

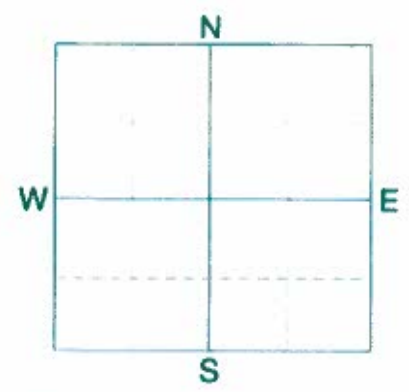
T1 2021



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

SOIL TEST REPORT

FIELD ID **MJO-T 02-1**
 SAMPLE ID **YLW/LT GRNS**
 FIELD NAME **KRAEMER 02**
 COUNTY **BARNES**
 TWP **THORDENSKJOLD RANGE**
 SECTION **2** QTR **SE** ACRES **149.8**
 PREV. CROP **Soybeans**



SUBMITTED FOR:

SUBMITTED BY: OL0549

REF # **3416439** BOX # **3948**
 LAB # **NW117382**

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			
		VLow	Low	Med	High								
Nitrate	0-6" 14 lb/acre					Corn-Grain	Corn-Grain		Wheat-Spring				
	6-24" 9 lb/acre	*****				YIELD GOAL	YIELD GOAL		YIELD GOAL				
	0-24" 23 lb/acre					180 BU	200 BU		80 BU				
Phosphorus	Olsen 8 ppm	*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
	Potassium 400 ppm	*****				Control	Control		Control				
Chloride	0-24" 268 lb/acre	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
	0-6" 80 lb/acre	*****				N	150	N	160	N	150		
Sulfur	6-24" 360 +lb/acre	*****				P ₂ O ₅	75 Broadcast	P ₂ O ₅	80 Broadcast	P ₂ O ₅	65 Broadcast		
	Boron 0.6 ppm	*****				K ₂ O	0	K ₂ O	0	K ₂ O	0		
Zinc	0.89 ppm	*****				Cl	Not Available	Cl	Not Available	Cl	0		
	Iron 50.6 ppm	*****				S	0	S	0	S	0		
Manganese	9.4 ppm	*****				B	0	B	0	B	0		
	Copper 1.2 ppm	*****				Zn	4 Broadcast	Zn	4 Broadcast	Zn	0		
Magnesium	1033 ppm	*****				Fe	0	Fe	0	Fe	0		
	Calcium 3886 ppm	*****				Mn	0	Mn	0	Mn	0		
Sodium	50 ppm	*****				Cu	0	Cu	0	Cu	0		
	Org.Matter 5.2 %	*****				Mg	0	Mg	0	Mg	0		
Carbonate(CCE)	0.9 %	*****				Lime		Lime		Lime			
	0-6" 0.54 mmho/cm	*****				Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
Sol. Salts	6-24" 0.78 mmho/cm	*****				0-6" 7.2		29.4 meq	% Ca	% Mg	% K	% Na	% H
						6-24" 7.9			66.1	29.3	3.5	0.7	0.4

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

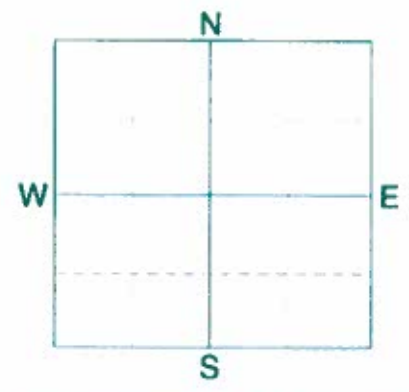
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SOIL TEST REPORT

FIELD ID **MJO-T 02-1**
 SAMPLE ID **R/O SALTY**
 FIELD NAME **KRAEMER 02**
 COUNTY **BARNES**
 TWP **THORDENSKJOLD RANGE**
 SECTION **2** QTR **SE** ACRES **149.8**
 PREV. CROP **Soybeans**



SUBMITTED FOR:

