

WEED CONTROL IN CORN WITH PRE AND POST HERBICIDES, 2010

Trial ID: C0410 Protocol ID: C0410  
 Location: Campus Study Director: Andy Chomas  
 Project ID: Investigator: Wesley Everman

**General Trial Information**

**Study Director:** Andy Chomas  
**Investigator:** Wesley Everman

**Personnel**

**Study Director:** Andy Chomas  
**Investigator:** Wesley Everman

**Crop Description**

**Crop 1:** ZEAMX Zea mays Corn  
**Variety:** P37Y14  
**BBCH Scale:** BCOR **Planting Date:** May-4-10  
**Rate, Unit:** 30000 S/A  
**Row Spacing, Unit:** 30 IN

**Pest Description**

**Pest 1 Type:** W **Code:** ANGR  
**Common Name:** annual grass

**Pest 2 Type:** W **Code:** CHEAL Chenopodium album  
**Common Name:** Common lambsquarters

**Pest 3 Type:** W **Code:** AMARE Amaranthus retroflexus  
**Common Name:** Redroot pigweed

**Pest 4 Type:** W **Code:** AMBEL Ambrosia artemisiifolia  
**Common Name:** Common ragweed

**Pest 5 Type:** W **Code:** ABUTH Abutilon theophrasti  
**Common Name:** Velvetleaf

**Site and Design**

**Plot Width, Unit:** 10 FT **Site Type:** FIELD field  
**Plot Length, Unit:** 35 FT  
**Plot Area, Unit:** 350 FT2 **Tillage Type:** CONTIL conventional-till  
**Replications:** 3 **Study Design:** RACOB� Randomized Complete Block (RCB)

**Trial Initiation Comments:**  
 Fall Chisel, Spring Field Cultivate X2

**Soil Description**

**% OM:** 3.7 **Texture:** L loam  
**pH:** 6.7  
**Analyzed By:**  
 300 lb/A 46-0-0, 125 lb/A 19-19-19 in Row

**Application Description**

	A	B
<b>Application Date:</b>	May-4-10	Jun-10-10
<b>Time of Day:</b>	8:47 pm	9:00 am
<b>Application Method:</b>	SPRAY	SPRAY
<b>Application Timing:</b>	PRE	MP
<b>Application Placement:</b>	BROADC	BROADC
<b>Air Temperature, Unit:</b>	68 F	70 F
<b>% Relative Humidity:</b>	44	58
<b>Wind Velocity, Unit:</b>	4.5 MPH	3.5 MPH
<b>Wind Direction:</b>	S	S
<b>Soil Temperature, Unit:</b>	63 F	63 F
<b>Soil Moisture:</b>	4	3
<b>% Cloud Cover:</b>	10	3

**Crop Stage At Each Application**

	A	B
<b>Crop 1 Code, BBCH Scale:</b>	ZEAMX BCOR	ZEAMX BCOR
<b>Stage Scale Used:</b>		BBCH
<b>Stage Majority, Percent:</b>		V5
<b>Height, Unit:</b>		17 IN
<b>Height Minimum, Maximum:</b>		14 18

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## Pest Stage At Each Application

	A		B	
Pest 1 Code, Type, Scale:	ANGR	W	ANGR	W
Stage Majority, Percent:			L5	
Stage Minimum, Percent:			L2	
Stage Maximum, Percent:			L7	
Height, Unit:			7	IN
Height Minimum, Maximum:			2	10
Pest 2 Code, Type, Scale:	CHEAL	W	CHEAL	W
Stage Majority, Percent:			L6	
Stage Minimum, Percent:			L4	
Stage Maximum, Percent:			L7	
Height, Unit:			3	IN
Height Minimum, Maximum:			1	5
Pest 3 Code, Type, Scale:	AMARE	W	AMARE	W
Stage Majority, Percent:			L8	
Stage Minimum, Percent:			L6	
Stage Maximum, Percent:			L11	
Height, Unit:			5	IN
Height Minimum, Maximum:			3	9
Pest 4 Code, Type, Scale:	AMBEL	W	AMBEL	W
Stage Majority, Percent:			L8	
Stage Minimum, Percent:			L4	
Stage Maximum, Percent:			L10	
Height, Unit:			4	IN
Height Minimum, Maximum:			1	7
Pest 5 Code, Type, Scale:	ABUTH	W	ABUTH	W
Stage Majority, Percent:			L3	
Stage Minimum, Percent:			L2	
Stage Maximum, Percent:			L4	
Height, Unit:			3	IN
Height Minimum, Maximum:			1	5

