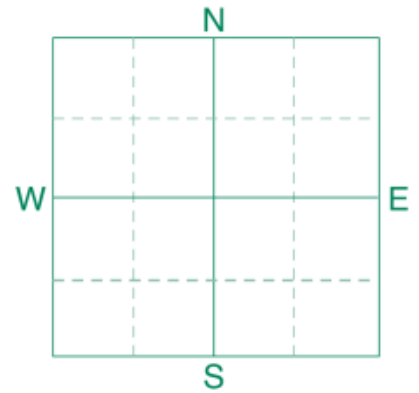




Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Frasers**
 SAMPLE ID **SE 12-5-19**
 FIELD NAME
 COUNTY
 TWP **5** RANGE **19**
 SECTION **12** QTR **SE** ACRES **0**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
BFWA JACKSON FARMS

MINTO, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE

BOX 143
MINTO, MB ROK 1M0

REF # **3001876** BOX # **4000**
 LAB # **NW91168**

Date Sampled

Date Received **09/18/2020**

Date Reported **10/13/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 6-24"	*****				Peas-Field		Peas-Field		Peas-Field				
						YIELD GOAL		YIELD GOAL		YIELD GOAL				
	0-24"					30 BU		40 BU		50 BU				
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
Phosphorus	Olsen	*****				Band		Band		Band				
						LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Potassium		*****				N	19	N	19	N	19			
Chloride	0-24"	*****				P ₂ O ₅	19 Band *	P ₂ O ₅	26 Band *	P ₂ O ₅	32 Band *			
						K ₂ O	15 Band *	K ₂ O	19 Band *	K ₂ O	24 Band *			
Sulfur	0-6" 6-24"	*****				Cl	Not Available	Cl	Not Available	Cl	Not Available			
						S	0	S	0	S	0			
Boron		*****				B	0	B	0	B	0			
Zinc		*****				Zn	0	Zn	0	Zn	1 Band			
Iron		*****				Fe	0	Fe	0	Fe	0			
Manganese		*****				Mn	0	Mn	0	Mn	0			
Copper		*****				Cu	0	Cu	0	Cu	0			
Magnesium		*****				Mg	0	Mg	0	Mg	0			
Calcium		*****				Lime		Lime		Lime				
Sodium		*****				Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Org.Matter		*****				Buffer pH				% Ca	% Mg	% K	% Na	% H
Carbonate(CCE)		*****						30.3 meq		(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
Sol. Salts	0-6"	*****				0-6"	7.8			77.8	20.6	1.2	0.5	0.0
	6-24"	*****				6-24"	8.4							

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

Crop 1: Limited data on crop response to chloride. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 21 K20 = 22 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 28 K20 = 29 AGVISE Band guideline will build P & K test levels to the medium range over several years.

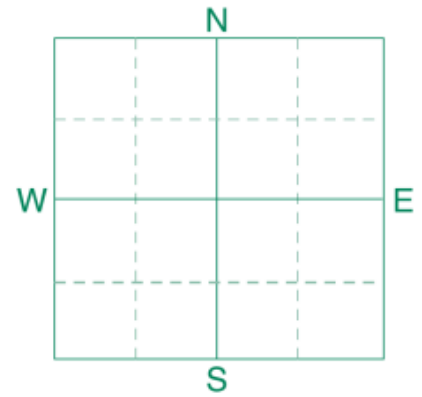
Crop 3: Limited data on crop response to chloride. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K20 = 36 AGVISE Band guideline will build P & K test levels to the medium range over several years.



Soil Analysis by Agvise Laboratories
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SOIL TEST REPORT

FIELD ID **NH 14-5-19**
 SAMPLE ID
 FIELD NAME **Brent Morrow Half**
 COUNTY
 TWP **5** RANGE **19**
 SECTION **14** QTR **NH** ACRES **310**
 PREV. CROP **Fallow**



SUBMITTED FOR:
Rourke Farms
Box 144
Minto, ROK 1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE
BOX 143
MINTO, MB ROK 1M0

REF # **2980549** BOX # **2105**
 LAB # **NW72793**

Date Sampled

Date Received **09/08/2020**

Date Reported **9/10/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice			
		VLow	Low	Med	High	Wheat-Spring			Oats			Rye			
Nitrate	0-6" 6-24"	19 lb/acre 18 lb/acre					YIELD GOAL			YIELD GOAL			YIELD GOAL		
	0-24"	37 lb/acre	*****	*****	*****	*****	60 BU			100 BU			50 BU		
							SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
							Band			Band			Band		
							LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
Phosphorus	Olsen	8 ppm	*****	*****	*****	*****	N	95	Customized	N	39	Customized	N	54	Customized
Potassium		221 ppm	*****	*****	*****	*****	P2O5	35	Band *	P2O5	26	Band *	P2O5	29	Band *
Chloride	0-24"	256 lb/acre	*****	*****	*****	*****	K2O	10	Band (Starter)*	K2O	10	Band (Starter)*	K2O	10	Band (Starter)*
Sulfur	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****	*****	*****	*****	Cl	0		Cl	0		Cl	0	
Boron		0.9 ppm	*****	*****	*****	*****	S	0		S	0		S	0	
Zinc		0.62 ppm	*****	*****	*****	*****	B	0		B	0		B	0	
Iron		17.0 ppm	*****	*****	*****	*****	Zn	0		Zn	0		Zn	0	
Manganese		2.0 ppm	*****	*****	*****	*****	Fe	0		Fe	0		Fe	0	
Copper		0.5 ppm	*****	*****	*****	*****	Mn	0		Mn	0		Mn	0	
Magnesium		650 ppm	*****	*****	*****	*****	Cu	2	Band	Cu	1	Band (Trial)	Cu	0	
Calcium		4422 ppm	*****	*****	*****	*****	Mg	0		Mg	0		Mg	0	
Sodium		49 ppm	*****	*****	*****	*****	Lime			Lime			Lime		
Org.Matter		4.7 %	*****	*****	*****	*****	Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Carbonate(CCE)		0.8 %	*****	*****	*****	*****	Buffer pH			% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6" 6-24"	0.64 mmho/cm 1.87 mmho/cm	*****	*****	*****	*****	0-6" 7.8		28.3 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)	
			*****	*****	*****	*****	6-24" 8.1			78.1	19.1	2.0	0.8	0.0	

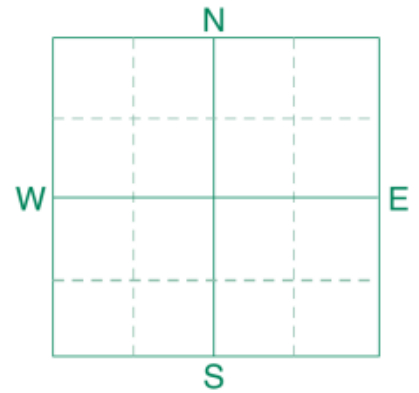
General Comments: Soil texture is not estimated on high pH soils.
Crop 1: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.
Crop 2: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 25 K2O = 19 AGVISE Band guideline will build P & K test levels to the medium range over several years.
Crop 3: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 31 K2O = 19 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **NH 15-5-19W**
 SAMPLE ID **NH 15-5-19W**
 FIELD NAME
 COUNTY
 TWP **5-19W** RANGE
 SECTION **15** QTR **NH** ACRES **0**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
BFWA JACKSON FARMS

