

General Foliar Fungicide Evaluation in Wheat.

Trial ID: 08-WF-SE-NS80 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: 10-11-07

Objectives: Evaluate various foliar fungicides for management of disease in wheat.

Crop 1: TRZAW wheat, winter Variety: P25R78
 Planting Method: Seeded Planting Date: 10-12-07
 Rate, Unit: 1.3 mil. S/A Depth, Unit: 1.0 IN
 Row Spacing, Unit: 7.5 IN Seed Bed: SMOOTH
 Soil Moisture: BELOW NORMAL

Plot Width, Unit: 10 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 2007

Field Prep./Maintenance: N 30 LB/A applied on 10-11-07 and N 90 LB/A applied on 01-30-08.

% OM: 2.1 Texture: SILT LOAM
 pH: 5.6 Soil Name: WINFIELD
 CEC: 10 Fert. Level: P1: 54 LB/A, K: 316 LB/A

	Application Description				
	A	B	C	D	E
Application Date:	04-07-08	04-23-08	05-01-08	05-05-08	05-20-08
Time of Day:	16:00	11:00	7:00	11:00	9:00
Application Method:	Spray	Spray	Spray	Spray	Spray
Application Timing:	FK3-4	JOINTING	FK8	FK9	FK10.51
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	RFK	RFK	RFK	RFK	RFK
Air Temperature, Unit:	65 F	75 F	68 F	70 F	60 F
% Relative Humidity:	25	40	65	30	50
Wind Velocity, Unit:	3 MPH	3 MPH	5 MPH	0 MPH	0 MPH
Dew Presence (Y/N):	N	N	Y	N	N
Soil Temperature, Unit:	55 F	60 F	58 F	60 F	63 F
Soil Moisture:	ABONOR	ABONOR	ABONOR	ABONOR	ABONOR

	A	B	C	D	E
Crop stage at application:	FK3-4	FK6	FK8	FK9	F10.5
Height Min, Max (inch):	5 6	12 14	18 19	20 22	28 30

	A	B	C	D	E
Application Date:	04-07-08	04-23-08	05-01-08	05-05-08	05-20-08
Stage Majority (leaves):	NA	NA	NA	NA	NA

Application Equipment

	A	B	C	D	E
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Operating Pressure:	45 PSI	45 PSI	45 PSI	45 PSI	45 PSI
Nozzle Type:	Flat fan	Flat fan	Flat fan	Flat fan	Flat fan
Nozzle Size:	XR 8002	XR 8002	XR 8002	XR 8002	XR 8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	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				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	TRZAW 06-30-08 Moisture Percent	TRZAW 06-30-08 Test wt. lb/bu	TRZAW 06-30-08 Yield bu/A	GLXMA 10-28-08 Moisture Percent	GLXMA 10-28-08 Yield bu/A	TRZAW Disease % Incid	TRZAW Disease % Sever
1	NONTREATED									13.0 abc	58.9 ab	61 cd	12.6 ab	52 a	0 a	0 a
2	STRATEGO	2.08	EC	0.162	lb ai/a	10	fl oz/a	FK8	C	13.1 abc	59.2 ab	71 a	12.6 ab	54 a	0 a	0 a
3	STRATEGO	2.08	EC	0.065	lb ai/a	4	fl oz/a	FK3-4	A	13.2 ab	59.6 ab	66 abc	12.6 ab	52 a	0 a	0 a
3	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	FK10.5.1	E							
3	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	E							
4	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	FK8	C	13.1 ab	59.0 ab	65 abc	12.6 ab	52 a	0 a	0 a
4	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK8	C							
5	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	FK10.5.1	E	13.3 a	60.0 a	66 abc	12.6 ab	52 a	0 a	0 a
5	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	E							
6	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK9	D	13.1 ab	58.6 b	69 ab	12.6 ab	55 a	0 a	0 a
6	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK9	D							
7	BAS 556 01	8	L	0.437	lb ai/a	7	fl oz/a	FK9	D	12.9 bc	58.9 ab	66 abc	12.5 b	53 a	0 a	0 a
8	BAS 556 01	8	L	0.56	lb ai/a	9	fl oz/a	FK9	D	13.2 ab	58.8 b	69 ab	12.6 ab	54 a	0 a	0 a
9	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B	B	13.0 bc	59.2 ab	64 bc	12.5 b	54 a	0 a	0 a
9	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	JOINTING B	B							
9	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	JOINTING B	B							
10	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B	B	12.8 c	58.6 b	59 d	12.6 ab	52 a	0 a	0 a
10	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	JOINTING B	B							
10	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	JOINTING B	B							
10	28% UAN	100	LIQ	20	qt/a	20	qt/a	JOINTING B	B							
11	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B	B	13.0 abc	58.9 ab	66 ab	12.9 a	53 a	0 a	0 a
11	HEADLINE	2.09	EC	0.78	oz ai/a	3	fl oz/a	JOINTING B	B							
11	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	JOINTING B	B							
11	28% UAN	100	LIQ	20	qt/a	20	qt/a	JOINTING B	B							
12	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B	B	13.1 abc	59.4 ab	69 ab	12.7 ab	53 a	0 a	0 a
12	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	JOINTING B	B							
12	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	JOINTING B	B							
12	PUNCH	3.3	EC	0.103	lb ai/a	4	fl oz/a	FK9	D							
LSD (P=.05)										0.37	1.16	5.3	0.33	3.7	0.0	0.0
Replicate F										1.093	2.156	13.033	3.163	4.509	0.000	0.000
Replicate Prob(F)										0.3656	0.1119	0.0001	0.0374	0.0093	1.0000	1.0000
Treatment F										1.411	1.119	3.699	0.822	0.719	0.000	0.000
Treatment Prob(F)										0.2140	0.3784	0.0017	0.6191	0.7120	1.0000	1.0000

