



## Research Article

# Effect of Growth Regulators on *Begonia* sp. Julau Propagation

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### Abstract

**Background and Objective:** *Begonia* sp. Julau is an ornamental plant that has attractive leaves and flowers. Importing the Julau begonias effects the survival of plant and difficult for transplanting in natural condition. Therefore, this research aimed to increase the number of *Begonia* sp. Julau by the plant tissue culture technique. **Materials and Method:** Research on asexual propagation of *Begonia* sp. Julau started by searching for a suitable part to sterilize. Murashige and Skoog (MS) medium was used to investigate shoot and root induction with the different concentrations of Benzyl Adenine (BA) and Indole-3-Butyric Acid (IBA). **Results:** The results showed that MS medium supplemented with 0.4 mg L<sup>-1</sup> of BA induced a maximum number of shoots (41 shoots) within 4 months. MS medium with 0.5 mg L<sup>-1</sup> of IBA induced longer roots than MS medium without plant growth regulator within 2 months. **Conclusion:** The leaves are a suitable part of *Begonia* sp. Julau for plant tissue culture. The survival rates were 100% after transplanting with sphagnum moss in plastic box conditions.

**Key words:** *Begonia*, auxin, cytokinin, growth, propagation, tissue culture

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**Data Availability:** All relevant data are within the paper and its supporting information files.