QUALITY IN RELATION TO CLONAL VARIETIES

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(Forbes & Walker)

Now that it is no longer possible to issue an official gin before lunch organisers get worried for fear they may get ahead of the clock. I think perhaps that is why I have been allowed to creep into the bill with this delightfully vague subject "Quality in relation to clonal varieties."

It has been very interesting seeing the development of vegetative propagation and the way the difficulties of preparing tiny quantities of leaf have been overcome so that it has been possible to assess the quality of the tea bush would produce before its development was undertaken on a big scale. But since these speeches are meant to start an argument I will begin with a question which I hope will be answered at the end. How did it all start? I know that gardeners are continually taking cuttings of this and that and expect them to grow but I am assured by my father-in-law who planted out here for many years that the planters of his day tried again and again but could never get cuttings of tea to strike. Of course everything strikes much more easily in Ceylon now, but I should like to know how it was done.

When the first series of experimental samples were examined it was a shock. We found it hard to believe that a tea known to preserve a consistent character throughout the year could really be compounded of such diverse elements. We suspected the miniature manufacture of failing to develop the tea but in fact as the experiments continued the truth was confirmed. The variety was amazing. It certainly impressed on us the need for vegetative propagation (I hope I haven't got to say that word again) as there seemed little chance of finding any area where selected seed bearers in any quantity could be protected from cross pollination.

To return to the clones, most planters naturally selected their best looking bushes for experiment but the T.R.I. with a more scientific interest worked on a wider sample. In groups of 8 or 12 they sent them down for examination and we found that in the same days teas made under identical conditions one was flavoury but light, another coloury with useful quality and yet another coloury and quite plain. Some were thin and green and some had peculiar horrible tastes of their own like resin or cabbage. In addition one or two refused to ferment at all and came out with a leaf green infusion and thin yellow liquor. It was noticeable that of two equally attractive teas one might have a bright but greenish infusion and one a bright reddish infusion. Perhaps it is not always the planter's fault when his infusions are mixed.

Resistance to disease was of course very much in the minds of the T.R.I. in their selection particularly at that time in respect of Blister Blight. A long process followed of sorting the clones and checking their quality throughout the year as naturally they show seasonal variation just as do estate teas.

There were a good many disappointments. A planter would submit a clone, a beautiful vigorous bush yield estimate 2,000 lbs. to the acre at least, never known a

day's illness and completely resistant to Blister. Back would come the taster's Report "Dull green coarse liquor. Infusion Dark."

On the other hand the tasters would get enthusiastic about another sample and look for new superlatives "Intense flavour deep colour and rich quality" and back would come the T.R.I. Report "Average yield 400 lbs., riddled with eelworm, shot-hole borer in every twig, defoliates in January."

At the end of this process we had reached a stage where a number of planters had good selected clones of their own with which they were supplying vacancies and opening small areas, and the T.R.I. was able to offer material from proved clones to those who wished to start their own multiplication plots. It must be remembered that these things can't be hurried. Before you can put out a substantial number of plants you must select your clone, prove it, and multiply it; a process of years. It is because of the time involved that we can't be sure yet that we are doing the best possible.

In the case of the individual estate the planter knows that he is putting in high yielding material which is well up in quality to the normal standard of his estate. And the question is "Could he *raise* the standard of quality with a different clone, even if he had to put more bushes to the acre?"

In the case of the T.R.I. they know they are offering high yielding clones which are of excellent quality in the Dimbula District. And the question is "Are they going to be equally successful in other districts?"

Investigation was started by planting up different clones in various districts and this year when the bushes had reached maturity we saw some samples which opened up the most interesting speculations. Twice during the Uva season we were sent a range from experimental plots of T.R.I. clones planted in an Uva District. I am not sure of the estate. I think it was in Passara and at any rate it was not up to the 4,000 ft. level.

In the first place all the samples were better than one made from the normal estate leaf. In the second all had acquired Uva character but with remarkable varieties.

No. 1294 produced a tea like a fine Udapussellawa.
Light pungent and full of flavour.
No. 1526 was a little less flavoury but still suggestive of that District or of the top of Haputale.

Both of these, I think, had been rather light but flavoury in Dimbula.

On the other hand 777 which in normal life is a good quality Dimbula with useful colour had turned into a strong coloury Badulla type with enormous pungency though no great flavour.

One can't draw conclusions from two tastings but it does suggest that it is possible to raise the quality of an estate's tea by planting selected clones. Also that the clone will retain its essential characteristics even though affected by conditions in its new area. I suppose it must do so because it is a clone.

What about the Low-country then? Can we do something to raise the standard of their liquors by planting selected clones? It might be important to do so at this stage.

Bill Flindall who probably did more than anyone else to raise the standard of the manufacture of Ceylon low-grown tea and make it suitable for our present markets always maintained that however bright the liquor of a low grown tea you never got away from a trace of an essential coarseness which prevented it having quality. I agree with him. But again, this year we saw a series of samples from clones planted in the low country. The experiment was vitiated to a certain extent as the leaf was taken up-country for manufacture and that affects the result. None the less 2023, 2024 and 2026 definitely had quality and were far more useful than the best low grown tea has ever been. It seems hardly believable that the improvement was entirely due to special manufacture. Would this quality persist or would it fade out in a short time under low country conditions ?

All these matters are still in an experimental stage and wholesale replanting is being urged on us. — I am certainly not going to tell the agriculturalists what to do but I would just like to finish with one or two questions for them to answer.

First. Is the replanting of whole blocks needed ? We see the total Ceylon crop going up year by year without any significant increase in acreage. That is to say yields are increasing. Anyone who goes through the tea districts can see that most soundly managed tea is looking better than it ever did before. Can much of the existing tea be built up to yield nearly as much as clonal tea without the long delay and risk of replanting ?

Second. Is replanting in fact being done ? Every year most estates seem to have a vote for supplying. For the past 10 years a lot of the supplying has been with vegetative-propagation material. In some cases it has been the habit where there was a gap with some scruffy bushes round it to have them out and plant up the whole patch. Now unless these supplies go into the same holes each year there must have been a slow process of replanting going on over the years. How far has it gone ? And is it responsible for our increasing yields ? Ought we not to know more about the facts before we rush at it ?

Superficially it sounds attractive to say "Select two or three good clones which will reinforce the quality of your estate's teas and improve the deficiencies in their liquors. Use them to replant your poorer yielding areas."

But do we know enough yet about the clones ? And don't we know too much about the land ? Are the areas which give low yields now going to give high yields when replanted or are they unsuitable for tea or just worn out.

I am much in favour of pressing on with clonal planting but I think we should find out first whether it is possible to use it throughout the estates as a replacement rather than in the long and expensive method of replanting whole areas. I am quite sure there is no good putting good clones into worn out soil.