

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

Trial ID: C01-17 Study Dir.: Burns, Stiles, Powell  
 Conducted: Campus C-27 Investigator: Christy Sprague

**Planting Date:** 5/15/17 **Row Spacing:** 30 IN  
**Variety:** DKC4972 **No. of Reps:** 4  
**Population:** 33500 seeds/A **% OM:** 2.5  
**Soil Type:** SL sandy loam **pH:** 6.1  
**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	lambsquarters, common	Chenopodium album
3	AMAPO	amaranth, Powell	Amaranthus powellii
4	AMBEL	ragweed, common	Ambrosia artemisiifolia
5	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	ZEAMX	Corn	

**Application Description**

**Application Timing:** A PRE  
**Date Treated:** 5/15/17  
**Time Treated:** 6:10 PM  
**% Cloud Cover:** 10  
**Air Temp., Unit:** 75 F  
**% Relative Humidity:** 44  
**Wind Speed/Unit/Dir:** 3.2 mph SE  
**Soil Temp, Unit:** 70 F  
**Leaf Moist/Dew Presence (Y/N):** 5  
**Soil Moist:** 3

**Crop Stage at Each Application**

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

**Weed Stage at Each Application**

**A**  
**Weed 1 Name:** 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
	5/15/17	5/15/17	5/15/17	5/15/17	5/15/17
<b>Weed Name:</b>	ANGR	CHEAL	AMAPO	AMBEL	ABUTH
<b>Density:</b>	3 FT2	19 FT2	1 FT2	3 FT2	1 FT2

**Application Equipment**

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<b>Appl</b>	<b>Sprayer</b>	<b>Ground</b>	<b>Nozzle</b>	<b>Nozzle</b>	<b>Nozzle</b>	<b>Nozzle</b>	<b>Boom</b>	<b>Spray</b>	<b>Carrier</b>	<b>Operation</b>
	<b>Type</b>	<b>Speed</b>	<b>Type</b>	<b>Size</b>	<b>Height</b>	<b>Spacing</b>	<b>Width</b>	<b>Volume</b>		<b>Pressure</b>
<b>A</b>	Cub	3.8 MPH	AIXR	11003	22 "	20 "	100 "	19 GPA	WATER	30 PSI

**Comments:**

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Study Director: Burns, Stiles, Powell

Pest Code	ANGR	CHEAL	AMAPO	AMBEL	ABUTH	ANGR	CHEAL
Crop Code	ZEAMX			ZEAMX			
Rating Date	6/12/17	6/12/17	6/12/17	6/12/17	6/12/17	7/19/17	7/19/17
Rating Type	injury	control	control	control	control	injury	control
Rating Unit	percent	percent	percent	percent	percent	percent	percent
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	65 DA-A	65 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*	*	*	
1	Balance Flexx	2 L		6 fl oz/a	A		0	96	100	100	100	100	0	87	100
2	Harness Xtra 5.6	5.6 L		2.4 qt/a	A		0	100	100	100	98	97	0	99	96
3	Bicep II Magnum	5.5 L		2.1 qt/a	A		0	100	98	100	80	95	0	96	91
4	Resicore	3.29 L		2.75 qt/a	A		0	100	100	100	100	100	0	99	100
5	TripleFLEX	4.16 L		3 pt/a	A		0	99	100	100	100	98	0	91	100
6	Acuron Flexi	3.26 L		2.25 qt/a	A		0	99	100	100	100	100	0	97	100
7	Acuron	3.44 L		3 qt/a	A		0	100	100	100	100	100	0	98	100
8	Untreated						0	0	0	0	0	0	0	0	0
9	Anthem MAXX	4.3 L		5 fl oz/a	A		0	99	98	100	90	100	0	96	88
10	Anthem MAXX	4.3 L		4 fl oz/a	A		0	99	100	100	100	100	0	97	99
10	Balance Flexx	2 L		3 fl oz/a	A										
11	Anthem MAXX	4.3 L		4 fl oz/a	A		0	99	100	100	98	100	0	95	100
11	Hornet WDG	68.5 WG		4 oz/a	A										
12	Anthem MAXX	4.3 L		4 fl oz/a	A		0	100	100	100	100	100	0	96	100
12	Callisto	4 L		4 fl oz/a	A										
12	Atrazine	90 WG		0.56 lb/a	A										
13	Anthem MAXX	4.3 L		4 fl oz/a	A		0	100	100	100	99	100	0	98	100
13	Callisto	4 L		4 fl oz/a	A										
13	Atrazine	90 WG		1.65 lb/a	A										
14	Anthem MAXX	4.3 L		4 fl oz/a	A		0	100	100	100	100	100	0	100	100
14	Callisto	4 L		4 fl oz/a	A										
14	Atrazine	90 WG		1.1 lb/a	A										
14	Stinger	3 L		5.33 fl oz/a	A										
15	Coyote	3.67 L		64 fl oz/a	A		0	100	100	100	99	100	0	99	100
16	Coyote	3.67 L		64 fl oz/a	A		0	100	100	100	100	100	0	98	100
16	Atrazine	90 WG		1.1 lb/a	A										
17	Coyote	3.67 L		64 fl oz/a	A		0	100	100	100	100	100	0	100	100
17	Tricor 4F	4 L		12 fl oz/a	A										
LSD P=.05							0.2	1.3	1.6	0.5	7.3	2.0	.	5.9	3.0
Standard Deviation							0.2	0.9	1.1	0.3	5.2	1.4	0.0	4.2	2.1
CV							589.14	0.99	1.21	0.35	5.61	1.53	0.0	4.6	2.26