MINTO, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE

BOX 143
MINTO, MB ROK 1M0

REF # **2980773** BOX # **2142**
 LAB # **NW72826**

Date Sampled

Date Received **09/08/2020**

Date Reported **10/13/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice					
		VLow	Low	Med	High	Canola-bu			Canola-bu			Soybeans					
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL					
	14 lb/acre 12 lb/acre					45 BU			45 BU			40 BU					
	0-24"	*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES					
	26 lb/acre					Band			Band			Band					
						LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION				
Olsen	7 ppm	*****				N	109	Customized	N	109	Customized	N	***				
Phosphorus	220 ppm	*****				P ₂ O ₅	41	Band *	P ₂ O ₅	41	Band *	P ₂ O ₅	34	Band *			
Potassium	188 lb/acre	*****				K ₂ O	0		K ₂ O	0		K ₂ O	0				
Chloride	120 +lb/acre 360 +lb/acre	*****				Cl		Not Available	Cl		Not Available	Cl	0				
Sulfur	1.1 ppm	*****				S	10	Band	S	10	Band	S	0				
Boron	0.51 ppm	*****				B	0		B	0		B	0				
Zinc	10.8 ppm	*****				Zn	2	Band	Zn	2	Band	Zn	1	Band			
Iron	1.8 ppm	*****				Fe	0		Fe	0		Fe	0				
Manganese	0.49 ppm	*****				Mn	0		Mn	0		Mn	0				
Copper	777 ppm	*****				Cu	0		Cu	0		Cu	0				
Magnesium	5556 ppm	*****				Mg	0		Mg	0		Mg	0				
Calcium	58 ppm	*****				Lime			Lime			Lime					
Sodium	4.9 %	*****				Soil pH			Buffer pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Org.Matter	1.8 %	*****				0-6" 7.9			6-24" 8.2			35.1 meq			% Ca % Mg % K % Na % H		
Carbonate(CCE)	0.63 mmho/cm 2.21 mmho/cm	*****				79.2			18.5			1.6			0.7 0.0		
Sol. Salts		*****															

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

Crop 1: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 41 K2O = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 41 K2O = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

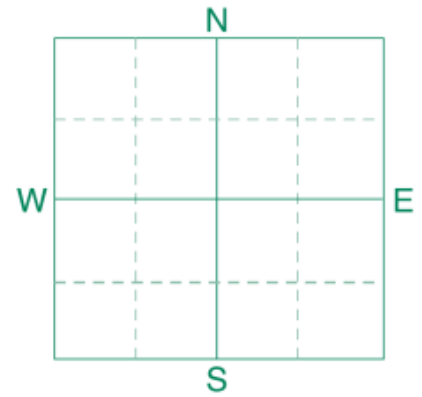
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is moderate, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 30 K2O = 47 AGVISE Band guideline will build P & K test levels to the medium range over several years. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.



Soil Analysis by Agvise Laboratories
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 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **SE 15-5-19**
 SAMPLE ID
 FIELD NAME **McKinnons**
 COUNTY
 TWP **5** RANGE **19**
 SECTION **15** QTR **SE** ACRES **150**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
Rourke Farms
Box 144
Minto, ROK 1M0

SUBMITTED BY: PE4110
PEMBINA COOP-MINTO
210 S RAILWAY AVE
BOX 143
MINTO, MB ROK 1M0

REF # **3034589** BOX # **4272**
 LAB # **NW115847**

Date Sampled

Date Received **09/29/2020**

Date Reported **10/6/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High								
Nitrate	0-6" 6-24"	9 lb/acre 9 lb/acre	*****			Wheat-Spring	Wheat-Spring	Wheat-Spring	Wheat-Spring	Wheat-Spring	Wheat-Spring		
	0-24"	18 lb/acre				YIELD GOAL	YIELD GOAL	YIELD GOAL	YIELD GOAL	YIELD GOAL	YIELD GOAL		
						60 BU	60 BU	60 BU	60 BU	60 BU	60 BU		
						SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES		
						Band	Band	Band	Band	Band	Band		
Phosphorus	Olsen	6 ppm	*****			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Potassium		161 ppm	*****			N	99 Customized	N	99 Customized	N	99 Customized		
Chloride	0-24"	76 lb/acre	*****			P ₂ O ₅	39 Band *	P ₂ O ₅	39 Band *	P ₂ O ₅	39 Band *		
	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****			K ₂ O	16 Band *	K ₂ O	16 Band *	K ₂ O	16 Band *		
Sulfur			*****			Cl	0	Cl	0	Cl	0		
Boron		1.1 ppm	*****			S	0	S	0	S	0		
Zinc		0.54 ppm	*****			B	0	B	0	B	0		
Iron		11.9 ppm	*****			Zn	0	Zn	0	Zn	0		
Manganese		3.2 ppm	*****			Fe	0	Fe	0	Fe	0		
Copper		0.59 ppm	*****			Mn	0	Mn	0	Mn	0		
Magnesium		906 ppm	*****			Cu	1 Band (Trial)	Cu	1 Band (Trial)	Cu	1 Band (Trial)		
Calcium		5140 ppm	*****			Mg	0	Mg	0	Mg	0		
Sodium		43 ppm	*****			Lime		Lime		Lime			
Org.Matter		4.6 %	*****			Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)			
Carbonate(CCE)		2.4 %	*****			Buffer pH			% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6"	0.63 mmho/cm	*****			0-6"	8.0	33.8 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
	6-24"	1.11 mmho/cm	*****			6-24"	8.3		75.9	22.3	1.2	0.6	0.0

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

Crop 1: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 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 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 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 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

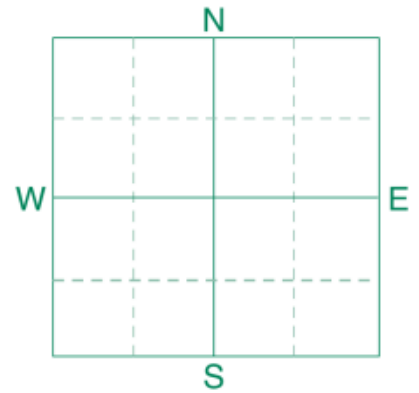
Crop 3: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **fifteen**
 SAMPLE ID **SW 15-5-19**
 FIELD NAME
 COUNTY
 TWP **5-19** RANGE
 SECTION **15** QTR **SW** ACRES **0**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
BFWA JACKSON FARMS

