

**THE EFFECT OF PLANTING MEDIA AND KEPOK BANANA BULB PGR
(*Musa paradisiaca* L.) ON THE GROWTH OF ROBUSTA COFFEE
SEEDLINGS (*Coffea canephora* L.)**

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ABSTRACT

Indonesian coffee was exported globally, totaling 43,756 tons in 2022. Robusta coffee is the primary variety cultivated by coffee farmers. Jember, located in East Java, is one of the regions known for its robusta coffee production. In 2021, robusta coffee production in Jember amounted to 55,120 tons, covering an area of 85,240 hectares. To increase robusta coffee production, attention needs to be focused on seedling cultivation. Superior and healthy coffee seedlings can be produced by carefully considering the choice of planting media. Suitable planting media include topsoil, cocopeat, and manure fertilizer. Another effort to improve seedling quality is the application of ZPT (Plant Growth Regulator) from kepok banana bulbs. The research aims to investigate the influence of planting media and ZPT from kepok banana bulbs on the growth of robusta coffee seedlings. The study was conducted from August to November 2023 at the wirehouse facility of Jember State Polytechnic. A factorial Randomized Complete Block Design was employed for the research. The first factor comprised the combination of planting media with three treatment levels: M1 = topsoil: cocopeat: manure fertilizer (2:1:1), M2 = topsoil: cocopeat: manure fertilizer (1:2:1), and M3 = topsoil: cocopeat: manure fertilizer (1:1:2). The second factor involved the concentration of ZPT from kepok banana bulbs with three treatment levels: K1 (5% ZPT), K2 (15% ZPT), and K3 (25% ZPT). The observation parameters included plant height, stem diameter, leaf count, fresh weight of plants, and dry weight of plants. The research data were analyzed using ANOVA with a post hoc test (BNJ) at a significance level of 5%. The results revealed that planting media significantly influenced all parameters. Treatment M2 showed a highly significant effect on the average plant height (13.43 cm), stem diameter (0.18 cm), leaf count (5.44 leaves), fresh weight of plants (19.11 grams), and dry weight of plants (4.56 grams). The results of ZPT concentration treatment showed no significant effect on all parameters. The interaction between planting media and ZPT concentration showed no significant effect on all parameters.

Keywords: Robusta, Banana rhizome, Kepok, Cocopeat, Growing medium