

Fieldwork Activity : How to Assess Soil Structure

Soils should be assessed when they are moist and soil aggregates are easier to break up by hand. Avoid assessing soils during prolonged spells of wet or dry weather.

You will need

- Spade
- Ruler or tape measure
- Plastic sheet or tray
- The 'Soil Structure Score Card'
- Further assessment of soil structure can be made using the resource 'Water Infiltration Test'.

Step 1: Soil Block Extraction

- Dig out one spade-sized block of soil (depth approximately 30 cm), cutting down on three sides
- Lever the block out, leaving one side undisturbed
- If the soil block falls apart easily, dig out one block and then a second next to it to assess
- Lay the block on a plastic sheet or tray



Step 2: Soil Assessment

- Gently open the soil block by hand (like a book) to look for layers
- If the structure is uniform, assess the block as a whole
- If there are two or more horizontal layers of differing structure, identify the layer with the poorest structure (the limiting layer (LL))
- Record the depth of this limiting layer and carry out the rest of the assessment on this layer



- Break up the soil with your hands into smaller structural units or aggregates (soil clumps)
- Using one hand, break up larger soil aggregates to assess their strength. Consider their shape, porosity and roots

Step 3: Soil Scoring

Assign a score using the descriptions and photos on the 'Soil Structure Scorecard'.

This factsheet is based on the Visual Evaluation of Soil Structure (VESS) method – [sruc.ac.uk/vess](https://www.sruc.ac.uk/vess)

Location	Location Description	Observations	Score
1			
2			
3			
4			
5			

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