# Differentiation in Tissue Culture of a Medicinally and Environmentally Important plant :Rattlebox. (C08-cheepala151252-Poster)

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## Abstract:

Sesbania drummondii (Rydb) Cory (Rattlebox) produces medicinally important compounds which show great potential as anti-leukemic and immunosuppressant agents. Clonal propagation of Rattlebox was achieved using various nodal explants (cotyledonary, primary leaf node). Nodes were cultured on MS medium containing various concentrations and combinations of cytokinin and auxins for differentiation. Maximum number of shoots was obtained from cotyledonary node on MS medium supplemented with 3.0 mg/l of BAP in a span of four weeks. Induction of shoots was also achieved on MS medium supplemented with BAP and IBA/IAA combinations. The number of shoots per explants was lower and longer. Napthaloacetic acid (NAA) (0.25-1.5 mg/L) and 6-benzyl amino purine (BAP) (2.0 mg/L) combinations induced friable callus from all explants. Cotyledonary leaf yielded nodular and green calli on NAA (0.5 mg/L) and BAP (2.0 mg/L) combination. These pieces of callus harbored numerous globular nodules resembling embryoid. Shoots were excised individually from the primary explants and transferred to MS medium supplemented with IBA ( 0.05, 0.5, 1mg/l) for elongation and root differentiation. Regenerated plantlets were successfully acclimatized under green house conditions.

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