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No-Till Wheat Marestail Management

Trial ID: 14WHEAT Location: Trial Year: 2014
 Protocol ID: 13WHEAT Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Crop 1: TRZAW Triticum aestivum (winter) **Crop Description**
 Variety: 112316 Winter wheat
BBCH Scale: BCER

Description: Seed Consultants SC 1342

Planting Rate, Unit: 126 lb/a
Depth, Unit: 0.75 IN
Row Spacing, Unit: 7.5 IN
Soil Temperature, Unit: 65 F
Soil Moisture: SLIWET slightly wet, moist
Seed Bed: MEDTRA medium/trashy

Planting Date: Oct-5-2013
Planting Method: DRILLE drilled
Planting Equipment: DD Disc Drill
Emergence Date: Oct-14-2013

Pest Description

Pest 1 Type: W **Code:** STEME Stellaria media
Common Name: Common chickweed

Pest 2 Type: W **Code:** LAMPU Lamium purpureum
Common Name: Purple deadnettel

Pest 3 Type: W **Code:** RANAB Ranunculus abortivus
Common Name: Smallflower buttercup

Site and Design

Treated Plot Width: 10 FT
Treated Plot Length: 30 FT
Treated Plot Area: 300 FT2 **Treatments:** 16
Replications: 3

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: NOTILL no-till
Study Design: FACTOR Factorial

No. Previous Crop Year

1. Soybean 2013

Soil Description

Description Name: G-8 East
% OM: 1.7 **Texture:** SIC silty clay
pH: 7 **Soil Name:** Crosby
CEC: 15 **Fert. Level:** M
Soil Drainage: F fair

Application Description

	A	B	C
Application Date:	Oct-5-2013	Nov-8-2013	Apr-9-2014
Appl. Start Time:	12:45 PM	10:00 AM	10:00 AM
Appl. Stop Time:	1:00 PM	10:15 AM	10:30 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	2" WHEAT	SPRING
Application Placement:	BROFOL	BROFOL	BROFOL
Applied By:	Dobbels	Dobbels	Dobbels
Air Temperature, Unit:	72 F	42 F	52.5 F
% Relative Humidity:	80	86	72
Wind Velocity, Unit:	3 MPH	5 MPH	2 MPH
Wind Direction:	WSW	WNW	SE
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	68 F	40 F	54 F
Soil Moisture:	WET	WET	WET
% Cloud Cover:	90	95	20
Next Moisture Occurred On:	Oct-5-2013	Nov-11-2013	Apr-11-2014
Time to Next Moisture, Unit:	10 HR	3 DAY	2 DAY

Crop Stage At Each Application

	A		B		C	
Crop 1 Code, BBCH Scale:	TRZAW	BCER	TRZAW	BCER	TRZAW	BCER
Stage Scale Used:			BBCH		BBCH	
Stage Majority, Percent:			13	100	30	100
Height, Unit:			3	IN	8	IN
Height Minimum, Maximum:			3	3	8	12

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Pest Stage At Each Application

	A		B		C	
	STEME	W	STEME	W	STEME	W
Pest 1 Code, Type, Scale:	STEME	W	STEME	W	STEME	W
Stage Majority, Percent:			15	30	19	00
Stage Minimum, Percent:			14	40		
Stage Maximum, Percent:			50	30		
Diameter, Unit:			1	IN	2	IN
Height, Unit:			0.5	IN	1	IN
Height Minimum, Maximum:			0.25	0.5	0.5	1
Density, Unit:			3	M2	3	M2
Pest 2 Code, Type, Scale:	LAMPU	W	LAMPU	W	LAMPU	W
Stage Majority, Percent:			14	90	16	100
Stage Minimum, Percent:			14	90		
Stage Maximum, Percent:			16	10		
Diameter, Unit:			1	IN	1	IN
Height, Unit:			1	IN	1	IN
Height Minimum, Maximum:			0.5	1	1	2
Density, Unit:			8	M2	8	M2
Pest 3 Code, Type, Scale:	RANAB	W	RANAB	W	RANAB	W
Stage Majority, Percent:					14	90
Stage Minimum, Percent:					14	90
Stage Maximum, Percent:					16	10
Diameter, Unit:					2	IN
Height, Unit:					1	IN
Height Minimum, Maximum:					1	2
Density, Unit:					2	M2

Application Equipment

	A		B		C	
Appl. Equipment:	10'	AI XR	10'	AI XR	10'	AI XR
Equipment Type:		SPRBAC		SPRBAC		SPRBAC
Operation Pressure, Unit:	46	PSI	46	PSI	46	PSI
Nozzle Type:		AI XR		AI XR		AI XR
Nozzle Size:		110015		110015		110015
Nozzle Spacing, Unit:		18 IN		18 IN		18 IN
Boom Length, Unit:		10 FT		10 FT		10 FT
Boom Height, Unit:		20 IN		20 IN		20 IN
Ground Speed, Unit:		3 MPH		3 MPH		3 MPH
Carrier:		WATER		WATER		WATER
Spray Volume, Unit:	15	GPA	15	GPA	15	GPA
Mix Size, Unit:	0.33	Gallons	0.33	Gallons	0.33	Gallons
Propellant:		CO2		CO2		CO2

