

## Tea Cultivation in South India.

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*(Continued from Vol. XXVII Page 161)*

**Cultivation in Tea.** Weeding continues the whole year round. At certain times of the year, in the good growing weather before and after the monsoons, weeds grow very fast; at these times a seed can grow into a full size plant which in its turn is producing seed in about 5 weeks or less. During the heavy rains the growth of weeds is less rapid, but weeds pulled out and left on the ground will continue to grow and flower. It is therefore necessary to collect them into big heaps which should be turned over after a few weeks to avoid spreading of seeds. In the dry weather there is little need of weeding, once the estates have been thoroughly cleaned up from the previous rains. It is usual for an estate to have seven, eight or nine complete rounds of weeding in a year. During the heavy rains only hand-weeding is done to avoid loosening the top soil too much and thereby losing it. With the hand weeders a few coolies are sent with weeding forks or *kokras* to clean up any grassy patches, but these being usually found in flat places forking will not cause much erosion. After the heavy rains are finished, clean weeding is started, using *kokras*. Fields which have recently been pruned and so have less cover from the tea will be the weediest and need cleaning up first. By the end of January an estate is usually quite clean. 'Kokra weeding' is then continued until heavy and regular rain is falling i. e. about May.

Weeds are mostly grasses and members of the family Compositae. Woody shrubs and trees seeded from nearby jungles have to be rooted out, and every time a field is pruned the ferns growing close under the tea bushes should be carefully eradicated (not that ferns should be left at other times; it is easiest to get them out completely at pruning time). At the same time as weeding a field, all flowering weeds in its swamps should be sickled, and roads and drains cleaned. During the heavy rains, roads and drains need special attention for keeping clean if blockages and washouts with resultant loss of top soil are to be avoided, and culverts especially should be regularly inspected.

This question of soil erosion occupies the planters' mind a lot, and all kinds of devices are used to combat it. As mentioned, only hand weeding is done during the heavy rains, and all small weeds are left. Where there is plenty of loose stone, contour walls  $1\frac{1}{2}' \times 1\frac{1}{2}'$  are built which by holding up the soil, form terraces. Contour trenches are dug for breaking the wash, but these cause a lot of damage to the tea roots. Another good plan is to

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\* [We apologise to our readers for the long gap between the third and fourth instalments of this series. The author's absence on leave out of India and the outbreak of the war have caused an unavoidable delay. *Ed. M. A. J.*]

build walls all round the bottom edges of fields so separating them from the swamps and raising the field level at the bottom above the swamp, where previously continual scraping away of grass growing from the swamp up into the tea has exposed the tea roots. This helps also to keep the swamp drains clear, and where swamps are used for cattle grazing, the walls assist in keeping the cattle out of the tea-fields.

Growing plants for green manure helps, especially of the spreading variety, but these I will mention later. Contours of Paspalam or other non-seeding grass may be grown, but these tend to encourage field rats which feed on the roots.

**Antimalarial work.** Malaria is prevalent in most hill districts of South India, and this work is essential. Swampy areas have to be drained correctly and blockages of rock blasted out to get even flow of water in the drains. These drains and all stream and river edges must be kept clear of grass and vegetation in the mosquito breeding months (before and after rains), and oiled with *malariaol* weekly.

**Forking.** This work is usually done after heavy rains are over and before the dry weather, to break up the capillaries in the soil and conserve the moisture, as well as for aerating the soil and increasing the bacterial action in it. Most of my readers will know more about this subject than I, so I will pass on quickly, only pausing to say that in forking, care has to be taken not to damage the tea roots or expose them on the surface. 'Envelope forking' where the earth is not turned over, but merely loosened and pushed forward is the usual method employed.

**Control of Shade.** Tea likes a thin dappled shade, and for this, silver oak (*Grevillea robusta*) trees are planted in rows (previously mentioned) about every 12 rows of tea apart. These trees if allowed to grow on without any form of control become enormously big and give too dense a shade. Some planters cut the trees across and control them as low as 15 feet from the ground. Others prefer to cut them at 25' to 30' from the ground, keeping all the side branches cut off upto 15 feet. Albizzias, Acacias, and other trees are also planted for shade, but the *Grevillea* is mostly used.

(To be continued).