ABSTRAK

APLIKASI PEMBENAH TANAH CAIR TERHADAP PEMBENTUKAN AGREGAT TANAH PADA TANAH BERPASIR

Oleh

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Bahan pembenah tanah cair seperti BOCP dapat dijadikan bahan untuk memperbaiki kondisi tanah berpasir. Pemberian bahan pembenah tanah ini dapat mempengaruhi sifat fisik tanah khususnya agregat tanah. Agregat tanah dapat mempengaruhi tanah dalam mencegah erosi dan pencemaran, merubah sifat hidrophobik dan hidrofilik sehingga dapat merubah kapasitas tanah menahan air, dan meningkatkan kemampuan tanah dalam memegang hara. Penelitian ini bertujuan untuk mengetahui efektivitas pengaplikasian bahan pembenah tanah BOCP terhadap agregat tanah. Penelitian ini dilakukan di Laboratorium ilmu tanah, Fakultas Pertanian, Universitas Lampung pada bulan November 2022 sampai dengan Mei 2023. Penelitian dirancang menggunakan rancangan acak lengkap (RAL) dengan 5 perlakuan dan 5 ulangan. Perlakuan pertama yaitu P0: tanpa pembenah tanah, perlakuan kedua P1: BOCP 7,5 $mg.L^{-1}$, perlakuan ketiga P2: BOCP 7,5 $mg.L^{-1}$, perlakuan keempat P3: BOCP 22,5 $mg.L^{-1}$, perlakuan kelima P4: BOCP 30 $mg.L^{-1}$. Variabel pengamatan meliputi agregat tanah, distribusi agregat, tekstur, dan kemampuan menahan air. Data dianalisis dengan analisis ragam dan dilanjutkan dengan uji BNT. Hasil penelitian menunjukkan bahwa aplikasi bahan pembenah tanah BOCP pada dosis 30 $mg.L^{-1}$ berpengaruh nyata dalam meningkatkan agregat tanah.

Kata kunci: Agregat tanah, Pembenah tanah BOCP, dan Tanah berpasir

ABSTRACT

APPLICATION OF LIQUID SOIL AMANDEMENT FOR SOIL AGGREGAT IN SANDY SOIL

By

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Liquid soil amandement such as BOCP can be used to improve sandy soil conditions. The provision of this soil amandement can affect the physical properties of the soil, especially soil aggregates. Soil aggregates can affect the soil in preventing erosion and pollution, changing hydrophobic and hydrophilic properties so as to change the soil's capacity to hold water, and increase the soil's ability to hold nutrients. This study aims to determine the effectiveness of the application of BOCP soil improver on soil aggregation. This research was conducted at the Laboratory of soil science, Faculty of Agriculture, University of Lampung from November 2022 to May 2023. The research was designed using a completely randomized design (CRD) with 5 treatments and 5 replications. The first treatment was P0: without soil amandement, the second treatment P1: BOCP 7.5 mg.L^{-1}, the third treatment P2: BOCP 7.5 mg.L^{-1}, the fourth treatment P3: BOCP 22.5 mg.L^{-1}, fifth treatment P4: BOCP 30 mg.L^{-1}. Observation variables include soil aggregates, aggregate distribution, texture, and water holding capacity. Data were analyzed by analysis of variance and continued with BNT test. The results showed that the application of BOCP soil amandement at a dose of 30 mg.L^{-1} had a significant effect in increasing soil aggregates.

Key words: BOCP soil amandement, Sandy soil, and Soil aggregates.