

**EFFECT OF CYTOKYNIN AND SUBSEQUENT DE TOPPING ON
AXILLARY SHOOT FORMATION OF *Dracaena reflexa* ‘song of india’**

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ABSTRACT

Dracaena reflexa (Song of india) is widely grown as an ornamental plant and commercially propagated by stem cuttings. However scarcity of quality planting material becomes a limiting factor for commercial cultivators. Hence present study was aimed to optimize the auxiliary shoot formation of *Dracaena reflexa* in order to make the propagation feasible and economical. The experiment was laid out in a Completely Randomized Design (CRD) with five treatments randomized in fifteen replicates. Treatments were the five different Cytokinin (BAP) concentrations (mg l^{-1}), i.e. 0, 50, 75, 100 and 125. BAP was applied two times to the cut end of the stem cuttings in seven days interval. A non hormone treatment was maintained as the control of the experiment. Rooting hormone applied stem cuttings were planted in black polythene bags ($20\text{cm} \times 10\text{cm}$) filled with sand : coir dust (1:1 ratio in weight) medium and rooted cuttings were detopped one month after planting. Once a week measurements were taken on number of new shoots, length of new shoots, number of new leaves per plant, length of the new leaves and time taken for new shoots formation. The data obtained were tabulated and analyzed subjected to the Analysis of Variance (ANOVA) procedure of Statistical Analysis System (SAS). Duncan's New Multiple Range Test (DNMRT) was performed to compare the differences among treatment means at $p=0.05$. Among different treatments tested the highest number of new shoots per plant recorded from 75mg l^{-1} of BAP applied treatment whilst the lowest recorded from non hormone treatment (control). On the other hand significantly higher ($p<0.05$) number of lengthy shoots, new leaves/shoot as well as lengthy leaves were manifested from 75mg l^{-1} of BAP applied treatment and the lowest recorded from non hormone treatment. Furthermore, 75mg l^{-1} of BAP applied treatment took the lowest time (days) to initiate first shoot when compared to other treatments tested. Hence application of 75mg l^{-1} BAP and subsequent detopping can be considered as the most effective treatment for auxiliary shoots formation and development of *Dracaena reflexa* in order to make the propagation feasible and economical.

Key words: *Dracaena reflexa* , detopping, Cytokinin (BAP), auxiliary shoot formation

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