

BURNDOWN OPTIONS IN NO-TILL, 2010

Trial ID: C1910 Protocol ID: C1910  
Location: Campus, C-27 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:** DKC46-61  
**BBCH Scale:** BCOR **Planting Date:** May-24-10  
**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:** AMBEL Ambrosia artemisiifolia  
**Common Name:** Common ragweed

**Pest 4 Type:** W **Code:** TAROF Taraxacum officinale  
**Common Name:** Common dandelion

**Pest 5 Type:** W **Code:** SONAR Sonchus arvensis  
**Common Name:** Perennial sowthistle

**Site and Design**

**Plot Width, Unit:** 10 FT **Site Type:** FIELD field  
**Plot Length, Unit:** 35 FT  
**Plot Area, Unit:** 350 FT<sup>2</sup> **Tillage Type:** NOTILL no-till  
**Replications:** 3 **Study Design:** RACOB L Randomized Complete Block (RCB)

**Trial Initiation Comments:**

**Soil Description**

**% OM:** 2.5 **Texture:** L loam  
**pH:** 6.5  
**Analyzed By:**  
300 lbs/A 46-0-0, Polymer-coated Urea

**Application Description**

**A**  
**Application Date:** May-6-10  
**Time of Day:** 9:10 am  
**Application Method:** SPRAY  
**Application Timing:** EPP  
**Application Placement:** BROADC  
**Air Temperature, Unit:** 55 F  
**% Relative Humidity:** 64  
**Wind Velocity, Unit:** 7.5 MPH  
**Wind Direction:** W  
**Soil Temperature, Unit:** 41 F  
**Soil Moisture:** 4  
**% Cloud Cover:** 70

**Crop Stage At Each Application**

**A**  
**Crop 1 Code, BBCH Scale:** ZEAMX BCOR

## BURNDOWN OPTIONS IN NO-TILL, 2010

Trial ID: C1910 Protocol ID: C1910  
 Location: Campus, C-27 Study Director: Andy Chomas  
 Project ID: Investigator: Wesley Everman

## Pest Stage At Each Application

A

**Pest 1 Code, Type, Scale:** ANGR W  
**Stage Majority, Percent:** L2  
**Stage Minimum, Percent:** L1  
**Stage Maximum, Percent:** L3  
**Height, Unit:** 0.5 IN  
**Height Minimum, Maximum:** 0.25 1  
**Density, Unit:** 17 FT2  
**Pest 2 Code, Type, Scale:** CHEAL W  
**Stage Majority, Percent:** L2  
**Stage Minimum, Percent:** COT  
**Stage Maximum, Percent:** L2  
**Height, Unit:** 0.5 IN  
**Height Minimum, Maximum:** 0.25 0.5  
**Density, Unit:** 2 FT2  
**Pest 3 Code, Type, Scale:** AMBEL W  
**Stage Majority, Percent:** L2  
**Stage Minimum, Percent:** COT  
**Stage Maximum, Percent:** L3  
**Height, Unit:** 1 IN  
**Height Minimum, Maximum:** 0.25 1  
**Density, Unit:** 1 FT2  
**Pest 4 Code, Type, Scale:** TAROF W  
**Stage Majority, Percent:** FLOWER  
**Stage Minimum, Percent:** COT  
**Stage Maximum, Percent:** FLOWER  
**Height, Unit:** 4 IN  
**Height Minimum, Maximum:** 0.5 7  
**Density, Unit:** 1 FT2  
**Pest 5 Code, Type, Scale:** SONAR W  
**Stage Majority, Percent:** ROSETT  
**Height, Unit:** 3 IN  
**Height Minimum, Maximum:** 0.5 5  
**Density, Unit:** 1 FT2

## Application Equipment

**Equipment Type:** BKPK  
**Operating Pressure, Unit:** 30 PSI  
**Nozzle Type:** FF  
**Nozzle Size:** 80015VS  
**Nozzle Spacing, Unit:** 20 IN  
**Boom Length, Unit:** 100 IN  
**Boom Height, Unit:** 18 IN  
**Ground Speed, Unit:** 3.5 mph  
**Carrier:** WATER  
**Spray Volume, Unit:** 15 GAL/AC  
**Mix Size, Unit:** 2 liters

**Equipment Comment:** \*\*\*This study has 2 different spray volumes, 15 GPA at 2.35 MPH and 10 GPA at 3.5 MPH. See treatment list for specific treatment spray volumes.



