

### Abstract

Within 3 weeks of culture, excised cotyledon explants of *Camellia sinensis* (L.) O. Kuntze produced somatic embryos without intermediate callus when cultured in Murashige and Skoog's basal medium with 30 g<sup>-1</sup> sucrose. In medium without plant growth regulators, up to 60% of the cultures developed somatic embryos. Embryogenic competence was reduced by increasing concentrations of plant growth regulators tested (i.e. kinetin, 6-benzylaminopurine, and indole butyric acid). The somatic embryos developed, grew to maturity without being subcultured within 6–8 weeks. Secondary embryogenesis was not observed. Germination of isolated mature somatic embryos was low in medium without plant growth regulators. Up to 53% and 60% germination occurred when medium impregnated with kinetin at 1.8 mg l<sup>-1</sup> or 1.0 mg l<sup>-1</sup> 6-benzylaminopurine were used respectively. Callus was also routinely produced when cotyledons were cultured in MS basal medium with auxins (2,4-dichlorophenoxyacetic acid and indole acetic acid). Callus induction was however, also achieved in plant growth regulator free medium. Indirect somatic embryogenesis was not induced in the present study.