Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Date Received

15-Feb-2021

Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64800

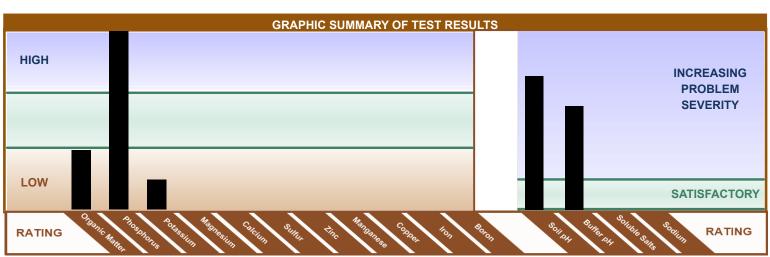
Information Sheet #

Date Reported 17-Feb-2021

Laboratory Turnaround Samples Will Be Stored Until 2 Days 02-Mar-2021

Field Identification ISU

S0215-221



REPORT OF	REPORT OF ANALYSIS									
YOUR SA										
1										
Soil pH	5.6									
Buffer Index	6.7									
Soluble Salts mmhos/cm	-									
Sodium ppm										
% Organic Matter	2.4									
ANALYSIS OF NUTRIENT ELEMENTS IS IN PARTS PER MILLION (ppm)										
Nitrate N										
Phosphorus Mehlich III 	37 									
Potassium	119									
Magnesium										
Calcium										
Sulfate Sulfur										
Zinc										
Manganese										
Copper										
Iron										
Boron										

FERTILIZER GUIDLINES IN: Lbs/Acre											
1st	Option Intended	l Crop	2	and Option Intend	led Crop		3rd	Option Intende	d Crop		
	Yield Goal			Yield Goa				Yield Goal			
	Preceding Crop	р		Preceding C	гор	Preceding Crop			op		
	ANT FOOD	ODOD BEHOW			OBOD DENOM				OBOD DEMONS		
	ANT FOOD LINE RANGES	CROP REMOVAL RATES		PLANT FOOD DELINE RANGES	CROP REMOVAL RATES			ANT FOOD LINE RANGES	CROP REMOVAL RATES		
N			N				N				
P ₂ O ₅			P ₂ O ₅				P ₂ O ₅				
K₂O			K ₂ O				K ₂ O				
MgO			MgO				MgO				
S			S				S				
Zn			Zn				Zn				
Mn			Mn				Mn				
Cu			Cu				Cu				
Fe			Fe				Fe				
В			В				В				
Lime To 6.5			Lime To 6.5			Li	me To 6.5				
		Lime Guideline	s are for 100% Ef	fective Calcium Carbo	nate (ECC) with a 6" Inc	orporatio	on Depth.				

	ACTUAL A	AND SUGGE	ES							
Actual %	Suggested	Actual %	Suggested	Actual %	Suggested	Actual %	Suggested	Actual %	Suggested	CEC for
Hydrogen	Hydrogen	Potassium	Potassium	Magnesium	Magnesium	Calcium	Calcium	Sodium	Sodium	Your Soil

Submitted by

EW50010106

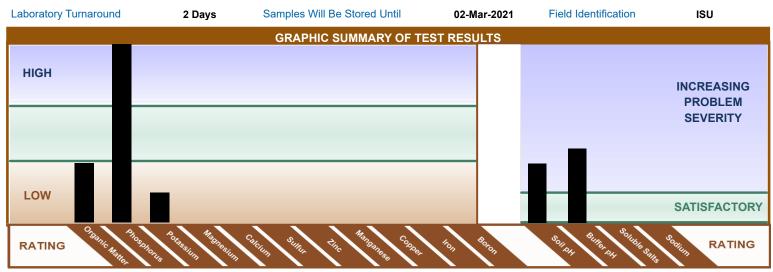
VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64801

Date Received Date Reported Information Sheet # 17-Feb-2021 15-Feb-2021 S0215-221



REPORT OF ANALYSIS										
YOUR SA										
2										
Soil pH	6.5									
Buffer Index	7.0									
Soluble Salts mmhos/cm										
Sodium ppm										
% Organic Matter	2.2									
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS									
Nitrate N										
Phosphorus Mehlich III	41									
Potassium	111									
Magnesium										
Calcium										
Sulfate Sulfur										
Zinc										
Manganese										
Copper										
Iron										
Boron										

		FERTILIZE	R GUIDLIN	ES IN: Lbs	Acre					
1st	Option Intende	ed Crop	2n	d Option Intend	led Crop	3rd	3rd Option Intended Crop			
	Yield Goal			Yield Goa	l		Yield Goal			
	Preceding Cro	ор		Preceding C	rop		Preceding Crop			
	ANT FOOD INE RANGES	CROP REMOVAL RATES		LANT FOOD	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P_2O_5			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime			Lime			Lime				
		Lime Guidelines	are for 100% Effe	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED											
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil		

Submitted by

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

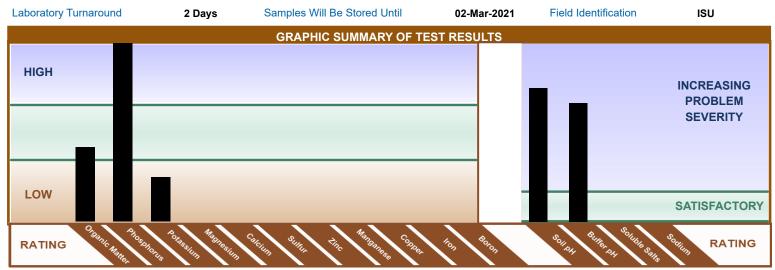
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64802

Information Sheet #

Date Received Date Reported 17-Feb-2021 15-Feb-2021 S0215-221



REPORT OF	REPORT OF ANALYSIS									
YOUR SA										
3										
Soil pH	5.7									
Buffer Index	6.6									
Soluble Salts mmhos/cm										
Sodium ppm										
% Organic Matter	2.7									
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS									
Nitrate N										
Phosphorus Mehlich III	48									
Potassium	126									
Magnesium										
Calcium										
Sulfate Sulfur										
Zinc										
Manganese										
Copper										
Iron										
Boron										

	FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st Option I	ntended Crop	2n	d Option Intend	led Crop	3rd	3rd Option Intended Crop			
Yield	l Goal		Yield Goal			Yield Goal			
Preced	ing Crop		Preceding Ci	rop		Preceding Crop			
PLANT FOOD GUIDELINE RANGE	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES		
N		N			N				
P ₂ O ₅		P ₂ O ₅			P ₂ O ₅				
K ₂ O		K ₂ O			K ₂ O				
MgO		MgO			MgO				
S		S			S				
Zn		Zn			Zn				
Mn		Mn			Mn				
Cu		Cu			Cu				
Fe		Fe			Fe				
В		В			В				
Lime To 6.5		Lime To 6.5			Lime To 6.5				
	Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.	•			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED											
Actual %	Suggested	Actual %	Suggested	Actual %	Suggested	Actual %	Suggested	Actual %	Suggested	CEC for		
Hydrogen	Hydrogen	Potassium	Potassium	Magnesium	Magnesium	Calcium	Calcium	Sodium	Sodium	Your Soil		

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Date Received

Submitted for VIRGINIA NICHOLS

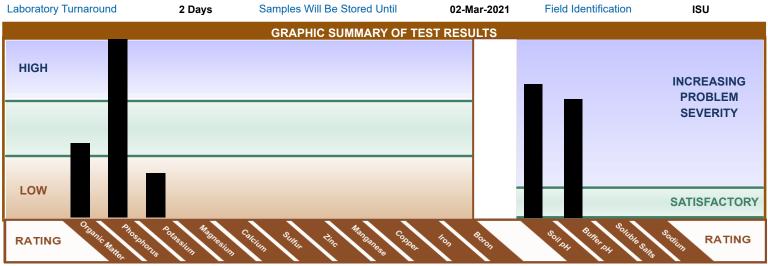


Laboratory Sample # CA64803

Information Sheet #

Date Reported

15-Feb-2021 17-Feb-2021 S0215-221



REPORT OF	REPORT OF ANALYSIS									
YOUR SA										
4										
Soil pH	5.6									
Buffer Index	6.6									
Soluble Salts mmhos/cm										
Sodium ppm										
% Organic Matter	2.6									
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS									
Nitrate N										
Phosphorus Mehlich III	58									
Potassium	130									
Magnesium										
Calcium										
Sulfate Sulfur										
Zinc										
Manganese										
Copper	-									
Iron										
Boron										