MINTO, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE

BOX 143
MINTO, MB ROK 1M0

REF # **2980776** BOX # **2105**
 LAB # **NW72827**

Date Sampled

Date Received **09/08/2020**

Date Reported **10/13/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High								
Nitrate	0-6" 6-24"	*****				Canola-bu		Canola-bu		Canola-bu			
						YIELD GOAL		YIELD GOAL		YIELD GOAL			
						40 BU		50 BU		60 BU			
	0-24"	*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
						Band		Band		Band			
Phosphorus	Olsen	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
						N	88 Customized	N	118 Customized	N	148 Customized		
Potassium	181 ppm	*****				P ₂ O ₅	28 Band *	P ₂ O ₅	35 Band *	P ₂ O ₅	42 Band *		
Chloride	0-24"	*****				K ₂ O	0	K ₂ O	0	K ₂ O	0		
	0-6" 6-24"	*****				Cl	Not Available	Cl	Not Available	Cl	Not Available		
Sulfur	120 +lb/acre 360 +lb/acre	*****				S	10 Band	S	10 Band	S	10 Band		
Boron	1.0 ppm	*****				B	0	B	0	B	0		
Zinc	0.86 ppm	*****				Zn	0	Zn	1 Band	Zn	1 Band		
Iron	19.2 ppm	*****				Fe	0	Fe	0	Fe	0		
Manganese	3.1 ppm	*****				Mn	0	Mn	0	Mn	0		
Copper	0.55 ppm	*****				Cu	0	Cu	0	Cu	0		
Magnesium	868 ppm	*****				Mg	0	Mg	0	Mg	0		
Calcium	4227 ppm	*****				Lime		Lime		Lime			
Sodium	48 ppm	*****											
Org.Matter	5.1 %	*****											
Carbonate(CCE)	0.8 %	*****				Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
Sol. Salts	0-6"	*****				0-6"	7.7	29.0 meq	% Ca	% Mg	% K	% Na	% H
	6-24"	*****				6-24"	8.3		(65-75) 72.8	(15-20) 24.9	(1-7) 1.6	(0-5) 0.7	(0-5) 0.0

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

Crop 1: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 36 K2O = 18 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 45 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

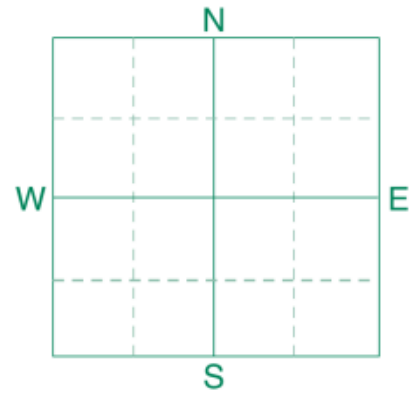
Crop 3: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 54 K2O = 27 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **AL 16-5-19W**
 SAMPLE ID **S STRIP 16-5-19**
 FIELD NAME **full section**
 COUNTY
 TWP **5** RANGE **19**
 SECTION **16** QTRAL ACRES **0**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
BFWA JACKSON FARMS

MINTO, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE

BOX 143
MINTO, MB ROK 1M0

REF # **3069531** BOX # **728**
 LAB # **NW143543**

Date Sampled

Date Received **10/07/2020**

Date Reported **10/13/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High	Oats		Oats		Oats			
Nitrate	0-6" 6-24"	14 lb/acre 27 lb/acre				YIELD GOAL		YIELD GOAL		YIELD GOAL			
	0-24"	41 lb/acre				100 BU	120 BU	140 BU	SUGGESTED GUIDELINES				
Phosphorus	Olsen	13 ppm				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
	Potassium	207 ppm				Band		Band		Band			
Chloride	0-24"	200 lb/acre				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
	0-6" 6-24"	120 +lb/acre 360 +lb/acre				N	36 Customized	N	52 Customized	N	70 Customized		
Sulfur	Boron	1.2 ppm				P ₂ O ₅	18 Band *	P ₂ O ₅	21 Band *	P ₂ O ₅	25 Band *		
Zinc	Iron	14.7 ppm				K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*		
Manganese	Copper	0.58 ppm				Cl	0	Cl	0	Cl	0		
Magnesium	Sodium	86 ppm				S	0	S	0	S	0		
Calcium	Org.Matter	4.6 %				B	0	B	0	B	0		
Carbonate(CCE)	Carbonate(CCE)	2.1 %				Zn	0	Zn	0	Zn	0		
Sol. Salts	0-6" 6-24"	1.11 mmho/cm 1.73 mmho/cm				Fe	0	Fe	0	Fe	0		
						Mn	0	Mn	0	Mn	0		
						Cu	1 Band (Trial)	Cu	1 Band (Trial)	Cu	1 Band (Trial)		
						Mg	0	Mg	0	Mg	0		
						Lime		Lime		Lime			
						Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
									% Ca	% Mg	% K	% Na	% H
						0-6" 7.8		34.8 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
						6-24" 8.2			74.2	23.2	1.5	1.1	0.0

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

Crop 1: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 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 = 25 K2O = 19 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 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 = 30 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

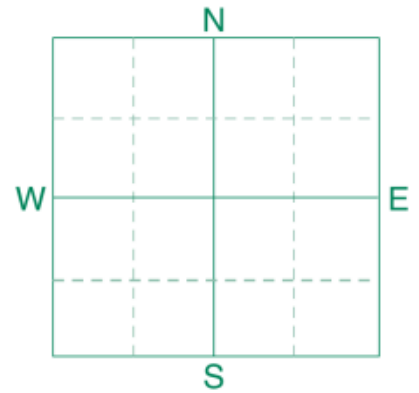
Crop 3: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 27 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **NH 17-5-19W**
 SAMPLE ID **NH 17-5-19W**
 FIELD NAME
 COUNTY
 TWP **5-19W** RANGE
 SECTION **17** QTR ACRES **0**
 PREV. CROP **Oats**



SUBMITTED FOR:
BFWA JACKSON FARMS

MINTO, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE

BOX 143
MINTO, MB ROK 1M0

REF # **2980769** BOX # **2123**
 LAB # **NW72825**

Date Sampled

Date Received **09/08/2020**

Date Reported **10/13/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice			
		VLow	Low	Med	High	Canola-bu			Canola-bu			Canola-bu			
Nitrate	0-6" 6-24"	14 lb/acre 12 lb/acre				YIELD GOAL			YIELD GOAL			YIELD GOAL			
	0-24"	26 lb/acre	*****			40 BU			50 BU			60 BU			
Phosphorus	Olsen	8 ppm	*****			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			
	Potassium	211 ppm	*****			Band			Band			Band			
Chloride	0-24"	72 lb/acre	*****			LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		
	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****			N	94	Customized	N	124	Customized	N	154	Customized	
Sulfur			*****			P ₂ O ₅	34	Band *	P ₂ O ₅	43	Band *	P ₂ O ₅	51	Band *	
Boron		1.3 ppm	*****			K ₂ O	0		K ₂ O	0		K ₂ O	0		
Zinc		0.93 ppm	*****			Cl		Not Available	Cl		Not Available	Cl		Not Available	
Iron		11.7 ppm	*****			S	10	Band	S	10	Band	S	10	Band	
Manganese		2.5 ppm	*****			B	0		B	0		B	0		
Copper		0.55 ppm	*****			Zn	0		Zn	1	Band	Zn	1	Band	
Magnesium		1057 ppm	*****			Fe	0		Fe	0		Fe	0		
Calcium		4981 ppm	*****			Mn	0		Mn	0		Mn	0		
Sodium		49 ppm	*****			Cu	0		Cu	0		Cu	0		
Org.Matter		5.1 %	*****			Mg	0		Mg	0		Mg	0		
Carbonate(CCE)		1.5 %	*****			Lime			Lime			Lime			
Sol. Salts	0-6"	0.61 mmho/cm	*****			Soil pH	Buffer pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
	6-24"	0.97 mmho/cm	*****			0-6" 8.0	6-24" 8.4		34.5 meq		% Ca	% Mg	% K	% Na	% H
											(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
											72.3	25.6	1.6	0.6	0.0

