A NOTE ON THE IDENTIFICATION OF SOME T.R.I. CLONES

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A study of the morphological characters of tea clones is of practical value and interest because certain characteristics are fairly constant even under different environmental conditions while others vary in their mode of expression and make it difficult for one to establish their identity. In general, it can be safely assumed that some floral characters, such as hairiness of the ovary, are not altered by environment to the same degree as vegetative characters. A clone is defined as the vegetative progeny of an individual plant and therefore members of a clone have the same genetic composition. But in a clone grown under different environmental conditions the mode of expression of some of the characters is altered to a greater or lesser degree. Therefore a precise description of the morphological characters of clones with a view to identifying them under all environmental conditions is rendered difficult.

This paper deals mainly with a preliminary description of six popular T.R.I. clones based on the more obvious visual characteristics. It is hoped that this will serve as a practical guide to estates for the identification of these clones. This description however has its limitations and is applicable to clones grown up-country since all observations were made at St Coombs and on shoots 8 months old from pruning. It is necessary to emphasise the fact that differences between some clones are not marked, and no one character could be specified to distinguish between them. Therefore one has to be acquainted with all the typical characteristics of a clone and use a combination of them for identification. This can be achieved with a little practice.

The photographs in Figures 1-6 are of terminal shoots of the six T.R.I. clones 2142, 777, 2043, 2025, 2023 and 2024, laid out separately on a grid with squares 2″ × 2″. The pictures have been reduced to half their actual sizes. A description of the vegetative and floral characters of each clone is given with further illustrations in Figures 7 and 8.

Acknowledgement

We wish to express our thanks to Mr D. J. M. Hettiarachi, Photographer, Tea Research Institute of Ceylon, for the illustrative photographs.

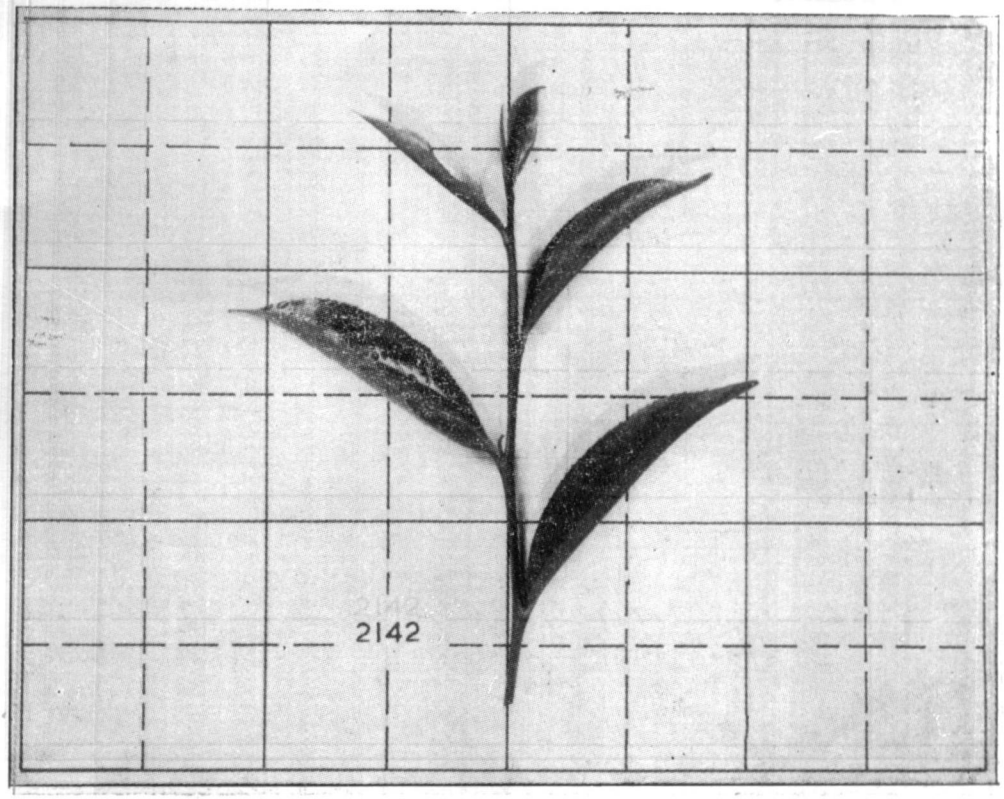


Figure 1. Clone T.R.I. 2142.

