

Washington State University

Broadleaf (Mustards) Weed Control in Winter Wheat

Trial ID: ICB4311
 Location: LIND DRYLAND STATION
 Project ID:
 Protocol ID: ICB4311
 Study Director:
 Investigator: Dr. Ian C. Burke
 Sponsor Contact:

General Trial Information

Investigator: Dr. Ian C. Burke

Trial Location

City: Lind
 State/Prov.: Washington
 Latitude of LL Corner °: 47.00122 N
 Longitude of LL Corner °: 118.34493 E
 Altitude of LL Corner, Unit: 1608.00 FT

Personnel

Investigator: Dr. Ian C. Burke

Crop Description

Winter Wheat
 Variety: Clearfield 103
 Planting Date: Aug-26-2010
 Rate, Unit: 40 LB/A
 Planting Method: JD H2
 Depth, Unit: 5 IN
 Row Spacing, Unit: 16 IN
 Seed Bed: FALLOW
 Harvest Date: Aug-4-2011
 Harvest Equipment: KINCAID 8-XP
 Harvested Width, Unit: 5 FT
 Harvested Length, Unit: 28 FT

Pest Description

Pest 1 Type: W Code: DESSO Descurainia sophia
 Common Name: Flixweed

Pest 2 Type: W Code: SSYAL Sisymbrium altissimum
 Common Name: Tumble mustard

Pest 3 Type: W Code: BROTE Bromus tectorum
 Common Name: Downy brome

Site and Design

Plot Width, Unit: 8 FT
 Plot Length, Unit: 30 FT
 Plot Area, Unit: 240 FT2
 Replications: 4
 Study Design: RACOB L Randomized Complete Block (RCB)

Soil Description

Description Name: Silt Loam Lind
 % Sand: 33.8 % OM: 1.24
 % Silt: 57.4 pH: 6.1
 % Clay: 8.8 CEC: 20.3
 Analyzed By:
 Northwest Agricultural Consultants

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Application Description

	A
Application Date:	Apr-20-2011
Time of Day:	1000
Application Method:	SPRAY
Application Timing:	POSPOS
Application Placement:	FOLIAR
Applied By:	DP
Air Temperature, Unit:	51.5 F
% Relative Humidity:	23
Wind Velocity, Unit:	2.2 MPH
Wind Direction:	ENE
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	4 C
Soil Moisture:	DRY
% Cloud Cover:	80

Crop Stage At Each Application

	A
Stage Scale Used:	DESC
Stage Majority, Percent:	Tillered 100
Height, Unit:	7 IN
Height Minimum, Maximum:	6 8

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	DESSO W
Stage Majority, Percent:	Rosett 100
Diameter, Unit:	2 IN
Density, Unit:	4 Plants
Coverage, Unit:	1 M2
Pest 2 Code, Type, Scale:	SSYAL W
Stage Majority, Percent:	Rosett 100
Height, Unit:	4 In
Height Minimum, Maximum:	2 6
Density, Unit:	14 Plants
Coverage, Unit:	1 M2
Pest 3 Code, Type, Scale:	BROTE W
Stage Majority, Percent:	3-6lf 100
Height, Unit:	1.5 In
Height Minimum, Maximum:	1 2
Density, Unit:	2 Plants
Coverage, Unit:	1 M2

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Application Equipment

	A
Appl. Equipment:	CO2 BP
Equipment Type:	SPRAY
Operation Pressure, Unit:	35 PSI
Nozzle Type:	FLAT FAN
Nozzle Size:	8015
Nozzle Spacing, Unit:	18 IN
Nozzles/Row:	4
Boom Length, Unit:	6 FT
Boom Height, Unit:	24 IN
Ground Speed, Unit:	3 MPH
Carrier:	WATER
Spray Volume, Unit:	15 gal/ac
Mix Size, Unit:	1.5 liters
Propellant:	CO2

