

Lab Final Study Guide

Isomorphic substitution / permanent charge

Which cations are acidic / basic

Write a reaction depicting exchanges of cations on exchange sites

Understand how CEC is experimentally measured

Calculate CEC based on data for extractable cations

Calculate % base saturation

Understand pH

Potential acidity

The lime requirement method used in Louisiana

Effect of lime particle size affect neutralizing rate

Types of liming materials

Lime requirement problem

Terms applied to microorganisms (e.g., heterotroph, eukaryote, etc.)

What are the general shapes of bacteria

Types of microflora and microfauna

Calculate CFUs / g soil given dilution plate data

Know humic substances

How humus is formed

Humus flocculation / dispersion behavior

Importance / effect of humus on plants, soil and water quality

Soil properties that affect chemical fertility

Fertilizer definitions (e.g., complete, carrier, etc.)

What fertilizer grade means

How to blend different carriers to produce given grade of fertilizer

Calculate the cost of N per pound for different fertilizers

Calculate lbs carrier per acre and cost per acre for N, P and K