

**APPLICATION OF PSB (*Photosynthetic bacteria*) AND VARIOUS NAA (*Naphthalene 1-Acetic Acid*) CONCENTRATIONS ON THE GROWTH OF VANILLA CUTTINGS (*Vanilla planifolia* Andrews.)**

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**ABSTRACT**

Vanilla is one of the spice plants that has the potential to be developed in Indonesia because its selling price is relatively high. This study aims to examine the interaction between PSB administration time and NAA concentration. Determine the best time to apply PSB and NAA concentration for the growth of vanilla cuttings. This research was a split plot design with the main plot namely the time of administration of PSB (without giving it, once a week, and once every 2 weeks) and sub plots namely the concentration of NAA (100 ppm, 150 ppm and 200 ppm). The observational data was tested with Analysis of Variance (Analysis of Variance) with a real level of 5% and continued with the Duncan's Multiple Range Test (Duncan's Multiple Range Test) with a level of 5%. There was an interaction between the treatment combination of PSB administration time and NAA concentration on the parameters of shoot emergence day and root dry weight. The PSB application treatment once a week gave significantly heavier results in terms of shoot fresh weight parameters. Once a week PSB treatment was significantly longer on root length parameters at 70 and 80 days. The NAA concentration treatment of 100 ppm gave significantly longer results in the longest root length parameter compared to NAA 200 ppm but not significantly compared to 150 ppm. The 200 ppm NAA treatment gave significantly heavier results on root fresh weight parameters than 100 ppm NAA but not significantly more than 150 ppm.

Keywords: Vanilla cuttings, Photosynthetic Bacteria, NAA Concentration