

Genetic Variability of *Coffea arabica* L. Accessions from Ethiopia Evaluated with RAPDs

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SUMMARY

The genetic diversity of 50 wild and semi-wild accessions of the *Coffea arabica* L. germplasm collection, gathered by the FAO and ORSTOM missions to Ethiopia, and maintained in Colombia by CENICAFE, was evaluated with RAPD markers. The evaluation was carried out in two phases: In phase one, the polymorphism of 8 Ethiopian accessions of different geographic origin, plus the cultivated variety 'Caturra', was assessed with the RAPD technique with forty-two 10-mer oligonucleotides. In phase two, 51 accessions were assessed with a set of 5 polymorphic primers that reproduced, with a correlation of 95%, the groups generated by the 24 polymorphic primers found in phase one. Principal Coordinate Analysis of molecular data revealed that a closely related group consisting of 86% of the Ethiopian *C. arabica* accessions evaluated are significantly different from the Caturra variety and could be used in a genetic breeding initiative to increase the variability of cultivated varieties. The results also indicate that a larger polymorphism is present in the Colombian replica of FAO Ethiopian coffee germplasm collection than previously reported