

# **The Relationship Between Composition of Bagasse and Onggok Aren with Microbial Diversity and Growth of Earthworms (*Lumbricus rubellus*) in the Vermicomposting**

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## **ABSTRACT**

This study aims to determine the effect of the composition of the media on sugar palm sugarcane and bagasse with the growth and microbial diversity of earthworms (*Lumbricus rubellus*) by looking at the parameters of worm biomass addition, microbial diversity and the quality of vermicompost produced

There are 5 composition of maintenance media that will be tested as treatment, namely A. 100% palm sugar + 0% bagasse, B. 75% palm sugar + 25% bagasse, C. 50% palm sugar + 50% bagasse, D. 25 % onggok palm + 75% bagasse, and E. 0% onggok palm + 100% bagasse. Every treatment is carried out 5 times. Maintenance container is a plastic tub measuring 35 x 30 x 10 cm with a total weight of media is 4 kg. The parameters observed in this study were the increase in worm biomass, the quality of vermicompost and microbial diversity in the body of the worm. Variety analysis with a level of 5% is used for data analysis.

The results showed that there was no effect of differences in media treatment on the increase in earthworm mass in all media tested. The sugarcane pulp media is good for worm growth but is not good for reproduction shown by the increase in the number of worms and cocoon production

Kata Kunci: *Earthworms, Growth*