

ESTABLISHMENT OF TEA SEED GARDENS.

ROLAND V. NORRIS.

In Paragraph 139 of the 18th Report of the Imperial Economic Committee, the Committee recommends that immediate steps should be taken for the establishment in Ceylon, at high elevations, of tea seed gardens for the supply of tea seed of the highest proved quality and further suggests that this work should be the responsibility of the Government.

Both in the paragraph under reference and in a previous section, para 139, the Committee stresses "the importance of the selection and supply of a pure strain" and remarks that "considerable improvement in plant material might result from the labours of the plant breeder or geneticist".

It is not altogether clear whether the Committee's proposal is that the suggested seed gardens should be formed from such types of seed as are already available, or whether they envisage the early isolation of pure and improved strains from which seed supplies should ultimately be made available. If the latter, then there would appear to be considerable misunderstanding as to the nature of the problem.

The jâts of tea now grown are of highly mixed ancestry, and the mere breeding out of any pure strains from such stock would occupy a very considerable number of years. Even assuming, however, that pure strains could eventually be obtained, these would then have to be further tested out both in regard to their suitability for different tea areas and the "quality" of the tea derived from them. Such work would occupy a further very long interval, but it would be quite impracticable to establish seed gardens, or commence seed distribution, until such points had been satisfactorily cleared up. It may, therefore, be said that, on such lines, there would be little likelihood of the establishment of seed gardens in any reasonable period of time.

If, on the other hand, the Committee's intention is merely that such gardens should be laid down with seed from existing jâts there are again several criticisms which must be made in regard to the procedure suggested.

Little is yet known regarding the relationship between jât and "quality", to mention but one point only, and it would appear highly problematical whether expenditure on the establishment of Government seed gardens would be justified in the present stage of our knowledge. To provide for areas of different elevations and under very varying climatic conditions, a number of different

jâts would have to be utilised, and any such selection at the present time would necessarily have to be made on very limited data.

The Committee's recommendation is that the proposed seed gardens should be established at high elevations. They themselves recognise, however, that if, as seems probable, the present policy of Government be maintained, the greater area of any new openings in tea will be in the low and mid-country. It is true that existing estates at high elevations will require material for replacements, but loss from disease and other causes is much more severe in the low-country and, even on a replacement basis alone, it seems likely that the demands from the low-country for seed would exceed those from higher elevations. In these circumstances it is by no means certain that that seed gardens, if established, should be confined to high elevations. It is more likely that it would be found necessary to distribute such gardens at different elevations and in different climatic zones, to deal with the requirements of different areas.

In advocating the establishment of seed gardens, the Committee has obviously been influenced by the desirability of securing adequate supplies of good seed at reasonable prices. It is perfectly true that prices of tea seed have at times been unduly high, but this state of affairs has largely brought about its own remedy and prices have already dropped to much more reasonable figures.

The expense of establishing Government seed gardens in different areas will be heavy and it is problematical, to say the least, whether seed could be supplied from such gardens at appreciably lower rates than those which now obtain. So far as economic considerations are concerned there seems, therefore, little reason why the supply of seed should not be left to private enterprise.

The considerations above outlined are not in any way intended to minimise the desirability for investigations and research into the possible improvement of plant material, and such work forms part of the Institute's programme. It is suggested, however, that quicker results will be obtained by a different method of approach. The difficulties of breeding out pure lines of seed have already been referred to and it would appear more profitable to examine the possibilities of the *vegetative* propagation of tea. The initial difficulties of selection will, it is true, still have to be faced, but the subsequent multiplication of material of uniform type would probably be attained much more rapidly than by genetical work. Clonal propagation, which has already attracted considerable attention in Java should, therefore, be thoroughly tested and some preliminary experiments on vegetative propagation have, in fact, already been made by the Institute.