

***THE INFLUENCE OF PALM OIL EMPTY FRUIT BUNCHES (TKKS) AND
NPK ADDITION ON THE GROWTH OF ROBUSTA
COFFEE SEEDLINGS (Coffea canephora L.)***

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ABSTRACT

Coffee (Coffea) is one of Indonesia's prominent tree commodity plants. In both generative and vegetative propagation, one crucial consideration is the choice of growing media rich in macro and micro nutrients. This study aims to investigate the effect of different ratios of palm oil empty fruit bunch (TKKS) and the addition of NPK fertilizer on the growth of robusta coffee seedlings. The research was conducted from January to May 2024 at the Innovation Garden, State Polytechnic of Jember. This study employed a factorial Randomized Complete Block Design (RCBD) with 2 factors, each having 3 treatment levels. The first factor was the growing media ratio: T1 = Top Soil : TKKS : Sand (1:1:1), T2 = Top Soil : TKKS : Sand (2:1:1), T3 = Top Soil : TKKS : Sand (1:2:1). The second factor was NPK fertilizer application: N1 (1 gram NPK/polybag), N2 (1.5 grams NPK/polybag), N3 (2 grams NPK/polybag). Data were analyzed using ANOVA followed by Tukey's HSD test at a 5% significance level. The results showed that the growing media T3 = Top Soil : TKKS : Sand (1:2:1) significantly influenced seedling height, stem diameter, leaf number, and root length. Application of 1.5 grams NPK/polybag significantly affected seedling height and had a very significant effect on root length. The interaction between the growing media ratio Top Soil : TKKS : Sand (1:2:1) and the application of 1.5 grams NPK/polybag significantly influenced root length parameter.

Keywords: TKKS Compost, Robusta Coffee, Planting Media, NPK