B-77 A comparison of explants used for the rapid propagation of *Asplenium nidus* L in axenic culture

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Asplenium nidus L is commonly named the "Birds Nest" fern. This plant is very popular for indoor as well as outdoor landscaping. Healthy grown plants bear shiny green fronds with a polished appearance covering a large area.

Tender leaves and sporangia were used as the explants in this experiment. Clorox and alcohol were used as the surface sterilizing agents. Exposure to 70% (v/v) alcohol in 15% clorox for 15 min, gave best results for sterilization of leaf tissue. In the case of spores 15% clorox was used as sterilizing agent and spores were soaked for 20 or 25 min.

Both explants were cultured on a Murashige & Skoog (MS) medium with and without the addition of hormones. The auxin IBA and cytokinins (Kinetin & BAP) were supplemented to the basal MS media. Leaf tissue initiated shoots rapidly in the MS medium incorporated with 1 mg/l Kinetin.

Spores were sown in a hormone-free medium at first and cultures with sporophytes when treated with hormones gave the same results as leaf tissues. Rooting was done on a basal MS medium with gibberalic acid at 1 mg/l. Rooted plants were acclimatized in a leaf mold + sand media at a ratio of 1:1 and plants were covered with polyethylene for the first 2 days.

It may be concluded that the best explant for commercial production of *Asplenium nidus* L would be the use of tender leaf tissues in a MS medium with kinetin at 1 mg /l for shoot initiation and MS with gibberalic acid at 1 mg/l for rooting.