

Efficacy and Crop Response of Foliar Fungicides in Wheat.

Trial ID: 09-30-N70

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: 10-17-08

Objectives: Evaluate foliar fungicides including pre-mixes and tankmixes
 for crop response and control of leaf diseases.

Crop 1: TRZAW Winter wheat Variety: P25R62
 Planting Method: SEEDED Planting Date: 10-17-08
 Rate, Unit: 1.3 mil. S/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 7.5 IN
 Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 28 FT Tillage Type: REDUCED-TILL
 Replications: 6 Study Design: Randomized Complete Block

Prior Crops, Year

1. GLXMA 2008

Field Prep./Maintenance: N 30 LB/A applied on 10-16-08 and N 85 LB/A applied on 01-29-09.

% OM: 2 Texture: SILT LOAM
 pH: 6 Soil Name: WINFIELD
 CEC: 9 Fert. Level: P1: 70 LB/A, K: 377 LB/A

Application Description

	A	B
Application Date:	04-15-09	04-29-09
Time of Day:	10:00	13:00
Application Method:	Spray	Spray
Application Timing:	FK6-7	FK9
Application Placement:	BROFOL	BROFOL
Applied By:	RFK	RFK
Air Temperature, Unit:	40 F	70 F
% Relative Humidity:	80	65
Wind Velocity, Unit:	5 MPH	6 MPH
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	50 F	65 F
Soil Moisture:	ABONOR	ABONOR
% Cloud Cover:	0	50

	04-15-09	04-29-09
Crop stage at application:	6	FK 9
Height Min, Max (inch):	14	16 22 24

Pest Stage At Each Application

Application Date: 04-15-09 04-29-09

Application Equipment

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

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Pest Code										TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	TNST/SEP	TNST/SEP							
Crop Code										06-23-09	06-23-09	06-23-09			TRZAW	TRZAW							
Rating Date										Moisture	Test wt.	Yield	Injury	Injury	Severity	Severity							
Rating Data Type										Percent	lb/bu	bu/A	Percent	Percent	Percent	Percent							
Rating Unit													7 DAT	14 DAT									
Rating Timing																							
Trt-Eval Interval															0 DA-B	22 DA-B							
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code														
1	HARMONY EXTRA SG	50	SG			0.9	oz/a	FK6-7	A	11.4	ab	48.7	ab	63	c	12	a	0	a	0	a	21	a
1	HARMONY SG	50	SG	0.01875	lb ai/a			FK6-7	A														
1	EXPRESS	50	SG	.009374	lb ai/a			FK6-7	A														
1	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	FK6-7	A														
1	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FK6-7	A														
2	HARMONY EXTRA SG	50	SG			0.9	oz/a	FK6-7	A	11.3	ab	48.4	ab	64	c	12	a	0	a	0	a	16	a
2	HARMONY SG	50	SG	0.01875	lb ai/a			FK6-7	A														
2	EXPRESS	50	SG	.009374	lb ai/a			FK6-7	A														
2	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	FK6-7	A														
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FK6-7	A														
2	LEM17	1.67	EC	0.157	lb ai/a	12	fl oz/a	FK9	B														
3	HARMONY EXTRA SG	50	SG			0.9	oz/a	FK6-7	A	11.4	ab	48.6	ab	67	c	12	a	0	a	0	a	0	b
3	HARMONY SG	50	SG	0.01875	lb ai/a			FK6-7	A														
3	EXPRESS	50	SG	.009374	lb ai/a			FK6-7	A														
3	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	FK6-7	A														
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FK6-7	A														
3	YT669	2.08	SC	0.146	lb ai/a	9	fl oz/a	FK9	B														
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FK9	B														
4	NONTREATED									11.2	b	48.0	b	64	c	0	b	0	a	0	a	18	a
5	TWINLINE	1.75	EC	0.123	lb ai/a	9	fl oz/a	FK9	B	11.6	a	49.4	a	72	a	0	b	0	a	0	a	0	b
5	ACTIVATOR 90	100	SL	0.125	% v/v	0.125	% v/v	FK9	B														
6	QUILT	1.66	SC	0.182	lb ai/a	14	fl oz/a	FK9	B	11.5	ab	49.2	ab	67	bc	0	b	0	a	0	a	0	b
6	ACTIVATOR 90	100	SL	0.125	% v/v	0.125	% v/v	FK9	B														
7	STRATEGO	2.08	EC	0.163	lb ai/a	10	fl oz/a	FK9	B	11.4	ab	48.7	ab	68	abc	0	b	0	a	0	a	2	b
7	ACTIVATOR 90	100	SL	0.125	% v/v	0.125	% v/v	FK9	B														
8	BAS 556 02 F	0.845	SC	0.066	lb ai/a	10	fl oz/a	FK9	B	11.4	ab	48.9	ab	71	ab	0	b	0	a	0	a	0	b
8	ACTIVATOR 90	100	SL	0.125	% v/v	0.125	% v/v	FK9	B														
LSD (P=.05)										0.33		1.24		4.4		1.9		0.0		0.0		7.7	
Replicate F										1.324		0.839		1.469		0.467		0.000		0.000		2.911	
Replicate Prob(F)										0.2767		0.5313		0.2248		0.7984		1.0000		1.0000		0.0267	
Treatment F										1.246		1.002		4.379		81.667		0.000		0.000		12.188	
Treatment Prob(F)										0.3050		0.4464		0.0014		0.0001		1.0000		1.0000		0.0001	

