MASTER GARDENER
COLORADO STATE UNIVERSITY
EXTENSION

CMG GardenNotes #252

Worksheet: Soils Texture and Free Lime Practice Lab

1. Soil Texture by Feel

Identify the soil samples to coarse (sandy), medium or fine (clayey). Reference *The Science of Gardening*, page 89.

Soil Sample	Describe the feel: • Gritty = sand. • Silk smooth = silt. • Sticky = clay.	How long of a ribbon will form?	What is the soil texture? • Ribbons <1": ▪ Feels gritty = coarse texture (sandy soil). ▪ Not gritty = medium texture (high in silt). • Ribbons 1-2 inches: ▪ Feels gritty = medium texture. ▪ Not gritty = fine texture. • Ribbons >2" = fine texture clayey soil.
1			
2			
3			
Your soil.			

2. Soil Texture by Measurement

Using the jar method, determine the soil textural class for one of the samples. Does it match the feel test? Reference *The Science of Gardening*, page 87-88.

a. How long do you shake the bottle of soil?

b. When do you measure the sand, silt, and clay levels?

Sand _____ Silt _____ Clay _____

c. Determine the soil texture for the following samples:

		Depth of layer	**Percent**	**Soil Textural Class** (from *Soil Textural Triangle*, page 87)	**Will this soil behave as a sandy or clayey soil?**
Sample 1	**Sand**	3.0”			
	Silt	0.5”			
	Clay	1.5”			
	Total	5.0”			
Sample 2	**Sand**	3.5”			
	Silt	1”			
	Clay	0.5”			
	Total	5”			

3. Free Lime Test

On your soil sample, do a vinegar test for free lime (calcium carbonate). Reference *The Science of Gardening*, page 159 and 166-167.

a. Did it fizz (have high calcium carbonate)? Yes No

b. What does this indicate about your soil? Can you lower the pH?