

## Callus Cultures of *Azadirachta indica* and Their Potential for the Production of Azadirachtin

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The content of azadirachtin, an insecticidally active ingredient in neem tree [*Azadirachta indica* (A. Juss.)] seeds, varies considerably due to environmental factors and for genetic reasons. Furthermore, the tree does not grow in moderate climates. It seems appropriate, therefore, to employ tissue culture techniques for the production of azadirachtin in order to obtain constant amounts of standardized quality. We investigated if and how azadirachtin contents of callus cultures derived from various cell lines are affected by different nutrient media and carbohydrate concentrations. The azadirachtin contents of the calli were analyzed by TLC and HPLC. Azadirachtin contents of callus cultures varied depending on the cell line, the nutrient medium and the carbohydrate source employed.

KEY WORDS: *Azadirachta indica*; tissue culture; azadirachtin; nutrient media; sucrose concentration.

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