

Nitamin Foilar Fertilizer with and without Headline Fungicide in Wheat.

Trial ID: 09-20B-N130

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 the potential for synergy between Georgia Pacific foliar fertilizer and Headline fungicide.

Crop 1: TRZAW Winter wheat Variety: P25R62
 Planting Method: SEEDED Planting Date: 10-20-08
 Rate, Unit: 1.3 mil. S/A Depth, Unit: 1 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
Application Date:	04-16-09	04-29-09
Time of Day:	10:00	13:00
Application Method:	Spray	Spray
Application Timing:	FK5-6	FK9
Application Placement:	BROFOL	BROFOL
Applied By:	RFK	BGY
Air Temperature, Unit:	45 F	70 F
% Relative Humidity:	90	92
Wind Velocity, Unit:	3 MPH	0 MPH
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	50 F	62 F
Soil Moisture:	ABONOR	ABONOR
% Cloud Cover:	50	50

	A	B
Crop stage at application:	5-6	FK 9
Height Min, Max (inch):	14 16	20 22

Pest Stage At Each Application

	A	B
Application Date:	04-16-09	04-25-09
Stage Majority (leaves):	NA	NA

Application Equipment

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

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Pest Code									TRZAW		TRZAW	TRZAW	TRZAW	TRZAW	TNST/SEP		TNST/SEP	TRZAW							
Crop Code									06-23-09	06-23-09	06-23-09			TRZAW	04-29-09	TRZAW	06-09-09								
Rating Date									Moisture	Test wt.	Yield	Injury	Injury	Severity	Severity	Greenness									
Rating Data Type									Percent	lb/bu	bu/A	Percent	Percent	Percent	Percent	1-9									
Rating Unit												7 DAT	14 DAT												
Rating Timing																									
Trt-Eval Interval														0 DA-B	22 DA-B	41 DA-B									
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl																	
No.	Name	Conc	Type	Rate	Unit	Rate	Unit	Stage	Code																
1	NITAMIN	3	SL	3	lb ai/a	1	gal/a	FK5-6	A	10.5	ab	46.7	a	59	cd	0	a	0	a	0	a	11	a	4.9	cd
2	NITAMIN	3	SL	6	lb ai/a	2	gal/a	FK5-6	A	10.0	b	44.8	a	61	abc	0	a	0	a	0	a	10	ab	4.6	d
3	NITAMIN	3	SL	3	lb ai/a	1	gal/a	FK9	B	10.1	ab	46.6	a	45	e	0	a	0	a	0	a	9	ab	5.0	bcd
4	NITAMIN	3	SL	6	lb ai/a	2	gal/a	FK9	B	10.1	ab	46.1	a	58	d	0	a	0	a	0	a	11	a	4.8	cd
5	NITAMIN	3	SL	3	lb ai/a	1	gal/a	FK5-6	A	10.3	ab	45.5	a	64	a	0	a	0	a	0	a	3	bc	5.3	a-d
5	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK5-6	A																
6	NITAMIN	3	SL	6	lb ai/a	2	gal/a	FK5-6	A	10.5	a	46.3	a	63	abc	0	a	0	a	0	a	5	abc	5.0	bcd
6	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK5-6	A																
7	NITAMIN	3	SL	3	lb ai/a	1	gal/a	FK9	B	10.1	ab	44.1	a	65	a	0	a	0	a	0	a	0	c	5.8	ab
7	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK9	B																
8	NITAMIN	3	SL	6	lb ai/a	2	gal/a	FK9	B	10.5	ab	47.4	a	63	ab	0	a	0	a	0	a	1	c	6.0	a
8	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK9	B																
9	NONTREATED									10.2	ab	45.8	a	60	cd	0	a	0	a	0	a	10	ab	4.8	cd
10	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK5-6	A	10.5	a	46.9	a	62	abc	0	a	0	a	0	a	4	abc	5.3	a-d
10	ACTIVATOR 90	100	SL	0.125	% v/v	0.125	% v/v	FK5-6	A																
11	HEADLINE	2.09	EC	0.098	lb ai/a	6	fl oz/a	FK9	B	10.4	ab	47.0	a	61	bcd	0	a	0	a	0	a	0	c	5.5	abc
11	ACTIVATOR 90	100	SL	0.125	% v/v	0.125	% v/v	FK9	B																
LSD (P=.05)										0.53		3.66		3.2		0.0		0.0		0.0		7.6		0.82	
Replicate F										1.959		0.624		2.275		0.000		0.000		0.000		2.180		4.056	
Replicate Prob(F)										0.1423		0.6055		0.1009		1.0000		1.0000		1.0000		0.1110		0.0156	
Treatment F										1.265		0.634		23.597		0.000		0.000		0.000		2.945		2.402	
Treatment Prob(F)										0.2946		0.7727		0.0001		1.0000		1.0000		1.0000		0.0107		0.0311	

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

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

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	NITAMIN	3	SL	3 lb ai/a		1 gal/a		FK5-6	A	0 a	38.8 ab
2	NITAMIN	3	SL	6 lb ai/a		2 gal/a		FK5-6	A	0 a	38.5 ab
3	NITAMIN	3	SL	3 lb ai/a		1 gal/a		FK9	B	0 a	37.5 b
4	NITAMIN	3	SL	6 lb ai/a		2 gal/a		FK9	B	0 a	37.5 b
5	NITAMIN	3	SL	3 lb ai/a		1 gal/a		FK5-6	A	0 a	39.3 a
5	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		FK5-6	A		
6	NITAMIN	3	SL	6 lb ai/a		2 gal/a		FK5-6	A	0 a	39.5 a
6	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		FK5-6	A		
7	NITAMIN	3	SL	3 lb ai/a		1 gal/a		FK9	B	0 a	39.5 a
7	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		FK9	B		
8	NITAMIN	3	SL	6 lb ai/a		2 gal/a		FK9	B	0 a	39.8 a
8	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		FK9	B		
9	NONTREATED									0 a	39.3 a
10	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		FK5-6	A	0 a	39.8 a
10	ACTIVATOR 90	100	SL	0.125 % v/v		0.125 % v/v		FK5-6	A		
11	HEADLINE	2.09	EC	0.098 lb ai/a		6 fl oz/a		FK9	B	0 a	38.8 ab
11	ACTIVATOR 90	100	SL	0.125 % v/v		0.125 % v/v		FK9	B		
LSD (P=.05)										0.0	1.55
Replicate F										0.000	4.235
Replicate Prob(F)										1.0000	0.0131
Treatment F										0.000	2.255
Treatment Prob(F)										1.0000	0.0417

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

Trial Comments

1. Protocol: Georgia Pacific (JSKrusse).
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.
Percent flagleaf greenness at 50% greenness in the nontreated plots.
Height (overall) and lodging at harvest.
3. Yield, moisture, test weight, and bu/A.
4. Blanket weed control, if any record here or record no blanket weed control.
5. 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.
EOS = End of season.
An overall evaluation of head diseases was made on 6-9-09, headscab infection was very high at 20-40% severity.
6. Harvested 6-23-09, (8) 7.5 inch rows by 25 ft.