

Visual assessment of soil quality

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In agricultural fields, soil structure is a result of climate, soil type, tillage and agronomy. Plant roots, earthworms and other organisms living in the soil, decomposing organic matter and relocate soil and nutrients are also important. Soil quality can be described by biological activity, crumb structure, color and smell of the soil. Dig a soil profile, look for earthworms, look at root growth and if the roots go deep into the soil. Look also for nodules on legume-roots (N_2 -fixating bacteria), and check if the nodules are purple inside (=active). All this indicate good soil quality. Test your soil structure (poor, moderate or good) and soil quality by dropping a soil block from ca 1 m height.



Poor soil structure

- The soil is compacted and consists of many larger compacted soil aggregates (clods)
- The organic matter from last season is still visible and not decomposed, often bad smell
- Few earthworms (< 4 in a 20 cm soil cube)

Large potential for improvement



Moderate soil structure

- The soil is less compacted and consists of more smaller soil aggregates (crumbs). Many clods are still found
- The organic matter is more decomposed and only fragments of old plants are found
- Some earthworms (4-8 in a 20 cm soil cube)

Potential for improvement



Good soil structure

- Soil is dominated by fine aggregates (crumbs) with few clods
- no plant residues are visible, smell of soil.
- many earthworms (> 8 in a 20 cm soil cube)

Keep your soil like this 😊