

**Pengaruh Konsentrasi dan Lama Perendaman Zat Pengatur Tumbuh
(ZPT) Rootone-F Terhadap Pertumbuhan Setek
Kopi Robusta (*Coffea canephora* L.)**

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ABSTRAK

Kopi merupakan komoditas unggulan perkebunan di Indonesia. Meskipun luas lahan perkebunan kopi menurun akibat alih fungsi lahan, konsumsi domestik terus meningkat dalam lima tahun terakhir. Untuk memenuhi kebutuhan tersebut, teknik perbanyakan vegetatif melalui setek digunakan karena memiliki keunggulan seperti perakaran kuat, sifat anakan seragam, dan mirip dengan induk. Namun, hormon endogen pada batang kopi Robusta kurang efektif dalam merangsang pembentukan akar. Oleh karena itu, diperlukan pemberian Zat Pengatur Tumbuh (ZPT) seperti Rootone-F, yang mengandung bahan aktif IBA dan NAA, untuk merangsang pertumbuhan akar dan tunas. Penelitian ini bertujuan mengetahui konsentrasi dan durasi perendaman ZPT Rootone-F yang optimal serta interaksi keduanya terhadap pertumbuhan setek kopi Robusta. Penelitian dilaksanakan pada Agustus-November 2024 di kebun percobaan di Kelurahan Wirolegi, Jember, menggunakan Rancangan Acak Kelompok (RAK) Faktorial dengan dua faktor: lama perendaman (1 jam, 2 jam, dan 3 jam) dan konsentrasi ZPT (150 ppm, 300 ppm, dan 450 ppm). Terdapat 9 kombinasi perlakuan dengan 3 ulangan. Parameter yang diamati meliputi tinggi bibit, jumlah daun, persentase setek hidup, panjang akar, dan berat basah akar. Hasil penelitian menunjukkan bahwa konsentrasi dan lama perendaman ZPT Rootone-F tidak memberikan pengaruh signifikan terhadap seluruh parameter pengamatan.

Kata Kunci : Konsentrasi, Lama perendaman, Rootone-F, Setek kopi Robusta

The Effect of Concentration and Soaking Time of Rootone-F Growth Regulator (ZPT) on the Growth of Robusta Coffee (Coffea canephora L.) Cuttings

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ABSTRACT

Coffee is a leading plantation commodity in Indonesia. Although the area of coffee plantations has decreased due to land-use conversion, domestic consumption has continuously increased over the past five years. To meet this demand, vegetative propagation through cuttings is used due to its advantages, such as strong root systems, uniform offspring, and similarity to the parent plant. However, endogenous hormones in Robusta coffee stems are less effective in stimulating root formation. Therefore, the application of Plant Growth Regulators (PGR) such as Rootone-F, containing active ingredients IBA and NAA, is required to stimulate root and shoot growth. This study aims to determine the optimal concentration and soaking duration of Rootone-F and their interaction on the growth of Robusta coffee cuttings. The research was conducted from August to November 2024 at an experimental garden in Wirolegi, Jember, using a Factorial Randomized Block Design (RBD) with two factors: soaking duration (1 hour, 2 hours, and 3 hours) and PGR concentration (150 ppm, 300 ppm, and 450 ppm). There were 9 treatment combinations with 3 replications. Observed parameters included seedling height, number of leaves, percentage of live cuttings, root length, and fresh root weight,. The results showed that the concentration and soaking duration of Rootone-F had no significant effect on all observed parameters.

Keywords: *Concentration, Robusta coffee cuttings, Rootone-F, Soaking duration*