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

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								TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW		
								06-12-08	06-12-08	06-12-08	06-12-08	06-12-08	06-12-08		
								TanSpot	TanSpot	LeafBch	LeafBch	GlumeBch	GlumeBch		
								% Incid	% Sever	% Incid	% Sever	% Incid	% Sever		
								Trt-Eval Interval							
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NONTREATED									50 a	7 ab	78 a	23 bc	16 abc	23 a
2	STRATEGO	2.08	EC	0.162	lb ai/a	10	fl oz/a	FK8	C	18 cd	4 c	9 de	14 cd	11 bc	7 cd
3	STRATEGO	2.08	EC	0.065	lb ai/a	4	fl oz/a	FK3-4	A	0 e	0 d	1 e	3 f	9 bc	5 d
3	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	FK10.5.1	E						
3	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	E						
4	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	FK8	C	21 cd	5 bc	17 d	14 cd	25 a	20 ab
4	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK8	C						
5	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	FK10.5.1	E	1 e	1 d	1 e	4 ef	8 c	9 bcd
5	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	E						
6	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK9	D	1 e	1 d	2 e	5 def	16 abc	14 a-d
6	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK9	D						
7	BAS 556 01	8	L	0.437	lb ai/a	7	fl oz/a	FK9	D	1 e	1 d	1 e	2 f	16 abc	19 abc
8	BAS 556 01	8	L	0.56	lb ai/a	9	fl oz/a	FK9	D	1 e	1 d	1 e	4 ef	9 bc	12 a-d
9	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B	B	30 bc	6 bc	60 b	23 bc	15 abc	11 a-d
9	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	JOINTING B	B						
9	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	JOINTING B	B						
10	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B	B	40 ab	9 a	65 ab	48 a	21 ab	14 a-d
10	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	JOINTING B	B						
10	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	JOINTING B	B						
10	28% UAN	100	LIQ	20	qt/a	20	qt/a	JOINTING B	B						
11	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B	B	28 bc	6 bc	38 c	25 b	17 abc	14 a-d
11	HEADLINE	2.09	EC	0.78	oz ai/a	3	fl oz/a	JOINTING B	B						
11	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	JOINTING B	B						
11	28% UAN	100	LIQ	20	qt/a	20	qt/a	JOINTING B	B						
12	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B	B	10 de	4 c	8 de	13 de	11 bc	11 a-d
12	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	JOINTING B	B						
12	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	JOINTING B	B						
12	PUNCH	3.3	EC	0.103	lb ai/a	4	fl oz/a	FK9	D						
LSD (P=.05)										12.8	2.1	12.8	9.0	12.2	12.6
Replicate F										1.653	4.543	0.820	1.345	0.651	0.936
Replicate Prob(F)										0.1960	0.0090	0.4921	0.2766	0.5882	0.4341
Treatment F										15.158	18.587	42.640	18.303	1.499	1.479
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.1786	0.1865