MSU Weed Science Research Program

BURNDOWN OPTIONS IN NO-TILL, 2010

Trial ID: C1910 Protocol ID: C1910  
 Location: Campus, C-27 Study Director: Andy Chomas  
 Project ID: Investigator: Wesley Everman

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ANGR	CHEAL	AMBEL	TAROF	ERICA	CAPBP	ZEAMX	ANGR
Crop Code								
Rating Date	May-24-10	May-24-10	May-24-10	May-24-10	May-24-10	May-24-10	Jun-10-10	Jun-10-10
Rating Type	control	control	control	control	control	control	injury	control
Rating Unit	%	%	%	%	%	%	%	%
Trt-Eval Interval	at PLANT	at PLANT	at PLANT	at PLANT	at PLANT	at PLANT	35 DAEPP	35 DAEPP

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	1	2	3	4	5	6	7	8
	LSD (P=.05)						6.8	0.0	1.2	24.2	11.9	6.9	0.0	33.1
	Standard Deviation						4.1	0.0	0.7	14.5	7.1	4.1	0.0	19.9
	CV						4.49	0.0	0.77	16.73	7.79	4.49	0.0	28.71

MSU Weed Science Research Program

BURNDOWN OPTIONS IN NO-TILL, 2010

Trial ID: C1910 Protocol ID: C1910  
 Location: Campus, C-27 Study Director: Andy Chomas  
 Project ID: Investigator: Wesley Everman

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	CHEAL	AMBEL	ABUTH	TAROF	ANGR	CHEAL	AMBEL
Crop Code							
Rating Date	Jun-10-10	Jun-10-10	Jun-10-10	Jun-10-10	Jun-22-10	Jun-22-10	Jun-22-10
Rating Type	control	control	control	control	control	control	control
Rating Unit	%	%	%	%	%	%	%
Trt-Eval Interval	35 DAEPP	35 DAEPP	35 DAEPP	35 DAEPP	29 DAPlant	29 DAPlant	29 DAPlant

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Growth Stage	9	10	11	12	13	14	15
1	Sharpen	2.9 L		1 fl oz/a	EPP	97	90	93	47	49	93	85
1	MSO	100 L		1 % v/v	EPP							
2	Sharpen	2.9 L		1 fl oz/a	EPP	98	100	90	90	45	97	100
2	MSO	100 L		1 % v/v	EPP							
3	Sharpen	2.9 L		1 fl oz/a	EPP	97	93	87	72	45	97	92
3	Dynamic	100 L		0.5 % v/v	EPP							
4	Sharpen	2.9 L		1 fl oz/a	EPP	98	100	98	82	63	97	95
4	Dynamic	100 L		0.5 % v/v	EPP							
5	OpTill	68 DF		2 oz/a	EPP	100	98	100	87	88	100	88
5	MSO	100 L		1 % v/v	EPP							
6	OpTill	68 DF		2 oz/a	EPP	100	100	100	85	92	100	97
6	MSO	100 L		1 % v/v	EPP							
7	OpTill	68 DF		2 oz/a	EPP	100	100	100	93	88	100	100
7	Dynamic	100 L		0.5 % v/v	EPP							
8	OpTill	68 DF		2 oz/a	EPP	100	98	100	87	93	100	93
8	Dynamic	100 L		0.5 % v/v	EPP							
9	Integrity	5.6 L		13 fl oz/a	EPP	100	100	100	88	74	98	100
9	MSO	100 L		1 % v/v	EPP							
10	Integrity	5.6 L		13 fl oz/a	EPP	100	100	100	77	68	100	95
10	MSO	100 L		1 % v/v	EPP							
11	Integrity	5.6 L		13 fl oz/a	EPP	100	100	97	85	67	100	98
11	Dynamic	100 L		0.5 % v/v	EPP							
12	Integrity	5.6 L		13 fl oz/a	EPP	100	100	96	87	76	97	98
12	Dynamic	100 L		0.5 % v/v	EPP							
13	Non-Treated					0	0	0	0	0	0	0
14	Basis	75 WG		0.5 oz/a	EPP	100	97	88	98	91	98	97
14	2,4-D Ester	3.8 L		1 pt/a	EPP							
14	Herbimax	100 L		1 % v/v	EPP							
15	Basis	75 WG		0.5 oz/a	EPP	100	100	90	100	83	95	97
15	2,4-D Ester	3.8 L		1 pt/a	EPP							
15	Roundup PowerMAX	4.5 L		22 fl oz/a	EPP							
15	Ammonium Sulfate	100 DF		17 lb/100 gal	EPP							
15	Activator 90	100 L		0.25 % v/v	EPP							
16	Basis	75 WG		0.5 oz/a	EPP	100	100	100	97	82	100	97
16	2,4-D Ester	3.8 L		1 pt/a	EPP							
16	Atrazine	4 L		1 qt/a	EPP							
16	Roundup PowerMAX	4.5 L		22 fl oz/a	EPP							
16	Ammonium Sulfate	100 DF		17 lb/100 gal	EPP							
16	Activator 90	100 L		0.25 % v/v	EPP							

MSU Weed Science Research Program

BURNDOWN OPTIONS IN NO-TILL, 2010

Trial ID: C1910 Protocol ID: C1910  
 Location: Campus, C-27 Study Director: Andy Chomas  
 Project ID: Investigator: Wesley Everman

