

SOIL ANALYSIS

Client : Five Oaks Agronomy Consulting LLC Robert Habel 206 Briarherst Dr, Amherst VA 24521	Grower : City of Radford	Report No: 22-116-0516 Cust No: 04895 Date Printed: 04/27/2022 Date Received : 04/26/2022 PO: Page : 1 of 17
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Lab No: 11573

Field:

Sample ID: RAD 01

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity																					
			Very Low	Low	Medium	Optimum	Very High																						
Soil pH	1:1	7.1						10.5 meq/100g																					
Buffer pH																													
Phosphorus (P)	M3	15 ppm						<table border="1"> <thead> <tr> <th colspan="3">%Saturation</th> </tr> <tr> <th></th> <th>%sat</th> <th>meq</th> </tr> </thead> <tbody> <tr> <td>K</td> <td>3.3</td> <td>0.3</td> </tr> <tr> <td>Ca</td> <td>73.9</td> <td>7.8</td> </tr> <tr> <td>Mg</td> <td>21.1</td> <td>2.2</td> </tr> <tr> <td>H</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>Na</td> <td>1.2</td> <td>0.1</td> </tr> </tbody> </table>	%Saturation				%sat	meq	K	3.3	0.3	Ca	73.9	7.8	Mg	21.1	2.2	H	0.0	0.0	Na	1.2	0.1
%Saturation																													
	%sat	meq																											
K	3.3	0.3																											
Ca	73.9	7.8																											
Mg	21.1	2.2																											
H	0.0	0.0																											
Na	1.2	0.1																											
Potassium (K)	M3	136 ppm																											
Calcium (Ca)	M3	1552 ppm																											
Magnesium (Mg)	M3	266 ppm																											
Sulfur (S)	M3	4 ppm																											
Boron (B)	M3	0.8 ppm																											
Copper (Cu)	M3	1.8 ppm																											
Iron (Fe)	M3	97 ppm						K/Mg Ratio: 0.15																					
Manganese (Mn)	M3	74 ppm						Ca/Mg Ratio: 3.50																					
Zinc (Zn)	M3	10.3 ppm																											
Sodium (Na)	M3	30 ppm																											
Soluble Salts																													
Organic Matter	LOI	7.5%																											
Estimated N Release		150 lbs/acre																											
Nitrate Nitrogen																													

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

SOIL ANALYSIS

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Lab No: 11574

Field:

Sample ID: RAD 02

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity		
			Very Low	Low	Medium	Optimum	Very High	%sat	meq	
Soil pH	1:1	6.4						11.1 meq/100g		
Buffer pH								%Saturation		
Phosphorus (P)	M3	23 ppm						K	2.4	0.3
Potassium (K)	M3	102 ppm						Ca	67.3	7.5
Calcium (Ca)	M3	1493 ppm						Mg	20.9	2.3
Magnesium (Mg)	M3	279 ppm						H	9.0	1.0
Sulfur (S)	M3	8 ppm						Na	0.5	0.1
Boron (B)	M3	0.7 ppm						K/Mg Ratio: 0.11		
Copper (Cu)	M3	1.2 ppm						Ca/Mg Ratio: 3.22		
Iron (Fe)	M3	107 ppm								
Manganese (Mn)	M3	98 ppm								
Zinc (Zn)	M3	7.2 ppm								
Sodium (Na)	M3	14 ppm								
Soluble Salts										
Organic Matter	LOI	6.6%								
Estimated N Release		150 lbs/acre								
Nitrate Nitrogen										

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Comments :

SOIL ANALYSIS

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Lab No: 11575

Field:

