

Huskie Broadleaf Weed Control in Winter Wheat

Trial ID: 15WHEAT1 Location: Western Branch F-10 W Trial Year: 2015
 Protocol ID: 15WHEAT1 Investigator: Dr. Mark M. Loux
 Project ID: HP14USASVE Study Director: Anthony Dobbels
 Sponsor Contact: David Lamore, Bayer CropScience

General Trial Information

Study Director: Anthony Dobbels
Investigator: Dr. Mark M. Loux

Trial Location

City: South Charleston **Country:** USA United States
State/Prov.: Ohio
Postal Code: 45368 **Climate Zone:** USWARM US Warm Continental

Latitude of LL Corner °: 39.85874 N
Longitude of LL Corner °: -83.67255 W

Conducted Under GLP: No
Conducted Under GEP: Yes

Contacts

Study Director: Anthony Dobbels

Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: TRZAW Triticum aestivum (winter) Winter wheat
Variety: SC 1342
Description: Seed Consultants
Seed Size, Unit: 12850 SEED/LB

Planting Rate, Unit: 126 LB/A
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Planting Density, Unit: 1619100 S/A
Soil Temperature, Unit: 50 F
Soil Moisture: SLIWET slightly wet, moist
Seed Bed: MEDTRA medium/trashy

Planting Date: 10-9-2014
Planting Method: DRILLE drilled
Planting Equipment: DD Disc Drill
Emergence Date: 10-19-2014

Pest Description

Pest 1 Type: W **Code:** ERICA Conyza canadensis
Common Name: Canada horseweed

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

Pest 3 Type: W **Code:** ERYRE Erysimum repandum
Common Name: Bushy wallflower

Pest 4 Type: W **Code:** STEME Stellaria media
Common Name: Common chickweed

Pest 5 Type: W **Code:** RANAB Ranunculus abortivus
Common Name: Smallflower buttercup

Pest 6 Type: W **Code:** SENGL Senecio glabellus
Common Name: Cressleaf groundsel

Pest 7 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed

Site and Design

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

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: NOTILL no-till
Study Design: RACOB L Randomized Complete Block (RCB)

No. Previous Crop Year

1. Soybean 2014

Soil Description

Description Name: F-10 West

% OM: 1.6

pH: 6.6

CEC: 9

Texture: SIC silty clay

Soil Name: Crosby

Fert. Level: G good

Soil Drainage: G good

Additional Measured Elements

Date	Element	Quantity	Unit
4-16-2015	28% UAN	33	GPA

Application Description

	A	B
Application Date:	11-10-2014	4-24-2015
Appl. Start Time:	11:00 AM	11:00 AM
Appl. Stop Time:	11:30 AM	11:30 AM
Application Method:	SPRAY	SPRAY
Application Timing:	FALL	SPRING
Application Placement:	BROFOL	BROFOL
Applied By:	REEB	Dobbels
Air Temperature, Unit:	58.2 F	46 F
% Relative Humidity:	50.4	49
Wind Velocity, Unit:	7.5 MPH	6 MPH
Wind Direction:	SSW	N
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	44 F	41 F
Soil Moisture:	GOOD	MOIST
% Cloud Cover:	5	0
Next Moisture Occurred On:	11-11-2014	4-25-2015
Time to Next Moisture, Unit:	1 DAY	1 DAY

Crop Stage At Each Application

	A		B	
Crop 1 Code, BBCH Scale:	TRZAW	BCER	TRZAW	BCER
Stage Scale Used:	BBCH		BBCH	
Stage Majority, Percent:	12	100	30	100
Height, Unit:	3	IN	12	IN
Height Minimum, Maximum:	2	4	10	12

