

Olympus efficacy in Winter Wheat.

Trial ID: 10-ARC-N9-EH1

Location: Agronomy Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Carbondale IL 62901 USA
 Trial Status: FINAL Initiation Date: 11-10-09

Objectives: Evaluate Olympus for crop tolerance
 and weed control in winter wheat.

Crop 1: TRZAW Winter wheat Variety: P25R78
 Planting Method: SEEDS Planting Date: 11-10-09
 Rate, Unit: 1.3 mil. S/A Depth, Unit: 1 IN
 Row Spacing, Unit: 7.5 IN

Pest 1 Type: W Code: LAMAM Lamium amplexicaule L. henbit
 Pest 2 Type: W Code: BROTE Bromus tectorum L. brome, downy

Plot Width, Unit: 15 FT Site Type: FIELD
 Plot Length, Unit: 30 FT Tillage Type: REDUCED-TILL
 Replications: 4 Study Design: Randomized Complete Block

Prior Crops, Year

1. GLXMA 2009

Field Prep./Maintenance: Fall: N 30 LB/A, P205 0 LB/A, K20 0 LB/A as 32% UAN
 Spring: N 95 LB/A, P205 0 LB/A, K20 0 LB/A as 32% UAN

% OM: 1.6 Texture: SILT LOAM
 pH: 6.6 Soil Name: WEIR
 CEC: 7.5 Fert. Level: P1: 95 LB/A, K: 244 LB/A

Application Description

	A	B	C
Application Date:	11-25-09	03-16-10	04-09-10
Time of Day:	11:00	9:30	10:00
Application Method:	Spray	Spray	Spray
Application Timing:	1-3WHEAT FALL	FALL	SPRING
Application Placement:	BROFOL	BROFOL	BROFOL
Applied By:	NVH	DKP	DKP
Air Temperature, Unit:	60 F	48 F	58 F
% Relative Humidity:	51	81	55
Wind Velocity, Unit:	5 MPH	1 MPH	2 MPH
Wind Direction:	SW	W	W
Dew Presence (Y/N):	N	N	Y
Soil Temperature, Unit:	50 F	42 F	48 F
Soil Moisture:	ABONOR	ABONOR	NORMAL
% Cloud Cover:	5	100	0

	A	B	C
Crop stage at application:	2	LVS 2	FK 6
Height Min, Max (inch):	1	2.5 2	4 6 16

Pest Stage At Each Application

	A	B	C
Application Date:	11-25-09	03-16-10	04-09-10
Weed Code:	LAMAM	LAMAM	LAMAM
Stage Majority (leaves):	NA	7	12
Stage Min, Max:		3 15	5 20
Height Majority:		1 IN	5 IN
Height Min, Max:		0.25 2	3 8
Density, Unit:		0.5 FT2	0.5 FT2
Weed Code:	BROTE	BROTE	BROTE
Stage Majority (leaves):	NA	7	30
Stage Min, Max:		3 25	20 50
Height Majority:		2 IN	6 IN
Height Min, Max:		1 3	4 6
Density, Unit:		0.1 FT2	0.4 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI	30 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan
Nozzle Size:	AI 11002	XR 8002	XR 8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

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Pest Code
Crop Code
Rating Date
Rating Data Type
Rating Unit
Rating Timing
Trt-Eval Interval

TRZAW TRZAW TRZAW
06-22-10 06-22-10 06-22-10
Moisture Test wt. Yield
Percent lb/bu bu/A

