

Washington State University

Italian Ryegrass Control with Pyroxsulfone

Trial ID: ICB1511 Protocol ID: ICB1511
 Location: Cook Farm-Whitman Co. Study Director:
 Project ID: Investigator: Dr. Ian C. Burke
 Sponsor Contact: Chuck Rice

General Trial Information

Investigator: Dr. Ian C. Burke

Trial Location
City: Pullman **Latitude of LL Corner °:** 46.46857 N
State/Prov.: Washington **Longitude of LL Corner °:** 117.05615 W
Altitude of LL Corner, Unit: 2596.00 FT

Personnel

Investigator: Dr. Ian C. Burke

Crop Description

Winter Wheat
Variety: Brundage 96
Planting Method: HORSCH **Planting Date:** Oct-18-2010
Depth, Unit: 1.5 IN **Rate, Unit:** 100 LB/A
Row Spacing, Unit: 12 IN
Seed Bed: COATRA coarse/trashy **Soil Temperature, Unit:** 9 C
Soil Moisture: DRY dry
Harvested Width, Unit: 5 FT **Harvested Length, Unit:** 32 FT

Pest Description

Pest 1 Type: W **Code:** SONAS Sonchus asper
Common Name: Spiny sowthistle

Pest 2 Type: W **Code:** LOLMU Lolium multiflorum
Common Name: Italian ryegrass

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

Pest 4 Type: W **Code:** LACSE Lactuca serriola
Common Name: Prickly lettuce

Pest 5 Type: W **Code:** ANTCO Anthemis cotula
Common Name: Mayweed Chamomile

Site and Design

Plot Width, Unit: 8 FT
Plot Length, Unit: 35 FT
Plot Area, Unit: 280 FT²
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B	C
Application Date:	Oct-19-2010	May-11-2011	Jun-3-2011
Time of Day:	1300	1100	1300
Application Method:	SPRAY	CO2 BP	CO2 BP
Application Timing:	PREE	POSPOS	POSPOS
Application Placement:	SOIL	FOLIAR	FOLIAR
Applied By:	RR	RR	RR
Air Temperature, Unit:	62.4 F	62.2 F	56.9 F
% Relative Humidity:	35	51	35
Wind Velocity, Unit:	3.5 MPH	6.1 MPH	3.4 MPH
Wind Direction:	ESE	SE	SW
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	8 C	10 C	8 C
Soil Moisture:	DRY	DRY	WET
% Cloud Cover:	0	0	90

Washington State University

Crop Stage At Each Application

	A	B	C
Stage Scale Used:	PREE	DESC	BBCH
Stage Majority, Percent:		tiller 100	34 39 80
Stage Minimum, Percent:		2 till 50	23 20
Stage Maximum, Percent:		4 till 50	24 80
Height, Unit:		9 IN	18 IN
Height Minimum, Maximum:		8 10	18 20
Plant Foliage Height, Unit:			18 IN
Crop coverage (%):		50	90

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	SONAS W	SONAS W	SONAS W
Stage Majority, Percent:	NA	coty-2 100	5 lf 80
Stage Minimum, Percent:		Cotyl 50	2 lf 20
Stage Maximum, Percent:		2 lf 50	
Diameter, Unit:			1.5 IN
Density, Unit:		3 Plants	8 Plants
Coverage, Unit:		1 M2	1 M2
Pest 2 Code, Type, Scale:	LOLMU W	LOLMU W	LOLMU W
Stage Majority, Percent:		3-5 lf 100	2-4 lf 100
Stage Minimum, Percent:		3 lf 50	3 til 20
Stage Maximum, Percent:		5 lf 50	2 lf 80
Height, Unit:		2 IN	3 IN
Height Minimum, Maximum:		1 3	3 5
Density, Unit:		29 Plants	23 Plants
Coverage, Unit:		1 M2	1 M2
Pest 3 Code, Type, Scale:	BROTE W	BROTE W	BROTE W
Stage Majority, Percent:		3 till 100	
Density, Unit:		1 Plant	1 Plant
Coverage, Unit:		1 M2	1 M2
Pest 4 Code, Type, Scale:	LACSE W	LACSE W	LACSE W
Stage Majority, Percent:		3 lf 100	6 lf
Diameter, Unit:		3 IN	
Height, Unit:			4 IN
Density, Unit:		3 Plant	1 Plant
Coverage, Unit:		1 M2	1 M2
Pest 5 Code, Type, Scale:	ANTCO W	ANTCO W	ANTCO W
Stage Majority, Percent:			4 node 100
Diameter, Unit:			2 IN
Height, Unit:			2 IN
Density, Unit:			1 Plant
Coverage, Unit:			1 M2

