

# PESTS AND DISEASES.

## CORA GRASS, *CYPERUS ROTUNDUS*, SINH. KALANDURU.

T. H. HOLLAND, M.S.E.A.C.,

*Manager, Experiment Station, Peradeniya.*

"Cora" which belongs to the sedge family is, in districts where it has become established, one of the most pernicious weeds to be met with in Ceylon.

The plant sends down slender underground stems on which, at widely separated intervals, are found the "nuts" by which reproduction is effected. These "nuts" are found in the soil at depths up to two feet. The plant is used to a considerable extent in native medicine.

"Cora" has long been firmly established on the Experiment Station, Peradeniya, and no thoroughly satisfactory method of eradication has yet been devised.

Up to the present the methods tried may be divided into

- (1) Shading out with high shade.
- (2) Smothering out with a low growing cover crop.
- (3) Constant scraping of the soil to cut off the leaves as they appear.
- (4) Forking out.
- (5) Sowing mustard in infested patches.
- (6) Smothering the weed with coconut husks.

### 1. SHADING OUT THE WEED BY MEANS OF DADAPS.

This was tried (a) in a badly infested patch of tea and (b) on the roadside edge of a cacao plot. In the first case the dadaps were planted sufficiently close to form dense and continuous shade. The date of planting of the dadaps is not on record but it is believed they were left growing at least three years. In November 1923 the dense shade was adversely affecting the tea and the dadaps were removed. The "cora" had been kept down by the shade but not killed out. After the removal of the Dadaps the cora revived and is now again fairly thick and vigorous.

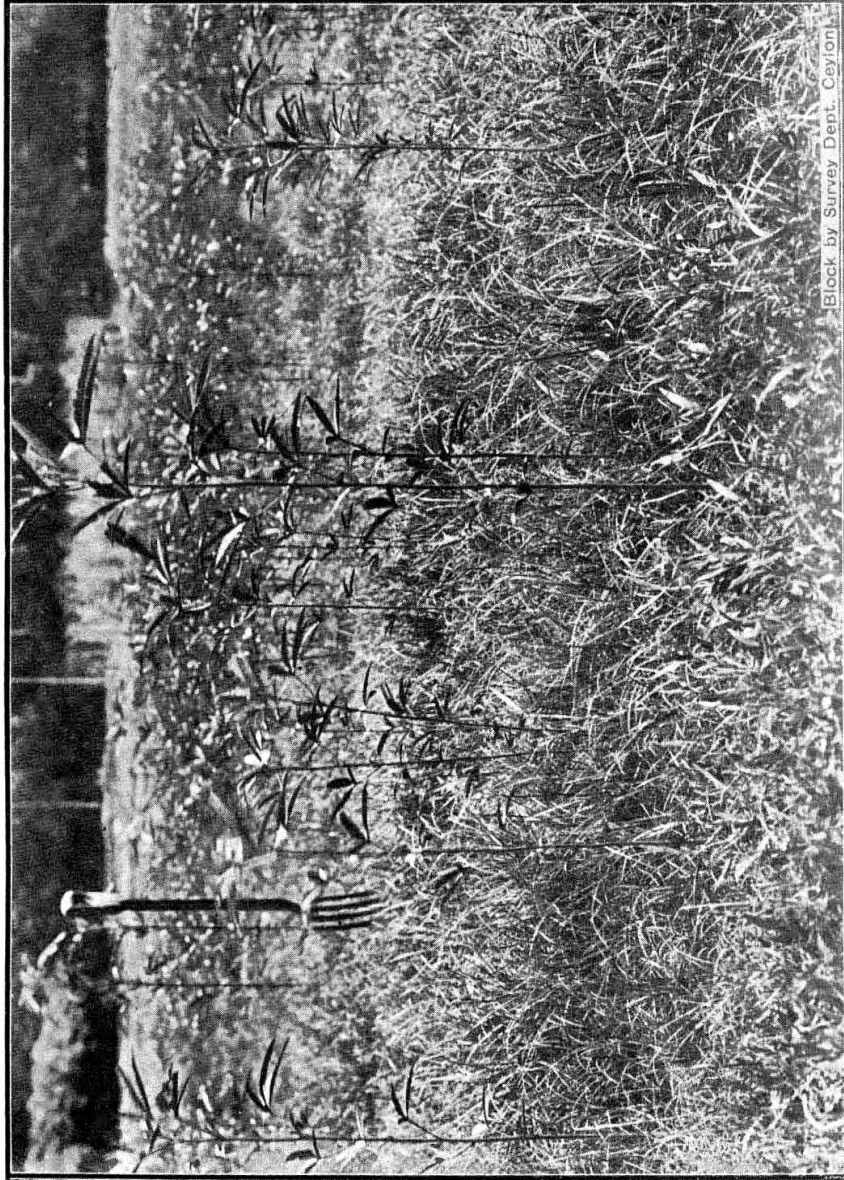
(b) In the second case, the main crop being cacao, it was possible to let the thick Dadap shade remain and there is now practically no sign of "cora," in the shaded area.