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED								10.6 a	48.8 a	60 a
2	OSPNEY	4.5	WG	0.0134 lb ai/a	4.76 oz/a		FALL	B	10.6 a	50.1 a	60 a
2	NIS (ACTIVATOR 90)	100	SL	0.5 % v/v	0.5 % v/v		FALL	B			
2	32% UAN	100	SL	3.33 % v/v	4 pt/a		FALL	B			
3	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a		FALL	B	10.7 a	50.2 a	60 a
3	NIS (ACTIVATOR 90)	100	SL	0.5 % v/v	0.5 % v/v		FALL	B			
4	OLYMPUS	70	WG	0.0263 lb ai/a	0.6 oz/a		FALL	B	10.4 a	50.4 a	54 b
4	NIS (ACTIVATOR 90)	100	SL	0.5 % v/v	0.5 % v/v		FALL	B			
4	OLYMPUS	70	WG	0.0263 lb ai/a	0.6 oz/a		SPRING	C			
4	NIS (ACTIVATOR 90)	100	SL	0.5 % v/v	0.5 % v/v		SPRING	C			
5	ATLANTIS	12.6	WG	0.055 lb ai/a	7 oz/a		FALL	B	10.6 a	50.5 a	60 a
5	OLYMPUS	70	WG	0.0131 lb ai/a	0.3 oz/a		FALL	B			
5	NIS (ACTIVATOR 90)	100	SL	0.5 % v/v	0.5 % v/v		FALL	B			
6	HOELON	3	EC	1.01 lb ai/a	2.7 pt/a		1-3WHEAT	A	10.4 a	50.2 a	55 b
6	DEFINE SC	4	SC	0.272 lb ai/a	8.7 fl oz/a		1-3WHEAT	A			
6	ATLANTIS	12.6	WG	0.055 lb ai/a	7 oz/a		SPRING	C			
7	AXIOM	68	WG	0.34 lb ai/a	8 oz/a		1-3WHEAT	A	10.7 a	51.0 a	60 a
7	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a		SPRING	C			
7	NIS (ACTIVATOR 90)	100	SL	0.5 % v/v	0.5 % v/v		SPRING	C			
7	32% UAN	100	SL	3.33 % v/v	4 pt/a		SPRING	C			
8	ATLANTIS	12.6	WG	0.055 lb ai/a	7 oz/a		FALL	B	10.7 a	51.1 a	55 b
8	MSO (DESTINY)	100	SL	1.08 % v/v	1.3 pt/a		FALL	B			
8	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a		SPRING	C			
8	NIS (ACTIVATOR 90)	100	SL	0.5 % v/v	0.5 % v/v		SPRING	C			
8	32% UAN	100	SL	3.33 % v/v	4 pt/a		SPRING	C			
9	OLYMPUS	70	WG	0.0263 lb ai/a	0.6 oz/a		FALL	B	10.4 a	49.8 a	56 b
9	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a		SPRING	C			
9	NIS (ACTIVATOR 90)	100	SL	0.5 % v/v	0.5 % v/v		SPRING	C			
LSD (P=.05)									0.39	2.83	4.1
Replicate F									0.237	0.569	4.293
Replicate Prob(F)									0.8696	0.6407	0.0147
Treatment F									0.996	0.482	3.992
Treatment Prob(F)									0.4643	0.8571	0.0039

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

Olympus efficacy in Winter Wheat.

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Location: Agronomy Res. Center

