



What Is Soil? What Is Soil Made Of?

What is Soil?

The term 'soil' means different things to different people. To the vast majority living in cities, soil is simply the 'dirt' or 'dust' to be cleaned from their hands or the vegetables that they buy to eat. However, to the majority of gardeners or farmers, soil is the uppermost surface of the Earth that is cultivated and nurtured to produce crops. To the engineer, it is the 'overburden' or the unwanted loose material that needs to be removed to provide a more stable foundation upon which to build. To the climate change modeller, it is both a storehouse and source of carbon and greenhouse gasses, such as methane, carbon dioxide and nitrous oxide. To the hydrologist, soil is a buffer that stores rain, thus alleviating floods and providing drinking water as well as base flow for rivers. Finally, to the biologist, it is a fascinating habitat teeming with life.

In fact, soil is all of these things. Soil is the living, breathing skin of our planet. Soil is the result of the interactions between the atmosphere (as governed by climate), the biosphere (local vegetation, animal activities, including those of humans) and the geosphere (the rocks and sediments that form the upper few metres of the Earth's solid crust). Those of us who study soil have a definition for it. We say 'soil is any loose material on the surface of the Earth that is capable of supporting life' and these life-supporting functions have been understood from the earliest of times.

'A nation that destroys its soils destroys itself.'
Franklin D. Roosevelt , Letter to all State Governors
on a Uniform Soil Conservation Law, 1937.

What is soil made of?

All of us have come into contact with soil at some point in our lives and most people are familiar with such terms as clay, silt, sand or peat. In reality, soil consists of a mixture of non-living minerals and living organisms that represent the products of weathering and biochemical processes. Rocks are weathered into individual grains, while decaying vegetation and living organisms are referred to as soil organic matter. Pores and cracks in the soil contain air with a higher concentration of carbon dioxide than found in the atmosphere. When we handle soil, the fact that it usually stains and moistens our fingers shows that it holds different amounts of water, organic compounds and minerals.

Soil Lovers say: Farmers More Than Anyone Understand The Value Of Building A Healthy Soil.