

Somatic Embryogenesis in Genotypes of *Coffea arabica* with Reduced Caffeine Content

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SUMMARY

Somatic embryogenesis is an excellent method of micropropagation, which can occur indirectly or directly. In this study, three single accessions with reduced caffeine seed content from the Instituto Agronômico de Campinas (IAC) Coffee Germplasm Collection were evaluated for somatic embryogenesis capacity, aiming at the establishment of clones of the same. It were used leaf explants of the AC1, AC2 and AC3 genotypes of *C. arabica* just as the cultivar Mundo Novo IAC 376-4 (MN), inoculated in the following culture media: **1.** Callus induction medium, MS salts (2,4-D and kinetin). The calluses formed were transferred to a 1/2 MS medium (NAA and kinetin) (Sondahl and Sharp, 1977); **2.** Modified medium of Yasuda et al. (1985) containing 1/2 MS, plus 6-BA. In the firsty medium, after 90 days, the induction of callus was verified for all the genotypes. These genotypes differed with regard to the embryos formation so, the AC1 and AC3 formed more number of embryos than AC2 and MN. In second medium, at 5 µM 6-BA, the AC3 and MN presented a reduced formation of embryos. These embryos were formed on the border of the explants without calluses, which suggested the occurrence of direct somatic embryogenesis. In the doses of 10, 15 and 20 µM 6-BA all genotypes formed calluses, but they were small (about 4 mm). At 150 days, the AC1 and AC3 explants showed more number of embryos than AC2 and MN. Regardless of being trees from a same progeny, the results suggested genetic differences in the capacity of somatic embryogenesis among ACs.