

# Slake (wet aggregate stability) test

*Based on Vidacycle's approach*

**Note:** Choose a day when the soil is not waterlogged and has not been recently cultivated.



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# 01

## Locate your chosen sample site

If you have done the test previously, use the GPS mapping feature on Soilmentor to find the same spot.

# 02

## Dig

Insert your spade to about 20 cm depth into the soil. Dig up the soil and gently break it apart to release pieces of soil.

# 03

## Collect

Collect a fist-sized sample of soil put in small labelled bag to take home/to the office.

# 04

## Dry overnight

Back at the office: select three 1-3mm sized lumps of soil from the bag and leave them to dry overnight. They may need another 2-3 days more drying if very wet – must be completely dry before testing.

# 05

## Place in sieve

Once dry, arrange pieces of soil on the sieve and fully immerse into water until the lip of the sieve is reached. A light coloured water bowl (as a background) will make it easier to see how the soil is behaving.

# 06

## Time for five minutes

Start timer for 5 minutes, & observe the pieces under water. Score the behaviour of the pieces in Soilmentor using the scores on the following page.

# 07

## Optional: comparison

You may like to take another sample in an long-term uncultivated part of the farm, e.g. woodland, for a good comparison to assess the effect of field management on aggregate stability.

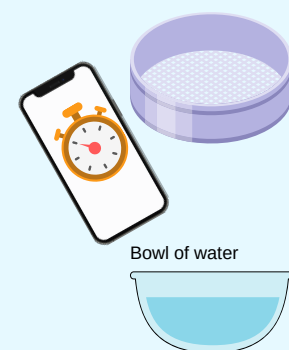
## Equipment

### During sampling



Small bags to carry soil

### After sampling



Bowl of water



## Video of the process:



Photo/video credits:  
Vidacycle

**Don't forget to take photos of you doing your soil sampling and of the results!**



# Slake (wet aggregate stability) test: scoring

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Once soil has been submerged for five minutes (step 6), use the following scores:



0

**Dissolves into single grains** – lump collapses completely, as soil is too unstable to isolate aggregates.

0.5

**Soil slumps into pyramid** – lump collapses into a cone of <2mm grains, water is cloudy.

1

**Breaks into angular pieces** – the lump breaks up into larger angular pieces, indicating a loose, granular surface layer.

1.5

**Stays mainly intact** – lump edges crumble slightly but remains largely intact.

2

**Lump intact** – lump remains completely intact and the water is clear, indicating your soil is resistant to erosion

Don't forget to take photos of your soil and any results and upload to Soilmentor.



Photo/video credits: Vidacycle

