

Bayer ProTechPlus - Winter Wheat - 2.

Trial ID: 09-ARC-17-200-N110 Location: Agronomy Res. Center

Investigator: Bryan Young, Professor, Southern Illinois University, bgyoung@siu.edu
 City State Zip Country: Carbondale IL 62901 USA
 Trial Status: FINAL Initiation Date: 10-29-08

Objectives: Assess the value of several crop management/protection technologies for improved wheat production.

Crop 1: TRZAW Winter wheat Variety: See comments
 Planting Method: Seeded Planting Date: 10-29-08
 Rate, Unit: 1.3 mil. S/A Depth, Unit: 1 IN
 Row Spacing, Unit: 7.5 IN

Pest 1 Type: W Code: LAMPU Lamium purpureum L. deadnettle, purple
 Pest 2 Type: W Code: CERVU Cerastium vulgatum L. chickweed, mouseear
 Pest 3 Type: W Code: STEME Stellaria media (L.) Vill. chickweed, common
 Pest 4 Type: W Code: LAMAM Lamium amplexicaule L. henbit
 Pest 5 Type: W Code: RANAB Ranunculus abortivus L. buttercup, smallflower

Plot Width, Unit: 10 FT Site Type: FIELD
 Plot Length, Unit: 24 FT Tillage Type: NO-TILL
 Replications: 6 Study Design: Randomized Complete Block

Prior Crops, Year
 1. ZEAMD 2008

Field Prep./Maintenance: N 18 LB/A, P205 46 LB/A, K2O 120 LB/A on 10-27-08 and N 95 LB/A as 32% UAN on 3-4-09

% OM: 1.7 Texture: SILT LOAM
 pH: 5.7 Soil Name: STOY
 CEC: 11 Fert. Level: P1: 60 LB/A, K: 245 LB/A

	Application Description					
	A	B	C	D	E	F
Application Date:	11-26-08	04-08-09	04-29-09	05-05-09	04-17-09	
Time of Day:	13:30	10:00	8:30	16:00	14:00	
Application Method:	SEEDTRT	Spray	Spray	Spray	Spray	
Application Timing:	2"W	BBCH30	BBCH39	BBCH61	SPGTHRESH	
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL	
Applied By:	JLM	JLM	JLM	JLM	JLM	
Air Temperature, Unit:	57 F	55 F	67 F	72 F	74 F	
% Relative Humidity:	42	36	83	53	45	
Wind Velocity, Unit:	1 MPH	3 MPH	0 MPH	3 MPH	3 MPH	
Wind Direction:	N	N	NA	S	S	
Dew Presence (Y/N):	N	N	N	N	N	
Soil Temperature, Unit:	40 F	44 F	59 F	65 F	52 F	
Soil Moisture:	ABONOR	ABONOR	ABONOR	ABONOR	ABONOR	
% Cloud Cover:	0	0	100	90	10	
Crop stage at application:	NA 2	LVS 5	FK 10	FK 10.5	FK 6	FK
Height Min, Max (inch):	2.5 4	9 14	1 15	28 34	16 18	

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	Pest Stage At Each Application					
Application Date:	11-26-08	04-08-09	04-29-09	05-05-09	04-17-09	
Weed Code:	LAMPU	LAMPU	LAMPU	LAMPU	LAMPU	LAMPU
Stage Majority (leaves):	6	6	6			
Stage Min, Max:	4	6	4	6		
Height Majority:	4	IN	4	IN		
Height Min, Max:	3	5	2	4		
Density, Unit:	0.2	FT2	0.01	FT2		
Weed Code:	CERVU	CERVU	CERVU	CERVU	CERVU	CERVU
Stage Majority (leaves):	2					
Stage Min, Max:	2	16				
Height Majority:	2	IN				
Height Min, Max:	1	3				
Density, Unit:	0.1	FT2				
Weed Code:	STEME	STEME	STEME	STEME	STEME	STEME
Stage Majority (leaves):	8	20				
Stage Min, Max:	2	20	10	20		
Height Majority:	2	IN	8	IN		
Height Min, Max:	1	3	4	8		
Density, Unit:	0.2	FT2	0.01	FT2		
Weed Code:	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM	LAMAM
Stage Majority (leaves):	4					
Stage Min, Max:	2	6				
Height Majority:	2	IN				
Height Min, Max:	1	3				
Density, Unit:	0.1	FT2				
Weed Code:	RANAB	RANAB	RANAB	RANAB	RANAB	RANAB
Stage Majority (leaves):		7				
Stage Min, Max:		2	10			
Height Majority:		4	IN			
Height Min, Max:		2	4			
Density, Unit:		0.01	FT2			

