

**•SOIL QUALITY ANALYSIS**

Report For:

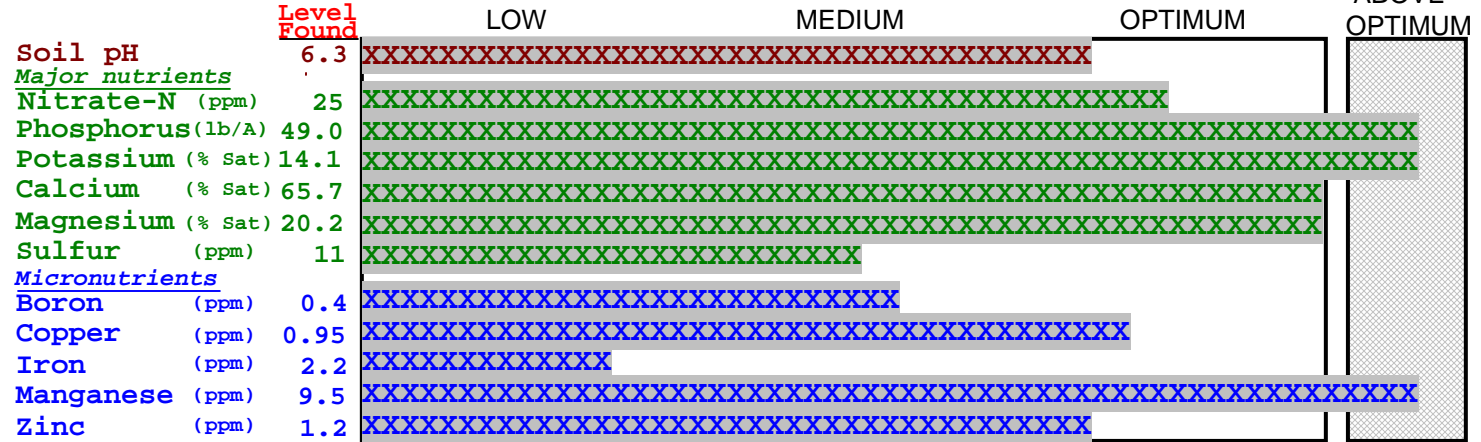
**EXAMPLE SOIL QUALITY ANALYSIS**

with

**Biological & Physical Constraints**

**MAINE SOIL TESTING SERVICE**  
**UNIVERSITY OF MAINE**   
 5722 DEERING HALL  
 ORONO, MAINE 04469-5722

**NUTRIENT CHEMISTRY PARAMETERS**  
 (see Numerical Results section for more information)



**RECOMMENDED ADDITIONS FOR ORGANIC GARLIC - Crop Code # 392**

No lime recommended. Soil pH is at or above the optimum level for this crop.

Magnesium level is sufficient to meet crop requirement.

To meet major nutrient requirements, apply (on each 1000 sq. ft.):

Nitrogen(2.5 lb) - 20 lb bloodmeal or 35 lb soybean meal or 25 lb crabmeal.

Phosphorus(1.1 lb) - 4 lb bone meal as a starter only, in early spring (optional)

If you are using wood ash, discontinue until lime is needed again.

Excessive potassium: If you are using wood ash, discontinue.

Available N credit: No addnl nitrogen needed for this crop. Apply 1/2 rate next crop.

15 bushel cow, pig, or horse manure or 7-8 bushel poultry, sheep, goat, or rabbit

manure/1000 sq. ft. can substitute for 1/4-1/3 recommended nutrients (apply in fall).

Fertilizer may be broadcast in spring, but is best banded 2-3 in. below & beside rows.

Till in manure, compost, or leaves each year to build and maintain soil organic matter.

This will improve the nutrient and water holding capacity of your soil.

Manure or compost will also supply sulfur.

For information on micronutrient management and recommendations, see enclosed form.

