

SOIL PROPERTIES

Texture - defined as the relative proportion of the primary particles, sand, silt and clay in the soil after organic matter has been removed. They are grouped into three categories:

Loamy Soil: *consists of equal portions of sand, silt and clay; these soils are most desirable for home lawns because of the excellent water retention ability.*

Clay Soil: *these soils are very fine and compact very easily; have very little water holding ability under normal conditions but have very great holding ability under high temperatures; clay soils resist infiltration of water and promote water run-off.*

Sandy Soil: *these soils are very fine having extremely poor aggregation; sandy soil allows rapid water infiltration and leaching of nutrients; these features are proven to be undesirable in the majority of home lawns*

- **Structure** - defined as the arrangement of the primary particles, sand, silt and clay, in semi-permanent groups of particles called aggregates. Aggregate stability is of great importance to the soil structure. The primary factor is the resistance of aggregates to disintegration under the action of destructive forces such as rain, wind, and equipment traffic.
- **Organic Matter** - decomposing plant material, animal waste, microbial organisms which aid in the degradation cycle comprising 2-6% of the weight of mineral soil, it influences the physical and chemical properties.
- **Soil Density** - is expressed as the ratio of the solid phase mass to the volume of the solid phase of the soil.
- **Soil Porosity** - the porosity of a soil is that portion of the soil volume which is not occupied by mineral or organic material; soil properties are directly related to the pore size of the soil; pores may be termed macro or micro.

