

**RESPONSE OF VANILLA (*Vanilla Planifolia* A.) TO THE ADDITION OF  
NAA ( Naphthalene Acetic Acid ) AND BAP ( Benzil Amino Purine)  
WITH IN-VITRO**

**Rosifah Najma**

Plantation Crop Cultivation Study Program  
Department of Agricultural Production

**ABSTRACT**

This study aims to determine the growth response of vanilla (*Vanilla Planifolia* Andrew) to the addition of NAA and BAP with in-vitro. This research was conducted in February 2020 - May 2020 at the Jember State Polytechnic Tissue Culture Laboratory. This study used a completely randomized design with two factorial. The first factor is the concentration of NAA and the second factor is the concentration of BAP, there were 6 treatment combinations and 4 replications. The NAA concentration factor consists of 3 levels namely 2 ppm, 3 ppm, and 4 ppm. The concentration factor of BAP consists of 2 levels namely 0.5 ppm, and 1 ppm. Further testing was carried out with additional tests of the DMRT (Duncan Multiple Range Test) with 5% significance level. The results revealed that the NAA concentration treatment produced significantly different results on the parameters of shoot growth rate and the number of roots. The concentration of BAP produced very significant differences in the number of shoots parameters. The combination of NAA and BAP concentrations gave significantly different results on plant height parameters.

**Keywords:** *NAA, BAP, Vanilla Tissue Culture*