



Master Gardener Level 1 Soils, Nutrients and Fertilizers Study Guide

1. Define soil texture. What are the different sizes, in millimeters, that make up the components of soil texture?
2. What is the definition of an ideal soil? How might you improve a soil that is less than ideal?
3. Explain Cation Exchange Capacity. Does a sandy or clayey soil have more surface area? Does CEC correspond with water holding capacity?
4. Name the three nutrients plants use most and what a plant that is deficient in them might look like.
5. Try the Mason jar texture test on your soil (o.k. it might be hard to find unfrozen soil, but give it a good try) then use the soil triangle to determine your soil texture.
My soil texture is a _____
6. What is the pH of your soil? What nutrients would you expect to be less available due to the pH?
7. To lower the pH of a soil you add_____. To raise the pH of a soil you add_____. However, is it easy to lower the pH of your soil from, let's say a pH of 7.2 to 5.5? Would it be cost effective?
8. The recommended rate from your soil test says that you need to add 2 lbs of actual nitrogen per 1000 sq.ft. to your 2000 sq.ft. garden. You have a bag of 20-20-20 fertilizer. How much of the fertilizer should you add to your garden given the recommended amount?
9. When is the best time to amend your soil? Why?
10. When adding manure-based compost to your garden, what should you be most concerned about, especially if you are planting potatoes or tomatoes?