

Aplikasi Pupuk Kandang Kambing dan Jenis Mulsa Terhadap Produksi dan Mutu Benih Kacang Hijau (*Vigna radiata* L.). (*Application of Goat Manure and Mulch Types to the Production and Quality of Mung Bean Seeds (*Vigna radiata* L.)*). Supervised by Dr. Ir. Nantil Bambang Eko S, M.Si.

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ABSTRACT

Indonesians often consume mung beans, a legume crop valued for its high vitamin, carbohydrate and protein content. The demand for mung beans continues to increase over time in line with Indonesia's population growth. However, mung bean productivity in 2022 decreased by 5.34% to 11.42 tonnes/ha compared to 12.03 tonnes/ha in 2021. Efforts are needed to increase mung bean productivity by providing quality seeds to increase mung bean productivity, so that national mung bean production can meet the needs of the Indonesian people. Intensification efforts can be made to improve soil quality by using mulch and goat manure. The purpose of this study was to determine the effect of mulch type and goat manure on the yield and quality of mung bean seeds. This research was conducted at Tlogowetan Street, Tawangmangu, Sumpalsari, Jember Regency, East Java from October to December 2023. Factorial Randomised Group Design (RGD) with three replications. Doses of goat manure, namely 5 tonnes/ha (K₁), 10 tonnes/ha (K₂), and 15 tonnes/ha (K₃), were the first factor. Mulch type, which included straw mulch (M₁), silver black plastic mulch (M₂), and silver plastic mulch (M₃), was the second component. ANOVA was used to analyse the data, and then DMRT test was conducted at 5% error level. The dose of goat manure applied at 15 tonnes/ha (K₃) produced the highest pod yield per plant, with an average of 19.98 pods, seed weight per plant with an average of 13.49 grams, seed weight per plot with an average of 278.19 grams, and seed production per hectare with an average of 1.97 tonnes/ha.

Key Words: *Goat Manure, Mulch Type, Green Mung Beans*