

The soil is one of the most important considerations for coconut cultivation. Soil properties differ, depending on the way it has been formed and the climate and the organisms which live on it.

Coconut production is greatly influenced by the type of soil. Because of the scattered nature of the coconut producing areas throughout the country, the soils associated with the palm are diverse in their properties and potential.

Soil Requirements

In general, the physical properties of the soil (i.e. drainage, depth, texture, structure) are more important than its chemical nature. Except in very special cases of nutritional imbalances it is rather easy now to correct mineral deficiencies of the soil through fertilizer application. On the contrary, improvements to the physical conditions of soil can be difficult and costly.

Soil texture is an almost permanent character, and is one of the fundamental considerations in soil classification. Sandy soils are of open character, possess good drainage and aeration, are usually loose, friable and easy to handle during tillage operations. It has low water and nutrient retention capacities. Silty soils, possess high absorptive and retention capacities for moisture, gases and nutrients. Clayey soils usually have fine pores, and are moderate to poor in drainage and aeration and are relatively difficult to handle for tillage purposes.

B. Soil Structure

Structure mainly influences the moisture and aeration in the soil. Crumbly and granular soils are the best.

Soil structure can be changed by different management practices such as ploughing, drainage, liming and fertilizer application. Addition of organic matter and its proper decomposition

Soils of the Coconut Areas

A. Soil Texture

This property refers to the sand, silt and clay components in the soil. Natural field soils are always a mixture of these components. The relative percentages of these components enable soils to be classified as sandy, silty, loamy and clayey.

Soil texture can be commonly determined by the field method. The soil is rubbed between fingers, preferably in the wet condition. Sandy soils feel gritty and the particles can be seen easily with the naked eye. The silt when dry, feels like flour or talcum powder and slightly plastic when wet. Clayey materials feel very plastic and sticky when wet and hard under dry condition.

are important for building up and maintenance of soil structure. Leguminous cover crops and grasses in the form of green manures improve the soil structure.

C. Soil Drainage

Coconuts require a soil that is well aerated and properly drained. Free movement of air and water within the soil is necessary for growth and production. Prolonged water logging will result in yellowing of leaves. If left unattended, the palms will taper and eventually die. Where water logging is a problem, drainage drains should be provided.