Abstract

Tea is grown in diverse regions with varying climates. Growers seek high-yielding and superior quality cultivars to improve profitability of the enterprise. A superior quality genotype in one location is assumed to replicate the same attributes when planted in different regions, especially when climatic variations are minimal. Assessment of 20 commercial genotypes under identical management in three locations within Kenya revealed significant ($p \leqslant 0.05$) plain tea quality differences, demonstrating the need to identify superior quality clones. There were significant ($p \leqslant 0.05$) differences in the plain tea quality parameters with location of production. It is therefore not possible to produce tea of the same quality even from the same cultivars when the production location is varied. Regression coefficients (r^2) of linear correlations of the same parameters at different sites revealed low values that cannot be used to predict quality. This suggests the extents of changes in the individual parameters were different for the same clone in different regions. There were no significant interactions between sites and genotypes in the different plain tea parameters assessed, further showing the changes were not systematic. The results demonstrate that a genotype selected in one site for high quality may not retain the relative quality over other genotypes in new areas. It is necessary to test genotypes in new areas of production to fully evaluate their relative quality potentials.