## Application Equipment

	B			
Equipment Type:	CUB		CUB	
Operating Pressure, Unit:	30	PSI	30	PSI
Nozzle Type:	FF		FF	
Nozzle Size:	8003		8003	
Nozzle Spacing, Unit:	20	IN	20	IN
Boom Length, Unit:	100	IN	100	IN
Boom Height, Unit:	18	IN	24	IN
Ground Speed, Unit:	3.5	MPH	3.5	MPH
Carrier:	WATER		WATER	
Spray Volume, Unit:	20	gal/ac	20	gal/ac
Mix Size, Unit:	1	gallons	1	gallons

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	
Pest Code	ANGR	CHEAL	AMARE	AMBEL	ABUTH	
Crop Code	ZEAMX					ZEAMX
Rating Date	Jun-10-10	Jun-10-10	Jun-10-10	Jun-10-10	Jun-10-10	Jun-24-10
Rating Type	injury	control	control	control	control	injury
Rating Unit	%	%	%	%	%	%
Trt-Eval Interval	AT MP	AT MP	AT MP	AT MP	AT MP	14 DAMP

Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Growth Stage	1	2	3	4	5	6	7
1	Non-Treated					0	0	0	0	0	0	0
2	Integrity	5.6 L		13 fl oz/a	PRE	0	93	67	97	65	86	0
	2 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	2 Activator 90	100 L		0.25 % v/v	MP							
	2 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
3	Lumax	3.94 SE		2 qt/a	PRE	0	95	100	100	95	100	0
	3 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	3 Activator 90	100 L		0.25 % v/v	MP							
	3 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
4	Sharpen	2.9 L		2.5 fl oz/a	PRE	0	73	77	83	62	73	0
	4 Prowl H2O	3.8 L		3 pt/a	PRE							
	4 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	4 Activator 90	100 L		0.25 % v/v	MP							
	4 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
5	Harness Xtra 5.6	5.6 L		1.5 qt/a	PRE	0	89	98	100	77	72	0
	5 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	5 Activator 90	100 L		0.25 % v/v	MP							
	5 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
6	SureStart	4.18 SE		1.75 pt/a	PRE	0	83	98	100	72	88	0
	6 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	6 Activator 90	100 L		0.25 % v/v	MP							
	6 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
7	Integrity	5.6 L		13 fl oz/a	PRE	0	90	70	98	65	83	0
	7 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	7 Status	56 DF		2.5 oz/a	MP							
	7 Activator 90	100 L		0.25 % v/v	MP							
	7 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
8	Integrity	5.6 L		13 fl oz/a	PRE	0	93	100	100	79	85	0
	8 Guardsman Max	5 L		1.5 pt/a	PRE							
9	Integrity	5.6 L		13 fl oz/a	PRE	0	98	98	100	72	88	0
	9 Prowl H2O	3.8 L		3 pt/a	PRE							
10	Lumax	3.94 SE		2.5 qt/a	PRE	0	99	100	100	96	100	0
	LSD (P=.05)					0.0	8.8	5.0	4.8	5.0	10.3	0.0
	Standard Deviation					0.0	5.1	2.9	2.8	2.9	6.0	0.0
	CV					0.0	6.32	3.59	3.16	4.29	7.79	0.0

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Pest Code	ANGR	CHEAL	AMARE	AMBEL	ABUTH	ANGR	CHEAL
Crop Code							
Rating Date	Jun-24-10	Jun-24-10	Jun-24-10	Jun-24-10	Jun-24-10	Aug-17-10	Aug-17-10
Rating Type	control	control	control	control	control	control	control
Rating Unit	%	%	%	%	%	%	%
Trt-Eval Interval	14 DAMP	14 DAMP	14 DAMP	14 DAMP	14 DAMP	68 DAMP	68 DAMP

