

MSU Weed Science Research Program

BAS 94461H applied preemergence in winter wheat

Trial ID: WT01-10  
Conducted: T-15 west

Study Dir.: Sprague/Powell  
Investigator: Christy Sprague

Date Planted: 10/16/2009      Row Spacing: 7.5 IN  
Variety: Red Ruby      No. of Reps: 4  
Population: 2 million seeds/acre      % OM: 2.6  
Soil Type: Clay Loam      pH: 6.6  
Plot Size: 10 X 35 FT      Design: RANDOMIZED COMPLETE BLOCK

Tillage: No-tilled into soybean stubble  
Fertilizer: 3/18/10 - Topdressed 150 lbs/acre of urea (75 lbs/acre of actual nitrogen)

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	TAROF	DANDELION, COMMON	TARAXACUM OFFICINALE
2.	POAAN	BLUEGRASS, ANNUAL	POA ANNUA L.
3.	STEME	CHICKWEED, COMMON	STELLARIA MEDIA
4.	ERYRE	WALLFLOWER, BUSHY	ERYSIMUM REPANDUM
Crop	Code	Common Name	
1.	TRZAW	WHEAT, WINTER	

Application Description

	A	B
Application Timing:	PRE	2-Leaf
Date Treated:	10/19/2009	11/9/2009
Time Treated:	9:40 am	11:00am
% Cloud Cover:	0	90
Air Temp., Unit:	51 F	53 F
% Relative Humidity:	59	67
Wind Speed/Unit/Dir:	7 mph S	6 mph SW
Soil Temp., Unit:	42 F	51 F
Soil/Leaf Surface M:	5 -	- -
Soil Moist (1=w 5=d):	5	2

Crop Stage at Each Application

	A	B
Crop Name:	TRZAW	TRZAW
Height (In.):	-	2
Stage (L):	-	2

Weed Stage at Each Application

	A	B
Weed 1 Name:	TAROF	TAROF
Height (In.):	-	2 dia
Stage (L):	-	many
Weed 2 Name:	POAAN	POAAN
Height (In.):	-	0.5"
Stage (L):	-	1-2
Weed 3 Name:	STEME	STEME
Height (In.):	-	1"
Stage (L):	-	-
Weed 4 Name:	ERYRE	ERYRE
Height (In.):	-	-
Stage (L):	-	-

Weed Density (plants/sq. ft.)

Weed Name:	1	2	3	4	5
ANGR	<1	<1	<1	<1	1
AMBEL	<1	<1	<1	<1	<1
STEME	<1	<1	<1	<1	<1
POAAN	<1	<1	<1	<1	<1
ERYRE	<1	<1	<1	<1	<1

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.8	AirMix	11003	21"	20"	100"	19	water	28
B	Cub	3.8	AirMix	11003	23"	20"	100"	19	water	28

