

MSU Weed Science Research Program

Fall and spring herbicide applications in winter wheat

Trial ID: WT01-14  
 Conducted: SVREC

Study Dir.: Sprague, Powell  
 Investigator: Christy Sprague

**Date Planted:** Oct/12/2013                      **Row Spacing:** 7.5 IN  
**Variety:** 'Jupiter' soft white              **No. of Reps:** 4  
**Population:** 2.2 million seeds/A              **% OM:** 3.2  
**Soil Type:** Clay loam                      **pH:** 7.9  
**Plot Size:** 10 X 30 FT                      **Design:** RANDOMIZED COMPLETE BLOCK

**Tillage:** Conventional

**Crop and Weed Description**

Weed	Code	Common Name	Scientific Name
1.	TRFRE	CLOVER	TRIFOLIUM REPENS L.
2.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
Crop	Code	Common Name	
1.	TRZAW	WHEAT, WINTER	

**Application Description**

	A	B
<b>Application Timing:</b>	Fall	Spring
<b>Date Treated:</b>	Nov/21/2013	May/19/2014
<b>Time Treated:</b>	4:00 PM	10:30 AM
<b>% Cloud Cover:</b>	90	0
<b>Air Temp., Unit:</b>	49 F	67 F
<b>% Relative Humidity:</b>	75	54
<b>Wind Speed/Unit/Dir:</b>	5 mph SW	5 mph SW
<b>Soil Temp., Unit:</b>	44 F	58 F
<b>Soil/Leaf Surface M:</b>	2 5	4 5
<b>Soil Moist (1=w 5=d):</b>	2	4

**Crop Stage at Each Application**

	A	B
<b>Crop Name:</b>	TRZAW	TRZAW
<b>Height (In.):</b>	1-2"	8-10"
<b>Stage (L):</b>	Feekes1.3	Feekes5

**Weed Stage at Each Application**

	A	B
<b>Weed 1 Name:</b>	TRFRE	TRFRE
<b>Height (In.):</b>	-	1"
<b>Stage (L):</b>	-	1 trifol.
<b>Weed 2 Name:</b>	CHEAL	CHEAL
<b>Height (In.):</b>	-	1" - V2
<b>Stage (L):</b>	-	6-8

**Weed Density (plants/sq. ft.)**

	1	2
<b>Date:</b>	May/19/2014	May/19/2014
<b>Weed Name:</b>	TRFRE	CHEAL
<b>Density:</b>	17	2

**Application Equipment**

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom	Width	GPA	Carrier	PSI
	Type	MPH	Type	Size	Height	Spacing					
A	Cub	3.8	AirMix	11003	23"	20"	100"	19	water	30	
B	Cub	3.8	AirMix	11003	27"	20"	100"	19	water	30	

