

MONSANTO NEW FORMULATION COMPARISON STUDY, 2010

Trial ID: C0110 Protocol ID: C0110
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: P34Y17
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:** SPLBLO Split-Block

Trial Initiation Comments:
Fall Chisel, Spring Field Cultivate X2

Soil Description

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

Application Description

A
Application Date: Jun-10-10
Time of Day: 8:30 pm
Application Method: SPRAY
Application Timing: LP
Application Placement: BROADC
Air Temperature, Unit: 75 F
% Relative Humidity: 65
Wind Velocity, Unit: 1 MPH
Wind Direction: W
Soil Temperature, Unit: 70 F
Soil Moisture: 4
% Cloud Cover: 98

Crop Stage At Each Application

A
Crop 1 Code, BBCH Scale: ZEAMX BCOR
Stage Scale Used: BBCH
Stage Majority, Percent: V4
Stage Minimum, Percent: V4
Stage Maximum, Percent: V5
Height, Unit: 16 IN
Height Minimum, Maximum: 16 18

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Pest Stage At Each Application**A**

Pest 1 Code, Type, Scale: ANGR W
Stage Majority, Percent: L4
Height, Unit: 10 IN
Height Minimum, Maximum: 8 12
Density, Unit: 8 FT2
Pest 2 Code, Type, Scale: CHEAL W
Stage Majority, Percent: L10
Stage Minimum, Percent: COT
Stage Maximum, Percent: L13
Height, Unit: 10 IN
Height Minimum, Maximum: 0.25 19
Density, Unit: 67 FT2
Pest 3 Code, Type, Scale: AMARE W
Stage Majority, Percent: L8
Stage Minimum, Percent: L8
Stage Maximum, Percent: L12
Height, Unit: 9 IN
Height Minimum, Maximum: 7 15
Density, Unit: 1 FT2
Pest 4 Code, Type, Scale: AMBEL W
Stage Majority, Percent: L8
Stage Minimum, Percent: L6
Stage Maximum, Percent: L10
Height, Unit: 10 IN
Height Minimum, Maximum: 10 12
Density, Unit: 12 FT2
Pest 5 Code, Type, Scale: ABUTH W
Stage Majority, Percent: L4
Stage Minimum, Percent: L1
Stage Maximum, Percent: L4
Height, Unit: 9 IN
Height Minimum, Maximum: 7 12
Density, Unit: 1 FT2

Application Equipment

Equipment Type: CUB
Operating Pressure, Unit: 30 PSI
Nozzle Type: FF
Nozzle Size: 8002
Nozzle Spacing, Unit: 20 IN
Boom Length, Unit: 100 IN
Boom Height, Unit: 32 IN
Ground Speed, Unit: 3 MPH
Carrier: WATER
Spray Volume, Unit: 15 gal/ac
Mix Size, Unit: 1 gallons

MSU Weed Science Research Program

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ANGR	CHEAL	AMARE	AMBEL	ABUTH	ANGR	CHEAL
Rating Date	Jun-24-10	Jun-24-10	Jun-24-10	Jun-24-10	Jun-24-10	Jul-1-10	Jul-1-10
Rating Type	control	control	control	control	control	control	control
Rating Unit	%	%	%	%	%	%	%
Trt-Eval Interval	14 DAPO	14 DAPO	14 DAPO	14 DAPO	14 DAPO	21 DAPO	21 DAPO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	1	2	3	4	5	6	7
1	Roundup WeatherMax	4.5 L		0.5 lb ae/a		POST	87	62	80	77	70	95	64
2	MON 76398	4.5 L		0.5 lb ae/a		POST	80	68	85	77	69	88	65
3	MON 76337	4.5 L		0.5 lb ae/a		POST	88	78	83	82	72	88	69
4	MON 76435	4.5 L		0.5 lb ae/a		POST	92	72	78	77	68	92	69
5	MON 79790	4.5 L		0.5 lb ae/a		POST	90	70	80	70	65	87	69
6	MON 76441	4.5 L		0.5 lb ae/a		POST	77	55	72	62	62	87	62
7	MON 76417	4.5 L		0.5 lb ae/a		POST	78	74	78	68	67	83	67
8	MON 76439	4.5 L		0.5 lb ae/a		POST	93	86	85	72	70	97	71
9	Non-Treated						0	0	0	0	0	0	0
10	Roundup WeatherMax	4.5 L		0.75 lb ae/a		POST2	90	79	85	83	77	92	72
11	MON 76398	4.5 L		0.75 lb ae/a		POST2	89	78	91	85	83	95	71
12	MON 76337	4.5 L		0.75 lb ae/a		POST2	88	87	93	88	87	95	81
13	MON 76435	4.5 L		0.75 lb ae/a		POST2	84	76	88	77	76	96	73
14	MON 79790	4.5 L		0.75 lb ae/a		POST2	87	89	92	86	86	98	83
15	MON 76441	4.5 L		0.75 lb ae/a		POST2	91	76	85	77	72	95	68
16	MON 76417	4.5 L		0.75 lb ae/a		POST2	90	88	90	82	75	95	81
17	MON 76439	4.5 L		0.75 lb ae/a		POST2	90	89	92	82	73	97	80
18	Non-Treated						0	0	0	0	0	0	0
LSD (P=.05)							11.0	9.8	10.1	7.3	8.9	6.4	7.9
Standard Deviation							6.6	5.9	6.1	4.4	5.3	3.9	4.7
CV							8.55	8.62	8.03	6.37	8.17	4.69	7.46

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Pest Type	W Weed	W Weed	W Weed
Pest Code	AMARE	AMBEL	ABUTH
Crop Code			
Rating Date	Jul-1-10	Jul-1-10	Jul-1-10
Rating Type	control	control	control
Rating Unit	%	%	%
Trt-Eval Interval	21 DAPO	21 DAPO	21 DAPO

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	8	9	10
1	Roundup WeatherMax	4.5 L		0.5 lb ae/a		POST	93	99	77
2	MON 76398	4.5 L		0.5 lb ae/a		POST	78	91	86
3	MON 76337	4.5 L		0.5 lb ae/a		POST	90	96	85
4	MON 76435	4.5 L		0.5 lb ae/a		POST	85	92	90
5	MON 79790	4.5 L		0.5 lb ae/a		POST	88	91	77
6	MON 76441	4.5 L		0.5 lb ae/a		POST	82	68	53
7	MON 76417	4.5 L		0.5 lb ae/a		POST	93	89	87
8	MON 76439	4.5 L		0.5 lb ae/a		POST	88	83	81
9	Non-Treated						0	0	0
10	Roundup WeatherMax	4.5 L		0.75 lb ae/a		POST2	96	99	86
11	MON 76398	4.5 L		0.75 lb ae/a		POST2	97	98	95
12	MON 76337	4.5 L		0.75 lb ae/a		POST2	97	98	93
13	MON 76435	4.5 L		0.75 lb ae/a		POST2	93	95	96
14	MON 79790	4.5 L		0.75 lb ae/a		POST2	97	99	96
15	MON 76441	4.5 L		0.75 lb ae/a		POST2	86	97	92
16	MON 76417	4.5 L		0.75 lb ae/a		POST2	97	94	91
17	MON 76439	4.5 L		0.75 lb ae/a		POST2	98	97	81
18	Non-Treated						0	0	0
	LSD (P=.05)						8.6	7.0	17.5
	Standard Deviation						5.2	4.2	10.5
	CV						6.4	5.08	13.84