

MSU Weed Science Research Program

Effect of spring-applied wheat herbicides on double-crop soybean (90 d)

Trial ID: WT02-15 Study Dir.: Sprague, Powell
Conducted: Campus T-15 W Investigator: Christy Sprague

Date Planted: Oct/10/2014 Row Spacing: 7.5 IN
Variety: 'Sunbust' soft red No. of Reps: 4
Population: 1.8 million seeds/A % OM: 3.1
Soil Type: Loam pH: 6.4
Plot Size: 10 X 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall soil finish
Fertilizer: 3/23/15 Top-dressed wheat with 200lb/A urea(90lb/A actual N)
Crop Code Common Name
1. TRZAW WHEAT, WINTER

Application Description

A
Application Timing: Spring
Date Treated: May/06/2015
Time Treated: 4:15 PM
% Cloud Cover: 0
Air Temp., Unit: 81 F
% Relative Humidity: 59
Wind Speed/Unit/Dir: 3 mph NE
Soil Temp., Unit: 64 F
Soil/Leaf Surface M: 4 -
Soil Moist (1=w 5=d): 3

Crop Stage at Each Application

A
Crop Name: TRZAW
Height (In.): 10"
Stage (L): Feeke's 5

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom				
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI	
A	Cub	3.8	AIXR	10003	27"	20"	100"	19	Water	28	

Comments: Roundup PowerMax at 32 fl oz/A was applied after wheat harvest on July 22, 2015. Pioneer P24T05 soybean was planted on July 23 at 165,000 seeds/A with a John Deere 1750 planter in 30-inch rows. Additional applications of Roundup PowerMax were made to keep the area weed-free. Soybean were damaged by frost a couple of weeks prior to harvest.

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Weed Code								TRZAW	TRZAW	TRZAW	THLAR
Crop Code								injury	injury	injury	control
Rating Data Type								percent	percent	percent	percent
Rating Unit								May/09/2015	May/13/2015	May/20/2015	May/20/2015
Rating Date								3 DAT	7 DAT	14 DA-A	14 DA-A
Trt-Eval Interval								0	0	0	0
# Subsamples, Dec.											
Trt	Treatment	Form	Form	Rate	Grow	Appl					
No.	Name	Conc	Type	Unit	Stg	Code					
1	PowerFlex HL	13	WG	2	oz/a	SPRING	A	0	7	2	91
1	R-11 Surfactant		L	0.5	% v/v	SPRING	A				
1	28% UAN		L	1.5	qt/a	SPRING	A				
2	PowerFlex HL	13	WG	4	oz/a	SPRING	A	0	11	2	99
2	R-11 Surfactant		L	0.5	% v/v	SPRING	A				
2	28% UAN		L	1.5	qt/a	SPRING	A				
3	PowerFlex HL	13	WG	8	oz/a	SPRING	A	0	20	7	92
3	R-11 Surfactant		L	0.5	% v/v	SPRING	A				
3	28% UAN		L	1.5	qt/a	SPRING	A				
4	Huskie	2.06	L	15	fl oz/a	SPRING	A	0	0	0	98
4	R-11 Surfactant		L	0.25	% v/v	SPRING	A				
4	28% UAN		L	1.5	qt/a	SPRING	A				
5	Huskie	2.06	L	30	fl oz/a	SPRING	A	0	0	0	99
5	R-11 Surfactant		L	0.25	% v/v	SPRING	A				
5	28% UAN		L	1.5	qt/a	SPRING	A				
6	Huskie	2.06	L	60	fl oz/a	SPRING	A	0	0	0	99
6	R-11 Surfactant		L	0.25	% v/v	SPRING	A				
6	28% UAN		L	1.5	qt/a	SPRING	A				
7	Untreated							0	0	0	0
8	WideMatch	1.5	L	1	pt/a	SPRING	A	0	0	0	96
8	28% UAN		L	1.5	qt/a	SPRING	A				
9	WideMatch	1.5	L	2	pt/a	SPRING	A	0	0	0	99
9	28% UAN		L	1.5	qt/a	SPRING	A				
10	WideMatch	1.5	L	4	pt/a	SPRING	A	0	1	0	97
10	28% UAN		L	1.5	qt/a	SPRING	A				
11	Quelex (GF-2686)	20	WG	0.714	oz/a	SPRING	A	0	0	0	94
11	R-11 Surfactant		L	0.25	% v/v	SPRING	A				
12	Quelex (GF-2686)	20	WG	1.43	oz/a	SPRING	A	0	0	0	95
12	R-11 Surfactant		L	0.25	% v/v	SPRING	A				
13	Quelex (GF-2686)	20	WG	2.85	oz/a	SPRING	A	0	0	0	97
13	R-11 Surfactant		L	0.25	% v/v	SPRING	A				
LSD (P=.05)								0.0	2.2	1.0	5.0
CV								0.0	51.89	85.56	3.93

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

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Trial ID: WT02-15
 Conducted: Campus T-15 W

Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Weed Code								CHEAL	AMBEL	TRZAW	TRZAW	GLXMA
Crop Code								control	control	moisture	yield	injury
Rating Data Type								percent	percent	percent	bu/acre	percent
Rating Unit								May/20/2015	May/20/2015	Jul/21/2015	Jul/21/2015	Aug/13/2015
Rating Date								14 DA-A	14 DA-A	76 DA-A	at 13% M	21 DAP
Trt-Eval Interval								0	0	1	1	0
# Subsamples, Dec.												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	PowerFlex HL	13	WG	2	oz/a	SPRING	A	99	94	15.4	95.9	2
1	R-11 Surfactant		L	0.5	% v/v	SPRING	A					
1	28% UAN		L	1.5	qt/a	SPRING	A					
2	PowerFlex HL	13	WG	4	oz/a	SPRING	A	99	94	15.6	94.8	3
2	R-11 Surfactant		L	0.5	% v/v	SPRING	A					
2	28% UAN		L	1.5	qt/a	SPRING	A					
3	PowerFlex HL	13	WG	8	oz/a	SPRING	A	99	96	15.2	91.0	3
3	R-11 Surfactant		L	0.5	% v/v	SPRING	A					
3	28% UAN		L	1.5	qt/a	SPRING	A					
4	Huskie	2.06	L	15	fl oz/a	SPRING	A	99	99	15.5	94.8	0
4	R-11 Surfactant		L	0.25	% v/v	SPRING	A					
4	28% UAN		L	1.5	qt/a	SPRING	A					
5	Huskie	2.06	L	30	fl oz/a	SPRING	A	99	99	15.5	92.2	0
5	R-11 Surfactant		L	0.25	% v/v	SPRING	A					
5	28% UAN		L	1.5	qt/a	SPRING	A					
6	Huskie	2.06	L	60	fl oz/a	SPRING	A	99	99	15.5	92.3	8
6	R-11 Surfactant		L	0.25	% v/v	SPRING	A					
6	28% UAN		L	1.5	qt/a	SPRING	A					
7	Untreated							0	0	16.0	103.5	0
8	WideMatch	1.5	L	1	pt/a	SPRING	A	99	99	15.9	100.8	21
8	28% UAN		L	1.5	qt/a	SPRING	A					
9	WideMatch	1.5	L	2	pt/a	SPRING	A	99	99	15.9	95.3	25
9	28% UAN		L	1.5	qt/a	SPRING	A					
10	WideMatch	1.5	L	4	pt/a	SPRING	A	99	99	15.8	97.1	45
10	28% UAN		L	1.5	qt/a	SPRING	A					
11	Quelex (GF-2686)	20	WG	0.714	oz/a	SPRING	A	99	99	16.0	101.7	3
11	R-11 Surfactant		L	0.25	% v/v	SPRING	A					
12	Quelex (GF-2686)	20	WG	1.43	oz/a	SPRING	A	99	97	15.7	97.1	4
12	R-11 Surfactant		L	0.25	% v/v	SPRING	A					
13	Quelex (GF-2686)	20	WG	2.85	oz/a	SPRING	A	99	99	15.6	96.7	10
13	R-11 Surfactant		L	0.25	% v/v	SPRING	A					
LSD (P=.05)								0.0	5.9	0.55	7.52	5.0
CV								0.0	4.55	2.46	5.46	37.36

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

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Study Dir.: Sprague, Powell
 Investigator: Christy Sprague

Weed Code
 Crop Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval
 # Subsamples, Dec.

GLXMA
 injury
 percent
 Aug/27/2015
 35 DAP
 0
 GLXMA
 injury
 percent
 Sep/10/2015
 49 DAP
 0
 GLXMA
 yield
 bu/acre
 Nov/16/2015
 115 DAP
 1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	GLXMA injury percent Aug/27/2015 35 DAP	GLXMA injury percent Sep/10/2015 49 DAP	GLXMA yield bu/acre Nov/16/2015 115 DAP
1	PowerFlex HL	13	WG	2	oz/a	SPRING	A	0	0	13.6
1	R-11 Surfactant		L	0.5	% v/v	SPRING	A			
1	28% UAN		L	1.5	qt/a	SPRING	A			
2	PowerFlex HL	13	WG	4	oz/a	SPRING	A	0	0	13.1
2	R-11 Surfactant		L	0.5	% v/v	SPRING	A			
2	28% UAN		L	1.5	qt/a	SPRING	A			
3	PowerFlex HL	13	WG	8	oz/a	SPRING	A	0	0	15.5
3	R-11 Surfactant		L	0.5	% v/v	SPRING	A			
3	28% UAN		L	1.5	qt/a	SPRING	A			
4	Huskie	2.06	L	15	fl oz/a	SPRING	A	0	0	16.1
4	R-11 Surfactant		L	0.25	% v/v	SPRING	A			
4	28% UAN		L	1.5	qt/a	SPRING	A			
5	Huskie	2.06	L	30	fl oz/a	SPRING	A	0	0	15.7
5	R-11 Surfactant		L	0.25	% v/v	SPRING	A			
5	28% UAN		L	1.5	qt/a	SPRING	A			
6	Huskie	2.06	L	60	fl oz/a	SPRING	A	0	0	14.3
6	R-11 Surfactant		L	0.25	% v/v	SPRING	A			
6	28% UAN		L	1.5	qt/a	SPRING	A			
7	Untreated							0	0	15.2
8	WideMatch	1.5	L	1	pt/a	SPRING	A	20	8	13.7
8	28% UAN		L	1.5	qt/a	SPRING	A			
9	WideMatch	1.5	L	2	pt/a	SPRING	A	26	20	14.0
9	28% UAN		L	1.5	qt/a	SPRING	A			
10	WideMatch	1.5	L	4	pt/a	SPRING	A	66	64	6.2
10	28% UAN		L	1.5	qt/a	SPRING	A			
11	Quelex (GF-2686)	20	WG	0.714	oz/a	SPRING	A	0	0	14.2
11	R-11 Surfactant		L	0.25	% v/v	SPRING	A			
12	Quelex (GF-2686)	20	WG	1.43	oz/a	SPRING	A	0	0	14.4
12	R-11 Surfactant		L	0.25	% v/v	SPRING	A			
13	Quelex (GF-2686)	20	WG	2.85	oz/a	SPRING	A	14	11	14.1
13	R-11 Surfactant		L	0.25	% v/v	SPRING	A			
LSD (P=.05)								6.0	8.5	3.17
CV								43.53	75.62	15.87

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