**Comments:** Frost seeded red clover - April 3, 2014 (approximately 10 lb/A)

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								TRFRE	TRFRE	TRFRE	CHEAL	TRFRE
								injury	injury	injury	control	injury
								percent	percent	percent	percent	percent
								May/19/2014	May/27/2014	Jun/04/2014	Jun/04/2014	Jul/11/2014
								179 DA-A	8 DA-B	16 DA-B	16 DA-B	53 DA-B
								0	0	0	0	0
Trt	Treatment	Form	Form	Rate	Grow	Appl						
No.	Name	Conc	Type	Unit	Stg	Code						
1	Affinity BroadSpec	50	WG	0.75	oz/a	FALL	A	13	13	10	99	5
1	Surfactant		L	0.25	% v/v	FALL	A					
1	AMS		WG	2	lb/a	FALL	A					
2	Huskie	2.06	L	13	fl oz/a	FALL	A	8	24	39	0	34
2	Surfactant		L	0.25	% v/v	FALL	A					
2	AMS		WG	2	lb/a	FALL	A					
3	Osprey	4.5	WG	4.75	oz/a	FALL	A	35	15	33	5	33
3	Surfactant		L	0.25	% v/v	FALL	A					
3	AMS		WG	2	lb/a	FALL	A					
4	PowerFlex HL	13	WG	2	oz/a	FALL	A	14	5	16	0	24
4	Surfactant		L	0.25	% v/v	FALL	A					
4	AMS		WG	2	lb/a	FALL	A					
5	Clarity	4	L	0.25	pt/a	FALL	A	3	4	0	0	0
6	2,4-D ester	4	L	1	pt/a	FALL	A	8	1	0	0	0
7	Untreated							0	0	0	0	0
8	Affinity BroadSpec	50	WG	0.75	oz/a	SPRING	B		31	92	99	90
8	Surfactant		L	0.25	% v/v	SPRING	B					
8	AMS		WG	2	lb/a	SPRING	B					
9	Huskie	2.06	L	13	fl oz/a	SPRING	B		73	97	99	96
9	Surfactant		L	0.25	% v/v	SPRING	B					
9	AMS		WG	2	lb/a	SPRING	B					
10	Osprey	4.5	WG	4.75	oz/a	SPRING	B		36	86	10	99
10	Surfactant		L	0.25	% v/v	SPRING	B					
10	AMS		WG	2	lb/a	SPRING	B					
11	PowerFlex HL	13	WG	2	oz/a	SPRING	B		31	76	70	99
11	Surfactant		L	0.25	% v/v	SPRING	B					
11	AMS		WG	2	lb/a	SPRING	B					
12	Clarity	4	L	0.25	pt/a	SPRING	B		29	78	72	95
13	2,4-D ester	4	L	1	pt/a	SPRING	B		30	73	99	67
LSD (P=.05)								9.6	12.4	14.0	9.5	14.5
CV								57.17	38.41	21.11	15.46	20.36

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

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Weed Code	CHEAL	TRFRE
Crop Code		
Rating Data Type	control	injury
Rating Unit	percent	percent
Rating Date	Jul/11/2014	Jul/24/2014
Trt-Eval Interval	53 DA-B	66 DA-B
# Subsamples, Dec.	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	CHEAL	TRFRE
1	Affinity BroadSpec	50	WG	0.75	oz/a	FALL	A	91	0
1	Surfactant		L	0.25	% v/v	FALL	A		
1	AMS		WG	2	lb/a	FALL	A		
2	Huskie	2.06	L	13	fl oz/a	FALL	A	0	14
2	Surfactant		L	0.25	% v/v	FALL	A		
2	AMS		WG	2	lb/a	FALL	A		
3	Osprey	4.5	WG	4.75	oz/a	FALL	A	5	30
3	Surfactant		L	0.25	% v/v	FALL	A		
3	AMS		WG	2	lb/a	FALL	A		
4	PowerFlex HL	13	WG	2	oz/a	FALL	A	0	5
4	Surfactant		L	0.25	% v/v	FALL	A		
4	AMS		WG	2	lb/a	FALL	A		
5	Clarity	4	L	0.25	pt/a	FALL	A	0	0
6	2,4-D ester	4	L	1	pt/a	FALL	A	0	0
7	Untreated							0	0
8	Affinity BroadSpec	50	WG	0.75	oz/a	SPRING	B	99	85
8	Surfactant		L	0.25	% v/v	SPRING	B		
8	AMS		WG	2	lb/a	SPRING	B		
9	Huskie	2.06	L	13	fl oz/a	SPRING	B	99	97
9	Surfactant		L	0.25	% v/v	SPRING	B		
9	AMS		WG	2	lb/a	SPRING	B		
10	Osprey	4.5	WG	4.75	oz/a	SPRING	B	10	99
10	Surfactant		L	0.25	% v/v	SPRING	B		
10	AMS		WG	2	lb/a	SPRING	B		
11	PowerFlex HL	13	WG	2	oz/a	SPRING	B	87	99
11	Surfactant		L	0.25	% v/v	SPRING	B		
11	AMS		WG	2	lb/a	SPRING	B		
12	Clarity	4	L	0.25	pt/a	SPRING	B	96	95
13	2,4-D ester	4	L	1	pt/a	SPRING	B	99	63
LSD (P=.05)								9.5	11.6
CV								14.64	17.76

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