

# Glossary : Soils

1. **alluvial** : Transported by water from one place to another.
  2. **columnar** : A type of soil structure where the soil peds (or chunks) are in the shape of a column with a rounded top. This is found in arid regions.
  3. **concretion** : A nodule composed of concentrated chemicals in a soil (e.g. iron oxides, manganese oxides, calcium carbonates).
  4. **dissolution** : Soils, among other compounds, start dissolving into smaller units when placed in contact with water.
  5. **diurnal cycle** : A daily cycle, a basic repetition period of 24 hours. All processes that are dominated by the sun are diurnal. Tides, in contrast, repeat cycles twice daily.
  6. **effervescence** : The bubbling action that occurs as a gas comes out of a liquid for example when the carbon dioxide gas caused by the reaction of carbonate coatings on soil with an acid bubbles through acidic liquid.
  7. **eluviation** : The removal of materials in one horizon which are then "illuviated" or deposited into a lower horizon.
  8. **erosion** : The removal and movement of soil materials by water, wind, ice, or gravity as well as by human activities such as agriculture or construction.
  9. **evaporation** : Water on Earth's surface or in the soil absorbs heat from the sun to the point that it vaporizes or evaporates and becomes part of the atmosphere.
  10. **face** : The way an exposed section of soil or soil profile appears.
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11. **floury** : Having the feel of wheat flour -- smooth and powdery.
  12. **free carbonates** : Carbonate materials that form coatings on soil that react with an acid to form carbon dioxide gas.
  13. **friable** : A type of soil consistence in which the soil ped "pops" when squeezed between the thumb and fore finger with a small amount of pressure.
  14. **gravimetric** : Relating to measurement by weight or variations in a gravitational field.
  15. **horizon** : An individual layer within the soil which has its own unique characteristics (such as color, structure, texture, or other properties) that make it different from the other layers in the soil profile.
  16. **humus** : The part of the soil profile that is composed of decomposed organic matter from dead and decaying plants and animals.
  17. **hydrometer** : An instrument based on the principles of buoyancy used to measure the specific gravity of a liquid in relation to the specific gravity of pure water at a specified temperature.
  18. **illuviation** : The deposit of materials carried by water from one horizon into another within the soil (such as clay or nutrients in solution).
  19. **in situ** : Latin for the original position.
  20. **lithosphere** : The outer layer of soil and rock on a planet is called the "lithosphere" after the Greek word "lithos" meaning "stone."
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21. **litter** : The covering over the soil in a forest made up of leaves, needles, twigs, branches, stems, and fruits from the surrounding trees.
  22. **metadata** : Data about data. Soil moisture data requires metadata describing the vegetation cover and possible sources of water in order to be interpreted properly.
  23. **nomenclature** : A particular way of naming similar things agreed to by many individuals or scientists.
  24. **organic matter** : Any plant or animal material added to the soil.
  25. **particle size distribution** : The amount (percent) of each of sand, silt, and clay in a soil sample.
  26. **ped** : An individual unit of natural soil structure or aggregation (such as granular, blocky, columnar, prismatic, or platy).
  27. **pedogenesis** : The formation of soil profiles depending on the five soil-forming factors (climate, parent material, topography, organisms, and time) to create the Pedosphere.
  28. **pedosphere** : The thin outer layer of the Earth which is made up of soil. This acts as an integrator between the atmosphere, biosphere, lithosphere, and hydrosphere of the Earth.

29. **prismatic** : A type of soil structure in which the soil ped is in the shape of a prism.
30. **soil consistence** : How easy or hard it is for a soil ped to break apart when it is squeezed.
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31. **soil horizons** : An identifiable soil unit due to color, structure, or texture.
32. **soil profile** : The "face" of a soil when it has been cut vertically that shows the individual horizons and soil properties with depth.
33. **soil structure** : The shape of soil units (peds) that occur naturally in a soil horizon. Some possible soil structures are granular, blocky, prismatic, columnar, or platy. Soils can also be structureless if they do not form into peds. In this case, they may be a consolidated mass (massive) or stay as individual particles (single-grained).
34. **soil texture** : The way soil "feels" when it is squeezed between the fingers or in the hand. The texture depends on the amount of sand, silt, and clay in the sample (particle size distribution), as well as other factors (how wet it is, how much organic matter is in the sample, the kind of clay, etc.)
35. **subsoil** : The common term for the layers beneath the topsoil.
36. **supernatant** : Liquid above the settled soil that is cleaner than the soil
37. **topsoil** : The common term for the top layer of soil.
38. **transect** : In any field (outdoor) study, a transect consists of a line of study, often divided into intervals where observations or samples are collected.
39. **transpiration** : the process of water in plants escaping into the atmosphere as the leaf stomates open to exchange carbon for oxygen.
40. **uniform** : This term is used in its traditional sense that some characteristic displays similar properties, Two related words are homogeneous (distributed evenly) and normal
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