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	CHEAL	AMBEL	ABUTH	TAROF	ANGR	CHEAL	AMBEL
Crop Code							
Rating Date	Jun-10-10	Jun-10-10	Jun-10-10	Jun-10-10	Jun-22-10	Jun-22-10	Jun-22-10
Rating Type	control	control	control	control	control	control	control
Rating Unit	%	%	%	%	%	%	%
Trt-Eval Interval	35 DAEPP	35 DAEPP	35 DAEPP	35 DAEPP	29 DAPlant	29 DAPlant	29 DAPlant

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	9	10	11	12	13	14	15
LSD (P=.05)							3.8	7.2	10.0	23.4	29.1	6.5	13.6
Standard Deviation							2.3	4.3	6.0	14.0	17.4	3.9	8.2
CV							2.43	4.7	6.67	17.64	25.2	4.23	9.12

MSU Weed Science Research Program

BURNDOWN OPTIONS IN NO-TILL, 2010

Trial ID: C1910 Protocol ID: C1910  
 Location: Campus, C-27 Study Director: Andy Chomas  
 Project ID: Investigator: Wesley Everman

Pest Type	W Weed	W Weed
Pest Code	ABUTH	TAROF
Crop Code		
Rating Date	Jun-22-10	Jun-22-10
Rating Type	control	control
Rating Unit	%	%
Trt-Eval Interval	29 DAPlant	29 DAPlant

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Growth Stage	16	17
1	Sharpen	2.9 L		1 fl oz/a	EPP	91	71
1	MISO	100 L		1 % v/v	EPP		
2	Sharpen	2.9 L		1 fl oz/a	EPP	95	72
2	MISO	100 L		1 % v/v	EPP		
3	Sharpen	2.9 L		1 fl oz/a	EPP	85	60
3	Dynamic	100 L		0.5 % v/v	EPP		
4	Sharpen	2.9 L		1 fl oz/a	EPP	97	63
4	Dynamic	100 L		0.5 % v/v	EPP		
5	OpTill	68 DF		2 oz/a	EPP	85	75
5	MISO	100 L		1 % v/v	EPP		
6	OpTill	68 DF		2 oz/a	EPP	98	78
6	MISO	100 L		1 % v/v	EPP		
7	OpTill	68 DF		2 oz/a	EPP	100	88
7	Dynamic	100 L		0.5 % v/v	EPP		
8	OpTill	68 DF		2 oz/a	EPP	100	73
8	Dynamic	100 L		0.5 % v/v	EPP		
9	Integrity	5.6 L		13 fl oz/a	EPP	100	73
9	MISO	100 L		1 % v/v	EPP		
10	Integrity	5.6 L		13 fl oz/a	EPP	100	70
10	MISO	100 L		1 % v/v	EPP		
11	Integrity	5.6 L		13 fl oz/a	EPP	95	87
11	Dynamic	100 L		0.5 % v/v	EPP		
12	Integrity	5.6 L		13 fl oz/a	EPP	88	82
12	Dynamic	100 L		0.5 % v/v	EPP		
13	Non-Treated					0	0
14	Basis	75 WG		0.5 oz/a	EPP	92	97
14	2,4-D Ester	3.8 L		1 pt/a	EPP		
14	Herbimax	100 L		1 % v/v	EPP		
15	Basis	75 WG		0.5 oz/a	EPP	97	100
15	2,4-D Ester	3.8 L		1 pt/a	EPP		
15	Roundup PowerMAX	4.5 L		22 fl oz/a	EPP		
15	Ammonium Sulfate	100 DF		17 lb/100 gal	EPP		
15	Activator 90	100 L		0.25 % v/v	EPP		
16	Basis	75 WG		0.5 oz/a	EPP	100	90
16	2,4-D Ester	3.8 L		1 pt/a	EPP		
16	Atrazine	4 L		1 qt/a	EPP		
16	Roundup PowerMAX	4.5 L		22 fl oz/a	EPP		
16	Ammonium Sulfate	100 DF		17 lb/100 gal	EPP		
16	Activator 90	100 L		0.25 % v/v	EPP		

MSU Weed Science Research Program

BURNDOWN OPTIONS IN NO-TILL, 2010

Trial ID: C1910                      Protocol ID: C1910  
 Location: Campus, C-27      Study Director: Andy Chomas  
 Project ID:                              Investigator: Wesley Everman

Pest Type		W Weed	W Weed
Pest Code		ABUTH	TAROF
Crop Code			
Rating Date		Jun-22-10	Jun-22-10
Rating Type		control	control
Rating Unit		%	%
Trt-Eval Interval		29 DAPlant	29 DAPlant

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	16	17
---------	----------------	-----------	-----------	------	-----------	--------------	----	----

LSD (P=.05)	13.2	20.7
Standard Deviation	7.9	12.4
CV	8.91	16.83