Vegetative Characters :

Leaves.:— Large, elliptic, dark green in colour, leathery with smooth glossy surface. Serrated margin with a prominent blunt apex.
Reticulate venation with 8-10 pairs of main lateral veins.
Pose of the leaf is intermediate.

Internodes.— Long.

Bud.— Large, sparsely hairy all round.

Growth habit.— Tends to produce low trailing shoots once the bush is well established.

Floral Characters :

Gynaecium.— Ovary hairy.

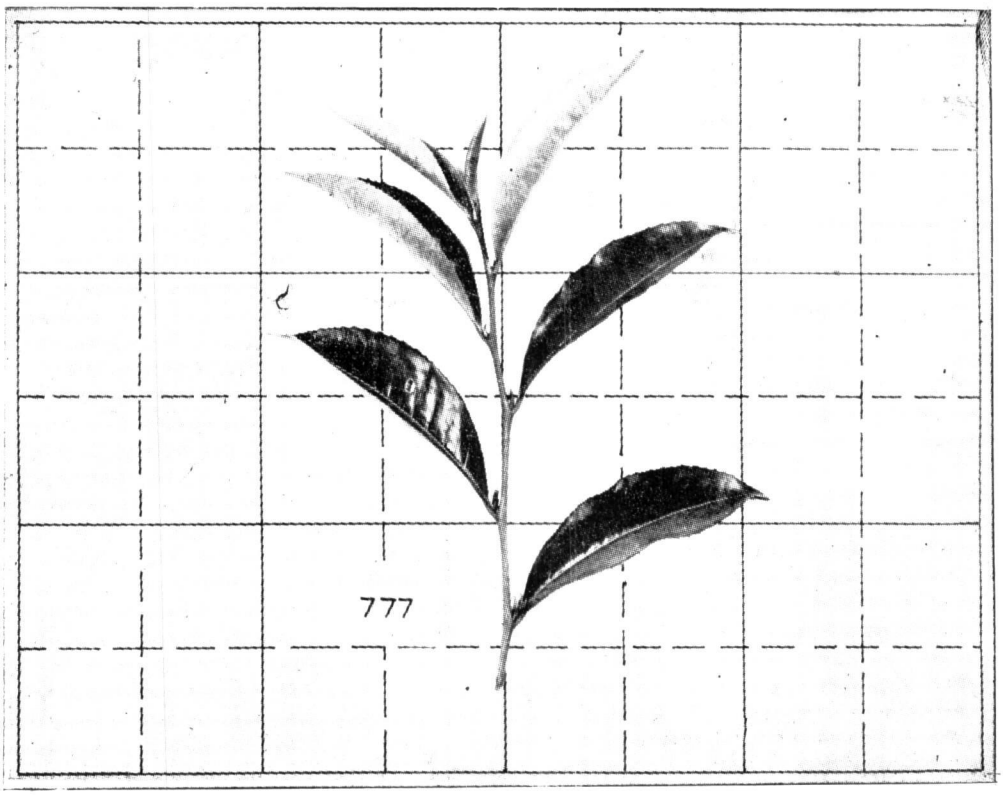


Figure 2. Clone T.R.I. 777.

Vegetative Characters :

Leaves.— Medium in size, obovate, generally dark green in colour, leathery with smooth, dull surface. Serrated margin terminating in a short, blunt apex. Reticulate venation with 8-10 pairs of main lateral veins.
Pose of the leaf is intermediate.

Internodes.— Short.

Bud.— Medium in size and the entire surface is covered with soft hairs.

Growth habit.—Good spreader with tendency to precocious flowering.

Floral Characters :

Ovary hairy.— The stigmatic surface appear to be compressed and placed at right angles to the style.

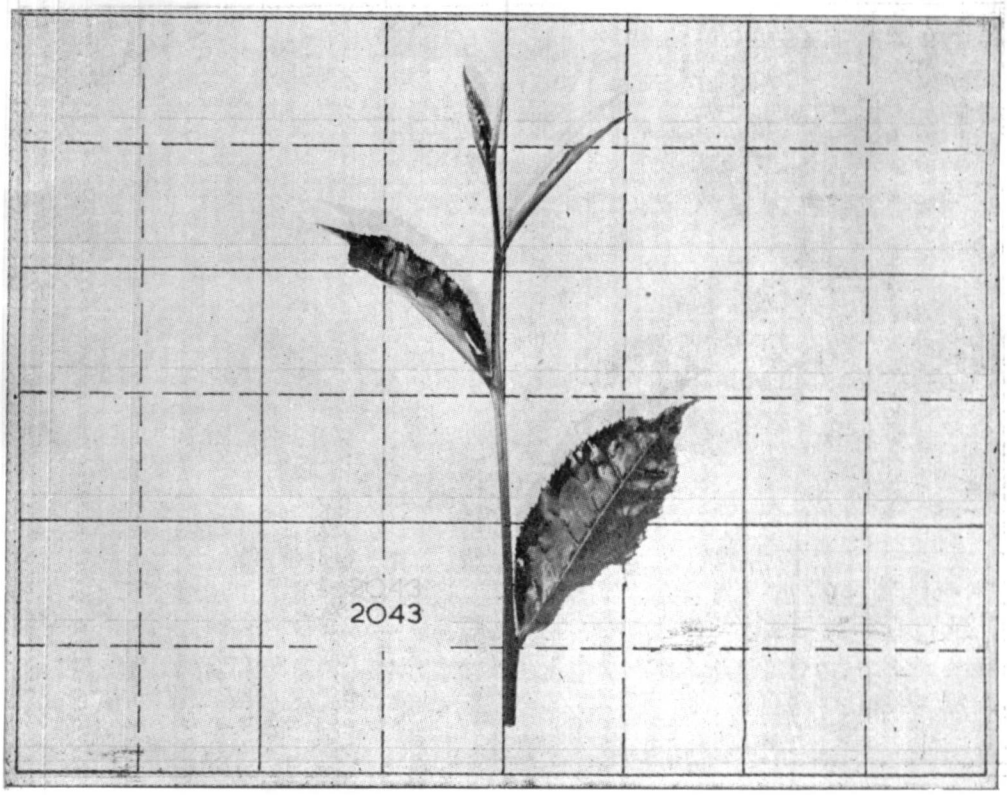


Figure 3. Clone T.R.I. 2043.

Vegetative Characters :

Leaves.— Large, ovate, younger leaves are reddish green in colour while the older ones are dark green, bullate, dull surfaced with a prominently wavy margin which is deeply serrated. Very long blunt apex.
Reticulate venation with 10-12 pairs of main lateral veins.
Pose of the leaf is erect.
Petioles tinged with red colouration.

Internodes.— Very long.

Bud.— Large, reddish green in colour densely pubescent throughout the entire surface giving it a silvery white appearance. Produces good tip in made tea.

Growth habit.—Moderate spreader with characteristically long internodal shoots.

Floral Characters :

Gynaecium.— Ovary hairy and conspicuously darker green in colour than the style.

