

CALLUS INDUCTION AND PLANT REGENERATION IN TROPICAL MAIZE (*Zea mays* L.) GENOTYPES FOR TRANSFORMATION.

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Genetic transformation experiments with maize (*Zea mays* L.), using either biolistics or *Agrobacterium sp.* infection, require well-adjusted protocols on callus induction and plant regeneration. For this purpose, embryogenic callus formation ability of 60 tropical maize hybrids and inbred lines was evaluated by cultivating immature embryos on four distinct culture media. Basically, these media were similar to that proposed by Chu *et al.* (1975), but different concentrations of Dicamba (15 or 30 μM), L-Proline (6 or 25 mM) and silver nitrate (0 or 88 μM) were tested. Calli produced were either Type I (compact) or Type II (friable). Better rates of embryogenic callus formation were obtained on medium supplemented with 30 μM Dicamba, 25 mM L-Proline and 88 μM silver nitrate. Embryogenic calli formed in 26 of these genotypes were transferred to Magentas™, containing regeneration medium MS (Murashige and Skoog, 1962), with no growth regulators. Promising genotypes regarding to embryogenic callus formation and plant regeneration were selected and are currently being used on maize (Biolistic and *Agrobacterium*) transformation studies.