

MSU Weed Science Research Program

Preharvest herbicide treatments in winter wheat

Trial ID: WT03-15 Study Dir.: Sprague, Rogers, Powell
Conducted: T-18 Campus Investigator: Christy Sprague

Date Planted: Oct/31/2014 Row Spacing: 7.5 IN
Variety: 'Sunburst' soft red No. of Reps: 4
Population: 1.8 milion seeds/A % OM: 4.8
Soil Type: Loam pH: 6.5
Plot Size: 10 X 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall disked and soil finshed
Fertilizer: Wheat was top-dressed with 200lb/A urea (90lb/A actual N) on 3/23/15.

Crop and Weed Description

Weed Code Common Name Scientific Name
1. CHEAL LAMBSQUARTERS, COMMON CHENOPODIUM ALBUM L.
2. AMBEL RAGWEED, COMMON AMBROSIA ARTEMISIIFOLIA L.
Crop Code Common Name
1. TRZAW WHEAT, WINTER

Application Description

A
Application Timing: PRE
Date Treated: Jul/16/2015
Time Treated: 5:10 PM
% Cloud Cover: 100
Air Temp., Unit: 77 F
% Relative Humidity: 54
Wind Speed/Unit/Dir: 4 mph S
Soil Temp., Unit: 75 F
Soil/Leaf Surface M: 4 5
Soil Moist (1=w 5=d): 4

Crop Stage at Each Application

A
Crop Name: TRZAW
Height (In.): 32"
Stage (L): Feeke 11

Weed Stage at Each Application

A
Weed 1 Name: CHEAL
Height (In.): 30-52"
Stage (L): many
Weed 2 Name: AMBEL
Height (In.): 21-35"
Stage (L): 14

Weed Density (plants/sq. ft.)

1
Weed Name: CHEAL
Density: 3

Application Equipment

Appl Sprayer Speed Nozzle Nozzle Nozzle Boom
Type MPH Type Size Height Spacing Width GPA Carrier PSI
A Backpack 3.5 AIXR 11003 65" 20" 100" 19 Water 25

Comments: Wheat grain was less than 30% moisture at the time of application.

MSU Weed Science Research Program

Preharvest herbicide treatments in winter wheat

Trial ID: WT03-15 Study Dir.: Sprague, Rogers, Powell
 Conducted: T-18 Campus Investigator: Christy Sprague

Weed Code								CHEAL	AMBEL	TRZAW	
Crop Code								control	control	injury	
Rating Data Type								percent	percent	percent	
Rating Unit								percent	percent	percent	
Rating Date								Jul/19/2015	Jul/19/2015	Jul/19/2015	Jul/23/2015
Trt-Eval Interval								3 DA-A	3 DA-A	3 DA-A	7 DA-A
# Subsamples, Dec.								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Clarity	4	L	8	fl oz/a	PREHARV	A	0	19	24	0
2	2,4-D amine	4	L	1	pt/a	PREHARV	A	0	16	18	0
3	Aim	2	L	1.5	fl oz/a	PREHARV	A	0	34	40	0
3	MSO		L	1	% v/v	PREHARV	A				
4	Sharpen	2.85	L	2	fl oz/a	PREHARV	A	0	43	90	0
4	MSO		L	1	% v/v	PREHARV	A				
4	AMS		WG	17	lb/100 gal	PREHARV	A				
5	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	0	9	8	0
5	AMS		WG	17	lb/100 gal	PREHARV	A				
6	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	0	39	87	0
6	Sharpen	2.85	L	2	fl oz/a	PREHARV	A				
6	MSO		L	1	% v/v	PREHARV	A				
6	AMS		WG	17	lb/100 gal	PREHARV	A				
7	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	0	36	.	0
7	Aim	2	L	1.5	fl oz/a	PREHARV	A				
7	MSO		L	1	% v/v	PREHARV	A				
7	AMS		WG	17	lb/100 gal	PREHARV	A				
8	Untreated							0	0	0	0
LSD (P=.05)								0.0	6.3	11.8	0.0
CV								0.0	17.48	17.87	0.0

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

MSU Weed Science Research Program

Preharvest herbicide treatments in winter wheat

Trial ID: WT03-15 Study Dir.: Sprague, Rogers, Powell
 Conducted: T-18 Campus Investigator: Christy Sprague

Weed Code								CHEAL	AMBEL	TRZAW	CHEAL
Crop Code								control	control	injury	control
Rating Data Type								percent	percent	percent	percent
Rating Unit								Jul/23/2015	Jul/23/2015	Jul/27/2015	Jul/27/2015
Rating Date								7 DA-A	7 DA-A	11 DA-A	11 DA-A
Trt-Eval Interval								0	0	0	0
# Subsamples, Dec.								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Clarity	4	L	8	fl oz/a	PREHARV	A	23	23	0	20
2	2,4-D amine	4	L	1	pt/a	PREHARV	A	28	18	0	18
3	Aim	2	L	1.5	fl oz/a	PREHARV	A	25	30	0	30
3	MSO		L	1	% v/v	PREHARV	A				
4	Sharpen	2.85	L	2	fl oz/a	PREHARV	A	43	96	0	33
4	MSO		L	1	% v/v	PREHARV	A				
4	AMS		WG	17	lb/100 gal	PREHARV	A				
5	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	50	50	0	58
5	AMS		WG	17	lb/100 gal	PREHARV	A				
6	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	70	96	0	73
6	Sharpen	2.85	L	2	fl oz/a	PREHARV	A				
6	MSO		L	1	% v/v	PREHARV	A				
6	AMS		WG	17	lb/100 gal	PREHARV	A				
7	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	70	.	0	70
7	Aim	2	L	1.5	fl oz/a	PREHARV	A				
7	MSO		L	1	% v/v	PREHARV	A				
7	AMS		WG	17	lb/100 gal	PREHARV	A				
8	Untreated							0	0	0	0
LSD (P=.05)								6.9	8.8	0.0	9.9
CV								12.17	11.52	0.0	17.94