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

Crop 1: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 36 K2O = 18 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 45 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

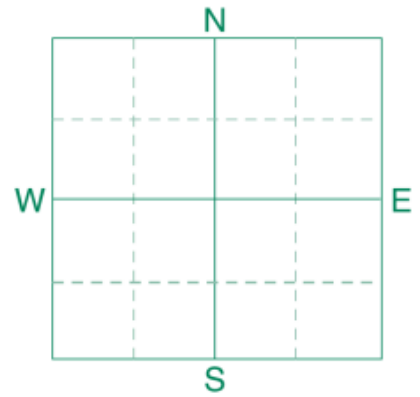
Crop 3: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 54 K2O = 27 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **SW 20-5-19**
 SAMPLE ID
 FIELD NAME **Schreiner's**
 COUNTY
 TWP **5** RANGE **19**
 SECTION **20** QTR **SW** ACRES **0**
 PREV. CROP **Peas-Field**



SUBMITTED FOR:
AG Quest

Minto, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE
BOX 143
MINTO, MB ROK 1M0

REF # **3034604** BOX # **11787**
 LAB # **NW115849**

Date Sampled _____ Date Received **09/29/2020** Date Reported **10/6/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice			3rd Crop Choice						
		VLow	Low	Med	High	Wheat-Spring		Wheat-Spring			Wheat-Spring						
Nitrate	0-6" 6-24"	11 lb/acre	12 lb/acre	*****		YIELD GOAL		YIELD GOAL			YIELD GOAL						
	0-24"	23 lb/acre				60 BU		60 BU			60 BU						
SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		Band		Band			Band						
Band		Band		Band		LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION				
Phosphorus	Olsen	13 ppm	*****				N	94	Customized	N	94	Customized	N	94	Customized		
Potassium		161 ppm	*****				P ₂ O ₅	25	Band *	P ₂ O ₅	25	Band *	P ₂ O ₅	25	Band *		
Chloride	0-24"	120 lb/acre	*****				K ₂ O	16	Band *	K ₂ O	16	Band *	K ₂ O	16	Band *		
Sulfur	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****				Cl	0		Cl	0		Cl	0			
Boron		1.3 ppm	*****				S	0		S	0		S	0			
Zinc		0.68 ppm	*****				B	0		B	0		B	0			
Iron		6.0 ppm	*****				Zn	0		Zn	0		Zn	0			
Manganese		1.9 ppm	*****				Fe	0		Fe	0		Fe	0			
Copper		0.48 ppm	*****				Mn	0		Mn	0		Mn	0			
Magnesium		917 ppm	*****				Cu	2	Band	Cu	2	Band	Cu	2	Band		
Calcium		4551 ppm	*****				Mg	0		Mg	0		Mg	0			
Sodium		141 ppm	*****				Lime			Lime			Lime				
Org.Matter		4.3 %	*****				Soil pH		Buffer pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)		1.6 %	*****										% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	1.21 mmho/cm 0.72 mmho/cm	*****				0-6"	8.0			31.4 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)	
							6-24"	8.5				72.4	24.3	1.3	2.0	0.0	

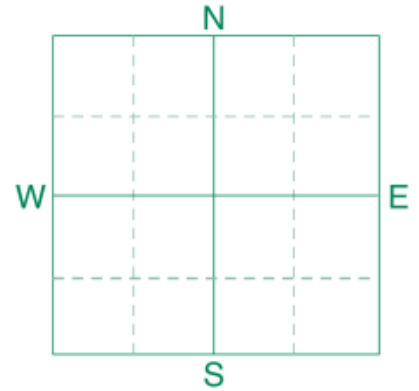
General Comments: Soil texture is not estimated on high pH soils.
Crop 1: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.
Crop 2: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 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 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.
Crop 3: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 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 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **NH 21-5-19W**
 SAMPLE ID **NH 21-5-19W**
 FIELD NAME
 COUNTY
 TWP **5** RANGE **19**
 SECTION **21** QTR **NH** ACRES **0**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BFWA JACKSON FARMS

MINTO, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE

BOX 143
MINTO, MB ROK 1M0

REF # **3002076** BOX # **3942**
 LAB # **NW91169**

Date Sampled

Date Received **09/18/2020**

Date Reported **10/13/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice						
		VLow	Low	Med	High	Soybeans			Soybeans			Soybeans						
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL						
	10 lb/acre 9 lb/acre					30 BU			40 BU			50 BU						
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES						
	19 lb/acre					Band			Band			Band						
						LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION					
Phosphorus	Olsen 5 ppm	*****				N	***		N	***		N	***					
Potassium	176 ppm	*****				P ₂ O ₅	28 Band *		P ₂ O ₅	37 Band *		P ₂ O ₅	46 Band *					
Chloride	0-24" 56 lb/acre	*****				K ₂ O	12 Band *		K ₂ O	16 Band *		K ₂ O	20 Band *					
Sulfur	0-6" 6-24" 120 +lb/acre 360 +lb/acre	*****				Cl	0		Cl	0		Cl	0					
Boron	1.3 ppm	*****				S	0		S	0		S	0					
Zinc	0.57 ppm	*****				B	0		B	0		B	0					
Iron	14.4 ppm	*****				Zn	1 Band		Zn	1 Band		Zn	2 Band					
Manganese	3.3 ppm	*****				Fe	0		Fe	0		Fe	0					
Copper	0.58 ppm	*****				Mn	0		Mn	0		Mn	0					
Magnesium	875 ppm	*****				Cu	0		Cu	0		Cu	0					
Calcium	5575 ppm	*****				Mg	0		Mg	0		Mg	0					
Sodium	49 ppm	*****				Lime			Lime			Lime						
Org.Matter	4.7 %	*****				Soil pH	Buffer pH		Cation Exchange Capacity			% Base Saturation (Typical Range)						
Carbonate(CCE)	3.1 %	*****				0-6" 7.9			35.8 meq			% Ca		% Mg		% K	% Na	% H
Sol. Salts	0-6" 6-24" 0.52 mmho/cm 1.03 mmho/cm	*****				6-24" 8.3						(65-75) 77.8		(15-20) 20.4		(1-7) 1.3	(0-5) 0.6	(0-5) 0.0

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

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is high, based on soil carbonate and salinity. Crop nutrient removal: P₂O₅ = 23 K₂O = 35 AGVISE Band guideline will build P & K test levels to the medium range over several years. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is high, based on soil carbonate and salinity. Crop nutrient removal: P₂O₅ = 30 K₂O = 47 AGVISE Band guideline will build P & K test levels to the medium range over several years. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

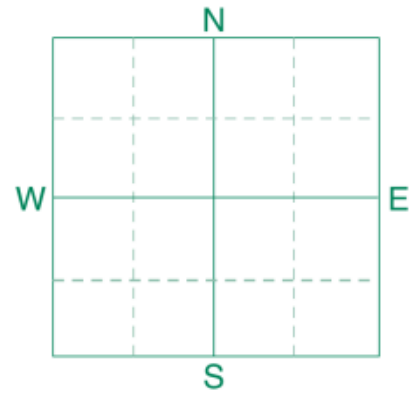
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is high, based on soil carbonate and salinity. Crop nutrient removal: P₂O₅ = 38 K₂O = 59 AGVISE Band guideline will build P & K test levels to the medium range over several years. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.



