

**APPLICATION OF PHOTOSYNTHETIC BACTERIA AND
MYCORRHIZAL BIOFERTILIZER ON THE GROWTH AND YIELD OF
JACKBEAN (*Canavalia ensiformis* L.)**

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ABSTRACT

Jack bean is a commodity that can replace soybeans because it has the potential to be developed as an agribusiness commodity. Fertilization is an important factor in the growth and production of sword bean. The research method used a Complete Randomized Block Design (RAKL) with 2 factors and 1 control. The first factor is the concentration of photosynthetic bacteria: 10, 15 and 20 ml / L, the second factor is the dose of mycorrhizal biofertilizer: 10, 15 and 20 grams. Data were analyzed using the Analysis of Variance (ANOVA) method at the 5% level and the DMRT test at the 5% level. The difference between the control and treatment was analyzed by the Orthogonal Contrast test at the 5% level. The results showed that there was an interaction in the parameters of plant height at 12 WAP. The treatment of photosynthetic bacteria concentration of 20 ml / L gave the best results in the parameters of stem diameter 4, 8 and 12 WAP, pod length, dry seed weight per harvest plot, weight of 100 dry seeds and seed weight per hectare. The treatment of 20 grams of mycorrhizal biofertilizer dose gave the best results in the parameters of dry seed weight per plant and the weight of 100 dry seeds.

Keywords : Jackbean, Photosynthetic Bacteria and Mycorrhiza Biofertilizer