Litter Productivity and Robusta Coffee Leaf Decomposition
(*Coffea canephora* Pierre)
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ABSTRACT

Indonesia's coffee production in 2021 will reach 774.6 thousand tons. The volume increased by 2.75% compared to the previous year of 753.9 thousand tons. Coffee production is directly proportional to litter production. Coffee plant litter includes organic matter produced by plants and will be returned to the soil. The productivity of coffee plant litter is directly proportional to wind speed, air temperature, and humidity level. Abundant litter if managed optimally can improve the physical properties of the soil. One way to accelerate litterfall decomposition by adding EM-4 bio activator. The research was conducted with the aim of research to find out how the litter productivity in the gardens of the Jember State Polytechnic and the decomposition process of robusta coffee leaves (Coffea canephora Pierre) were carried out from October 2022 to January 2023. The first factor was the treatment of coffee leaf litter with leaf area P1: 51-70 cm2, P2: 31-50 cm2, and P3: 10-30 cm2. Factor two EM-4 concentration with the ratio of 100 gram sugar solution to 1 liter of water (K1: 5 ml, K2: 10 ml, and K3: 20 ml. The results showed that the highest litter productivity occurred in the 3rd week of 18.07 g /m2/week (October 2022-January 2023) which coincided with the rainy season. The P3K2 treatment was more efficient at week 8 because it was already black in colour, with lower EM-4 concentrations than the P3K3 treatment. The best results for decomposition of coffee leaves were P3 pieces with wide leaves, while the most efficient decomposition process was at a concentration of K2, namely a sugar solution with 10 ml of EM-4.

Key words: coffee leaf litter, productivity, decomposition of coffee leaf