

In vitro propagation of *Gordonia dassanayakei*

Gordonia dassanayakei Wadhwa, (sing.Mihiriya) is a rare endemic species in the family Theaceae. It produces beautiful pink flowers with a reddish tinge and has an ornamental value. It also produces important natural products in the stem bark. Due to the low percentage of fertile seeds and failure to germinate naturally, this species is facing a threat of extinction.

Therefore tissue culture techniques were studied to propagate the species. Mature fruits were surface sterilized and the seeds were dissected out aseptically to obtain embryos. The excised embryos were cultured in solid MS medium with and without TDZ (Thidiasuron). The culture vessels were incubated at 23 2C and 16 hours photoperiod was provided. Those in the TDZ were transferred into MS medium after two weeks.

The embryos cultured in hormone free MS medium grew into seedlings of 2-3cm in length after eight weeks from initial culture and they were subjected to gradual hardening. Those cultured in TDZ gave multiple shoots but did not produced roots. Callusing in cotyledons was observed in several treatments and one callus produced somatic embryos. These embryos were germinated in MS medium to produce seedlings.

The embryos rescue technique could be useful tool to propagate this species invitro. The use of TDZ at initial stages of culturing induced callusing and somatic embryos, which could be germinated to produce plantlets.