**•NUMERICAL RESULTS**

(Test methodology: pH in water and Mehlich buffer, available nutrients by modified Morgan extract) (Organic matter measured by LOI, P determined colorimetrically, all others measured by ICP-OES)

CEC and nutrient balance calculations are based on present pH of 6.3

Level Found	6.3	6.09	49.0	920	410	2900	8.3(A)	14.1	20.2	65.7	0.0
Soil pH	6.3										
Lime Index		2									
Phosphorus (lb/A)			49.0								
Potassium (lb/A)				920							
Magnesium (lb/A)					410						
Calcium (lb/A)						2900					
CEC (me/100 g)							> 5				
K								3.5-5.0			
Mg (% Saturation)									10-20		
Ca										60-80	
Acidity											< 10
Level Found	4.8	11	0.95	2.2	9.5	1.2					
Organic Matter (%)			0.95								
Sulfur (ppm)		11									
Copper (ppm)			0.95								
Iron (ppm)				2.2							
Manganese (ppm)					9.5						
Zinc (ppm)						1.2					
Normal Range	5 - 8	> 15	0.8-1.2	6 - 10	4 - 8	1 - 2					
Level Found	0.4	15	N/A	25	4						
Boron (ppm)	0.4										
Sodium (ppm)		15									
Soluble Salts (mmhos/cm)			N/A								
Nitrate-N (ppm)				25							
Ammonium-N (ppm)					4						
Normal Range	0.5-1.2	< 100		20-30	< 10						


**Additional Results or Comments:**

Lead scan: NORMAL BACKGROUND LEVEL - no health risk.

Full payment received for this sample. Thank you.

02/26/2014	61	GARLIC PLOT	
PRINT DATE	LAB NO.	SAMPLE IDENTIFICATION	COUNTY

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• **BIOLOGICAL & PHYSICAL PARAMETERS**  
(see Numerical Results section for more information)

<i>Biological factors</i>	Level Found	LOW	OPTIMUM	HIGH
Organic Matter(%)	4.8	+++++	+++++	+++++
Particulate OM(%)	1.4	+++++	+++++	+++++
Biomass (active C)	54	+++++	+++++	+++++
Potential N Min.	58	+++++	+++++	+++++
<i>Physical factors</i>				
WS Aggregates (%)	61	+++++	+++++	+++++
Available Water(%)	12	+++++	+++++	+++++
Pot. Root Depth(in)	8	+++++	+++++	+++++

Soil Texture Class: Loam

**RECOMMENDED ADDITIONS & MANAGEMENT PRACTICES**

**To Improve Soil Biological Health:**

Include biomass crops in rotation to improve org. matter & biological activity.

Increase use of compost or cover crops to improve OM & biological activity.

Include a legume green manure or animal manure to improve soil N supply.

**To Improve Soil Workability & Water Handling**

Include sod in rotation to build/maintain structure, water storage, & drainage.

Manure will also improve soil structure, water storage, & drainage.

Avoid traffic on wet soil to minimize compaction.

Break up traffic pan by mechanical ripping and/or deep rooted crops.

Improve infiltration with surface mulch, zone tillage, or deep-rooted crops.

**Suggested Reading & References:**

Building Soils for Better Crops - Sustainable Soil Management, USDA-SARE  
(<http://www.sare.org/Learning-Center/Books>)

USDA Soil Quality website (<http://soilquality.org>)

• **NUMERICAL RESULTS** (Test methodology: Biomass by 25C incubation/Solvita, Organic matter by LOI, PMN from 40C incubation, WSA by Eijkelkamp, Available H2O from % SME, Hardness by penetrometer, Rooting depth to 300 psi)

Level Found	4.8	1.4	54	58	61	12.2	135	300	8
% Organic Matter	Particulate OM (%)	Active C (ppm)	PMN (ppm)	% Stable Aggregates	% Avail. Water	Topsoil Hardness	Subsoil Hardness	Pot. Root Depth(in)	
Optimum Range	5-8 %	1.5-3.0	70-160	50-100	> 77	> 17	< 150	< 250	12-24

Additional Results or Comments: