

Molecular Analysis of Genetic Diversity and Phylogenetic Relationships in *Coffea*

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SUMMARY

Molecular markers techniques provide suitable tools for analysis of genetic diversity and phylogenetic relationships in *Coffea* species. Two preliminary studies are reported:

- Arbitrary oligonucleotides were used as primers to amplify genomic DNA of different coffee accessions (representing major *Coffea* species) by polymerase chain reaction. Extensive interspecific variation was observed, intraspecific variation was easily detected in *C. canephora* and *C. liberica*. Random amplified DNA markers appeared to be of high value for characterization, analysis and utilization of coffee genetic resources.
- A set of 15 chloroplastic DNA fragments from *Lactuca sativa* were used to probe southern blot of total DNA of 25 *Coffea* accessions digested by 2 restriction endonucleases. Nine of the 30 enzymes/probes combinations show polymorphism. Six polymorphic restriction-sites were evidenced. Height different plastotypes were identified. The low level of interspecific variation detected was enough to give phylogenetic information.