

**The Effect of Giving Vermicompost Fertilizer and POC Goat Urine on the
Growth of Cocoa Seedlings (*Theobroma cacao* L.)
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ABSTRACT

The development of cocoa production in Indonesia from 2017-2018 recorded a decline. In 2018 cocoa production decreased by 7,715 tons or around 38.83% from 2017. One of the factors that has reduced cocoa productivity in Indonesia is related to fertilization. Cocoa farmers in Indonesia tend to fertilize using inorganic fertilizers which have a negative impact on the environment and cocoa plants. One solution is the use of sustainable organic fertilizers such as vermicompost fertilizer and POC goat urine. The research purpose was to determine the effect of various doses of vermicompost fertilizer, POC goat urine, and the interaction between the two factors on the growth of cocoa seedlings. This research used RAKF with 2 factors and repeated 3 times. The first factor (K) was giving various doses of vermicompost fertilizer (50 grams/polybag, 100 grams/polybag, 150 grams/polybag, and 200 grams/polybag) and the second factors (P) was giving various doses of POC goat urine (0 ml, 100 ml, 200 ml, and 300 ml). The results showed that the factor P and factor K as well as the interaction between the two factors were significantly different in the growth parameters of plant height (cm), with the best treatment combination being given 100 grams of vermicompost fertilizer/polybag 200 ml and POC goat urine capable of producing an average value plant height 44,20 cm. Meanwhile, the parameters of stem diameter (cm), number of leaves (strands), fresh and dry weight of roots (grams) were not significantly different.

Keywords: cocoa, vermicompost fertilizer, POC goat urine