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Growth Stage	8	9	10	11	12	13	14
1	Non-Treated						0	0	0	0	0	0
2	Integrity	5.6 L		13 fl oz/a	PRE	100	96	97	92	98	92	82
	2 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	2 Activator 90	100 L		0.25 % v/v	MP							
	2 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
3	Lumax	3.94 SE		2 qt/a	PRE	100	99	98	92	97	97	98
	3 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	3 Activator 90	100 L		0.25 % v/v	MP							
	3 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
4	Sharpen	2.9 L		2.5 fl oz/a	PRE	100	98	100	93	98	98	97
	4 Prowl H2O	3.8 L		3 pt/a	PRE							
	4 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	4 Activator 90	100 L		0.25 % v/v	MP							
	4 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
5	Harness Xtra 5.6	5.6 L		1.5 qt/a	PRE	98	95	100	93	93	98	85
	5 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	5 Activator 90	100 L		0.25 % v/v	MP							
	5 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
6	SureStart	4.18 SE		1.75 pt/a	PRE	100	98	100	92	98	95	88
	6 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	6 Activator 90	100 L		0.25 % v/v	MP							
	6 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
7	Integrity	5.6 L		13 fl oz/a	PRE	100	99	100	97	100	97	95
	7 Roundup PowerMAX	4.5 L		22 fl oz/a	MP							
	7 Status	56 DF		2.5 oz/a	MP							
	7 Activator 90	100 L		0.25 % v/v	MP							
	7 Ammonium Sulfate	100 DF		17 lb/100 gal	MP							
8	Integrity	5.6 L		13 fl oz/a	PRE	90	87	97	68	82	92	88
	8 Guardsman Max	5 L		1.5 pt/a	PRE							
9	Integrity	5.6 L		13 fl oz/a	PRE	98	100	97	58	88	98	97
	9 Prowl H2O	3.8 L		3 pt/a	PRE							
10	Lumax	3.94 SE		2.5 qt/a	PRE	98	97	100	82	100	98	100
	LSD (P=.05)					3.9	3.1	5.2	7.6	7.9	4.9	7.1
	Standard Deviation					2.2	1.8	3.0	4.4	4.6	2.9	4.1
	CV					2.54	2.07	3.41	5.78	5.38	3.32	4.96

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Pest Type	W Weed	W Weed	W Weed
Pest Code	AMARE	AMBEL	ABUTH
Crop Code			
Rating Date	Aug-17-10	Aug-17-10	Aug-17-10
Rating Type	control	control	control
Rating Unit	%	%	%
Trt-Eval Interval	68 DAMP	68 DAMP	68 DAMP

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Growth Stage	15	16	17	18	19
1	Non-Treated						0	0	0	
2	Integrity	5.6 L		13 fl oz/a	PRE	100	87	100		
2	Roundup PowerMAX	4.5 L		22 fl oz/a	MP					
2	Activator 90	100 L		0.25 % v/v	MP					
2	Ammonium Sulfate	100 DF		17 lb/100 gal	MP					
3	Lumax	3.94 SE		2 qt/a	PRE	100	83	100		
3	Roundup PowerMAX	4.5 L		22 fl oz/a	MP					
3	Activator 90	100 L		0.25 % v/v	MP					
3	Ammonium Sulfate	100 DF		17 lb/100 gal	MP					
4	Sharpen	2.9 L		2.5 fl oz/a	PRE	100	92	100		
4	Prowl H2O	3.8 L		3 pt/a	PRE					
4	Roundup PowerMAX	4.5 L		22 fl oz/a	MP					
4	Activator 90	100 L		0.25 % v/v	MP					
4	Ammonium Sulfate	100 DF		17 lb/100 gal	MP					
5	Harness Xtra 5.6	5.6 L		1.5 qt/a	PRE	97	92	100		
5	Roundup PowerMAX	4.5 L		22 fl oz/a	MP					
5	Activator 90	100 L		0.25 % v/v	MP					
5	Ammonium Sulfate	100 DF		17 lb/100 gal	MP					
6	SureStart	4.18 SE		1.75 pt/a	PRE	98	87	100		
6	Roundup PowerMAX	4.5 L		22 fl oz/a	MP					
6	Activator 90	100 L		0.25 % v/v	MP					
6	Ammonium Sulfate	100 DF		17 lb/100 gal	MP					
7	Integrity	5.6 L		13 fl oz/a	PRE	100	100	100		
7	Roundup PowerMAX	4.5 L		22 fl oz/a	MP					
7	Status	56 DF		2.5 oz/a	MP					
7	Activator 90	100 L		0.25 % v/v	MP					
7	Ammonium Sulfate	100 DF		17 lb/100 gal	MP					
8	Integrity	5.6 L		13 fl oz/a	PRE	95	63	93		
8	Guardsman Max	5 L		1.5 pt/a	PRE					
9	Integrity	5.6 L		13 fl oz/a	PRE	100	52	100		
9	Prowl H2O	3.8 L		3 pt/a	PRE					
10	Lumax	3.94 SE		2.5 qt/a	PRE	100	75	100		
	LSD (P=.05)					3.6	10.5	3.1	.	.
	Standard Deviation					2.1	6.1	1.8	.	.
	CV					2.34	8.37	2.04	.	.