

**Soil-applied (PRE) weed control programs in corn**

Trial ID: C02-18 Study Dir.: Burns, Stiles, Powell, Craft  
 Conducted: Campus T-17 Investigator: Erin Burns

**Planting Date:** May-29-2018 **Row Spacing:** 30 IN  
**Variety:** P9840AM **No. of Reps:** 4  
**Population:** 34600 seeds/A **% OM:** 3.7  
**Soil Type:** LOAM **pH:** 6.2  
**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**

**Application Timing:** A PRE  
**Date Treated:** Jun-1-2018  
**Time Treated:** 1:00 PM  
**% Cloud Cover:** 60  
**Air Temp., Unit:** 85 F  
**% Relative Humidity:** 45  
**Wind Speed/Unit/Dir:** 5.5 MPH NE  
**Soil Temp, Unit:** 76 F  
**Leaf Moist/Dew Presence (Y/N):** 3  
**Soil Moist:** 4

**Crop Stage at Each Application**

**Crop 1 Name:** A ZEAMX  
**Height:**  
**Stage:**

**Weed Stage at Each Application**

**Weed 1 Name:** A ANGR  
**Height:**  
**Stage:**  
**Weed 2 Name:** CHEAL  
**Height:**  
**Stage:**  
**Weed 3 Name:** AMAPO  
**Height:**  
**Stage:**  
**Weed 4 Name:** AMBEL  
**Height:**  
**Stage:**  
**Weed 5 Name:** ABUTH  
**Height:**  
**Stage:**

**Weed Density**

Date:	1	2	3	4	5
	Jun-1-2018	Jun-1-2018	Jun-1-2018	Jun-1-2018	Jun-1-2018
<b>Weed Name:</b>	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
<b>Density:</b>	1 FT2	2 FT2	1 FT2	1 FT2	2 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

**Comments:**

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Pest Code			ANGR	CHEAL	AMAPO	AMBEL	ABUTH		ANGR		
Crop Code		ZEAMX						ZEAMX			
Rating Date		Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-12-2018	Jun-26-2018	Jun-26-2018		
Rating Type		injury	control	control	control	control	control	injury	control		
Rating Unit		percent	percent	percent	percent	percent	percent	percent	percent		
Trt-Eval Interval		11 DA-A	11 DA-A	11 DA-A	11 DA-A	11 DA-A	11 DA-A	25 DA-A	25 DA-A		
Trt No.	Treatment Name	Rate	Appl Code								
1	Corvus	5.6 fl oz/a	A	0.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0
	1 Atrazine	0.825 lb/a	A								
	1 Harness	2.25 pt/a	A								
2	Corvus	5.6 fl oz/a	A	0.0	100.0	100.0	100.0	98.8	100.0	0.0	99.5
	2 Atrazine	0.825 lb/a	A								
	2 Dual II Magnum	1 pt/a	A								
3	Corvus	5.6 fl oz/a	A	0.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0
	3 Atrazine	0.825 lb/a	A								
	3 Outlook	1 pt/a	A								
4	Corvus	5.6 fl oz/a	A	0.0	100.0	100.0	100.0	100.0	100.0	0.0	98.8
	4 Degree Xtra	2 qt/a	A								
5	Untreated			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	Acuron	2.5 qt/a	A	0.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0
7	Lumax	2.7 qt/a	A	0.0	100.0	100.0	100.0	99.5	100.0	0.0	99.5
8	Resicore	2.5 qt/a	A	0.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0
	8 Atrazine	0.825 lb/a	A								
9	Harness MAX	75 fl oz/a	A	0.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0
	9 Atrazine	0.825 lb/a	A								
LSD P=.05				0.00	0.00	0.00	0.00	1.33	0.00	0.00	1.26
Standard Deviation				0.0	0.0	0.0	0.0	0.91	0.00	0.00	0.87
CV				0.0	0.0	0.0	0.0	1.03	0.0	0.0	0.98

Could not calculate LSD (% mean diff) for columns 1,2,3,4,6,7,9,11,12,13,15,16,17,19,22,23 because error mean square = 0.

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Pest Code		CHEAL	AMAPO	AMBEL	ABUTH		ANGR	CHEAL	AMAPO			
Crop Code						ZEAMX						
Rating Date		Jun-26-2018	Jun-26-2018	Jun-26-2018	Jun-26-2018	Jul-10-2018	Jul-10-2018	Jul-10-2018	Jul-10-2018			
Rating Type		control	control	control	control	injury	control	control	control			
Rating Unit		percent	percent	percent	percent	percent	percent	percent	percent			
Trt-Eval Interval		25 DA-A	25 DA-A	25 DA-A	25 DA-A	39 DA-A	39 DA-A	39 DA-A	39 DA-A			
Trt No.	Treatment Name	Rate	Appl Unit	Code								
1	Corvus	5.6 fl oz/a	A		100.0	99.0	100.0	100.0	0.0	99.5	100.0	100.0
	1 Atrazine	0.825 lb/a	A									
	1 Harness	2.25 pt/a	A									
2	Corvus	5.6 fl oz/a	A		100.0	100.0	100.0	100.0	0.0	99.5	100.0	100.0
	2 Atrazine	0.825 lb/a	A									
	2 Dual II Magnum	1 pt/a	A									
3	Corvus	5.6 fl oz/a	A		100.0	98.8	100.0	100.0	0.0	100.0	100.0	100.0
	3 Atrazine	0.825 lb/a	A									
	3 Outlook	1 pt/a	A									
4	Corvus	5.6 fl oz/a	A		100.0	100.0	100.0	100.0	0.0	95.0	100.0	100.0
	4 Degree Xtra	2 qt/a	A									
5	Untreated				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	Acuron	2.5 qt/a	A		100.0	100.0	100.0	100.0	0.0	99.5	100.0	100.0
7	Lumax	2.7 qt/a	A		100.0	99.5	100.0	100.0	0.0	100.0	100.0	100.0
8	Resicore	2.5 qt/a	A		100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0
	8 Atrazine	0.825 lb/a	A									
9	Harness MAX	75 fl oz/a	A		100.0	100.0	100.0	100.0	0.0	99.5	100.0	100.0
	9 Atrazine	0.825 lb/a	A									
LSD P=.05						1.39				4.79		
Standard Deviation					0.00	0.96	0.00	0.00	0.00	3.28	0.00	0.00
CV					0.0	1.08	0.0	0.0	0.0	3.72	0.0	0.0

