

ABSTRAK

PENGARUH APLIKASI KOMPOS PREMIUM TERHADAP POPULASI DAN KERAGAMAN MESOFAUNA PADA LAHAN PERTANAMAN NANAS DI PT GGP LAMPUNG TENGAH

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Sistem tanam monokultur dan penggunaan pupuk kimia secara terus menerus akan menyebabkan degradasi lahan. Upaya perbaikan kesuburan tanah dengan penambahan pupuk organik berupa Pupuk Kompos Premium yang merupakan campuran dari berbagai bahan organik dan mineral dalam upaya meningkatkan ketersediaan bahan organik dalam tanah. Mesofauna tanah merupakan salah satu indikator kesuburan tanah yang sangat dipengaruhi oleh ketersediaan bahan organik dalam tanah. Tujuan penelitian ini adalah mempelajari pengaruh aplikasi pupuk kompos premium terhadap populasi dan keragaman mesofauna pada lahan pertanaman nanas di PT GGP (*Great Giant Pineapple*) Lampung Tengah serta mempelajari korelasi antara C-organik, pH tanah, kadar air dan suhu tanah dengan populasi dan keragaman mesofauna. Penelitian dilaksanakan di PT GGP dan analisis sampel tanah dilakukan di Laboratorium Ilmu Tanah FP Unila. Penelitian ini menggunakan rancangan acak kelompok dengan 4 perlakuan dan 4 kelompok. Data yang diperoleh lalu dianalisis dengan analisis ragam dan uji tukey kemudian diuji lanjut menggunakan uji BNT taraf 5%. Hasil penelitian menunjukkan perlakuan Kompos Premium A (P₂) dan Kompos Premium B (P₃) tidak berbeda nyata dengan perlakuan Tanpa Kompos (P₀) tetapi perlakuan Kompos Premium A (P₂) dan Kompos Premium B (P₃) dapat meningkatkan populasi mesofauna dibandingkan dengan perlakuan Kompos Kotoran Sapi (P₁). Selain itu hasil penelitian menunjukkan tidak terdapat korelasi antara C-Organik tanah, pH tanah, suhu tanah, dan kadar air tanah dengan populasi mesofauna tanah.

Kata kunci: Degradasi Lahan, Mesofauna Tanah, Pupuk Kompos Premium

ABSTRACT

THE EFFECT OF PREMIUM COMPOST APPLICATION ON POPULATION AND DIVERSITY OF SOIL MESOFAUNA IN PINEAPPLE PLANTATION AT PT GGP CENTRAL LAMPUNG

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The monoculture planting system and continuous use of chemical fertilizers will lead to land degradation. Efforts to improve soil fertility with the addition of organic fertilizers in the form of Premium Compost, which is a mixture of various organic materials and minerals, aim to increase the availability of organic matter in the soil. Soil mesofauna is one of the indicators of soil fertility that is greatly influenced by the availability of organic matter in the soil. The purpose of this study is to examine the effect of applying premium compost on the population and diversity of mesofauna in pineapple cultivation land at PT GGP (Great Giant Pineapple) Central Lampung, as well as to study the correlation between soil organic carbon, soil pH, moisture content, and soil temperature with the population and diversity of mesofauna. The research was conducted at PT GGP, and soil sample analysis was carried out at the Soil Science Laboratory of FP Unila. This study used a randomized complete block design with 4 treatments and 4 groups. The data obtained were analyzed using analysis of variance and Tukey's test and then further tested using the BNT test at the 5% level. The results of the study showed that the treatments Premium Compost A (P_2) and Premium Compost B (P_3) did not differ significantly from the treatment Without Compost (P_0), but the treatments Premium Compost A (P_2) and Premium Compost B (P_3) were able to increase the population of mesofauna compared to the Cow Manure Compost treatment (P_1). In addition, the results of the study showed no correlation between soil organic carbon, soil pH, soil temperature, and soil moisture content with the population of soil mesofauna.

Keyword: Land Degradation, Premium Compost Fertilizer, Soil Mesofauna