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

SOIL TEST REPORT

FIELD ID **NW 21-5-19**
 SAMPLE ID **NW 21-5-19**
 FIELD NAME **NW 21-5-19**
 COUNTY
 TWP **5** RANGE **19**
 SECTION **21** QTR **NW** ACRES **0**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BFWA JACKSON FARMS

MINTO, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE

BOX 143
MINTO, MB ROK 1M0

REF # **3038148** BOX # **4241**
 LAB # **NW115934**

Date Sampled

Date Received **09/29/2020**

Date Reported **10/13/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice		
		VLow	Low	Med	High	Wheat-Spring		Wheat-Spring		Wheat-Spring		
Nitrate	0-6" 6-24"	12 lb/acre 9 lb/acre	*****			YIELD GOAL	YIELD GOAL	YIELD GOAL	YIELD GOAL	YIELD GOAL	YIELD GOAL	
	0-24"	21 lb/acre				50 BU	60 BU	70 BU	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	
Phosphorus	Olsen	7 ppm	*****			SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	Band	Band	Band	
	Potassium	199 ppm	*****			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	
Chloride	0-24"	60 lb/acre	*****			N	89	Customized	N	111	Customized	
	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****			P ₂ O ₅	31	Band *	P ₂ O ₅	37	Band *	
Sulfur	0-24"	60 lb/acre	*****			K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	
	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****			Cl	0		Cl	0		
Boron	1.5 ppm	*****			S	0		S	0			
Zinc	0.45 ppm	*****			B	0		B	0			
Iron	7.5 ppm	*****			Zn	0		Zn	0			
Manganese	2.5 ppm	*****			Fe	0		Fe	0			
Copper	0.61 ppm	*****			Mn	0		Mn	0			
Magnesium	995 ppm	*****			Cu	1	Band (Trial)	Cu	1	Band (Trial)		
Calcium	5221 ppm	*****			Mg	0		Mg	0			
Sodium	63 ppm	*****			Lime			Lime				
Org.Matter	4.6 %	*****			Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
Carbonate(CCE)	3.5 %	*****			0-6" 8.1		35.2 meq	% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.62 mmho/cm 1.58 mmho/cm	*****		6-24" 8.4			(65-75)	(15-20)	(1-7)	(0-5)	(0-5)

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

Crop 1: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P₂O₅ = 31 K₂O = 19 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P₂O₅ = 38 K₂O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

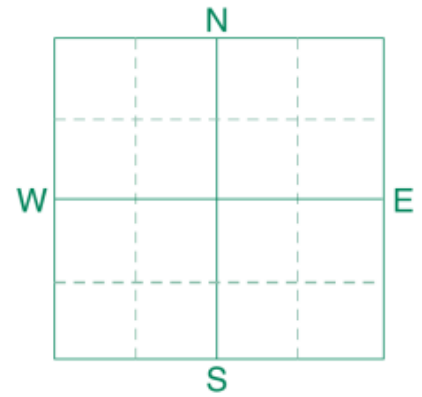
Crop 3: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P₂O₅ = 44 K₂O = 26 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **NW 22-5-19**
 SAMPLE ID
 FIELD NAME **Coupland**
 COUNTY
 TWP **5** RANGE **19**
 SECTION **22** QTR **NW** ACRES **145**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
Rourke Farms
Box 144
Minto, ROK 1M0

SUBMITTED BY: PE4110
PEMBINA COOP-MINTO
210 S RAILWAY AVE
BOX 143
MINTO, MB ROK 1M0

REF # **3034584** BOX # **11787**
 LAB # **NW115846**

Date Sampled

Date Received **09/29/2020**

Date Reported **10/6/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 6-24"	6 lb/acre 9 lb/acre	*****				Wheat-Spring	Wheat-Spring	Wheat-Spring					
							YIELD GOAL	YIELD GOAL	YIELD GOAL					
	0-24"	15 lb/acre					60 BU	60 BU	60 BU					
							SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES					
							Band	Band	Band					
Phosphorus	Olsen	12 ppm	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Potassium		173 ppm	*****			N	102	Customized	N	102	Customized	N	102	Customized
Chloride	0-24"	92 lb/acre	*****			P ₂ O ₅	27	Band *	P ₂ O ₅	27	Band *	P ₂ O ₅	27	Band *
	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****			K ₂ O	11	Band *	K ₂ O	11	Band *	K ₂ O	11	Band *
Sulfur			*****			Cl	0		Cl	0		Cl	0	
Boron		1.2 ppm	*****			S	0		S	0		S	0	
Zinc		0.73 ppm	*****			B	0		B	0		B	0	
Iron		9.6 ppm	*****			Zn	0		Zn	0		Zn	0	
Manganese		1.8 ppm	*****			Fe	0		Fe	0		Fe	0	
Copper		0.62 ppm	*****			Mn	0		Mn	0		Mn	0	
Magnesium		941 ppm	*****			Cu	1	Band (Trial)	Cu	1	Band (Trial)	Cu	1	Band (Trial)
Calcium		5262 ppm	*****			Mg	0		Mg	0		Mg	0	
Sodium		88 ppm	*****			Lime			Lime			Lime		
Org.Matter		4.5 %	*****			Soil pH		Buffer pH	Cation Exchange Capacity		% Base Saturation (Typical Range)			
Carbonate(CCE)		2.6 %	*****						% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6"	1.1 mmho/cm	*****			0-6"	8.0		35.0 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
	6-24"	1.74 mmho/cm	*****			6-24"	8.3			75.2	22.4	1.3	1.1	0.0

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

Crop 1: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 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 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 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 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

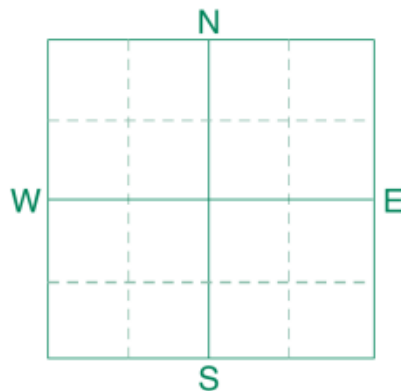
Crop 3: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **SE 22-5-19**
 SAMPLE ID **SE 22-5-19**
 FIELD NAME
 COUNTY
 TWP **5-19** RANGE
 SECTION **22** QTR **SE** ACRES **0**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
BFWA JACKSON FARMS