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Pest Type	W Weed	W Weed	W Weed						
Pest Code	SSYL	DESSO	SSYL						
Pest Scientific Name	Sisymbrium alt>	Descurainia so>	Sisymbrium alt>						
Pest Name	Tumble mustard	Flixweed	Tumble mustard						
Crop Name	W. WHEAT	W. WHEAT	W. WHEAT	Winter Wheat	Winter Wheat				
Part Rated	FOLIAG -	FOLIAG -	FOLIAG -	Seed -	Seed -				
Rating Date	Jun-13-2011	Jun-13-2011	Jul-18-2011	Aug-3-2011	Aug-3-2011				
Rating Type	CONTROL	CONTROL	CONTROL	test Wt.	YIELD				
Rating Unit	%	%	%	Lbs/bu	BU/A				
Number of Subsamples	1	1	1	1	1				
Assessed By	Alan R.	ALAN R.	Nevin L.						
Days After First/Last Applic.	54 54	54 54	89 89	105 105	105 105				
Trt-Eval Interval	54 DA-A	54 DA-A	89 DA-A	105 DA-A	105 DA-A				
Plant-Eval Interval	291 DP-1	291 DP-1	326 DP-1	342 DP-1	342 DP-1				
ARM Action Codes					TY1				
Number of Decimals					1				
Trt No.	Treatment Name	Rate	Appl Unit	Code					
		Rate	Unit		1	2			
					3	10	11		
1	Nontreated	0.0			0.0	0.0	0.0	27.2695874	11.2
2	Linex Bromoxynil	0.5 pt/a 0.25 lb ai/a	A		10.0	10.0	18.8	54.8790376	24.0
3	Glean NIS	0.25 oz/a 0.25 % v/v	A		20.0	47.5	41.5	56.7165966	30.1
4	Ally NIS	0.1 oz/a 0.25 % v/v	A		87.5	85.0	78.8	58.9977018	38.1
5	Peak NIS	0.38 oz/a 0.25 % v/v	A		96.3	90.0	88.8	59.0841085	40.6
06	Karmex	1 lb/a	A		10.0	13.8	17.5	41.2557643	23.7
07	Sencor	5.3 oz/a	A		11.3	42.5	17.5	55.1036890	24.0
08	Amber NIS	0.28 oz/a 0.25 % v/v	A		20.0	73.8	46.3	53.9919411	31.0
09	Bromoxynil	1.5 pt/a	A		5.0	51.3	7.5	55.7085322	22.8
10	Express NIS	0.375 oz/a 0.25 % v/v	A		17.5	78.8	22.5	56.1347979	25.6
11	Harmony GT NIS	0.5 oz/a 0.25 % v/v	A		20.0	53.8	18.8	54.9193590	26.8
12	MCPA	1 pt/a	A		2.5	7.5	2.5	13.8824896	5.8
13	2,4-D	1 pt/a	A		100.0	96.3	94.3	43.2315717	41.6
14	Starane	0.125 lb ai/a	A		30.0	62.5	48.8	43.5656706	31.1
15	Dicamba	1 pt/a	A		100.0	100.0	94.8	56.7281169	34.3
16	Stinger	1 pt/a	A		2.5	38.8	3.8	28.2603712	14.7
17	Aim NIS	1.0 oz/a 0.25 % v/v	A		8.8	62.5	15.0	41.5898670	22.6
18	Huskie UAN	13.5 oz/a 1 qt/a	A		93.8	90.0	93.5	58.7557661	44.8
19	Florusalam NIS	1.34 fl oz/a 0.5 % v/v	A		48.8	47.5	50.0	58.4389478	39.2
20	Nontreated	0.0			0.0	0.0	0.0	14.2223515	8.6
LSD (P=.05)		13.56			33.03	20.20		25.79068633	9.68
Standard Deviation		9.59			23.35	14.28		18.23677055	6.85
CV		28.05			44.43	37.58		39.1	25.33