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

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Pest Code	
Crop Code	TRZAW
Rating Date	06-23-09
Rating Data Type	Lodging
Rating Unit	Percent
Rating Timing	
Trt-Eval Interval	EOS

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	HARMONY EXTRA SG	50	SG			0.9	oz/a	FK6-7	A	0 a
1	HARMONY SG	50	SG	0.01875	lb ai/a			FK6-7	A	
1	EXPRESS	50	SG	.009374	lb ai/a			FK6-7	A	
1	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	FK6-7	A	
1	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FK6-7	A	
2	HARMONY EXTRA SG	50	SG			0.9	oz/a	FK6-7	A	0 a
2	HARMONY SG	50	SG	0.01875	lb ai/a			FK6-7	A	
2	EXPRESS	50	SG	.009374	lb ai/a			FK6-7	A	
2	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	FK6-7	A	
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FK6-7	A	
2	LEM17	1.67	EC	0.157	lb ai/a	12	fl oz/a	FK9	B	
3	HARMONY EXTRA SG	50	SG			0.9	oz/a	FK6-7	A	0 a
3	HARMONY SG	50	SG	0.01875	lb ai/a			FK6-7	A	
3	EXPRESS	50	SG	.009374	lb ai/a			FK6-7	A	
3	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	FK6-7	A	
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FK6-7	A	
3	YT669	2.08	SC	0.146	lb ai/a	9	fl oz/a	FK9	B	
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	FK9	B	
4	NONTREATED									0 a
5	TWINLINE	1.75	EC	0.123	lb ai/a	9	fl oz/a	FK9	B	0 a
5	ACTIVATOR 90	100	SL	0.125	% v/v	0.125	% v/v	FK9	B	
6	QUILT	1.66	SC	0.182	lb ai/a	14	fl oz/a	FK9	B	0 a
6	ACTIVATOR 90	100	SL	0.125	% v/v	0.125	% v/v	FK9	B	
7	STRATEGO	2.08	EC	0.163	lb ai/a	10	fl oz/a	FK9	B	0 a
7	ACTIVATOR 90	100	SL	0.125	% v/v	0.125	% v/v	FK9	B	
8	BAS 556 02 F	0.845	SC	0.066	lb ai/a	10	fl oz/a	FK9	B	0 a
8	ACTIVATOR 90	100	SL	0.125	% v/v	0.125	% v/v	FK9	B	
LSD (P=.05)										0.0
Replicate F										0.000
Replicate Prob(F)										1.0000
Treatment F										0.000
Treatment Prob(F)										1.0000

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

Trial Comments

1. Protocol: DuPont, BASF (WF3).
2. Ratings: Percent crop response, describe symptoms, 7 and 14 DAT, continue if symptoms persist.
Percent disease incidence and severity at 0, and 14-21 DA-B, rate all plots, rate flag leaf separately if different.
Establish baseline disease pressure at 0 DA-B rating for evaluation of curative response.
Lodging at harvest.
3. Yield.
4. TNST/SEP = Tan spot and/or septoria leaf blotch on the leaf below the flagleaf (80% tan spot and 20% septoria leaf blotch).
An overall evaluation of headscab was made on 6-9-09, infection was very high at 20-40% severity.
Injury was leaf discoloration.
5. Harvested 6-23-09, (8) 7.5 inch rows by 25 ft.