Pengaruh Jarak Tanam Dan Dosis Pupuk SP-36 Terhadap Produksi dan Mutu Benih Kacang Hijau(Vigna radiata L.). (Application Planting

Distance and SP-36 Fertilizer Dosage on Production and Seed Quality of mung bean (Vigna radiata L.)) Supervised by : Ir. Hari Prasetyo, M.P.

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ABSTRACT

One of the efforts to improve the production and quality of mung bean seeds can be carried out through the application of planting distance and SP-36 fertilizer doses. This study was conducted to determine the effect of planting distance and SP-36 fertilizer doses on the improvement of mung bean seed production and quality (Vigna radiata L.). The research was carried out from July to October 2024, at a field in Antirogo Village, Sumbersari District, Jember Regency, East Java, and at the Seed Production Technology Laboratory of the State Polytechnic of Jember. The experimental design used was a factorial Randomized Block Design (RBD) consisting of two factors, each repeated three times. The first factor was planting distance (T), which included 40 cm x 20 cm (T1), 40 cm x 15 cm (T2), and 40 cm x 10 cm (T3). The second factor was the SP-36 fertilizer dose (P), which included 100 kg/ha (P1), 150 kg/ha (P2), and 200 kg/ha (P3). The results were then analyzed using ANOVA (Analysis of Variance), followed by a further BNT test. The results of the study showed that the planting distance of 40 cm x 20 cm (T1) produced the best results, significantly different from the other treatments in the parameters of flowering age (35.67 days after sowing), productive branches (4.56), total branches (8.35), number of pods (26.02), and seed weight per plant (18.98 grams). Meanwhile, the planting distance of 40 cm x 10 cm (T3) produced the best results in the parameters of seed weight per plot (1015.58 grams), actual production per hectare (5.29 tons/ha), and potential production per hectare (3.58 tons/ha). On the other hand, the SP-36 fertilizer dose of 200 kg/ha gave the best results and was significantly different in the parameters of the number of pods per plant (25.96) and seed weight per plant (18.75 grams). The SP-36 fertilizer dose of 200 kg/ha also showed significantly different results in seed weight per plot (963.21 grams), actual production per hectare (5.02 tons/ha), and potential production per hectare (3.29 tons/ha).

Keywords: Mung bean, Planting distance, SP-36 fertilizer dose, Seed production