B-80 : PLANT REGENERATION FROM LEAF EXPLANTS OF BIRD'S - NESTFERN (*Asplenium nidus* L.)

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Ornamental plant production is one of the major horticultural activities in Sri Lanka and several private companies are engaged in the export - oriented production of these plants. Bird's - nest fern (*Asplenium nidus* L.) is a valuable ornamental plant for which the method of tissue culture propagation has been unknown.

Explants obtained from tender leaves of this plant were cultured in agar - solidified (0.8% w/v) MS (Murashige and Skoog, 1992) medium supplemented with different combinations of auxins (2,4 - D, NAA, IBA and IAA) and cytokinins (KN and BAP) at concentrations of 0.0 - 0.5 mg/l. Direct shoot formation was observed from explants cultured in the medium containing 0.1 mg/l IAA following 1 -2 months of culture. Explants cultured at other concentrations of BAP and/or IAA remained viable. All other treatments prepared with MS medium were not favourable for the growth of the explants.

Prolific shoot multiplication was observed when explants with shoots (0.5 - 1 cm) were transferred to a medium (MS) containing 2 mg/l BAP and 0.1 mg/l IAA and maintained for 3-4 weeks. The shoots were isolated and transferred to MS medium containing BAP (0.5 mg/l) and IBA (0.2 mg/l) for root formation. All cultures were maintained under fluorescent light (2000 Lux, 16 h) at $26 \pm 1^{\circ}C$. Rooted plants could be established in a soil mixture of loam, compost and sand (3:2:1).