

# GOTUKOLA—AS A COVER CROP FOR TEA\*

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I have read with interest articles by Mr. Fernando and Mr. Mollison, in the *Tea Quarterlies* of June 1951 and June 1952, on cover crops for tea. In this short account I wish to refer to a "weed" or "cover crop"—whichever you like to call it—gotukola, (*Hydrocotyle asiatica* or *Centella asiatica*). The publication "A manual on the Weeds of the Major Crops in Ceylon"—Department of Agriculture—July 1951, has to say this on gotukola: (1) prevents erosion, (2) shallow rooted, (3) marked competitor in tea, in all but rich soils, if not frequently controlled by forking.

After ten years I can agree with (1) and (2) but not with (3). I have encouraged the growth of gotukola on this estate—elevation 300 feet, annual rainfall 110 inches average—for the past 10 years. In 1945 there were only isolated patches of gotukola in the different fields; today there is a nice green cover of gotukola throughout the estate. The average yield in 1945 was 626 lbs. per acre; for 1954 and 1955 it is nearly 1,100 lbs. Regular manuring is carried out as recommended by the Tea Research Institute.

Weeding is done only round the bushes, and weeding costs have thus been reduced. No silt finds its way into the drains and attention to keep these in order is negligible. Forking is a light task for the labourers since there is no hard pan of earth to be broken, and the soil remains moist throughout the year. Even after forking very little wash takes place since the loose earth is held together by gotukola. It does not form a thick mass as does *Desmodium triflorum*; it is shallow rooted and can be weeded out quite easily. I feel the increase in crop is to a great extent due to the moist soil conditions throughout the year and the conservation of the top soil. I have allowed gotukola to grow on the paths and drains as well. After manuring the gotukola in the centre of the rows withers, but quickly recovers.

I encouraged the growth of gotukola in the new clearings here, weeding only round the plants, which at the time looked very green and healthy. These clearings, now in their third year of plucking, will give 1,000 lbs. per acre.

I have not spent any money planting gotukola. Isolated patches have been allowed to grow. The tea here is about 25 years of age. Previously this land grew citronella for about 20 years without any manure at all. From this small experiment I think I could say that gotukola is not a competitor in tea, even on bad soils.

Some years ago Dr. Reginald Child wrote in the *Times of Ceylon*, "Gotukola—New Light on an Old Drug". He said gotukola was one of the best known and longest recognised medicinal plants in the east—being recommended to people suffering from catarrh. It is also greatly valued as a vegetable in village homes, and finds a ready sale at all market places in this area. Dr. A. W. R. Joachim has found

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that fresh gotukola leaves have a moisture content of 84.3 per cent., protein 2.9 per cent., mineral 2.1 per cent., fibre 1.8 per cent., fatty substances 0.03 per cent., and carbohydrates 8.6 per cent. Gotukola can serve as a crop in our major crops, as a medicine and as food.

It would not be wise to put down the very large increase in crop to gotukola alone, but I can definitely say it has made a big contribution towards the increase, and yields have been increasing every year since 1945.

I have to thank Mr. N. H. Rumbelow of Hatherleigh Group, Rakwana, my Visiting Agent, for the support I received in carrying out this small "experiment".