



Predictive

# Soil Report

Mehlich-3 Extraction

Client: Peter Bourne  
1141 Smith Level Rd  
CHAPEL HILL, NC 27516

Advisor:

County: Orange

Sampled: 10/17/2012 Received: 10/22/2012 Completed: 10/30/2012

Farm:

[Links to Helpful Information](#)

Sample ID: P1  Lime History:	Recommendations:	Lime	Nutrients (lb/acre)									More Information <a href="#">Note: 12</a> <a href="#">Note: 12</a>
	Crop	(tons/acre)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	Mn	Zn	Cu	B	
	1 - Clover/Grass, E	1.3	10-30	110	130	0	0	0	0	0	0	
	2 - Fes/OG/Tim,E	0.0	50-70	40	10	0	0	0	0	0	0	

Test Results [units - W/V in g/cm <sup>3</sup> ; CEC and Na in meq/100 cm <sup>3</sup> ; NO <sub>3</sub> -N in mg/dm <sup>3</sup> ]:										Soil Class: Mineral										
HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO <sub>3</sub> -N
0.32	0.95	4.2	68	1.4	5.4	53	43	40	22	37	377	236	236	67	67	51	0.1	2		

Sample ID: P2  Lime History:	Recommendations:	Lime	Nutrients (lb/acre)									More Information <a href="#">Note: 12</a> <a href="#">Note: 12</a>
	Crop	(tons/acre)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	Mn	Zn	Cu	B	
	1 - Fes/OG/Tim,E	0.7	50-70	0	0	0	0	0	0	0	0	
	2 - Clover/Grass, E	0.0	10-30	0	40	0	0	0	0	0	0	

Test Results [units - W/V in g/cm <sup>3</sup> ; CEC and Na in meq/100 cm <sup>3</sup> ; NO <sub>3</sub> -N in mg/dm <sup>3</sup> ]:										Soil Class: Mineral										
HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO <sub>3</sub> -N
0.22	1.01	5.1	83	0.9	6.0	149	87	57	17	32	723	443	443	115	115	60	0.1	2		

Sample ID: P3  Lime History:	Recommendations:	Lime	Nutrients (lb/acre)									More Information <a href="#">Note: 12</a> <a href="#">Note: 12</a>
	Crop	(tons/acre)	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	Mn	Zn	Cu	B	
	1 - Fes/OG/Tim,E	1.2	50-70	30	0	0	0	0	0	0	0	
	2 - Clover/Grass, E	0.0	10-30	90	110	0	0	0	0	0	0	

Test Results [units - W/V in g/cm <sup>3</sup> ; CEC and Na in meq/100 cm <sup>3</sup> ; NO <sub>3</sub> -N in mg/dm <sup>3</sup> ]:										Soil Class: Mineral										
HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-AI1	Mn-AI2	Zn-I	Zn-AI	Cu-I	Na	ESP	SS-I	NO <sub>3</sub> -N
0.22	1.00	3.3	61	1.3	5.3	60	52	38	16	35	620	381	381	51	51	34	0.1	3		



Reprogramming of the laboratory-information-management system that makes this report possible is being funded through a grant from the North Carolina Tobacco Trust Fund Commission.

Thank you for using agronomic services to manage nutrients and safeguard environmental quality.

- Steve Troxler, Commissioner of Agriculture

Peter Bourne

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Sample ID: J1	Recommendations:	Lime (tons/acre)	Nutrients (lb/acre)									More Information	
			Crop	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O	Mg	S	Mn	Zn	Cu		B
Lime History:	1 - Fes/OG/Tim,E	1.7	50-70	30	0	0	0	0	0	0	0	0	<a href="#">Note: 12</a>
	2 - Clover/Grass, E	0.0	10-30	100	50	0	0	0	0	0	0	0	<a href="#">Note: 12</a>

Test Results [units - W/V in g/cm<sup>3</sup>; CEC and Na in meq/100 cm<sup>3</sup>; NO<sub>3</sub>-N in mg/dm<sup>3</sup>]:

Soil Class: Mineral

HM%	W/V	CEC	BS%	Ac	pH	P-I	K-I	Ca%	Mg%	S-I	Mn-I	Mn-Al1	Mn-Al2	Zn-I	Zn-Al	Cu-I	Na	ESP	SS-I	NO <sub>3</sub> -N
0.56	0.75	14.2	86	2.0	6.0	58	80	67	15	49	721	442	442	1301	1301	117	0.1	1		