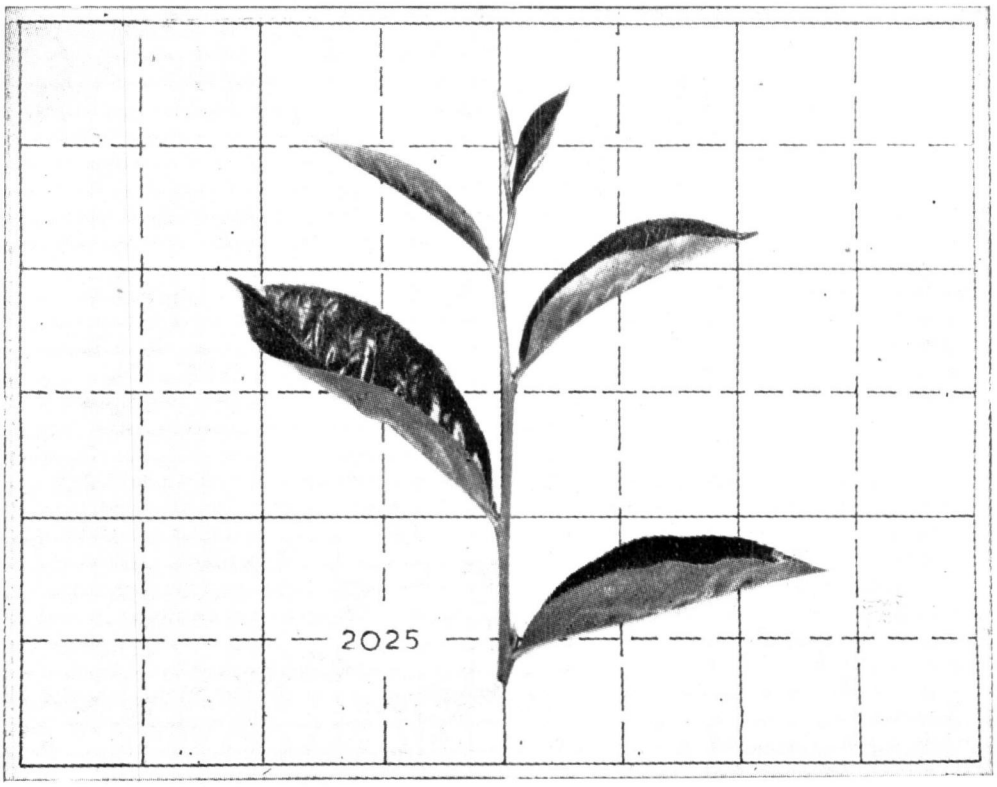


Figure 4. Clone T.R.I. 2025.

Vegetative Characters :

Leaves.— Large, oblong, dark-green in colour, leathery with bullate glossy surface. Serrated margin terminating in a short, blunt apex. Reticulate venation with 8-10 pair of main lateral veins.
Pose of the leaf is intermediate.

Internodes.— Long.

Bud.— Large, only the midrib is hairy.

Growth habit.— A moderate spreader

Floral Characters :

Gynaecium.— Ovary hairy.