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2n	d Option Intend	led Crop	3rd Option Intended Crop				
	Yield Goal			Yield Goal	l		Yield Goal			
	Preceding Cr	ор		Preceding Cı	rop		Preceding Crop			
	ANT FOOD INE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		INT FOOD NE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Effe	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED											
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil		

Submitted by

Date Received

EW50010106

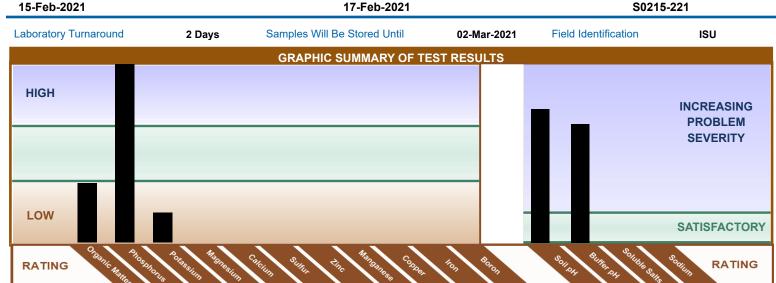
VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64804

Information Sheet #

Date Reported Informati 17-Feb-2021 S0215-221



REPORT OF ANALYSIS								
YOUR SA								
NUMB 5	BER							
Soil pH	5.5							
Buffer Index	6.6							
Soluble Salts mmhos/cm								
Sodium ppm								
% Organic Matter	2.4							
ANALYSIS OF								
ELEMENTS IS PER MILLIO	S IN PARTS							
Nitrate N	(ppiii)							
Phosphorus Mehlich III	50							
Potassium	118							
Magnesium								
Calcium								
Sulfate Sulfur								
Zinc	-							
Manganese								
Copper								
Iron								
Boron								

	FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st Option I	ntended Crop	2n	2nd Option Intended Crop			3rd Option Intended Crop			
Yield	l Goal		Yield Goal			Yield Goal			
Preced	ing Crop		Preceding Crop			Preceding Crop			
PLANT FOOD GUIDELINE RANGE	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES		
N		N			N				
P ₂ O ₅		P ₂ O ₅			P ₂ O ₅				
K ₂ O		K ₂ O			K ₂ O				
MgO		MgO			MgO				
S		S			S				
Zn		Zn			Zn				
Mn		Mn			Mn				
Cu		Cu			Cu				
Fe		Fe			Fe				
В		В			В				
Lime To 6.5		Lime To 6.5			Lime To 6.5				
	Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.	•			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	00	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

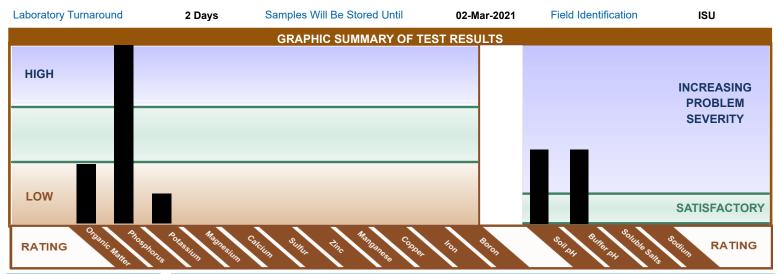
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64805

Information Sheet #

Date Received Date Reported 17-Feb-2021 15-Feb-2021 S0215-221



REPORT OF ANALYSIS								
YOUR SA								
6	, , ,							
Soil pH	6.3							
Buffer Index	6.9							
Soluble Salts mmhos/cm								
Sodium ppm								
% Organic Matter	2.5							
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS							
Nitrate N								
Phosphorus Mehlich III	46							
 Potassium	109							
Magnesium								
Calcium								
Sulfate Sulfur								
Zinc								
Manganese								
Copper								
Iron								
Boron								

		FERTILIZE	R GUIDLIN	ES IN: Lbs	Acre					
1st	Option Intende	ed Crop	2n	2nd Option Intended Crop			3rd Option Intended Crop			
	Yield Goal			Yield Goa	l		Yield Goal			
	Preceding Crop			Preceding Crop			Preceding Crop			
	ANT FOOD INE RANGES	CROP REMOVAL RATES		LANT FOOD	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P_2O_5			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime			Lime			Lime				
		Lime Guidelines	are for 100% Effe	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW50010106

Date Received

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

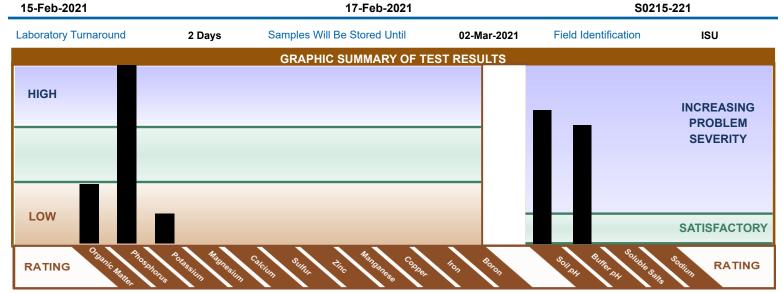
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64806

Information Sheet #

Date Reported



REPORT OF ANALYSIS								
YOUR SA								
7								
Soil pH	5.6							
Buffer Index	6.6							
Soluble Salts mmhos/cm								
Sodium ppm								
% Organic Matter	2.4							
ANALYSIS OF NUTRIENT ELEMENTS IS IN PARTS PER MILLION (ppm)								
Nitrate N								
Phosphorus Mehlich III	42							
Potassium	102							
Magnesium								
Calcium								
Sulfate Sulfur								
Zinc								
Manganese								
Copper								
Iron								
Boron								

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2n	2nd Option Intended Crop			3rd Option Intended Crop			
	Yield Goal			Yield Goal			Yield Goal			
	Preceding Crop			Preceding Crop			Preceding Crop			
	ANT FOOD LINE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by E

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64807

Information Sheet #

S0215-221

Date Received Date Reported 15-Feb-2021 17-Feb-2021

Laboratory Turnaround

2 Days

Samples Will Be Stored Until

02-Mar-2021

Field Identification

ISU

GRAPHIC SUMMARY OF TEST RESULTS

INCREASING
PROBLEM
SEVERITY

SATISFACTORY

RATING

RATING

RATING

RATING

RATING

RATING

RATING

INCREASING
PROBLEM
SEVERITY

SATISFACTORY

RATING

RATING

RATING

REPORT OF	REPORT OF ANALYSIS									
YOUR SA										
8										
Soil pH	6.3									
Buffer Index	6.9									
Soluble Salts mmhos/cm										
Sodium ppm										
% Organic Matter	3.0									
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS									
Nitrate N										
Phosphorus Mehlich III	101									
Potassium	 156									
Magnesium										
Calcium										
Sulfate Sulfur										
Zinc										
Manganese										
Copper										
Iron										
Boron										

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre				
1st	Option Intende	ed Crop	2n	d Option Intend	ed Crop	3rc	Option Intende	ed Crop	
	Yield Goal			Yield Goal			Yield Goal		
	Preceding Crop			Preceding Crop			Preceding Crop		
	ANT FOOD INE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES	
N			N			N			
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅			
K ₂ O			K ₂ O			K ₂ O			
MgO			MgO			MgO			
S			S			S			
Zn			Zn			Zn			
Mn			Mn			Mn			
Cu			Cu			Cu			
Fe			Fe			Fe			
В			В			В			
Lime To 6.5			Lime To 6.5			Lime To 6.5			
		Lime Guidelines	are for 100% Effect	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by E

