

CMG GardenNotes #252

Worksheet: Soil Texture and Free Lime Lab

1. Soil texture by feel

Identifying 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 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			

2. Soil Texture by Measurement

Using the jar method, what is the soil textural class for a sample with the following amounts of sand, silt, and clay? [Reference: *The Science of Gardening*, page 87-88]

- How long do you shake the bottle of soil?
- When do you measure the sand, silt and clay levels?

Sand _____ Silt _____ Clay _____

- Determine the soil texture for the following sample:

		Depth of layer	Percent	Soil Textural Class <small>(from <i>Soil Textural Triangle</i>, page 87)</small>	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]

- Did it fizz (have high calcium carbonate)? Yes No
- What does this indicate about your soil being prone to iron chlorosis? Can you lower the pH?