**Understanding the Soil Report: explanation of measurements, abbreviations and units****Recommendations**Lime

If testing finds that soil pH is too low for the crop(s) indicated, a **lime recommendation** will be given in units of either ton/acre or lb/1000 sq ft. For best results, mix the lime into the top 6 to 8 inches of soil several months before planting. For no-till or established plantings where this is not possible, apply no more than 1 to 1.5 ton/acre (50 lb/1000 sq ft) at one time, even if the report recommends more. You can apply the rest in similar increments every six months until the full rate is applied. If MG is recommended and lime is needed, use dolomitic lime.

Fertilizer

Recommendations **for field crops or other large areas** are listed separately for each nutrient to be added (in units of lb/acre unless otherwise specified). Recommendations for N (and sometimes for B) are based on research/field studies for the crop being grown, not on soil test results. K-I and P-I values are based on test results and should be > 50. If they are not, follow the fertilizer recommendations given. If Mg is needed and no lime is recommended, 0-0-22 (11.5% Mg) is an excellent source; 175 to 250 lb per acre alone or in a fertilizer blend will usually satisfy crop needs, SS-I levels appear only on reports for greenhouse soil or problem samples.

Farmers and other commercial producers should pay special attention to **micronutrient levels**. If \$, pH\$, \$pH, C or Z notations appear on the soil report, refer to [\\$Note: Secondary Nutrients and Micronutrients](#). In general, homeowners do not need to be concerned about micronutrients. Various crop notes also address lime fertilizer needs; visit [ncagr.gov/agronomi/pubs.htm](http://ncagr.gov/agronomi/pubs.htm).

Recommendations **for small areas, such as home lawns/gardens**, are listed in units of lb/1000 ft . If you cannot find the exact fertilizer grade recommended on the report, visit [www.ncagr.gov/agronomi/obpart4.htm#fs](http://www.ncagr.gov/agronomi/obpart4.htm#fs) to find information that may help you choose a comparable alternate. For more information, read [A Homeowner's Guide to Fertilizer](#).

**Test Results**

The first seven values [soil class, HM%, W/V, CEC, BS%, Ac and pH] describe the soil and its degree of acidity. The remaining 16 [P-I, K-I, Ca%, Mg%, Mn-I, Mn-AI1, Mn-AI2, Zn-I, Zn-AI, Cu-I, S-I, SS-I, Na, ESP, SS-I, NO<sub>3</sub>-N (not routinely available)] indicate levels of plant nutrients or other fertility measurement. Visit [www.ncagr.gov/agronomi/uyrst.htm](http://www.ncagr.gov/agronomi/uyrst.htm) for more information.

**Report Abbreviations**

<b>Ac</b>	exchangeable acidity
<b>B</b>	boron
<b>BS%</b>	% CEC occupied by basic cations
<b>Ca%</b>	% CEC occupied by calcium
<b>CEC</b>	cation exchange capacity
<b>Cu-I</b>	copper index
<b>ESP</b>	exchangeable sodium percent
<b>HM%</b>	percent humic matter
<b>K-I</b>	potassium index
<b>K<sub>2</sub>O</b>	potash
<b>Mg%</b>	% CEC occupied by magnesium
<b>MIN</b>	mineral soil class
<b>Mn</b>	manganese
<b>Mn-AI1</b>	Mn-availability index for crop 1
<b>Mn-AI2</b>	Mn-availability index for crop 2
<b>Mn-I</b>	manganese index
<b>M-O</b>	mineral-organic soil class
<b>N</b>	nitrogen
<b>Na</b>	sodium
<b>NO<sub>3</sub>-N</b>	nitrate nitrogen
<b>ORG</b>	organic soil class
<b>pH</b>	current soil pH
<b>P-I</b>	phosphorus index
<b>P<sub>2</sub>O<sub>5</sub></b>	phosphate
<b>S-I</b>	sulfur index
<b>SS-I</b>	soluble salt index
<b>W/V</b>	weight per volume
<b>Zn-AI</b>	zinc availability index
<b>Zn-I</b>	zinc index