

MSU Soil Fertility Research Program

RESPONSE OF WINTER WHEAT TO PHOSPHORUS AND POTASSIUM APPLICATIONS, 2014-2015

Trial ID: WHT03-14.15 Location: CAMPUS Trial Year: 2014

Investigator: Kurt Steinke

Project ID: MOASP

Crop Code	TRZAW							
Crop Name	Winter wheat							
Crop Variety	Red Dragon							
Description	yield							
Rating Date	Jul-16-2015							
Rating Type	YIELD							
Rating Unit	BU							
Crop Stage Scale	HARVEST							
ARM Action Codes	TY1							
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	
1								5
								79.7 c
2	Urea 46-0-0	46	GR	24 lb ai/a	52 lb/a		FALL	105.3 b
	Urea 46-0-0	46	GR	90 lb ai/a	196 lb/a		SPRNG	
3	MAP 11-52-0	52	GR	60 lb ai/a	115 lb/a		FALL	111.9 ab
	Urea 46-0-0	46	GR	11 lb ai/a	24 lb/a		FALL	
	Urea 46-0-0	46	GR	90 lb ai/a	196 lb/a		SPRNG	
4	MAP 11-52-0	52	GR	60 lb ai/a	115 lb/a		FALL	110.8 ab
	MOP Mosaic	60	GR	60 lb ai/a	100 lb/a		FALL	
	Urea 46-0-0	46	GR	11 lb ai/a	24 lb/a		FALL	
	Urea 46-0-0	46	GR	90 lb ai/a	196 lb/a		SPRNG	
5	MAP 11-52-0	52	GR	60 lb ai/a	115 lb/a		FALL	116.6 ab
	Aspire	58	GR	60 lb ai/a	103 lb/a		FALL	
	Urea 46-0-0	46	GR	11 lb ai/a	24 lb/a		FALL	
	Urea 46-0-0	46	GR	90 lb ai/a	196 lb/a		SPRNG	
6	MESZ	40	GR	60 lb ai/a	150 lb/a		FALL	109.5 ab
	Urea 46-0-0	46	GR	6 lb ai/a	13 lb/a		FALL	
	Urea 46-0-0	46	GR	90 lb ai/a	196 lb/a		SPRNG	
7	MESZ	40	GR	60 lb ai/a	150 lb/a		FALL	117.9 a
	MOP Mosaic	60	GR	60 lb ai/a	100 lb/a		FALL	
	Urea 46-0-0	46	GR	6 lb ai/a	13 lb/a		FALL	
	Urea 46-0-0	46	GR	90 lb ai/a	196 lb/a		SPRNG	
8	MESZ	40	GR	60 lb ai/a	150 lb/a		FALL	118.4 a
	Aspire	58	GR	60 lb ai/a	103 lb/a		FALL	
	Urea 46-0-0	46	GR	6 lb ai/a	13 lb/a		FALL	
	Urea 46-0-0	46	GR	90 lb ai/a	196 lb/a		SPRNG	
9	MES10	40	GR	60 lb ai/a	150 lb/a		FALL	116.1 ab
	Urea 46-0-0	46	GR	6 lb ai/a	13 lb/a		FALL	
	Urea 46-0-0	46	GR	90 lb ai/a	196 lb/a		SPRNG	
10	MES15	33	GR	60 lb ai/a	182 lb/a		FALL	110.9 ab
	Urea 46-0-0	46	GR	90 lb ai/a	196 lb/a		SPRNG	
11	EXP40	40	GR	60 lb ai/a	150 lb/a		FALL	121.1 a
	Urea 46-0-0	46	GR	6 lb ai/a	13 lb/a		FALL	
	Urea 46-0-0	46	GR	90 lb ai/a	196 lb/a		SPRNG	
LSD P=.10							12.17	
Standard Deviation							10.14	
CV							9.16	
Bartlett's X2							11.306	
P(Bartlett's X2)							0.334	
Skewness							-1.1694*	
Kurtosis							1.2313	

Means followed by same letter do not significantly differ (P=.10, LSD)

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

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Randomized Complete Block (RCB) AOV For TRZAW Winter wheat Red Dragon yield Jul-16-2015 YIELD BU HARVEST TY1 (Data Column 5)					
Source	DF	Sum of Squares	Mean Square	F	Prob(F)
Total	43	9235.636784			
Replicate	3	1034.337866	344.779289	3.351	0.0319
Treatment	10	5114.864852	511.486485	4.972	0.0003
Error	30	3086.434066	102.881136		

Crop Code

TRZAW, BCER, Triticum aestivum (winter), = US

Rating Type

YIELD = yield

Rating Unit

BU = bushel

ARM Action Codes

TY1 =  $8.642858^{[4]} \cdot (100 - [2]) / 86.5$