# *In vitro* organogenesis of *Eucalyptus urophylla x E. grandis* in three culture media

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In Brazil, *Eucalyptus urophylla x E. grandis* is highly valued by the characteristics of its timber, its rooting capacity and resistance to pests. Due to the increasing demand of the consumer market, improvement via genetic transformation has been studied, making necessary to obtain an efficient protocol for plant regeneration via organogenesis. The aim of this study was to evaluate three culture media used for *in vitro* organogenesis of AEC224 clone, selected for its productivity. Leaves were excised from shoots maintained *in vitro*. They were cut and inoculated with the adaxial side facing the medium, in the following culture media: WPM (McCown & Lloyd, 1980), JADS (Correia *et al*.; 1995) or QL (Quoirin and Lepoivre, 1977), containing 30 g $L^{-1}$ sucrose, 500 mg $L^{-1}$ PVP-40, 0.5 µM TDZ, 0.1 µM NAA and 7 g $L^{-1}$ agar. The explants were cultured in the dark at a temperature of 23 ± 2 °C for 28 days and after this period were transferred to the same culture media, but containing 5 µM BAP and 0.1 µM NAA, under a photoperiod of 16 h, in order to induce the formation of shoots. Each treatment consisted of 5 plates containing 10 explants each. Sixty and 120 days after the beginning of the experiment, the percentage of oxidation, of explants forming callus, of calluses with shoots and the number of shoots per explant were evaluated. In the first evaluation, all explants formed callus in the three media. The lowest percentage of oxidized explants was observed in WPM medium (12%) but did not differ from JADS (24%) and QL medium (42%). An average of 14% of calluses showed shoot regeneration without statistical difference among treatments. In the second evaluation, 40% and 36% of calluses in QL and JADS media showed adventitious shoot formation, respectively, and 24% of those cultured on WPM medium. Moreover, the number of shoots per explant (up to 10) was higher in these media than on WPM medium (1 to 5). Again, on WPM medium, the explants showed a low percentage of oxidation (94%), while on JADS and QL media it reached 100%. In conclusion, the JADS and QL may be indicated for *in vitro* indirect organogenesis of clone AEC224.

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