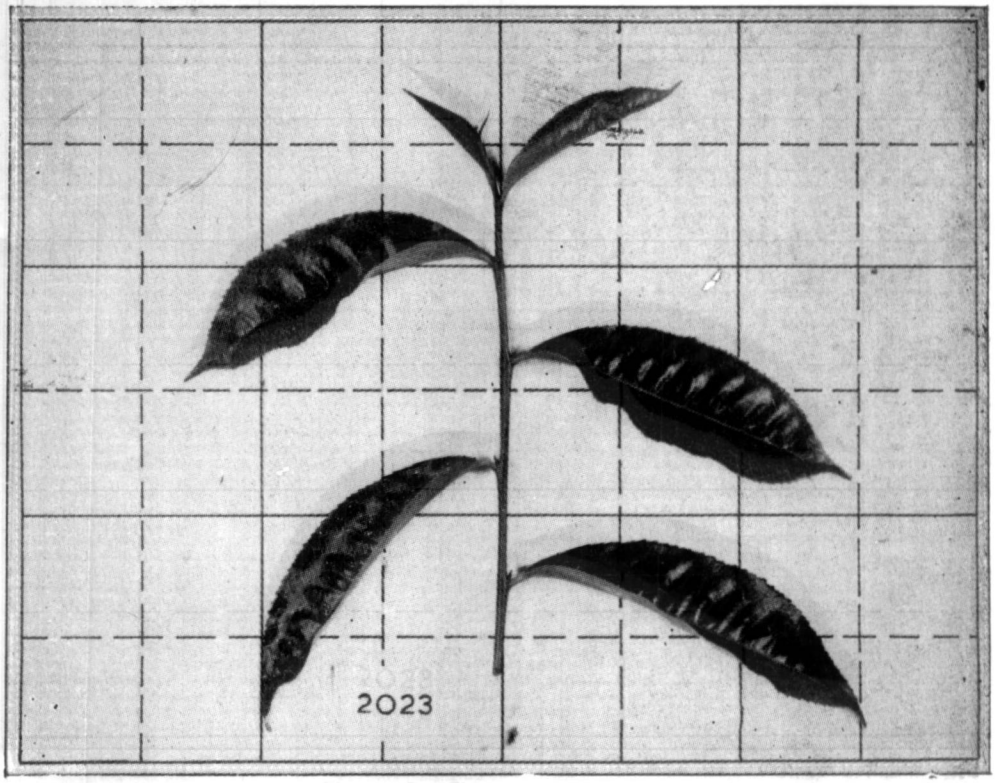


Figure 5. Clone T.R.I. 2023.

Vegetative Characters :

Leaves.— Very large, elliptic, light-green in colour with bullate, glossy surface. Serrated margin with a long blunt apex.
Reticulate venation with 10-12 pairs of main lateral veins.
Pose of the leaf is pendent.

Internodes.— Short.

Bud.— Large and only the midrib is hairy.

Growth habit.— Very good spreader.

Floral Characters :

Gynaecium.— Ovary hairy.

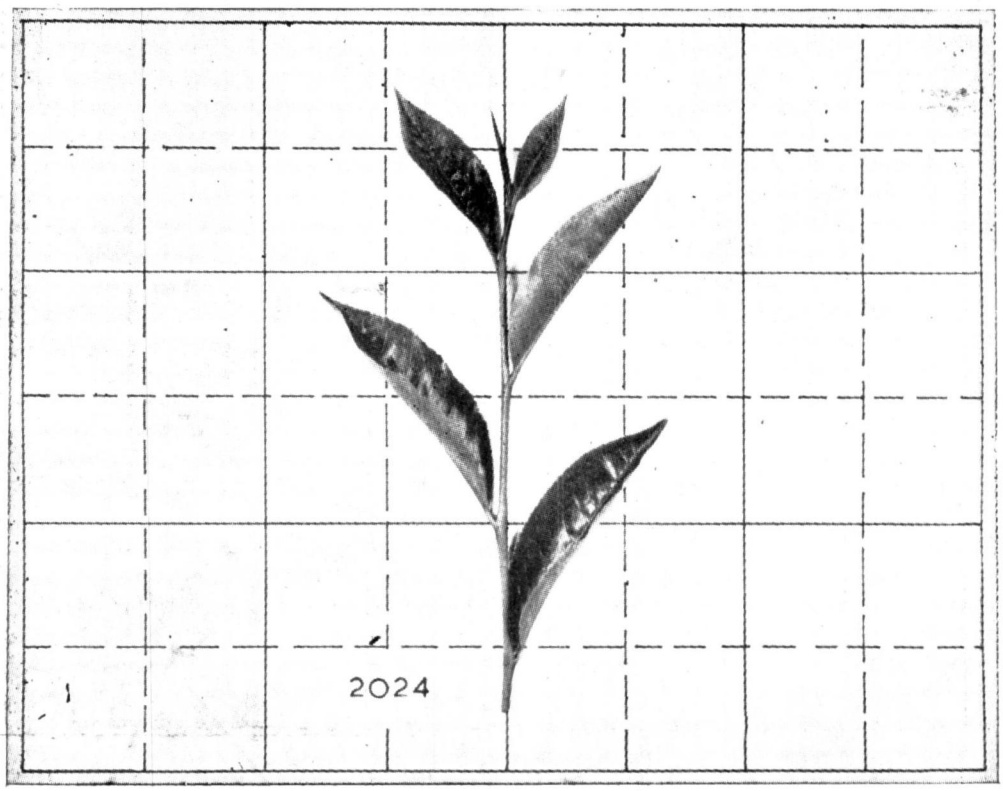


Figure 6. Clone T.R.I. 2024.

