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## Effect of Growth Regulators on Shoot Regeneration and Callus Formation in the Tissue Culture of Kenaf(*Hibiscus cannabinus* L.)

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### Objectives

This study was conducted to evaluate the effect of plant growth regulators on callus formation and shoot regeneration during *in vitro* culture of leaf segments from on kenaf plant. The objective of these study was to establish multiple shoot regeneration and transformation system of kenaf.

### Material & Method

1. Material : cv. Everglade, cv. Tainung 2, cv. Dowling, cv. Gregg
2. Methods : Young shoot apices of four kenaf cultivars were placed on MS medium supplemented with sucrose 3%, plant agar 0.8% and plant growth regulators.

### Results and Discussion

The rate of callus formation was high in media with combination of growth regulation substances, and was the highest in MS medium with TDZ 0.1mg/L in leaf culture of Everglade cv.. The rate of callus formation of Gregg cv. was highest among four kenaf cultivars. The optimum of 14.3% callus produced shoot in Everglade leaf culture treated with TDZ 0.5 mg/L. The optimal concentration of TDZ for shoot regeneration of Dowling and Tainung 2 cv. was 3 mg/L, but the other hormone combination treatments did show low response. This study demonstrates that explants induction from callus has high potential as new sources of mass production of kenaf.

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