Date Received

15-Feb-2021

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64808

Information Sheet #

S0215-221

Date Reported 17-Feb-2021

HIGH

LOW

Samples Will Be Stored Until 02-Mar-2021 Field Identification ISU

GRAPHIC SUMMARY OF TEST RESULTS

INCREASING PROBLEM SEVERITY

SATISFACTORY

RATING

REPORT OF	ANALYSIS
YOUR SA	
NUME	BER
9	
Soil pH	6.3
Buffer Index	6.9
Soluble Salts	
mmhos/cm	
Sodium ppm	
% Organic	2.9
Matter ANALYSIS OF	NUTDIENT
ELEMENTS IS	
PER MILLIO	
Nitrate N	
Phosphorus	
Mehlich III	82
Potassium	131
Magnesium	
Calcium	
Sulfate Sulfur	
Zinc	
Manganese	
Copper	
Iron	
Boron	

		FERTILIZE	R GU	IIDLINE	ES IN: Lbs/	Acre					
1st	Option Intende	ed Crop		2nd	d Option Intend	ed Crop		3rd	Option Intende	ed Crop	
	Yield Goal			Yield Goal				Yield Goal			
	Preceding Crop				Preceding Crop			Preceding Crop			
	ANT FOOD .INE RANGES	CROP REMOVAL RATES			ANT FOOD .INE RANGES	CROP REMOVAL RATES		PLANT FOOD GUIDELINE RANGES		CROP REMOVAL RATES	
N				N				N			
P ₂ O ₅				P ₂ O ₅				P ₂ O ₅			
K₂O				K ₂ O				K ₂ O			
MgO			ı	MgO				MgO			
S				S				S			
Zn				Zn				Zn			
Mn				Mn				Mn			
Cu				Cu				Cu			
Fe				Fe				Fe			
В				В				В			
Lime			I	Lime				Lime			
		Lime Guidelines	are for 1	100% Effec	tive Calcium Carbon	ate (ECC) with a 6" Inco	orpora	ition Depth.			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by

Date Received

15-Feb-2021

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

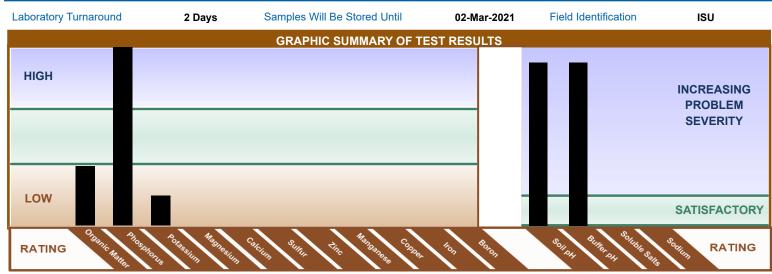
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64809

Information Sheet #

Date Reported 17-Feb-2021 S0215-221



REPORT OF	REPORT OF ANALYSIS									
YOUR SA										
10										
Soil pH	5.3									
Buffer Index	6.3									
Soluble Salts mmhos/cm										
Sodium ppm										
% Organic Matter	2.4									
ANALYSIS OF ELEMENTS IS PER MILLIO	IN PARTS									
Nitrate N										
Phosphorus Mehlich III	41									
Potassium	96									
Magnesium										
Calcium										
Sulfate Sulfur										
Zinc										
Manganese										
Copper										
Iron										
Boron										

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2n	d Option Intend	led Crop	3rd Option Intended Crop				
	Yield Goal			Yield Goal			Yield Goal			
	Preceding Cr	ор		Preceding Cı	rop		Preceding Crop			
	ANT FOOD INE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		INT FOOD NE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Effe	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED											
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil		

Submitted by

Date Received

15-Feb-2021

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

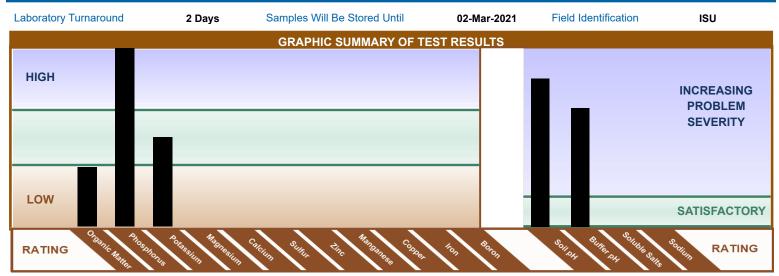
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64810

Information Sheet #

Date Reported 17-Feb-2021 S0215-221



REPORT OF ANALYSIS								
YOUR SA								
11								
Soil pH	5.5							
Buffer Index	6.7							
Soluble Salts mmhos/cm								
Sodium ppm								
% Organic Matter	2.3							
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS							
Nitrate N								
Phosphorus Mehlich III	68							
Potassium	173							
Magnesium								
Calcium								
Sulfate Sulfur								
Zinc								
Manganese								
Copper								
Iron								
Boron								

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre			
1st	Option Intended	d Crop	2no	d Option Intend	ed Crop	3rc	Option Intende	ed Crop
	Yield Goal			Yield Goal			Yield Goal	
	Preceding Cro	р		Preceding Cr	ор		Preceding Cr	ор
	ANT FOOD LINE RANGES	CROP REMOVAL RATES		ANT FOOD	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES
N			N			N		
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅		
K₂O			K ₂ O			K ₂ O		
MgO			MgO			MgO		
S			S			S		
Zn			Zn			Zn		
Mn			Mn			Mn		
Cu			Cu			Cu		
Fe			Fe			Fe		
В			В			В		
Lime To 6.5			Lime To 6.5			Lime To 6.5		
		Lime Guidelines	s are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.		

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATION										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64811

Information Sheet #

S0215-221

Date Received Date Reported
15-Feb-2021 17-Feb-2021

Laboratory Turnaround

2 Days

Samples Will Be Stored Until

02-Mar-2021

Field Identification

ISU

GRAPHIC SUMMARY OF TEST RESULTS

INCREASING
PROBLEM
SEVERITY

SATISFACTORY

RATING

RATING

RATING

RATING

RATING

Field Identification

ISU

Field Identification

INCREASING

FIELD

FIEL

REPORT OF ANALYSIS									
YOUR SA									
12	BER								
Soil pH	5.7								
Buffer Index	6.8								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	2.5								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	40								
	49 								
Potassium	180								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre				
1st	Option Intende	ed Crop	2n	d Option Intend	ed Crop	3rd	Option Intende	ed Crop	
	Yield Goal			Yield Goal			Yield Goal		
	Preceding Crop			Preceding Cr	op	Preceding Crop			
	ANT FOOD INE RANGES	CROP REMOVAL RATES		ANT FOOD	CROP REMOVAL RATES		ANT FOOD	CROP REMOVAL RATES	
N	INE RANGES		N	LINE TONIOLO		N	LINE HANGES		
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅			
K ₂ O			K ₂ O			K ₂ 0			
MgO			MgO			MgO			
S			S			S			
Zn			Zn			Zn			
Mn			Mn			Mn			
Cu			Cu			Cu			
Fe			Fe			Fe			
В			В			В			
Lime To 6.5			Lime To 6.5			Lime To 6.5			
		Lime Guidelines	are for 100% Effect	ctive Calcium Carbon	nate (ECC) with a 6" Inco	rporation Depth.			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by EW50010106

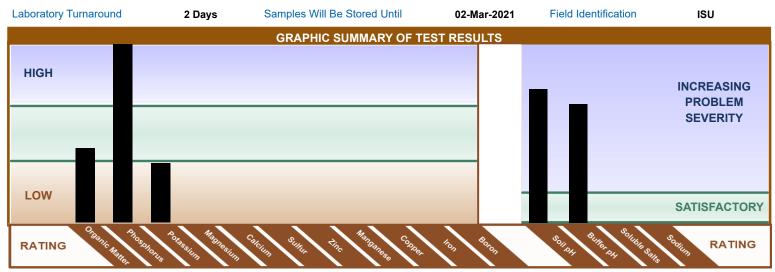
VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64812

Information Sheet # **Date Received Date Reported** 17-Feb-2021 15-Feb-2021 S0215-221



REPORT OF ANALYSIS									
YOUR SA									
13									
Soil pH	5.6								
Buffer Index	6.7								
Soluble Salts									
mmhos/cm Sodium ppm									
% Organic Matter	2.5								
ANALYSIS OF NUTRIENT ELEMENTS IS IN PARTS PER MILLION (ppm)									
Nitrate N									
Phosphorus									
Mehlich III	44								
Potassium	149								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

	FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st Option I	ntended Crop	2n	d Option Intend	led Crop	3rd	3rd Option Intended Crop			
Yield	l Goal		Yield Goal			Yield Goal			
Preced	ing Crop		Preceding Crop			Preceding Crop			
PLANT FOOD GUIDELINE RANGE	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES		
N		N			N				
P ₂ O ₅		P ₂ O ₅			P ₂ O ₅				
K ₂ O		K ₂ O			K ₂ O				
MgO		MgO			MgO				
S		S			S				
Zn		Zn			Zn				
Mn		Mn			Mn				
Cu		Cu			Cu				
Fe		Fe			Fe				
В		В			В				
Lime To 6.5		Lime To 6.5			Lime To 6.5				
	Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.	•			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual %	Suggested	Actual %	Suggested	Actual %	Suggested	Actual %	Suggested	Actual %	Suggested	CEC for	
Hydrogen	Hydrogen	Potassium	Potassium	Magnesium	Magnesium	Calcium	Calcium	Sodium	Sodium	Your Soil	

Submitted by EW50010106

AMES, IA 50011-1051

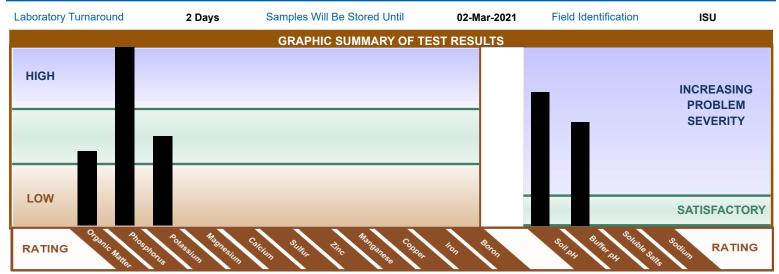
VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN

Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64813

Date Received Date Reported Information Sheet # 17-Feb-2021 15-Feb-2021 S0215-221



REPORT OF ANALYSIS									
YOUR SA									
14									
Soil pH	5.7								
Buffer Index	6.7								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	2.5								
ANALYSIS OF NUTRIENT ELEMENTS IS IN PARTS PER MILLION (ppm)									
Nitrate N									
Phosphorus Mehlich III	50								
Potassium	181								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

		FERTILIZE	R GUIDLIN	IES IN: Lbs	/Acre					
1st	Option Intende	ed Crop	2r	nd Option Intend	led Crop	3	rd Option Intende	ed Crop		
	Yield Goal		Yield Goal				Yield Goal			
	Preceding Crop			Preceding Crop			Preceding Crop			
	ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		PLANT FOOD DELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Effe	ective Calcium Carbo	nate (ECC) with a 6" Inc	orporation Depth				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	55	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS

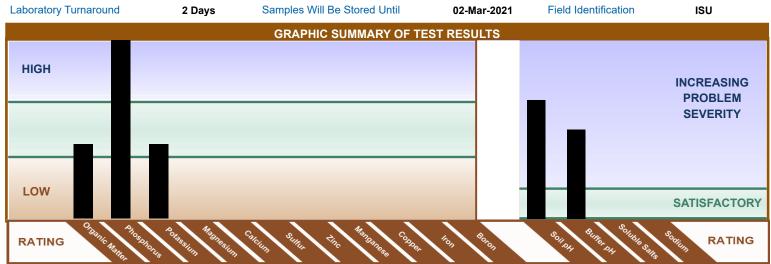


Laboratory Sample # CA64814

Information Sheet #

Date Received Date Reported 15-Feb-2021 17-Feb-2021

S0215-221



REPORT OF ANALYSIS										
	YOUR SAMPLE NUMBER									
15										
Soil pH	5.9									
Buffer Index	6.8									
Soluble Salts mmhos/cm										
Sodium ppm										
% Organic Matter	2.6									
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS									
Nitrate N										
Phosphorus Mehlich III	53									
Potassium	167									
Magnesium										
Calcium										
Sulfate Sulfur										
Zinc										
Manganese										
Copper										
Iron										
Boron										

	FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st Option I	ntended Crop	2n	d Option Intend	led Crop	3rd	3rd Option Intended Crop			
Yield	l Goal		Yield Goal			Yield Goal			
Preced	ing Crop		Preceding Crop			Preceding Crop			
PLANT FOOD GUIDELINE RANGE	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES		
N		N			N				
P ₂ O ₅		P ₂ O ₅			P ₂ O ₅				
K ₂ O		K ₂ O			K ₂ O				
MgO		MgO			MgO				
S		S			S				
Zn		Zn			Zn				
Mn		Mn			Mn				
Cu		Cu			Cu				
Fe		Fe			Fe				
В		В			В				
Lime To 6.5		Lime To 6.5			Lime To 6.5				
	Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.	•			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EV

Date Received

15-Feb-2021

EW50010106

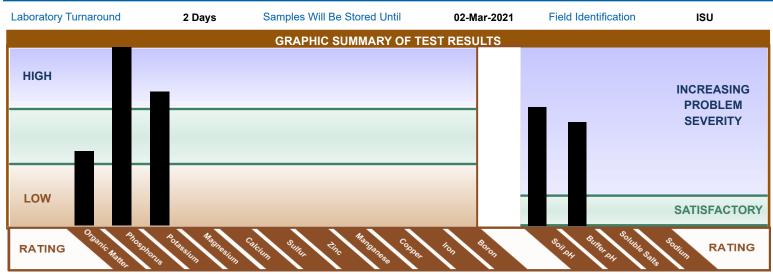
VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64815

Information Sheet #

Date Reported Informati 17-Feb-2021 S0215-221



REPORT OF ANALYSIS									
YOUR SA									
16									
Soil pH	5.9								
Buffer Index	6.7								
Soluble Salts mmhos/cm	-								
Sodium ppm									
% Organic Matter	2.6								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	92								
Potassium	206								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2n	d Option Intend	ed Crop	3rc	l Option Intende	ed Crop		
	Yield Goal			Yield Goal			Yield Goal			
	Preceding Crop			Preceding Crop			Preceding Crop			
	ANT FOOD LINE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	00	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by

EW50010106

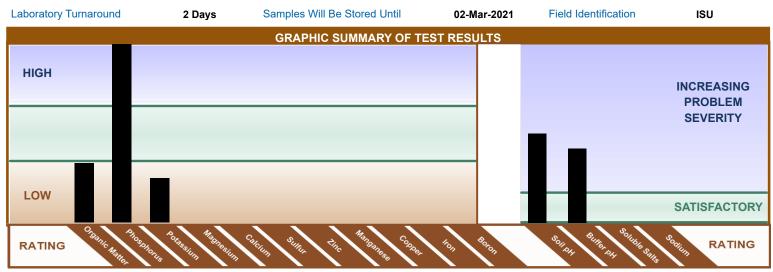
VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64816

Date Received Date Reported Information Sheet # 17-Feb-2021 15-Feb-2021 S0215-221



REPORT OF ANALYSIS								
YOUR SA								
17								
Soil pH	6.1							
Buffer Index	6.9							
Soluble Salts mmhos/cm								
Sodium ppm								
% Organic Matter	2.3							
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS							
Nitrate N								
Phosphorus Mehlich III	40							
Potassium	136							
Magnesium								
Calcium								
Sulfate Sulfur								
Zinc								
Manganese								
Copper								
Iron								
Boron								

		FERTILIZE	R GUIDLIN	ES IN: Lbs	Acre					
1st	Option Intende	ed Crop	2n	2nd Option Intended Crop			3rd Option Intended Crop			
	Yield Goal			Yield Goa	l		Yield Goal			
	Preceding Crop			Preceding Crop			Preceding Cr	op		
	ANT FOOD INE RANGES	CROP REMOVAL RATES		LANT FOOD	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P_2O_5			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime			Lime			Lime				
		Lime Guidelines	are for 100% Effe	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL A	ES	STIMATED							
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64817

