



**AN EFFICIENT PROTOCOL FOR MICROPROPAGATION OF *CALAMUS***

***NAGABETTAI***

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**ABSTRACT**

Shoot tips excised from one year old seedlings of *Calamus nagabettai* were inoculated onto Philips and Collins and Murashige and Skoog's media supplemented with various hormones to study their morphogenetic potential. Presence of 2-ip at 1mg/l in L2 medium promoted the initiation of about 23 shoot's from the cremish nodulated callus. The higher concentration of 2-ip above 2 mg/l resulted in the formation of the single shoot from the explants. Among the combinations of hormone tried, BAP (2 mg/l) with NAA (0.5 mg/l) induced about 25 shoots from the cultures. Thus obtained shoots were rooted on IAA (2 mg/l) supplemented medium. Somatic embryos were obtained from the callus derived from the basal portion of the regenerated shoots on L2 + NAA (2 mg/l). The conversion of the somatic embryos into the plantlets has obtained on the same medium. Induction of somatic embryogenesis from the callus cultures of *C. nagabettai* in the present studies is the first report. Thus obtained plantlets through organogenesis and somatic embryogenesis were sequentially hardened by transferring them first to vermiculite and perlite (1:1) and then to soil and sand mixture. After acclimatization, three month old seedlings were transferred to field. Nearly 40 percent survival was recorded.

**Keywords: Rattans, Callus Cultures, Micropropagation, *Calamus nagabettai***

**INTRODUCTION**

The members of the genus *Calamus* of the family Areaceae, commonly known as Rattans are categorized under important

non-timber forest products (NTFP) of tropical forest. Though they have played a significant role in human activity, since