Application Equipment

Appl. Equipment:	SEEDTRT	CO2	sprayer	CO2	sprayer	CO2	sprayer	CO2	sprayer	CO2	sprayer
Operating Pressure:		30	PSI	30	PSI	30	PSI	30	PSI	30	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:		10	FT	10	FT	10	FT	10	FT	10	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

P25R47 06-19-09 Moisture Percent	FS628 06-19-09 Moisture Percent	P25R47 06-19-09 Test wt. lb/bu	FS628 06-19-09 Test wt. lb/bu	P25R47 06-19-09 Yield bu/A	FS628 06-19-09 Yield bu/A
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NO SEED TREATMENT									12.5 b	11.8 c	48.7 bc	50.9 c	82 c	79 b
1	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B						
1	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B						
1	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B						
1	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B						
2	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	12.4 b	11.8 c	48.5 bc	51.0 c	86 bc	78 b
2	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B						
2	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B						
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B						
2	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B						
3	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	13.0 ab	12.0 bc	47.8 c	50.9 c	93 ab	85 ab
3	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B						
3	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B						
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B						
3	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B						
3	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F						
4	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	13.2 ab	12.2 ab	48.7 bc	51.3 bc	97 ab	85 ab
4	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B						
4	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B						
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B						
4	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B						
4	STRATEGO	2.08	EC	0.163	lb ai/a	10	fl oz/a	BBCH39	D						
4	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH39	D						
4	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F						
5	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	13.2 ab	12.4 a	49.5 ab	52.0 ab	93 abc	89 ab
5	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B						
5	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B						
5	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B						
5	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B						
5	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH39	D						
5	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH39	D						
5	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F						
6	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	13.8 a	12.3 ab	50.5 a	52.5 a	99 a	88 ab
6	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B						
6	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B						
6	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B						
6	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B						
6	STRATEGO	2.08	EC	4	fl oz/a	4	fl oz/a	BBCH30	C						
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH30	C						
6	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH61	E						
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH61	E						
6	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F						
7	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	14.0 a	12.2 ab	49.8 ab	52.4 a	103 a	95 a
7	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B						
7	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B						
7	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B						
7	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B						
7	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH61	E						
7	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH61	E						
7	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F						
LSD (P=.05)										1.24	0.32	1.57	0.82	11.1	11.4
Replicate F										4.237	2.269	1.673	0.519	0.869	0.111
Replicate Prob(F)										0.0049	0.0749	0.1715	0.7595	0.5135	0.9889
Treatment F										1.942	4.735	2.831	6.279	3.468	2.141
Treatment Prob(F)										0.1062	0.0019	0.0264	0.0003	0.0101	0.0799

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

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Rating Unit
Rating Timing
Trt-Eval Interval

P25R47	FS628	P25R47	FS628
11-19-08	11-19-08	12-02-08	12-02-08
Plants	Plants	Vigor	Vigor
mil/A	mil/A	1-9	1-9
21 DAP	21 DAP	21 DAE	21 DAE

