

**PENGARUH PUPUK KANDANG SAPI DAN KOMPOS DAUN BAMBU TERHADAP
SIFAT KIMIA TANAH REGOSOL DAN PERTUMBUHAN TANAMAN KAILAN
(*Brassica oleracea var. alboglabra*)**

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ABSTRAK

Regosol sebagai media tanam masih memiliki kendala pada beberapa sifat kimianya yang belum sesuai dengan kebutuhan tanaman. Pupuk kandang sapi dan kompos daun bambu diharapkan dapat mengurangi permasalahan tersebut. Tujuan penelitian ini untuk mengetahui pengaruh pupuk kandang sapi dan kompos daun bambu terhadap sifat kimia tanah regosol abu vulkan dan pertumbuhan tanaman Kailan. Penelitian ini menggunakan metode rancangan acak lengkap (RAL) faktorial. Faktor pertama yaitu pupuk kandang sapi dengan takaran 0% (S0), 2,5% (S1) dan 5% (S2) dari berat tanah kering mutlak. Faktor kedua yaitu kompos daun bambu dengan takaran 0% (B0), 2,5 % (B1), 5% (B2) dan 7,5% (B3) dari berat tanah kering mutlak. Analisis data menggunakan sidik ragam dengan jenjang nyata 5%. Untuk mengetahui beda nyata antar perlakuan menggunakan uji *duncan multiple range test* (DMRT). Hasil penelitian menunjukkan bahwa pemberian pupuk kandang sapi berpengaruh nyata meningkatkan nilai C-Organik, Kapasitas Tukar Kation, N-tersedia, P-tersedia dan K-tersedia dan pemberian kompos daun bambu berpengaruh nyata meningkatkan nilai pH (H₂O), C-Organik, Kapasitas Tukar Kation, N-Tersedia dan K-Tersedia tetapi tidak berpengaruh nyata terhadap parameter tinggi, jumlah daun, berat segar dan berat kering tanaman Kailan. Kombinasi perlakuan pupuk kandang sapi dan kompos daun bambu terjadi interaksi pada parameter C-Organik, Kapasitas Tukar kation, N-Total, N-tersedia, P-tersedia dan K-tersedia. Rekomendasi takaran terbaik ada perlakuan pupuk kandang sapi 2,5% (S1) dan kompos daun bambu 7,5% (B3).

Kata kunci: *Kailan, pupuk kandang sapi, kompos daun bambu, sifat kimia regosol.*

**THE EFFECT OF COW MANURE AND BAMBOO LEAF COMPOST ON THE
CHEMICAL PROPERTIES OF REGOSOL AND THE GROWTH OF KAILAN
PLANTS (*Brassica oleracea var. alboglabra*)**

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ABSTRACT

Regosol as a planting medium still has constraints on some of its chemical properties that are not in accordance with plant needs. Cow manure and bamboo leaf compost are expected to overcome these problems. This study aims to determine the effect of cow manure and bamboo leaf compost on the chemical properties of volcanic ash regosol and the growth of Kailan plants. This study used a factorial completely randomized design (CRD) method. The first factor was cow manure at 0% (S0), 2.5% (S1) and 5% (S2) of soil weight. The second factor was bamboo leaf compost at 0% (B0), 2.5% (B1), 5% (B2) and 7.5% (B3) of soil weight. Data analysis used variance analysis with a real level of 5%. To determine the real differences between treatments, duncan multiple range test (DMRT) was used. The results showed that the application of cow manure had a significant effect on increasing the value of C-Organic, Cation Exchange Capacity, N-available, P-available and K-available and the application of bamboo leaf compost fertilizer has a significant effect on increasing pH (H₂O), C-Organic, Cation Exchange Capacity, N-Available, and K-Available but has no significant effect on the parameters of height, number of leaves, fresh weight and dry weight of Kailan plants. The treatment combination of cow manure and bamboo leaf compost has an interaction for C-Organic, Cation Exchange Capacity, N-Total, N-available, P-available and K-available. Recommendation for the best dosage is 2,5% cow manure (S1) and 7,5% bamboo leaf compost (B3).

Keywords: *Bamboo leaf compost, chemical properties of regosol, cow manure, kailan*