

MSU Soil Fertility Research Program

EFFECT OF POTATO TO NUTRIENT PLACEMENT AND TIMING.

Trial ID: PMRF01-14 Location: MRF Trial Year: 2014

Investigator: Kurt Steinke

Project ID: OMISSION

Crop Code Crop Name Crop Variety Description Rating Date Rating Type Rating Unit ARM Action Codes							SOLTU Potato FL 2137 harvest Sep-17-2014 YIELD/B'S CWT TY1	SOLTU Potato FL 2137 harvest Sep-17-2014 YIELD/OS CWT AL TY2	SOLTU Potato FL 2137 harvest Sep-17-2014 YIELD/A'S CWT TY3	SOLTU Potato FL 2137 harvest Sep-17-2014 Total Yield CWT T4	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Other Rate	Other Rate	Growth Unit Stage	67	68	69	70
1	MAP 11-52-0 K2O 0-0-62 K-Mag AS (21-0-0)-N Urea 46-0-0	52 GR 62 GR 22 GR 21 GR 46 GR	GR GR GR GR GR	120 lb ai/a 100 lb ai/a 250 lb/a 83 lb ai/a 167 lb ai/a	230 lb/a 161 lb/a 250 lb/a 395 lb/a 363 lb/a		APBAND APBAND PPI EMBAND BHILL	10.8 a	51.6 a	249.9 a	316.2 a
2	MAP 11-52-0 K2O 0-0-62 K2O 0-0-62 K-Mag AS (21-0-0)-N Urea 46-0-0	52 GR 62 GR 62 GR 22 GR 21 GR 46 GR	GR GR GR GR GR GR	120 lb ai/a 100 lb ai/a 195 lb ai/a 250 lb/a 83 lb ai/a 167 lb ai/a	230 lb/a 161 lb/a 315 lb/a 250 lb/a 395 lb/a 363 lb/a		APBAND APBAND PPI PPI EMBAND BHILL	14.9 a	31.4 a	215.7 a	263.6 a
3	MAP 11-52-0 K2O 0-0-62 GYPSUM K-Mag AS (21-0-0)-N Urea 46-0-0	52 GR 62 GR 16 GR 22 GR 21 GR 46 GR	GR GR GR GR GR GR	120 lb ai/a 100 lb ai/a 1000 lb/a 250 lb/a 83 lb ai/a 167 lb ai/a	230 lb/a 161 lb/a 1000 lb/a 250 lb/a 395 lb/a 363 lb/a		APBAND APBAND PPI PPI EMBAND BHILL	10.5 a	52.3 a	226.9 a	290.9 a
4	MAP 11-52-0 K2O 0-0-62 TSP-PHOS K-Mag AS (21-0-0)-N Urea 46-0-0	52 GR 62 GR 45 GR 22 GR 21 GR 46 GR	GR GR GR GR GR GR	120 lb ai/a 100 lb ai/a 60 lb ai/a 250 lb/a 83 lb ai/a 167 lb ai/a	230 lb/a 161 lb/a 133 lb/a 250 lb/a 395 lb/a 363 lb/a		APBAND APBAND APBAND PPI EMBAND BHILL	12.6 a	61.5 a	263.7 a	341.6 a
5	MAP 11-52-0 K2O 0-0-62 K2O 0-0-62 GYPSUM K-Mag AS (21-0-0)-N Urea 46-0-0	52 GR 62 GR 62 GR 16 GR 22 GR 21 GR 46 GR	GR GR GR GR GR GR GR	120 lb ai/a 100 lb ai/a 195 lb ai/a 1000 lb/a 250 lb/a 83 lb ai/a 167 lb ai/a	230 lb/a 161 lb/a 315 lb/a 1000 lb/a 250 lb/a 395 lb/a 363 lb/a		APBAND APBAND PPI PPI PPI EMBAND BHILL	8.6 a	74.9 a	242.3 a	330.1 a
6	MAP 11-52-0 K2O 0-0-62 K2O 0-0-62 TSP-PHOS K-Mag AS (21-0-0)-N Urea 46-0-0	52 GR 62 GR 62 GR 45 GR 22 GR 21 GR 46 GR	GR GR GR GR GR GR GR	120 lb ai/a 100 lb ai/a 195 lb ai/a 60 lb ai/a 250 lb/a 83 lb ai/a 167 lb ai/a	230 lb/a 161 lb/a 315 lb/a 133 lb/a 250 lb/a 395 lb/a 363 lb/a		APBAND APBAND PPI APBAND PPI EMBAND BHILL	11.1 a	58.9 a	217.6 a	292.0 a
7	MAP 11-52-0 K2O 0-0-62 TSP-PHOS GYPSUM K-Mag AS (21-0-0)-N Urea 46-0-0	52 GR 62 GR 45 GR 16 GR 22 GR 21 GR 46 GR	GR GR GR GR GR GR GR	120 lb ai/a 100 lb ai/a 60 lb ai/a 1000 lb/a 250 lb/a 83 lb ai/a 167 lb ai/a	230 lb/a 161 lb/a 133 lb/a 1000 lb/a 250 lb/a 395 lb/a 363 lb/a		APBAND APBAND APBAND PPI PPI EMBAND BHILL	8.4 a	67.6 a	230.8 a	316.9 a

