

## Headline and Apogee in Wheat.

Project Code: 05-15-W50      Location: Belleville Research Center  
 Investigator: Bryan Young

**Investigator:** Bryan Young, Assistant Professor, Southern Illinois University

**City State Zip Country:**      Belleville      IL 62221 USA  
**Trial Status:** Final      **Updated:**      11-14-05

**Objective:**

Evaluate Headline and Apogee for use in intensive wheat management.

**Weed Code Common Name Scientific Name**

1. NA

**Crop 1:** TRZAW wheat, winter      **Variety:** P25R78  
**Planting Method:** Seeded      **Planting Date:** 10-11-04  
**Rate:** 1.3 mil. S/A      **Depth:** 1.0 IN  
**Row Spacing:** 7.5 IN

**Plot Width, Unit:** 10 FT      **Plot Length, Unit:** 35 FT      **Reps:** 3  
**Tillage Type:** Reduced-Till      **Study Design:** Randomized complete block  
**Previous Crop, Year:** GLXMA, 2004

**Field Prep./Maintenance:** N 30 LB/A applied on 10-29-04 and N 85 LB/A applied on 1-28-05

**Soil Name:** Ebbert      **% OM:** 2      **pH:** 5.8      **CEC:** 11  
**Texture:** Silt loam      **Fert. Level:** P1: 62 LB/A, K: 377 LB/A

**APPLICATION DESCRIPTION**

	A	B	C
<b>Application Date:</b>	04-05-05	04-05-05	05-03-05
<b>Time of Day:</b>	8:00	8:00	9:00
<b>Application Method:</b>	Hand spread	Spray	Spray
<b>Application Timing:</b>	FK5	FK5	FK10
<b>Applic. Placement:</b>	BROFOL	BROFOL	BROFOL
<b>Air Temp., Unit:</b>	60 F	60 F	48 F
<b>% Relative Humidity:</b>	80	80	60
<b>Wind Velocity, Unit:</b>	5 MPH	5 MPH	0 MPH
<b>Soil Moisture:</b>	NORMAL	NORMAL	NORMAL

**CROP STAGE AT EACH APPLICATION**

	A	B	C
<b>Crop 1 Code, Stage:</b>	TRZAW F5	TRZAW FK5	TRZAW FK10
<b>Height, Unit:</b>	8-10 IN	8-10 IN	18-20 IN

**APPLICATION EQUIPMENT**

	A	B	C
<b>Appl. Equipment:</b>	Hand spread	CO2 sprayer	CO2 sprayer
<b>Operating Pressure:</b>	NA	40 PSI	40 PSI
<b>Nozzle Type:</b>	NA	Flat fan	Flat fan
<b>Nozzle Size:</b>	NA	8002	8002
<b>Boom Length, Unit:</b>	10 FT	7.5 FT	7.5 FT
<b>Spray Volume, Unit:</b>	NA NA	20 GPA	20 GPA

**NOTES:**

Fertilizer application is 10 FT wide.

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Weed Code  
 Crop Code  
 Rating Data Type  
 Rating Unit  
 Rating Date  
 Trt-Eval Interval

TRZAW Disease % Incid 04-26-05	TRZAW Disease % Sever 04-26-05	TRZAW StrpRust % Incid 05-27-05	TRZAW StrpRust % Sever 05-27-05	TRZAW LeafBch % Incid 05-27-05	TRZAW LeafBch % Sever 05-27-05	TRZAW GlumeBch % Incid 05-27-05	TRZAW GlumeBch % Sever 05-27-05
21 DA-B	21 DA-B	24 DA-C	24 DA-C	24 DA-C	24 DA-C	24 DA-C	24 DA-C

