

APPLICATION OF VARIOUS CONCENTRATIONS OF RABBIT URINE LIQUID ORGANIC FERTILIZER AND BAMBOO SHOOT EXTRACT ON THE GROWTH AND YIELD OF LONG BEANS (*Vigna sinensis* L.)

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ABSTRACT

The production and consumption of long beans in Indonesia fluctuate due to inadequate cultivation techniques. The excessive use of inorganic material has negative impacts on the environment. This research aims to investigate the effects of different concentrations of Liquid Organic Fertilizer (LOF) derived from rabbit urine and bamboo shoot extract on the growth and yield of long beans. The study was conducted using a Completely Randomized Block Design (CRBD) with two factors and one control. The first factor consisted of three levels of rabbit urine LOF concentration: 200 mL/L, 400 mL/L, and 600 mL/L. The second factor included three levels of bamboo shoot extract concentration: 40 mL/L, 80 mL/L, and 120 mL/L. The data obtained underwent an Orthogonal Contrast Test to determine significant differences between treatment combinations control. Subsequently, the data were analyzed using Analysis of Variance (ANOVA) with $\alpha=5\%$, followed by Duncan's Multiple Range Test (DMRT) with $\alpha=5\%$. The results showed no interaction between treatments. The concentration of 400 mL/L rabbit urine LOF produced the best results in terms of plant height, number of branches, and number of leaves at 25, 35, and 45 days after planting (DAP), as well as the longest root length, total pod weight, total number of pods, and 1,000-seed weight. Meanwhile, the concentration of 80 mL/L bamboo shoot extract yield the best results in terms of the number of branches at 25, 35, and 45 DAP, longest root length, total pod weight, total number of pods, and 1,000-seed weight.

Keywords: Long Beans, Rabbit Urine, Bamboo Shoot Extract.