Vegetative Characters :

Leaves.— Large, elliptic, light green in colour, thin with smooth glossy surface. Serrated margin with a long, blunt apex. Reticulate venation with 8-10 pairs of main lateral veins. Pose of the leaf is erect forming a sharp acute angle with the stem.

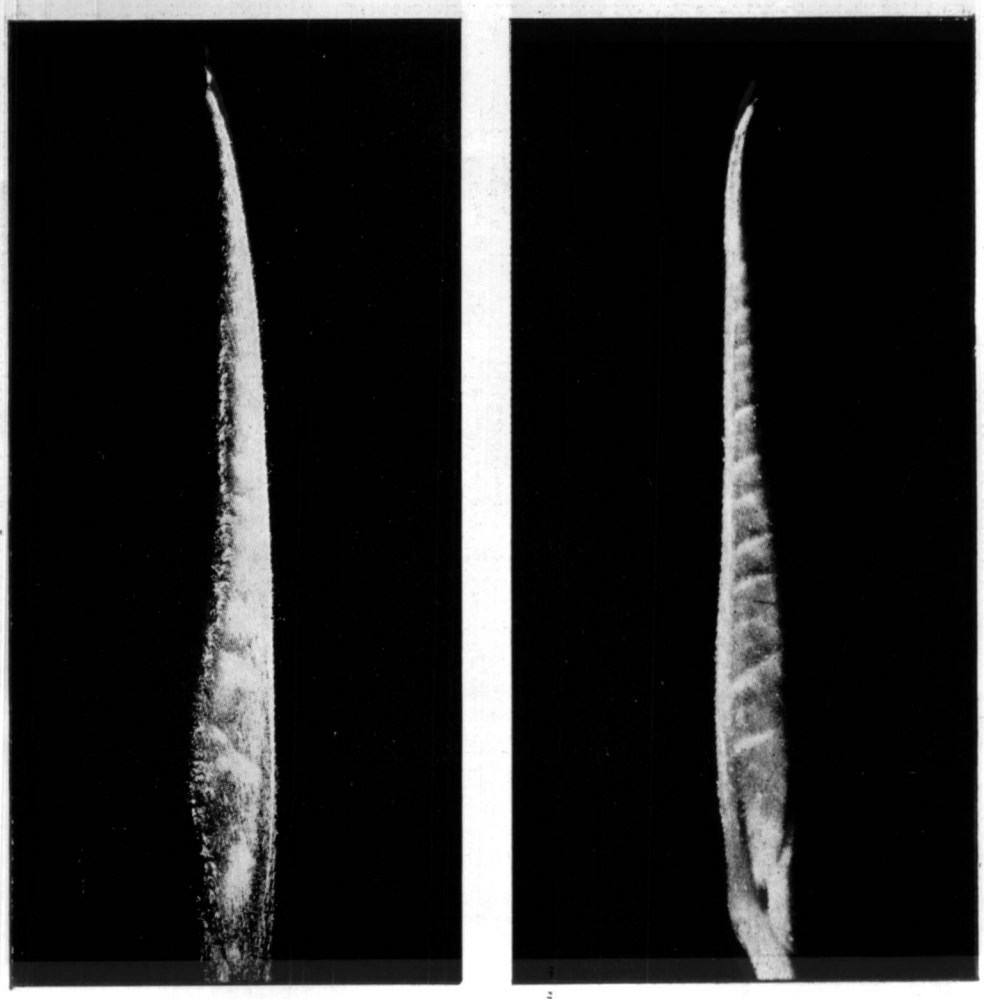
Internodes.— Long.

Bud.— Large and only the midrib is sparsely hairy.

Growth habit.— Good spreader.

Floral Characters :

Gynaecium.— The ovary is generally devoid of any hairs. Occasionally about 5-8 hairs are observed on the ovary.



Clone T.R.I. 2043 Clone T.R.I. 2024.

Figure 7.—Terminal buds of clones T.R.I. 2043 and T.R.I. 2024, showing the different degrees of hairiness in the two clones. (Note the extreme hairy nature of the bud of clone T.R.I. 2043.)