Means followed by same letter 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.

MSU Soil Fertility Research Program

EFFECT OF POTATO TO NUTRIENT PLACEMENT AND TIMING.

Trial ID: PMRF01-14 Location: MRF Trial Year: 2014
 Investigator: Kurt Steinke
 Project ID: OMISSION

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-17-2014	Sep-17-2014	Sep-17-2014	Sep-17-2014	
Rating Type							YIELD/B'S	YIELD/OS	YIELD/A'S	Total Yield	
Rating Unit							CWT	CWT	CWT	CWT	
ARM Action Codes							TY1	AL TY2	TY3	T4	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Other Rate	Other Rate	Growth Stage	67	68	69	70
8	MAP 11-52-0	52	GR	120 lb ai/a	230 lb/a		APBAND	9.8 a	61.1 a	234.1 a	308.0 a
	K2O 0-0-62	62	GR	100 lb ai/a	161 lb/a		APBAND				
	K2O 0-0-62	62	GR	195 lb ai/a	315 lb/a		PPI				
	TSP-PHOS	45	GR	60 lb ai/a	133 lb/a		APBAND				
	GYP SUM	16	GR	1000 lb/a	1000 lb/a		PPI				
	K-Mag	22	GR	250 lb/a	250 lb/a		PPI				
	AS (21-0-0)-N	21	GR	83 lb ai/a	395 lb/a		EMBAND				
	Urea 46-0-0	46	GR	167 lb ai/a	363 lb/a		BHILL				
LSD (P=.10)							4.02	0.22t	37.55	47.85	
Standard Deviation							3.31	0.18t	30.86	39.32	
CV							30.53	10.18	13.12	12.79	
Bartlett's X2							5.528	2.291	7.193	3.573	
P(Bartlett's X2)							0.596	0.942	0.409	0.827	
Skewness							0.512	0.0197	-0.5366	-0.544	
Kurtosis							-0.6239	-0.4037	0.3042	0.5664	
Replicate F							1.409	1.143	0.224	0.435	
Replicate Prob(F)							0.2680	0.3548	0.8784	0.7305	
Treatment F							1.690	1.571	1.116	1.583	
Treatment Prob(F)							0.1658	0.1987	0.3900	0.1950	

Crop Code

SOLTU, BPOT, Solanum tuberosum, = US

Rating Unit

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

ARM Action Codes

AL = Automatic log transformation of X+1

TY1 = 7.329632*[C54]

TY2 = LOG([68]+ 1)

TY3 = 7.329632*[C60]

T4 = [C67]+[C68]+[C69]