

# Washington State University

## Grass Weed Control in Winter Wheat + EVEREST 2.0

Trial ID: ICB4011  
 Location: LIND DRYLAND STATION  
 Project ID:  
 Protocol ID: ICB4011  
 Study Director:  
 Investigator: Dr. Ian C. Burke  
 Sponsor Contact: Chad Effertz

### General Trial Information

**Investigator:** Dr. Ian C. Burke

#### Trial Location

**City:** Lind  
**State/Prov.:** Wshington  
**Latitude of LL Corner °:** 47.06109 N  
**Longitude of LL Corner °:** 118.34265 W  
**Altitude of LL Corner, Unit:** 1631.00 FT

### Personnel

**Investigator:** Dr. Ian C. Burke

### Crop Description

**Variety:** Winter Wheat Xerpha  
**Planting Date:** Aug-26-2010  
**Planting Method:** JD H2  
**Depth, Unit:** 5 IN  
**Row Spacing, Unit:** 16 IN  
**Seed Bed:** FALLOW  
**Harvest Date:** Aug-3-2011  
**Harvested Width, Unit:** 5 FT  
**Rate, Unit:** 40 LB/A  
**Harvest Equipment:** KINCAID 8-XP  
**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 FT<sup>2</sup>  
**Replications:** 4  
**Study Design:** RACOBL Randomized Complete Block (RCB)

### Soil Description

**Description Name:** Silt Loam Lind  
**% Sand:** 36.0 **% OM:** 1.25  
**% Silt:** 56.0 **pH:** 6.4  
**% Clay:** 8.0 **CEC:** 19.9  
**Analyzed By:**  
 Northwest Agricultural Consultants

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## Application Description

	A	B
<b>Application Date:</b>	Apr-20-2011	Apr-27-2011
<b>Time of Day:</b>	1300	1030
<b>Application Method:</b>	SPRAY	SPRAY
<b>Application Timing:</b>	POSPOS	POSPOS
<b>Application Placement:</b>	FOLIAR	FOLIAR
<b>Applied By:</b>	DP	RR
<b>Air Temperature, Unit:</b>	51.5 F	48 F
<b>% Relative Humidity:</b>	23	62
<b>Wind Velocity, Unit:</b>	2 MPH	7.1 MPH
<b>Wind Direction:</b>	E	SW
<b>Dew Presence (Y/N):</b>	N no	N no
<b>Soil Temperature, Unit:</b>	4 C	46 F
<b>Soil Moisture:</b>	DRY	DRY
<b>% Cloud Cover:</b>	80	20

## Crop Stage At Each Application

	A	B
<b>Stage Scale Used:</b>	DESC	DESC
<b>Stage Majority, Percent:</b>	Tillered 100	Tillered 100
<b>Height, Unit:</b>	7 IN	7 IN
<b>Height Minimum, Maximum:</b>	6 8	6 8

## Pest Stage At Each Application

	A	B
<b>Pest 1 Code, Type, Scale:</b>	DESSO W	DESSO W
<b>Stage Majority, Percent:</b>	Rosett 100	Rosett 100
<b>Height, Unit:</b>	3 IN	3 IN
<b>Height Minimum, Maximum:</b>	1 6	1 6
<b>Density, Unit:</b>	6 Plants	6 Plants
<b>Coverage, Unit:</b>	1 M2	1 M2
<b>Pest 2 Code, Type, Scale:</b>	SSYAL W	SSYAL W
<b>Stage Majority, Percent:</b>	Rosett 100	Rosett 100
<b>Height Minimum, Maximum:</b>	1 8	1 8
<b>Density, Unit:</b>	22 Plants	22 Plants
<b>Coverage, Unit:</b>	1 M2	1 M2
<b>Pest 3 Code, Type, Scale:</b>	BROTE W	BROTE W
<b>Stage Majority, Percent:</b>	Tiller 100	Tiller 100
<b>Height Minimum, Maximum:</b>	4 5	4 5
<b>Density, Unit:</b>	5 Plants	5 Plants
<b>Coverage, Unit:</b>	1 M2	1 M2