SUBMITTED BY: **OL0549**

REF # **3416438** BOX # **3963**
 LAB # **NW117381**

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"	37 lb/acre			YIELD GOAL			YIELD GOAL			YIELD GOAL			
	6-24"	42 lb/acre			180 BU			200 BU			80 BU			
	0-24"	79 lb/acre			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			
Olsen		27 ppm			Control			Control			Control			
Phosphorus		348 ppm			LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		
Potassium		348 ppm			N	90		N	105		N	95		
Chloride	0-24"	1480 lb/acre			P ₂ O ₅	20	Broadcast	P ₂ O ₅	20	Broadcast	P ₂ O ₅	0		
	0-6"	120 +lb/acre			K ₂ O	0		K ₂ O	0		K ₂ O	0		
Sulfur	6-24"	360 +lb/acre			Cl	Not Available		Cl	Not Available		Cl	0		
Boron		1.2 ppm			S	0		S	0		S	0		
Zinc		1.48 ppm			B	0		B	0		B	0		
Iron		44.9 ppm			Zn	2	Broadcast	Zn	2	Broadcast	Zn	0		
Manganese		6.8 ppm			Fe	0		Fe	0		Fe	0		
Copper		1.32 ppm			Mn	0		Mn	0		Mn	0		
Magnesium		2039 ppm			Cu	0		Cu	0		Cu	0		
Calcium		2861 ppm			Mg	0		Mg	0		Mg	0		
Sodium		792 ppm			Lime	0		Lime	0		Lime	0		
Org.Matter		5.8 %			Soil pH			% Base Saturation (Typical Range)						
Carbonate(CCE)		0.3 %			Buffer pH	Cation Exchange Capacity		% Ca	% Mg	% K	% Na	% H		
Sol. Salts	0-6"	2.74 mmho/cm			0-6"	6.9	36.5 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)		
	6-24"	3.98 mmho/cm			6-24"	7.9		39.2	46.6	2.4	9.4	2.4		

General Comments: Fine-textured (CEC: 31+ meq) Percent hydrogen is estimated from water pH, CEC corrected for exchangeable acidity.; Moderate sodium may cause soil dispersion, poor water movement, and reduced crop yield.

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

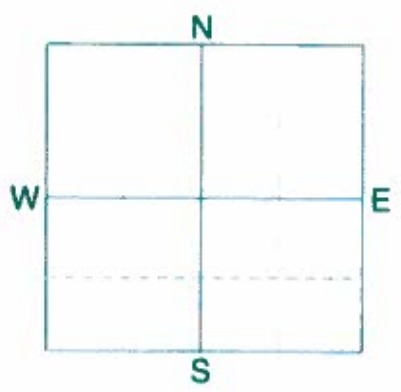
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SOIL TEST REPORT

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 SAMPLE ID **DK GRNS**
 FIELD NAME **KRAEMER 02**
 COUNTY **BARNES**
 TWP **THORDENSKJOLD RANGE**
 SECTION **2** QTR **SE** ACRES **149.8**
 PREV. CROP **Soybeans**



SUBMITTED FOR:

SUBMITTED BY: **OL0549**

REF # **3416440** BOX # **3963**
 LAB # **NW117383**

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	Low	Med	High	Corn-Grain		Corn-Grain		Wheat-Spring			
Nitrate	0-6"	*****				YIELD GOAL		YIELD GOAL		YIELD GOAL			
	6-24"	*****				180 BU		200 BU		80 BU			
	0-24"	*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
		*****				Control		Control		Control			
		*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Olsen Phosphorus	5 ppm	*****				N	145	N	155	N	145		
Potassium	346 ppm	*****				P ₂ O ₅	95 Broadcast	P ₂ O ₅	105 Broadcast	P ₂ O ₅	75 Broadcast		
Chloride	0-24"	*****				K ₂ O	0	K ₂ O	0	K ₂ O	0		
	0-6"	*****				Cl	Not Available	Cl	Not Available	Cl	0		
Sulfur	70 lb/acre	*****				S	0	S	0	S	0		
Boron	360 +lb/acre	*****				B	0	B	0	B	0		
Zinc	0.7 ppm	*****				Zn	4 Broadcast	Zn	4 Broadcast	Zn	0		
Iron	0.75 ppm	*****				Fe	0	Fe	0	Fe	0		
Manganese	35.7 ppm	*****				Mn	0	Mn	0	Mn	0		
Copper	6.5 ppm	*****				Cu	0	Cu	0	Cu	0		
Magnesium	1.19 ppm	*****				Mg	0	Mg	0	Mg	0		
Calcium	1129 ppm	*****				Lime		Lime		Lime			
Sodium	4254 ppm	*****											
Org.Matter	56 ppm	*****											
Carbonate(CCE)	5.6 %	*****				Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
	1.2 %	*****							% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6"	*****				0-6"	7.2	31.9 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
	6-24"	*****				6-24"	8.0		66.6	29.5	2.8	0.8	0.4

General Comments: Fine-textured (CEC: 31+ meq)
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