Sample ID: RAD 03

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
			Very Low	Low	Medium	Optimum	Very High	
Soil pH	1:1	6.7						8.4 meq/100g
Buffer pH								%Saturation
Phosphorus (P)	M3	19 ppm						%sat meq
Potassium (K)	M3	158 ppm						K 4.8 0.4
Calcium (Ca)	M3	1147 ppm						Ca 68.3 5.7
Magnesium (Mg)	M3	221 ppm						Mg 21.9 1.8
Sulfur (S)	M3	14 ppm						H 4.8 0.4
Boron (B)	M3	0.5 ppm						Na 0.6 0
Copper (Cu)	M3	0.8 ppm						
Iron (Fe)	M3	163 ppm						K/Mg Ratio: 0.21
Manganese (Mn)	M3	116 ppm						Ca/Mg Ratio: 3.12
Zinc (Zn)	M3	3.5 ppm						
Sodium (Na)	M3	11 ppm						
Soluble Salts								
Organic Matter	LOI	7.2%						
Estimated N Release		150 lbs/acre						
Nitrate Nitrogen								

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :



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Lab No: 11576

Field:

Sample ID: RAD 04

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
			Very Low	Low	Medium	Optimum	Very High	
Soil pH	1:1	7.0						8.8 meq/100g
Buffer pH								%Saturation
Phosphorus (P)	M3	16 ppm						%sat meq
Potassium (K)	M3	120 ppm						K 3.5 0.3
Calcium (Ca)	M3	1296 ppm						Ca 73.6 6.5
Magnesium (Mg)	M3	236 ppm						Mg 22.3 2.0
Sulfur (S)	M3	8 ppm						H 0.0 0.0
Boron (B)	M3	0.6 ppm						Na 0.8 0.1
Copper (Cu)	M3	1.6 ppm						
Iron (Fe)	M3	202 ppm						K/Mg Ratio: 0.15
Manganese (Mn)	M3	128 ppm						Ca/Mg Ratio: 3.30
Zinc (Zn)	M3	3.6 ppm						
Sodium (Na)	M3	16 ppm						
Soluble Salts								
Organic Matter	LOI	4.5%						
Estimated N Release		127 lbs/acre						
Nitrate Nitrogen								

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Comments :

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Lab No: 11578

Field:

Sample ID: RAD 05

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
			Very Low	Low	Medium	Optimum	Very High	
Soil pH	1:1	7.2						13.5 meq/100g
Buffer pH								
Phosphorus (P)	M3	30 ppm						%sat meq K 2.7 0.4 Ca 77.1 10.4 Mg 18.9 2.6 H 0.0 0.0 Na 0.9 0.1
Potassium (K)	M3	143 ppm						
Calcium (Ca)	M3	2083 ppm						
Magnesium (Mg)	M3	306 ppm						
Sulfur (S)	M3	18 ppm						
Boron (B)	M3	1.0 ppm						
Copper (Cu)	M3	2.3 ppm						
Iron (Fe)	M3	139 ppm						
Manganese (Mn)	M3	112 ppm						K/Mg Ratio: 0.14
Zinc (Zn)	M3	12.5 ppm						Ca/Mg Ratio: 4.08
Sodium (Na)	M3	28 ppm						
Soluble Salts								
Organic Matter	LOI	6.6%						
Estimated N Release		150 lbs/acre						
Nitrate Nitrogen								

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

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Lab No: 11579

Field:

Sample ID: RAD 06

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity																		
			Very Low	Low	Medium	Optimum	Very High																			
Soil pH	1:1	7.3						11.4 meq/100g																		
Buffer pH																										
Phosphorus (P)	M3	14 ppm						%Saturation <table border="1"> <thead> <tr> <th></th> <th>%sat</th> <th>meq</th> </tr> </thead> <tbody> <tr> <td>K</td> <td>2.2</td> <td>0.3</td> </tr> <tr> <td>Ca</td> <td>74.7</td> <td>8.5</td> </tr> <tr> <td>Mg</td> <td>22.9</td> <td>2.6</td> </tr> <tr> <td>H</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>Na</td> <td>0.5</td> <td>0.1</td> </tr> </tbody> </table>		%sat	meq	K	2.2	0.3	Ca	74.7	8.5	Mg	22.9	2.6	H	0.0	0.0	Na	0.5	0.1
	%sat	meq																								
K	2.2	0.3																								
Ca	74.7	8.5																								
Mg	22.9	2.6																								
H	0.0	0.0																								
Na	0.5	0.1																								
Potassium (K)	M3	99 ppm																								
Calcium (Ca)	M3	1704 ppm																								
Magnesium (Mg)	M3	313 ppm																								
Sulfur (S)	M3	7 ppm																								
Boron (B)	M3	0.6 ppm																								
Copper (Cu)	M3	1.6 ppm																								
Iron (Fe)	M3	149 ppm						K/Mg Ratio: 0.09																		
Manganese (Mn)	M3	118 ppm						Ca/Mg Ratio: 3.26																		
Zinc (Zn)	M3	6.2 ppm																								
Sodium (Na)	M3	14 ppm																								
Soluble Salts																										
Organic Matter	LOI	5.8%																								
Estimated N Release		150 lbs/acre																								
Nitrate Nitrogen																										

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

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Lab No: 11580

Field:

Sample ID: RAD 07

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
			Very Low	Low	Medium	Optimum	Very High	
Soil pH	1:1	6.4						8.2 meq/100g
Buffer pH								%Saturation
Phosphorus (P)	M3	15 ppm						%sat meq
Potassium (K)	M3	109 ppm						K 3.4 0.3
Calcium (Ca)	M3	1042 ppm						Ca 63.5 5.2
Magnesium (Mg)	M3	235 ppm						Mg 23.9 2.0
Sulfur (S)	M3	2 ppm						H 8.5 0.7
Boron (B)	M3	0.4 ppm						Na 0.7 0.1
Copper (Cu)	M3	1.7 ppm						K/Mg Ratio: 0.14
Iron (Fe)	M3	158 ppm						Ca/Mg Ratio: 2.66
Manganese (Mn)	M3	178 ppm						
Zinc (Zn)	M3	7.8 ppm						
Sodium (Na)	M3	13 ppm						
Soluble Salts								
Organic Matter	LOI	5.2%						
Estimated N Release		142 lbs/acre						
Nitrate Nitrogen								

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Comments :

SOIL ANALYSIS

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Lab No: 11581

Field:

Sample ID: RAD 08

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
			Very Low	Low	Medium	Optimum	Very High	
Soil pH	1:1	6.5						10.4 meq/100g
Buffer pH								
Phosphorus (P)	M3	37 ppm						%Saturation %sat meq K 4.8 0.5 Ca 64.2 6.7 Mg 23.0 2.4 H 7.7 0.8 Na 0.5 0.1
Potassium (K)	M3	196 ppm						
Calcium (Ca)	M3	1336 ppm						
Magnesium (Mg)	M3	287 ppm						
Sulfur (S)	M3	8 ppm						
Boron (B)	M3	0.7 ppm						
Copper (Cu)	M3	2.1 ppm						
Iron (Fe)	M3	148 ppm						
Manganese (Mn)	M3	105 ppm						K/Mg Ratio: 0.21
Zinc (Zn)	M3	21.0 ppm						Ca/Mg Ratio: 2.79
Sodium (Na)	M3	13 ppm						
Soluble Salts								
Organic Matter	LOI	5.3%						
Estimated N Release		141 lbs/acre						
Nitrate Nitrogen								

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

SOIL ANALYSIS

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Lab No: 11582

Field:

Sample ID: RAD 09

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity		
			Very Low	Low	Medium	Optimum	Very High	%sat	meq	
Soil pH	1:1	6.9						8.8 meq/100g		
Buffer pH								%Saturation		
Phosphorus (P)	M3	19 ppm						K	4.1	0.4
Potassium (K)	M3	142 ppm						Ca	67.7	6.0
Calcium (Ca)	M3	1192 ppm						Mg	26.4	2.3
Magnesium (Mg)	M3	279 ppm						H	1.1	0.1
Sulfur (S)	M3	5 ppm						Na	0.6	0.1
Boron (B)	M3	0.6 ppm						K/Mg Ratio: 0.15		
Copper (Cu)	M3	3.3 ppm						Ca/Mg Ratio: 2.56		
Iron (Fe)	M3	105 ppm								
Manganese (Mn)	M3	165 ppm								
Zinc (Zn)	M3	50.8 ppm								
Sodium (Na)	M3	13 ppm								
Soluble Salts										
Organic Matter	LOI	4.6%								
Estimated N Release		129 lbs/acre								
Nitrate Nitrogen										

