

# Water for Profit

## SOIL COMPONENTS



WATERFORPROFIT

**Soil is an important component of all farming systems. To understand how soils behave as a growing medium for plants, it is necessary to know something about the composition of the soil and the processes occurring within these materials.**

### Three types of components

Soils are made up from the following main types of materials:

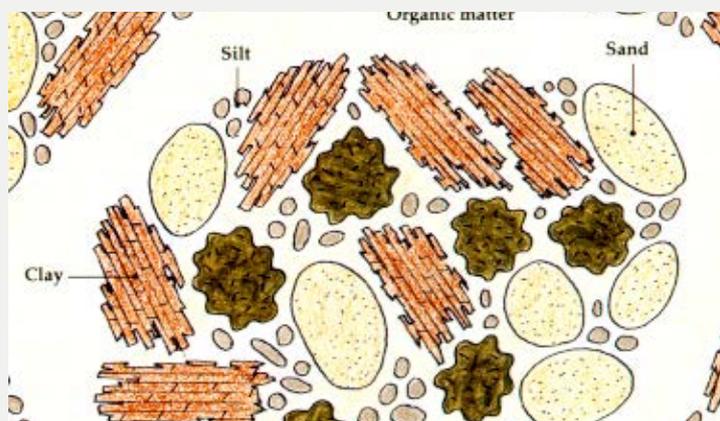
- solids
- liquids
- gases.

The solid materials make up approximately 50 per cent of the soil volume. The rest of the volume is termed the pore space. The ratio of air to water in the pore space fluctuates widely and will greatly influence the ability of plants to grow in the soil.

### Soil Solids

The solid component of the soil consists of both mineral matter (i.e. clay, silt, sand) and organic matter. The mineral component is by far the largest representing approximately 95 percent of all the solid material.

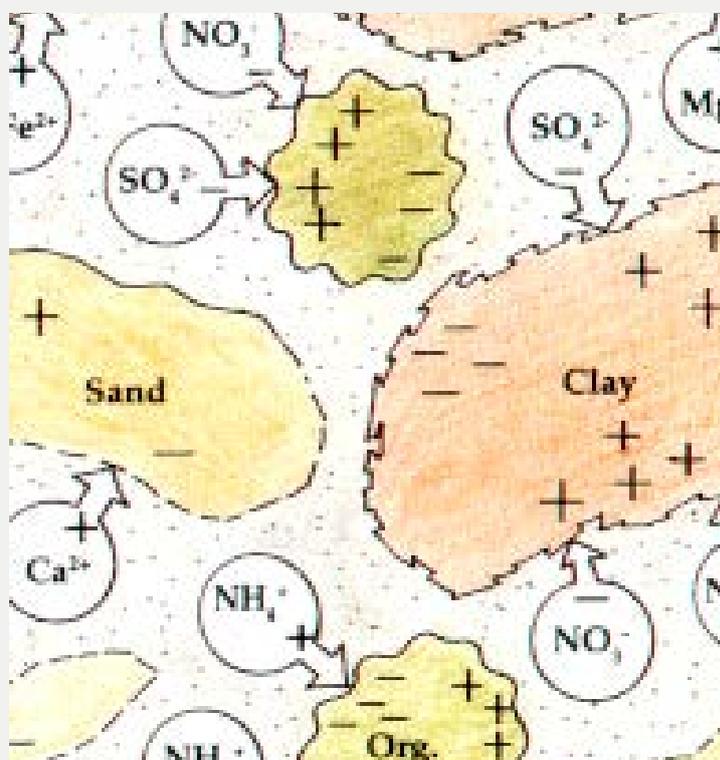
Solid material may be present in the soil either as individual particles or clumped together to form aggregates or clods. The organic material comprises mostly dead plant and animal material in various states of decomposition but also includes living plant roots and a wide variety of soil micro-organisms.



### Soil Liquids and Gases

The water contained in the soil is an essential requirement for plant transpiration and growth. It is also the source of most nutrients for the plants.

The soil holds water like a sponge until the plant can use it. As the amount of water held in the soil increases, the amount of air present decreases. Hence, excess water will adversely affect plants due to a shortage of oxygen for root activity, and too little water in the soil system will affect plant growth by reducing the water available for transpiration and root uptake.



For more details contact Growcom on 07 3620 3844.

*Disclaimer: This information is provided as a reference tool only. Seek professional advice for irrigation specifics.*

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