

Pengaruh Jarak Tanam dan Pupuk Kandang Kambing terhadap Produksi dan Mutu Benih Kacang Hijau (*Vigna radiata* L.) Varietas Vima 2. *The Effect of Planting Distance and Goat Manure Fertilizer on the Production and Quality of Mung Bean Seeds (*Vigna radiata* L.) Variety Vima 2.* Supervised by Ir. Suwardi, M.P.

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ABSTRACT

*The production and quality of mung bean (*Vigna radiata* L.) seeds in Indonesia remain relatively low, indicating the need for improved cultivation practices through the application of appropriate agronomic techniques. One effort to enhance productivity is the optimization of planting spacing and the application of organic fertilizers, particularly goat manure. This study aimed to evaluate the effects of planting spacing and goat manure dosage, as well as their interaction, on the production and seed quality of mung bean cultivar Vima 2. The research was conducted from July to September 2025 in Antirogo Village, Summersari District, Jember Regency. The study employed a factorial Randomized Block Design (RBD) consisting of two treatment factors. The first factor was planting spacing with three levels, namely J1 (20 × 20 cm), J2 (30 × 20 cm), and J3 (40 × 20 cm). The second factor was goat manure dosage with three levels, namely K1 (10 tons ha⁻¹), K2 (15 tons ha⁻¹), and K3 (20 tons ha⁻¹). All treatment combinations were arranged in three replications, resulting in 27 experimental units. Observed parameters included plant height, flowering time, number of pods per plant, seed weight per plant, seed weight per plot, seed yield per hectare, and seed quality parameters. The results showed that planting spacing had a significant effect on plant height, flowering time, number of pods per plant, seed weight per plant, seed weight per plot, and seed yield per hectare, but had no significant effect on seed quality parameters. The application of goat manure had a highly significant effect on flowering time, number of pods per plant, and seed weight per plant, but did not significantly affect the other parameters. Furthermore, the interaction between planting spacing and goat manure dosage had a highly significant effect on the number of pods per plant and seed weight per plant. It can be concluded that appropriate planting spacing and goat manure dosage can increase the production of mung bean cultivar Vima 2, although these treatments have not yet resulted in a significant improvement in seed quality.*

Key words: *mung bean (*Vigna radiata* L.), planting spacing, goat manure, seed production, seed quality.*