

MSU Soil Fertility Research Program
 EVALUATION OF THE RESPONSE OF POTATO TO VARIOUS K AND P SOURCES
 Trial ID: PMRF02-17 Location: MRF Trial Year: 2017
 Investigator: Kurt Steinke

Project ID: MOPO

Crop Code Crop Name Crop Variety Description Rating Date						SOLTU Potato FL 2137 harvest Sep-11-2017	SOLTU Potato FL 2137 harvest Sep-11-2017	SOLTU Potato FL 2137 harvest Sep-11-2017	SOLTU Potato FL 2137 harvest Sep-11-2017
Rating Type Rating Unit ARM Action Codes Number of Decimals						< 1 7/8" count 0	>3 1/4" count AL 0	Grade A count 0	YIELD B'S CWT TY1 0
Trt No.	Treatment Name	Form Type	Rate Rate Unit	Other Other Rate Rate Unit	Growth Stage	2	4	8	11
1	Check					29 a	0 c	137 b	29 a
	Urea 46-0-0	GR	30 lb ai/a	65 lb/a	APBAND				
	GYP SUM	GR	500 lb/a	500 lb/a	PPI				
	AS (21-0-0)-N	GR	80 lb ai/a	380 lb/a	EMBAND				
	Urea 46-0-0	GR	60 lb ai/a	130 lb/a	BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a	7-10DAH				
2	MAP 11-52-0	GR	80 lb ai/a	154 lb/a	APBAND	35 a	0 c	141 b	36 a
	Urea 46-0-0	GR	13 lb ai/a	28.3 lb/a	APBAND				
	GYP SUM	GR	500 lb/a	500 lb/a	PPI				
	AS (21-0-0)-N	GR	80 lb ai/a	380 lb/a	EMBAND				
	Urea 46-0-0	GR	60 lb ai/a	130 lb/a	BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a	7-10DAH				
3	MAP 11-52-0	GR	80 lb ai/a	154 lb/a	APBAND	35 a	5 ab	145 b	30 a
	MOP 0-0-62	GR	190 lb ai/a	306 lb/a	PPI				
	GYP SUM	GR	500 lb/a	500 lb/a	PPI				
	MOP 0-0-62	GR	50 lb ai/a	81 lb/a	APBAND				
	MOP 0-0-62	GR	60 lb ai/a	97 lb/a	BHILL				
	Urea 46-0-0	GR	13 lb ai/a	28.3 lb/a	APBAND				
	AS (21-0-0)-N	GR	80 lb ai/a	380 lb/a	EMBAND				
	Urea 46-0-0	GR	60 lb ai/a	130 lb/a	BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a	7-10DAH				
4	MAP 11-52-0	GR	80 lb ai/a	154 lb/a	APBAND	28 a	3 b	159 a	26 a
	Aspire	GR	190 lb ai/a	328 lb/a	PPI				
	GYP SUM	GR	500 lb/a	500 lb/a	PPI				
	Aspire	GR	50 lb ai/a	86 lb/a	APBAND				
	Aspire	GR	60 lb ai/a	103 lb/a	BHILL				
	Urea 46-0-0	GR	13 lb ai/a	28.3 lb/a	APBAND				
	AS (21-0-0)-N	GR	80 lb ai/a	380 lb/a	EMBAND				
	Urea 46-0-0	GR	60 lb ai/a	130 lb/a	BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a	7-10DAH				
5	MES10	GR	80 lb ai/a	200 lb/a	APBAND	29 a	6 a	140 b	25 a
	MOP 0-0-62	GR	190 lb ai/a	306 lb/a	PPI				
	GYP SUM	GR	500 lb/a	500 lb/a	PPI				
	MOP 0-0-62	GR	50 lb ai/a	81 lb/a	APBAND				
	MOP 0-0-62	GR	60 lb ai/a	97 lb/a	BHILL				
	Urea 46-0-0	GR	6 lb ai/a	13 lb/a	APBAND				
	AS (21-0-0)-N	GR	80 lb ai/a	380 lb/a	EMBAND				
	Urea 46-0-0	GR	60 lb ai/a	130 lb/a	BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a	7-10DAH				

Means followed by same letter or symbol do not significantly differ (P=.10, LSD)
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Missing data estimates are included in columns: Yates=4,8,11,12,13,14,15

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Crop Code						SOLTU	SOLTU	SOLTU	SOLTU	
Crop Name						Potato	Potato	Potato	Potato	
Crop Variety						FL 2137	FL 2137	FL 2137	FL 2137	
Description						harvest	harvest	harvest	harvest	
Rating Date						Sep-11-2017	Sep-11-2017	Sep-11-2017	Sep-11-2017	
Rating Type						< 1 7/8"	>3 1/4"	Grade A	YIELD B'S	
Rating Unit						count	count	count	CWT	
ARM Action Codes							AL		TY1	
Number of Decimals						0	0	0	0	
Trt No.	Treatment Name	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	2	4	8	11
6	MES10	GR	80 lb ai/a	200 lb/a		APBAND	39 a	3 ab	144 b	32 a
	Aspire	GR	190 lb ai/a	328 lb/a		PPI				
	GYPSUM	GR	500 lb/a	500 lb/a		PPI				
	Aspire	GR	50 lb ai/a	86 lb/a		APBAND				
	Urea 46-0-0	GR	6 lb ai/a	13 lb/a		APBAND				
	Aspire	GR	60 lb ai/a	103 lb/a		BHILL				
	AS (21-0-0)-N	GR	80 lb ai/a	380 lb/a		EMBAND				
	Urea 46-0-0	GR	60 lb ai/a	130 lb/a		BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a		7-10DAH				
LSD P=.10						8.6	0.8 - 2.5	12.0	9.1	
Standard Deviation						6.9	0.2t	9.6	7.3	
CV						21.35	34.36t	6.66	24.52	
Replicate F						2.577	3.252	1.836	1.388	
Replicate Prob(F)						0.0925	0.0566	0.1904	0.2876	
Treatment F						1.655	17.055	2.650	1.252	
Treatment Prob(F)						0.2060	0.0001	0.0728	0.3376	

