a	A	0	100	100	100	100	100	0
5	Enlist Duo	3.5 pt/a	C							
5	N-Pak AMS liquid	2.5 % v/v	C							
6	Untreated			0	0	0	0	0	0	0
7	SureStart II	2 pt/a	A	0	100	100	100	100	100	0
7	Enlist Duo	4.6 pt/a	C							
7	N-Pak AMS liquid	2.5 % v/v	C							
8	SureStart II	2 pt/a	B							0
8	Enlist Duo	3.5 pt/a	B							
8	N-Pak AMS liquid	2.5 % v/v	B							
9	SureStart II	2 pt/a	B							0
9	Enlist Duo	4.6 pt/a	B							
9	N-Pak AMS liquid	2.5 % v/v	B							
10	Anthem MAXX	4 fl oz/a	A	0	100	100	100	100	100	0
10	Atrazine	0.55 lb/a	A							
10	Enlist Duo	3.5 pt/a	C							
10	N-Pak AMS liquid	2.5 % v/v	C							
11	Anthem MAXX	4 fl oz/a	B							0
11	Atrazine	0.55 lb/a	B							
11	Enlist Duo	3.5 pt/a	B							
11	N-Pak AMS liquid	2.5 % v/v	B							
LSD P=.05				0.6					0.6	
Standard Deviation				0.0	0.4	0.0	0.0	0.0	0.4	0.0
CV				0.0	0.44	0.0	0.0	0.0	0.44	0.0

Could not calculate LSD (% mean diff) for columns 1,3,4,5,7,10,11,13,14,15,16,17,18,19,21,22,23,24,25,27,28,29,30 because error mean square = 0.

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Pest Code			ANGR	CHEAL	AMAPO	AMBEL	ABUTH		ANGR	CHEAL	
Crop Code								ZEAMX			
Rating Date			Jun-28-2018	Jun-28-2018	Jun-28-2018	Jun-28-2018	Jun-28-2018	Jul-9-2018	Jul-9-2018	Jul-9-2018	
Rating Type			control	control	control	control	control	injury	control	control	
Rating Unit			percent	percent	percent	percent	percent	percent	percent	percent	
Trt-Eval Interval			13 DA-B	13 DA-B	13 DA-B	13 DA-B	13 DA-B	14 DA-C	14 DA-C	14 DA-C	
Trt No.	Treatment Name	Rate Unit	Appl Code								
1	Cinch ATZ	1 qt/a	A	100	98	100	100	100	0	100	100
1	Revulin Q	3.4 oz/a	C								
1	COC	1 % v/v	C								
1	AMS	8.5 lb/100 gal	C								
2	Cinch ATZ	1 qt/a	A	100	100	100	100	100	0	100	100
2	Resolve Q	1.25 oz/a	C								
2	Abundit Edge	36 fl oz/a	C								
2	COC	1 % v/v	C								
2	AMS	8.5 lb/100 gal	C								
3	Resicore	1.25 qt/a	B	100	100	100	100	100	0	100	100
3	Atrazine	1.1 lb/a	B								
3	Abundit Edge	36 fl oz/a	B								
3	AMS	8.5 lb/100 gal	B								
4	Resicore	1.25 qt/a	A	100	100	100	100	100	0	100	100
4	Keystone NXT	1 qt/a	A								
4	Abundit Edge	36 fl oz/a	C								
4	AMS	8.5 lb/100 gal	C								
5	SureStart II	2 pt/a	A	100	100	100	100	100	0	100	100
5	Enlist Duo	3.5 pt/a	C								
5	N-Pak AMS liquid	2.5 % v/v	C								
6	Untreated			0	0	0	0	0	0	0	0
7	SureStart II	2 pt/a	A	100	100	100	100	100	0	100	100
7	Enlist Duo	4.6 pt/a	C								
7	N-Pak AMS liquid	2.5 % v/v	C								
8	SureStart II	2 pt/a	B	100	100	100	100	100	0	100	100
8	Enlist Duo	3.5 pt/a	B								
8	N-Pak AMS liquid	2.5 % v/v	B								
9	SureStart II	2 pt/a	B	100	100	100	100	100	0	100	100
9	Enlist Duo	4.6 pt/a	B								
9	N-Pak AMS liquid	2.5 % v/v	B								
10	Anthem MAXX	4 fl oz/a	A	100	100	100	100	100	0	100	100
10	Atrazine	0.55 lb/a	A								
10	Enlist Duo	3.5 pt/a	C								
10	N-Pak AMS liquid	2.5 % v/v	C								
11	Anthem MAXX	4 fl oz/a	B	100	100	100	100	100	0	100	100
11	Atrazine	0.55 lb/a	B								
11	Enlist Duo	3.5 pt/a	B								
11	N-Pak AMS liquid	2.5 % v/v	B								
LSD P=.05				0.4	1.1	.	.	0.4	.	.	.
Standard Deviation				0.3	0.8	0.0	0.0	0.3	0.0	0.0	0.0
CV				0.33	0.87	0.0	0.0	0.33	0.0	0.0	0.0

