

# Washington State University

## STARANE FLEX EFFICACY AGAINST BROADLEAF WEEDS IN SPRING WHEAT

Trial ID: ICB5411      Protocol ID: ICB5411  
 Location: PCFS      Study Director:  
 Project ID: ICB5411      Investigator: Dr. J. P. Yenish  
 Sponsor Contact:

### General Trial Information

**Investigator:** Dr. J. P. Yenish

### Trial Location

**City:** Pullman  
**State/Prov.:** Washington

### Personnel

**Investigator:** Dr. J. P. Yenish

### Crop Description

Spring Wheat  
**Seed Bed:** COMPAC compacted  
**Harvested Width, Unit:** 5 FT      **Harvested Length, Unit:** 30 FT

### Pest Description

**Pest 1 Type:** W    **Code:** CHEAL *Chenopodium album*  
**Common Name:** Common lambsquarters

**Pest 2 Type:** W    **Code:** ANTCO *Anthemis cotula*  
**Common Name:** Mayweed chamomile

**Pest 3 Type:** W    **Code:** AMARE *Amaranthus retroflexus*  
**Common Name:** Redroot pigweed

**Pest 4 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:** RACOB L Randomized Complete Block (RCB)

### Soil Description

**Description Name:** Silt Loam PCFS  
**% Sand:** 26.7      **% OM:** 3.58  
**% Silt:** 59.0      **pH:** 5.2  
**% Clay:** 14.3      **CEC:** 24.9  
**Analyzed By:**  
 Northwest Agricultural Consultants

### Application Description

	A
<b>Application Date:</b>	Jun-9-2011
<b>Time of Day:</b>	1545
<b>Application Method:</b>	SPRAY
<b>Application Timing:</b>	POSPOS
<b>Application Placement:</b>	FOLIAR
<b>Applied By:</b>	RR
<b>Air Temperature, Unit:</b>	62 F
<b>% Relative Humidity:</b>	37
<b>Wind Velocity, Unit:</b>	2 MPH
<b>Wind Direction:</b>	SW
<b>Dew Presence (Y/N):</b>	N no
<b>Soil Temperature, Unit:</b>	12 C
<b>Soil Moisture:</b>	DRY
<b>% Cloud Cover:</b>	90

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## Pest Stage At Each Application

	A
<b>Pest 1 Code, Type, Scale:</b>	CHEAL W
<b>Stage Majority, Percent:</b>	2-8 lf 100
<b>Diameter, Unit:</b>	0.75 IN
<b>Height, Unit:</b>	1 IN
<b>Height Minimum, Maximum:</b>	0.5 1.5
<b>Density, Unit:</b>	36 Plants
<b>Coverage, Unit:</b>	1 M2
<b>Pest 2 Code, Type, Scale:</b>	ANTCO W
<b>Stage Majority, Percent:</b>	4 br. 100
<b>Diameter, Unit:</b>	1 IN
<b>Height, Unit:</b>	0.5 IN
<b>Density, Unit:</b>	69 Plants
<b>Coverage, Unit:</b>	1 M2
<b>Pest 3 Code, Type, Scale:</b>	AMARE W
<b>Stage Majority, Percent:</b>	4 lf 100
<b>Diameter, Unit:</b>	0.75 IN
<b>Height, Unit:</b>	0.5 IN
<b>Density, Unit:</b>	58 Plants
<b>Coverage, Unit:</b>	1 M2
<b>Pest 4 Code, Type, Scale:</b>	SONAS W
<b>Stage Majority, Percent:</b>	Coty 100
<b>Diameter, Unit:</b>	0.5 IN
<b>Height, Unit:</b>	0.5 IN
<b>Density, Unit:</b>	2 Plants
<b>Coverage, Unit:</b>	1 M2

## Application Equipment

	A
<b>Appl. Equipment:</b>	SPRAY
<b>Equipment Type:</b>	CO2 BP
<b>Operation Pressure, Unit:</b>	24 PSI
<b>Nozzle Type:</b>	VR
<b>Nozzle Size:</b>	11002 VS
<b>Nozzle Spacing, Unit:</b>	18 IN
<b>Nozzles/Row:</b>	4
<b>Boom Length, Unit:</b>	6 FT
<b>Boom Height, Unit:</b>	15 IN
<b>Ground Speed, Unit:</b>	3 MPH
<b>Carrier:</b>	H2O
<b>Spray Volume, Unit:</b>	15 gal/ac
<b>Mix Size, Unit:</b>	1.5 liters
<b>Propellant:</b>	CO2

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Pest Type	W Weed	W Weed	W Weed				
Pest Code	AMARE	ANTCO	CHEAL				
Pest Scientific Name	Amaranthus ret>	Anthemis cotula	Chenopodium al>				
Pest Name	Redroot pigweed	Mayweed chamom>	Common lambsqu>				
Crop Name				Spring Wheat	Spring Wheat		
Part Rated				Seed -	Seed -		
Rating Date	Jul-6-2011	Aug-8-2011	Aug-8-2011	Sep-21-2011	Sep-21-2011		
Rating Type	Control	Control	Control	Test Weight	YIELD		
Rating Unit	%	%	%	lbs/bu	BU/A		
Number of Subsamples	1	1	1	1	1		
Assessed By	Alan R.	ICB	ICB				
Days After First/Last Applic.	27 27	60 60	60 60	104 104	104 104		
Trt-Eval Interval	27 DA-A	60 DA-A	60 DA-A	104 DA-A	104 DA-A		
ARM Action Codes							
Number of Decimals							
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code					
1 CHECK			4	6	7	18	19
2 STARANE FLEX	13.5 fl oz/a A		0.0	0.0	0.0	56.693	46.1796540
3 STARANE FLEX	13.5 fl oz/a A		92.5	96.5	88.8	59.913	64.7626636
MCPA ESTER	8.63 fl oz/a A		91.3	98.0	97.5	58.895	64.1395099
4 STARANE FLEX	13.5 fl oz/a A		97.0	97.5	99.0	59.450	70.8299479
2,4-D ESTER LV	8.55 fl oz/a A						
5 AFFINITY TANK MIX	0.6 oz/a A		97.0	92.0	95.5	58.070	74.0200269
MCPA ESTER	12.95 fl oz/a A						
NIS	0.25 % v/v A						
6 HUSKIE	11 fl oz/a A		89.8	97.5	97.0	56.448	72.4703670
AMS	0.502 lb/a A						
7 STARANE FLEX	13.5 fl oz/a A		95.8	97.5	98.5	60.338	73.3899610
HUSKIE	11 fl oz/a A						
8 BRONATE ADVANCED	0.8 pt/a A		96.5	98.0	97.8	59.618	66.5145635
STARANE FLEX	13.5 fl oz/a A						
9 BRONATE ADVANCED	0.8 pt/a A		93.5	81.0	93.0	58.393	63.4472186
LSD (P=.05)			5.87	9.95	5.01	3.5069	12.33526162
Standard Deviation			4.02	6.82	3.43	2.4029	8.45188798
CV			4.81	8.09	4.03	4.1	12.77