

## ABSTRAK

### **PENGARUH KONSENTRASI ASAP CAIR (*LIQUID SMOKE*) DAN *FLOWER INDUCER* (TDZ DAN BA) TERHADAP PEMBUNGAAN TANAMAN KOPI ROBUSTA (*Coffea canephora*)**

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Produksi kopi dapat ditingkatkan melalui beberapa cara, salah satunya melalui induksi pembungaan. Pemberian asap cair dan *flower inducer* dapat merangsang pembungaan tanaman kopi. Penelitian ini bertujuan untuk mengetahui pengaruh konsentrasi asap cair dan *flower inducer* serta interaksinya terhadap pembungaan kopi. Penelitian ini dilakukan di Laboratorium Agronomi, Fakultas Pertanian, Universitas Lampung dan di plot percobaan Desa Sidomulyo, Kecamatan Air Naningan, Kabupaten Tanggamus pada Agustus 2024 sampai Januari 2025. Penelitian ini dilakukan menggunakan Rancangan Acak Kelompok (RAK) faktorial (4x3) dengan 3 kelompok. Faktor pertama asap cair dengan konsentrasi 0 ml/L (A0), 10 ml/L (A1), 20 ml/L (A2), dan 30 ml/L (A3). Faktor kedua *flower inducer* (F) dengan konsentrasi 0 ml/L (F0) dan 20 ml/L (F1). Homogenitas ragam antarperlakuan diuji menggunakan Uji Barlett untuk mengetahui homogenitas ragam antarperlakuan, aditivitas data diuji menggunakan Uji Tukey, kemudian data dianalisis dengan analisis ragam dan *standar error of mean*. Perbedaan nilai tengah perlakuan diuji dengan Uji Duncan pada taraf 5%. Hasil penelitian menunjukkan bahwa perlakuan asap cair berpengaruh terhadap jumlah cabang belum berbunga (B0), jumlah cabang bunga inisiasi, jumlah dompol bunga inisiasi per cabang, dan jumlah buah muda per dompol. Perlakuan *flower inducer* berpengaruh terhadap jumlah cabang berbunga (B1), jumlah cabang bunga inisiasi, dan jumlah dompol bunga inisiasi per cabang. Interaksi antara asap cair dan *flower inducer* berpengaruh terhadap jumlah bunga inisiasi per dompol, tetapi penambahan konsentrasi asap cair menurunkan hasil jumlah bunga inisiasi.

Kata Kunci: Asap Cair, *Flower Inducer*, Kopi Robusta, Pembungaan

## **ABSTRACT**

### ***THE EFFECT OF LIQUID SMOKE CONCENTRATION AND FLOWER INDUCER (TDZ AND BA) ON FLOWERING OF ROBUSTA COFFEE PLANTS (*Coffea canephora*)***

***By***

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*Coffee production can be increased in several ways, one of which is through inducing flower. The provision of liquid smoke and flower inducer can stimulate flowering of coffee plants. This research aims to determine the effect of liquid smoke and flower inducer concentrations and their interactions on coffee flowering. This research was conducted at the Agronomy Laboratory, Faculty of Agriculture, University of Lampung and in research plot of Sidomulyo Village, Air Naningan District, Tanggamus Regency from August 2024 to January 2025. This research was conducted using a factorial Randomized Complete Block Design (RCBD) (4x3) with 3 replicators. The first factor is liquid smoke with a concentration of 0 ml/L (S0), 10 ml/L (S1), 20 ml/L (S2), and 30 ml/L (S3). The second factor is flower inducer (F) with a concentration of 0 ml/L (F0) and 20 ml/L (F1). Homogeneity of variance between treatments was tested using the Barlett Test to determine the homogeneity of variance between treatments, data aditivity was tested using the Tukey Test, then the data was analyzed using analysis of variance and standar error of mean. The difference in the mean value of the treatment was tested using the Duncan Test at the 5% level. The results showed that liquid smoke treatment affected number of new branches (B0), number of flower initiation branches number of flower initiation clusters per branch, and number of young fruits per cluster. Flower inducer treatment affected number of the first flowering branches (B1), number of flower initiation branches, and number of flower initiation clusters per branch. The interaction between liquid smoke and flower inducer affected number of initiation flowers per cluster, but the addition of liquid smoke concentration decreased number of initiation flowers.*

*Keywords: Liquid Smoke, Flower Inducer, Robusta Coffee, Flowering*