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Callus Induction from Tuber of *Apios Americana* Medikus by Growth Regulators

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Objective

This study was conducted to select adequate callus induction condition from tuber of *Apios Americana* Medikus.

Materials and Methods

1. Plant Materials ; Tuber tissue of *Apios Americana* Medikus
2. Methods ; Culture medium – Murashige and Skoog (MS) medium supplemented with either Auxin (2,4-D, NAA, IBA and IAA) or Cytokinin (Kinetin, BA and TDZ) alone at various concentrations, 0, 0.1, 0.3, 1, 3 and 5 ppm.

Culture condition – all cultures were incubated at 25°C in the light

Results and Discussion

In other to induce callus, tuber tissue of *Apios Americana* Medikus was cultured on MS medium supplemented with either Auxin (2,4-D, NAA, IBA and IAA) or Cytokinin (Kinetin, BA and TDZ) alone. The frequency of callus induction was more than 80% on MS medium with 1, 3 and 5 ppm 2,4-D. Especially, supplement of 1 ppm 2,4-D showed up to 86.7% in callus induction frequency. In IBA treatment, 74% callus induction frequency was observed at 5 ppm. The supplement of 3 ppm TDZ showed up to 72.5% callus induction. Callus was not induced on MS media containing BA or Kinetin. The frequency of callus induction was varied 52% and 74% in dark and light store condition, respectively.

In this study, it is considered that supplement of Auxin combined with Cytokinin will be synergically efficient for callus induction from tuber of *Apios Americana* Medikus.