The Effect Of Growth Regulatory Combinations NAA (Naphthalene Acetic Acid) And BAP (Benzyl Amino Purine)On The Plant Callus Induction Of Stevia (*Stevia rebaudiana* Bertoni.)

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ABSTRACT

Stevia is one of the sweetener plants besides sugarcane, stevia leaves are estimated to be 300 times sweeter than sugar. But stevia is constrained by the propagation of cutting produced slightly in the provision of seedlings on a large scale. So, the tissue culture technique is one of the alternatives. The combination used in vitro plant propagation. The purpose of this study is to find the optimal combination of NAA and BAP growth regulators on callus induction of Stevia rebaudiana B. This research was conducted from April to May 2022 at the Jember State Polytechnic Tissue Culture Laboratory. Responses were observed including time of calllus growth, percentage of callus growth, color of callus, texture of callus and callus fresh weight. This study used a factorial completely randomized design (CRD) with the first factor being the concentration of NAA (0 mg/l; 1 mg/l; 2 mg/l; and 3 mg/l) and the second factor was the concentration of BAP (0 mg/l; 1 mg/l; and 2 mg/l). Further testing was carried out with the DMRT (Duncan Multiple Range Test) a level of 5%. The results of this study showed that the combination of NAA and BAP treatments was significantly different percentage of callus growth.

Key words*: *BAP, NAA, Callus Induction, Stevia