

ORGANIC MANURES: A POTENTIAL MAGNESIUM SOURCE

Magnesium (Mg) has long been considered as an element essential for healthy growth of coconut; particularly for its role in formation of chlorophyll and building up of plant food reserves.

In the mid fifties an intense yellowing in mature coconut leaves was observed in plantations, particularly in the high rainfall areas of the Western and Southern Provinces of Sri Lanka. It was further observed that the lateritic soils in these areas have been subjected to heavy leaching. Chemical analysis confirmed that the visual symptoms of yellowing in leaves were due to Mg deficiency.

Widespread Mg deficiency is now observed in most of the coconut growing areas in Sri Lanka, especially in gravelly and sandy soils. Surveys and leaf analysis have shown positively that approximately 40% of coconut palms suffer from acute Mg deficiency, while another 40% is in the borderline of the deficiency.

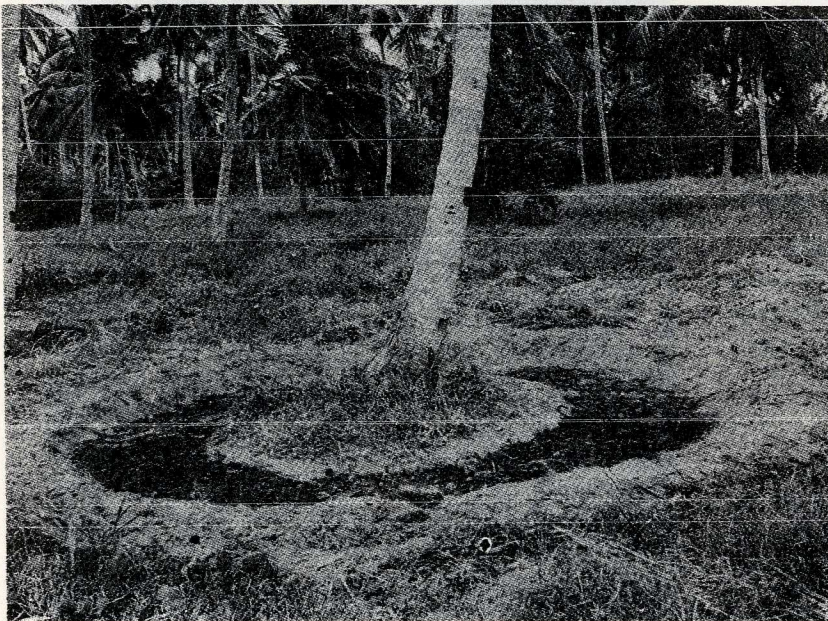
The CRI recommends the application of dolomite as a long term preventive measure, at the rate of 1kg per palm per year. It is also important to note that the Adult Palm Coconut Fertil-

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izer mixture APM (12-6-32) mixture does not contain magnesium. However, a coconut fertilizer mixture named "Adult Coconut" mixture ACM (0-6-32-5) which contains dolomite as a magnesium source, has been included in the CRI fertilizer package.

Dolomite contains 20% of MgO and application of 1 kg of dolomite per palm would provide about 200 g of MgO. It is also noteworthy to mention here that animal or green manures of other organic sources when applied either as manure, soil ameliorant, or mulch, could also provide the coconut palm with sufficient quantities of Mg in addition to other nutrients such as N, P and K.

Therefore, coconut growers applying organic manures are benefitted as these manures supply fully or partially the Mg requirements of the coconut palm. The availability depends upon the type of organic manure used. The MgO content in the recommended doses of some locally available organic sources are given in the Table.



Application of organic manure to a Coconut palm.