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Pest Code			AMAPO	AMBEL	ABUTH	ZEAMX	ANGR	CHEAL	AMAPO	AMBEL
Crop Code										
Rating Date			Jul-9-2018	Jul-9-2018	Jul-9-2018	Jul-24-2018	Jul-24-2018	Jul-24-2018	Jul-24-2018	Jul-24-2018
Rating Type			control	control	control	injury	control	control	control	control
Rating Unit			percent	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval			14 DA-C	14 DA-C	14 DA-C	29 DA-C	29 DA-C	29 DA-C	29 DA-C	29 DA-C
Trt No.	Treatment Name	Rate Unit	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
		Appl Code								
1	Cinch ATZ	1 qt/a	100	100	100	0	100	100	100	100
1	Revulin Q	3.4 oz/a								
1	COC	1 % v/v								
1	AMS	8.5 lb/100 gal								
2	Cinch ATZ	1 qt/a	100	100	100	0	100	100	100	100
2	Resolve Q	1.25 oz/a								
2	Abundit Edge	36 fl oz/a								
2	COC	1 % v/v								
2	AMS	8.5 lb/100 gal								
3	Resicore	1.25 qt/a	100	100	100	0	100	100	100	100
3	Atrazine	1.1 lb/a								
3	Abundit Edge	36 fl oz/a								
3	AMS	8.5 lb/100 gal								
4	Resicore	1.25 qt/a	100	100	100	0	100	100	100	100
4	Keystone NXT	1 qt/a								
4	Abundit Edge	36 fl oz/a								
4	AMS	8.5 lb/100 gal								
5	SureStart II	2 pt/a	100	100	100	0	100	100	100	100
5	Enlist Duo	3.5 pt/a								
5	N-Pak AMS liquid	2.5 % v/v								
6	Untreated		0	0	0	0	0	0	0	0
7	SureStart II	2 pt/a	100	100	100	0	100	100	100	100
7	Enlist Duo	4.6 pt/a								
7	N-Pak AMS liquid	2.5 % v/v								
8	SureStart II	2 pt/a	100	100	100	0	100	100	100	100
8	Enlist Duo	3.5 pt/a								
8	N-Pak AMS liquid	2.5 % v/v								
9	SureStart II	2 pt/a	100	100	100	0	100	100	100	100
9	Enlist Duo	4.6 pt/a								
9	N-Pak AMS liquid	2.5 % v/v								
10	Anthem MAXX	4 fl oz/a	100	100	100	0	100	100	100	100
10	Atrazine	0.55 lb/a								
10	Enlist Duo	3.5 pt/a								
10	N-Pak AMS liquid	2.5 % v/v								
11	Anthem MAXX	4 fl oz/a	100	100	100	0	100	100	100	100
11	Atrazine	0.55 lb/a								
11	Enlist Duo	3.5 pt/a								
11	N-Pak AMS liquid	2.5 % v/v								
LSD P=.05							0.4			
Standard Deviation			0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
CV			0.0	0.0	0.0	0.0	0.33	0.0	0.0	0.0

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Pest Code			ABUTH		ANGR	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code				ZEAMX					
Rating Date			Jul-24-2018	Aug-13-2018	Aug-13-2018	Aug-13-2018	Aug-13-2018	Aug-13-2018	Aug-13-2018
Rating Type			control	injury	control	control	control	control	control
Rating Unit			percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval			29 DA-C	49 DA-C	49 DA-C	49 DA-C	49 DA-C	49 DA-C	49 DA-C
Trt No.	Treatment Name	Rate Unit	Appl Code						
1	Cinch ATZ	1 qt/a	A	100	0	100	100	100	100
1	Revulin Q	3.4 oz/a	C						
1	COC	1 % v/v	C						
1	AMS	8.5 lb/100 gal	C						
2	Cinch ATZ	1 qt/a	A	100	0	100	100	100	100
2	Resolve Q	1.25 oz/a	C						
2	Abundit Edge	36 fl oz/a	C						
2	COC	1 % v/v	C						
2	AMS	8.5 lb/100 gal	C						
3	Resicore	1.25 qt/a	B	100	0	100	100	100	100
3	Atrazine	1.1 lb/a	B						
3	Abundit Edge	36 fl oz/a	B						
3	AMS	8.5 lb/100 gal	B						
4	Resicore	1.25 qt/a	A	100	0	100	100	100	100
4	Keystone NXT	1 qt/a	A						
4	Abundit Edge	36 fl oz/a	C						
4	AMS	8.5 lb/100 gal	C						
5	SureStart II	2 pt/a	A	100	0	100	100	100	100
5	Enlist Duo	3.5 pt/a	C						
5	N-Pak AMS liquid	2.5 % v/v	C						
6	Untreated			0	0	0	0	0	0
7	SureStart II	2 pt/a	A	100	0	100	100	100	100
7	Enlist Duo	4.6 pt/a	C						
7	N-Pak AMS liquid	2.5 % v/v	C						
8	SureStart II	2 pt/a	B	100	0	100	100	100	100
8	Enlist Duo	3.5 pt/a	B						
8	N-Pak AMS liquid	2.5 % v/v	B						
9	SureStart II	2 pt/a	B	100	0	100	100	100	100
9	Enlist Duo	4.6 pt/a	B						
9	N-Pak AMS liquid	2.5 % v/v	B						
10	Anthem MAXX	4 fl oz/a	A	100	0	100	100	100	100
10	Atrazine	0.55 lb/a	A						
10	Enlist Duo	3.5 pt/a	C						
10	N-Pak AMS liquid	2.5 % v/v	C						
11	Anthem MAXX	4 fl oz/a	B	100	0	100	100	100	100
11	Atrazine	0.55 lb/a	B						
11	Enlist Duo	3.5 pt/a	B						
11	N-Pak AMS liquid	2.5 % v/v	B						
LSD P=.05				.	.	0.4	.	.	.
Standard Deviation				0.0	0.0	0.3	0.0	0.0	0.0
CV				0.0	0.0	0.33	0.0	0.0	0.0

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