MUSTARD WEED (Cardamine hirsuta).

I have come to the firm conclusion, after a good many years' observation that mustard weed is one of the most friendly growths we can have under our tea, if properly handled. My experience is that it has a life-cycle of about 2½ months under most weather conditions. It springs up, particularly in forked areas, in a thick carpet and seeds in less than one month, thus defeating the efficacy of the usual monthly round. In any case, to scrape it thoroughly causes

*From a painting in the Peradeniya Herbarium, kindly loaned by the Director of Agriculture.
such a soil disturbance that it, and all sorts of weeds, spring up in redoubled quantities and how much soil is lost through erosion it is impossible to estimate. Hand weeding is out of the question on account of cost. Whilst growing to its maximum height of about 4 inches it forms a perfect cover to the ground and breaks the force of the rains. Other types of weed have to be picked out from amongst it and for the first round this may be a little bit tricky, requiring careful supervision. After seeding, the mustard weed gradually turns a straw colour and later drops its leaves. The stalks continue to stand, slowly turning black, and eventually collapse as almost invisible black threads on the ground at about 2½ to 3 months from germination, leaving a clean weeded appearance. A second very thick crop soon appears, probably rather less luxuriant than the first and at the same time other weeds are definitely less noticeable. Each successive crop is likewise less vigorous, and weeds, generally, give less and less trouble, and drains receive less and less silt. A forking is liable to revive the growth of mustard—all to the good, I would hazard. I have tried out this routine over several selected areas and in one small area for over three years. It used to be a very weedy field and is now most popular with the contractors. The tea has certainly not suffered. Care is necessary during the first cycle of the mustard weed not to let grass in.

CHRYSANTHEMUM WEED (Artemisia vulgaris).

I have this plant firmly established over a 15-acre field and believe it has been in a similar condition for many years. The cost of its removal by the root is almost prohibitive and the operation entails much hand forking and grubbing to a considerable depth. Beyond periodically forking round the periphery of the affected area to prevent spreading, and the carrying of all growth removed to the next road above for destruction, I have not touched the "weed" for several years. Within is a thick mass. The tea appears hardy and the drains are free from silt. Chrysanthemum roots are woody and appear to be hungry feeders but the fact that the heads grow to a maximum height of 4 inches to 5 inches* would seem almost to belie this supposition. It is hard to believe that this fearsome looking growth can be beneficial, but are we right in regarding all foreign

* The plant frequently grows to a height of 2 or 3 feet when not subjected to damage by pluckers, etc.—Ed.
A NOTE ON THE VARIABILITY OF TEA SEEDLINGS.

F. R. TUBBS:

A careful comparison of a series of tea seedlings will show that considerable variation between plant and plant is observable in such characters as height, leaf number, leaf shape, and amount of branching. These differences are most obvious among seedlings from unselected seed-bearers, but even where the seed-bearers have been carefully selected for uniformity, it is still observable in less degree. It may be thought that the differences in the latter case are due to differences in the seed-bearers that have escaped the eye of the selector, but complete uniformity will not be found even among the progeny of a single seed-bearer. The causes of variation fall into two categories, firstly, differences in the local environmental of individual seedlings and, secondly, differences in their inherited constitution.

The form of a seedling is influenced by its environment, the fertility of the soil and the amount of light, for example, having considerable influence. The amount of water and of light available to a seedling varies considerably from place to place in a seed-bed, and in consequence variations in the form of the seedlings result. The inherited constitution is also by no means the same in each seedling, and therefore, just as children of the same parents often differ considerably in form, large variations occur among them.

It would be possible to reduce the differences in inherited constitution considerably by always self-fertilizing the flowers of a number of generations of seed-bearers. But the work would have to be continued for many decades before the plants would be uniform.