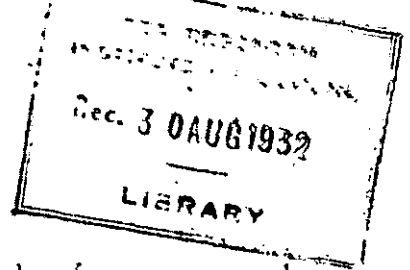


## EDITORIAL.



### MANUFACTURE.

The depressed state of the market during the current year and the consequent more insistent demand for well-made teas has resulted in considerably more attention being paid to manufacture. This has been reflected in the very large number of enquiries which have been received by the Institute for information and advice regarding certain aspects of manufacture. An examination of these enquiries reveals that the problem which seems at present to be causing, perhaps, more trouble than any other is that of firing. In the majority of cases advice has been sought on account of complaints from London of "soft" teas, accompanied by instructions for higher firing. Where such instructions have been carried out only too often it has been found that the result expected has not been attained and no improvement has been effected in the teas produced. A considerable amount of attention has, therefore, been paid by the Institute Staff to drying conditions in various factories, with the result that certain faults have been found to be widely prevalent. In the first place it is quite common to find that the temperature recorded by the dryer thermometer is by no means accurate, this applying not only to thermometers of the ordinary type, but also to recording instruments. It is most desirable that these instruments should be periodically checked and a correction applied for any error found. A much more serious matter, however, is that far too little attention is paid to the temperature of the air leaving the dryer, or, in other words, to the temperature to which the leaf is subjected in the first tray. Two considerations have to be borne in mind. If this initial temperature is too low, then "stewing" occurs. Fermentation is not arrested sufficiently quickly and the teas are quickly spoilt. On the other hand, if the initial temperature is too high then "case hardening" is brought about. The surface of the tea is rapidly dried and hardened, leaving moisture in the inside which is not removed as the tea passes through the dryer. Such tea probably appears quite satisfactorily dried when it leaves the dryer, but on storage or during transit to London the internal moisture slowly diffuses through the leaf and the teas then appear soft and flat. In by far the larger number of cases recently investigated where soft teas have been complained of, it has been found that case hardening has been the cause, in other words the tea has been initially exposed to too *high* a temperature and not, as is usually supposed, underfired. As a general average figure it is probable that an exhaust temperature of about 115-120° will be found to give the most satisfactory results. At the same time an

inlet temperature of about 190° is generally suitable. The exhaust temperature can be readily controlled within reasonable limits by the thickness of spreading or by alterations in the fan speed of the dryer. Not only is a higher exhaust temperature detrimental to the tea but it is obvious that where it occurs the dryer is not working at its highest efficiency, and heat is being wasted.

Altogether the whole question of drying seems to require a good deal more attention than it usually receives. In this connection it may be of interest to refer to a possible development in the near future, that of electrical drying. A full account of the experiments recently carried out in Ceylon and in South India by Messrs Asea Electric Ltd., will be found in Sessional Paper No. XIII of 1931, issued in August last. The advantages of electrical heating lie in the ease of securing relatively close temperature control, the rapidity with which the required dryer temperature can be attained and the freedom from fumes liable to cause taints. There is also a saving of labour. The crux of the whole question is naturally the cost of electrical heating as compared with other methods. In the report in question it is claimed that the average power consumption for drying is about 0.6 unit per pound of fully-dried tea. Whether electric drying is likely to be widely employed in Ceylon would therefore seem to depend chiefly on the rate at which electric power can be supplied. This rate will have to be a low one to compete successfully with efficiently designed oil or wood-burning furnaces. Amongst these, largely increased efficiency and reduced working costs have recently been claimed for the Farbridge patent "Multiflu" dryers which have lately been put on the market. A number of these dryers has now been installed and, it is understood, they have given very satisfactory results.

Passing from drying to rolling, it is now generally recognised that undue heating of the leaf during rolling is highly detrimental. The question is of special importance in the low-country where high atmospheric temperatures make it particularly difficult to maintain suitable rolling conditions. Special interest therefore attaches to the Marshall-Boustead cooled rollers which are now on the market. An account of these with some data as to their performance will be found elsewhere in this issue.

#### **COVER CROPS.**

The attention of our readers is invited to a series of articles by Mr. T. H. Holland which have appeared in recent numbers of the *The Tropical Agriculturist*. In these articles information of much value will be found dealing with the relative advantages of different species of shade trees and cover crops.

**NETTLE GRUB.**

In view of a resolution passed by the Uva Planters' Association, which has been endorsed by the Estate Products Committee and the General Committee of the Planters' Association of Ceylon, steps are being taken for Nettle Grub to be declared a pest under the terms of Ordinance No. 10 of 1924. The declaration will apply to the Uva Province only.

**FACTORY HANDBOOK.**

In view of the large number of requests received for copies of Dr. Evans' "Handbook of Factory Information" which was issued for use at the Institute's Conference in February, a revised and enlarged edition of this is in preparation which will be issued in January next.

**EMPIRE MARKETING BOARD.**

Information has been received that in consequence of the reduction in the sums allotted to the Empire Marketing Board as a result of the present economic conditions, the Board will not be able to make a grant to the Institute for biological work. The grant was asked for to finance an enquiry into insect pests of tea and other crops in Ceylon and their parasites.

ROLAND V. NORRIS.