

ABSTRAK

PENGARUH KONSENTRASI PUPUK NPK (16:16:16) DAN ASAP CAIR KOCOR TERHADAP PERTUMBUHAN BIBIT KAKAO (*Theobroma cacao* L.)

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Tanaman kakao (*Theobroma cacao* L.) adalah tanaman perkebunan yang biasanya tumbuh di lingkungan tropis. Kakao memiliki peran penting dalam perekonomian Indonesia. Penggunaan pupuk NPK dan asap cair kocor dapat menjadi solusi dalam meningkatkan pertumbuhan tanaman kakao. Penelitian ini bertujuan untuk mengetahui interaksi pemberian pupuk NPK dan asap cair kocor serta mendapatkan konsentrasi yang baik terhadap pertumbuhan bibit kakao. Penelitian dilaksanakan di Kelurahan Labuhan Dalam, Kecamatan Tanjung Senang, Kota Bandar Lampung pada bulan April hingga Juli 2024. Penelitian ini menggunakan Rancangan Acak Kelompok (RAK) pola faktorial yang terdiri dari dua faktor (5x2) dengan 3 ulangan. Faktor pertama yaitu konsentrasi pupuk NPK 0, 10, 20, 30, dan 40 g/l dan faktor kedua yaitu pemberian asap cair 0 dan 50 ml/l. Data pengamatan diuji homogenitasnya menggunakan Uji Bartlett dan aditivitas data diuji dengan Uji Tukey. Kemudian dilakukan analisis ragam dan uji perbedaan nilai tengah dengan Uji Beda Nyata Terkecil (BNT) pada taraf nyata 5%. Hasil penelitian menunjukkan bahwa konsentrasi pupuk NPK kocor meningkatkan tinggi tanaman, jumlah daun, diameter batang, panjang akar, bobot segar tajuk, dan bobot segar akar. Perlakuan asap cair kocor berpengaruh nyata meningkatkan diameter batang. Interaksi antara pupuk NPK dan asap cair kocor berpengaruh nyata pada jumlah daun. Konsentrasi pupuk NPK kocor terbaik antara 20-30 g/l.

Kata kunci: Bibit kakao, Pupuk NPK, Asap cair

ABSTRACT

THE EFFECT OF NPK FERTILIZER CONCENTRATION (16:16:16) AND LIQUID SMOKE ON THE GROWTH OF COCOA SEEDLINGS (*Theobroma cacao* L.)

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*The cocoa plant (*Theobroma cacao* L.) is a plantation crop that usually grows in tropical environments. Cocoa has an important role in the Indonesian economy. The use of NPK fertilizer and liquid smoke can be a solution in increasing the growth of cocoa plants. This study aims to determine the interaction of NPK fertilizer and liquid smoke and get a good concentration on the growth of cocoa seedlings. This research was conducted in Labuhan Dalam Village, Tanjung Senang Subdistrict, Bandar Lampung City from April to July 2024. This study used a factorial pattern Randomized Block Design (RCDB) consisting of two factors (5x2) with 3 replications. The first factor was fertilizer concentration 0, 10, 20, 30 and 40 g/l and the second factor was liquid smoke application 0 and 50 g/l. Observation data were tested for homogeneity using the Bartlett Test and data additivity was tested with the Tukey Test. Subsequently, an analysis of variance (ANOVA) and a Least Significant Difference Test (Fisher's LSD) test were conducted at a 5% significance level. The results showed that the concentration of NPK fertilizer increased plant height, number of leaves, stem diameter, root length, crown fresh weight, and root fresh weight. Liquid smoke treatment significantly increased stem diameter. The interaction between NPK fertilizer and liquid smoke had a significant effect on the number of leaves. The best concentration of NPK fertilizer is between 20-30 gr/l.*

Keywords: *Cocoa seedlings, NPK fertilizer, liquid smoke*