\* Adjusted means

Could not calculate LSD (% mean diff) for columns 7 because error mean square = 0.

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Pest Code	AMAPO	AMBEL	ABUTH			
Crop Code				ZEAMX	ZEAMX	ZEAMX
Rating Date	7/19/17	7/19/17	7/19/17	10/17/17	10/17/17	10/17/17
Rating Type	control	control	control	test wieght	moisture	YIELD
Rating Unit	percent	percent	percent	lbs/bu	percent	BU
Trt-Eval Interval	65 DA-A	65 DA-A	65 DA-A	155 DA-A	155 DA-A	at 15% M

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*	*
1	Balance Flexx	2 L		6 fl oz/a	A		96	99	100	53.8	16.9	178
2	Harness Xtra 5.6	5.6 L		2.4 qt/a	A		100	91	91	54.3	16.9	172
3	Bicep II Magnum	5.5 L		2.1 qt/a	A		100	70	91	53.0	17.1	180
4	Resicore	3.29 L		2.75 qt/a	A		100	100	100	53.6	18.6	184
5	TripleFLEX	4.16 L		3 pt/a	A		100	96	99	53.4	17.9	191
6	Acuron Flexi	3.26 L		2.25 qt/a	A		100	100	100	54.0	16.5	177
7	Acuron	3.44 L		3 qt/a	A		100	100	100	53.5	17.8	187
8	Untreated						0	0	0	51.9	16.1	85
9	Anthem MAXX	4.3 L		5 fl oz/a	A		100	74	99	63.9	16.1	156
10	Anthem MAXX	4.3 L		4 fl oz/a	A		100	100	100	53.7	17.0	182
10	Balance Flexx	2 L		3 fl oz/a	A							
11	Anthem MAXX	4.3 L		4 fl oz/a	A		100	93	100	53.3	16.9	174
11	Hornet WDG	68.5 WG		4 oz/a	A							
12	Anthem MAXX	4.3 L		4 fl oz/a	A		100	100	100	53.9	16.5	163
12	Callisto	4 L		4 fl oz/a	A							
12	Atrazine	90 WG		0.56 lb/a	A							
13	Anthem MAXX	4.3 L		4 fl oz/a	A		100	100	100	53.6	18.0	168
13	Callisto	4 L		4 fl oz/a	A							
13	Atrazine	90 WG		1.65 lb/a	A							
14	Anthem MAXX	4.3 L		4 fl oz/a	A		100	100	100	54.0	16.5	168
14	Callisto	4 L		4 fl oz/a	A							
14	Atrazine	90 WG		1.1 lb/a	A							
14	Stinger	3 L		5.33 fl oz/a	A							
15	Coyote	3.67 L		64 fl oz/a	A		100	96	100	53.7	17.4	168
16	Coyote	3.67 L		64 fl oz/a	A		100	100	100	53.7	18.2	172
16	Atrazine	90 WG		1.1 lb/a	A							
17	Coyote	3.67 L		64 fl oz/a	A		100	100	100	53.9	16.1	167
17	Tricor 4F	4 L		12 fl oz/a	A							
LSD P=.05							2.5	10.0	3.2	7.20	2.27	27.7
Standard Deviation							1.8	7.0	2.3	5.06	1.60	19.5
CV							1.87	7.85	2.42	9.34	9.36	11.52

\* Adjusted means

Could not calculate LSD (% mean diff) for columns 7 because error mean square = 0.