Pest Stage At Each Application

	A		B	
Pest 1 Code, Type, Scale:	ERICA	W	ERICA	W
Stage Majority, Percent:	18	100	18	100
Diameter, Unit:	0.5	IN	3	IN
Height, Unit:	0.25	IN	1	IN
Height Minimum, Maximum:	0.25	0.5	0.5	1
Density, Unit:	2	M2	2	M2
Pest 2 Code, Type, Scale:	LAMPU	W	LAMPU	W
Stage Majority, Percent:	14	100	60	80
Stage Minimum, Percent:			60	80
Stage Maximum, Percent:			67	20
Diameter, Unit:	1	IN	3	IN
Height, Unit:	0.5	IN	4	IN
Height Minimum, Maximum:	0.25	0.5	2	5
Density, Unit:	3	M2	3	M2
Pest 3 Code, Type, Scale:	ERYRE	W	ERYRE	W
Stage Majority, Percent:	19	100	60	100
Diameter, Unit:	1.5	IN	6	IN
Height, Unit:	0.5	IN	5	IN
Height Minimum, Maximum:	0.25	5	4	5
Density, Unit:	5	M2	5	M2
Pest 4 Code, Type, Scale:	STEME	W	STEME	W
Stage Majority, Percent:	16	100	60	80
Stage Minimum, Percent:			60	80
Stage Maximum, Percent:			65	20
Diameter, Unit:	0.5	IN	6	IN
Height, Unit:	0.5	IN	1	IN
Height Minimum, Maximum:			1	2
Density, Unit:	1	M2	2	M2
Pest 5 Code, Type, Scale:	RANAB	W	RANAB	W
Stage Majority, Percent:			60	90
Stage Minimum, Percent:			60	90
Stage Maximum, Percent:			65	10
Diameter, Unit:			4	IN
Height, Unit:			6	IN
Height Minimum, Maximum:			6	8
Density, Unit:			2	M2
Pest 6 Code, Type, Scale:	SENGL	W	SENGL	W
Stage Majority, Percent:			51	90
Stage Minimum, Percent:			51	90
Stage Maximum, Percent:			60	10
Diameter, Unit:			4	IN
Height, Unit:			5	IN
Height Minimum, Maximum:			4	6
Density, Unit:			0.33	M2
Pest 7 Code, Type, Scale:	AMBTR	W	AMBTR	W
Stage Majority, Percent:			12	90
Stage Minimum, Percent:			11	10
Stage Maximum, Percent:			12	90
Diameter, Unit:			3	IN
Height, Unit:			1	IN
Height Minimum, Maximum:			1	2
Density, Unit:			2	M2

Application Equipment

	A		B	
Appl. Equipment:	10'	AI XR	10'	AI XR
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:	10	FT	10	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:	2	Liters	2	Liters
Propellant:	CO2		CO2	