Pest Code Crop Code Rating Date Rating Data Type Rating Unit Rating Timing Trt-Eval Interval									TRZAW 12-02-09 Injury Percent	TRZAW 12-09-09 Injury Percent	TRZAW 12-23-09 Injury Percent	TRZAW 03-23-10 Injury Percent	TRZAW 03-30-10 Injury Percent	TRZAW 04-13-10 Injury Percent	
									7 DA-A	14 DA-A	28 DA-A	7 DA-B	14 DA-B	28 DA-B	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NONTREATED									0 a	0 a	0 a	0 b	0 c	0 d
2	OSPNEY	4.5	WG	0.0134	lb ai/a	4.76	oz/a	FALL	B	0 a	0 a	0 a	1 ab	8 ab	5 ab
2	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	FALL	B						
2	32% UAN	100	SL	3.33	% v/v	4	pt/a	FALL	B						
3	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	FALL	B	0 a	0 a	0 a	1 ab	5 b	4 bc
3	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	FALL	B						
4	OLYMPUS	70	WG	0.0263	lb ai/a	0.6	oz/a	FALL	B	0 a	0 a	0 a	0 b	1 c	1 cd
4	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	FALL	B						
4	OLYMPUS	70	WG	0.0263	lb ai/a	0.6	oz/a	SPRING	C						
4	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	SPRING	C						
5	ATLANTIS	12.6	WG	0.055	lb ai/a	7	oz/a	FALL	B	0 a	0 a	0 a	1 ab	6 b	5 ab
5	OLYMPUS	70	WG	0.0131	lb ai/a	0.3	oz/a	FALL	B						
5	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	FALL	B						
6	HOELON	3	EC	1.01	lb ai/a	2.7	pt/a	1-3WHEAT	A	0 a	0 a	0 a	0 b	0 c	0 d
6	DEFINE SC	4	SC	0.272	lb ai/a	8.7	fl oz/a	1-3WHEAT	A						
6	ATLANTIS	12.6	WG	0.055	lb ai/a	7	oz/a	SPRING	C						
7	AXIOM	68	WG	0.34	lb ai/a	8	oz/a	1-3WHEAT	A	0 a	0 a	0 a	0 b	0 c	0 d
7	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	SPRING	C						
7	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	SPRING	C						
7	32% UAN	100	SL	3.33	% v/v	4	pt/a	SPRING	C						
8	ATLANTIS	12.6	WG	0.055	lb ai/a	7	oz/a	FALL	B	0 a	0 a	0 a	4 a	11 a	7 a
8	MSO (DESTINY)	100	SL	1.08	% v/v	1.3	pt/a	FALL	B						
8	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	SPRING	C						
8	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	SPRING	C						
8	32% UAN	100	SL	3.33	% v/v	4	pt/a	SPRING	C						
9	OLYMPUS	70	WG	0.0263	lb ai/a	0.6	oz/a	FALL	B	0 a	0 a	0 a	3 ab	10 a	7 ab
9	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	SPRING	C						
9	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	SPRING	C						
LSD (P=.05)									0.0	0.0	0.0	3.0	3.3	3.1	
Replicate F									0.000	0.000	0.000	0.000	0.964	1.324	
Replicate Prob(F)									1.0000	1.0000	1.0000	1.0000	0.4260	0.2899	
Treatment F									0.000	0.000	0.000	1.667	14.862	7.218	
Treatment Prob(F)									1.0000	1.0000	1.0000	0.1585	0.0001	0.0001	

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

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Location: Agronomy Res. Center

