

## Orion Herbicide Evaluation in Winter Wheat.

Trial ID: 08-5B-N110      Location: Belleville Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu  
 City State Zip Country: Belleville IL 62221 USA  
 Trial Status: FINAL      Initiation Date: 10-22-07

Objectives: Evaluate Orion for control of henbit and other broadleaf weeds in winter wheat.

Crop 1: TRZAW wheat, winter      Variety: P25R78  
 Planting Method: Seeded      Planting Date: 10-22-07  
 Rate, Unit: 1.3 mil. S/A      Depth, Unit: 1.0 IN  
 Row Spacing, Unit: 7.5 IN

Pest 1 Type: W      Code: LAMAM      Lamium amplexicaule L.      henbit

Plot Width, Unit: 10 FT      Site Type: FIELD  
 Plot Length, Unit: 27 FT      Tillage Type: NO-TILL  
 Replications: 3      Study Design: Randomized Complete Block

Prior Crops, Year  
 1. ZEAMD      2007

Field Prep./Maintenance: N 30 LB/A applied on 10-22-07 and N 90 LB/A applied on 01-25-08

% OM: 1.6      Texture: SILT LOAM  
 pH: 6.1      Soil Name: WINFIELD  
 CEC: 7      Fert. Level: P1 93 LB/A, K 429 LB/A

## Application Description

A

Application Date: 11-20-07  
 Time of Day: 6:30  
 Application Method: Spray  
 Application Timing: 2-4"Henbt  
 Application Placement: BROFOL  
 Applied By: RFK  
 Air Temperature, Unit: 60 F  
 % Relative Humidity: 92  
 Wind Velocity, Unit: 6 MPH  
 Dew Presence (Y/N): Y  
 Soil Temperature, Unit: 54 F  
 Soil Moisture: BELNOR

11-20-07  
 Crop stage at application: FK2  
 Height Min, Max (inch): 3 4

## Pest Stage At Each Application

Application Date: 11-20-07  
 Weed Code: LAMAM  
 Stage Majority (leaves): 8  
 Stage Min, Max: 4 10  
 Height Majority: 4 IN  
 Height Min, Max: 2 4  
 Density, Unit: 5 FT2

## Application Equipment

Appl. Equipment: CO2 sprayer  
 Operating Pressure: 30 PSI  
 Nozzle Type: Flat fan  
 Nozzle Size: XR 110015  
 Boom Length, Unit: 7.5 FT  
 Spray Volume, Unit: 10 GPA

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Pest Code	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW
Crop Code	11-27-07	12-04-07	12-18-07	01-01-08	04-01-08	05-01-08	06-25-08
Rating Date	Injury	Injury	Injury	Injury	Injury	Injury	Injury
Rating Data Type	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit	7 DA-A	14 DA-A	28 DA-A	42 DA-A			EOS
Rating Timing							
Trt-Eval Interval							

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
1	CHECK UNTREATED									0 a	0 a	0 a	0 a	0 a	0 a	0 a
2	A15898	284	SE	353.0	g ae/ha	17	flozpr/a	2-4"Henbt	A	0 a	0 a	0 a	0 a	0 a	0 a	0 a
2	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A							
3	A15898	284	SE	353.0	g ae/ha	17	flozpr/a	2-4"Henbt	A	0 a	0 a	0 a	0 a	0 a	0 a	0 a
3	AMBER 75 WG	75	WG	14.7	g ai/ha	0.28	ozwtpr/a	2-4"Henbt	A							
3	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A							
4	A15898	284	SE	353.0	g ae/ha	17	flozpr/a	2-4"Henbt	A	0 a	0 a	0 a	0 a	0 a	0 a	0 a
4	ALLY XP 60 DF	60	WG	2.1	g ai/ha	0.05	ozwtpr/a	2-4"Henbt	A							
4	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A							
5	A15898	284	SE	353.0	g ae/ha	17	flozpr/a	2-4"Henbt	A	0 a	0 a	0 a	0 a	0 a	0 a	0 a
5	PEAK 57 WG	57	WG	10.0	g ai/ha	0.25	ozwtpr/a	2-4"Henbt	A							
5	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A							
6	HARMONY EXTRA XP	75	WG	21.0	g ai/ha	0.4	ozwtpr/a	2-4"Henbt	A	0 a	0 a	0 a	0 a	0 a	0 a	0 a
6	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A							
7	AMBER 75 WG	75	WG	14.7	g ai/ha	0.28	ozwtpr/a	2-4"Henbt	A	0 a	0 a	0 a	0 a	0 a	0 a	0 a
7	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A							
8	PEAK 57 WG	57	WG	10.0	g ai/ha	0.25	ozwtpr/a	2-4"Henbt	A	0 a	0 a	0 a	0 a	0 a	0 a	0 a
8	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A							
9	AMBER 75 WG	75	WG	14.7	g ai/ha	0.28	ozwtpr/a	2-4"Henbt	A	0 a	0 a	0 a	0 a	0 a	0 a	0 a
9	ALLY XP 60 DF	60	WG	2.1	g ai/ha	0.05	ozwtpr/a	2-4"Henbt	A							
9	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A							
10	ALLY XP 60 DF	60	WG	4.2	g ai/ha	0.1	ozwtpr/a	2-4"Henbt	A	0 a	0 a	0 a	0 a	0 a	0 a	0 a
10	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A							
11	FINESSE GR+BL	71.7	WG			0.6	ozwtpr/a	2-4"Henbt	A	0 a	0 a	0 a	0 a	0 a	0 a	0 a
11	->EVEREST	70	WG	20	g ai/ha			2-4"Henbt	A							
11	->GLEAN PX	75	WG	10.47	g ai/ha			2-4"Henbt	A							
11	NIS			0.5	% v/v	0.5	% v/v	2-4"Henbt	A							
LSD (P=.05)										0.0	0.0	0.0	0.0	0.0	0.0	0.0
Replicate F										0.000	0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F										0.000	0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter do not significantly differ (P=.05, LSD)

