

**COMPARISON OF HIGH PERFORMING SEEDLINGS AND
VEGETATIVELY PROPAGATED TEA CULTIVARS IN
SELECTED TEA ESTATES IN BADULLA.**

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ABSTRACT

Prolonged drought is a major problem that prevails in Badulla. The genetic diversity of tea also becomes narrower with the introduction of VP cultivars. There are well adapted seedling teas in tea estates which also gives a higher yield like TRI recommended cultivars. This study was conducted for comparison of morphological and molecular characters of high performing seedling teas and extensively used vegetatively propagated tea cultivars. Fifteen morphological characters were considered for the cluster analysis. Selected teas were clustered separately without overlapping and showed each as a specific genotype. It further clustered for numbers of pluckable shoots, shoot weight, banji shoots, intermodal length, leaf angle and pose, leaf length and leaf width. PCR amplification of (GT)₁₆ repeat motif was done for the molecular characterization. S2 seedling clustered with TRI 3015 and showed highest mean value for considered characters in Ury estate. S3 seedling showed highest mean values but none of the TRI recommended cultivars have been clustered with S3 in Thelbedda estate. In Spring Valley mean values of S5 are the highest and has been clustered with CY9. Therefore S2 from Ury, S3 from Thelbedda and S5 from Spring Valley can be recommended to adapt as mother bushes and obtain cuttings for nurseries. PCR amplified genomic DNA should be further optimized.

Key words: Morphological Characterization, Molecular Characterization, Seedling Teas, Vegetatively Propagated Cultivars