									LAMAM		
Pest Code									TRZAW	TRZAW	TRZAW
Crop Code									04-16-10	04-23-10	05-07-10
Rating Date									04-06-10	04-27-10	04-30-10
Rating Data Type									Injury	Injury	Injury
Rating Unit									Percent	Percent	Percent
Rating Timing									Control	Control	Control
Trt-Eval Interval									Percent	Percent	Percent
									7 DA-C	14 DA-C	28 DA-C
									21 DA-B	42 DA-B	21 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	NONTREATED									0 c	0 b
2	OSPNEY	4.5 WG		0.0134	lb ai/a	4.76	oz/a	FALL	B	2 bc	3 b
2	NIS (ACTIVATOR 90)	100 SL		0.5	% v/v	0.5	% v/v	FALL	B	2 b	2 b
2	32% UAN	100 SL		3.33	% v/v	4	pt/a	FALL	B	96 a	99 a
3	OLYMPUS FLEX	11.25 SG		0.0246	lb ai/a	3.5	oz/a	FALL	B	1 bc	2 b
3	NIS (ACTIVATOR 90)	100 SL		0.5	% v/v	0.5	% v/v	FALL	B	0 b	0 b
4	OLYMPUS	70 WG		0.0263	lb ai/a	0.6	oz/a	FALL	B	98 a	99 a
4	NIS (ACTIVATOR 90)	100 SL		0.5	% v/v	0.5	% v/v	FALL	B	99 a	99 a
4	OLYMPUS	70 WG		0.0263	lb ai/a	0.6	oz/a	SPRING	C	84 b	99 a
4	NIS (ACTIVATOR 90)	100 SL		0.5	% v/v	0.5	% v/v	SPRING	C	99 a	99 a
5	ATLANTIS	12.6 WG		0.055	lb ai/a	7	oz/a	FALL	B	3 b	3 b
5	OLYMPUS	70 WG		0.0131	lb ai/a	0.3	oz/a	FALL	B	1 b	1 b
5	NIS (ACTIVATOR 90)	100 SL		0.5	% v/v	0.5	% v/v	FALL	B	99 a	99 a
6	HOELON	3 EC		1.01	lb ai/a	2.7	pt/a	1-3WHEAT	A	99 a	99 a
6	DEFINE SC	4 SC		0.272	lb ai/a	8.7	fl oz/a	1-3WHEAT	A	97 a	99 a
6	ATLANTIS	12.6 WG		0.055	lb ai/a	7	oz/a	SPRING	C	99 a	99 a
7	AXIOM	68 WG		0.34	lb ai/a	8	oz/a	1-3WHEAT	A	0 c	0 b
7	HUSKIE	2.06 EC		0.217	lb ai/a	13.5	fl oz/a	SPRING	C	0 b	0 b
7	NIS (ACTIVATOR 90)	100 SL		0.5	% v/v	0.5	% v/v	SPRING	C	99 a	99 a
7	32% UAN	100 SL		3.33	% v/v	4	pt/a	SPRING	C	99 a	99 a
8	ATLANTIS	12.6 WG		0.055	lb ai/a	7	oz/a	FALL	B	3 b	4 b
8	MSO (DESTINY)	100 SL		1.08	% v/v	1.3	pt/a	FALL	B	2 b	2 b
8	HUSKIE	2.06 EC		0.217	lb ai/a	13.5	fl oz/a	SPRING	C	99 a	99 a
8	NIS (ACTIVATOR 90)	100 SL		0.5	% v/v	0.5	% v/v	SPRING	C	99 a	99 a
8	32% UAN	100 SL		3.33	% v/v	4	pt/a	SPRING	C	99 a	99 a
9	OLYMPUS	70 WG		0.0263	lb ai/a	0.6	oz/a	FALL	B	2 bc	2 b
9	HUSKIE	2.06 EC		0.217	lb ai/a	13.5	fl oz/a	SPRING	C	1 b	1 b
9	NIS (ACTIVATOR 90)	100 SL		0.5	% v/v	0.5	% v/v	SPRING	C	85 b	99 a
LSD (P=.05)										2.7	3.9
Replicate F									4.544	0.666	0.816
Replicate Prob(F)									0.0117	0.5811	0.4979
Treatment F									24.890	68.934	57.858
Treatment Prob(F)									0.0001	0.0001	0.0001
										3.073	0.000
										0.0469	1.0000
										0.000	0.000
										1.0000	1.0000

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

Olympus efficacy in Winter Wheat.