(2) In 1914 attempts were made (a) in a plot of tea and (b) in a plot recently planted with Papaw to smother out the weed by planting sweet potatoes. The sweet potatoes formed a thick cover which it is believed was left down for about two years and which appeared to have smothered out the "cora." On the removal of the cover however the weed reappeared.

(3) In 1922 a badly infested patch of tea land was scraped weekly for a period of three months. At the end of the period the individual plants presented a weak and sickly appearance but their number was not diminished.



"CORA" PLANTS SHOWING THE UNDERGROUND STEMS AND "NUTS."



Block by Survey Dept. Ceylon

A THICK GROWTH OF "CORA" ON THE EXPERIMENT STATION,  
PERADENIYA.

(4) Forking has been tried from time to time but owing to impossibility of removing all the nuts from soil only a temporary reduction has been found to result, and the method is slow and expensive.

(5) In 1916 or 1917, at the suggestion of Mr. Beddewela, mustard was sown among the "cora." Apparently the growth of the mustard was not sufficiently vigorous to have any effect on the weed.

(6) Attempts to smother out the weed with coconut husks are reported to have been only partially successful.

It is also recorded that attempts to kill out the weed with a thick growth of crotalaria ended in failure.

It has been stated that "cora," will kill out tea, and in certain bare patches in the Experiment Station tea plots the death of the bushes have been attributed to the influence of this weed. The present writer does not agree with this contention. There is healthy tea growing on the Experiment Station in areas which have for years been badly infested with cora. It appears more probable that the tea bushes have died out from other causes and that with the additional light and air afforded by their removal the "cora" has made specially vigorous growth.

An article by Mr. N. A. R. Pollock, reprinted from the *Queensland Agricultural Journal*, appeared in the *Tropical Agriculturist* for April, 1925. Many of the measures mentioned entail rendering the soil unfit for crop production for a considerable period. Other measures show more promise but an economic method applicable over a large area does not yet appear to have been discovered in Queensland.

A Ceylon planter claims to have completely eradicated "cora" in small patches by folding pigs on the land. This would hardly however be a practical measure in tea land.

The experience of the Experiment Station, Peradeniya, may be summarised as follows:—

1. "Cora" can be controlled by shade but the shade must be dense and permanent, or at all events it must be maintained over a considerable number of years.

2. Constant scraping off of the leaves of the weed would probably result in its ultimate destruction, but the treatment would have to be maintained for a considerable number of months and would not be practicable over a large area.

3. Forking out is never completely successful.

In Ceylon in most cases the land to be treated is occupied by a permanent crop and the effect of any measure on the main crop must be considered. Probably the most promising solution is the smothering out of the weed by the planting of a creeping leguminous cover crop suitable to the district concerned, though even in thick low covers a few cora plants will usually make their way through. The behaviour of tea under such a crop in Ceylon has as yet to be ascertained. It is intended next year to plant up a considerable area of tea on the Experiment Station—much of it infested with cora—with *Indigofera endecaphylla*. From this valuable experience should be gained both in the measure of success achieved and the time taken in smothering the cora, and in the effect of the treatment on the tea.