

**RESPON PERTUMBUHAN DAN HASIL TANAMAN KACANG HIJAU
(*Vigna radiata* L.) TERHADAP PEMBERIAN MACAM MULSA ORGANIK
DAN KONSENTRASI BIOURINE KAMBING**

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ABSTRAK

Penelitian bertujuan untuk mengoptimalkan pertumbuhan kacang hijau melalui pengaplikasian mulsa organik dan biourine kambing. Rancangan percobaan menggunakan Rancangan Acak Kelompok Lengkap (RAKL) 2 faktor, 1 kontrol dan 3 ulangan. Faktor pertama, macam mulsa organik yang terdiri dari 3 taraf yaitu jerami padi, ampas tebu dan batang pisang. Faktor kedua, konsentrasi biourine kambing yang terdiri dari 3 taraf yaitu 50 ml/L, 100 ml/L dan 150 ml/L. Kontrol menggunakan NPK 16:16:16. Data hasil penelitian dianalisis menggunakan (ANOVA), dilanjutkan dengan Uji (DMRT) taraf 5%. Perbedaan antara kontrol dan perlakuan dianalisis menggunakan Uji *Contrast Orthogonal*. Hasil penelitian menunjukkan adanya interaksi antar perlakuan pada tinggi tanaman umur 56 HST, bobot 100 butir, bobot kering brangkasan dan indeks panen. Perlakuan macam mulsa organik dan konsentrasi biourine kambing pada pertumbuhan dan hasil tanaman kacang hijau tidak memberikan hasil yang paling baik karena semua perlakuan menunjukkan tidak berbeda secara signifikan. Perlakuan kontrol yang memberikan hasil paling baik dibandingkan dengan kombinasi perlakuan macam mulsa organik dan konsentrasi biourine kambing pada parameter diameter batang umur 28, 42 dan 56 HST, jumlah cabang primer umur 56 HST, umur berbunga, jumlah polong per tanaman, bobot polong per tanaman, bobot biji kering per tanaman, per petak dan per hektar serta bobot segar brangkasan.

Kata kunci : Kacang Hijau , Mulsa Organik, Biourine Kambing

**GROWTH AND YIELD RESPONSE OF MUNG BEAN PLANTS
(*Vigna radiata* L.) TO THE APPLICATION OF ORGANIC MULCH AND
GOAT BIOURINE CONCENTRATION**

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ABSTRACT

The study aimed to optimize the growth of mung beans through the application of organic mulch and goat biourine. The experimental design used a Completely Randomized Block Design (CRBD) with 2 factors, 1 control, and 3 replications. The first factor was the type of organic mulch consisting of 3 levels, namely rice straw, bagasse, and banana stems. The second factor was the concentration of goat biourine consisting of 3 levels, namely 50 ml/L, 100 ml/L, and 150 ml/L. The control used NPK 16:16:16. The research data were analyzed using (ANOVA), followed by the (DMRT) test at a 5% level. Differences between controls and treatments were analyzed using the Orthogonal Contrast Test. The results showed an interaction between treatments on plant height at 56 days after planting, 100-grain weight, dry weight of stover, and harvest index. The treatment of the type of organic mulch and the concentration of goat biourine on the growth and yield of mung beans did not provide the best results because all treatments showed no significant difference. The control treatment that gave the best results compared to the combination of organic mulch and goat biourine concentration treatments on the parameters of stem diameter at 28, 42 and 56 HST, number of primary branches at 56 HST, flowering age, number of pods per plant, pod weight per plant, dry seed weight per plant, per plot and per hectare and fresh weight of stover.

Keywords : Mung Beans, Organic Mulch, Goat Biourine