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No-Till Wheat Marestail Management

Trial ID: 13WHEAT Location: Western Branch G-7 Trial Year:
 Protocol ID: 13WHEAT Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Crop Description

Crop 1: TRZAW Triticum aestivum (winter) Winter wheat
Variety: Pioneer 25R39 **BBCH Scale:** BCER

Planting Rate, Unit: 90 LB/A
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Soil Temperature, Unit: 58 F
Soil Moisture: GOOD good
Seed Bed: ROUGH rough

Planting Date: Oct-1-2012
Planting Method: DRILLE drilled
Planting Equipment: DD Disc Drill
Emergence Date: Oct-16-2012

Pest Description

Pest 1 Type: W **Code:** LAMPU Lamium purpureum
Common Name: Purple deadnettel

Pest 2 Type: W **Code:** STEME Stellaria media
Common Name: Common chickweed

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

Site and Design

Treated Plot Width: 6.67 FT
Treated Plot Length: 30 FT
Treated Plot Area: 200.1 FT2 **Treatments:** 16
Replications: 3

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

Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: G-7 West
% OM: 1.7 **Texture:** SIL silt loam
pH: 6.1 **Soil Name:** Crosby
CEC: 12.8 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	Oct-1-2012	Nov-9-2012	Apr-27-2013
Appl. Start Time:	5:00 P.M.	10:00 A.M	1:00 PM
Appl. Stop Time:	5:30 PM	10:30 AM	1:30 PM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	FALL	SPRING
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	Johnson	Reeb	Dobbels
Air Temperature, Unit:	63.3 F	54 F	65 F
% Relative Humidity:	62.5	68	42
Wind Velocity, Unit:	4 MPH	5.5 MPH	6.5 MPH
Wind Direction:	ENE	S	E
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	58 F	50 F	54 F
Soil Moisture:	MOIST	MOIST	MOIST
% Cloud Cover:	100	0	50
Next Moisture Occurred On:	Oct-1-2012	Nov-12-2012	Apr-28-2013
Time to Next Moisture, Unit:	2 HR	3 DAY	1 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	23	100
Height, Unit:			5	IN	12	UB
Height Minimum, Maximum:			4	5	12	13

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Pest Stage At Each Application

	A		B		C	
	LAMPU	W	LAMPU	W	LAMPU	W
Pest 1 Code, Type, Scale:						
Stage Majority, Percent:			19	100	67	100
Diameter, Unit:			0.5	IN	3	IN
Height, Unit:			1	IN	6	IN
Height Minimum, Maximum:			0.5	1	6	7
Density, Unit:			6	M2	6	M2
Pest 2 Code, Type, Scale:	STEME	W	STEME	W	STEME	W
Stage Majority, Percent:					67	100
Diameter, Unit:					8	IN
Height, Unit:					2	IN
Height Minimum, Maximum:					2	4
Density, Unit:					3	M2
Pest 3 Code, Type, Scale:	AMBTR	W	AMBTR	W	AMBTR	W
Stage Majority, Percent:					12	100
Diameter, Unit:					2	IN
Height, Unit:					2	IN
Height Minimum, Maximum:					2	3
Density, Unit:					12	M2

Application Equipment

	A		B		C	
Appl. Equipment:	6 foot boom		6 foot boom			
Equipment Type:	SPRBAC		SPRBAC			
Operation Pressure, Unit:	46	PSI	46	PSI		
Nozzle Type:	AI XR		AI XR			
Nozzle Size:	110015		110015			
Nozzle Spacing, Unit:	18	IN	18	IN		
Boom Length, Unit:	6	FT	6	FT		
Boom Height, Unit:	20	IN	20	IN		
Ground Speed, Unit:	3	MPH	3	MPH		
Carrier:	WATER		WATER			
Spray Volume, Unit:	15	GPA	15	GPA		
Mix Size, Unit:	1	Liters	1	Liters		
Propellant:	CO2		CO2			

