

**GROWTH OF VANILI PLANLET SPRUNS (*Vanilla planifolia* A.) IN MS  
MEDIA WITH BAP COMBINATION (Benzyl Amino  
Purine) AND NAA (Naphthalene Acetid Acid)  
BY IN VITRO**

**Alif Rahmawati**

Plantation Crop Cultivation Study Program  
Department of Agricultural Production

**ABSTRACT**

This study aims to determine the effect of the combination between the concentration of growth regulators BAP and NAA on the induction of shoots of *Vanilla planifolia* A. plantlets in vitro on MS media. This research was conducted at the Tissue Culture Laboratory, State Polytechnic of Jember from February to May 2020. The method used was Factorial Completely Randomized Design (FCRD) with two treatment factors and four replications. The first factor is the BAP growth regulator with 3 levels of concentration, namely b1 = no concentration of 0 ppm, b2 = BAP concentration of 1.5 ppm, b3 = concentration of BAP of 3 ppm. The second factor is the growth regulator substance NAA with 2 levels of concentration, namely: n1 = NAA concentration of 0.5 ppm, n2 = concentration of NAA 1.5 ppm. Further testing was carried out with the Duncan Multiple Range Test (DMRT) with a level of 5%. The results showed that the combination of BAP and NAA was effective in inducing shoots of vanilla plantlets. The combination of BAP and NAA treatments had a significant effect on shoot induction of vanilla plantlets and had a very significant effect on root growth of vanilla plantlets.

Keywords: *Vanilla planifolia* A., BAP x NAA combination, shoot induction