

Evaluation of Bayer Fungicides for Control of Leaf and Head Diseases in Wheat.

Trial ID: 09-20B-S90

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: 10-20-08

Objectives: Evaluate foliar disease control with Stratego, Gem and Prosaro,
 and FHB control with Prosaro.

Crop 1: TRZAW Winter wheat Variety: P25R62
 Planting Method: SEEDS Planting Date: 10-20-08
 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: 4 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: 2.6 Texture: SILT LOAM
 pH: 5.6 Soil Name: BETHALTO
 CEC: 14 Fert. Level: P1 86 LB/A, K 446 LB/A

	Application Description					
	A		B		C	
Application Date:	04-16-09	04-29-09	04-16-09	04-29-09	05-11-09	05-11-09
Time of Day:	10:00	13:00	10:00	13:00	13:00	13:00
Application Method:	Spray	Spray	Spray	Spray	Spray	Spray
Application Timing:	FK5-6	FK8-9	FK5-6	FK8-9	FK10.51	FK10.51
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	RFK	RFK	RFK	RFK	RFK	RFK
Air Temperature, Unit:	50 F	68 F	50 F	68 F	68 F	68 F
% Relative Humidity:	90	92	90	92	60	60
Wind Velocity, Unit:	3 MPH	0 MPH	3 MPH	0 MPH	0 MPH	0 MPH
Dew Presence (Y/N):	N	N	N	N		
Soil Moisture:	ABONOR	ABONOR	ABONOR	ABONOR	ABONOR	ABONOR
% Cloud Cover:	50	50	50	50	50	50

	04-16-09 04-29-09 05-11-09			
Crop stage at application:	5-6	FK 9	FK 10.5	FK
Height Min, Max (inch):	14	16 20	22 32	36

Pest Stage At Each Application

Application Date: 04-16-09 04-29-09 05-11-09

Application Equipment

	Application Equipment		
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	40 PSI	40 PSI	40 PSI
Nozzle Type:	Flat fan	Flat fan	TwinFlFan
Nozzle Size:	XR 8002	XR 8002	XR 8001
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Evaluation of Bayer Fungicides for Control of Leaf and Head Diseases in Wheat.

Trial ID: 09-20B-S90

Location: Belleville Res. Center

										HEADSCAB		TNST/SEP	
Pest Code										TRZAW	TRZAW	TRZAW	TRZAW
Crop Code										06-09-09	06-09-09	06-09-09	06-09-09
Rating Date										Moisture	Test wt.	Yield	Injury
Rating Data Type										Percent	lb/bu	bu/A	Percent
Rating Unit										7 DAT	14 DAT		Percent
Rating Timing													Greenness
Trt-Eval Interval													1-9
										29 DA-C	29 DA-C	29 DA-C	Percent
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	NONTREATED									10.7 b	47.6 b	56 e	0 a
2	STRATEGO	2.08	EC	0.162	lb ai/a	10	fl oz/a	FK8-9	B	10.7 b	47.3 b	63 d	0 a
2	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK8-9	B				0 a
3	USF0731	4.17	SC	0.162	lb ai/a	5	fl oz/a	FK8-9	B	10.9 ab	47.4 b	63 d	0 a
3	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK8-9	B				0 a
4	PROSARO	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	FK8-9	B	11.0 ab	47.9 b	65 bcd	0 a
4	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK8-9	B				0 a
5	PROSARO	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	FK10.51	C	11.0 ab	50.4 a	70 abc	0 a
5	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK10.51	C				0 a
6	STRATEGO	2.08	EC	0.065	lb ai/a	4	fl oz/a	FK5-6	A	11.1 ab	50.8 a	73 a	0 a
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK5-6	A				0 a
6	PROSARO	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	FK10.51	C				0 a
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK10.51	C				0 a
7	GEM 500 SC	4.17	SC	0.0487	lb ai/a	1.5	fl oz/a	FK5-6	A	11.2 a	51.1 a	71 ab	0 a
7	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK5-6	A				0 a
7	PROSARO	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	FK10.51	C				0 a
7	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK10.51	C				0 a
8	USF0731	4.17	SC	0.065	lb ai/a	2	fl oz/a	FK5-6	A	11.4 a	50.8 a	70 abc	0 a
8	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK5-6	A				0 a
8	PROSARO	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	FK10.51	C				0 a
8	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK10.51	C				0 a
9	TWINLINE	1.75	EC	0.123	lb ai/a	9	fl oz/a	FK8-9	B	10.7 b	46.9 b	65 cd	0 a
9	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK8-9	B				0 a
LSD (P=.05)										0.50	1.67	5.9	0.0
Replicate F										1.668	0.741	1.451	0.000
Replicate Prob(F)										0.2016	0.5385	0.2539	1.0000
Treatment F										2.047	10.000	6.625	0.000
Treatment Prob(F)										0.0856	0.0001	0.0002	1.0000

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

Evaluation of Bayer Fungicides for Control of Leaf and Head Diseases in Wheat.

Trial ID: 09-20B-S90

Location: Belleville Res. Center

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	NONTREATED									0 a
2	STRATEGO	2.08	EC	0.162	lb ai/a	10	fl oz/a	FK8-9	B	0 a
2	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK8-9	B	
3	USF0731	4.17	SC	0.162	lb ai/a	5	fl oz/a	FK8-9	B	0 a
3	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK8-9	B	
4	PROSARO	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	FK8-9	B	0 a
4	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK8-9	B	
5	PROSARO	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	FK10.51	C	0 a
5	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK10.51	C	
6	STRATEGO	2.08	EC	0.065	lb ai/a	4	fl oz/a	FK5-6	A	0 a
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK5-6	A	
6	PROSARO	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	FK10.51	C	
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK10.51	C	
7	GEM 500 SC	4.17	SC	0.0487	lb ai/a	1.5	fl oz/a	FK5-6	A	0 a
7	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK5-6	A	
7	PROSARO	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	FK10.51	C	
7	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK10.51	C	
8	USF0731	4.17	SC	0.065	lb ai/a	2	fl oz/a	FK5-6	A	0 a
8	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK5-6	A	
8	PROSARO	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	FK10.51	C	
8	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK10.51	C	
9	TWINLINE	1.75	EC	0.123	lb ai/a	9	fl oz/a	FK8-9	B	0 a
9	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	FK8-9	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: Bayer (B4N).
2. Ratings: Percent crop response, describe symptoms, 7 and 14 DAT, continue if symptoms persist.
Percent leaf disease incidence and severity at 0, and 14-21 DA-C, rate all plots, rate flag leaf separately if different.
Percent flagleaf greenness at 50% greenness in the nontreated plots.
Percent FHB disease incidence and severity at soft dough, rate all plots.
Lodging at harvest.
3. Yield, moisture, test weight, and bu/A.
Retain seed samples for DON testing. Visual inspection of kernels for percent FHB damaged kernels.
4. TNST/SEP = Tan spot and/or septoria leaf blotch on the flag leaf (80% tan spot and 20% septoria leaf blotch).
Greenness = Flagleaf greenness, another late season measure of disease severity on the flagleaf, 1 = brown, 9 = deep green.
HEADSCAB = Head scab (fusarium head blight). EOS = End of season.
5. Harvested 6-23-09, (8) 7.5 inch rows by 25 ft.