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Status of some selected chemicl characteristics of fruit growing soils in the low country wet zone.

Banana, pineapple, mangosteen, mango, rambuttan, papaw, passion fruit etc. are the common fruit crops grown in the low country wet zone of Sri Lanka. However, soil fertility management practices adopted by fruit growers in this zone are not satisfactory. Hence, fruit crop yields are reported to be rather low when compared to other parts of the country. A soil analytical programme was therefore conducted to investigate the status of selected chemical characteristics in the low country wet zone fruit growing soils.

A total of 80 soil samples (0-15 cm depth) were randomly collected from fruit gardens of low country wet zone. They were analysed for available phosphorus (Olsen's bicarbonate extraction), potassium (NH_4OAc extraction); organic matter content in the soil was determined by Walkey- Black method. In addition, pH (1:25 H_2O) was also measured.

Results indicated that of the soil samples collected 4% samples had pH below 4, 31% samples had pH between 4--5, 49% samples had pH between 5-6 and 16% samples had pH more than 6.

In addition, results showed that of the soil samples collected 41% samples had P below 5 mg/ kg, 28%samples had P between 5 – 10 mg/ kg, 17% samples had P between 10 – 20 mg/ kg, 5% samples had P between 20 – 30 mg/ kg and 9% samples had P more than 30 mg/ kg.

Results further indicated that of the soil samples collected 40% samples had K below 40 mg/kg, 30% samples had K between 40 – 80 mg/ kg,13% samples had K between 80 – 120 mg/ kg, 4% K between 120 – 160 mg/ kg, 13% samples had more than 160mg/ kg.

In addition, 18% soil samples had organic matter content below 2%, 39% samples had organic matter content between 2 – 3%, 28% samples had organic matter content between 3 – 4%,55 samples had organic matter content between 4 – 5% and 10% samples had organic matter content more than 5%.

These results indicated that a majority of wet zone fruit growing soils are acidic and low in P and K. In addition, most of these soils are also low in organic matter. Hence, application of high grade P and K chemical fertilizers, liming materials and organic manures would be necessary to improve soil fertility in the wet zone fruit growing soils of Sri Lanka.