

## Fusarium Head Blight - Uniform Fungicide Trials on Wheat.

Trial ID: 08-ARC-24D

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: 10-15-07

Crop 1: TRZAW wheat, winter Variety: P25R78  
 Planting Method: Seeded Planting Date: 10-15-07  
 Rate, Unit: 1.3 mil. S/A Depth, Unit: 1.0 IN  
 Row Spacing, Unit: 7.5 IN Seed Bed: FRIABLE/TRASHY  
 Soil Moisture: BELOW NORMAL

Plot Width, Unit: 5 FT Site Type: FIELD  
 Plot Length, Unit: 30 FT Tillage Type: NO-TILL  
 Replications: 6 Study Design: Randomized Complete Block

## Prior Crops, Year

1. ZEAMX 2007

Field Prep./Maintenance: N 95 LB/A as 32% UAN applied on 3-25-08

% OM: 1.6 Texture: SILT LOAM  
 pH: 6 Soil Name: WEIR  
 CEC: 7.5 Fert. Level: P1: 84 LB/A, K: 307 LB/A

## Application Description

	A	B	C	D	E
Application Date:	04-29-08	05-06-08	05-10-08	05-12-08	05-16-08
Time of Day:	15:30	15:00	8:30	15:00	17:30
Application Method:	Spray	Spray	Spray	Spray	Spray
Application Timing:	FK9	FK10	FK10.5	FK10.51	5DA-D
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	JLM	JLM	JLM	JLM	JLM
Air Temperature, Unit:	62 F	75 F	57 F	74 F	76 F
% Relative Humidity:	23	55	80	38	29
Wind Velocity, Unit:	1.5 MPH	1.5 MPH	1.5 MPH	1.5 MPH	2 MPH
Dew Presence (Y/N):	N	N	Y	N	N
Soil Temperature, Unit:	59 F	69 F	65 F	63 F	67 F
Soil Moisture:	ABONOR	NORMAL	ABONOR	NORMAL	ABONOR
% Cloud Cover:	0	100	100	0	0

	A	B	C	D	E
Crop stage at application:	FK9	FK10	FK10.5	FK10.51	FK10.54
Height Min, Max (inch):	18 20	20 24	22 26	30 34	30 35

## Pest Stage At Each Application

Application Date:	A	B	C	D	E
04-29-08	05-06-08	05-10-08	05-12-08	05-16-08	

## Application Equipment

	A	B	C	D	E
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	30 PSI	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	TwinFlFan	TwinFlFan	TwinFlFan	TwinFlFan	TwinFlFan
Nozzle Size:	XR 110015	XR 110015	XR 110015	XR 110015	XR 110015
Boom Length, Unit:	5 FT	5 FT	5 FT	5 FT	5 FT
Spray Volume, Unit:	20 GPA	20 GPA	20 GPA	20 GPA	20 GPA

## Fusarium Head Blight - Uniform Fungicide Trials on Wheat.

Trial ID: 08-ARC-24D

Location: Agronomy Res. Center

Pest Code									HEADSCAB	HEADSCAB	HEADSCAB	TNST/SEP				
Crop Code									TRZAW	TRZAW	TRZAW	TRZAW				
Rating Date									07-01-08	07-01-08	06-10-08	06-10-08				
Rating Data Type									Moisture	Test wt.	Yield	DON	Incidence	Severity	Incidence	
Rating Unit									Percent	lb/bu	bu/A	ppm	Percent	Percent	Percent	
Rating Timing									SoftDough	SoftDough	SoftDough	SoftDough	SoftDough	SoftDough		
Trt-Eval Interval									42 DA-A	42 DA-A	42 DA-A	42 DA-A	42 DA-A	42 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
1	NONTREATED									12.5 ab	50.6 ab	77 c	1.93 bcd	31 abc	12 ab	100 a
2	FOLICUR	3.6 F		0.112	lb ai/a	4 fl oz/a		FK10.5.1 D		12.9 ab	53.5 ab	84 abc	1.69 def	23 cd	6 cd	99 ab
2	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK10.5.1 D								
3	PROLINE	4 SC		0.156	lb ai/a	5 fl oz/a		FK10.5.1 D		13.1 ab	53.6 a	83 abc	1.31 d-h	17 de	5 cd	99 b
3	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK10.5.1 D								
4	PROSARO	3.5 SC		0.178	lb ai/a	6.5 fl oz/a		FK10.5.1 D		12.7 ab	51.4 ab	89 a	0.99 fgh	13 e	3 d	100 a
4	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK10.5.1 D								
5	CARAMBA	0.75 SL		0.0586	lb ai/a	10 fl oz/a		FK10.5.1 D		12.1 b	50.1 b	89 a	0.95 gh	17 de	5 cd	100 a
5	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK10.5.1 D								
6	CARAMBA	0.75 SL		0.082	lb ai/a	14 fl oz/a		FK10.5.1 D		12.9 ab	53.8 a	88 a	1.20 e-h	18 de	3 d	100 a
6	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK10.5.1 D								
7	TOPGUARD	1.04 SC		0.114	lb ai/a	14 fl oz/a		FK10.5.1 D		12.9 ab	53.2 ab	83 abc	1.83 cde	20 de	8 bc	100 a
7	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK10.5.1 D								
8	PROLINE	4 SC		0.156	lb ai/a	5 fl oz/a		FK10.5 C		12.9 ab	52.5 ab	88 a	1.58 d-g	17 de	7 cd	100 a
8	HEADLINE	2.09 EC		0.0327	lb ai/a	2 fl oz/a		FK10.5 C								
8	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK10.5 C								
9	HEADLINE	2.09 EC		0.098	lb ai/a	6 fl oz/a		FK9 A		12.3 ab	51.7 ab	82 abc	2.65 b	31 bc	8 bc	100 a
9	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK9 A								
10	HEADLINE	2.09 EC		0.098	lb ai/a	6 fl oz/a		FK10 B		12.7 ab	51.7 ab	78 bc	2.46 bc	41 a	14 a	100 a
10	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK10 B								
11	HEADLINE	2.09 EC		0.098	lb ai/a	6 fl oz/a		FK10.5 C		12.4 ab	52.0 ab	85 abc	3.62 a	37 ab	14 a	100 a
11	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK10.5 C								
12	PROLINE	4 SC		0.156	lb ai/a	5 fl oz/a		FK10.5 C		13.0 ab	54.0 a	90 a	1.18 e-h	17 de	5 cd	99 ab
12	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		FK10.5 C								
13	PROLINE	4 SC		0.156	lb ai/a	5 fl oz/a		5DA-D E		13.3 a	54.0 a	88 ab	0.80 h	11 e	4 d	100 a
13	ACTIVATOR 90	100 LIQ		0.125	% v/v	0.125 % v/v		5DA-D E								
LSD (P=.05)										1.03	3.50	10.3	0.732	9.7	4.3	1.0
Replicate F										0.075	0.264	3.252	0.861	9.127	18.933	1.121
Replicate Prob(F)										0.9958	0.9310	0.0121	0.5134	0.0001	0.0001	0.3588
Treatment F										0.789	1.122	1.355	9.708	7.596	6.538	1.449
Treatment Prob(F)										0.6589	0.3617	0.2161	0.0001	0.0001	0.0001	0.1699