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Pest Type	W Weed	W Weed	W Weed	W Weed					
Pest Code	STEME	LAMPU	LAMAM	RANAB					
Pest Scientific Name	Stellaria media	Lamium purpure>	Lamium amplexi>	Ranunculus abo>					
Pest Name	Common chickwe>	Purple deadnet>	Henbit	Smallflower bu>					
Rating Date	4-29-2015	4-29-2015	4-29-2015	4-29-2015					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%					
Number of Subsamples	1	1	1	1					
Rating Timing	SPRING	SPRING	SPRING	SPRING					
Days After First/Last Applic.	170 5	170 5	170 5	170 5					
Trt-Eval Interval	5 DA-B	5 DA-B	5 DA-B	5 DA-B					
Plant-Eval Interval	202 DP-1	202 DP-1	202 DP-1	202 DP-1					
Days After Emergence	192 DE-1	192 DE-1	192 DE-1	192 DE-1					
Number of Decimals	0	0	0	0					
Trt Treatment	Other	Other	Appl	Appl	1	2	3	4	
No. Name	Rate	Rate	Unit	Code	Description				
1 UTC						0 d	0 d	0 d	0 d
2 Huskie	15 oz/a		A	FALL		100 a	95 a	100 a	97 a
2 NIS	4.8 oz/a		A	FALL					
2 U.A.N.	1 qt/a		A	FALL					
3 Huskie	15 oz/a		A	FALL		100 a	100 a	100 a	100 a
3 NIS	4.8 oz/a		A	FALL					
3 U.A.N.	1 qt/a		A	FALL					
3 Harmony Extra SG	0.45 oz/a		A	FALL					
4 Huskie	15 oz/a		A	FALL		100 a	100 a	100 a	97 a
4 NIS	4.8 oz/a		A	FALL					
4 U.A.N.	1 qt/a		A	FALL					
4 Starane	0.33 pt/a		A	FALL					
5 Clarity	1 pt/a		A	FALL		100 a	100 a	100 a	100 a
5 Express	0.5 oz/a		A	FALL					
5 NIS	4.8 oz/a		A	FALL					
5 U.A.N.	1 qt/a		A	FALL					
6 Huskie	15 oz/a		B	SPRING		0 d	0 d	0 d	0 d
6 NIS	4.8 oz/a		B	SPRING					
6 U.A.N.	1 qt/a		B	SPRING					
7 Huskie	15 oz/a		B	SPRING		0 d	0 d	0 d	0 d
7 NIS	4.8 oz/a		B	SPRING					
7 U.A.N.	1 qt/a		B	SPRING					
7 Harmony Extra SG	0.45 oz/a		B	SPRING					
8 Huskie	15 oz/a		B	SPRING		0 d	0 d	0 d	0 d
8 NIS	4.8 oz/a		B	SPRING					
8 U.A.N.	1 qt/a		B	SPRING					
8 Clarity	4 oz/a		B	SPRING					
9 Clarity	1 pt/a		B	SPRING		30 c	30 c	27 c	30 c
9 Express	0.5 oz/a		B	SPRING					
9 NIS	4.8 oz/a		B	SPRING					
9 U.A.N.	1 qt/a		B	SPRING					

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	STEME	LAMPU	LAMAM	RANAB
Pest Scientific Name	Stellaria media	Lamium purpure>	Lamium amplexi>	Ranunculus abo>
Pest Name	Common chickwe>	Purple deadnet>	Henbit	Smallflower bu>
Rating Date	4-29-2015	4-29-2015	4-29-2015	4-29-2015
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Rating Timing	SPRING	SPRING	SPRING	SPRING
Days After First/Last Applic.	170 5	170 5	170 5	170 5
Trt-Eval Interval	5 DA-B	5 DA-B	5 DA-B	5 DA-B
Plant-Eval Interval	202 DP-1	202 DP-1	202 DP-1	202 DP-1
Days After Emergence	192 DE-1	192 DE-1	192 DE-1	192 DE-1
Number of Decimals	0	0	0	0
Trt Treatment	Other	Other	Appl	Appl
No. Name	Rate	Rate	Unit	Code
10 2,4-D Ester	1 pt/a	B	SPRING	
LSD P=.05	9.4	9.2	9.7	14.4
Standard Deviation	5.5	5.3	5.7	8.4
CV	11.41	11.42	12.16	17.43
Grand Mean	48.0	46.8	46.7	48.2
Bartlett's X2	0.0	0.597	1.993	5.668
P(Bartlett's X2)	.	0.44	0.158	0.059
Skewness	0.1282	0.1792	0.2101	0.0812
Kurtosis	-1.9129*	-1.8806*	-1.9125*	-1.9445*
Replicate F	1.000	1.777	1.345	1.289
Replicate Prob(F)	0.3874	0.1976	0.2855	0.2998
Treatment F	226.222	231.485	212.414	93.626
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

