ABSTRACT

A nutrient status study was conducted using six different coconut soil series Mampuri (Sandy Regosols), Mavillu, Wilpattu (Red Yellow Latosols), Rajakadaluwa palugaswewa association (Alluvial), Dambakanda (Redddish Brown Latosols) and Medagama (Latosols and Regosols) to evaluate the current nutrient status (Total nitrogen, available phosphorus, organic matter. exchangeable sodium, potassium, magnesium, calcium, manganese, iron, copper, zinc and soil pH). The study was carried out at Coconut Research Institute Lunuwila, Sri Lanka.

Soil Samples were collected from Kalpitiya, Puttlam and Kurunagala which all these sites were belong to low country dry and intermediate zones. Sampling locations were selected in such a way that it represents the whole area of each soil series. At each location, samples were collected from manure circle and center square separately as top soil and sub soil sample. For each soil series, samples were taken from three locations, to make it representative. There were four samples taken from each sampling location (Top soil and sub soil from manure circle and center square). Air dried soil samples were used to chemical analysis, to find current nutrient status of particular soils. pH variation was slightly ($p \leq 0.05$) difference among soil series. All soil series were slightly acidic to neutral (pH 5 to 7).

When overall results are considered, Dambakanda soil series shows highest organic matter concentration, exchangeable calcium concentration, manganese and copper concentrations compare to other soil series. Therefore Dambakanda series has higher fertility status based on nutrient availability.

Rajakadaluwa soil series had highest total nitrogen percentage, magnesium and iron concentrations and it also has considerably higher level of fertility according to the parameters considered in this study.