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Comments :

SOIL ANALYSIS

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Lab No: 11583

Field:

Sample ID: RAD 10

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity																					
			Very Low	Low	Medium	Optimum	Very High																						
Soil pH	1:1	7.2						11.3 meq/100g																					
Buffer pH																													
Phosphorus (P)	M3	26 ppm						<table border="1"> <thead> <tr> <th colspan="3">%Saturation</th> </tr> <tr> <th></th> <th>%sat</th> <th>meq</th> </tr> </thead> <tbody> <tr> <td>K</td> <td>4.8</td> <td>0.5</td> </tr> <tr> <td>Ca</td> <td>66.4</td> <td>7.5</td> </tr> <tr> <td>Mg</td> <td>27.9</td> <td>3.2</td> </tr> <tr> <td>H</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>Na</td> <td>0.5</td> <td>0.1</td> </tr> </tbody> </table>	%Saturation				%sat	meq	K	4.8	0.5	Ca	66.4	7.5	Mg	27.9	3.2	H	0.0	0.0	Na	0.5	0.1
%Saturation																													
	%sat	meq																											
K	4.8	0.5																											
Ca	66.4	7.5																											
Mg	27.9	3.2																											
H	0.0	0.0																											
Na	0.5	0.1																											
Potassium (K)	M3	213 ppm																											
Calcium (Ca)	M3	1501 ppm																											
Magnesium (Mg)	M3	378 ppm																											
Sulfur (S)	M3	14 ppm																											
Boron (B)	M3	0.9 ppm																											
Copper (Cu)	M3	1.3 ppm																											
Iron (Fe)	M3	68 ppm						K/Mg Ratio: 0.17																					
Manganese (Mn)	M3	149 ppm						Ca/Mg Ratio: 2.38																					
Zinc (Zn)	M3	6.6 ppm																											
Sodium (Na)	M3	12 ppm																											
Soluble Salts																													
Organic Matter	LOI	6.0%																											
Estimated N Release		150 lbs/acre																											
Nitrate Nitrogen																													

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

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Lab No: 11584

Field:

Sample ID: RAD 11

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity																					
			Very Low	Low	Medium	Optimum	Very High																						
Soil pH	1:1	7.2						16.8 meq/100g																					
Buffer pH																													
Phosphorus (P)	M3	61 ppm						<table border="1"> <thead> <tr> <th colspan="3">%Saturation</th> </tr> <tr> <th></th> <th>%sat</th> <th>meq</th> </tr> </thead> <tbody> <tr> <td>K</td> <td>1.6</td> <td>0.3</td> </tr> <tr> <td>Ca</td> <td>83.5</td> <td>14.0</td> </tr> <tr> <td>Mg</td> <td>14.6</td> <td>2.5</td> </tr> <tr> <td>H</td> <td>0.0</td> <td>0.0</td> </tr> <tr> <td>Na</td> <td>0.4</td> <td>0.1</td> </tr> </tbody> </table>	%Saturation				%sat	meq	K	1.6	0.3	Ca	83.5	14.0	Mg	14.6	2.5	H	0.0	0.0	Na	0.4	0.1
%Saturation																													
	%sat	meq																											
K	1.6	0.3																											
Ca	83.5	14.0																											
Mg	14.6	2.5																											
H	0.0	0.0																											
Na	0.4	0.1																											
Potassium (K)	M3	102 ppm																											
Calcium (Ca)	M3	2806 ppm																											
Magnesium (Mg)	M3	295 ppm																											
Sulfur (S)	M3	11 ppm																											
Boron (B)	M3	0.9 ppm																											
Copper (Cu)	M3	2.2 ppm																											
Iron (Fe)	M3	121 ppm						K/Mg Ratio: 0.10																					
Manganese (Mn)	M3	190 ppm						Ca/Mg Ratio: 5.72																					
Zinc (Zn)	M3	11.9 ppm																											
Sodium (Na)	M3	15 ppm																											
Soluble Salts																													
Organic Matter	LOI	7.8%																											
Estimated N Release		150 lbs/acre																											
Nitrate Nitrogen																													