Trt	Treatment	Other	Other	Appl	Appl			
No.	Name	Rate	Rate	Unit	Code	Description	5	6
	Pest Type					W Weed	W Weed	
	Pest Code					AMBTR	AMBTR	
	Pest Scientific Name					Ambrosia trifi>	Ambrosia trifi>	
	Pest Name					Giant ragweed	Giant ragweed	
	Rating Date					4-29-2015	7-1-2015	
	Rating Type					CONTRO	CONTRO	
	Rating Unit					%	%	
	Number of Subsamples					1	1	
	Rating Timing					SPRING	HARVEST	
	Days After First/Last Applic.					170 5	233 68	
	Trt-Eval Interval					5 DA-B	HARVEST	
	Plant-Eval Interval					202 DP-1	265 DP-1	
	Days After Emergence					192 DE-1	255 DE-1	
	Number of Decimals					0	0	
1	UTC						0 c	0 d
2	Huskie	15 oz/a		A	FALL		43 b	37 bc
	2 NIS	4.8 oz/a		A	FALL			
	2 U.A.N.	1 qt/a		A	FALL			
3	Huskie	15 oz/a		A	FALL		77 a	23 c
	3 NIS	4.8 oz/a		A	FALL			
	3 U.A.N.	1 qt/a		A	FALL			
	3 Harmony Extra SG	0.45 oz/a		A	FALL			
4	Huskie	15 oz/a		A	FALL		70 a	40 bc
	4 NIS	4.8 oz/a		A	FALL			
	4 U.A.N.	1 qt/a		A	FALL			
	4 Starane	0.33 pt/a		A	FALL			
5	Clarity	1 pt/a		A	FALL		78 a	53 b
	5 Express	0.5 oz/a		A	FALL			
	5 NIS	4.8 oz/a		A	FALL			
	5 U.A.N.	1 qt/a		A	FALL			
6	Huskie	15 oz/a		B	SPRING		0 c	100 a
	6 NIS	4.8 oz/a		B	SPRING			
	6 U.A.N.	1 qt/a		B	SPRING			
7	Huskie	15 oz/a		B	SPRING		0 c	100 a
	7 NIS	4.8 oz/a		B	SPRING			
	7 U.A.N.	1 qt/a		B	SPRING			
	7 Harmony Extra SG	0.45 oz/a		B	SPRING			
8	Huskie	15 oz/a		B	SPRING		0 c	100 a
	8 NIS	4.8 oz/a		B	SPRING			
	8 U.A.N.	1 qt/a		B	SPRING			
	8 Clarity	4 oz/a		B	SPRING			
9	Clarity	1 pt/a		B	SPRING		30 b	100 a
	9 Express	0.5 oz/a		B	SPRING			
	9 NIS	4.8 oz/a		B	SPRING			
	9 U.A.N.	1 qt/a		B	SPRING			

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Pest Type	W Weed	W Weed
Pest Code	AMBTR	AMBTR
Pest Scientific Name	Ambrosia trifida	Ambrosia trifida
Pest Name	Giant ragweed	Giant ragweed
Rating Date	4-29-2015	7-1-2015
Rating Type	CONTRO	CONTRO
Rating Unit	%	%
Number of Subsamples	1	1
Rating Timing	SPRING	HARVEST
Days After First/Last Applic.	170 5	233 68
Trt-Eval Interval	5 DA-B	HARVEST
Plant-Eval Interval	202 DP-1	265 DP-1
Days After Emergence	192 DE-1	255 DE-1
Number of Decimals	0	0

Trt No.	Treatment Name	Other Rate	Other Rate Unit	Appl Code	Appl Description	5	6
	10,2,4-D Ester	1	pt/a	B	SPRING	40 b	100 a
LSD P=.05						15.7	16.7
Standard Deviation						9.1	9.8
CV						26.97	14.93
Grand Mean						33.8	65.3
Bartlett's X2						3.939	3.601
P(Bartlett's X2)						0.414	0.308
Skewness						0.3443	-0.5066
Kurtosis						-1.3999	-1.2976
Replicate F						2.112	2.556
Replicate Prob(F)						0.1499	0.1054
Treatment F						39.423	47.798
Treatment Prob(F)						0.0001	0.0001

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Pest Type

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

Pest Code

STEME, *Stellaria media*, = US
LAMPJ, *Lamium purpureum*, = US
LAMAM, *Lamium amplexicaule*, = US
RANAB, *Ranunculus abortivus*, = US
AMBTR, *Ambrosia trifida*, = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent

Plant-Eval Interval

202 DP-1 = 1 TRZAW 10-9-2014
265 DP-1 = 1 TRZAW 10-9-2014