

**TISSUE CULTURE AND DEVELOPMENT OF *AGROBACTERIUM*
TUMEFACIENS-MEDIATED TRANSGENETIC PIGEON PEA (*CAJANUS*
CAJAN L. MILLSP.) PLANTS**

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Abstract: Transformation of pigeon pea (*Cajanus cajan* L. Millsp.) was achieved using *Agrobacterium tumefaciens* strain LB4404, containing the construct of isolated protease inhibitor gene. The gene was driven by CaMV 35S promoter containing kanamycin resistance as plant selection marker. Embryonic axes excised from seeds germinated on MS basal supplemented with BAP (2 mg/l) were used as explants. Transformed calli were selected on medium containing kanamycin (50 mg/ml) after 3 weeks of incubation. Thereafter, the green calli were kept for differentiation. MS basal medium containing IAA (0.2 mg/l) and different concentrations of BAP was tested for the regeneration frequency of explants (embryo axes and leaves). Rooting ability of differentiated shoots was tested on half MS basal medium containing different concentrations of IBA. Molecular analysis of the transformed plants was done by Northern techniques.

Keywords: Pigeon pea, Transformation, Tissue culture

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