INFLUENCE OF BAP ON *IN VITRO* REGENERATION OF SHOOTS FROM IMMATURE LEAVES OF GROUNDNUT *(ARACHIS HYPOGAEA* L.)

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Abstract : Cytokinins are used in *in vitro* protocols singly or in combinations with auxins to induce cell proliferation and promote shoot regeneration. We report a protocol for efficient regeneration of immature leaf explants from groundnut *(Arachis hypogaea* L.) var. Kadiri-6 and K-134 using a combination of NAA and BAP. A maximum of 90% regeneration with more than 7 shoots per explant was obtained from explants cultured on MS medium with 4 mg/L BAP and 1 mg/L NAA with subsequent substitutions of NAA with $AgNO_3$ for shoot induction and $AgNO_3$ by GA_3 for elongation of the shoots. The levels of BAP in the culture medium significantly influenced the frequency of regeneration. This protocol of indirect regeneration from the immature leaves may be used in genetic transformation protocols of groundnut with higher efficiency of recovery of plantlets.

Keywords : *Arachis hypogaea*, BAP, Immature leaves, Regeneration

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