# Types of Soil

# SANDY SOIL

- Sandy soil has big particles that have large spaces between them.
- The spaces between these particles are filled with air. Hence, sandy soils are called well-aerated soils.
- Because of large spaces, water can easily penetrate through the particles of sand. Sandy soils, however, cannot hold water.
- Hence, sandy soils are light aerated and dry in nature.
- Sandy soils lack much nutrients hence do not support the diverse growth of plants.

# SANDY SOIL

# Silt Soil -

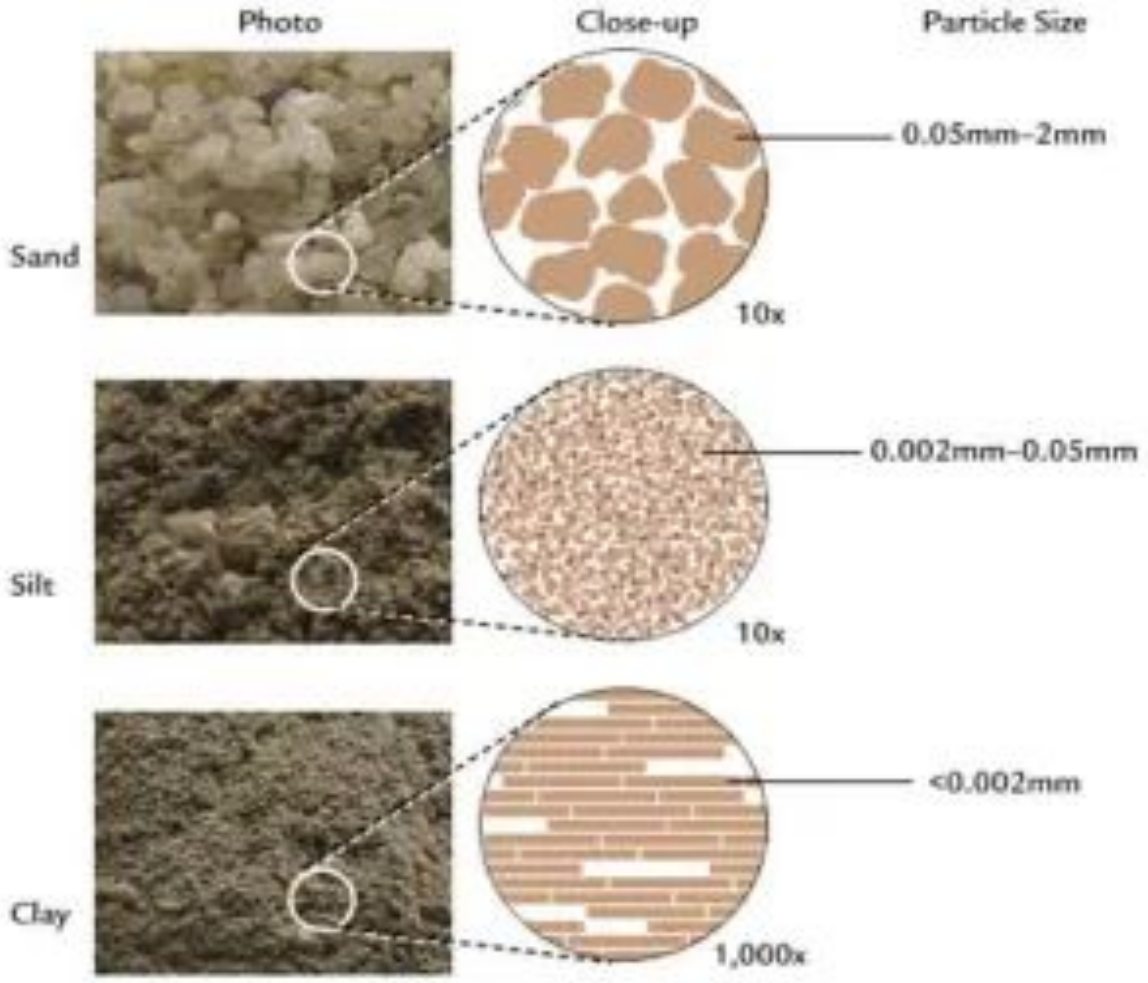
- The silt soil particles are smaller than that of sandy soils but larger than clayey soils.
- Silt soil can hold water to some extent because of its fine quality.
- They are generally found near the water bodies like river banks and lakes.
- They are rich in nutrients, highly fertile and hence are suitable for agriculture.
- They are often mixed with other soils to improve the fertility of the soil.

# Clayey Soil -

- It consists of fine particles which have less space between them.
- Since there is not much space between the particles clayey soils are not well-aerated like sandy soils.
- The tiny gaps between the particles although allow absorption of water in the clayey soils easily.
- They are able to hold water hence are suitable for the growth of different kinds of plants.

# CLAYEY SOIL

# Sand, Silt, and Clay



# Loamy Soil -

- Loamy soil contains a similar amount of large and small particles in them.
- They are combination of sandy, clayey and silty soil.
- They also contain humus.
- They can hold water in appropriate amounts and therefore support the growth of plants.
- They are also called Agricultural Soils because of their fertility and appropriate texture.
- They contain good amounts of calcium and have a high pH level.

# LOAMY SOIL

# Comparison of different types of soil -

| 1) Sandy soil | 2) Clayey soil | 3) Loamy soil |
|---|---|---|
| Contains sand | Contains clay | Contains both sand and clay. |
| Particles are large | Particles are small | Particles are both large and small |
| Soil is dry | Soil is wet | Soil is wet |
| Well aerated | Less aerated | Well aerated |
| Low water retention capacity | High water retention capacity | High water retention capacity |
| Soil is light | Soil is hard | Can be hard or light. |

# PLENARY

**Q. How can a farmer convert acidic soil into neutral soil?**

**A. The farmer can convert acidic soil into neutral soil by adding a small quantity of quicklime or slaked lime solution to the soil.**

**Q. Do all types of soil absorb water to the same extent? Give reason for your answer.**

**A. No, it is because different types of soil has different absorbing capacity of water.**

# ASSESSMENT/EVALUATION-

**Q. For planting rice, which kind of soil would be most suitable?**

**A. For planting paddy (rice), clayey soil that is rich in organic matter and have a good water retaining capacity is ideal.**

**Q. Can we make toys with the soil obtained from a field? Explain.**

**A. No, soil from a field cannot be used to make toys. In order to make toys, the soil should be clayey.**

**Q. Describe how clayey soil is useful for crops?**

**A. Clayey soil is useful for the crops because**

- **it has good water retaining capacity.**
- **it is rich in humus.**
- **it is fertile in nature.**

**Crops like wheat and rice can be easily grown in clayey soil.**