

PREEMERGENCE WEED CONTROL IN CORN WITH SHARPEN COMBINATIONS, 2010

Trial ID: C2310 Protocol ID: C2310
 Location: Campus, C-25 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: DKC 46-61
BBCH Scale: BCOR **Planting Date:** May-6-10
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

Analyzed By:
 300 lbs/A 46-0-0, 125 lbs/A 19-19-19 in Row

Application Description

	A	B
Application Date:	May-6-10	Jun-1-10
Time of Day:	12:30 pm	10:30 pm
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	EP
Application Placement:	BROADC	BROADC
Air Temperature, Unit:	61 F	71 F
% Relative Humidity:	56	55
Wind Velocity, Unit:	4.5 MPH	0 MPH
Wind Direction:	W	
Soil Temperature, Unit:	59 F	72 F
Soil Moisture:	3	4
% Cloud Cover:	80	55

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:		BBCH
Stage Majority, Percent:		V4
Stage Minimum, Percent:		V3
Stage Maximum, Percent:		V4
Height, Unit:		8 IN
Height Minimum, Maximum:		5 9

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Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ANGR W	ANGR W
Pest 2 Code, Type, Scale:	CHEAL W	CHEAL W
Pest 3 Code, Type, Scale:	AMARE W	AMARE W
Pest 4 Code, Type, Scale:	AMBEL W	AMBEL W
Pest 5 Code, Type, Scale:	ABUTH W	ABUTH W

Application Equipment

	A	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	21 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	ZEAMX						W Weed	W Weed
Pest Code							ANGR	CHEAL
Crop Code	May-26-10	May-26-10	May-27-10	May-27-10	May-27-10	May-27-10	May-27-10	May-27-10
Rating Date	number	number	injury	injury	injury	injury	control	control
Rating Type	count	count	%	%	%	%	%	%
Rating Unit								
Trt-Eval Interval	20 DAPRE	20 DAPRE	21 DAPRE	21 DAPRE	21 DAPRE	21 DAPRE	21 DAPRE	21 DAPRE

Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Growth Stage	1	2	3	4	5	6	7	8
1	Non-Treated					53	53	0	0	0	0	0	0
2	BAS 94461H	85	DF	2 oz/a	PRE	55	54	2	2	0	0	98	99
3	BAS 94461H	85	DF	2 oz/a	PRE	54	54	0	0	0	0	98	100
3	Sharpen	2.9	L	2.6 fl oz/a	PRE								
4	BAS 94461H	85	DF	2 oz/a	PRE	56	52	0	0	0	0	100	100
4	Sharpen	2.9	L	2.6 fl oz/a	PRE								
4	Atrazine	4	L	48 fl oz/a	PRE								
5	Integrity	5.6	L	20 fl oz/a	PRE	52	51	2	2	0	0	100	100
6	Integrity	5.6	L	13 fl oz/a	PRE	56	51	0	0	0	0	98	100
6	Roundup PowerMAX	4.5	L	22 fl oz/a	EP								
6	Activator 90	100	L	0.25 % v/v	EP								
6	Ammonium Sulfate	100	DF	17 lb/100 gal	EP								
7	Guardman Max	5	L	36 fl oz/a	PRE	54	53	3	2	0	2	99	100
7	Roundup PowerMAX	4.5	L	22 fl oz/a	EP								
7	Activator 90	100	L	0.25 % v/v	EP								
7	Ammonium Sulfate	100	DF	17 lb/100 gal	EP								
8	Bicep II Magnum	5.5	L	1.3 qt/a	PRE	54	53	5	5	0	0	97	100
8	Roundup PowerMAX	4.5	L	22 fl oz/a	EP								
8	Activator 90	100	L	0.25 % v/v	EP								
8	Ammonium Sulfate	100	DF	17 lb/100 gal	EP								
	LSD (P=.05)					5.6	3.4	5.2	4.2	0.0	1.8	2.2	0.7
	Standard Deviation					3.2	2.0	3.0	2.4	0.0	1.0	1.2	0.4
	CV					5.96	3.71	203.18	192.72	0.0	489.9	1.44	0.47

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Pest Code	AMARE	AMBEL	ABUTH		ANGR	CHEAL	AMARE	AMBEL
Crop Code	ZEAMX							
Rating Date	May-27-10	May-27-10	May-27-10	Jun-17-10	Jun-17-10	Jun-17-10	Jun-17-10	Jun-17-10
Rating Type	control	control	control	injury	control	control	control	control
Rating Unit	%	%	%	%	%	%	%	%
Trt-Eval Interval	21 DAPRE	21 DAPRE	21 DAPRE	42 DAPRE	42 DAPRE	42 DAPRE	42 DAPRE	42 DAPRE

Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Growth Stage	9	10	11	12	13	14	15	16
1	Non-Treated					0	0	0	0	0	0	0	0
2	BAS 94461H	85 DF		2 oz/a	PRE	100	73	90	0	96	98	98	78
3	BAS 94461H	85 DF		2 oz/a	PRE	100	83	96	0	90	98	100	90
3	Sharpen	2.9 L		2.6 fl oz/a	PRE								
4	BAS 94461H	85 DF		2 oz/a	PRE	100	95	97	0	90	100	100	93
4	Sharpen	2.9 L		2.6 fl oz/a	PRE								
4	Atrazine	4 L		48 fl oz/a	PRE								
5	Integrity	5.6 L		20 fl oz/a	PRE	100	93	96	0	99	100	98	95
6	Integrity	5.6 L		13 fl oz/a	PRE	100	80	80	0	100	100	100	97
6	Roundup PowerMAX	4.5 L		22 fl oz/a	EP								
6	Activator 90	100 L		0.25 % v/v	EP								
6	Ammonium Sulfate	100 DF		17 lb/100 gal	EP								
7	Guardsman Max	5 L		36 fl oz/a	PRE	100	75	72	0	99	97	100	96
7	Roundup PowerMAX	4.5 L		22 fl oz/a	EP								
7	Activator 90	100 L		0.25 % v/v	EP								
7	Ammonium Sulfate	100 DF		17 lb/100 gal	EP								
8	Bicep II Magnum	5.5 L		1.3 qt/a	PRE	100	73	67	0	100	97	100	97
8	Roundup PowerMAX	4.5 L		22 fl oz/a	EP								
8	Activator 90	100 L		0.25 % v/v	EP								
8	Ammonium Sulfate	100 DF		17 lb/100 gal	EP								
	LSD (P=.05)					0.0	7.1	8.3	0.0	4.5	4.8	3.7	9.6
	Standard Deviation					0.0	4.0	4.7	0.0	2.5	2.8	2.1	5.5
	CV					0.0	5.62	6.35	0.0	3.02	3.2	2.41	6.79

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ABUTH	ANGR	CHEAL	AMARE	AMBEL	ABUTH
Crop Code						
Rating Date	Jun-17-10	Jun-30-10	Jun-30-10	Jun-30-10	Jun-30-10	Jun-30-10
Rating Type	control	control	control	control	control	control
Rating Unit	%	%	%	%	%	%
Trt-Eval Interval	42 DAPRE	55 DAPRE	55 DAPRE	55 DAPRE	55 DAPRE	55 DAPRE

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	17	18	19	20	21	22
1	Non-Treated						0	0	0	0	0	0
2	BAS 94461H	85	DF	2 oz/a		PRE	73	94	92	100	30	82
3	BAS 94461H	85	DF	2 oz/a		PRE	87	77	99	100	86	93
3	Sharpen	2.9	L	2.6 fl oz/a		PRE						
4	BAS 94461H	85	DF	2 oz/a		PRE	85	83	100	100	92	92
4	Sharpen	2.9	L	2.6 fl oz/a		PRE						
4	Atrazine	4	L	48 fl oz/a		PRE						
5	Integrity	5.6	L	20 fl oz/a		PRE	89	96	100	100	90	83
6	Integrity	5.6	L	13 fl oz/a		PRE	95	97	95	100	96	93
6	Roundup PowerMAX	4.5	L	22 fl oz/a		EP						
6	Activator 90	100	L	0.25 % v/v		EP						
6	Ammonium Sulfate	100	DF	17 lb/100 gal		EP						
7	Guardman Max	5	L	36 fl oz/a		PRE	95	95	95	97	97	92
7	Roundup PowerMAX	4.5	L	22 fl oz/a		EP						
7	Activator 90	100	L	0.25 % v/v		EP						
7	Ammonium Sulfate	100	DF	17 lb/100 gal		EP						
8	Bicep II Magnum	5.5	L	1.3 qt/a		PRE	92	97	97	96	96	95
8	Roundup PowerMAX	4.5	L	22 fl oz/a		EP						
8	Activator 90	100	L	0.25 % v/v		EP						
8	Ammonium Sulfate	100	DF	17 lb/100 gal		EP						
	LSD (P=.05)						9.0	6.7	9.0	2.7	19.8	11.9
	Standard Deviation						5.1	3.8	5.1	1.5	11.3	6.8
	CV						6.64	4.8	6.03	1.78	15.43	8.65