

Soil texture jar test



CaSTCo

Making sure that people count at
the heart of rivers' recovery

Based on Clemson University's approach

01

Collect your soil

Collect some soil and remove any debris, rocks, and large organic matter (leaves, sticks, roots, etc.). Add the soil to a clear jar up to the 'soil' line, then add water until it reaches the 'water' line.

02

Shake!

Shake the cup of soil vigorously until the soil turns into a uniform slurry. Leave it on a level surface.

03

Wait 1 minute and mark

Leave the jar for 1 minute, place a mark on the outside of the jar, showing the coarse sand layer settled at the bottom of the jar.

04

Wait for two hours...

After 2 hours, mark the top of the next settled layer with the marker. This is the silt layer.

05

Leave for 48 hours...

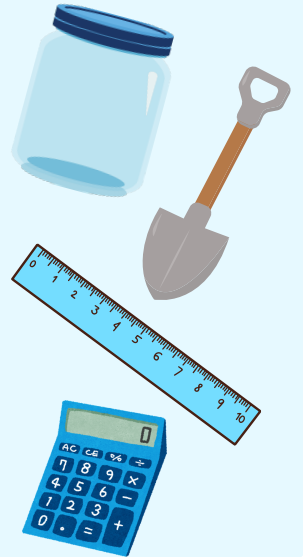
Leave the jar for 48 hours and mark the top of the next settled layer with the permanent marker. This is the clay layer, which will have settled on top of the silt layer

06

Measure and record

Using a ruler, measure and record the height of each layer and the total height of all three layers.

Equipment



07

Calculate your results

Work out the % sand, silt and clay using the following equations:

Equations

$$\% \text{ SAND} = (\text{sand height}) / (\text{total height}) \times 100$$

$$\% \text{ SILT} = (\text{silt height}) / (\text{total height}) \times 100$$

$$\% \text{ CLAY} = (\text{clay height}) / (\text{total height}) \times 100.$$

08

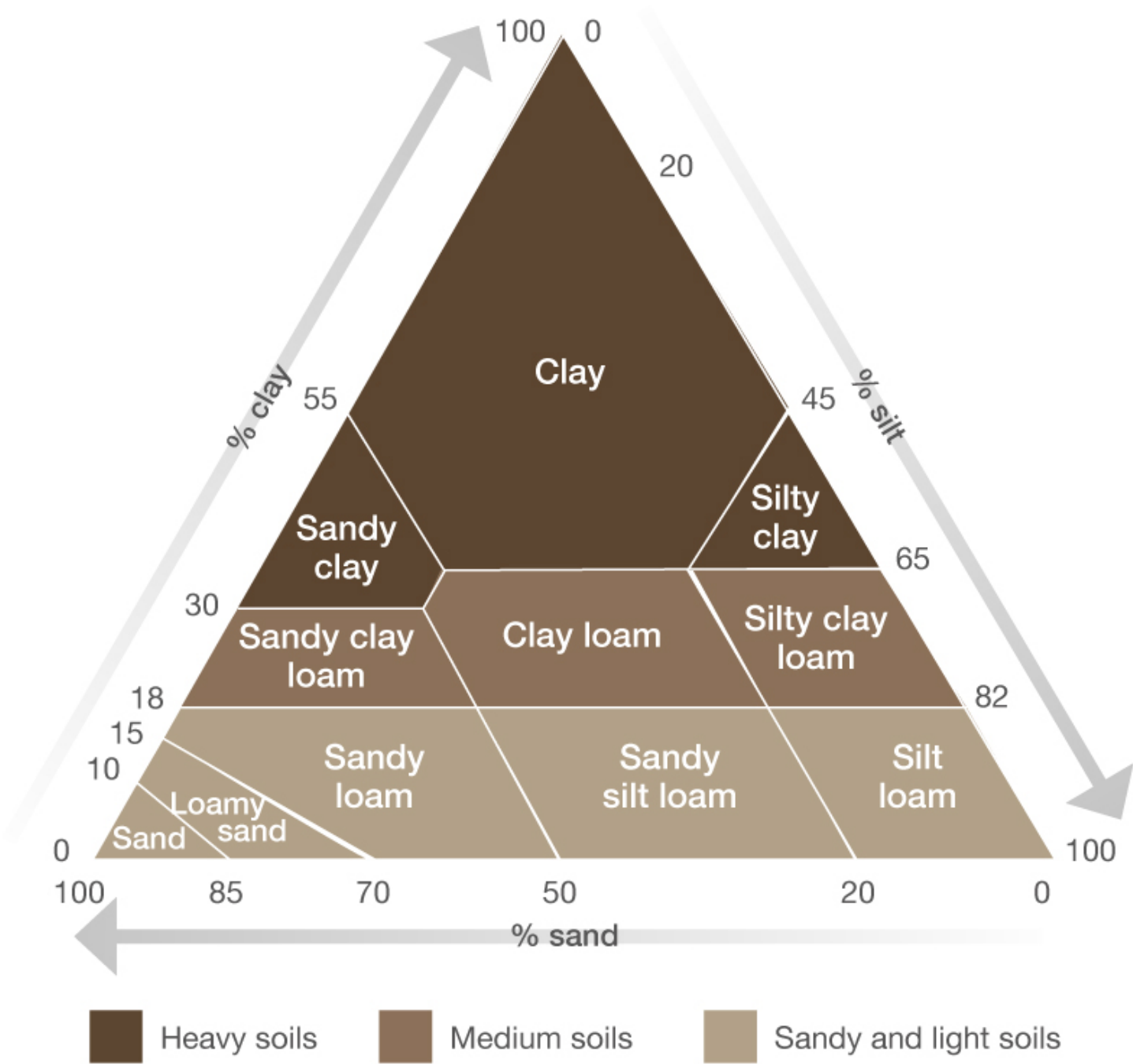
Interpret using the soil texture triangle

Use the soil texture triangle (see separate sheet) to work out the soil texture and record this in the Vidacycle app.



Soil texture jar test: texture triangle

By AHDB (2024)



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Figure 4b. Classification of mineral soils into soil texture classes

