MASTER GARDENER
COLORADO STATE UNIVERSITY
EXTENSION

CMG GardenNotes #252

Worksheet: Soil Texture and Free Lime Lab

SOIL TEXTURE BY FEEL LAB

Identifying the soil samples to coarse (sandy), medium or fine (clayey). Reference: *GardenNotes #214*

Soil Sample	**Describe the feel:** ○ Gritty = sand ○ Silk smooth = silt ○ Sticky = clay	**How long will it ribbon out?**	**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 (OPTIONAL)			

FREE LIME TEST LAB

Using your soil sample(s), do a vinegar test for free lime (calcium carbonate).
Reference: *The Science of GardenNotes 222*

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

b. What does this indicate about your soil being prone to iron chlorosis? Can you lower the pH?

OPTIONAL HOMEWORK:

SOIL TEXTURE BY MEASUREMENT LAB

Collect some soil from your home landscape, office or nearby open space. Using the jar method, what is the soil textural class for this sample with the following amounts of sand, silt, and clay?
Reference: *GardenNotes 214*

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 sample:

		Depth of layer	**Percent**	**Soil Textural Class** (from *Soil Textural Triangle*)	**Will this soil behave as a sandy or clayey soil?**
Sample1	**Sand**	3.0”			
	Silt	0.5”			
	Clay	1.5”			
	Total	5.0”			
Sample 2	**Sand**	3.5”			
	Silt	1”			
	Clay	0.5”			
	Total	5”			