

MSU Weed Science Research Program

Fall burndown treatments in no-till wheat

Trial ID: WT01-11 Study Dir.: Sprague, Powell
Conducted: MSU Crops Adams Fld Investigator: Christy Sprague

Date Planted: 10/8/2010 Row Spacing: 7.5 IN
Variety: Red Ruby No. of Reps: 4
Population: 2 million seeds/acre % OM: 3.0
Soil Type: Loam pH: 7.3
Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: No-till direct seeded into winter annual weeds.
Fertilizer: None at planting
Topdressed wheat in the spring with 200 lb/A urea (90#/A nitrogen)

Table with 4 columns: Weed Code, Common Name, Scientific Name, and Crop Code. Lists weeds 1-5 and crop 1 with their respective names and codes.

Crop and Weed Description

Application Description
A
Application Timing: PRE
Date Treated: 10/8/2010
Time Treated: 2:00 PM
% Cloud Cover: 0
Air Temp., Unit: 77 F
% Relative Humidity: 45
Wind Speed/Unit/Dir: 7 mph W
Soil Temp., Unit: 60 F
Soil/Leaf Surface M: 5 5
Soil Moist (1=w 5=d): 4

Crop Stage at Each Application

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

Weed Stage at Each Application

A
Weed 1 Name: THLAR
Height (In.): 2-3"
Stage (L): 16
Weed 2 Name: POAAN
Height (In.): 2-4"
Stage (L): 2-3
Weed 3 Name: CAPBP
Height (In.): 2-3"
Stage (L): 8-10
Weed 4 Name: LAMAM
Height (In.): 2-3"
Stage (L): 16-20
Weed 5 Name: STEME
Height (In.): 1-3"
Stage (L): 5-7

Application Equipment

Table with 11 columns: Appl, Sprayer, Speed, Nozzle, Nozzle, Nozzle, Nozzle, Boom, GPA, Carrier, PSI. Row A: Cub, 3.8, AirMix, 11003, 22", 20", 100", 19, Water, 28

Comments: TRZAX = Volunteer wheat control

Fall burndown treatments in no-till wheat

Trial ID: WT01-11 Study Dir.: Sprague, Powell
 Conducted: MSU Crops Adams Fld Investigator: Christy Sprague

Weed Code	THLAR	CAPBP	LAMAM	POAAN	STEME
Crop Code					
Rating Data Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	10/11/2010	10/11/2010	10/11/2010	10/11/2010	10/11/2010
Trt-Eval Interval	3 DA-A	3 DA-A	3 DA-A	3 DA-A	3 DA-A
# Subsamples, Dec.					

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A	6.3	0.0	0.0	0.0	0.0
1	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
2	Sharpen	2.85	L	1	fl oz/a	PRE	A	20.0	20.0	26.3	0.0	16.3
2	Roundup PowerMax	4.5	L	11	fl oz/a	PRE	A					
2	MSO		L	1	% v/v	PRE	A					
2	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
3	Sharpen	2.85	L	1	fl oz/a	PRE	A	31.3	22.5	26.3	2.5	27.5
3	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A					
3	MSO		L	1	% v/v	PRE	A					
3	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
4	Sharpen	2.85	L	2	fl oz/a	PRE	A	27.5	26.3	26.3	0.0	23.8
4	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A					
4	MSO		L	1	% v/v	PRE	A					
4	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
5	Sharpen	2.85	L	1	fl oz/a	PRE	A	27.5	27.5	28.8	2.5	28.8
5	Clarity	4	L	2	fl oz/a	PRE	A					
5	Roundup PowerMax	4.5	L	11	fl oz/a	PRE	A					
5	MSO		L	1	% v/v	PRE	A					
5	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
6	2,4-D Ester	3.8	L	16	fl oz/a	PRE	A	10.0	10.0	10.0	0.0	3.8
6	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A					
6	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
7	Untreated							0.0	0.0	0.0	0.0	0.0
LSD (P=.05)								8.04	2.34	5.62	3.62	6.07
Standard Deviation								5.41	1.57	3.78	2.44	4.08
CV								30.91	10.38	22.52	341.57	28.58

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Fall burndown treatments in no-till wheat

Trial ID: WT01-11 Study Dir.: Sprague, Powell
 Conducted: MSU Crops Adams Fld Investigator: Christy Sprague

Weed Code	TRZAX	THLAR	CAPBP	LAMAM	POAAN
Crop Code					
Rating Data Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	10/11/2010	10/15/2010	10/15/2010	10/15/2010	10/15/2010
Trt-Eval Interval	3 DA-A	7 DA-A	7 DA-A	7 DA-A	7 DA-A
# Subsamples, Dec.					

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	TRZAX	THLAR	CAPBP	LAMAM	POAAN
1	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A	0.0	16.3	26.3	12.5	0.0
1	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
2	Sharpen	2.85	L	1	fl oz/a	PRE	A	6.3	53.8	30.0	32.5	5.0
2	Roundup PowerMax	4.5	L	11	fl oz/a	PRE	A					
2	MSO		L	1	% v/v	PRE	A					
2	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
3	Sharpen	2.85	L	1	fl oz/a	PRE	A	6.3	60.0	32.5	28.8	10.0
3	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A					
3	MSO		L	1	% v/v	PRE	A					
3	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
4	Sharpen	2.85	L	2	fl oz/a	PRE	A	8.8	65.0	37.5	32.5	7.5
4	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A					
4	MSO		L	1	% v/v	PRE	A					
4	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
5	Sharpen	2.85	L	1	fl oz/a	PRE	A	10.0	61.3	38.8	28.8	8.8
5	Clarity	4	L	2	fl oz/a	PRE	A					
5	Roundup PowerMax	4.5	L	11	fl oz/a	PRE	A					
5	MSO		L	1	% v/v	PRE	A					
5	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
6	2,4-D Ester	3.8	L	16	fl oz/a	PRE	A	0.0	37.5	33.8	17.5	2.5
6	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A					
6	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
7	Untreated							0.0	0.0	0.0	0.0	0.0
LSD (P=.05)								3.56	12.97	6.10	6.26	5.79
Standard Deviation								2.40	8.73	4.11	4.21	3.90
CV								53.73	20.8	14.46	19.34	80.81

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Fall burndown treatments in no-till wheat

Trial ID: WT01-11 Study Dir.: Sprague, Powell
 Conducted: MSU Crops Adams Fld Investigator: Christy Sprague

Weed Code	STEME	TRZAX	STEME	THLAR	LAMAM
Crop Code					
Rating Data Type	control	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	10/15/2010	10/15/2010	10/21/2010	10/21/2010	10/21/2010
Trt-Eval Interval	7 DA-A	7 DA-A	13 DA-A	13 DA-A	13 DA-A
# Subsamples, Dec.					

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A	18.8	18.8	86.0	94.5	87.5
1	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
2	Sharpen	2.85	L	1	fl oz/a	PRE	A	30.0	27.5	88.8	93.5	85.0
2	Roundup PowerMax	4.5	L	11	fl oz/a	PRE	A					
2	MSO		L	1	% v/v	PRE	A					
2	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
3	Sharpen	2.85	L	1	fl oz/a	PRE	A	35.0	31.3	87.5	99.0	87.5
3	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A					
3	MSO		L	1	% v/v	PRE	A					
3	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
4	Sharpen	2.85	L	2	fl oz/a	PRE	A	36.3	33.8	88.8	99.0	86.3
4	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A					
4	MSO		L	1	% v/v	PRE	A					
4	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
5	Sharpen	2.85	L	1	fl oz/a	PRE	A	33.8	26.3	81.3	93.3	78.8
5	Clarity	4	L	2	fl oz/a	PRE	A					
5	Roundup PowerMax	4.5	L	11	fl oz/a	PRE	A					
5	MSO		L	1	% v/v	PRE	A					
5	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
6	2,4-D Ester	3.8	L	16	fl oz/a	PRE	A	17.5	20.0	88.8	98.0	90.0
6	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A					
6	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A					
7	Untreated							0.0	0.0	0.0	0.0	0.0
LSD (P=.05)								9.22	7.63	7.76	5.29	5.06
Standard Deviation								6.20	5.14	5.23	3.56	3.41
CV								25.36	22.83	7.02	4.32	4.63

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Fall burndown treatments in no-till wheat

Trial ID: WT01-11 Study Dir.: Sprague, Powell
Conducted: MSU Crops Adams Fld Investigator: Christy Sprague

Weed Code	CAPBP	POAAN	TRZAW	THLAR	STEME	CAPBP
Crop Code						
Rating Data Type	control	control	injury	control	control	control
Rating Unit	percent	percent	percent	percent	percent	percent
Rating Date	10/21/2010	10/21/2010	5/9/2011	5/9/2011	5/9/2011	5/9/2011
Trt-Eval Interval	13 DA-A	13 DA-A	213 DA-A	213 DA-A	213 DA-A	213 DA-A
# Subsamples, Dec.						

