

***Effect Of Golden Apple Snail Extract Fermentation Concentration And
Application Frequency On The Growth Of Robusta Coffee Seedlings
(Coffea canephora Pierre ex A. Froehner)***

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ABSTRACT

Indonesia is one of the world's coffee-producing countries. There are three types of coffee plants cultivated through a seedling process, one of which is Robusta coffee. The seedling stage is a key factor that determines the success of improving the quality and productivity of coffee. To obtain high-quality Robusta coffee seedlings, fertilization is necessary during the seedling process. Fertilization is a crucial aspect in fulfilling the macro and micro nutrient requirements to support plant growth. Organic fertilization using fermented golden apple snail extract has an effect on the number of leaves, leaf area, seedling height, root length, fresh weight, and dry weight, but no effect on the number of primary roots. The aim of this study was to determine the effect of concentration, application frequency, and their interaction on the growth of Robusta coffee seedlings. The research was conducted at the field laboratory of the State Polytechnic of Jember from August 2023 to February 2024. The planting material used was fermented golden apple snail extract in the form of liquid organic fertilizer. This study used a non-factorial randomized block design with 7 treatments and 6 replications. The results showed that the K5 treatment (5% + once every 2 weeks) was the most optimal and effective for the growth of Robusta coffee seedlings in terms of leaf area, seedling height, root length, fresh weight, and dry weight. Meanwhile, the K2 (5% + once every 4 weeks) and K4 (7.5% + once every 4 weeks) treatments were the most optimal and effective for the number of leaves parameter.

Keyword: *Robusta Coffee, Gold Apple Snail Extract, Seedling*