

**APPLICATION OF “PLUS” COW URIN POC AND *Trichoderma sp* FOR THE
GOWTH AND PRODUCTION OF LONG BEAN PLANT
(*Vigna sinensis L.*)**

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ABSTRACT

Long bean is a type of vegetable whose cultivation requires intensive handling. This study aimed to determine the growth response and yield of long bean plants by administering POC "plus" cow urine and *Trichoderma sp.* This research is a field experiment with a complete randomized block design (CRBD) with two factors and one control. The first factor was the concentration of “plus” cow urine POC consisting of 3 concentrations: 50 mL/L, 100 mL/L, and 150 mL/L. The second factor is the dose of *Trichoderma sp.* 10 g/plant, 20 g/plant, and 30 g/plant. The data was obtained by the Orthogonal Contrast test at a 5% level to determine the significant difference between the treatment and control combinations. The experimental results were analyzed for diversity using Analysis of Variance (ANOVA) at a 5% level, followed by Duncan's Multiple Range Test (DMRT) at a 5% level to determine the significant differences between treatments. The results showed that there was a significant difference between the control and the treatment in the parameters of plant height, number of branches, number of leaves, plant dry weight without pods, root volume, root area, and pod weight per plant. There was an interaction on the number of leaves aged 35 HST. POC concentration of cow urine "plus" 100 mL/L and 150 mL/L got the best results on the parameters of the number of branches and root volume. The dose of *Trichoderma sp* 30 g/plant produced the best results on the parameters of the number of branches and root volume.

Keywords : Long bean, Cow's urine, *Trichoderma sp*