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 Protocol ID: 13WHEAT Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Code	STEME	LAMPU	STEME	LAMPU	ERICA	AMBTR
Rating Date	Apr-26-201	Apr-26-2013	May-29-201	May-29-2013	May-29-2013	May-29-201
Rating Type	3			3		
Rating Unit	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Plant-Eval Interval	%	%	%	%	%	%
Days After Emergence	207 DP-1	207 DP-1	240 DP-1	240 DP-1	240 DP-1	240 DP-1
Days After First/Last Applic.	192 DE-1	192 DE-1	225 DE-1	225 DE-1	225 DE-1	225 DE-1
	207 168	207 168	240 32	240 32	240 32	240 32

Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Code	1	2	3	4	5	6
1	Roundup WeatherMax	22 oz/a		PRE	A	0 a	0 b	100 a	100 a	100 a	100 a
	1 Sharpen	1 oz/a		PRE							
	1 MSO	0.6 qt/a		PRE							
	1 2,4-D	1 pt/a		SPRING	C						
2	Roundup WeatherMax	22 oz/a		PRE	A	0 a	0 b	100 a	100 a	100 a	100 a
	2 Sharpen	1 oz/a		PRE							
	2 MSO	0.6 qt/a		PRE							
	2 Harmony Extra	0.9 oz/a		SPRING	C						
	2 2,4-D	16 oz/a		SPRING							
	2 NIS	4.8 oz/a		SPRING							
3	Roundup WeatherMax	22 oz/a		PRE	A	33 a	17 b	100 a	100 a	100 a	100 a
	3 Sharpen	1 oz/a		PRE							
	3 MSO	0.6 qt/a		PRE							
	3 Huskie	15 oz/a		SPRING	C						
4	Roundup WeatherMax	22 oz/a		PRE	A	33 a	0 b	100 a	100 a	100 a	100 a
	4 Sharpen	1 oz/a		PRE							
	4 MSO	0.6 qt/a		PRE							
	4 NO SPRING										
5	Clarity	1 pt/a		FALL	B	100 a	88 a	100 a	100 a	100 a	100 a
	5 Express	0.5 oz/a		FALL							
	5 NIS	4.8 oz/a		FALL							
	5 2,4-D	1 pt/a		SPRING	C						
6	Clarity	1 pt/a		FALL	B	100 a	95 a	100 a	100 a	100 a	100 a
	6 Express	0.5 oz/a		FALL							
	6 NIS	4.8 oz/a		FALL							
	6 Harmony Extra	0.9 oz/a		SPRING	C						
	6 2,4-D	16 oz/a		SPRING							
	6 NIS	4.8 oz/a		SPRING							
7	Clarity	1 pt/a		FALL	B	100 a	93 a	100 a	100 a	100 a	100 a
	7 Express	0.5 oz/a		FALL							
	7 NIS	4.8 oz/a		FALL							
	7 Huskie	15 oz/a		SPRING	C						
8	Clarity	1 pt/a		FALL	B	100 a	100 a	100 a	100 a	100 a	100 a
	8 Express	0.5 oz/a		FALL							
	8 NIS	4.8 oz/a		FALL							
	8 NO SPRING										
9	Roundup WeatherMax	22 oz/a		PRE	A	100 a	100 a	100 a	100 a	100 a	100 a
	9 Sharpen	1 oz/a		PRE							
	9 MSO	0.6 qt/a		PRE							
	9 Clarity	1 pt/a		FALL	B						
	9 Express	0.5 oz/a		FALL							
	9 NIS	4.8 oz/a		FALL							
	9 2,4-D	1 pt/a		SPRING	C						