MINTO, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE

BOX 143
MINTO, MB ROK 1M0

REF # **2980780** BOX # **2105**
 LAB # **NW72828**

Date Sampled

Date Received **09/08/2020**

Date Reported **10/13/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 6-24"	*****				Canola-bu		Canola-bu		Canola-bu				
						YIELD GOAL		YIELD GOAL		YIELD GOAL				
	0-24"					40 BU		50 BU		60 BU				
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
Phosphorus	Olsen	*****				Band		Band		Band				
						LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
						N	80 Customized	N	110 Customized	N	140 Customized			
						P ₂ O ₅	30 Band *	P ₂ O ₅	38 Band *	P ₂ O ₅	45 Band *			
Potassium		*****												
						K ₂ O	0	K ₂ O	0	K ₂ O	0			
	0-24"	*****				Not Available		Not Available		Not Available				
						Cl		Cl		Cl				
Chloride	0-6" 6-24"	*****				S		S		S				
						B	0	B	0	B	0			
						Zn	0	Zn	1 Band	Zn	1 Band			
						Fe	0	Fe	0	Fe	0			
Sulfur		*****				Mn		Mn		Mn				
						Cu	0	Cu	0	Cu	0			
						Mg	0	Mg	0	Mg	0			
						Lime		Lime		Lime				
Boron		*****				Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
						Buffer pH				% Ca	% Mg	% K	% Na	% H
						0-6" 7.7		26.6 meq		(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
						6-24" 8.3				76.4	20.9	1.8	0.8	0.0
Zinc		*****												
Iron		*****												
Manganese		*****												
Copper		*****												
Magnesium		*****												
Calcium		*****												
Sodium		*****												
Org.Matter		*****												
Carbonate(CCE)		****												
Sol. Salts		*****												

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

Crop 1: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 36 K2O = 18 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 45 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

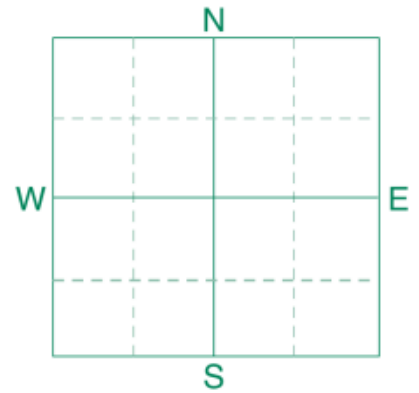
Crop 3: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 54 K2O = 27 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **SE 25-5-19**
 SAMPLE ID **SE 25-5-19**
 FIELD NAME
 COUNTY
 TWP **5** RANGE **19**
 SECTION **25** QTR **SE** ACRES **0**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BFWA JACKSON FARMS

MINTO, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE

BOX 143
MINTO, MB ROK 1M0

REF # **3001762** BOX # **4230**
 LAB # **NW115571**

Date Sampled

Date Received **09/29/2020**

Date Reported **10/13/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice									
		VLow	Low	Med	High	Wheat-Spring			Wheat-Spring			Wheat-Spring									
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL									
						60 BU			70 BU			80 BU									
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES									
						Band			Band			Band									
						LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION								
Phosphorus	Olsen 6 ppm	*****				N	116	Customized	N	138	Customized	N	160	Customized							
Potassium	167 ppm	*****				P ₂ O ₅	39	Band *	P ₂ O ₅	46	Band *	P ₂ O ₅	52	Band *							
Chloride	0-24"	*****				K ₂ O	14	Band *	K ₂ O	16	Band *	K ₂ O	18	Band *							
						Cl	0		Cl	0		Cl	0								
Sulfur	0-6"	*****				S	0		S	0		S	0								
	6-24"	*****				B	0		B	0		B	0								
Boron	1.5 ppm	*****				Zn	0		Zn	0		Zn	1	Band							
Zinc	0.37 ppm	*****				Fe	0		Fe	0		Fe	0								
Iron	15.4 ppm	*****				Mn	0		Mn	0		Mn	0								
Manganese	3.1 ppm	*****				Cu	1	Band (Trial)	Cu	1	Band (Trial)	Cu	1	Band (Trial)							
Copper	0.63 ppm	*****				Mg	0		Mg	0		Mg	0								
Magnesium	885 ppm	*****				Lime			Lime			Lime									
Calcium	5269 ppm	*****				Soil pH			Buffer pH			Cation Exchange Capacity			% Base Saturation (Typical Range)						
Sodium	152 ppm	*****				0-6" 7.8			6-24" 8.4			34.8 meq			% Ca		% Mg		% K	% Na	% H
Org.Matter	3.7 %	*****										(65-75)		(15-20)		(1-7)	(0-5)	(0-5)			
Carbonate(CCE)	3.4 %	*****										75.7		21.2		1.2	1.9	0.0			
Sol. Salts	0-6"	*****																			
	6-24"	*****																			

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

Crop 1: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26 AGVISE Band guideline will build P & K test levels to the medium range over several years.

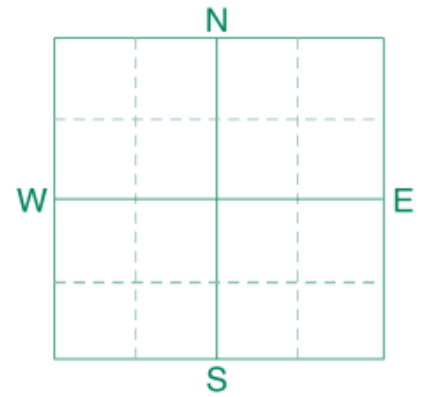
Crop 3: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 50 K2O = 30 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **WH 26-5-19**
 SAMPLE ID
 FIELD NAME **Bill Morrow Half**
 COUNTY
 TWP **5** RANGE **19**
 SECTION **26** QTR **WH** ACRES **305**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
Rourke Farms
Box 144
Minto, ROK 1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE
BOX 143
MINTO, MB ROK 1M0

REF # **3034578** BOX # **4241**
 LAB # **NW115845**

Date Sampled

Date Received **09/29/2020**

Date Reported **10/6/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Wheat-Spring			Wheat-Spring			Wheat-Spring		
Nitrate	0-6" 6-24"	11 lb/acre 9 lb/acre	*****											
	0-24"	20 lb/acre												
						YIELD GOAL	YIELD GOAL	YIELD GOAL	60 BU	60 BU	60 BU	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES
						Band	Band	Band	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION
						N 97 Customized	N 97 Customized	N 97 Customized	P ₂ O ₅ 41 Band *	P ₂ O ₅ 41 Band *	P ₂ O ₅ 41 Band *	K ₂ O 10 Band (Starter)*	K ₂ O 10 Band (Starter)*	K ₂ O 10 Band (Starter)*
Phosphorus	Olsen	5 ppm	*****											
Potassium		202 ppm	*****											
Chloride	0-24"	412 lb/acre	*****											
	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****											
Sulfur			*****											
Boron		1.6 ppm	*****											
Zinc		0.52 ppm	*****											
Iron		12.8 ppm	*****											
Manganese		3.0 ppm	*****											
Copper		0.61 ppm	*****											
Magnesium		1182 ppm	*****											
Calcium		5210 ppm	*****											
Sodium		298 ppm	*****											
Org.Matter		4.7 %	*****											
Carbonate(CCE)		3.2 %	*****											
Sol. Salts	0-6"	1.89 mmho/cm	*****											
	6-24"	1.87 mmho/cm	*****											
						Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)					
						0-6" 7.9		37.7 meq	% Ca	% Mg	% K	% Na	% H	
						6-24" 8.3			69.1	26.1	1.4	3.4	0.0	

