

PENGARUH PUPUK KASCING DAN MIKORIZA TERHADAP PERTUMBUHAN DAN HASIL KACANG HIJAU (*Vigna radiata* L. R. Wilczek)

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ABSTRAK

Tujuan dari penelitian ini untuk mempelajari pengaruh interaksi dosis pupuk kascing dan mikoriza terhadap pertumbuhan dan hasil kacang hijau. Penelitian ini dilaksanakan di *Teaching and Research Farm* Fakultas Pertanian Universitas Jambi, dimulai dari bulan Juli sampai September 2024. Menggunakan Rancangan Acak Kelompok (RAK) dengan 2 faktor pupuk kascing 4 taraf perlakuan yaitu $k_0 : 0 \text{ ton ha}^{-1}$, $k_2 : 5 \text{ ton ha}^{-1}$, $k_3 : 10 \text{ ton ha}^{-1}$. Dan mikoriza 2 perlakuan yaitu $m_0 : 0 \text{ g}$, $m_1 : 5 \text{ g}$. percobaan ini terdiri atas 8 kombinasi perlakuan, masing-masing kombinasi perlakuan diulang 3 kali, sehingga terdapat 24 petak percobaan. Pada setiap petakan terdapat 30 tanaman dengan jumlah keseluruhan terdapat 720 tanaman. Petakan percobaan dibuat dengan ukuran $2,4 \times 1 \text{ m}$ dan jarak tanam yang digunakan $40 \times 20 \text{ cm}$. Jarak petakan antar ulangan 80 cm, jarak petakan dalam ulangan 40 cm. Setiap petakan diambil 5 sampel tanaman. Variabel yang diamati yaitu tinggi tanaman, jumlah cabang primer, jumlah polong pertanaman, jumlah polong berisi pertanaman, bobot biji pertanaman, infeksi akar, bobot 100 biji, hasil per hektar. Data yang diperoleh dianalisis dengan sidik ragam kemudian dilanjutkan dengan *Duncan Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa, tidak ada pengaruh interaksi terhadap semua variabel yang diamati. Namun, pemberian pupuk kascing berpengaruh terhadap tinggi tanaman dan jumlah cabang primer. Dan, pemberian mikoriza berpengaruh terhadap variabel indeks akar.

Kata kunci : Kacang Hijau, Pupuk Kascing, Mikoriza

THE EFFECT OF VERSA AND MYCORRHIZA FERTILIZER ON THE GROWTH AND YIELD OF MUNG BEANS (*Vigna radiata* L. R. Wilczek)

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ABSTRACT

The purpose of this study was to study the effect of interaction between vermicompost and mycorrhiza doses on the growth and yield of green beans. This study was conducted at the Teaching and Research Farm, Faculty of Agriculture, University of Jambi, starting from July to September 2024. Using a Randomized Block Design (RAK) with 2 factors of vermicompost, 4 treatment levels, namely k0: 0 tons ha⁻¹, k2: 5 tons ha⁻¹, k3: 10 tons ha⁻¹. And mycorrhiza 2 treatments, namely m0: 0g, m1: 5g. This experiment consisted of 8 treatment combinations, each treatment combination was repeated 3 times, so that there were 24 experimental plots. In each plot there were 30 plants with a total of 720 plants. The experimental plot was made with a size of 2.4 x 1 m and the planting distance used was 40 x 20 cm. The distance between plots is 80 cm, the distance between plots in the replication is 40 cm. Each plot was taken 5 plant samples. The variables observed were plant height, number of primary branches, number of pods per plant, number of filled pods per plant, seed weight per plant, root infection, weight of 100 seeds, yield per hectare. The data obtained were analyzed by analysis of variance then continued with Duncan Multiple Range Test (DMRT). The results showed that there was no interaction effect on all observed variables. However, the provision of vermicompost fertilizer affected plant height and number of primary branches. And, the provision of mycorrhiza affected the root index variable.

Keywords: Green Beans, Vermicompost Fertilizer, Mycorrhiza