

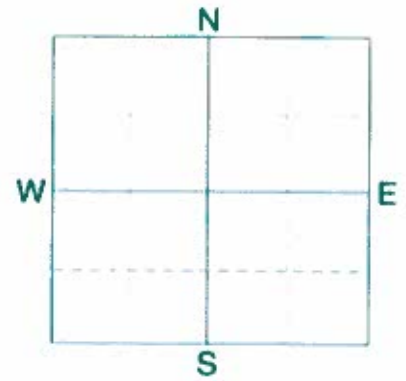
T2 2021



Soil Analysis by Agvise Laboratories  
 (http://www.agvise.com)  
 Northwood: (701) 587-6010  
 Benson: (320) 843-4109

**SOIL TEST REPORT**

FIELD ID **MJO-T 01-1**  
 SAMPLE ID **R/O/Y HILLS**  
 FIELD NAME **KRAEMER 01**  
 COUNTY **BARNES**  
 TWP **THORDENSKJOLD RANGE**  
 SECTION **1** QTR **SW** ACRES **132.7**  
 PREV. CROP **Soybeans**



SUBMITTED FOR:

SUBMITTED BY: **OL0549**

REF # **3416435** BOX # **3963**  
 LAB # **NW117378**

Date Sampled

Date Received **09/27/2021**

Date Reported **09/29/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice		
		Low	Med	High								
Nitrate	0-6"	10 lb/acre			Corn-Grain		Corn-Grain		Wheat-Spring			
	6-24"	18 lb/acre			YIELD GOAL		YIELD GOAL		YIELD GOAL			
					180 BU		200 BU		80 BU			
	0-24"	28 lb/acre			SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
Olsen	3 ppm			Control		Control		Control				
Phosphorus				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Potassium	150 ppm			N	145	N	155	N	145			
Chloride	0-24"	20 lb/acre			P <sub>2</sub> O <sub>5</sub>	105 Broadcast	P <sub>2</sub> O <sub>5</sub>	120 Broadcast	P <sub>2</sub> O <sub>5</sub>	85 Broadcast		
Sulfur	0-6"	30 lb/acre			K <sub>2</sub> O	55 Broadcast	K <sub>2</sub> O	65 Broadcast	K <sub>2</sub> O	10 Broadcast		
Boron	6-24"	54 lb/acre			Cl	Not Available	Cl	Not Available	Cl	20 Broadcast		
Zinc		0.4 ppm			S	10 Broadcast	S	10 Broadcast	S	10 Broadcast		
Iron		0.28 ppm			B	1 Broadcast	B	1 Broadcast	B	1 Broadcast		
Manganese		12.1 ppm			Zn	6 Broadcast	Zn	6 Broadcast	Zn	0		
Copper		2.7 ppm			Fe	0	Fe	0	Fe	0		
Magnesium		0.52 ppm			Mn	0	Mn	0	Mn	0		
Calcium		420 ppm			Cu	0	Cu	0	Cu	2 Broadcast (Trial)		
Sodium		4249 ppm			Mg	0	Mg	0	Mg	0		
Org.Matter		18 ppm			Lime		Lime		Lime			
Carbonate(CCE)		2.5 %			Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
Sol. Salts	0-6"	0.31 mmho/cm			0-6"	7.8	25.2 meq	% Ca	% Mg	% K	% Na	% H
	6-24"	0.26 mmho/cm			6-24"	8.3		84.3	13.9	1.5	0.3	0.0

General Comments: Soil texture is not estimated on high pH soils.  
 Crop 1: Limited data on crop response to chloride. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41  
 Crop 2: Limited data on crop response to chloride. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46  
 Crop 3: 44 lb potassium chloride (0-0-60-50Cl) = 20 lb chloride. Previous crop nitrogen credit: 20.1 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 50 K2O = 30

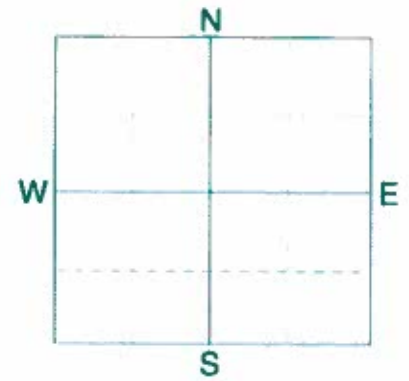
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**SOIL TEST REPORT**

FIELD ID **MJO-T 01-1**  
 SAMPLE ID **BLUE SALT**  
 FIELD NAME **KRAEMER 01**  
 COUNTY **BARNES**  
 TWP **THORDENSKJOLD RANGE**  
 SECTION **1** QTR **SW** ACRES **132.7**  
 PREV. CROP **Soybeans**



SUBMITTED FOR:

SUBMITTED BY: **OL0549**

REF # **3416436** BOX # **3948**  
 LAB # **NW117379**

Date Sampled \_\_\_\_\_ Date Received **09/27/2021** Date Reported **09/29/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		Low	Med	High	Corn-Grain			Corn-Grain			Wheat-Spring			
Nitrate	0-6"	15 lb/acre				YIELD GOAL			YIELD GOAL			YIELD GOAL		
	6-24"					30 lb/acre	180 BU	200 BU	80 BU					
	0-24"	45 lb/acre				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
						Control			Control			Control		
						LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
	Olsen	6 ppm				N	125		N	140		N	130	
Phosphorus						P <sub>2</sub> O <sub>5</sub>	85	Broadcast	P <sub>2</sub> O <sub>5</sub>	95	Broadcast	P <sub>2</sub> O <sub>5</sub>	70	Broadcast
Potassium		179 ppm				K <sub>2</sub> O	30	Broadcast	K <sub>2</sub> O	35	Broadcast	K <sub>2</sub> O	10	Broadcast
Chloride	0-24"	232 lb/acre				Cl		Not Available	Cl		Not Available	Cl	0	
Sulfur	0-6"	120 +lb/acre				S	0		S	0		S	0	
Boron	6-24"	360 +lb/acre				B	0		B	0		B	0	
		1.5 ppm				Zn	4	Broadcast	Zn	4	Broadcast	Zn	0	
Zinc		0.70 ppm				Fe	0		Fe	0		Fe	0	
Iron		14.2 ppm				Mn	0		Mn	0		Mn	0	
Manganese		2.2 ppm				Cu	0		Cu	0		Cu	0	
Copper		1.04 ppm				Mg	0		Mg	0		Mg	0	
Magnesium		1713 ppm				Lime			Lime			Lime		
Calcium		5107 ppm				Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)					
Sodium		345 ppm							% Ca	% Mg	% K	% Na	% H	
Org.Matter		3.7 %				0-6" 7.9		41.8 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)	
Carbonate(CCE)		4.3 %				6-24" 8.2			61.1	34.2	1.1	3.6	0.0	
Sol. Salts	0-6"	3.1 mmho/cm												
	6-24"	3.35 mmho/cm												

General Comments: Soil texture is not estimated on high pH soils.

Crop 1: Limited data on crop response to chloride. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield; extra nitrogen suggested for some crops. Crop nutrient removal: P2O5 = 67 K2O = 41

Crop 2: Limited data on crop response to chloride. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield; extra nitrogen suggested for some crops. Crop nutrient removal: P2O5 = 74 K2O = 46

Crop 3: Previous crop nitrogen credit: 20.1 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield; extra nitrogen suggested for some crops. Crop nutrient removal: P2O5 = 50 K2O = 30

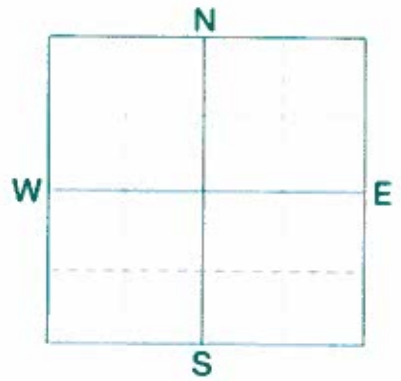
7/2 2021



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### SOIL TEST REPORT

FIELD ID **MJO-T 01-1**  
 SAMPLE ID **GREENS**  
 FIELD NAME **KRAEMER 01**  
 COUNTY **BARNES**  
 TWP **THORDENSKJOLD RANGE**  
 SECTION **1** QTR **SW** ACRES **132.7**  
 PREV. CROP **Soybeans**



SUBMITTED FOR:

58027

SUBMITTED BY: **OL0549**

REF # **3416437** BOX # **3753**  
 LAB # **NW117380**

Date Sampled

Date Received **09/27/2021**

Date Reported **09/28/2021**

Nutrient In The Soil		Interpretation Low Med High	1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
				Corn-Grain		Corn-Grain		Wheat-Spring		
			YIELD GOAL		YIELD GOAL		YIELD GOAL			
			180 BU		200 BU		80 BU			
			SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
			Control		Control		Control			
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
			N 150		N 165		N 155			
			P <sub>2</sub> O <sub>5</sub> 85	Broadcast	P <sub>2</sub> O <sub>5</sub> 95	Broadcast	P <sub>2</sub> O <sub>5</sub> 70	Broadcast		
			K <sub>2</sub> O 0		K <sub>2</sub> O 0		K <sub>2</sub> O 0			
			Cl	Not Available	Cl	Not Available	Cl	0		
			S 0		S 0		S 0			
			B 0		B 0		B 0			
			Zn 4	Broadcast	Zn 4	Broadcast	Zn 0			
			Fe 0		Fe 0		Fe 0			
			Mn 0		Mn 0		Mn 0			
			Cu 0		Cu 0		Cu 0			
			Mg 0		Mg 0		Mg 0			
			Lime 0		Lime 0		Lime 0			
			Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
						% Ca	% Mg	% K	% Na	% H
			0-6" 6.6		24.1 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
			6-24" 7.6			61.2	29.4	2.4	0.9	6.1

**General Comments:** Medium-textured (CEC: 11-30 meq)  
 Percent hydrogen is estimated from water pH, CEC corrected for exchangeable acidity.

**Crop 1:** Limited data on crop response to chloride. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

**Crop 2:** Limited data on crop response to chloride. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

**Crop 3:** Previous crop nitrogen credit: 20.1 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 50 K2O = 30