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code						
1	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A	98.0	85.0	5.0	89.3	78.8	86.3
1	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A						
2	Sharpen	2.85	L	1	fl oz/a	PRE	A	98.0	93.5	5.0	91.0	82.5	83.8
2	Roundup PowerMax	4.5	L	11	fl oz/a	PRE	A						
2	MSO		L	1	% v/v	PRE	A						
2	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A						
3	Sharpen	2.85	L	1	fl oz/a	PRE	A	99.0	91.3	2.5	91.0	83.8	82.5
3	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A						
3	MSO		L	1	% v/v	PRE	A						
3	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A						
4	Sharpen	2.85	L	2	fl oz/a	PRE	A	96.8	94.8	0.0	95.3	81.3	83.8
4	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A						
4	MSO		L	1	% v/v	PRE	A						
4	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A						
5	Sharpen	2.85	L	1	fl oz/a	PRE	A	98.0	91.3	0.0	90.0	77.5	76.3
5	Clarity	4	L	2	fl oz/a	PRE	A						
5	Roundup PowerMax	4.5	L	11	fl oz/a	PRE	A						
5	MSO		L	1	% v/v	PRE	A						
5	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A						
6	2,4-D Ester	3.8	L	16	fl oz/a	PRE	A	98.0	87.5	0.0	99.0	88.8	97.0
6	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A						
6	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A						
7	Untreated							0.0	0.0	0.0	0.0	0.0	0.0
LSD (P=.05)								3.42	6.10	7.07	6.82	11.69	9.01
Standard Deviation								2.30	4.11	4.76	4.59	7.87	6.06
CV								2.74	5.29	266.33	5.78	11.18	8.33

Means followed by same letter do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Fall burndown treatments in no-till wheat

Trial ID: WT01-11 Study Dir.: Sprague, Powell
 Conducted: MSU Crops Adams Fld Investigator: Christy Sprague

Weed Code	LAMAM		
Crop Code		TRZAW	TRZAW
Rating Data Type	control	moisture	yield
Rating Unit	percent	percent	bu/acre
Rating Date	5/9/2011	7/14/2011	7/14/2011
Trt-Eval Interval	213 DA-A	279 DA-A	279 DA-A
# Subsamples, Dec.			1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code			
1	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A	83.8	12.428	94.5
1	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A			
2	Sharpen	2.85	L	1	fl oz/a	PRE	A	77.5	12.498	96.4
2	Roundup PowerMax	4.5	L	11	fl oz/a	PRE	A			
2	MSO		L	1	% v/v	PRE	A			
2	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A			
3	Sharpen	2.85	L	1	fl oz/a	PRE	A	86.0	11.995	96.6
3	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A			
3	MSO		L	1	% v/v	PRE	A			
3	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A			
4	Sharpen	2.85	L	2	fl oz/a	PRE	A	88.5	12.085	102.8
4	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A			
4	MSO		L	1	% v/v	PRE	A			
4	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A			
5	Sharpen	2.85	L	1	fl oz/a	PRE	A	77.5	12.168	100.2
5	Clarity	4	L	2	fl oz/a	PRE	A			
5	Roundup PowerMax	4.5	L	11	fl oz/a	PRE	A			
5	MSO		L	1	% v/v	PRE	A			
5	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A			
6	2,4-D Ester	3.8	L	16	fl oz/a	PRE	A	95.8	12.428	98.9
6	Roundup PowerMax	4.5	L	22	fl oz/a	PRE	A			
6	Ammonium Sulfate		DF	17	lb/100 gal	PRE	A			
7	Untreated							0.0	12.603	26.7
LSD (P=.05)								9.17	1.0315	9.93
Standard Deviation								6.18	0.6913	6.65
CV								8.49	5.61	7.56

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

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.