B-16: An attempt to reduce *in vivo* sucker production in micropropagated anthurium plants

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Production of a large number of basal suckers in micro-propagated anthurium has been observed under *in vivo* conditions. This is regarded as an undesirable character for cut flower production due to long vegetative phase in these plants. This may be caused either by the cytokinin habituation or by somaclonal variation.

The objective of this study was to investigate the possibility of reducing *in vivo* sucker production by manipulating the culture condition with respect to cytokinin through different stages of micropropagation.

In vitro grown shoot tips of *Anthurium andreanum* cv 'Crinkled Red' were established in liquid media containing BAP in concentrations of 0.2, 0.5 and 0.8 mg/l. Media containing coconut water in 15% v/v were also tested. Growth regulator free medium was used as the control. Cultures were grown in these media for time periods of 6, 12 and 18 weeks with 6 weeks subculture duration. After cultures were exposed to these treatments they were cultured on 6 and 12 week duration of growth regulator free medium prior to acclimatization. Basal sucker production in each treatment combination was evaluated.

Strong association among the different combinations of BAP and time period was observed on basal sucker production. The highest basal sucker production was observed in shoots which have been exposed to 0.8 mg/l BAP. The lowest number of suckers were produced by the shoots which were in growth regulator free medium for 12 weeks. Therefore, the long term effect of cytokinin which carries the generation, can be overcome by culturing plants in growth regulator free medium for 12 weeks prior to acclimatization.