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

## Fusarium Head Blight - Uniform Fungicide Trials on Wheat.

Trial ID: 08-ARC-24D

Location: Agronomy Res. Center

Pest Code	TNST/SEP
Crop Code	TRZAW
Rating Date	06-10-08
Rating Data Type	Severity
Rating Unit	Percent
Rating Timing	SoftDough
Trt-Eval Interval	42 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	NONTREATED									72 a
2	FOLICUR	3.6	F	0.112	lb ai/a	4	fl oz/a	FK10.5.1	D	50 b
2	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	D	
3	PROLINE	4	SC	0.156	lb ai/a	5	fl oz/a	FK10.5.1	D	44 b
3	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	D	
4	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	FK10.5.1	D	47 b
4	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	D	
5	CARAMBA	0.75	SL	0.0586	lb ai/a	10	fl oz/a	FK10.5.1	D	54 b
5	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	D	
6	CARAMBA	0.75	SL	0.082	lb ai/a	14	fl oz/a	FK10.5.1	D	47 b
6	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	D	
7	TOPGUARD	1.04	SC	0.114	lb ai/a	14	fl oz/a	FK10.5.1	D	59 ab
7	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	D	
8	PROLINE	4	SC	0.156	lb ai/a	5	fl oz/a	FK10.5	C	45 b
8	HEADLINE	2.09	EC	0.0327	lb ai/a	2	fl oz/a	FK10.5	C	
8	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5	C	
9	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK9	A	54 b
9	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK9	A	
10	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK10	B	48 b
10	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10	B	
11	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK10.5	C	57 ab
11	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5	C	
12	PROLINE	4	SC	0.156	lb ai/a	5	fl oz/a	FK10.5	C	56 ab
12	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5	C	
13	PROLINE	4	SC	0.156	lb ai/a	5	fl oz/a	5DA-D	E	47 b
13	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	5DA-D	E	
LSD (P=.05)										16.8
Replicate F										2.526
Replicate Prob(F)										0.0385
Treatment F										1.602
Treatment Prob(F)										0.1154

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

## Trial Comments

1. Protocol: University of Illinois - Bradley, BASF.
2. Ratings: Rate wheat heads at soft dough stage. Rate 25 heads per plot for scab incidence and severity. Collect harvested grain samples (approximately 1 lb or so) from each plot and send to Carl Bradley. Carl will rate samples for % Fusarium Damaged Kernels, and will send samples for DON analysis. Rate 25 flag leaves per plot. Stagonospora/Septoria/Tan Spot severity can all be rated as 1 category, specify which was the most prevalent. Rate for leaf rust and stripe as separate categories. Severity will be rated as the percent of the leaf affected for each of the 25 flag leaves.
3. Blanket application of Harmony Extra (0.5 oz/A + 2,4-De (0.5 pt/A) + NIS (0.25%) was applied to all plots on 4-22-08.
4. Test wt. = Test weight. HEADSCAB = Head scab (fusarium head blight). TNST/SEP = Tan spot and/or septoria leaf blotch on the flag leaf (20% tan spot and 80% septoria leaf blotch). Leaf rust was found on only 2 of the 1950 flag leaves sampled. No stripe rust was found.
5. Harvested 07-01-08, (6) 7.5 inch rows by 27.5 ft.