

Composition of palm sugar and manila grass compost (*Zoysia matrella*) on the growth and production of earthworms cocoon (*Lumbricus rubellus*)

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ABSTRACT

This study aims to use the sugar palm and manila grass compost on the growth and production of earthworms cocoon (*Lumbricus rubellus*).

This experiment uses earthworm *Lumbricus rubellus*. There are 5 media that will be tested as living media of earthworms in the form of mixture of sugar palm with manila compost with the following comparison: 1 part of aren palm + 1 part of manila grass compost, 1 part of aren + 2 part compost manila grass, 2 part onggok aren + 1 part of manila grass compost, 1 part of aren palm (control), and 1 part of Manila grass compost, Each treatment done 5 times replication. Maintenance container is a plastic tub measuring 35 x 30 x 10 cm with the total weight of media included in the container maintenance is 3 kg. Indicators observed in this study are the increase of worm biomass, worm weight, number of cocoon, number of cocoon, and pH and water content of media. Data were analyzed using one-way variance analysis followed by Duncan Multiple Range Test (DMRT).

The results showed that the combination of sugar palm and manila compost (*Zoysia matrella*) influenced the growth of earthworm (*Lumbricus rubellus*) and the production of earthworms cocoon (*Lumbricus rubellus*). Onggok sugar palm good for use as a medium with the purpose of reproducing earthworms, while the composition of 2 parts onggok sugar palm and 1 part manila grass is very well used for the growth of earthworms.

Kata Kunci: *Lumbricus rubellus*, *growth*, *cocoon*, *palm sugar* and *manila grass*