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

MSU Weed Science Research Program

Preharvest herbicide treatments in winter wheat

Trial ID: WT03-15 Study Dir.: Sprague, Rogers, Powell
 Conducted: T-18 Campus Investigator: Christy Sprague

								AMBEL	TRZAW	CHEAL	AMBEL
								control	injury	control	control
								percent	percent	percent	percent
								Jul/27/2015	Jul/31/2015	Jul/31/2015	Jul/31/2015
								11 DA-A	15 DA-A	15 DA-A	15 DA-A
								0	0	0	0
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Clarity	4	L	8	fl oz/a	PREHARV	A	21	0	23	25
2	2,4-D amine	4	L	1	pt/a	PREHARV	A	5	0	23	20
3	Aim	2	L	1.5	fl oz/a	PREHARV	A	25	0	20	25
3	MSO		L	1	% v/v	PREHARV	A				
4	Sharpen	2.85	L	2	fl oz/a	PREHARV	A	95	0	38	93
4	MSO		L	1	% v/v	PREHARV	A				
4	AMS		WG	17	lb/100 gal	PREHARV	A				
5	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	80	0	89	99
5	AMS		WG	17	lb/100 gal	PREHARV	A				
6	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	95	0	94	96
6	Sharpen	2.85	L	2	fl oz/a	PREHARV	A				
6	MSO		L	1	% v/v	PREHARV	A				
6	AMS		WG	17	lb/100 gal	PREHARV	A				
7	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A		0	92	95
7	Aim	2	L	1.5	fl oz/a	PREHARV	A				
7	MSO		L	1	% v/v	PREHARV	A				
7	AMS		WG	17	lb/100 gal	PREHARV	A				
8	Untreated							0	0	0	0
LSD (P=.05)								8.9	0.0	9.3	8.5
CV								11.34	0.0	13.45	9.8

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

MSU Weed Science Research Program

Preharvest herbicide treatments in winter wheat

Trial ID: WT03-15 Study Dir.: Sprague, Rogers, Powell
 Conducted: T-18 Campus Investigator: Christy Sprague

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

TRZAW TRZAW TRZAW TRZAW
 harvest. test weight moisture yield
 1-10 lb/bu percent bu/acre
 Jul/31/2015 Jul/31/2015 Jul/31/2015 Jul/31/2015
 15 DA-A 15 DA-A at 13% 15 DA-A
 0 1 1 1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Clarity	4	L	8	fl oz/a	PREHARV	A	4	45.8	21.4	77.8
2	2,4-D amine	4	L	1	pt/a	PREHARV	A	5	43.0	28.5	71.9
3	Aim	2	L	1.5	fl oz/a	PREHARV	A	7	43.2	31.2	66.2
3	MSO		L	1	% v/v	PREHARV	A				
4	Sharpen	2.85	L	2	fl oz/a	PREHARV	A	7	38.2	32.8	60.5
4	MSO		L	1	% v/v	PREHARV	A				
4	AMS		WG	17	lb/100 gal	PREHARV	A				
5	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	2	54.1	15.4	77.8
5	AMS		WG	17	lb/100 gal	PREHARV	A				
6	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	2	50.3	16.9	70.0
6	Sharpen	2.85	L	2	fl oz/a	PREHARV	A				
6	MSO		L	1	% v/v	PREHARV	A				
6	AMS		WG	17	lb/100 gal	PREHARV	A				
7	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	1	51.2	15.4	74.5
7	Aim	2	L	1.5	fl oz/a	PREHARV	A				
7	MSO		L	1	% v/v	PREHARV	A				
7	AMS		WG	17	lb/100 gal	PREHARV	A				
8	Untreated							8	45.4	29.0	64.9
LSD (P=.05)								1.6	9.85	11.12	16.89
CV								24.41	14.35	31.55	16.2

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

MSU Weed Science Research Program

Preharvest herbicide treatments in winter wheat

Trial ID: WT03-15 Study Dir.: Sprague, Rogers, Powell
 Conducted: T-18 Campus Investigator: Christy Sprague

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

TRZAW
 f. material
 percent
 Jul/31/2015
 15 DA-A
 1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	
1	Clarity	4	L	8	fl oz/a	PREHARV	A	11.1
2	2,4-D amine	4	L	1	pt/a	PREHARV	A	13.6
3	Aim	2	L	1.5	fl oz/a	PREHARV	A	15.9
3	MSO		L	1	% v/v	PREHARV	A	
4	Sharpen	2.85	L	2	fl oz/a	PREHARV	A	19.5
4	MSO		L	1	% v/v	PREHARV	A	
4	AMS		WG	17	lb/100 gal	PREHARV	A	
5	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	7.3
5	AMS		WG	17	lb/100 gal	PREHARV	A	
6	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	9.5
6	Sharpen	2.85	L	2	fl oz/a	PREHARV	A	
6	MSO		L	1	% v/v	PREHARV	A	
6	AMS		WG	17	lb/100 gal	PREHARV	A	
7	Roundup PowerMax	4.5	L	22	fl oz/a	PREHARV	A	9.5
7	Aim	2	L	1.5	fl oz/a	PREHARV	A	
7	MSO		L	1	% v/v	PREHARV	A	
7	AMS		WG	17	lb/100 gal	PREHARV	A	
8	Untreated							15.4
LSD (P=.05)								9.04
CV								47.99

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