Trial ID: 10-ARC-N9-EH1

Location: Agronomy Res. Center

								BROTE	BROTE	BROTE	BROTE	BROTE	BROTE
Pest Code								04-06-10	04-27-10	04-30-10	05-15-10	05-21-10	06-08-10
Crop Code								Control	Control	Control	Control	Control	Control
Rating Date								Percent	Percent	Percent	Percent	Percent	Percent
Rating Data Type													
Rating Unit													
Rating Timing													
Trt-Eval Interval								21 DA-B	42 DA-B	21 DA-C	60 DA-B	42 DA-C	60 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Unit	Other Rate	Other Unit	Growth Stage	Appl Code				
1	NONTREATED									0 c	0 c	0 c	0 c
2	OSPNEY	4.5 WG		0.0134 lb ai/a	4.76 oz/a			FALL	B	93 ab	99 a	99 a	99 a
2	NIS (ACTIVATOR 90)	100 SL		0.5 % v/v	0.5 % v/v			FALL	B				
2	32% UAN	100 SL		3.33 % v/v	4 pt/a			FALL	B				
3	OLYMPUS FLEX	11.25 SG		0.0246 lb ai/a	3.5 oz/a			FALL	B	99 a	99 a	99 a	99 a
3	NIS (ACTIVATOR 90)	100 SL		0.5 % v/v	0.5 % v/v			FALL	B				
4	OLYMPUS	70 WG		0.0263 lb ai/a	0.6 oz/a			FALL	B	98 a	99 a	99 a	99 a
4	NIS (ACTIVATOR 90)	100 SL		0.5 % v/v	0.5 % v/v			FALL	B				
4	OLYMPUS	70 WG		0.0263 lb ai/a	0.6 oz/a			SPRING	C				
4	NIS (ACTIVATOR 90)	100 SL		0.5 % v/v	0.5 % v/v			SPRING	C				
5	ATLANTIS	12.6 WG		0.055 lb ai/a	7 oz/a			FALL	B	97 a	99 a	99 a	99 a
5	OLYMPUS	70 WG		0.0131 lb ai/a	0.3 oz/a			FALL	B				
5	NIS (ACTIVATOR 90)	100 SL		0.5 % v/v	0.5 % v/v			FALL	B				
6	HOELON	3 EC		1.01 lb ai/a	2.7 pt/a			1-3WHEAT	A	99 a	99 a	99 a	99 a
6	DEFINE SC	4 SC		0.272 lb ai/a	8.7 fl oz/a			1-3WHEAT	A				
6	ATLANTIS	12.6 WG		0.055 lb ai/a	7 oz/a			SPRING	C				
7	AXIOM	68 WG		0.34 lb ai/a	8 oz/a			1-3WHEAT	A	82 b	86 b	82 b	58 b
7	HUSKIE	2.06 EC		0.217 lb ai/a	13.5 fl oz/a			SPRING	C				63 b
7	NIS (ACTIVATOR 90)	100 SL		0.5 % v/v	0.5 % v/v			SPRING	C				64 b
7	32% UAN	100 SL		3.33 % v/v	4 pt/a			SPRING	C				
8	ATLANTIS	12.6 WG		0.055 lb ai/a	7 oz/a			FALL	B	98 a	99 a	99 a	99 a
8	MSO (DESTINY)	100 SL		1.08 % v/v	1.3 pt/a			FALL	B				
8	HUSKIE	2.06 EC		0.217 lb ai/a	13.5 fl oz/a			SPRING	C				
8	NIS (ACTIVATOR 90)	100 SL		0.5 % v/v	0.5 % v/v			SPRING	C				
8	32% UAN	100 SL		3.33 % v/v	4 pt/a			SPRING	C				
9	OLYMPUS	70 WG		0.0263 lb ai/a	0.6 oz/a			FALL	B	93 ab	99 a	99 a	99 a
9	HUSKIE	2.06 EC		0.217 lb ai/a	13.5 fl oz/a			SPRING	C				
9	NIS (ACTIVATOR 90)	100 SL		0.5 % v/v	0.5 % v/v			SPRING	C				
LSD (P=.05)								13.2	13.1	10.7	7.3	6.1	5.4
Replicate F								0.523	1.000	1.000	1.000	1.000	1.000
Replicate Prob(F)								0.6707	0.4098	0.4098	0.4098	0.4098	0.4098
Treatment F								49.991	52.944	80.516	186.598	258.439	330.993
Treatment Prob(F)								0.0001	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: Bayer (EH1).
2. Ratings: CI 7, 14 and 28 DAT, WC 21, 42 and 60 DA B and C timings.
Rate all plots for evaluations following the C application.
3. Yield.
4. Estimate percent ground cover of each weed in the nontreated at each weed control evaluation.
5. Application timings: 1-3WHEAT = Very early POST, spike to 3 leaf wheat.
FALL and SPRING applications should be made at optimal timing for peak performance regardless of season.
6. Percent ground cover for LAMAM was 5, 8, and 10 at 21 DA-B, 42 DA-B, and 21 DA-C, respectively.
By 5-15-10 the LAMAM in the nontreated plots was senescing naturally.
Percent ground cover for BROTE was 1, 2, 3, 5, 5, and 5 at 21 DA-B, 42 DA-B, 21 DA-C, 60 DA-B, 42 DA-C, and 60 DA-C, respectively.
7. Injury following the C application was stunting.
8. Harvested 6-22-10, (8) 7.5 inch rows by 27 ft.