

## Abstract

The concentrations of catechins in a Kenyan tea germplasm collection of 102 accessions were determined by HPLC. Total green leaf catechin concentrations and the ratio of dihydroxylated to trihydroxylated catechins were used to establish genetic differentiation in the germplasm. Upon multivariate analysis, accumulation of the various catechins separated the tea clones into 3 major and 5 minor groups according to their phylogenetic origins. The Cambod teas had the highest ratio (7:10) followed by China teas (3:5) while Assam teas had the lowest ratio (1:4). This biochemical differentiation indicates that there is potential for broadening the genetic base of the mainly Assam teas in Kenya (90%) with the putative China and Cambod teas.