

Effect of Kinetin (6-Furfurylaminopurine) and NAA (Naphthalene Acetic Acid) on Vanilla (*Vanilla planifolia* Andrews) Shoots Multiplication *In Vitro*

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ABSTRACT

This study aims to determine the effect of giving kinetin and NAA singly and combination of both on the multiplication of vanilla explant buds on MS media in vitro. This research was carried out in February - May 2022 at the Plant Tissue Culture Laboratory, Jember State Polytechnic. The experimental design used was a Factorial Complete Randomized Design (CRD) consisting of 2 treatment factors, namely the first factor including 4 levels of Kinetin concentration (0 ppm, 1 ppm, 2 ppm, 3 ppm) and the second factor including 3 levels of NAA concentration (0 ppm, 1 ppm, 2 ppm). The explant used is a vanilla section book. The results of the analysis of ANOVA data and the 5% BNJ Test showed that giving kinetin singularly had a significantly different effect on the parameters of bud emergence time, bud height, and number of leaves. The effect differs very markedly on the parameters of the number of roots. The provision of NAA singularly has a markedly different effect on the parameters of the time of growth of shoots. The combination of kinetin and NAA provides a markedly different interaction with the parameters of the explant's life percentage and the number of leaves.

Key words : Shoot Multiplication, vanilla, kinetin, NAA