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In vitro micropropagation of *Calamus huegelianus*; An endangered rattan

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Calamus huegelianus, an endangered taxon, belongs to the family Arecaceae. Plantations are established in various regions of Western Ghats in order to conserve this taxon. Hence, an attempt has been made to multiply through enhancing the percent seed germination by various treatment and *in vitro* propagation keeping in view of the imbalance between demand and supply and requirement of the stock material for raising plantations. Seeds were pretreated with GA₃ and acids before sowing them in various substrates. Further, *in vitro* germination on MS basal medium and paper bridges were also attempted to enhance percent germination. It was found that GA₃ treated seeds sown in cow dung have shown maximum percent of germination. Shoot tips excised from one year old seedling were inoculated onto L₂ and MS media supplemented with various growth regulators. Both direct and indirect organogenesis was obtained depending on the type and concentrations of the hormones supplemented to the media. L₂+2, 4-D and L₂+IAA+BAP were proved to be the best combination of hormones for direct and indirect regeneration respectively. Nearly 15-20 plants per culture were obtained. The regenerated shoots were rooted in the presence of either IAA or NAA in the medium. Sequentially acclimatized plantlets were transferred to land with 40% survival. The tissue cultured plants are maintained in field gene bank at the department of Botany. The above studies on seed germination and *in vitro* multiplication can be exploited in nursery managements and raising the plantations- as *ex-situ* cultivation centers.

Biography

Madhusudhan R V has completed Master of Science from Bangalore University with Securing 3rd rank in 2007. He worked as a Lecturer for under graduates in Mariyappa first Grade College, Bangalore for two years. Presently, he is pursuing PhD degree in Bangalore University under the guidance of Prof.D.H.Tejavathi. He has published a few research papers in reputed journals and attended national conferences.

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