

Ohio State University Horticulture and Crop Science

Weed Control in Wheat with Atlantis, Osprey, Axiom, and Huskie

Title No. 2:
 Trial ID: 10WHEAT2 Protocol ID:
 Location: Entomology West - 6 Study Director: Anthony F. Dobbels
 Project ID: Investigator: Dr. Mark M. Loux
 Sponsor Contact: Dave Lamore, Bayer CropScience

General Trial Information

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

Trial Location

City: South Charleston
State/Prov.: Ohio
Postal Code: 45368
Country: USA

Personnel

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

Crop Description

Crop 1: TRZAW Triticum aestivum (winter) Winter wheat
Variety: Pioneer 25R47
BBCH Scale: BCER **Planting Date:** 10/8/09
Planting Method: DIRDRI direct drilled **Rate, Unit:** 125 LB/A
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Seed Bed: MEDIUM medium
Soil Moisture: DRY dry

Pest Description

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

Pest 2 Type: W **Code:** TAROF Taraxacum officinale
Common Name: Common dandelion

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 30 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 300 FT2 **Tillage Type:** NO-TIL
Replications: 3 **Study Design:** RACOB L Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: Entomology West 6
% OM: 2.6 **Texture:** SICL silty clay loam
pH: 7.1 **Soil Name:** Kokomo
CEC: 17.8 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	11/6/09	11/24/09	4/14/10
Time of Day:	2:00 P.M.	1:00 P.M.	10:00 A.M.
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	2 LVS	4 LVS	SPRING
Application Placement:	BROFOL	BROFOL	BROFOL
Applied By:	Dobbels	McCormick	Ackley
Air Temperature, Unit:	57.5 F	53 F	55 F
% Relative Humidity:	48.8	70	54
Wind Velocity, Unit:	7 MPH	3 MPH	6 MPH
Wind Direction:	SSW	S	E
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	44 F	48 F	50 F
Soil Moisture:	GOOD	WET	DRY
% Cloud Cover:	0	100	2
Next Rain Occurred On:			4/24/10

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Crop Stage At Each Application

	A		B		C	
Crop 1 Code, BBCH Scale:	TRZAW	BCER	TRZAW	BCER	TRZAW	BCER
Stage Scale Used:	DESC		BBCH		BBCH	
Stage Majority, Percent:	12	100	22	100	26	100
Stage Minimum, Percent:	12	100	22	100	26	100
Stage Maximum, Percent:	12	100	22	100	26	100
Height, Unit:	2	IN	4	IN	15	in
Height Minimum, Maximum:	2	3	4	4	14	16

Pest Stage At Each Application

	A		B		C	
Pest 1 Code, Type, Scale:	LAMPU	W	LAMPU	W	LAMPU	W
Diameter, Unit:	2	IN	2	IN	4	IN
Height, Unit:	2	IN	2	IN	4	IN
Height Minimum, Maximum:	1	2	2	2	4	6
Density, Unit:	4	M2	4	M2	4	M2
Pest 2 Code, Type, Scale:	TAROF	W	TAROF	W	TAROF	W
Diameter, Unit:	4	IN	4	IN	6	IN
Height, Unit:	1	IN	1	IN	2	IN
Height Minimum, Maximum:	0.5	1	1	1	1	2
Density, Unit:	0.25	M2	0.25	M2	0.25	M2

Application Equipment

	A		B		C	
Appl. Equipment:	BACKPACK		BACKPACK		BACKPACK	
Equipment Type:	SPRBAC		SPRBAC		SPRBAC	
Operating Pressure, Unit:	53	PSI	53	PSI	53	PSI
Nozzle Type:	TEEJET DG		TEEJET DG		TEEJET DG	
Nozzle Size:	11002		11002		11002	
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:	20	GPA	20	GPA	20	GPA
Mix Size, Unit:	3	Liters	3	Liters	3	Liters
Propellant:	CO2		CO2		CO2	

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Pest Code	LAMPU	LAMPU	LAMAM	LAMPU	LAMAM
Crop Code	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW
Rating Date	4/14/10	4/27/10	4/27/10	4/27/10	5/12/10
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN
Rating Unit	%	%	%	%	%
Plant-Eval Interval	188 DP-1	201 DP-1	201 DP-1	216 DP-1	216 DP-1

Trt No.	Treatment Name	Form Conc	Other Rate	Other Rate	Appl Unit Code	1	2	3	4	5	6	7
1	UTC					0	0	0	0	0	0	
2	AXIOM	68	8 oz/a		A	87	0	88	100	0	93	100
3	OLYMPUS FLEX	11.25	3.5 oz/a		B	53	0	23	83	0	50	100
3	NIS	100	12.8 oz/a									
4	ATLANTIS	12.6	6 oz/a		B	68	2	47	100	0	93	100
4	NIS	100	12.8 oz/a									
4	28% UAN	100	4 pt/a									
5	ATLANTIS	12.6	6 oz/a		B	87	1	76	100	0	82	100
5	MSO	100	1 pt/a									
6	AXIOM	68	6 oz/a		A	100	1	100	100	0	100	100
6	ATLANTIS	12.6	6 oz/a		B							
6	NIS	100	12.8 oz/a									
6	28% UAN	100	4 pt/a									
7	HUSKIE	2.14	13.5 oz/a		C	0	3	68	37	0	100	100
7	NIS	100	12.8 oz/a									
7	28% UAN	100	4 pt/a									
LSD (P=.05)						34.8	2.7	22.2	20.3	0.0	26.6	0.0
Standard Deviation						19.5	1.5	12.5	11.4	0.0	14.9	0.0
CV						34.62	151.45	21.73	15.36	0.0	20.17	0.0
Bartlett's X2						3.406	1.191	5.166	1.435	0.0	1.856	0.0
P(Bartlett's X2)						0.333	0.755	0.271	0.231	.	0.603	.
Replicate F						0.571	2.429	0.216	1.427	0.000	0.165	0.000
Replicate Prob(F)						0.5798	0.1301	0.8088	0.2780	1.0000	0.8494	1.0000
Treatment F						13.421	1.696	24.982	37.110	0.000	18.407	0.000
Treatment Prob(F)						0.0001	0.2054	0.0001	0.0001	1.0000	0.0001	1.0000

Pest Code
 LAMPU, Lamium purpureum, = US
 LAMAM, Lamium amplexicaule, = US
Crop Code
 TRZAW, BCER, Triticum aestivum (winter), = US
Rating Type
 CONTRO = control / burndown or knockdown
 PHYGEN = phytotoxicity - general / injury
Rating Unit
 % = percent
Plant-Eval Interval
 188 DP-1 = 1 10/8/09
 201 DP-1 = 1 10/8/09
 216 DP-1 = 1 10/8/09