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	STEME	LAMPU	AMBTR	AMBTR
Pest Scientific Name	Stellaria media	Lamium purpure>	Ambrosia trifi>	Ambrosia trifi>
Pest Name	Common chickwe>	Purple deadnet>	Giant ragweed	Giant ragweed
Rating Date	Apr-29-2014	Apr-29-2014	Apr-29-2014	May-28-2014
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
SE Group No.	1	2	3	5
Days After First/Last Applic.	206 20	206 20	206 20	235 49
Plant-Eval Interval	206 DP-1	206 DP-1	206 DP-1	235 DP-1
Days After Emergence	197 DE-1	197 DE-1	197 DE-1	226 DE-1
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	1	2	3	4
9 Roundup WeatherMax	0.77 lb ae/a		22 oz/a		A	100	100	100	100
9 Sharpen	0.0223 lb ai/a		1 oz/a						
9 MSO	1 % v/v		0.6 qt/a						
9 Clarity	0.5 lb ai/a		1 pt/a		B				
9 Express	0.0156 lb ai/a		0.5 oz/a						
9 NIS	0.25 % v/v		4.8 oz/a						
9 2,4-D	0.5 lb ai/a		1 pt/a		C				
10 Roundup WeatherMax	0.77 lb ae/a		22 oz/a		A	100	100	90	100
10 Sharpen	0.0223 lb ai/a		1 oz/a						
10 MSO	1 % v/v		0.6 qt/a						
10 Clarity	0.5 lb ai/a		1 pt/a		B				
10 Express	0.0156 lb ai/a		0.5 oz/a						
10 NIS	0.25 % v/v		4.8 oz/a						
10 Harmony Extra	0.028 lb ai/a		0.9 oz/a		C				
10 2,4-D	0.5 lb ai/a		16 oz/a						
10 NIS	0.25 % v/v		4.8 oz/a						
11 Roundup WeatherMax	0.77 lb ae/a		22 oz/a		A	100	100	100	93
11 Sharpen	0.0223 lb ai/a		1 oz/a						
11 MSO	1 % v/v		0.6 qt/a						
11 Clarity	0.5 lb ai/a		1 pt/a		B				
11 Express	0.0156 lb ai/a		0.5 oz/a						
11 NIS	0.25 % v/v		4.8 oz/a						
11 Huskie	0.29 lb ai/a		15 oz/a		C				
12 Roundup WeatherMax	0.77 lb ae/a		22 oz/a		A	100	100	97	73
12 Sharpen	0.0223 lb ai/a		1 oz/a						
12 MSO	1 % v/v		0.6 qt/a						
12 Clarity	0.5 lb ai/a		1 pt/a		B				
12 Express	0.0156 lb ai/a		0.5 oz/a						
12 NIS	0.25 % v/v		4.8 oz/a						
12 NO SPRING									
13 NO FALL						93	93	100	100
13 2,4-D	0.5 lb ai/a		1 pt/a		C				
14 NO FALL						100	100	93	100
14 Harmony Extra	0.028 lb ai/a		0.9 oz/a		C				
14 2,4-D	0.5 lb ai/a		16 oz/a						
14 NIS	0.25 % v/v		4.8 oz/a						
15 NO FALL						100	100	100	100
15 Huskie	0.29 lb ai/a		15 oz/a		C				
16 NO FALL						0	0	0	87
16 NO SPRING									
LSD (P=.05)						6.9	5.5	18.5	22.1
Standard Deviation						4.1	3.3	11.1	13.3
CV						4.47	3.51	12.42	14.0
Bartlett's X2						0.0	0.879	4.733	11.739
P(Bartlett's X2)						.	0.349	0.693	0.068
Skewness						-3.5823*	-3.6363*	-2.9116*	-3.5672*
Kurtosis						11.6236*	11.9249*	7.9464*	14.1764*
Replicate F						0.484	0.584	0.623	0.331
Replicate Prob(F)						0.6211	0.5637	0.5432	0.7206
Treatment F						107.839	173.909	14.397	1.059
Treatment Prob(F)						0.0001	0.0001	0.0001	0.4296

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Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

Pest Code

STEME, Stellaria media, = US

LAMPU, Lamium purpureum, = US

AMBTR, Ambrosia trifida, = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent

Plant-Eval Interval

206 DP-1 = 1 TRZAW Oct-5-2013

235 DP-1 = 1 TRZAW Oct-5-2013