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :



"Every acre...Every year®"

SOIL ANALYSIS

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Lab No: 11585

Field:

Sample ID: RAD 12

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
			Very Low	Low	Medium	Optimum	Very High	
Soil pH	1:1	6.5						8.6 meq/100g
Buffer pH								%Saturation
Phosphorus (P)	M3	20 ppm						%sat meq
Potassium (K)	M3	123 ppm						K 3.7 0.3
Calcium (Ca)	M3	1177 ppm						Ca 68.4 5.9
Magnesium (Mg)	M3	212 ppm						Mg 20.5 1.8
Sulfur (S)	M3	12 ppm						H 7.0 0.6
Boron (B)	M3	0.4 ppm						Na 0.7 0.1
Copper (Cu)	M3	0.9 ppm						K/Mg Ratio: 0.17
Iron (Fe)	M3	99 ppm						Ca/Mg Ratio: 3.34
Manganese (Mn)	M3	39 ppm						
Zinc (Zn)	M3	3.5 ppm						
Sodium (Na)	M3	14 ppm						
Soluble Salts								
Organic Matter	LOI	5.1%						
Estimated N Release		140 lbs/acre						
Nitrate Nitrogen								

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

SOIL ANALYSIS

Client : Five Oaks Agronomy Consulting LLC Robert Habel 206 Briarherst Dr, Amherst VA 24521	Grower : City of Radford	Report No: 22-116-0516 Cust No: 04895 Date Printed: 04/27/2022 Date Received : 04/26/2022 PO: Page : 13 of 17
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Lab No: 11586

Field:

Sample ID: RAD 13

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
			Very Low	Low	Medium	Optimum	Very High	
Soil pH	1:1	5.8						9.4 meq/100g
Buffer pH	SMP	6.75						
Phosphorus (P)	M3	11 ppm	■					%sat meq K 3.8 0.4 Ca 55.6 5.2 Mg 21.0 2.0 H 19.1 1.8 Na 0.6 0.1
Potassium (K)	M3	141 ppm	■	■	■			
Calcium (Ca)	M3	1046 ppm	■	■	■			
Magnesium (Mg)	M3	237 ppm	■	■	■			
Sulfur (S)	M3	14 ppm	■	■	■			
Boron (B)	M3	0.4 ppm	■	■	■			
Copper (Cu)	M3	0.8 ppm	■	■	■			
Iron (Fe)	M3	70 ppm	■	■	■	■		
Manganese (Mn)	M3	51 ppm	■	■	■	■		K/Mg Ratio: 0.18 ■
Zinc (Zn)	M3	5.2 ppm	■	■	■	■		Ca/Mg Ratio: 2.65 ■
Sodium (Na)	M3	13 ppm	■					
Soluble Salts								
Organic Matter	LOI	6.4%	■	■	■	■		
Estimated N Release		150 lbs/acre						
Nitrate Nitrogen								

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

SOIL ANALYSIS

Client : Five Oaks Agronomy Consulting LLC Robert Habel 206 Briarherst Dr, Amherst VA 24521	Grower : City of Radford	Report No: 22-116-0516 Cust No: 04895 Date Printed: 04/27/2022 Date Received : 04/26/2022 PO: Page : 14 of 17
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Lab No: 11587

Field:

Sample ID: RAD 14

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity																		
			Very Low	Low	Medium	Optimum	Very High																			
Soil pH	1:1	6.3						10.1 meq/100g																		
Buffer pH																										
Phosphorus (P)	M3	10 ppm	■					%Saturation <table border="1"> <thead> <tr> <th></th> <th>%sat</th> <th>meq</th> </tr> </thead> <tbody> <tr> <td>K</td> <td>3.2</td> <td>0.3</td> </tr> <tr> <td>Ca</td> <td>63.6</td> <td>6.4</td> </tr> <tr> <td>Mg</td> <td>21.5</td> <td>2.2</td> </tr> <tr> <td>H</td> <td>10.9</td> <td>1.1</td> </tr> <tr> <td>Na</td> <td>0.5</td> <td>0.1</td> </tr> </tbody> </table>		%sat	meq	K	3.2	0.3	Ca	63.6	6.4	Mg	21.5	2.2	H	10.9	1.1	Na	0.5	0.1
	%sat	meq																								
K	3.2	0.3																								
Ca	63.6	6.4																								
Mg	21.5	2.2																								
H	10.9	1.1																								
Na	0.5	0.1																								
Potassium (K)	M3	126 ppm	■	■																						
Calcium (Ca)	M3	1285 ppm	■	■	■																					
Magnesium (Mg)	M3	260 ppm	■	■	■	■																				
Sulfur (S)	M3	8 ppm	■																							
Boron (B)	M3	0.4 ppm	■	■																						
Copper (Cu)	M3	0.6 ppm	■	■																						
Iron (Fe)	M3	87 ppm	■	■	■	■		K/Mg Ratio: 0.14 ■																		
Manganese (Mn)	M3	36 ppm	■	■	■			Ca/Mg Ratio: 2.96 ■																		
Zinc (Zn)	M3	3.4 ppm	■	■	■																					
Sodium (Na)	M3	12 ppm	■																							
Soluble Salts																										
Organic Matter	LOI	6.6%	■	■	■	■	■																			
Estimated N Release		150 lbs/acre																								
Nitrate Nitrogen																										

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

SOIL ANALYSIS

Client : Five Oaks Agronomy Consulting LLC Robert Habel 206 Briarherst Dr, Amherst VA 24521	Grower : City of Radford	Report No: 22-116-0516 Cust No: 04895 Date Printed: 04/27/2022 Date Received : 04/26/2022 PO: Page : 15 of 17
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Lab No: 11589

Field:

Sample ID: RAD 15

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
			Very Low	Low	Medium	Optimum	Very High	
Soil pH	1:1	6.4						7.2 meq/100g
Buffer pH								%Saturation
Phosphorus (P)	M3	11 ppm	■					%sat meq
Potassium (K)	M3	176 ppm						K 6.3 0.5
Calcium (Ca)	M3	874 ppm						Ca 60.7 4.4
Magnesium (Mg)	M3	208 ppm						Mg 24.1 1.7
Sulfur (S)	M3	10 ppm	■					H 8.3 0.6
Boron (B)	M3	0.4 ppm	■					Na 0.8 0.1
Copper (Cu)	M3	1.0 ppm						K/Mg Ratio: 0.26 ■
Iron (Fe)	M3	67 ppm						Ca/Mg Ratio: 2.52 ■
Manganese (Mn)	M3	70 ppm						
Zinc (Zn)	M3	5.2 ppm						
Sodium (Na)	M3	14 ppm	■					
Soluble Salts								
Organic Matter	LOI	5.9%						
Estimated N Release		150 lbs/acre						
Nitrate Nitrogen								

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

SOIL ANALYSIS

Client : Five Oaks Agronomy Consulting LLC Robert Habel 206 Briarherst Dr, Amherst VA 24521	Grower : City of Radford	Report No: 22-116-0516 Cust No: 04895 Date Printed: 04/27/2022 Date Received : 04/26/2022 PO: Page : 16 of 17
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Lab No: 11590

Field:

Sample ID: RAD 16

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity																		
			Very Low	Low	Medium	Optimum	Very High																			
Soil pH	1:1	6.4						10.0 meq/100g																		
Buffer pH																										
Phosphorus (P)	M3	8 ppm	■					%Saturation <table border="1"> <thead> <tr> <th></th> <th>%sat</th> <th>meq</th> </tr> </thead> <tbody> <tr> <td>K</td> <td>2.7</td> <td>0.3</td> </tr> <tr> <td>Ca</td> <td>64.0</td> <td>6.4</td> </tr> <tr> <td>Mg</td> <td>23.3</td> <td>2.3</td> </tr> <tr> <td>H</td> <td>9.0</td> <td>0.9</td> </tr> <tr> <td>Na</td> <td>0.6</td> <td>0.1</td> </tr> </tbody> </table>		%sat	meq	K	2.7	0.3	Ca	64.0	6.4	Mg	23.3	2.3	H	9.0	0.9	Na	0.6	0.1
	%sat	meq																								
K	2.7	0.3																								
Ca	64.0	6.4																								
Mg	23.3	2.3																								
H	9.0	0.9																								
Na	0.6	0.1																								
Potassium (K)	M3	105 ppm	■	■																						
Calcium (Ca)	M3	1279 ppm	■	■	■																					
Magnesium (Mg)	M3	280 ppm	■	■	■	■																				
Sulfur (S)	M3	13 ppm	■	■																						
Boron (B)	M3	0.7 ppm	■	■																						
Copper (Cu)	M3	1.7 ppm	■	■	■																					
Iron (Fe)	M3	266 ppm	■	■	■	■		K/Mg Ratio: 0.11 ■																		
Manganese (Mn)	M3	96 ppm	■	■	■	■		Ca/Mg Ratio: 2.75 ■																		
Zinc (Zn)	M3	9.5 ppm	■	■	■	■																				
Sodium (Na)	M3	14 ppm	■																							
Soluble Salts																										
Organic Matter	LOI	5.7%	■	■	■	■																				
Estimated N Release		150 lbs/acre																								
Nitrate Nitrogen																										

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

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Comments :

SOIL ANALYSIS

Client : Five Oaks Agronomy Consulting LLC Robert Habel 206 Briarherst Dr, Amherst VA 24521	Grower : City of Radford	Report No: 22-116-0516 Cust No: 04895 Date Printed: 04/27/2022 Date Received : 04/26/2022 PO: Page : 17 of 17
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Lab No: 11591

Field:

Sample ID: RAD 17

Test	Method	Results	SOIL TEST RATINGS					Calculated Cation Exchange Capacity
			Very Low	Low	Medium	Optimum	Very High	
Soil pH	1:1	6.9						8.7 meq/100g
Buffer pH								%Saturation
Phosphorus (P)	M3	24 ppm						%sat meq
Potassium (K)	M3	187 ppm						K 5.5 0.5
Calcium (Ca)	M3	1156 ppm						Ca 66.4 5.8
Magnesium (Mg)	M3	249 ppm						Mg 23.9 2.1
Sulfur (S)	M3	4 ppm						H 1.1 0.1
Boron (B)	M3	0.5 ppm						Na 2.6 0.2
Copper (Cu)	M3	1.8 ppm						K/Mg Ratio: 0.23
Iron (Fe)	M3	129 ppm						Ca/Mg Ratio: 2.78
Manganese (Mn)	M3	130 ppm						
Zinc (Zn)	M3	5.6 ppm						
Sodium (Na)	M3	52 ppm						
Soluble Salts								
Organic Matter	LOI	4.6%						
Estimated N Release		130 lbs/acre						
Nitrate Nitrogen								

SOIL FERTILITY GUIDELINES

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Crop :

Rec Units:

(lbs)	LIME	(tons)	N	P ₂ O ₅	K ₂ O	Mg	S	B	Cu	Mn	Zn	Fe

Comments :