

# **GROWTH RESPONSE OF SEVERAL ROBUSTA COFFEE CUTTINGS CLONES (*Coffea canephora*) TO VARIOUS GROWTH REGULATORS**

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## **ABSTRACT**

Robusta coffee is a highly sought-after commodity in Indonesia. Propagation through cuttings is done to ensure that new plants are more uniform and have the same genetics as the parent plant. The purpose of this study was to determine the interaction of several clones of Robusta coffee cuttings and the application of growth regulators, identify the clone with the best growth, and determine the growth regulator that provides the best growth results for Robusta coffee cuttings. The study was conducted using a two-factor Completely Randomized Block Design (CRBD). The first factor was the type of clone, namely BP 42, BP 308, and BP 358. The second factor was the growth regulator, namely IBA 500 ppm, NAA 500 ppm, 50% cow urine concentration, and 60% mung bean extract concentration. Data were analyzed using Analysis of Variance (ANOVA) at  $\alpha = 5\%$  and further tested with Duncan Multiple Range Test (DMRT) at 5%. The combination of BP 308 clone with IBA 500 ppm gave good results, indicated by interactions on the parameters of shoot length at 10 and 12 weeks after planting, number of roots, root length, root volume, and root dry weight. BP 308 clone showed the best growth in the parameter of fresh root weight. IBA 500 ppm, 50% cow urine concentration, and 60% mung bean extract concentration provided good growth in the parameters of survival rate, number of shoots, and fresh root weight. 50% cow urine concentration and 60% mung bean extract concentration provided good growth in root volume. IBA 500 ppm, NAA 500 ppm, and 50% cow urine concentration provided good growth in seedling fresh weight.

*Keywords: Robusta Coffee Clone, ZPT, Interaction*