

Sediment Jar

With permission:

- Grab 1 soil sample from outside
- Fill a clear jar/bottle that has a lid $\frac{3}{4}$ of the way with water
- Add your soil sample to your jar
- Put the lid on and shake the jar
- Leave the jar sit for 1+ hour



Sediment Jar

Observation questions:

- Have any layers formed?
- Is there anything floating up top?
- How many layers do you have and which is the thickest?

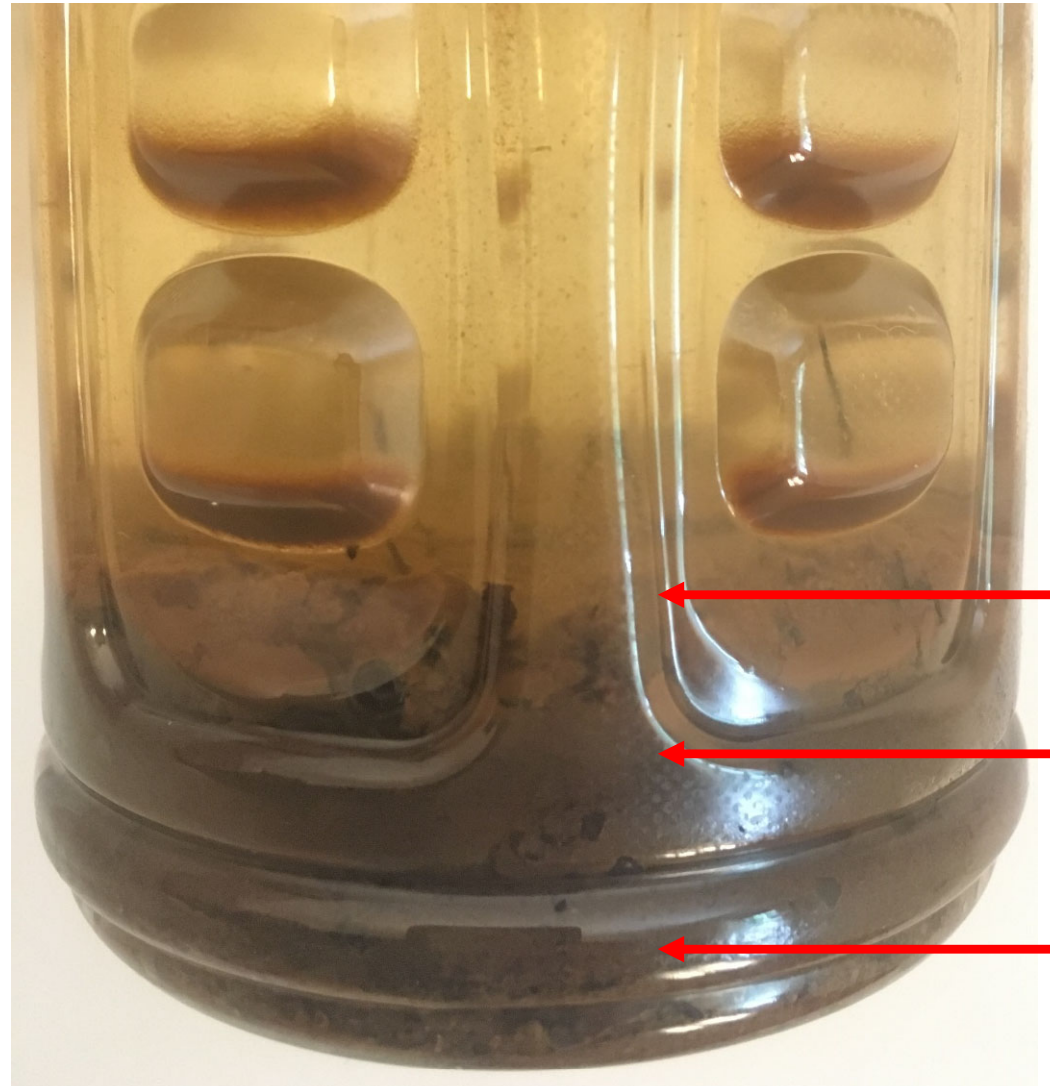
Remember:

The heaviest/largest soil particles will settle first (sand) and the lightest/smallest soil particles will settle last (clay). Silt will be in-between. Organic matter will float on top.