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	NO SEED TREATMENT									1.154 a	1.020 ab	5.8 a	5.5 b
1	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B				
1	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B				
1	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B				
1	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B				
2	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0.908 bc	1.123 a	6.3 a	5.8 ab
2	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B				
2	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B				
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B				
2	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B				
3	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0.837 bc	0.985 ab	6.8 a	6.5 a
3	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B				
3	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B				
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B				
3	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B				
3	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F				
4	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0.864 bc	0.970 ab	6.3 a	5.7 ab
4	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B				
4	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B				
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B				
4	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B				
4	STRATEGO	2.08	EC	0.163	lb ai/a	10	fl oz/a	BBCH39	D				
4	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH39	D				
4	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F				
5	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0.970 abc	0.920 ab	6.4 a	6.2 ab
5	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B				
5	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B				
5	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B				
5	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B				
5	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH39	D				
5	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH39	D				
5	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F				
6	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	1.048 ab	0.854 b	6.4 a	6.1 ab
6	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B				
6	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B				
6	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B				
6	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B				
6	STRATEGO	2.08	EC	4	fl oz/a	4	fl oz/a	BBCH30	C				
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH30	C				
6	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH61	E				
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH61	E				
6	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F				
7	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0.784 c	0.973 ab	6.5 a	6.2 ab
7	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B				
7	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B				
7	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B				
7	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B				
7	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH61	E				
7	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH61	E				
7	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F				
LSD (P=.05)										0.2241	0.2367	1.26	0.90
Replicate F										0.872	2.116	0.320	0.779
Replicate Prob(F)										0.5113	0.0919	0.8968	0.5729
Treatment F										2.772	1.036	0.505	1.249
Treatment Prob(F)										0.0289	0.4227	0.7998	0.3122

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

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										P25R47	FS628	P25R47	FS628	P25R47	FS628	P25R47
										12-17-08	12-17-08	04-29-09	04-29-09	05-20-09	05-20-09	05-26-09
										Injury	Injury	Injury	Injury	Injury	Injury	Injury
										Percent	Percent	Percent	Percent	Percent	Percent	Percent
										21 DA-B	21 DA-B	21 DA-C	21 DA-C	21 DA-D	21 DA-D	21 DA-E
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl								
No.	Name	Conc	Type	Unit	Rate	Rate	Stage	Code								
1	NO SEED TREATMENT									0 a	0 a	0 a	0 a	0 a	0 a	0 a
1	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B									
1	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B									
1	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B									
1	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B									
2	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A			0 a	0 a	0 a	0 a	0 a	0 a	0 a
2	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B									
2	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B									
2	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B									
2	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B									
3	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A			0 a	0 a	0 a	0 a	0 a	0 a	0 a
3	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B									
3	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B									
3	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B									
3	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B									
3	BAYTHROID XL	1	EC	0.0156 lb ai/a	2 fl oz/a	SPGTHRESH	F									
4	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A			0 a	0 a	0 a	0 a	0 a	0 a	0 a
4	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B									
4	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B									
4	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B									
4	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B									
4	STRATEGO	2.08	EC	0.163 lb ai/a	10 fl oz/a	BBCH39	D									
4	INDUCE	100	SL	0.125 % v/v	0.125 % v/v	BBCH39	D									
4	BAYTHROID XL	1	EC	0.0156 lb ai/a	2 fl oz/a	SPGTHRESH	F									
5	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A			0 a	0 a	0 a	0 a	0 a	0 a	0 a
5	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B									
5	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B									
5	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B									
5	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B									
5	PROSARO	3.5	SC	0.178 lb ai/a	6.5 fl oz/a	BBCH39	D									
5	INDUCE	100	SL	0.125 % v/v	0.125 % v/v	BBCH39	D									
5	BAYTHROID XL	1	EC	0.0156 lb ai/a	2 fl oz/a	SPGTHRESH	F									
6	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A			0 a	0 a	0 a	0 a	0 a	0 a	0 a
6	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B									
6	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B									
6	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B									
6	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B									
6	STRATEGO	2.08	EC	4 fl oz/a	4 fl oz/a	BBCH30	C									
6	INDUCE	100	SL	0.125 % v/v	0.125 % v/v	BBCH30	C									
6	PROSARO	3.5	SC	0.178 lb ai/a	6.5 fl oz/a	BBCH61	E									
6	INDUCE	100	SL	0.125 % v/v	0.125 % v/v	BBCH61	E									
6	BAYTHROID XL	1	EC	0.0156 lb ai/a	2 fl oz/a	SPGTHRESH	F									
7	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A			0 a	0 a	0 a	0 a	0 a	0 a	0 a
7	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B									
7	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B									
7	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B									
7	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B									
7	PROSARO	3.5	SC	0.178 lb ai/a	6.5 fl oz/a	BBCH61	E									
7	INDUCE	100	SL	0.125 % v/v	0.125 % v/v	BBCH61	E									
7	BAYTHROID XL	1	EC	0.0156 lb ai/a	2 fl oz/a	SPGTHRESH	F									
LSD (P=.05)										0.0	0.0	0.0	0.0	0.0	0.0	0.0
Replicate F										0.000	0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F										0.000	0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