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## Application Equipment

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

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Pest Type	W Weed	W Weed					
Pest Code	BROTE	BROTE					
Pest Scientific Name	Bromus tectorum	Bromus tectorum					
Pest Name	Downy brome	Downy brome					
Crop Name	WINTER WHEAT	WINTER WHEAT	Winter Wheat	Winter Wheat			
Part Rated	FOLIAG -	FOLIAG -	SEED -	SEED -			
Rating Date	Jun-13-2011	Jul-18-2011	Aug-3-2011	Aug-3-2011			
Rating Type	CONTROL	CONTROL	Test Wt.	YIELD			
Rating Unit	%	%	Lbs/Bu	BU/A			
Number of Subsamples	1	1	1	1			
Assessed By	Nevin L.	Nevin L.					
Days After First/Last Applic.	54 47	89 82	105 98	105 98			
Plant-Eval Interval	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 Unit	Appl Code	1	2	7	8
1	CHECK			0.0	0.0	21.6013854	18.3
2	Olympus Flex UAN NIS	3.0 oz/a 1 qt/a 0.5 % v/v	A A A	47.5	66.3	54.8214357	48.5
3	Osprey UAN NIS	4.75 oz/a 1 qt/a 0.5 % v/v	A A A	23.8	47.5	49.8271954	39.1
4	PowerFlex AMS NIS	3.5 oz/a 1.5 lb/a 0.25 % v/v	A A A	32.5	42.5	49.8444760	38.9
5	Hoelon COC	2 pt/a 1 pt/a	A A	33.8	42.5	50.4665959	40.8
6	GoldSky (GF1848) NIS AMS	16 oz/a 0.5 % v/v 1.5 lb/a	A A A	46.3	53.8	51.7453970	38.3
7	Everest Basic Blend	1 fl oz/a 1.0 % v/v	A A	35.0	50.0	54.0380227	42.9
8	Everest ARY0547-001 Basic Blend	1 fl oz/a 0.1 oz wt/a 1.0 % v/v	A A A	16.3	37.5	55.4377916	35.2
9	Maverick NIS	0.67 oz/a 0.5 % v/v	A A	35.0	60.0	42.4366421	27.4
10	Olympus NIS	0.9 oz/a 0.5 % v/v	A A	53.8	60.0	55.2880228	46.2
11	Everest Basic Blend	1 fl oz/a 1.0 % v/v	B B	37.5	46.3	49.7235081	40.4
12	Everest ARY0547-001 Basic Blend	1 fl oz/a 0.1 oz wt/a 1.0 % v/v	B B B	35.0	50.0	50.8813413	44.4
13	Goldsky NIS AMS	1 pt/a 0.5 % v/v 1.5 lb/a	B B B	28.8	31.3	54.7983911	37.2
14	Olympus Flex UAN NIS	3.0 oz/a 1 qt/a 0.5 % v/v	B B B	33.8	42.5	47.5288057	33.4
15	Osprey UAN NIS	4.75 oz/a 1 qt/a 0.5 % v/v	B B B	26.3	31.3	54.8559968	33.1
16	PowerFlex AMS NIS	3.5 oz/a 1.5 lb/a 0.25 % v/v	B B B	47.5	46.3	55.1555345	38.3
17	Hoelon COC	2 pt/a 1 pt/a	B B	44.0	47.5	52.8456283	34.5

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Days After First/Last Applic.	54 47	89 82	105 98	105 98
Plant-Eval Interval	291 DP-1	326 DP-1	342 DP-1	342 DP-1
ARM Action Codes				TY1
Number of Decimals				1
Trt No.	Treatment	Rate	Appl	
	Name	Rate Unit	Code	
				1 2 7 8
18	Maverick NIS	0.67 oz/a 0.5 % v/v	B B	35.0 41.3 55.0864122 42.5
19	Olympus NIS	0.9 oz/a 0.5 % v/v	B B	37.5 36.3 52.3444762 28.3
20	CHECK			0.0 0.0 14.3375592 19.8
LSD (P=.05)		25.18	25.03	16.57022260 19.64
Standard Deviation		17.81	17.70	11.71691630 13.89
CV		54.88	42.52	24.08 38.17