B -03

EFFECT OF NPK FERTILIZERS ON THE YIELD AND LEAF NUTRIENT STATUS OF ADULT COCONUT ON A LATERITIC GRAVELLY SOIL

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Eight years' yield data of a 5x5x5 NPK field experiment on adult coconut on a lateritic gravelly soil at Veyangoda showed that muriate of potash (60% K_2O) up to 1.8 kg/palm/yr. linearly increased nut/palm, copra/palm and copra/nut, while sulphate of ammonia up to 4.4 kg/palm/yr. decreased copra/nut. Sulphate of ammonia, between 1.1 to 2.2 kg, saphos phosphate between 0 to 0.83 kg, and 1.8 kg. muriate of potash/palm/yr. is expected to produce the highest nut (57 nut/palm/yr.) and copra (12.3 kg/palm/yr.) yield.

Muriate of potash increased leaf K and Cl but decreased leaf Ca and Mg. sulphate of ammonia decreased leaf Cl and saphos phosphate increased leaf P. Potassium and Cl levels in the leaves had highly positive correlation with nut/palm, copra/palm and copra/nut, while Mg levels had negative correlation with nut/palm and copra/palm.

The results indicated a need for increasing the rate of muriate of potash in the current fertilizer mixtures for adult coconut.