Effect Of Liquid Organic Fertilizer (LOF) Of Tofu Wasre On The Growth Of Robusta Coffee Seedlings (Coffea Robusta L)

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ABSTRACT

Coffee plants (Coffia robusta L.) are plantation crop commodities that have high economic value. In terms of agricultural commodity exports and foreign earnings, coffee ranks fourth in the Indonesian economy, after timber, rubber, and palm oil. The main problem with coffee plants is the unavailability of large-scale and synchronized seedlings. Many coffee fruits will be produced from healthy seedlings. One strategy to improve the chemical, biological, and physical properties of the growing medium is the use of fertilizers. Soil physical properties will deteriorate if inorganic fertilizers are used continuously. The fertilizer used is liquid organic fertilizer (POC) of tofu waste. The purpose of this study was to determine the content and optimal impact of liquid organic fertilizer (POC) of tofu waste on the growth of robusta coffee seedlings. This research was conducted at the Seed Production Technology Field of Jember State Polytechnic in August-November 2023. The parameters of this study were plant height (cm), stem diameter (mm), number of leaves (pairs), root volume (ml), plant wet weight (grams), and plant dry weight (grams). This study used a Non Factorial Randomized Group Design with 4 treatments and 6 replicates. Treatment P0 = control, P1 = 25%, P2 = 50%, and P3 = 75%. From the results of data analysis, the application of Tofu Waste Liquid Organic Fertilizer (POC) treatment had a significant effect only on the root volume parameter. The best concentration results are in the P3 treatment with a concentration of 75%.

Key words: Coffee, Fertilization, Tofu Waste LOF