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code	TRZAW Disease % Incid 04-26-05	TRZAW Disease % Sever 04-26-05	TRZAW StrpRust % Incid 05-27-05	TRZAW StrpRust % Sever 05-27-05	TRZAW LeafBch % Incid 05-27-05	TRZAW LeafBch % Sever 05-27-05	TRZAW GlumeBch % Incid 05-27-05	TRZAW GlumeBch % Sever 05-27-05
1	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B	0	0	18	6	0	0	2	1
1	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B								
2	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B	0	0	11	5	0	0	2	2
2	HEADLINE	2.09	EC	0.049	lb ai/a	3.0	fl oz/a	FK5	B								
2	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B								
3	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B	0	0	17	5	0	0	1	1
3	HEADLINE	2.09	EC	0.098	lb ai/a	6.0	fl oz/a	FK5	B								
3	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B								
4	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B	0	0	0	0	0	0	1	1
4	HEADLINE	2.09	EC	0.049	lb ai/a	3.0	fl oz/a	FK5	B								
4	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B								
4	HEADLINE	2.09	EC	0.098	lb ai/a	6.0	fl oz/a	FK10	C								
4	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10	C								
5	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B	0	0	0	0	0	0	1	1
5	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B								
5	HEADLINE	2.09	EC	0.098	lb ai/a	6.0	fl oz/a	FK10	C								
5	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10	C								
6	FERTILIZER 46-0-0	46	DRY	25	lb ai/a	54.3	lb/a	FK5	A	0	0	23	6	0	0	1	1
6	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B								
6	ACTIVATOR 90	100	LIQ	0.5	% v/v	0.5	% v/v	FK5	B								
7	FERTILIZER 46-0-0	46	DRY	25	lb ai/a	54.3	lb/a	FK5	A	0	0	25	7	0	0	1	1
7	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B								
7	APOGEE	27.5	WG	0.0344	lb ai/a	2.0	oz/a	FK5	B								
7	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B								
8	FERTILIZER 46-0-0	46	DRY	25	lb ai/a	54.3	lb/a	FK5	A	0	0	20	6	0	0	2	2
8	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B								
8	APOGEE	27.5	WG	0.069	lb ai/a	4.0	oz/a	FK5	B								
8	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B								
9	NONTREATED									0	0	22	5	0	0	1	2
LSD (P=.05)										0.0	0.0	19.1	3.4	0.0	0.0	2.0	1.2
Replicate F										0.000	0.000	0.170	0.069	0.000	0.000	1.652	1.421
Replicate Prob(F)										1.0000	1.0000	0.8448	0.9336	1.0000	1.0000	0.2227	0.2705
Treatment F										0.000	0.000	2.255	5.241	0.000	0.000	0.783	1.084
Treatment Prob(F)										1.0000	1.0000	0.0791	0.0024	1.0000	1.0000	0.6244	0.4214

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Weed Code			
Crop Code		TRZAW	TRZAW
Rating Data Type		Moisture	Test wt.
Rating Unit		Percent	lb/bu
Rating Date		06-21-05	06-21-05
Trt-Eval Interval			Yield
			bu/A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Prod Rate	Prod Unit	Grow Stg	Appl Code			
1	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B	12.7	60.7	93
1	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B			
2	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B	12.7	61.2	98
2	HEADLINE	2.09	EC	0.049	lb ai/a	3.0	fl oz/a	FK5	B			
2	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B			
3	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B	12.4	61.2	97
3	HEADLINE	2.09	EC	0.098	lb ai/a	6.0	fl oz/a	FK5	B			
3	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B			
4	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B	12.7	60.9	100
4	HEADLINE	2.09	EC	0.049	lb ai/a	3.0	fl oz/a	FK5	B			
4	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B			
4	HEADLINE	2.09	EC	0.098	lb ai/a	6.0	fl oz/a	FK10	C			
4	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10	C			
5	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B	12.7	61.7	98
5	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B			
5	HEADLINE	2.09	EC	0.098	lb ai/a	6.0	fl oz/a	FK10	C			
5	ACTIVATOR 90	100	LIQ	0.125	% v/v	0.125	% v/v	FK10	C			
6	FERTILIZER 46-0-0	46	DRY	25	lb ai/a	54.3	lb/a	FK5	A	12.7	61.5	107
6	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B			
6	ACTIVATOR 90	100	LIQ	0.5	% v/v	0.5	% v/v	FK5	B			
7	FERTILIZER 46-0-0	46	DRY	25	lb ai/a	54.3	lb/a	FK5	A	12.5	62.1	106
7	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B			
7	APOGEE	27.5	WG	0.0344	lb ai/a	2.0	oz/a	FK5	B			
7	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B			
8	FERTILIZER 46-0-0	46	DRY	25	lb ai/a	54.3	lb/a	FK5	A	12.7	61.8	104
8	HARMONY EXTRA	75	WG	0.0234	lb ai/a	0.5	oz/a	FK5	B			
8	APOGEE	27.5	WG	0.069	lb ai/a	4.0	oz/a	FK5	B			
8	ACTIVATOR 90	100	LIQ	0.25	% v/v	0.25	% v/v	FK5	B			
9	NONTREATED									12.5	60.9	95
LSD (P=.05)										0.38	0.76	7.0
Replicate F										0.137	0.120	0.210
Replicate Prob(F)										0.8731	0.8876	0.8128
Treatment F										0.693	3.419	4.452
Treatment Prob(F)										0.6926	0.0174	0.0054

Trial Comments

1. Protocol: BASF.
2. Ratings: WC 28 DA FK5; disease incidence and severity 21 DA fungicide treatments; grain yield; maybe wheat grain quality.
3. Application codes: FK5 and FK10 are wheat Feekes stage 5 and 10, respectively.
4. % Incid = Percent incidence. % Sever = Percent severity. StrpRust = Stripe Rust. LeafBch = Leaf Blotch. GlumeBch = Glume blotch. DA-B = Days after FK5 application. DA-C = Days after FK10 application.
5. Harvested 6-21-05, (8) 7.5 inch rows by 32 ft.