Note, samples with a lot of clay will take longest to settle, if your water is still murky it's probably because you have a lot of clay!



Example Sediment Jar



Sediment Jar Calculations

Steps:

1. Measure the total height of your settled sediment.
2. Measure the height of the individual layers.
3. Calculate the percentage of each layer.

Example:

Total Height = 3 1/4 in

Clay Layer Height = 1 1/16 in

Silt Layer Height = 1 5/8 in

Sand Layer Height = 9/16 in

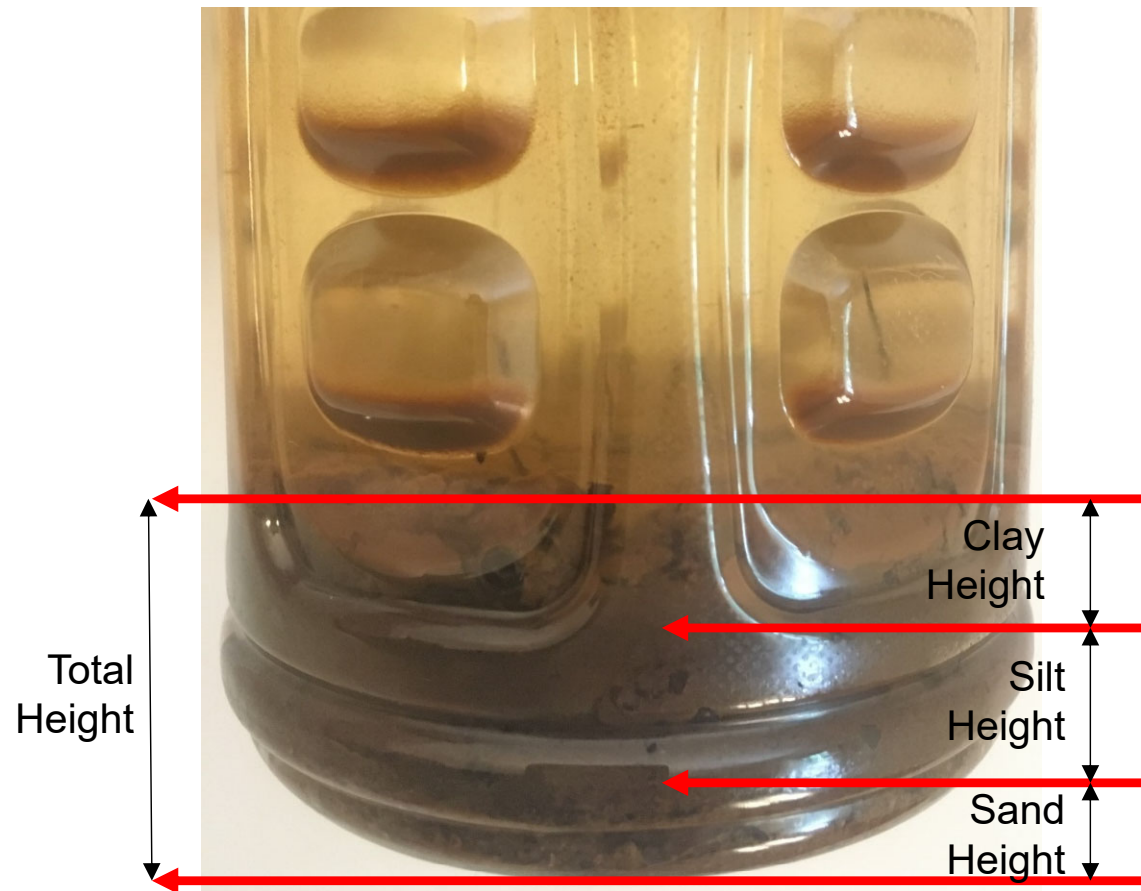
Clay% = $1.0625 / 3.25 * 100 = 32.7\%$

Silt% = $1.625 / 3.25 * 100 = 50\%$

Sand% = $0.5625 / 3.25 * 100 = 17.3\%$

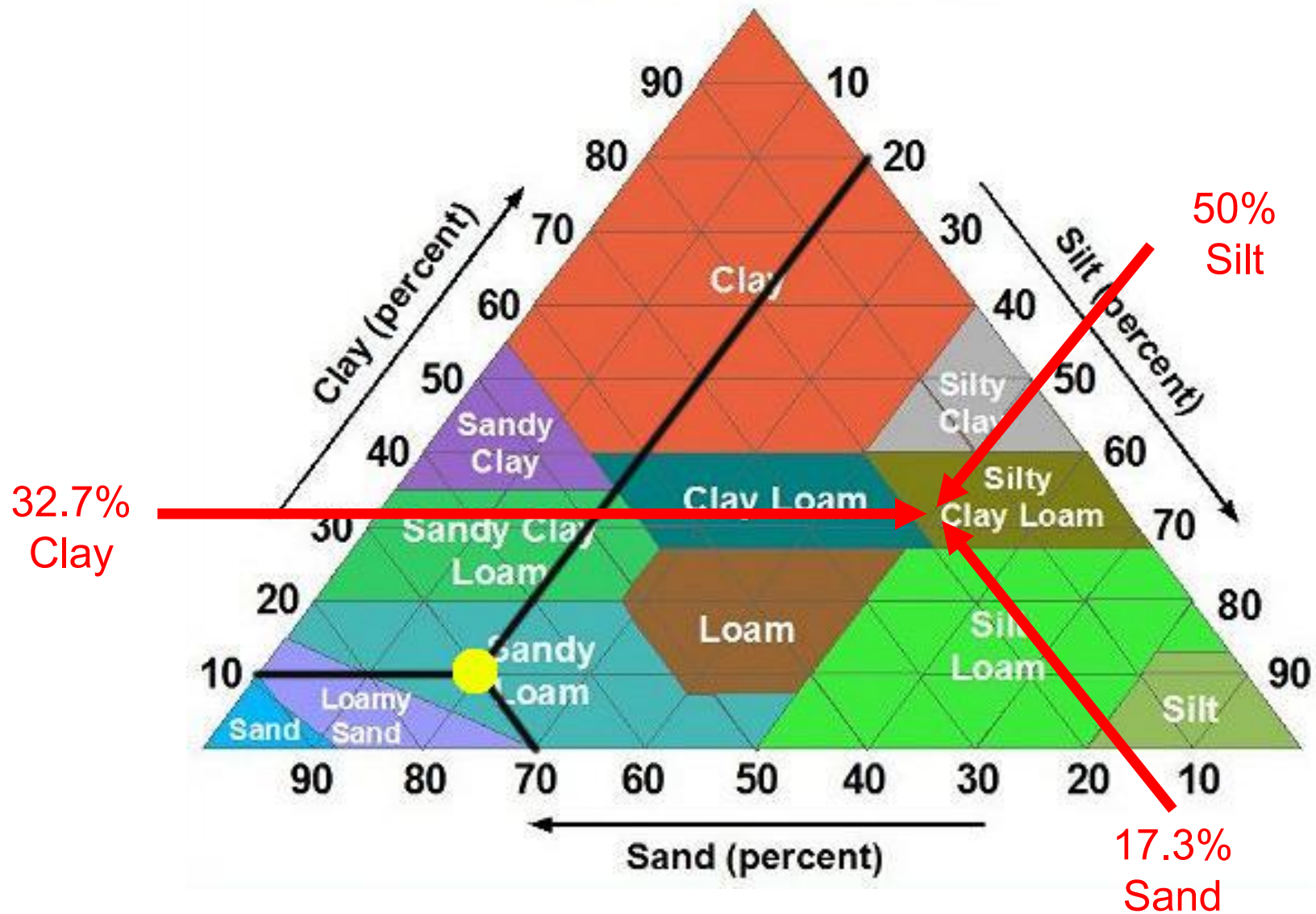
Check that the Percentages Total 100%

Remember 1/16 of an inch = 0.0625



Soil Texture Pyramids

SOIL TEXTURE PYRAMID



Extension: Web Soil Survey

websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

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Area of Interest (AOI) | **Soil Map** | Soil Data Explorer | Download Soils Data | Shopping Cart (Free)

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Map Unit Legend

Chatham County, North Carolina (NC037)

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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
GaB	Georgeville silt loam, 2 to 6 percent slopes	3.0	33.4%
GkE	Georgeville-Badin complex, 15 to 30 percent slopes	5.9	65.0%
NaC	Nanford-Badin complex, 6 to 10 percent slopes	0.1	1.6%
Totals for Area of Interest		9.1	100.0%

Soil Map

Scale (not to scale)

16.5% Sand, 50.6% Silt, 32.9% Clay

<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Soil Texture Pyramids

