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In vitro Reversion of Floral Bud into Vegetative Bud in *Euphorbia millii*

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Objectives

Euphorbia millii is a popular potted ornamental plant with highly decorative and economic value. The sap of *Euphorbia* usually contains bacteria that causes a high contamination rate and encounters micropropagation. The utilization of inflorescence as a primary explant source favours minimal contamination rates compared to other tissues.

The following experiments have been conducted to assess the influence of PGRs and flower position on the in vitro reversion of floral bud and its suitability to establish shoot culture in *E. millii*

Materials and Methods

1. Material: Ex vitro flowers
2. Methods: Establishment of *Euphorbia* shoot culture from Inflorescence
 - Treatments
 - Bud reversion medium: MS media containing different concentrations of BA and IBA
 - Floral bud position: Immature inflorescence, flower with first order bud, flower with second order bud, flower with third order bud

Results and Discussion

Euphorbia flowers with first order bud were cultured to investigate the influence of growth regulators on their reversion into vegetative inflorescence. The reversion into vegetative inflorescence occurred within 4 weeks of culture. The combined utilization of 1.0 mg/l BA and 0.3 mg/l IBA resulted in a maximum average of 8.8 vegetative buds per explant. A remarkable decrease in the percentage of reactive explants and a visible hypertrophic buds were accompanied with increasing the hormonal concentrations,

Usage of flower with first order bud as a primary explant had a significant reversion rate than other explants used. There was no significant difference between the immature inflorescence and flower with third order bud as a primary explant.

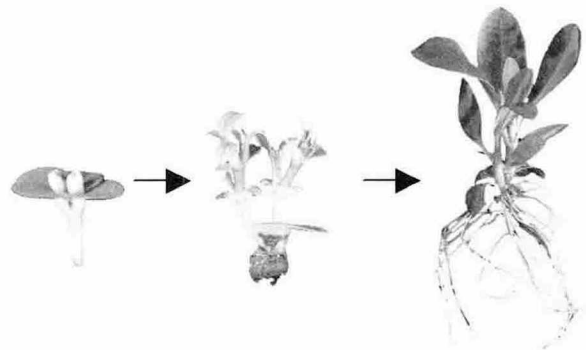


Fig. Initiation of shoot culture from flower with first order bud in *E. millii*