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Crop Variety						FL 2137	FL 2137	FL 2137	FL 2137	
Description						harvest	harvest	harvest	harvest	
Rating Date						Sep-11-2017	Sep-11-2017	Sep-11-2017	Sep-11-2017	
Rating Type						YIELD OS	YIELD A'S	Total Yield	spec gravit	
Rating Unit						CWT	CWT	CWT		
ARM Action Codes						TY2	TY3	T4	ET3 T5	
Number of Decimals						0	0	0	2	
Trt No.	Treatment Name	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage				
							12	13	14	
1	Check						0 d	333 d	362 d	1.09 a
	Urea 46-0-0	GR	30 lb ai/a	65 lb/a		APBAND				
	GYP SUM	GR	500 lb/a	500 lb/a		PPI				
	AS (21-0-0)-N	GR	80 lb ai/a	380 lb/a		EMBAND				
	Urea 46-0-0	GR	60 lb ai/a	130 lb/a		BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a		7-10DAH				
2	MAP 11-52-0	GR	80 lb ai/a	154 lb/a		APBAND	3 d	338 cd	378 cd	1.10 a
	Urea 46-0-0	GR	13 lb ai/a	28.3 lb/a		APBAND				
	GYP SUM	GR	500 lb/a	500 lb/a		PPI				
	AS (21-0-0)-N	GR	80 lb ai/a	380 lb/a		EMBAND				
	Urea 46-0-0	GR	60 lb ai/a	130 lb/a		BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a		7-10DAH				
3	MAP 11-52-0	GR	80 lb ai/a	154 lb/a		APBAND	34 ab	341 cd	405 bc	1.07
	MOP 0-0-62	GR	190 lb ai/a	306 lb/a		PPI				
	GYP SUM	GR	500 lb/a	500 lb/a		PPI				
	MOP 0-0-62	GR	50 lb ai/a	81 lb/a		APBAND				
	MOP 0-0-62	GR	60 lb ai/a	97 lb/a		BHILL				
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	Urea 46-0-0	GR	60 lb ai/a	130 lb/a		BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a		7-10DAH				
4	MAP 11-52-0	GR	80 lb ai/a	154 lb/a		APBAND	18 c	419 a	464 a	1.08 b
	Aspire	GR	190 lb ai/a	328 lb/a		PPI				
	GYP SUM	GR	500 lb/a	500 lb/a		PPI				
	Aspire	GR	50 lb ai/a	86 lb/a		APBAND				
	Aspire	GR	60 lb ai/a	103 lb/a		BHILL				
	Urea 46-0-0	GR	13 lb ai/a	28.3 lb/a		APBAND				
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	Urea 46-0-0	GR	60 lb ai/a	130 lb/a		BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a		7-10DAH				
5	MES10	GR	80 lb ai/a	200 lb/a		APBAND	37 a	377 bc	439 ab	1.08 b
	MOP 0-0-62	GR	190 lb ai/a	306 lb/a		PPI				
	GYP SUM	GR	500 lb/a	500 lb/a		PPI				
	MOP 0-0-62	GR	50 lb ai/a	81 lb/a		APBAND				
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Rating Date						Sep-11-2017	Sep-11-2017	Sep-11-2017	Sep-11-2017	
Rating Type						YIELD OS	YIELD A'S	Total Yield	spec gravit	
Rating Unit						CWT	CWT	CWT	CWT	
ARM Action Codes						TY2	TY3	T4	ET3 T5	
Number of Decimals						0	0	0	2	
Trt No.	Treatment Name	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	12	13	14	15
6	MES10	GR	80 lb ai/a	200 lb/a		APBAND	23 bc	382 ab	437 ab	1.08 b
	Aspire	GR	190 lb ai/a	328 lb/a		PPI				
	GYP SUM	GR	500 lb/a	500 lb/a		PPI				
	Aspire	GR	50 lb ai/a	86 lb/a		APBAND				
	Urea 46-0-0	GR	6 lb ai/a	13 lb/a		APBAND				
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	Urea 46-0-0	GR	60 lb ai/a	130 lb/a		BHILL				
	28% Nitrogen	AL	55 lb ai/a	18.3 gal/a		7-10DAH				
LSD P=.10						13.6	40.1	41.2	0.005	
Standard Deviation						10.9	32.0	32.9	0.004	
CV						56.95	8.76	7.95	0.38	
Replicate F						1.470	0.393	0.395	0.342	
Replicate Prob(F)						0.2686	0.7603	0.7589	0.7958	
Treatment F						7.874	4.412	5.701	10.120	
Treatment Prob(F)						0.0013	0.0144	0.0053	0.0011	

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Crop Code

SOLTU, BPOT, Solanum tuberosum, Potato = US

Rating Unit

CWT = hundredweight (u.s.=100 lb)

ARM Action Codes

AL = Automatic log transformation of X+1

ET3 = Excluded treatment 3

TY1 = 16.14204*[1]

TY2 = 16.14204*[3]

TY3 = 16.14204*[7]

T4 = [C11]+[C12]+[C13]

T5 = [C10]/([C10]-[C9])