

ABSTRAK

APLIKASI KOMPOS AEROB UNTUK MENINGKATKAN PERTUMBUHAN TANAMAN KAKAO (*Theobroma cacao* L.) KLON MCC 02 di PEMBIBITAN

Oleh:

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Kualitas bibit kakao sangat dipengaruhi oleh teknik budidaya yang tepat pada fase pembibitan, termasuk media tanam yang digunakan. Penambahan kompos aerob sebagai campuran media tanam dapat meningkatkan ketersediaan nutrisi dan mendukung pertumbuhan bibit. Penelitian ini bertujuan untuk mengetahui dosis kompos aerob dalam media tanam yang menghasilkan pertumbuhan terbaik bibit kakao klon MCC 02 pada fase pembibitan. Penelitian dilaksanakan di Rumah Kaca Fakultas Pertanian Universitas Lampung pada November 2024 hingga April 2025 menggunakan Rancangan Acak Kelompok (RAK) dengan empat perlakuan tanah: kompos aerob yaitu P0 (1:0), P1 (1:1), P2 (2:1), dan P3 (3:1), masing-masing diulang lima kali. Setiap satuan percobaan terdiri dari dua tanaman, sehingga terdapat 20 satuan percobaan dan 40 tanaman. Data dianalisis menggunakan Uji Bartlett dan Uji Tukey, kemudian dilanjutkan dengan analisis sidik ragam dan Uji Beda Nyata Jujur (BNJ) pada taraf 5%. Hasil penelitian menunjukkan bahwa perlakuan tanah: kompos aerob 2:1 (P2) memberikan pertumbuhan terbaik, ditunjukkan oleh peningkatan tinggi tanaman pada 4 minggu setelah tanam (BST), jumlah daun pada 3 dan 4 BST, diameter batang pada 4 BST, luas daun, bobot basah daun, bobot basah batang, bobot basah tajuk, bobot kering daun, bobot kering tajuk, dan volume akar dibandingkan kontrol (P0).

Kata kunci: media tanam, kompos aerob, MCC 02

ABSTRACT

APPLICATION OF AEROBIC COMPOST TO IMPROVE THE GROWTH OF COCOA (*Theobroma cacao* L.) CLONE MCC 02 IN THE NURSERY

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The quality of cocoa seedlings is highly influenced by proper cultivation techniques during the nursery phase, including the planting media used. The addition of aerobic compost as a planting media mixture can increase nutrient availability and support seedling growth. This study aimed to determine the dosage of aerobic compost in the planting media that resulted in the best growth of MCC 02 cocoa clone seedlings during the nursery phase. The research was conducted in the Greenhouse of the Faculty of Agriculture, University of Lampung from November 2024 to April 2025 using a Randomized Complete Block Design (RCBD) with four soil treatments: aerobic compost, namely P0 (1:0), P1 (1:1), P2 (2:1), and P3 (3:1), each repeated five times. Each experimental unit consisted of two plants, resulting in 20 experimental units and 40 plants. Data were analyzed using Bartlett's test and Tukey's test, followed by analysis of variance (ANOVA) and Honestly Significant Difference (HSD) test at the 5% level. The results showed that the 2:1 (P2) soil: aerobic compost treatment provided the best growth, as indicated by increases in plant height at 4 weeks after planting (WAP), number of leaves at 3 and 4 WAP, stem diameter at 4 WAP, leaf area, fresh leaf weight, fresh stem weight, fresh shoot weight, dry leaf weight, dry shoot weight, and root volume compared to the control (P0).

Keywords: planting media, aerobic compost, MCC 02