Washington State University

Application Equipment

	A	B	C
Appl. Equipment:	CO2 BP	CO2 BP	CO2 BP
Equipment Type:	SPRAY	SPRAY	SPRAY
Operation Pressure, Unit:	35 PSI	35 PSI	24 PSI
Nozzle Type:	Flat Fan	Flat Fan	XR
Nozzle Size:	8015	8015	11002 VS
Nozzle Spacing, Unit:	18 IN	18 IN	18 IN
Nozzles/Row:	4	4	4
Boom Length, Unit:	6 FT	6 FT	6 Ft
Boom Height, Unit:	24 IN	24 IN	20 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH
Spray Volume, Unit:	15 gal/ac	15 gal/ac	15 gal/ac
Mix Size, Unit:	1.5 liters	1.5 liters	1.5 liters
Propellant:	CO2	CO2	CO2

Washington State University

Italian Ryegrass Control with Pyroxsulfone

Trial ID: ICB1511 Protocol ID: ICB1511
 Location: Cook Farm-Whitman Co. Study Director:
 Project ID: Investigator: Dr. Ian C. Burke
 Sponsor Contact: Chuck Rice

Trt No.	Treatment Name	Rate	Unit	Appl Code	1	6	8
1	CHECK				0.0	57.140	82.46
2	BAS 94461H	1.01 oz/a	A		52.5	58.113	89.04
3	BAS 94461H	1.344 oz/a	A		42.5	57.530	81.37
4	BAS 94461H	1.68 oz/a	A		57.5	58.445	78.66
5	BAS 94461H	2.69 oz/a	A		85.0	57.415	83.92
6	BAS 94461H	3.36 oz/a	A		47.5	57.680	81.37
7	AXIOM DF	10 oz/a	A		65.0	57.555	73.18
8	AXIAL XL	16.4 oz/a	B		47.5	57.910	78.00
9	OLYMPUS FLEX NIS AMS	3.25 oz/a 0.5 % v/v 3 lb/a	B B B		68.8	58.203	81.60
10	POWERFLEX NIS AMS	3.5 oz/a 0.5 % v/v 3 lb/a	B B B		53.8	58.310	88.52
11	BAS 94461H POWERFLEX NIS AMS	1.01 oz/a 3.5 oz/a 0.5 % v/v 3 lb/a	A C C C		81.3	56.120	74.17
12	BAS 94461H POWERFLEX NIS AMS	1.344 oz/a 3.5 oz/a 0.5 % v/v 3 lb/a	A C C C		85.0	57.625	82.61
13	BAS 94461H POWERFLEX NIS AMS	1.68 oz/a 3.5 oz/a 0.5 % v/v 3 lb/a	A C C C		76.3	56.673	85.29
14	AXIOM DF POWERFLEX NIS AMS	10 oz/a 3.5 oz/a 0.5 % v/v 3 lb/a	A C C C		82.5	55.930	78.68
15	AXIOM DF OSPREY NIS AMS	10 oz/a 4.75 oz/a 0.5 % v/v 3 lb/a	A C C C		80.0	56.863	79.19
LSD (P=.05)					24.27	1.8552	17.008
Standard Deviation					16.98	1.2982	11.902
CV					27.54	2.26	14.66