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

Crop 1: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 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. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 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. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

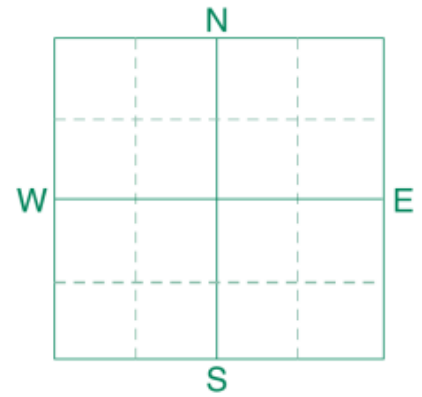
Crop 3: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **EH 27-5-19**
 SAMPLE ID
 FIELD NAME **Rondeau**
 COUNTY
 TWP **5** RANGE **19**
 SECTION **27** QTR **EH** ACRES **320**
 PREV. CROP **Soybeans**



SUBMITTED FOR:

Rourke Farms
Box 144

Minto, ROK 1M0

SUBMITTED BY: PE4110

PEMBINA COOP-MINTO
210 S RAILWAY AVE
BOX 143

MINTO, MB ROK 1M0

REF # **3034576** BOX # **4241**
 LAB # **NW115844**

Date Sampled

Date Received **09/29/2020**

Date Reported **10/6/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice			3rd Crop Choice			
		VLow	Low	Med	High	Wheat-Spring		Wheat-Spring			Wheat-Spring			
Nitrate	0-6" 6-24"	10 lb/acre 9 lb/acre	*****				YIELD GOAL	YIELD GOAL			YIELD GOAL			
	0-24"	19 lb/acre					60 BU	60 BU			60 BU			
							SUGGESTED GUIDELINES	SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			
							Band	Band			Band			
							LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Phosphorus	Olsen	8 ppm	*****			N	98	Customized	N	98	Customized	N	98	Customized
Potassium		148 ppm	*****			P ₂ O ₅	35	Band *	P ₂ O ₅	35	Band *	P ₂ O ₅	35	Band *
Chloride	0-24"	264 lb/acre	*****			K ₂ O	22	Band *	K ₂ O	22	Band *	K ₂ O	22	Band *
	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****			Cl	0		Cl	0		Cl	0	
Sulfur			*****			S	0		S	0		S	0	
Boron		1.5 ppm	*****			B	0		B	0		B	0	
Zinc		0.50 ppm	*****			Zn	0		Zn	0		Zn	0	
Iron		7.5 ppm	*****			Fe	0		Fe	0		Fe	0	
Manganese		2.2 ppm	*****			Mn	0		Mn	0		Mn	0	
Copper		0.59 ppm	*****			Cu	1	Band (Trial)	Cu	1	Band (Trial)	Cu	1	Band (Trial)
Magnesium		1173 ppm	*****			Mg	0		Mg	0		Mg	0	
Calcium		5363 ppm	*****			Lime			Lime			Lime		
Sodium		428 ppm	*****											
Org.Matter		4.5 %	*****											
Carbonate(CCE)		2.1 %	*****											
Sol. Salts	0-6"	2.15 mmho/cm	*****			Soil pH	8.0		Cation Exchange Capacity	% Base Saturation (Typical Range)				
	6-24"	2.16 mmho/cm	*****			6-24"	8.3			% Ca	% Mg	% K	% Na	% H
									38.8 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
										69.1	25.2	1.0	4.8	0.0

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

Crop 1: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 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. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 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. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.

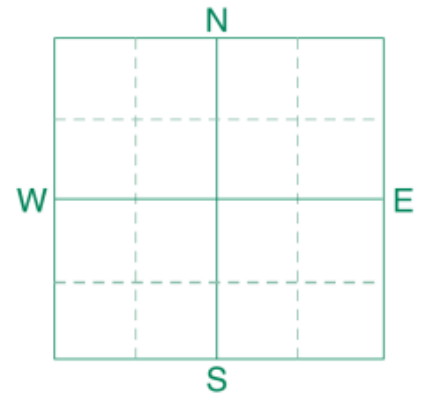
Crop 3: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury. * Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. High salinity may decrease crop yield. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **EH 28-5-19**
 SAMPLE ID
 FIELD NAME **Hog Hill**
 COUNTY
 TWP **5** RANGE **19**
 SECTION **26** QTR **EH** ACRES **290**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
Rourke Farms
Box 144
Minto, ROK 1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE
BOX 143
MINTO, MB ROK 1M0

REF # **2980548** BOX # **2123**
 LAB # **NW72792**

Date Sampled

Date Received **09/08/2020**

Date Reported **9/10/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice			3rd Crop Choice			
		VLow	Low	Med	High	Barley-Peas		Wheat-Spring			YIELD GOAL			
Nitrate	0-6" 6-24"	16 lb/acre 18 lb/acre					YIELD GOAL	YIELD GOAL			YIELD GOAL			
						1 Season	60 BU							
	0-24"	34 lb/acre	*****			SUGGESTED GUIDELINES	SUGGESTED GUIDELINES			SUGGESTED GUIDELINES				
						Band	Band							
						LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Phosphorus	Olsen	23 ppm	*****			N	26	N	98	Customized	N			
Potassium		276 ppm	*****			P ₂ O ₅	0	P ₂ O ₅	15	Band (Starter)*	P ₂ O ₅			
Chloride	0-24"	176 lb/acre	*****			K ₂ O	0	K ₂ O	10	Band (Starter)*	K ₂ O			
Sulfur	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****			Cl	Not Available	Cl	0		Cl			
Boron		1.2 ppm	*****			S	0	S	0		S			
Zinc		1.40 ppm	*****			B	0	B	0		B			
Iron		7.5 ppm	*****			Zn	0	Zn	0		Zn			
Manganese		1.4 ppm	*****			Fe	0	Fe	0		Fe			
Copper		0.8 ppm	*****			Mn	0	Mn	0		Mn			
Magnesium		856 ppm	*****			Cu	0	Cu	1	Band (Trial)	Cu			
Calcium		5403 ppm	*****			Mg	0	Mg	0		Mg			
Sodium		79 ppm	*****			Lime		Lime			Lime			
Org.Matter		5.4 %	*****			Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)		2.1 %	*****			Buffer pH				% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.73 mmho/cm 1.72 mmho/cm	*****			0-6" 8.0 6-24" 8.2		35.2 meq		(65-75) 76.7	(15-20) 20.3	(1-7) 2.0	(0-5) 1.0	(0-5) 0.0

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

Crop 1: Limited data on crop response to chloride. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 110 AGVISE Band guideline will build P & K test levels to the medium range over several years.

