

# **MICRO-CUTTING OF VANILLA (*Vanilla planifolia Andrews.*) IN DIFFERENT MEDIUM AND PGR THROUGH IN VITRO**

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## **ABSTRACT**

Vanilla is one of the spice plant that has many advantages, thus causing vanilla to have high economic value. During this time vanilla plants are commonly propagated vegetatively using stem cuttings, but this multiplication has several disadvantages, hence a method of propagation by tissue culture is required. This study aims to determine the interaction between types of media with PGR, determine the most appropriate media and concentration of PGR that is most appropriate for vanilla's micro-cutting. This study used a Randomized Completely Design (RCD). The first factor is types of medium consisting of MS medium, B5 medium, and VW medium. The second factor is the concentration of PGR consisting of NAA 0.5 + BA 1 ppm, NAA 1.0 + BA 2 ppm, and NAA 1.5 + BA 3 ppm. Data were analyzed using analysis of variance and Duncan Multiple Range Test (DMRT) at 5% level. The results showed that there were interactions between the treatment of media types and the concentration of NAA and BA on the parameters first appearance of bud and root length. The combination of M1Z3 treatment gave the best results on parameters first appearance of bud, while the combination of M1Z2 treatment gave the best results on the root length parameters, MS media and B5 media gave a better response to all parameters in the growth of vanilla micro-cutting through in vitro, NAA + BA at all concentrations gave the same response, except for the dry weight parameters in the growth of vanilla micro-cutting through in vitro.

**Keywords:** Vanilla micro-cutting, Medium types, PGR, In Vitro