

# Washington State University

## AXIAL STAR: UNIVERSITY EXPOSURE PROGRAM IN WHEAT AND BARLEY

Trial ID: ICB3511      Protocol ID: ICB3511  
 Location: COOK FARM      Study Director:  
 Project ID:      Investigator: Dr. Ian C. Burke  
                          Sponsor Contact: Pete Forster / Syngenta

### General Trial Information

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

#### Trial Location

**City:** Pullman      **Latitude of LL Corner °:** 46.46792 N  
**State/Prov.:** Washington      **Longitude of LL Corner °:** 117.0566 W  
**Altitude of LL Corner, Unit:** 2565.00 FT

### Personnel

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

### Crop Description

Winter Wheat  
**Variety:** Brundage 96  
**Planting Date:** Oct-18-2010  
**Planting Method:** HORSCH      **Rate, Unit:** 100 LB/A  
**Depth, Unit:** 1.5 IN  
**Row Spacing, Unit:** 12 IN  
**Seed Bed:** NTILL  
**Harvested Width, Unit:** 5 FT      **Harvested Length, Unit:** 30 FT

### Pest Description

**Pest 1 Type:** W      **Code:** LOLMU Lolium multiflorum  
**Common Name:** Italian ryegrass  
**Pest 2 Type:** W      **Code:** ANTCO Anthemis cotula  
**Common Name:** Mayweed chamomile  
**Pest 3 Type:** W      **Code:** SONAS Sonchus asper  
**Common Name:** Spiny sowthistle

### 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 Cook west  
**% Sand:** 24.3      **% OM:** 2.78  
**% Silt:** 57.0      **pH:** 5.0  
**% Clay:** 18.7      **CEC:** 21.2  
**Analyzed By:**  
 Northwest Agricultural Consultants

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## Application Description

	A
Application Date:	May-11-2011
Time of Day:	1100
Application Method:	CO2 BP
Application Timing:	POSPOS
Application Placement:	FOLIAR
Applied By:	RR
Air Temperature, Unit:	65.1 F
% Relative Humidity:	49
Wind Velocity, Unit:	3 mph
Wind Direction:	SE
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	10 C
Soil Moisture:	DRY
% Cloud Cover:	0
Next Rain Occurred On:	May-12-2011

## Crop Stage At Each Application

	A
Stage Scale Used:	DESC
Stage Majority, Percent:	Tillered 100
Stage Minimum, Percent:	2 till 50
Stage Maximum, Percent:	4 till 50
Height Minimum, Maximum:	8 10
Crop coverage (%):	50

## Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	LOLMU W
Stage Majority, Percent:	2-3 lf 100
Height, Unit:	1.5 IN
Height Minimum, Maximum:	0.5 3
Density, Unit:	135 Plants
Coverage, Unit:	1 M2
Pest 2 Code, Type, Scale:	ANTCO W
Stage Majority, Percent:	3 lf 100
Density, Unit:	3 Plants
Coverage, Unit:	1 M2
Pest 3 Code, Type, Scale:	SONAS W
Stage Majority, Percent:	2 lf 100
Density, Unit:	6 Plants

## 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
Spray Volume, Unit:	15 gal/ac
Mix Size, Unit:	1.5 liters
Propellant:	CO2

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Trt No.	Treatment Name	Rate	Appl Code	5	6	17	18
1	UNTREATED			0.0	0.0	57.940	77.29150
2	ORION AXIAL STAR NIS	17 fl oz/a A 1.03 pt/a A 0.5 % v/v A		76.3	83.8	58.180	80.16361
3	HARMONY EXPRESS AXIAL STAR NIS	0.48 oz/a A 0.12 oz/a A 1.03 pt/a A 0.5 % v/v A		81.3	85.0	57.460	76.63481
4	HARMONY EXPRESS AXIAL STAR NIS	0.2 oz/a A 0.2 oz/a A 1.03 pt/a A 0.5 % v/v A		77.5	78.8	57.220	62.47891
5	BRONATE ADVANCED AXIAL STAR	0.6 pt/a A 1.03 pt/a A		90.0	85.0	58.545	89.26611
6	AMS HUSKIE AXIAL STAR UAN	0.5 lb/a A 11 fl oz/a A 1.03 pt/a A 1 qt/a A		85.0	91.3	56.720	75.49631
7	WOLVERINE NIS	1.7 pt/a A 0.5 % v/v A		18.8	51.3	58.163	85.78791
8	GOLDSKY NIS	1 pt/a A 0.25 % v/v A		80.0	90.0	57.693	84.43160
LSD (P=.05)				25.61	24.36	2.3716	33.612457
Standard Deviation				17.41	16.57	1.6125	22.853457
CV				27.38	23.46	2.79	28.95