Information Sheet #

S0215-221

Date Received Date Reported 15-Feb-2021 17-Feb-2021

Laboratory Turnaround

2 Days

Samples Will Be Stored Until

O2-Mar-2021

Field Identification

ISU

GRAPHIC SUMMARY OF TEST RESULTS

INCREASING PROBLEM SEVERITY

LOW

SATISFACTORY

RATING

Carrier Trees of the Problem of the Probl

REPORT OF	REPORT OF ANALYSIS								
YOUR SA									
18									
Soil pH	5.7								
Buffer Index	6.7								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	2.6								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	39								
Potassium	119								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

	FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st Option I	ntended Crop	2n	2nd Option Intended Crop			3rd Option Intended Crop			
Yield	l Goal		Yield Goal			Yield Goal			
Preced	ing Crop		Preceding Crop			Preceding Cr	op		
PLANT FOOD GUIDELINE RANGE	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES		
N		N			N				
P ₂ O ₅		P ₂ O ₅			P ₂ O ₅				
K ₂ O		K ₂ O			K ₂ O				
MgO		MgO			MgO				
S		S			S				
Zn		Zn			Zn				
Mn		Mn			Mn				
Cu		Cu			Cu				
Fe		Fe			Fe				
В		В			В				
Lime To 6.5		Lime To 6.5			Lime To 6.5				
	Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.	•			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

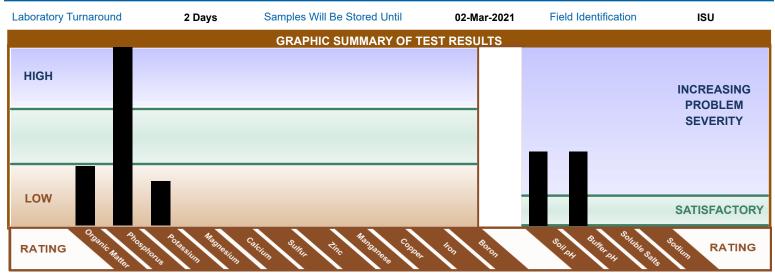
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64818

Information Sheet #

Date Received Date Reported 15-Feb-2021 17-Feb-2021 S0215-221



REPORT OF ANALYSIS								
YOUR SA								
19								
Soil pH	6.3							
Buffer Index	7.0							
Soluble Salts mmhos/cm								
Sodium ppm								
% Organic Matter	2.2							
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS							
Nitrate N								
Phosphorus Mehlich III	33							
 Potassium	139							
Magnesium								
Calcium								
Sulfate Sulfur								
Zinc								
Manganese								
Copper								
Iron								
Boron								

		FERTILIZE	R GUIDLIN	IES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2r	2nd Option Intended Crop			3rd Option Intended Crop			
	Yield Goal			Yield Goal			Yield Goal			
	Preceding Crop			Preceding Crop			Preceding Cr	-ор		
	ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime			Lime			Lime				
		Lime Guidelines	are for 100% Effe	ective Calcium Carbo	nate (ECC) with a 6" Inco	orporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	00	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

LOW

Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64819

SATISFACTORY

Information Sheet #

S0215-221

Date Received Date Reported 15-Feb-2021 17-Feb-2021

HIGH

INCREASING PROBLEM SEVERITY

RATING CLARATE TO STATE OF THE STATE OF THE

REPORT OF ANALYSIS									
YOUR SA									
20									
Soil pH	6.3								
Buffer Index	6.9								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	2.1								
ANALYSIS OF									
ELEMENTS IS									
PER MILLIO	ON (ppm)								
Nitrate N									
Phosphorus									
Mehlich III	33								
Potassium	149								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

		FERTILIZE	R G	UIDLINE	ES IN: Lbs/	Acre				
1st	Option Intende	d Crop		2nd	Option Intende	ed Crop		3rd	Option Intende	ed Crop
	Yield Goal				Yield Goal				Yield Goal	
	Ticia Coai				Tield Godi				Tiola Coar	
	Preceding Crop			Preceding Crop					Preceding Cr	ор
	ANT FOOD INE RANGES	CROP REMOVAL RATES			PLANT FOOD CROP REMOVAL GUIDELINE RANGES RATES			PLANT FOOD GUIDELINE RANGES		CROP REMOVAL RATES
N	INE RANGES			N	INE RANGES			N	LINE RANGES	
P ₂ O ₅				P ₂ O ₅				P ₂ O ₅		
K ₂ O				K ₂ O				K ₂ O		
MgO				MgO				MgO		
S				S				S		
Zn				Zn				Zn		
Mn				Mn				Mn		
Cu				Cu				Cu		
Fe				Fe				Fe		
В				В				В		
Lime				Lime				Lime		
		Lime Guidelines	are fo	or 100% Effect	tive Calcium Carbon	ate (ECC) with a 6" Inco	orpora	ation Depth.		

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	55	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

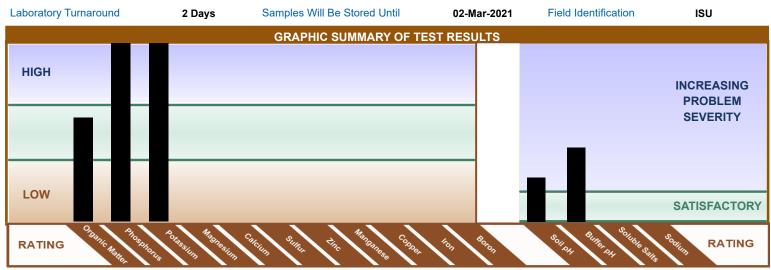
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64820

Information Sheet #

Date Received Date Reported 17-Feb-2021 15-Feb-2021 S0215-221



REPORT OF ANALYSIS								
YOUR SAMPLE NUMBER								
21								
Soil pH	6.7							
Buffer Index	7.0							
Soluble Salts mmhos/cm	-							
Sodium ppm								
% Organic Matter	3.8							
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS							
Nitrate N								
Phosphorus Mehlich III	53							
Potassium	269							
Magnesium								
Calcium								
Sulfate Sulfur								
Zinc								
Manganese								
Copper								
Iron								
Boron								

		FERTILIZE	R GUIDLIN	ES IN: Lbs	Acre					
1st	Option Intende	ed Crop	2n	2nd Option Intended Crop			3rd Option Intended Crop			
	Yield Goal			Yield Goa	l		Yield Goal			
	Preceding Crop			Preceding Crop			Preceding Crop			
	ANT FOOD INE RANGES	CROP REMOVAL RATES		LANT FOOD	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P_2O_5			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe	Fe		Fe				
В			В	В		В				
Lime			Lime			Lime				
		Lime Guidelines	are for 100% Effe	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	55	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

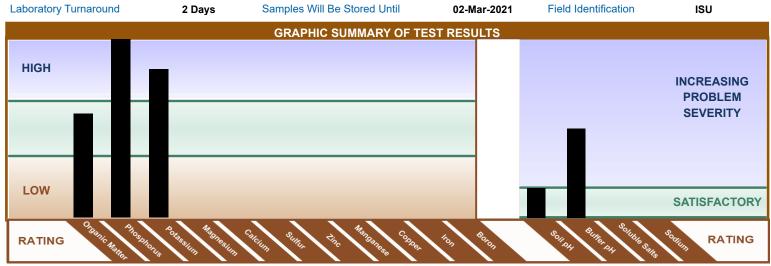
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64822

Information Sheet #

Date Received Date Reported 15-Feb-2021 17-Feb-2021 S0215-221



REPORT OF ANALYSIS									
	YOUR SAMPLE NUMBER								
22									
Soil pH	6.7								
Buffer Index	6.9								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	3.6								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	33								
Potassium	213								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

	FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre			
1st Option In	tended Crop	2nd Option Intended Crop			3rd	Option Intende	ed Crop
Yield	Goal		Yield Goal			Yield Goal	
Precedir	ng Crop		Preceding Cr	ор		ор	
PLANT FOOD GUIDELINE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES
N		N			N		
P ₂ O ₅		P_2O_5			P ₂ O ₅		
K ₂ O		K ₂ O			K ₂ O		
MgO		MgO			MgO		
S		S			S		
Zn		Zn			Zn		
Mn		Mn			Mn		
Cu		Cu			Cu		
Fe		Fe	Fe		Fe		
В		В	В		В		
Lime		Lime	Lime		Lime		
	Lime Guidelines	are for 100% Effec	ctive Calcium Carbor	nate (ECC) with a 6" Inco	rporation Depth.		