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

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Location: Belleville Res. Center

Pest Code		
Crop Code		
Rating Date	TRZAW	TRZAW
Rating Data Type	06-12-08	06-12-08
Rating Unit	HeadScab	HeadScab
Rating Timing	% Incid	% Sever
Trt-Eval Interval		

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	NONTREATED									8 ab	68 a
2	STRATEGO	2.08	EC	0.162	lb ai/a	10	fl oz/a	FK8	C	9 ab	60 ab
3	STRATEGO	2.08	EC	0.065	lb ai/a	4	fl oz/a	FK3-4	A	5 b	41 b
3	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	FK10.5.1	E		
3	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	E		
4	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	FK8	C	14 a	60 ab
4	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK8	C		
5	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	FK10.5.1	E	6 ab	56 ab
5	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10.5.1	E		
6	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK9	D	11 ab	73 a
6	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK9	D		
7	BAS 556 01	8	L	0.437	lb ai/a	7	fl oz/a	FK9	D	9 ab	63 ab
8	BAS 556 01	8	L	0.56	lb ai/a	9	fl oz/a	FK9	D	9 ab	60 ab
9	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B		7 ab	55 ab
9	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	JOINTING B			
9	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	JOINTING B			
10	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B		7 ab	70 a
10	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	JOINTING B			
10	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	JOINTING B			
10	28% UAN	100	LIQ	20	qt/a	20	qt/a	JOINTING B			
11	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B		9 ab	63 ab
11	HEADLINE	2.09	EC	0.78	oz ai/a	3	fl oz/a	JOINTING B			
11	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	JOINTING B			
11	28% UAN	100	LIQ	20	qt/a	20	qt/a	JOINTING B			
12	HARMONY EXTRA XP	75	WG	0.035	lb ai/a	0.75	oz/a	JOINTING B		10 ab	60 ab
12	KOCIDE 3000	46.1	WG	0.346	lb ai/a	0.75	lb/a	JOINTING B			
12	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	JOINTING B			
12	PUNCH	3.3	EC	0.103	lb ai/a	4	fl oz/a	FK9	D		
LSD (P=.05)										8.3	21.8
Replicate F										1.456	6.801
Replicate Prob(F)										0.2444	0.0011
Treatment F										0.638	1.133
Treatment Prob(F)										0.7830	0.3687

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

Trial Comments

1. Protocol: Bayer (BLV), BASF, DuPont (08-670).
2. Ratings: DI/DS at 14 - 21 dat.
3. Yield.
4. Treatments 9-12 are to be mixed in the order they appear in the treatment list.
5. Doublecrop to soybean and take soybean yield.
6. Ratings at 14 days after FK3-4, JOINTING, FK8, FK9, and FK10.51 applications were on 04-21-08, 05-07-08, 05-15-08, 05-19-08, and 06-03-08, respectively.
Ratings for the nontreated plots were recorded at the earliest rating dates for the 14 DAT ratings.
Because disease pressure was low at 14 DAT ratings, plots were rated again on 06-12-08 after disease symptoms appeared and before leaf senescence.
7. DAT = Days after treatment. % Incid = Percent incidence. % Sever = Percent severity. TanSpot = Tan spot.
LeafBch = Septoria leaf blotch. GlumeBch = Septoria glume blotch. HeadScab = Head scab (fusarium head blight).
Test wt. = Test weight.
8. Wheat harvested 06-30-08, (8) 7.5 inch rows by 27 ft.
Soybean harvested 10-28-08, (2) 30 inch rows by 27 ft.