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Pest Code							12-18-07	01-01-08	04-01-08	05-01-08	06-25-08			
Crop Code							Control	Control	Control	Control	Control			
Rating Date							Percent	Percent	Percent	Percent	Percent			
Rating Data Type							28 DA-A	42 DA-A			EOS			
Rating Unit														
Rating Timing														
Trt-Eval Interval														
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	CHECK UNTREATED									0 c	0 c	0 c	0 c	0 c
2	A15898	284	SE	353.0	g ae/ha	17	flozpr/a	2-4"Henbt	A	53 a	53 a	99 a	99 a	99 a
2	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A					
3	A15898	284	SE	353.0	g ae/ha	17	flozpr/a	2-4"Henbt	A	50 a	50 a	99 a	99 a	99 a
3	AMBER 75 WG	75	WG	14.7	g ai/ha	0.28	ozwtpr/a	2-4"Henbt	A					
3	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A					
4	A15898	284	SE	353.0	g ae/ha	17	flozpr/a	2-4"Henbt	A	50 a	50 a	99 a	99 a	99 a
4	ALLY XP 60 DF	60	WG	2.1	g ai/ha	0.05	ozwtpr/a	2-4"Henbt	A					
4	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A					
5	A15898	284	SE	353.0	g ae/ha	17	flozpr/a	2-4"Henbt	A	50 a	50 a	99 a	99 a	99 a
5	PEAK 57 WG	57	WG	10.0	g ai/ha	0.25	ozwtpr/a	2-4"Henbt	A					
5	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A					
6	HARMONY EXTRA XP	75	WG	21.0	g ai/ha	0.4	ozwtpr/a	2-4"Henbt	A	50 a	50 a	90 a	90 a	90 a
6	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A					
7	AMBER 75 WG	75	WG	14.7	g ai/ha	0.28	ozwtpr/a	2-4"Henbt	A	50 a	50 a	93 a	93 a	93 a
7	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A					
8	PEAK 57 WG	57	WG	10.0	g ai/ha	0.25	ozwtpr/a	2-4"Henbt	A	17 b	17 b	27 b	27 b	27 b
8	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A					
9	AMBER 75 WG	75	WG	14.7	g ai/ha	0.28	ozwtpr/a	2-4"Henbt	A	50 a	50 a	99 a	99 a	99 a
9	ALLY XP 60 DF	60	WG	2.1	g ai/ha	0.05	ozwtpr/a	2-4"Henbt	A					
9	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A					
10	ALLY XP 60 DF	60	WG	4.2	g ai/ha	0.1	ozwtpr/a	2-4"Henbt	A	50 a	50 a	99 a	99 a	99 a
10	NIS			0.25	% v/v	0.25	% v/v	2-4"Henbt	A					
11	FINESSE GR+BL	71.7	WG			0.6	ozwtpr/a	2-4"Henbt	A	50 a	50 a	99 a	99 a	99 a
11	->EVEREST	70	WG	20	g ai/ha			2-4"Henbt	A					
11	->GLEAN PX	75	WG	10.47	g ai/ha			2-4"Henbt	A					
11	NIS			0.5	% v/v	0.5	% v/v	2-4"Henbt	A					
LSD (P=.05)										14.8	14.8	24.4	24.4	24.4
Replicate F										1.440	1.440	0.937	0.937	0.937
Replicate Prob(F)										0.2605	0.2605	0.4083	0.4083	0.4083
Treatment F										12.040	12.040	17.478	17.478	17.478
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, LSD)

## Trial Comments

1. Protocol: Syngenta (PC F50A3).
2. Ratings: CI 7, 14, 28 + 42 DAT (specify injury symptoms).  
WC 28 + 42 DAT and at harvest (broadleaf weeds only).
3. No yield data required.
4. A blanket herbicide application for grass control may be used if the herbicide will not alter broadleaf species.  
A blanket application of Gramoxone Inteon (0.75 lbai/A) + NIS (0.25%) was applied to all plots prior to crop emergence on 10-24-07.
5. Not harvested.