APLIKASI DOSIS KOMPOS BLOTONG TEBU DAN POC DAUN KELOR TERHADAP PERTUMBUHAN DAN HASIL TANAMAN BUNCIS (*Phaseolus vulgaris* L.) VARIETAS KENYA

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ABSTRAK

Blotong tebu dan daun kelor mengandung berbagai unsur hara yang berpotensi digunakan sebagai bahan baku pupuk organik. Penelitian ini bertujuan untuk mengkaji interaksi dosis kompos limbah blotong tebu dan konsentrasi POC daun kelor serta menentukan perlakuan terbaik terhadap pertumbuhan dan hasil tanaman buncis Kenya. Penelitian menggunakan Rancangan Acak Kelompok Lengkap (RAKL) dua faktor. Faktor pertama adalah dosis kompos blotong tebu 5 ton/ha, 10 ton/ha, dan 15 ton/ha, sedangkan faktor kedua adalah konsentrasi POC daun kelor 200 mL/L, 300 mL/L, 400 mL/L, dan 500 mL/L. Parameter yang diamati meliputi komponen pertumbuhan dan hasil tanaman. Data dianalisis menggunakan analisis sidik ragam (ANOVA) taraf 5% dan dilanjutkan dengan Uji DMRT taraf 5%. Hasil penelitian menunjukkan adanya interaksi antara dosis kompos blotong tebu dan konsentrasi POC daun kelor terhadap pertumbuhan dan hasil tanaman buncis Kenya. Kombinasi dosis kompos blotong tebu 15 ton/ha dan konsentrasi POC daun kelor 500 mL/L memberikan hasil terbaik pada parameter panjang polong. Perlakuan kompos blotong tebu 10 ton/ha berpengaruh nyata pada parameter jumlah daun umur 14 HST, sedangkan POC daun kelor secara tunggal tidak berpengaruh nyata terhadap seluruh parameter pengamatan.

Kata Kunci : Buncis, Kompos Limbah Blotong Tebu, POC Daun Kelor

APPLICATION OF SUGARCANE FILTER CAKE COMPOST AND MORINGA LEAF LIQUID ORGANIK FERTILIZER ON THE GROWTH AND YIELD OF KENYA BEAN (*Phaseolus vulgaris* L.)

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ABSTRACT

Sugarcane filter cake and moringa leaves contain various nutrients and have potential as raw materials for organic fertilizers. This study aimed to evaluate the interaction between sugarcane filter cake compost rates and moringa leaf liquid organic fertilizer (LOF) concentrations, and to determine the best treatment for the growth and yield of Kenya bean plants. The experiment was arranged using a two-factor Randomized Complete Block Design (RCBD). The first factor was sugarcane filter cake compost rates at 5, 10, and 15 tons/ha, while the second factor was moringa leaf LOF concentrations at 200, 300, 400, and 500 mL/L. Observed parameters included plant growth and yield components. Data were analyzed using Analysis of Variance (ANOVA) at the 5% significance level, followed by Duncan's Multiple Range Test (DMRT) at 5%. The results showed a significant interaction between sugarcane filter cake compost rates and moringa leaf LOF concentrations on the growth and yield of Kenya bean plants. The best interaction was obtained from the combination of 15 tons/ha sugarcane blotong compost and 500 mL/L moringa leaf LOF on pod length. The application of 10 tons/ha sugarcane filter cake compost had significant effect number of leaves at 14 days after planting, while moringa leaf LOF alone had no significant effect on all observed parameters.

*Keywords**:** Kenya Bean, Sugarcane Filter Cake Compost, Moringa Leaf Liquid Organic Fertilizer*