

# SELECTION AND QUALITY

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The assessment of quality of different bushes started nearly 20 years ago at the Institute, and I believe what led to it was the examination by Dr. Tubbs of the number of shoots-plucked per bush. These observations went to show how dependant on a relatively small number of bushes an estate is for its crop. The logical sequel to these findings was the selection of mother bushes for vegetative propagation and micro-manufacture naturally followed.

It is unnecessary to go into details of the methods employed in bringing out the inherent characteristics of each bush tested, but it became evident as time went on that no two bushes produced the same type of tea. The results gave much food for thought and just as we may say that on an average estate its yield comes from a small proportion of its bushes so does its quality. Our approach to tea manufacture was thereby radically altered and no longer can it be said now that the poor results in one factory or the good results in another are entirely due to some fault or special skill in manufacture.

I have just returned from a tour of the tea areas in the Soviet Union and Assam much impressed by the emphasis these countries are placing on quality. We in Ceylon are unfortunately relying too much on the climatic conditions in this country favourable to the development of this characteristic in our teas, but not all estates have this advantage. So unless we make a start now on replanting with the right material, I do not anticipate a bright future for Ceylon tea. More important than new machines or reducing cost of manufacture is the quality factor, and however modernized our outlook may be we cannot get away from the fact that no machine can improve the quality of a tea to the same extent as what would accrue from proper selection.

Now how is this to be achieved? My personal view is that there are no short-cuts, at least none at present, although our friends from India might say that pubescence of the leaf is related to quality. But then it should be remembered that they are dealing with a different type of quality from what we know of it in a Ceylon tea and in any case this relationship holds good only for Assam leaf grown under different conditions from ours. Nevertheless, hairiness of the leaf may be one method of basing selection in low-country areas since obviously it would improve tip in the tea. Yet judging from the rapidly changing requirements of the tea drinking public, appearance of a tea might very well cease to be of such importance as it is to-day. So having an eye for such changes in the future I would say that even in the low-country liquoring properties should be the primary consideration in selection work.

Admittedly, as far as quality is concerned we have specific knowledge only of a few T.R.I. clones but at the same time we are aware of some really promising clones elsewhere. We also know that some of our clones have reproduced their inherent character at other elevations though not of course to the same degree as when grown at St. Coombs. Assuming these clones can be successfully established in other areas, an estate will have nothing to lose by replacing uneconomic bushes with the little material at our disposal. But if we are to replant on a larger scale

we must naturally take the greatest care in selecting the right clone with the right type of quality, for the particular area in which it is to be grown.

It is clear that much more work has yet to be done before we can embark on a large replanting programme. On the manufacturing side we should make an intensive study of as many clones as possible from those selected so far for their physiological properties. If a start is made now we can get at least a partial answer within the next two years. The Institute cannot obviously undertake a task of such magnitude, but if estates would co-operate by conducting their own tests progress would undoubtedly be rapid. But to get successful and conclusive results the work should be done systematically and over a period of at least one year. The technique to be adopted and the precautions to be taken have been dealt with fully in a *Tea Quarterly* publication. A mincing machine and a single tray drier are all that is required to get the essential preliminary data on the manufactured teas. Once this information is available it is a simple matter to reject the undesirables taking yield and other factors into consideration.

The final stage in selection is the manufacture of the clones in properly designed miniature machinery. A start in this direction with a view to extending our activity in vegetative propagation has been made. We are in touch with engineering firms both here and abroad regarding the manufacture of small scale plant. We are even considering the production of a miniature drier of the tilting tray type so that the results could be held to be more valid on a factory scale. With six such units in different parts of the island and the staff to operate them we should be able to give more assistance to estates, but not all the assistance we should like to give them. The time has come now, I think, when estates should no longer depend entirely on the T.R.I. for quality tests. Hitherto a serious set-back to this work was the prohibitive cost of these machines but if large numbers are ordered they would be available at a reasonable price. It will be of great assistance, therefore, if we can tell the engineering firms concerned with the scheme the potential requirements of the industry.

Estates that have not yet started on clonal manufacture hardly realize what a vast and fascinating field remains to be explored. Bushes that produce teas distinctly inferior in quality to normal estate manufacture are sure to be discovered whilst at the same time it will not be hard to find bushes giving teas with features superior in every respect. That is not all. Types may be revealed with distinct and novel characters that would be immensely valuable and throw into the shade all other teas. Selection offers all this, but if we are going to be content with the use of only high yielding material for replanting we shall certainly be putting the clock back to the detriment of the future of Ceylon Tea.