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

Bayer ProTechPlus - Winter Wheat - 2.

Trial ID: 09-ARC-17-200-N110 Location: Agronomy Res. Center

Pest Code									BYD			BYD		
Crop Code									FS628			TRZAW		
Rating Date									05-26-09			11-19-08		
Rating Data Type									Injury			Aphids		
Rating Unit									Percent			1.0 sqft		
Rating Timing									Percent			Incidence		
Trt-Eval Interval									21 DA-E			21 DAP		
									24 DA-F					
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	NO SEED TREATMENT									0 a	0.0 a	0.2 a	1.2 a	0.2 a
1	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B					
1	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B					
1	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B					
1	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B					
2	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0 a	0.0 a		0.7 a	0.0 a
2	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B					
2	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B					
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B					
2	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B					
3	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0 a	0.0 a	0.1 a	1.0 a	0.0 a
3	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B					
3	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B					
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B					
3	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B					
3	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F					
4	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0 a	0.0 a	0.1 a	0.8 a	0.2 a
4	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B					
4	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B					
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B					
4	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B					
4	STRATEGO	2.08	EC	0.163	lb ai/a	10	fl oz/a	BBCH39	D					
4	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH39	D					
4	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F					
5	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0 a	0.0 a	0.1 a	0.7 a	0.0 a
5	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B					
5	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B					
5	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B					
5	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B					
5	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH39	D					
5	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH39	D					
5	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F					
6	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0 a	0.0 a	0.1 a	0.8 a	0.0 a
6	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B					
6	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B					
6	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B					
6	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B					
6	STRATEGO	2.08	EC	4	fl oz/a	4	fl oz/a	BBCH30	C					
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH30	C					
6	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH61	E					
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH61	E					
6	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F					
7	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	0 a	0.0 a	0.1 a	1.7 a	0.2 a
7	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B					
7	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B					
7	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B					
7	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B					
7	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH61	E					
7	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH61	E					
7	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F					
LSD (P=.05)										0.0	0.00	0.18	1.03	0.31
Replicate F										0.000	0.000	0.843	0.927	1.762
Replicate Prob(F)										1.0000	1.0000	0.5330	0.4771	0.1533
Treatment F										0.000	0.000	0.843	0.975	0.820
Treatment Prob(F)										1.0000	1.0000	0.5330	0.4590	0.5641

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

Bayer ProTechPlus - Winter Wheat - 2.