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Pest Code		AMBEL	ABUTH		ANGR	CHEAL	AMAPO	AMBEL	ABUTH			
Crop Code				ZEAMX								
Rating Date		Jul-10-2018	Jul-10-2018	Jul-25-2018	Jul-25-2018	Jul-25-2018	Jul-25-2018	Jul-25-2018	Jul-25-2018			
Rating Type		control	control	injury	control	control	control	control	control			
Rating Unit		percent	percent	percent	percent	percent	percent	percent	percent			
Trt-Eval Interval		39 DA-A	39 DA-A	54 DA-A	54 DA-A	54 DA-A	54 DA-A	54 DA-A	54 DA-A			
Trt No.	Treatment	Rate	Appl									
	Name	Rate	Unit	Code								
1	Corvus	5.6 fl oz/a	A		100.0	98.8	0.0	99.0	100.0	100.0	100.0	99.5
	1 Atrazine	0.825 lb/a	A									
	1 Harness	2.25 pt/a	A									
2	Corvus	5.6 fl oz/a	A		100.0	100.0	0.0	99.5	100.0	100.0	100.0	100.0
	2 Atrazine	0.825 lb/a	A									
	2 Dual II Magnum	1 pt/a	A									
3	Corvus	5.6 fl oz/a	A		100.0	100.0	0.0	100.0	99.5	100.0	100.0	99.5
	3 Atrazine	0.825 lb/a	A									
	3 Outlook	1 pt/a	A									
4	Corvus	5.6 fl oz/a	A		100.0	99.5	0.0	98.8	100.0	100.0	100.0	99.5
	4 Degree Xtra	2 qt/a	A									
5	Untreated				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	Acuron	2.5 qt/a	A		100.0	100.0	0.0	100.0	100.0	100.0	100.0	100.0
7	Lumax	2.7 qt/a	A		100.0	99.5	0.0	99.5	100.0	100.0	100.0	100.0
8	Resicore	2.5 qt/a	A		100.0	100.0	0.0	99.5	100.0	100.0	100.0	100.0
	8 Atrazine	0.825 lb/a	A									
9	Harness MAX	75 fl oz/a	A		100.0	100.0	0.0	99.5	100.0	100.0	100.0	100.0
	9 Atrazine	0.825 lb/a	A									
LSD P=.05						1.26		1.40	0.49			0.83
Standard Deviation					0.00	0.87	0.00	0.96	0.33	0.00	0.00	0.57
CV					0.0	0.98	0.0	1.09	0.38	0.0	0.0	0.64

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Pest Code						
Crop Code			ZEAMX	ZEAMX	ZEAMX	
Rating Date			Oct-25-2018	Oct-25-2018	Oct-25-2018	
Rating Type			test wieght	moisture	YIELD	
Rating Unit			lbs/bu	percent	BU	
Trt-Eval Interval			146 DA-A	146 DA-A	at 15% M	
Trt No.	Treatment Name	Rate	Appl Code			
		Rate Unit				
1	Corvus	5.6 fl oz/a	A	51.5	21.8	230.6
1	Atrazine	0.825 lb/a	A			
1	Harness	2.25 pt/a	A			
2	Corvus	5.6 fl oz/a	A	50.9	22.2	224.7
2	Atrazine	0.825 lb/a	A			
2	Dual II Magnum	1 pt/a	A			
3	Corvus	5.6 fl oz/a	A	51.2	21.3	233.0
3	Atrazine	0.825 lb/a	A			
3	Outlook	1 pt/a	A			
4	Corvus	5.6 fl oz/a	A	51.5	22.5	222.9
4	Degree Xtra	2 qt/a	A			
5	Untreated			50.5	21.8	202.8
6	Acuron	2.5 qt/a	A	57.3	21.1	234.1
7	Lumax	2.7 qt/a	A	53.8	21.4	232.7
8	Resicore	2.5 qt/a	A	51.5	22.1	235.5
8	Atrazine	0.825 lb/a	A			
9	Harness MAX	75 fl oz/a	A	51.2	21.8	229.5
9	Atrazine	0.825 lb/a	A			
LSD P=.05				6.39	1.34	11.19
Standard Deviation				4.38	0.92	7.67
CV				8.4	4.21	3.37

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