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64823

Information Sheet #

S0215-221

Date Received Date Reported 15-Feb-2021 17-Feb-2021

ļ-	
REPORT OF	ANALYSIS
YOUR SA	
NUME	BER
23	}
Soil pH	6.3
Buffer Index	6.8
Soluble Salts	
mmhos/cm	
Sodium ppm	
% Organic Matter	2.8
ANALYSIS OF	NUTRIENT
ELEMENTS IS	S IN PARTS
PER MILLIO	
Nitrate N	
Phosphorus	
Mehlich III	36
Potassium	296
Magnesium	
Calcium	
Sulfate Sulfur	
Zinc	
Manganese	
Copper	
Iron	
Boron	

	FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st Option I	ntended Crop	2n	2nd Option Intended Crop			3rd Option Intended Crop			
Yield	l Goal		Yield Goal			Yield Goal			
Preced	ing Crop		Preceding Crop			Preceding Crop			
PLANT FOOD GUIDELINE RANGE	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES		
N		N			N				
P ₂ O ₅		P ₂ O ₅			P ₂ O ₅				
K ₂ O		K ₂ O			K ₂ O				
MgO		MgO			MgO				
S		S			S				
Zn		Zn			Zn				
Mn		Mn			Mn				
Cu		Cu			Cu				
Fe		Fe			Fe				
В		В		В					
Lime To 6.5		Lime To 6.5			Lime To 6.5				
	Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.	•			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64824

Information Sheet #

S0215-221

Date Received Date Reported 15-Feb-2021 17-Feb-2021

Laboratory Turnaround

2 Days

Samples Will Be Stored Until

02-Mar-2021

Field Identification

ISU

GRAPHIC SUMMARY OF TEST RESULTS

INCREASING
PROBLEM
SEVERITY

SATISFACTORY

RATING

RATING

RATING

RATING

RATING

Field Identification

ISU

Field Identification

INCREASING

FIELD

FI

REPORT OF ANALYSIS									
	YOUR SAMPLE NUMBER								
24									
Soil pH	6.8								
Buffer Index	7.0								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	3.0								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	69								
Potassium	548								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

	FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre			
1st Option In	tended Crop	2nd Option Intended Crop			3rd	Option Intende	ed Crop
Yield	Goal		Yield Goal			Yield Goal	
Precedir	ng Crop		Preceding Cr	ор		ор	
PLANT FOOD GUIDELINE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES
N		N			N		
P ₂ O ₅		P_2O_5			P ₂ O ₅		
K ₂ O		K ₂ O			K ₂ O		
MgO		MgO			MgO		
S		S			S		
Zn		Zn			Zn		
Mn		Mn			Mn		
Cu		Cu			Cu		
Fe		Fe	Fe		Fe		
В		В	В		В		
Lime		Lime	Lime		Lime		
	Lime Guidelines	are for 100% Effec	ctive Calcium Carbor	nate (ECC) with a 6" Inco	rporation Depth.		

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

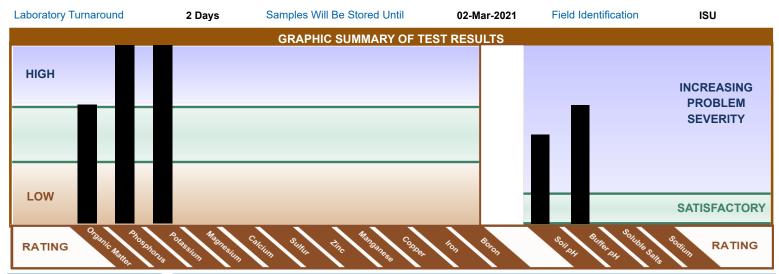
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64825

Information Sheet #

Date Received Date Reported 17-Feb-2021 15-Feb-2021 S0215-221



REPORT OF ANALYSIS										
	YOUR SAMPLE NUMBER									
25										
Soil pH	6.1									
Buffer Index	6.6									
Soluble Salts mmhos/cm										
Sodium ppm										
% Organic Matter	4.3									
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS									
Nitrate N										
Phosphorus Mehlich III	85									
Potassium	362									
Magnesium										
Calcium										
Sulfate Sulfur										
Zinc										
Manganese										
Copper										
Iron										
Boron										

		FERTILIZEI	R GUIDLIN	ES IN: Lbs/	Acre				
1st	Option Intende	ed Crop	2nd	d Option Intend	ed Crop	3rd	Option Intende	ed Crop	
	Yield Goal			Yield Goal		Yield Goal			
	Preceding Crop			Preceding Crop			Preceding Crop		
	ANT FOOD INE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES	
N			N			N			
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅			
K₂O			K ₂ O			K ₂ O			
MgO			MgO			MgO			
S			S			S			
Zn			Zn			Zn			
Mn			Mn			Mn			
Cu			Cu			Cu			
Fe			Fe			Fe			
В			В			В			
Lime To 6.5			Lime To 6.5			Lime To 6.5			
		Lime Guidelines	are for 100% Effec	tive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.			

	ACTUAL A	AND SUGGE	ATION)	E	STIMATED					
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Date Received

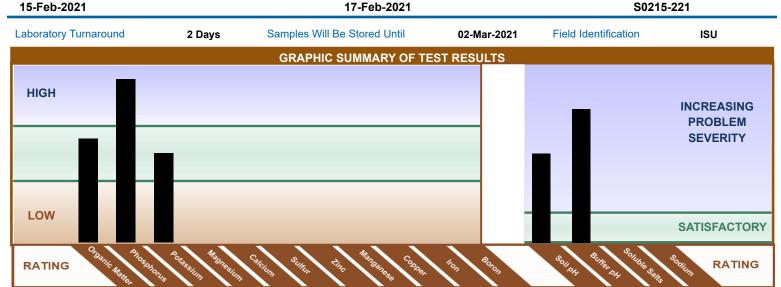
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64826

Information Sheet #

Date Reported 17-Feb-2021 S0215-221



REPORT OF ANALYSIS									
	YOUR SAMPLE NUMBER								
26									
Soil pH	6.1								
Buffer Index	6.5								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	3.8								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	24								
	31 								
Potassium	171								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre				
1st	Option Intende	ed Crop	2n	d Option Intend	ed Crop	3rc	Option Intende	ed Crop	
	Yield Goal			Yield Goal			Yield Goal		
	Preceding Crop			Preceding Crop			Preceding Crop		
	ANT FOOD INE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES	
N			N			N			
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅			
K ₂ O			K ₂ O			K ₂ O			
MgO			MgO			MgO			
S			S			S			
Zn			Zn			Zn			
Mn			Mn			Mn			
Cu			Cu			Cu			
Fe			Fe			Fe			
В			В	В		В			
Lime To 6.5			Lime To 6.5			Lime To 6.5			
		Lime Guidelines	are for 100% Effect	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	55	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS

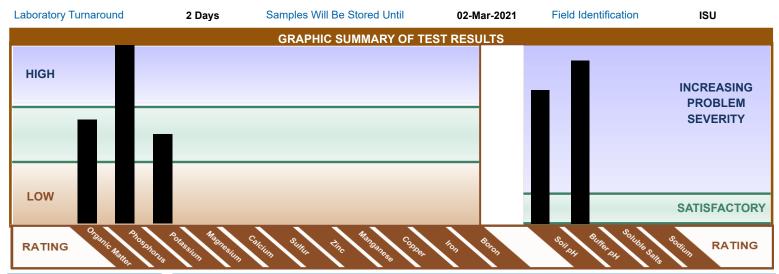


Laboratory Sample # CA64827

Information Sheet #

 Date Received
 Date Reported
 Information

 15-Feb-2021
 17-Feb-2021
 \$0215-221



REPORT OF ANALYSIS								
YOUR SA								
27								
Soil pH	5.7							
Buffer Index	6.2							
Soluble Salts mmhos/cm								
Sodium ppm								
% Organic Matter	3.9							
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS							
Nitrate N								
Phosphorus Mehlich III	48							
 Potassium	172							
Magnesium								
Calcium								
Sulfate Sulfur								
Zinc								
Manganese								
Copper								
Iron								
Boron								

	FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st Option I	ntended Crop	2n	2nd Option Intended Crop			Option Intende	ed Crop		
Yield	l Goal		Yield Goal			Yield Goal			
Preced	ing Crop		Preceding Crop			Preceding Crop			
PLANT FOOD GUIDELINE RANGE	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES		
N		N			N				
P ₂ O ₅		P ₂ O ₅			P ₂ O ₅				
K ₂ O		K ₂ O			K ₂ O				
MgO		MgO			MgO				
S		S			S				
Zn		Zn			Zn				
Mn		Mn			Mn				
Cu		Cu			Cu				
Fe		Fe			Fe				
В		В		В					
Lime To 6.5		Lime To 6.5			Lime To 6.5				
	Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.	•			

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by

Date Received

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Submitted for VIRGINIA NICHOLS

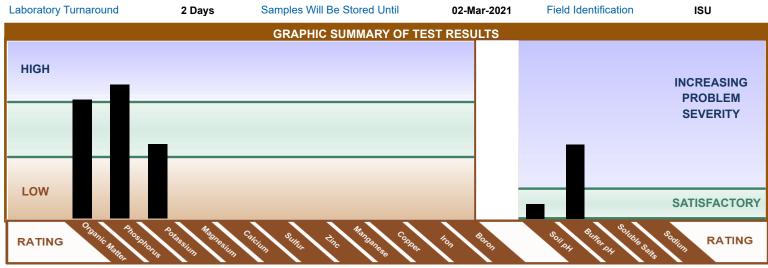


Laboratory Sample # CA64828

Information Sheet #

17-Feb-2021 15-Feb-2021 S0215-221

Date Reported



REPORT OF	REPORT OF ANALYSIS								
YOUR SA									
28									
Soil pH	7.0								
Buffer Index	7.0								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	4.1								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	23								
 Potassium	 168								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

		FERTILIZE	R GUIDLIN	IES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2r	nd Option Intend	led Crop	3rd	3rd Option Intended Crop			
	Yield Goal			Yield Goal			Yield Goal			
	Preceding Crop			Preceding Crop			Preceding Crop			
	ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В	В		В				
Lime			Lime	Lime		Lime				
		Lime Guidelines	are for 100% Effe	ective Calcium Carbo	nate (ECC) with a 6" Inco	orporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS

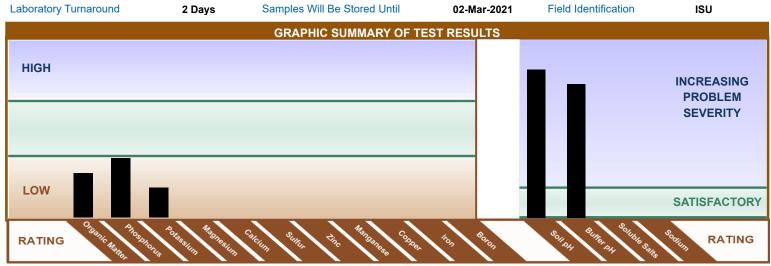


Laboratory Sample # CA64829

Information Sheet #

Date Received Date Reported 15-Feb-2021 17-Feb-2021

S0215-221



REPORT OF ANALYSIS									
YOUR SA									
29									
Soil pH	5.4								
Buffer Index	6.6								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	1.8								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	14								
Potassium	98								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

		FERTILIZEI	R GUIDLIN	ES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2nd	2nd Option Intended Crop			Option Intende	ed Crop		
	Yield Goal			Yield Goal			Yield Goal			
	Preceding Cr	ор		Preceding Cr	тор		Preceding Cr	op		
	ANT FOOD INE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Effec	tive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL A	AND SUGGE	ATION)	ES	TIMATED				
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by

EW50010106

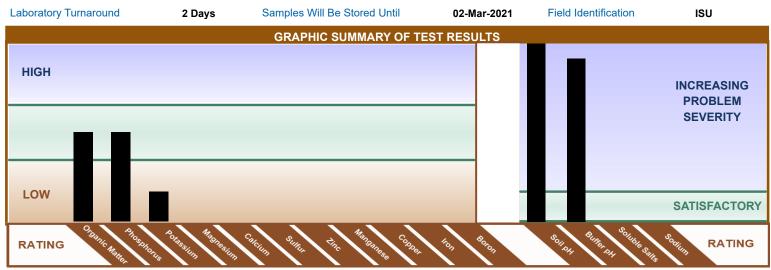
VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64830

Date Received Date Reported Information Sheet # 17-Feb-2021 15-Feb-2021 S0215-221



REPORT OF ANALYSIS									
YOUR SA									
30									
Soil pH	5.0								
Buffer Index	6.2								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	3.3								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	18								
Potassium	70								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

		FERTILIZEI	R GUIDLIN	ES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2nd	2nd Option Intended Crop			Option Intende	ed Crop		
	Yield Goal			Yield Goal			Yield Goal			
	Preceding Cr	ор		Preceding Cr	тор		Preceding Cr	op		
	ANT FOOD INE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Effec	tive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION)									
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Date Received

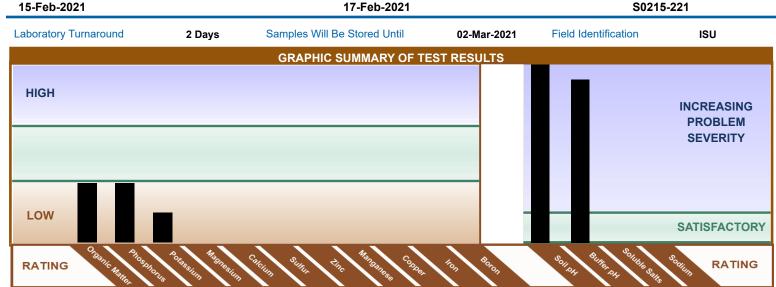
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64831

Information Sheet #

Date Reported 17-Feb-2021 S0215-221



REPORT OF ANALYSIS									
YOUR SA									
31									
Soil pH	4.7								
Buffer Index	6.1								
Soluble Salts mmhos/cm	-								
Sodium ppm									
% Organic Matter	2.2								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	15								
Potassium	67								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2n	2nd Option Intended Crop			3rd Option Intended Crop			
	Yield Goal			Yield Goal			Yield Goal			
	Preceding Crop			Preceding Crop			Preceding Crop			
	ANT FOOD LINE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64832

Information Sheet #

S0215-221

Date Received Date Reported 17-Feb-2021 15-Feb-2021

Laboratory Turnaround Samples Will Be Stored Until 02-Mar-2021 Field Identification ISU 2 Days **GRAPHIC SUMMARY OF TEST RESULTS HIGH INCREASING PROBLEM SEVERITY** LOW **SATISFACTORY RATING RATING**

REPORT OF	ANALYSIS
YOUR SA	
NUME	
32	
Soil pH	5.6
Buffer Index	6.4
Soluble Salts	
mmhos/cm	
Sodium ppm	
% Organic	4.6
Matter	MUTDIENT
ANALYSIS OF ELEMENTS IS	
PER MILLIC	
	эк (ррш)
Nitrate N	
Phosphorus	
Mehlich III	56
Potassium	209
Magnesium	
Calcium	
Sulfate Sulfur	
Zinc	
Manganese	
Copper	
Iron	
Boron	

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2n	2nd Option Intended Crop			3rd Option Intended Crop			
	Yield Goal			Yield Goal	l	Yield Goal				
	Preceding Crop			Preceding Crop			Preceding Crop			
	ANT FOOD INE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		INT FOOD NE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Effe	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED										
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium		Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil	

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051 Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64833