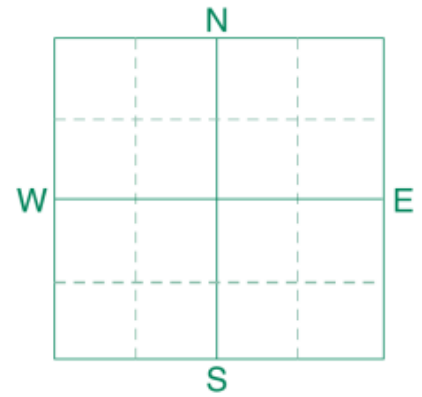
Crop 2: Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 23 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **WH 34-5-19**
 SAMPLE ID
 FIELD NAME **Gervin's**
 COUNTY
 TWP **5** RANGE **19**
 SECTION **34** QTR **WH** ACRES **0**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
AG Quest

Minto, ROK1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE
BOX 143
MINTO, MB ROK 1M0

REF # **3034596** BOX # **4269**
 LAB # **NW115848**

Date Sampled

Date Received **09/29/2020**

Date Reported **10/6/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		VLow	Low	Med	High	Canola-bu			Canola-bu			Canola-bu				
Nitrate	0-6" 6-24"	19 lb/acre 18 lb/acre					YIELD GOAL			YIELD GOAL			YIELD GOAL			
			*****				45 BU			45 BU			45 BU			
	0-24"	37 lb/acre					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			
							Band			Band			Band			
							LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		
Phosphorus	Olsen	8 ppm	*****			N	83	Customized	N	83	Customized	N	83	Customized		
Potassium		147 ppm	*****			P ₂ O ₅	38	Band *	P ₂ O ₅	38	Band *	P ₂ O ₅	38	Band *		
Chloride	0-24"	404 lb/acre	*****			K ₂ O	13	Band *	K ₂ O	13	Band *	K ₂ O	13	Band *		
	0-6" 6-24"	120 +lb/acre 360 +lb/acre	*****			Cl		Not Available	Cl		Not Available	Cl		Not Available		
Sulfur			*****			S	10	Band	S	10	Band	S	10	Band		
Boron		1.4 ppm	*****			B	0		B	0		B	0			
Zinc		0.34 ppm	*****			Zn	2	Band	Zn	2	Band	Zn	2	Band		
Iron		9.7 ppm	*****			Fe	0		Fe	0		Fe	0			
Manganese		2.0 ppm	*****			Mn	0		Mn	0		Mn	0			
Copper		0.47 ppm	*****			Cu	0		Cu	0		Cu	0			
Magnesium		805 ppm	*****			Mg	0		Mg	0		Mg	0			
Calcium		5252 ppm	*****			Lime			Lime			Lime				
Sodium		402 ppm	*****			Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Org.Matter		4.7 %	*****			Buffer pH						% Ca	% Mg	% K	% Na	% H
Carbonate(CCE)		2.3 %	*****													
Sol. Salts	0-6"	1.67 mmho/cm	*****			0-6"	7.9		35.1 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)		
	6-24"	2.29 mmho/cm	*****			6-24"	8.1			74.8	19.1	1.1	5.0	0.0		

General Comments: Soil texture is not estimated on high pH soils.
 Moderate sodium may cause soil dispersion, poor water movement, and reduced crop yield.

Crop 1: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 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 = 41 K2O = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 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 = 41 K2O = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.

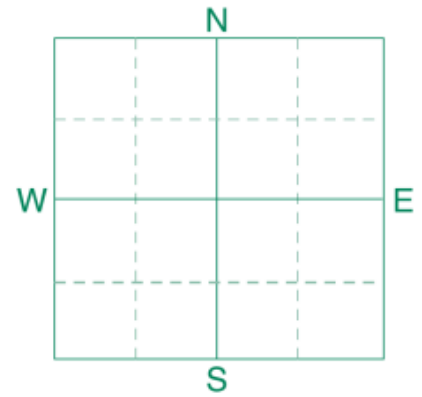
Crop 3: Limited data on crop response to chloride. Nitrogen guideline customized by the submitter. *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 41 K2O = 20 AGVISE Band guideline will build P & K test levels to the medium range over several years.



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

SOIL TEST REPORT

FIELD ID **EH 26-4-19**
 SAMPLE ID
 FIELD NAME **South Farm**
 COUNTY
 TWP **4** RANGE **19**
 SECTION **26** QTR **EH** ACRES **0**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
Rourke Farms
Box 144
Minto, ROK 1M0

SUBMITTED BY: **PE4110**
PEMBINA COOP-MINTO
210 S RAILWAY AVE
BOX 143
MINTO, MB ROK 1M0

REF # **2980550** BOX # **2105**
 LAB # **NW72794**

Date Sampled

Date Received **09/08/2020**

Date Reported **9/10/2020**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Barley			Oats			Soybeans		
		*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
		*****				80 BU			100 BU			40 BU		
		*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
		*****				Band			Band			Band		
		*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
Nitrate	0-6" 6-24" 11 lb/acre 12 lb/acre					N	71	Customized	N	53	Customized	N	***	
Phosphorus	Olsen 9 ppm					P ₂ O ₅	31	Band *	P ₂ O ₅	24	Band *	P ₂ O ₅	30	Band *
Potassium	207 ppm					K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	0	
Chloride	0-24" 36 lb/acre					Cl	4		Cl	4		Cl	0	
Sulfur	0-6" 6-24" 114 lb/acre 360 +lb/acre					S	0		S	0		S	0	
Boron	1.0 ppm					B	0		B	0		B	0	
Zinc	5.30 ppm					Zn	0		Zn	0		Zn	0	
Iron	15.0 ppm					Fe	0		Fe	0		Fe	0	
Manganese	2.1 ppm					Mn	0		Mn	0		Mn	0	
Copper	0.49 ppm					Cu	2	Band	Cu	1	Band (Trial)	Cu	0	
Magnesium	775 ppm					Mg	0		Mg	0		Mg	0	
Calcium	5010 ppm					Lime			Lime			Lime		
Sodium	31 ppm					Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Org.Matter	4.6 %					Buffer pH			% Ca	% Mg	% K	% Na	% H	
Carbonate(CCE)	1.0 %					0-6" 7.9			32.2 meq	(65-75)	(15-20)	(1-7)	(0-5)	(0-5)
Sol. Salts	0-6" 6-24" 0.48 mmho/cm 1.49 mmho/cm					6-24" 8.1				77.9	20.1	1.6	0.4	0.0

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

Crop 1: Nitrogen guideline customized by the submitter. 8 lb potassium chloride (0-0-60-50Cl) = 4 lb chloride. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 38 K2O = 40 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 2: Nitrogen guideline customized by the submitter. 8 lb potassium chloride (0-0-60-50Cl) = 4 lb chloride. *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 25 K2O = 19 AGVISE Band guideline will build P & K test levels to the medium range over several years.

Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Soybean iron deficiency (IDC) risk is low, based on soil carbonate and salinity. Crop nutrient removal: P2O5 = 30 K2O = 47 AGVISE Band guideline will build P & K test levels to the medium range over several years. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.