

182

Coconut Fertilizer Demonstration Project for Small Holders

Travelling through coconut growing areas in our country, you may have perhaps noticed that in some small holdings, rows of palms are colour banded with two stripes of Red, Yellow and Green, separated by another row banded with a single black stripe. What are these sites? You would have been curious to know why these palms are banded in different colours. The answer is simple. These are coconut fertilizer demonstration plots, set up jointly by the Coconut Research Institute and the Coconut Cultivation Board under the sponsorship of the Food and Agriculture Organization. These plots are sited in various coconut growing districts of Sri Lanka and are mainly for the benefit of the small farmer.

Today in a world with an ever increasing population, there is no proportional increase in the production of food supplies. If the trend continues unchecked it would lead to a possible world food shortage in the near future. Such a crisis will definitely have a serious impact on developing countries like Sri Lanka and to avert such a calamity the world food production should be stepped up. For those of us who are closely associated with the Coconut Industry, this means undoubtedly an effort towards increasing coconut production. The best way to achieve this target is by systematic application of fertilizer. Unfortunately our country's fertilizer usage at the moment lies at a very low ebb. The purpose of this project is firstly to encourage in particular the small farmer to get into the habit of fertilizer usage. Secondly, as the caption itself indicates, to demonstrate to them how fertilizer application together with proper management practices could significantly increase yields.

Although much has been discussed, written and published through mass media on this subject, it was thought that setting up of these plots could enable the farmer to see himself the beneficial effects of fertilizer and thus convince him on its usage. This has the dual effect of increasing both the yield and consequently the income of the small farmer. It is with this prime intention that the Food and Agriculture Organization has come forward to sponsor this project under its Fertilizer Programme.

The design of these demonstration plots is such that they bring out well the responses shown with the application of fertilizer and other cultural practices. As indicated in the plan a 30 palm plot each consisting of 3 rows each having 10 palms, is selected and the palms are known as treatment palms.

The 10 palms in the first row are painted with two red bands each and no application of fertilizer is done to any of these palms. These palms are called the control palms and are numbered from 1 to 10.

The 10 palms in the next row are painted with two yellow bands each and are treated with the recommended dose of fertilizer. These palms are numbered from 11 to 20.

The 10 palms in the third row are painted with two green bands each and are treated with the recommended dose of fertilizer. In addition, cultural practices such as opening up of contour drains, establishment of cover crops etc. are carried out in the area along this row.

A guard row of palms painted with a single black band is used between rows of treated palms both for reducing interference between treatments and also for ease of identification.

During the harvest, yields from the individual treatment palms are recorded.

These demonstration units are expected to be maintained for a period of about five years. The fertilizer is applied not only to the treatment palms but also to the palms in the guard rows and the entire quota of fertilizer is supplied to the grower free of charge. The sites selected have been from holdings that have been neglected for a couple of years and having a stand of weak and low yielding palms.

These plots serve two purposes; one as a fertilizer demonstration plot and the other as an experimental plot for nutrition studies. The soil and leaf samples collected from these sites are analysed by the Division of Soils and Plant Nutrition Division of the Coconut

Research Institute to determine their mineral content and also the physical properties of the soil. Besides studying the nutrition of the coconut palm, the data could be used to show the increase in the nutrient content both in the plant and the soil with the application of fertilizer.

Further we intend making use of the results of these tests for studying the following —

- (a) the nutrient status of soil and plant in different coconut growing areas and also for collecting data for a nutrient survey.
- (b) studying the fertilizer requirement of the palm in greater detail by acquiring better knowledge on different types of soil in the island.
- (c) to ascertain the correlation between the soil and leaf nutrient status and the yield.

- (d) to make site — specific fertilizer recommendations depending on the soil types.
- (e) to convince particularly the small farmer on the advantages of fertilizer usage and encourage him to reap the benefits of a systematic fertilizer application programme.

Presently we have established 212 such demonstration units in Puttalam, Kurunegala, Gampaha, Colombo, Kalutara, Anuradhapura, Galle, Matara, Hambantota, Ampara, Batticaloa and Jaffna.

The work in these units are in progress. We hope the results will contribute at least in a small way in saving the world from hunger by increasing the yields by more fertilizer usage and thereby helping to improve the quality of life of the small farmer.

G. D. George

FAO FERTILIZER DEMONSTRATION PROJECT FOR SMALL FARMERS

FIELD PLAN

