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POTASSIUM STATUS OF SOME COCONUT GROWING SOILS IN SRI LANKA

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Water soluble, exchangeable, difficultly exchangeable and total potassium contents of sixty four profiles covering twenty one soil series were correlated with percent clay, percent silt, percent sand, pH, percent organic carbon, cation exchange capacity and total exchangeable bases. While all forms of potassium were negatively correlated with percent clay, water soluble, exchangeable and difficultly exchangeable K contents were positively related to pH, cation exchange capacity and total exchangeable bases. The water soluble and exchangeable potassium contents significantly decreased with depth. The correspondent forms of potassium in top soil and sub-soils were positively correlated. A positive correlation was also observed between water soluble, exchangeable, difficulty exchangeable and total potassium contents.

The data indicate that most soils in the intermediate and wet-zones are deficient in potassium. The significance of the findings to potassium fertilization of coconut soils is discussed.