

Direct Somatic Embryogenesis is Genotype Specific in Coffee

L. C. S. RAMOS, E. Y. YOKOO, W. GONÇALVES

Genetics Department, Agronomic Institute, CP 28, 13001-902 Campinas, SP, Brazil

SUMMARY

Direct somatic embryogenesis was evaluated in coffee from 12 mother plants of *Coffea canephora* and from an interspecific hybrid (F1) between *C. arabica* and *C. canephora*. *C. canephora* is self-incompatible and diploid, whereas *C. arabica* is self-compatible and tetraploid. The former is a source of nematode and leaf rust resistance, being also used as rootstock for *C. arabica* cultivars as a mean of nematode control. Direct somatic embryogenesis could be used as a rapid and convenient method to micropropagate agronomically valuable plants of *C. canephora*.

Results of experiments indicated that direct embryogenesis was genotype specific and was achieved by using Zeatin 10 μ M, the best treatment for *C. Canephora*. No association was observed among embryogenesis rate, oxidation and the level of contamination. Low frequency of direct embryogenesis was observed for the hybrid, and the highest for mother plants of *C. canephora*, but eight plants were not responsive. Some of those mother plants associate nematode and rust resistance, being of high value for rootstock micropropagation and cropping in nematode infested areas.