

THE IMPORTANCE OF ORGANIC MATTER IN VEGETABLE CULTIVATION.

I. S. PADMASIRI

Research Officer, C. A. R. I.,
Gannoruwa.

+++++

Organic matter improves the soil favourably for plant growth. This improvement takes place in the form of chemical and physical properties of soil. The chemical properties are improved by enriching the soil with nutrients. The N.P.K. requirements of the plants are met by inorganic fertilizers, but organic matter supplies micro-nutrients in addition to the major nutrients. The physical properties of the soil are improved in many ways. Organic matter helps the soil to hold nutrients given in the form of inorganic fertilizers and those already present in the soil. This reduces leaching and results in releasing the nutrients slowly to the plant increasing the efficient use of nutrients. The moisture holding capacity is increased. This helps the plant to tide over drought conditions to a favourable extent and results in economic water use, mainly in irrigated farming. Organic matter changes the environment of the root region by good aeration and leads to better plant growth.

Organic matter enhances the microbial activity in the soil which indirectly leads to better plant growth, and results in a better environment for earthworm activity which in turn improves the soil leading to better plant growth.

The importance of organic manure in vegetable cultivation is clearly illustrated by results of an experiment carried out at Central Agricultural Research Institute, Gannoruwa using pole bean variety Kentucky Wonder Green. Table I, gives the results of the experiment.

TABLE I.

Treatment,	Yield Kg/Ha.	Gross returns Rs./ha.
1. No. Fertilizer	2631	6552.50
2. N.P.K. only	5629	14,072.50
3. N.P.K. + O.M.	9840	24,602.50

N.P.K. Department of Agriculture fertilizer mixture for beans.

O.M. Cattle manure at the rate of 20 Tons/ha.

The cost of 20 Tons of Cowdung including transport
= Rs.3,600/-

The price of beans was assumed as Rs. 2/50/kg.

The results indicate the importance of N.P.K. fertilizer in cultivation of beans. The additional return of Rs.10,530.00 received by spending Rs.3,600/- on cattle manure could be considered as a highly profitable venture.

Likewise in other vegetable crops too the yields could be tremendously increased by the addition of organic manure.