Trial ID: 09-ARC-17-200-N110 Location: Agronomy Res. Center

									HEADSCAB	HEADSCAB	TNST/SEP	TNST/SEP
									P25R47	FS628	P25R47	FS628
									05-29-09	05-29-09	05-29-09	05-29-09
									Severity	Severity	Severity	Severity
									Percent	Percent	Percent	Percent
Trt	Treatment	Form	Form	Rate	Other	Other	Growth	Appl				
No.	Name	Conc	Type	Unit	Rate	Rate	Stage	Code				
1	NO SEED TREATMENT								32 a	38 a	5 a	8 a
1	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B					
1	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B					
1	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B					
1	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B					
2	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A		28 ab	28 ab	4 a	7 a
2	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B					
2	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B					
2	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B					
2	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B					
3	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A		33 a	36 a	5 a	8 a
3	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B					
3	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B					
3	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B					
3	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B					
3	BAYTHROID XL	1	EC	0.0156 lb ai/a	2 fl oz/a	SPGTHRESH	F					
4	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A		31 a	29 ab	1 b	3 b
4	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B					
4	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B					
4	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B					
4	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B					
4	STRATEGO	2.08	EC	0.163 lb ai/a	10 fl oz/a	BBCH39	D					
4	INDUCE	100	SL	0.125 % v/v	0.125 % v/v	BBCH39	D					
4	BAYTHROID XL	1	EC	0.0156 lb ai/a	2 fl oz/a	SPGTHRESH	F					
5	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A		28 ab	29 ab	2 b	2 b
5	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B					
5	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B					
5	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B					
5	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B					
5	PROSARO	3.5	SC	0.178 lb ai/a	6.5 fl oz/a	BBCH39	D					
5	INDUCE	100	SL	0.125 % v/v	0.125 % v/v	BBCH39	D					
5	BAYTHROID XL	1	EC	0.0156 lb ai/a	2 fl oz/a	SPGTHRESH	F					
6	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A		19 b	23 b	1 b	2 b
6	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B					
6	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B					
6	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B					
6	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B					
6	STRATEGO	2.08	EC	4 fl oz/a	4 fl oz/a	BBCH30	C					
6	INDUCE	100	SL	0.125 % v/v	0.125 % v/v	BBCH30	C					
6	PROSARO	3.5	SC	0.178 lb ai/a	6.5 fl oz/a	BBCH61	E					
6	INDUCE	100	SL	0.125 % v/v	0.125 % v/v	BBCH61	E					
6	BAYTHROID XL	1	EC	0.0156 lb ai/a	2 fl oz/a	SPGTHRESH	F					
7	GAUCHO XT		LS	3.4 fl oz/cwt	34.3 g ai/100 kg	SEEDTRT	A		24 ab	18 b	1 b	2 b
7	OLYMPUS FLEX	11.25	SG	0.0246 lb ai/a	3.5 oz/a	2"W	B					
7	HUSKIE	2.06	EC	0.217 lb ai/a	13.5 fl oz/a	2"W	B					
7	ACTIVATOR 90	100	SL	0.25 % v/v	0.25 % v/v	2"W	B					
7	28% UAN	100	SL	2 qt/a	2 qt/a	2"W	B					
7	PROSARO	3.5	SC	0.178 lb ai/a	6.5 fl oz/a	BBCH61	E					
7	INDUCE	100	SL	0.125 % v/v	0.125 % v/v	BBCH61	E					
7	BAYTHROID XL	1	EC	0.0156 lb ai/a	2 fl oz/a	SPGTHRESH	F					
LSD (P=.05)									11.0	12.4	2.3	2.9
Replicate F									0.436	0.442	0.597	1.748
Replicate Prob(F)									0.8198	0.8156	0.7023	0.1565
Treatment F									1.653	2.546	5.678	8.663
Treatment Prob(F)									0.1686	0.0429	0.0005	0.0001

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

Bayer ProTechPlus - Winter Wheat - 2.