Information Sheet #

S0215-221

Date Received Date Reported 15-Feb-2021 17-Feb-2021

Laboratory Turnaround

2 Days

Samples Will Be Stored Until

O2-Mar-2021

Field Identification

ISU

GRAPHIC SUMMARY OF TEST RESULTS

INCREASING PROBLEM SEVERITY

SATISFACTORY

RATING

RATING

RATING

Field Identification

ISU

Field Identification

ISU

Field Identification

ISU

RATING

RATING

RATING

	~
REPORT OF	ANALYSIS
YOUR SA	
NUME	
33	
Soil pH	5.1
Buffer Index	6.4
Soluble Salts	
mmhos/cm	
Sodium ppm	
% Organic	1.8
Matter	AUITOITAIT
ANALYSIS OF ELEMENTS IS	
PER MILLIO	
	j (ppiii)
Nitrate N	
Phosphorus	
Mehlich III	12
Potassium	80
Magnesium	
Calcium	
Sulfate Sulfur	
Zinc	
Manganese	
Copper	
Iron	
Boron	-

		FERTILIZE	K GUIDLIN	ES IN: Lbs/	Acre					
1st	Option Intended	Crop	2 n	d Option Intend	led Crop	3rd	Option Intende	ed Crop		
	Yield Goal			Yield Goal			Yield Goal			
	Preceding Crop			Preceding C	rop		Preceding Cr	ор		
	ANT FOOD	CROP REMOVAL		ANT FOOD	CROP REMOVAL		ANTEGOR	ODOD DEMOVAL		
	ANT FOOD INE RANGES	RATES		ANT FOOD LINE RANGES	RATES		LANT FOOD LINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K ₂ O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guideline	s are for 100% Effe	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL A	ES	TIMATED						
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Date Received

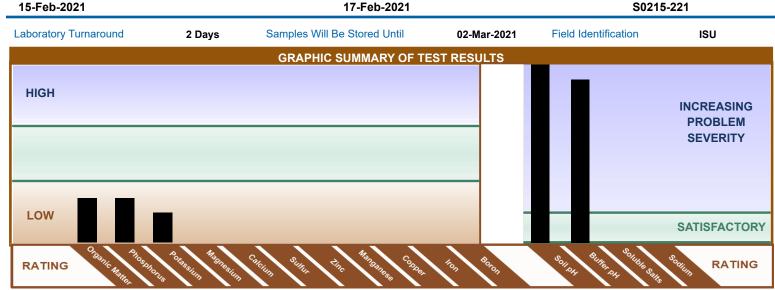
Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64834

Information Sheet #

Date Reported 17-Feb-2021 S0215-221



REPORT OF ANALYSIS									
YOUR SA									
34									
Soil pH	5.1								
Buffer Index	6.4								
Soluble Salts mmhos/cm									
Sodium ppm									
% Organic Matter	1.8								
ANALYSIS OF ELEMENTS IS PER MILLIO	S IN PARTS								
Nitrate N									
Phosphorus Mehlich III	44								
	11 								
Potassium	80								
Magnesium									
Calcium									
Sulfate Sulfur									
Zinc									
Manganese									
Copper									
Iron									
Boron									

		FERTILIZE	R GUIDLII	NES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2	nd Option Intend	led Crop	3rc	Option Intende	ed Crop		
	Yield Goal			Yield Goal			Yield Goal			
	Preceding Crop			Preceding Ci	rop		Preceding Cr	ор		
	ANT FOOD INE RANGES	CROP REMOVAL RATES		PLANT FOOD ELINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Eff	ective Calcium Carbo	nate (ECC) with a 6" Inco	orporation Depth.				

	ACTUAL AND SUGGESTED PERCENT OF TOTAL CEC (BASE SATURATION) ESTIMATED											
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium		Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil		

Submitted by EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

Submitted for VIRGINIA NICHOLS



Laboratory Sample # CA64835

Information Sheet #

S0215-221

Date Received Date Reported 15-Feb-2021 17-Feb-2021

Laboratory Turnaround Samples Will Be Stored Until 02-Mar-2021 Field Identification ISU 2 Days **GRAPHIC SUMMARY OF TEST RESULTS HIGH INCREASING PROBLEM SEVERITY** LOW **SATISFACTORY RATING RATING**

	~
REPORT OF	ANALYSIS
YOUR S	
NUMI	BER
35	j
Soil pH	5.3
Buffer Index	6.3
Soluble Salts	
mmhos/cm	
Sodium ppm	
% Organic Matter	3.0
ANALYSIS OF	NUTRIENT
ELEMENTS IS	
PER MILLIO	ON (ppm)
Nitrate N	
Phosphorus	
Mehlich III	12
	400
Potassium	109
Magnesium	
Calcium	
Sulfate Sulfur	
Zinc	
Manganese	
Copper	
Iron	
Boron	

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre				
1st	Option Intende	ed Crop	2n	d Option Intend	led Crop	3rd Option Intended Crop			
	Yield Goal			Yield Goal	l	Yield Goal			
	Preceding Cr	ор		Preceding Cı	rop		Preceding Cr	ор	
	ANT FOOD INE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		INT FOOD NE RANGES	CROP REMOVAL RATES	
N			N			N			
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅			
K₂O			K ₂ O			K ₂ O			
MgO			MgO			MgO			
S			S			S			
Zn			Zn			Zn			
Mn			Mn			Mn			
Cu			Cu			Cu			
Fe			Fe			Fe			
В			В			В			
Lime To 6.5			Lime To 6.5			Lime To 6.5			
		Lime Guidelines	are for 100% Effe	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.			

	ACTUAL A	ES	TIMATED						
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil

Submitted by

Date Received

EW50010106

VIRGINIA NICHOLS 2501 AGRONOMY HALL 716 FARMHOUSE LN AMES, IA 50011-1051

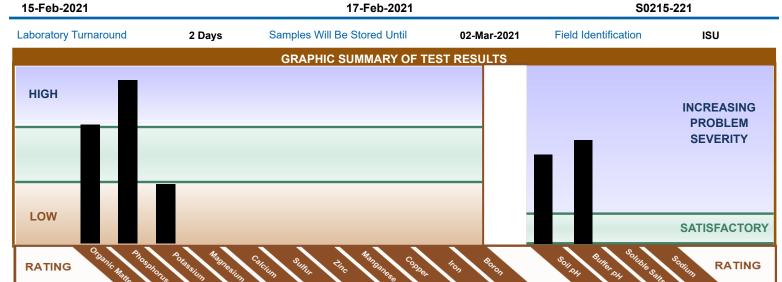
Submitted for VIRGINIA NICHOLS

Date Reported



Laboratory Sample # CA64836

Information Sheet #



	REPORT OF ANALYSIS										
YOUR SA											
NUME 36											
-											
Soil pH	6.2										
Buffer Index	6.7										
Soluble Salts											
mmhos/cm Sodium ppm											
% Organic											
Matter	4.4										
ANALYSIS OF											
ELEMENTS IS											
PER MILLIO	אכ (ppm)										
Nitrate N											
Phosphorus											
Mehlich III	31										
Potassium	145										
Magnesium											
Calcium											
Sulfate Sulfur											
Zinc											
Manganese											
Copper											
Iron											
Boron											

		FERTILIZE	R GUIDLIN	ES IN: Lbs/	Acre					
1st	Option Intende	ed Crop	2n	2nd Option Intended Crop			3rd Option Intended Crop			
	Yield Goal			Yield Goal			Yield Goal			
Preceding Crop				Preceding Cr	тор		Preceding Cr	ор		
	ANT FOOD LINE RANGES	CROP REMOVAL RATES		ANT FOOD LINE RANGES	CROP REMOVAL RATES		LANT FOOD ELINE RANGES	CROP REMOVAL RATES		
N			N			N				
P ₂ O ₅			P ₂ O ₅			P ₂ O ₅				
K₂O			K ₂ O			K ₂ O				
MgO			MgO			MgO				
S			S			S				
Zn			Zn			Zn				
Mn			Mn			Mn				
Cu			Cu			Cu				
Fe			Fe			Fe				
В			В			В				
Lime To 6.5			Lime To 6.5			Lime To 6.5				
		Lime Guidelines	are for 100% Effec	ctive Calcium Carbo	nate (ECC) with a 6" Inco	rporation Depth.				

	ACTUAL A	AND SUGGE	ATION)	ES	STIMATED					
Actual % Hydrogen	Suggested Hydrogen	Actual % Potassium	Suggested Potassium	Actual % Magnesium	Suggested Magnesium	Actual % Calcium	Suggested Calcium	Actual % Sodium	Suggested Sodium	CEC for Your Soil