

The Effect of Two Kind of Cytokinin (BAP and Kinetin) and Auxin on Multiplication Formation in Rattan Manau (*Calamus manan* Miquel) by *in vitro* Technicque

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Calamus manan is a solitary rattan which is very rarely found in the natural forest of west and south Sumatera and Kalimantan. Plant regeneration in rattan manau through tissue culture technique as an alternative in preparing planting stock had been studied Gunawan and Yani since 1986.

Explant used in this study was embryos isolated from mature fruits obtained from Kalimantan. The composition of Murashige and Skoog in organic salt was used as basal medium. The zygotic embryo of rattan manau (*Calamus manan* Miq) was germinated in medium supplemented with 6 ppm of cytokinin (BAP or Kinetin) and auxin 2,4-D and or picloram at the concentration of 1,2 and 4 ppm. At the fifth and sixth subculture, NAA was used instead of 2,4-D and picloram.

Germination in medium with cytokinin BAP was higher than that with kinetin, particularly with low concentration of 2,4-D and picloram. The use of cytokinin BAP stimulated higher percent age of shoot multiplication through adventive shoot compare with kinetin. Low concentration of 2,4- D either in combination with BAP or kinetin stimulated multiplication. It was observed that one of the cultures formed forty shoots with green colour and roots.