PENGARUH PEMBERIAN TEPUNG CANGKANG TELUR AYAM DAN MIKORIZA TERHADAP PERTUMBUHAN DAN HASIL TANAMAN KEDELAI (*Glycine max* (L.) Merrill)

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ABSTRAK

Penelitian ini dilakukan dengan tujuan untuk mempelajari pengaruh interaksi dosis tepung cangkang telur ayam dengan mikoriza terhadap pertumbuhan dan hasil tanaman kedelai. Penelitian ini dilakukan di *Teaching and Research Farm* Fakultas Pertanian, Universitas Jambi, dari bulan Juli sampai bulan Oktober 2024. Penelitian menggunakan Rancangan Acak Kelompok (RAK) Faktorial dengan 2 faktor, :Faktor pertama adalah tepung cangkang telur ayam, terdiri atas 4 taraf, (t_0= tanpa pemberian tepung cangkang telur,t_1= pemberian 200 kg ha^{-1} tepung cangkang telur, t_2= pemberian 400 kg ha^{-1} tepung cangkang telur, t_3= pemberian 600 kg ha^{-1} tepung cangkang telur). Faktor kedua adalah mikoriza, terdiri atas 2 taraf, yaitu : m_0= tanpa pemberian mikoriza, m_1= pemberian 5 g mikoriza\tanaman. Data yang diperoleh dianalisis menggunakan analisis ragam dan dilanjutkan dengan uji Beda Nyata Terkecil (BNT) pada taraf nyata 5%. Berdasarkan hasil penelitian menunjukkan bahwa tidak ada interaksi antara pemberian tepung cangkang telur dan mikoriza pada semua variabel pengamatan, namun secara tunggal pemberian tepung cangkang telur mampu memberikan pengaruh nyata pada variabel jumlah cabang primer, jumlah polong, jumlah polong berisi, bobot biji per tanaman dan hasil per hektar tanaman kedelai, namun tidak berpengaruh nyata terhadap variabel tinggi tanaman dan jumlah bintil akar efektif. Sementara pemberian mikoriza memberikan pengaruh nyata pada variabel jumlah cabang primer, jumlah bintil akar efektif, jumlah polong per tanaman, jumlah polong berisi per tanaman, bobot biji per tanaman dan hasil per hektar, namun tidak berpengaruh nyata terhadap variabel tinggi tanaman.

Kata kunci : Kedelai, Tepung Cangkang Telur, Mikoriza

THE EFFECT OF GIVING CHICKEN EGG SHELL FLOUR AND MYCORRHIZA ON THE GROWTH AND YIELD OF SOYBEAN PLANTS (*Glycine max* (L.) Merrill)

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ABSTRACT

This study was conducted with the aim of studying the effect of interaction between doses of chicken eggshell flour and mycorrhiza on the growth and yield of soybean plants. This study was conducted at the Teaching and Research Farm, Faculty of Agriculture, University of Jambi, from July to October 2024. The study used a Factorial Randomized Block Design (RAK) with 2 factors,: The first factor is chicken eggshell flour, consisting of 4 levels, (t_0 = without giving eggshell flour, t_1 = giving 200 kg ha^{-1} eggshell flour, t_2 = giving 400 kg ha^{-1} eggshell flour, t_3 = giving 600 kg ha^{-1} eggshell flour). The second factor is mycorrhiza, consisting of 2 levels, (m_0 = without giving mycorrhiza, m_1 = giving 5 g of mycorrhiza\plants). The data obtained were analyzed using analysis of variance and continued with the Least Significant Difference (LSD) test at a significance level of 5%. Based on the results of the study showed that there was no interaction between the provision of eggshell flour and mycorrhiza on all observation variables, but individually the provision of eggshell flour was able to provide a significant effect on the variables of the number of primary branches, the number of pods, the number of filled pods, the weight of seeds per plant and the yield per hectare of soybean plants, but did not significantly affect the variables of plant height and the number of effective root nodules. While the provision of mycorrhiza gave a significant effect on the variables of the number of primary branches, the number of effective root nodules, the number of pods per plant, the number of filled pods per plant, the weight of seeds per plant and the yield per hectare, but did not significantly affect the variable of plant height.

Keywords : Soybean, Eggshell Meal, Mycorrhiza