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Weed Code		Crop Code		Rating Data Type		Rating Unit		Rating Date		Trt-Eval Interval		# Subsamples, Dec.	
Crop Code		TRZAW		POAAN		STEME		ERYRE		TRZAW		POAAN	
Rating Data Type		injury		control		control		control		injury		control	
Rating Unit		percent		percent		percent		percent		percent		percent	
Rating Date		4/19/2010		4/19/2010		4/19/2010		4/19/2010		5/17/2010		5/17/2010	
Trt-Eval Interval		182 DA-A		182 DA-A		182 DA-A		182 DA-A		210 DA-A		210 DA-A	
# Subsamples, Dec.		0		0		0		0		0		0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code						
1	Untreated						A	0	0	0	0	0	0
2	BAS 94461H	85	WG	0.672	oz wt/a	PRE	A	4	92	41	65	0	89
3	BAS 94461H	85	WG	1.01	oz wt/a	PRE	A	25	92	94	92	0	92
4	BAS 94461H	85	WG	1.344	oz wt/a	PRE	A	18	99	97	99	0	99
5	BAS 94461H	85	WG	2.69	oz wt/a	PRE	A	24	99	90	99	0	99
6	Prowl H2O	3.8	L	32	fl oz/a	PRE	A	3	99	38	99	0	99
7	Axial XL	0.42	L	16.4	fl oz/a	2 leaf	B	2	0	8	33	0	0
8	Prowl H2O	3.8	L	32	fl oz/a	2 leaf	B	3	7	88	97	0	10
8	Axial XL	0.42	L	16.4	fl oz/a	2 leaf	B						
9	BAS 94461H	85	WG	0.672	oz wt/a	2 leaf	B	1	99	53	99	0	96
9	Axial XL	0.42	L	16.4	fl oz/a	2 leaf	B						
10	Affinity BroadSpec	50	DF	0.75	oz/a	2 leaf	B	3	15	97	94	0	0
10	Activator 90		L	0.25	% v/v	2 leaf	B						
11	Huskie	2.08	L	11	fl oz/a	2 leaf	B	0	0	91	97	0	0
11	Activator 90		L	0.25	% v/v	2 leaf	B						
12	2,4-D Ester	3.8	L	1	pt/a	PRE	A	5	0	15	92	0	0
13	Clarity	4	L	0.25	pt/a	PRE	A	1	5	55	91	0	0
LSD (P=.05)								8.0	10.2	19.8	16.3	0.0	8.3
Standard Deviation								5.6	7.0	13.8	11.4	0.0	5.8
CV								84.29	15.07	23.52	14.01	0.0	12.88

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Weed Code		STEME		ERYRE		TRZAW		TRZAW		AMBEL		
Crop Code	Rating Data Type	control percent	control percent	moisture percent	yield bu/acre	control percent						
Rating Unit	Rating Date	5/17/2010	5/17/2010	7/13/2010	7/13/2010	8/2/2010						
Trt-Eval Interval	Trt-Eval Interval	210 DA-A	210 DA-A	267 DA-A	at 13% M	287 DA-A						
# Subsamples, Dec.	# Subsamples, Dec.	0	0	1	1	0						
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Grow Unit	Stg	Appl Code					
1	Untreated						A	0	0	21.0	64.3	92
2	BAS 94461H	85	WG	0.672	oz wt/a	PRE	A	48	65	22.2	61.6	93
3	BAS 94461H	85	WG	1.01	oz wt/a	PRE	A	89	88	20.6	63.4	87
4	BAS 94461H	85	WG	1.344	oz wt/a	PRE	A	97	97	21.0	62.3	80
5	BAS 94461H	85	WG	2.69	oz wt/a	PRE	A	88	99	19.8	62.2	76
6	Prowl H2O	3.8	L	32	fl oz/a	PRE	A	35	99	21.7	61.0	75
7	Axial XL	0.42	L	16.4	fl oz/a	2 leaf	B	5	23	20.7	64.0	87
8	Prowl H2O	3.8	L	32	fl oz/a	2 leaf	B	87	82	21.7	62.9	85
8	Axial XL	0.42	L	16.4	fl oz/a	2 leaf	B					
9	BAS 94461H	85	WG	0.672	oz wt/a	2 leaf	B	41	97	21.3	62.4	71
9	Axial XL	0.42	L	16.4	fl oz/a	2 leaf	B					
10	Affinity BroadSpec	50	DF	0.75	oz/a	2 leaf	B	98	96	22.1	61.4	73
10	Activator 90		L	0.25	% v/v	2 leaf	B					
11	Huskie	2.08	L	11	fl oz/a	2 leaf	B	91	96	21.9	62.1	80
11	Activator 90		L	0.25	% v/v	2 leaf	B					
12	2,4-D Ester	3.8	L	1	pt/a	PRE	A	13	80	20.8	62.5	86
13	Clarity	4	L	0.25	pt/a	PRE	A	51	78	20.5	63.3	94
LSD (P=.05)								15.0	13.1	1.11	2.05	16.4
Standard Deviation								10.5	9.2	0.78	1.44	11.5
CV								18.34	11.95	3.67	2.3	13.83