Pengaruh Pupuk Kandang Ayam dan Pupuk NPK terhadap Produksi dan Mutu Benih Kacang Hijau (Vigna radiata L.). (Effect of Chicken Manure and NPK Fertilizer on the Production and Quality of Green Mung Beans Seeds (Vigna radiata L.)). Supervisor by Ir. Sri Rahayu, M.P.

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ABSTRACT

Mung beans are a legume crop that is widely consumed by Indonesians because of its high protein, carbohydrate, and vitamin content. As time goes by, the demand for mung beans is getting higher which is balanced with the increase in Indonesian society. However, mung bean productivity in 2022 decreased by 5.34% to 11.42 tons/ha compared to 2021 which reached 12.03 tons/ha. Efforts are needed to increase mung bean productivity by providing quality seeds so that mung bean productivity increases, so that national mung bean production can meet the needs of the Indonesian people. Efforts that can be made are intensification efforts including soil quality improvement with chicken manure and NPK fertilization. This study aims to determine the interaction between chicken manure and NPK fertilizer on the production and quality of mung bean seeds. The research was conducted in September-December 2023 at the Experimental Field of Jember State Polytechnic. The experimental design used was a factorial Randomized Complete Block Design (RCBD) which was repeated three times. The first factor is the dose of chicken manure consisting of 3 tons/ha (P_1) , 5 tons/ha (P_2) , and 7 tons/ha (P_3) . The second factor is the dose of NPK fertilizer consisting of 150 tons/ha (N_1) , 200 tons/ha (N_2) , and 250 tons/ha (N_3) . Data were analyzed using ANOVA, and continued with DMRT test at 5% level. The results showed that the interaction between the dose of chicken manure 7 tons/ha and the dose of NPK fertilizer 200 tons/ha (P₃N₃) gave the highest results in the number of pods per plant with an average of 18.75 pods, seed weight per plant with an average of 15.49 grams, seed weight per plot with an average of 343.60 grams, and seed production per hectare with an average of 2028.19 kg/ha.

Key Words: Chicken Manure, NPK Fertilizer, Green Mung Beans