Studies on the preservation using tissue culture of PRSV-resistant wild species of papaya[1]

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Abstract

The petiole explant of wild species *Carica goudotiana* cultured in 1/2MS medium containing 1.0mg/l NAA, 0.5mg/l kinetin and 1.0mg/l GA_3 could produce somatic embryo directly through the induced callus. The frequency of somatic embryo formation was about 50%. The root tissue from somatic embryo could also produce callus and induce embryogenesis with a frequency of 25% in D1 medium. These calli could further differentiate into somatic embryo on solid differentiation medium of WL (White's). Upon transferring the hypocotyl-like tissue obtained from D1 medium to MS medium containing 0.5mg/l IBA, induction of callus and somatic embryo was also recorded.

The callus produced from petiole explant of *Carica pubescens* cultured in D1 medium was low in embryogenesis capability. However, embryogenesis percentage was increased by 5~6.7% when callus was cultured on EL4 or WL solid differentiation media. The somatic embryos obtained from EL4 and WL media could mature and germinate after transferring to EM (embryo mature) medium containing 0.001mg/l BA. The germinated somatic embryos could develop into intact plants with vigorous root system.

Key words: *C. papaya*, Wild species, Tissue culture

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