

REPLACING THE SENILE

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INTRODUCTION

Most living things, whether animals or plants, reach a stage of senility with the passage of time. In the plant kingdom, in particular, some form of rejuvenation is brought about by a system of pruning whereby renewed vigour is imparted towards the growth of the plant. Tea is one in which such a system is practiced in the commercial cultivation of the plant.

However, there comes a time when the old tea (seedling) goes beyond its peak and is seen to be declining in productivity as well as profitability, and eventually goes below the level of economic viability. It is at this stage that replanting with vigorous, high yielding clonal material is considered necessary. Such tea cannot be replaced all at once and hence it is necessary that a proper schedule be drawn up for replanting uneconomic tea lands on a phased out programme, paying due attention to available resources of finance and labour. Such a programme should be planned at least five years before the field is due for uprooting so that unnecessary inputs could be avoided during the last cycle before uprooting, without unduly affecting the intake of crop.

ATTENTION NECESSARY TO FIELDS IN THE LAST CYCLE

During the last cycle before uprooting, agro-based inputs could be greatly curtailed without much effect on crop. Listed below are the areas in which savings could be effected.

1. **The last prune:** A medium cut-across may be given at a height ranging from 55 to 60 cm so as to conserve on labour utilisation and minimise the non-productive period after pruning.
2. **Cultural operations:** After the last prune, forking of the soil could be done away with completely. The operation of draining could be limited to minimal desilting wherever required.
3. **Dolomite and zinc applications:** Dolomite could be completely withheld during the last cycle as 1250 kg per ha would be given sometime after uprooting. Foliar sprays of zinc should, however, be given at recommended rates except during the last year of the cycle. Urea could be advantageously mixed in the zinc spray solution at the rate of 2 kg per 50 l of solution.
4. **Fertilizer applications:** During the first and second years of the last cycle NPK fertilizer should be applied at 75% of the normally recommended level. Thereafter plain urea could be given at 75% of the estimated nitrogen level. In the last year of the cycle all forms of fertilizer applications could be withheld.

5. **Weed control:** Chemical weed control should be undertaken as and when required without adhering to a rigid programme. Due care should however, be exercised to see that weeds do not flower and produce seeds as a result.

6. **Plucking:** During the last two years of the cycle a system of hard plucking could be adopted to harvest as much crop as possible.

About one year before the tea is due for uprooting, attention should be paid to the following aspects:

1. Ring-barking of shade trees, to be removed, must be done early so as to provide sufficient time for the leaves to drop and the tree to die completely prior to uprooting.

2. Soil sampling for eelworm estimation, if necessary, must be carried out before the tea is uprooted. For this purpose the area due to be uprooted must be demarcated into blocks of approximately $\frac{1}{2}$ ha each. From each such block about 20 samples must be collected at randomly scattered points mixed together well, and one composite sample of about 250 g should be extracted. These samples should be adequately labelled and sent to the TRI on pre-arranged dates for eelworm estimation. Due care should be taken to see that sampling is carried out when the soil is moist, and these samples should be sent to the TRI with the least possible delay as storage of samples would result in wrong interpretations.

3. Demarcation of *Poria* patches should be carried out well before the old tea is uprooted and such patches fumigated according to recommendations. This is important because if the entire area is uprooted regardless of the *Poria* patches, it would be difficult to locate these patches subsequently for purposes of treatment.

CAUTION IN SELECTING AREAS FOR REPLANTING

All low yielding, and thus uneconomic, tea fields would not be ideally suited for replanting. On the basis of categorisation of fields (as given in Advisory Circular No. E 1) initial selection of lands must be from the 'C' category fields. These fields should be critically examined to determine the cause for low yields. Replanting should be considered only if soil conditions are suitable; without much erosion and with the terrain being of an undulating nature. In such areas the probable cause for low yields would be poor jat of tea, and low stand of bushes due to cumulative pest and disease damage and *not* as a result of poor soil conditions. If areas of poor soil are selected for purposes of replanting, and if the land is also steep with excessive soil erosion, the VP tea may eventually suffer the same fate because causes for the decline in yield of the old tea have not been eliminated.