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Enhancement of shoot multiplication of cardamom in vitro (*Elettaria cardamomum)*

In vitro grown shoot clusters of *Elettaria cardamomum* were cultured in Murashige and Skoog basal medium containing different concentrations of BA (0,2,4,6,8 and 10mg/I) in liquid and solid media. Two type of vessel closures i.e., polythene and cotton plug were used to cover the vessels. The cultures in liquid medium were kept in the shaker up to 6 weeks and then sub cultured in solid medium for further 6 weeks. After subculture only

polythene closures were used for all the treatments. The rate for shoot multiplication (bud and shoot number) and growth parameters were taken up to 12 weeks.

The highest number of buds (42) and growth score (4.6) were achieved from cultures grown in medium containing 2mg/I of BA. The highest shoot number (14.5) was given in medium without BA. There was no significant difference between the two types of vessel closures for growth score, shoot number and number of buds.

The results of the comparison of shoot multiplication and growth parameters between solid and liquid media revealed that the highest number of buds (40), shoot number (10) and growth score (3.59) from the cultures grown in liquid medium than the solid medium.

Other substances such as, coconut water and banana were compared with different concentrations of BA on shoot multiplication and growth. The highest shoot number (13.2) and plant height (3.85cm) were given in combination of coconut water and banana. The effect was similar to the cultures grown in 2mg/I BA.