RELATIONSHIPS BETWEEN COCONUT YIELD, LEAF NUTRIENT CONCENTRATIONS AND FERTILIZER TREATMENTS

P. Loganathan and P. P. Atputharajah
(*Coconut Research Institute, Lunuwila.*)

Coconut yield and leaf nutrient concentrations from three field experiments at Pallama, Madampe and Veyangoda showed that application of sulphate of ammonia generally increased leaf N and decreased leaf K and Cl; saphos phosphate increased leaf P, Ca and Mg and at Madampe, in addition decreased leaf K and Cl. Muriate of potash increased leaf K and Cl and decreased Ca and Mg.

Application of muriate of potash increased yield at all three sites. Saphos phosphate increased yield only at Madampe and pallama and sulphate of ammonia had no significant main effects at any of the sites. Yield at Veyangoda was positively correlated with leaf K and Cl and negatively with leaf

Mg. Yield increase due to P application at Madampe was positively related to leaf P and Ca and negatively to K and Cl and at Pallama it was related positively to leaf P, Ca and Mg and negatively to N. Yield increase due to K application at Madampe and Pallama was positively correlated to leaf K and Cl and negatively to leaf Ca and Mg.

The "sufficiency range" of nutrient concentrations (%in 14th leaf) for coconut are; N, 1.9 to 2.1: P, 0.11 to 0.12; K, 1.2 to 1.4, Ca, 0.35 to 0.45; Mg, 0.25 to 0.30 and Cl, 0.30 to 0.35.