

IN VITRO PROPAGATION OF ANTHURIUM (*Anthurium andraeanum* L)

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Callus induction and shoot regeneration were studied using leaf and petiol explants of *in vitro* cultures of white Anthurium and leaf ex plants of green house grown nine Anthurium cultivars (Cassino, Tropical, SHP, Samangi, Meringue Lady Jane, White, Magic Red and Pierot).

Leaves from *in vitro* cultures of Anthurium were cultured in MS medium supplemented with 1.0mg/L BA 0,0.2 & 0.5 mg/L IAA and incubated in dark at 25^o C temperature. The effect of IAA was significant for callus induction and shoot regeneration. The highest callus quantity (6.75) showed in 0.2mg/L IAA while only 2 shoots regenerated from 0mg/l IAA. Petioles from *in vitro* cultures of Anthurium were also cultured MS medium supplemented with combination of 2 levels of BA (1 or 2mg/L) and 3 IAA levels (0,0.2 & 0.5mg/L). Cultures were incubated in dark at 25^o C temperature. Significant differences were found between the two BA levels and 3 IAA levels for callus production and shoot regeneration. The highest callus quantity (5.6) was given in 1mg/L BA with 0.2mg/L IAA than other combinations. Higher shoot regeneration was achieved in 0.2 and 0.5 mg/L IAA with 1 or 2 mg/L BA (2.7-2.9 shoots per explant).

Leaf pieces (1cm*1cm) from green house grown 9 cultivars were sterilized and cultured in MS medium supplemented with 1mg/L BA and 0, 0.2 or 0.5 mg/L IAA and incubated dark at 25^o C temperature. Significantly higher callus quantity was observed in 0.2 mg/L IAA while the lowest callus quantity was from 0mg/L IAA level. A significant difference was observed among 9 cultivars from callus production. The highest callus quantity (4.74) was observed from the cultivars "Lady Jane" while the lowest callus quantity (1 from cultivar "Pierot". Shoot regeneration was observed in some cultivars after 4-5 months. For example, cultivar "Meringue" produced 3 shoots per explant in 0.5mg/L IAA level and cultivar "Cassino" produced 1 shoot per explant in 0.2mg/L IAA level. Shoot regeneration was not achieved in other cultivars.