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Code	STEME	LAMPU	STEME	LAMPU	ERICA	AMBTR
Rating Date	Apr-26-201	Apr-26-2013	May-29-201	May-29-2013	May-29-2013	May-29-201
Rating Type	3 CONTRO	3 CONTRO	3 CONTRO	3 CONTRO	3 CONTRO	3 CONTRO
Rating Unit	%	%	%	%	%	%
Plant-Eval Interval	207 DP-1	207 DP-1	240 DP-1	240 DP-1	240 DP-1	240 DP-1
Days After Emergence	192 DE-1	192 DE-1	225 DE-1	225 DE-1	225 DE-1	225 DE-1
Days After First/Last Applic.	207 168	207 168	240 32	240 32	240 32	240 32

Trt No.	Treatment Name	Other Rate	Other Rate Unit	Growth Stage	Appl Code	1	2	3	4	5	6
10	Roundup WeatherMax	22 oz/a		PRE	A	100 a	100 a	100 a	100 a	100 a	100 a
10	Sharpen	1 oz/a		PRE							
10	MSO	0.6 qt/a		PRE							
10	Clarity	1 pt/a		FALL	B						
10	Express	0.5 oz/a		FALL							
10	NIS	4.8 oz/a		FALL							
10	Harmony Extra	0.9 oz/a		SPRING	C						
10	2,4-D	16 oz/a		SPRING							
10	NIS	4.8 oz/a		SPRING							
11	Roundup WeatherMax	22 oz/a		PRE	A	100 a	87 a	100 a	100 a	100 a	100 a
11	Sharpen	1 oz/a		PRE							
11	MSO	0.6 qt/a		PRE							
11	Clarity	1 pt/a		FALL	B						
11	Express	0.5 oz/a		FALL							
11	NIS	4.8 oz/a		FALL							
11	Huskie	15 oz/a		SPRING	C						
12	Roundup WeatherMax	22 oz/a		PRE	A	100 a	93 a	100 a	100 a	100 a	100 a
12	Sharpen	1 oz/a		PRE							
12	MSO	0.6 qt/a		PRE							
12	Clarity	1 pt/a		FALL	B						
12	Express	0.5 oz/a		FALL							
12	NIS	4.8 oz/a		FALL							
12	NO SPRING										
13	NO FALL					33 a	20 b	100 a	100 a	100 a	100 a
13	2,4-D	1 pt/a		SPRING	C						
14	NO FALL					33 a	0 b	100 a	100 a	100 a	100 a
14	Harmony Extra	0.9 oz/a		SPRING	C						
14	2,4-D	16 oz/a		SPRING							
14	NIS	4.8 oz/a		SPRING							
15	NO FALL					33 a	0 b	100 a	100 a	100 a	100 a
15	Huskie	15 oz/a		SPRING	C						
16	NO FALL					33 a	33 b	100 a	100 a	100 a	100 a
16	NO SPRING										
LSD (P=.05)						56.9	32.1	0.0	0.0	0.0	0.0
Standard Deviation						34.2	19.2	0.0	0.0	0.0	0.0
CV						54.65	37.23	0.0	0.0	0.0	0.0
Bartlett's X2						0.0	13.466	0.0	0.0	0.0	0.0
P(Bartlett's X2)						.	0.062	.	.	.	.
Skewness						-0.5332	-0.1432	.	.	.	.
Kurtosis						-1.7922*	-1.9594*	.	.	.	.
Replicate F						2.143	1.083	0.000	0.000	0.000	0.000
Replicate Prob(F)						0.1349	0.3516	1.0000	1.0000	1.0000	1.0000
Treatment F						4.143	16.671	0.000	0.000	0.000	0.000
Treatment Prob(F)						0.0005	0.0001	1.0000	1.0000	1.0000	1.0000

Pest Code
STEME, Stellaria media, = US
LAMPU, Lamium purpureum, = US
ERICA, Conyza canadensis, = US
AMBTR, Ambrosia trifida, = US

Rating Type
CONTRO = control / burndown or knockdown

Rating Unit
% = percent

Plant-Eval Interval
207 DP-1 = 1 TRZAW Oct-1-2012
240 DP-1 = 1 TRZAW Oct-1-2012