

Study on nutrient removal by *Typica* x *Typica* coconut palms in high potential lands

Typical Typica (CRI 60) coconut palms grown in high potential class 1 lands are capable of yielding more than 15,000 nuts/ha/year. Blanket fertilizer recommendation of 0-8 kg of urea, 0.6 kg of rock phosphate, 1.6 kg of muriate of potash and 1 kg dolomite per palm per year is specifically not aimed at meeting the nutrient demand of in high yielding plantations. The present study was conducted to compare macro and micro nutrient removal by a coconut plantation in a high potential land with present fertilizer recommendation.

This study was done from September 1998 to August 1999 by sampling fallen fronds, inflorescence parts and nuts. The analysis showed that the total major nutrients removed by all plant parts were 267, 117, 56, 39, 33 and 14 kg/ha year of K, N, Na, Ca, Mg and P respectively. The amounts of N, P, K and Mg applied annually as fertilizers were 57, 11, 124 and 19 kg/ ha respectively which are inadequate to prevent depletion of soil N, K and Mg. the available K and Mg of soils in 1m depth seem inadequate to meet the nutrient requirements of coconut palms in high potential lands.

Removal of Fe, Mn, Cu Zn and B by a palm in the high potential land amounted to 1128, 608, 130, 325 and 261 g/ha/ year respectively. At the above rate removal, available Fe, Mn, Cu and Zn in the soil were sufficient for a more than 50 years.

The study showed that N, K and Mg fertilizer recommendation for *Typica* X *Typica* plantations in high potential lands should be revised buy further field experimentation and micro nutrient application did not seem essential.