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In vitro callogenesis in anthers of *Hevea* spp.

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The production of double-haploid rubber plants using anther culture represents an important contribution to the genetic improvement program of this perennial crop, producing in a single generation 100% homozygous plants, and improving efficiency in the production of new cultivars. In our preliminary tests it was verified that the anthers should be isolated without fillet residues, as well as the presence of antioxidants, 2,4-D and kinetin in the culture medium. However, these results are still insufficient for the promotion of calluses that manage to reach the morphogenetic route resulting in somatic embryos and the regeneration of haploid plants. Aiming to contribute to the definition of rubber anther culture protocols, this work had the objective of evaluating the influence of different growth regulators on the production of primary calli in anthers of selected genotypes of rubber tree. For this purpose, anthers of immature floral buds were isolated and cultivated in RT culture media with plant growth regulators. The callogenesis obtained was considered low, not exceeding 15%, being null in the presence of activated carbon in the culture medium. The obtained results allowed to conclude that in RT medium, 2,4-D (2,0 mg L-1) associated with KIN (1.0 mg L-1) and AIA (2.0 mg L-1) or 2,4-D (2.0 mg L-1) associated with Picloram (2.1 mg L-1) and AIA (2.0 mg L-1) promoted the formation of small primary calli in rubber anthers.

Keywords: Rubber tree, haploid culture, somatic embryogenesis, plant growth regulators.