Trial ID: 09-ARC-17-200-N110 Location: Agronomy Res. Center

Pest Code	SEPTORIA	SEPTORIA
Crop Code	P25R47	FS628
Rating Date	05-29-09	05-29-09
Rating Data Type	Severity	Severity
Rating Unit	Percent	Percent
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		
1	NO SEED TREATMENT									5 a	15 a
1	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B		
1	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B		
1	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B		
1	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B		
2	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	3 abc	10 b
2	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B		
2	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B		
2	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B		
2	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B		
3	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	3 bc	7 bc
3	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B		
3	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B		
3	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B		
3	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B		
3	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F		
4	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	4 ab	6 bc
4	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B		
4	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B		
4	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B		
4	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B		
4	STRATEGO	2.08	EC	0.163	lb ai/a	10	fl oz/a	BBCH39	D		
4	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH39	D		
4	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F		
5	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	4 abc	7 bc
5	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B		
5	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B		
5	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B		
5	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B		
5	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH39	D		
5	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH39	D		
5	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F		
6	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	2 c	6 c
6	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B		
6	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B		
6	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B		
6	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B		
6	STRATEGO	2.08	EC	4	fl oz/a	4	fl oz/a	BBCH30	C		
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH30	C		
6	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH61	E		
6	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH61	E		
6	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F		
7	GAUCHO XT		LS	3.4	fl oz/cwt	34.3	g ai/100 kg	SEEDTRT	A	3 bc	3 c
7	OLYMPUS FLEX	11.25	SG	0.0246	lb ai/a	3.5	oz/a	2"W	B		
7	HUSKIE	2.06	EC	0.217	lb ai/a	13.5	fl oz/a	2"W	B		
7	ACTIVATOR 90	100	SL	0.25	% v/v	0.25	% v/v	2"W	B		
7	28% UAN	100	SL	2	qt/a	2	qt/a	2"W	B		
7	PROSARO	3.5	SC	0.178	lb ai/a	6.5	fl oz/a	BBCH61	E		
7	INDUCE	100	SL	0.125	% v/v	0.125	% v/v	BBCH61	E		
7	BAYTHROID XL	1	EC	0.0156	lb ai/a	2	fl oz/a	SPGTHRESH	F		
LSD (P=.05)										2.3	4.1
Replicate F										0.413	1.272
Replicate Prob(F)										0.8356	0.3037
Treatment F										1.970	7.253
Treatment Prob(F)										0.1029	0.0001

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

Bayer ProTechPlus - Winter Wheat - 2.

Trial ID: 09-ARC-17-200-N110 Location: Agronomy Res. Center

Trial Comments

1. Protocol: Bayer (M3A).
2. Ratings: Plant counts and visual vigor 21-28 days after planting, count (3) 19.2 inch of row, vigor 1 to 9, 1 = best, 9 = dead.
Crop injury from foliar applications at 14-21 DAT, and until no injury is present.
Disease incidence and severity when disease symptoms appear and again before leaf senescence.
Insect incidence and severity at 21-28 days after planting and 14-21 days after the SPGTHRESH application.
3. Yield.
4. Application timings: SEEDTRT = Seed treatment; 2"W = 2 inch weeds;
BBCH30 = Beginning of stem elongation: pseudostem & tillers erect, but before first node is above the tillering node;
BBCH39 = Flag leaf fully unrolled, ligule visible; BBCH61 = Beginning of flowering, first anther visible;
SPGTHRESH = Spring threshold (aphids).
Wheat varieties are P25R47 and FS628 planted in the left and right 5 ft of each plot, respectively.
5. Blanket burndown of Roundup WeatherMax (32 floz/A) was applied at planting.
6. Plots 102 and 202, right side (FS628) were overlapped about 60% due to planter error, missing data.
7. Test wt. = Test weight. mil/A = Million per acre. DAP = Days after planting. DAE = Days after crop emergence.
Vigor 1 to 9, 1 = best, 9 = dead. BYD = Barley yellow dwarf. HEADSCAB = Head scab (fusarium head blight).
TNST/SEP = Tan spot and/or septoria leaf blotch on the flag leaf (80% tan spot and 20% septoria leaf blotch).
SEPTORIA = Septoria glume blotch. No leaf rust was found. No stripe rust was found.
8. Aphid counts are for the whole plot (both wheat varieties). 1.0 sqft = One square ft.
9. Harvested 6-19-09, (6) 7.5 inch rows by 20 ft.