EFEKTIVITAS LARVA KUMBANG BADAK (Oryctes rhinoceros L) SEBAGAI DEKOMPOSER LIMBAH TONGKOL JAGUNG, AMPAS TEBU (BAGASSE) DAN SABUT KELAPA (The Effectiveness of Rhinoceros Beetle Larvae (Oryctes rhinoceros L.) as Waste Decomposers of Corncob, Bagasse and Coconut Husk)

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ABSTRACT

A study was conducted to establish the effectiveness of rhinoceros beetle larvae (Oryctes rhinoceros L.) in decomposing the waste of corncob, bagasse, coconut husk, and to determine the quality of the produced compost. This study was conducted in the Laboratory of Soil Science and Green House of the Faculty of Agriculture of Muhammadiyah Yogyakarta University from January until March 2017.

A completely randomize design (CRD) experiment was designed in single factor and arranged in 2 steps. First step was the initial composting arranged in three treatments: A: 20 kg corncob compost, B: 20 kg baggase compost, C: 20 kg coconut husk compost. Second step was the application of rhinoceros beetle larvae arranged in six treatments: P:3 kg of corncob compost + rhinoceros beetle larvae, Q = 3 kg of bagasse compost + rhinoceros beetle larvae, R = 3 kg coconut husk compost + rhinoceros beetle larvae, S: 3 kg of corncob compost, T: 3 kg of bagasse compost, U: 3 kg of coconut husk compost. Each treatment have 5 replications.

The results showed that corncob compost, baggase, coconut husk which is decomposed by rhinoceros beetle larvae have higher C and N content compared to control. Moreover, the compost decomposed by rhinoceros beetle larvae through 1,5 months produced more than 50 % of the particle which the size was corresponding to the SNI standard of the compound. From this study can be concluded that rhinoceros beetle larvae can accelerate composting of corncob waste, bagasse, coconut husk and compost produced is in accordance with SNI compost 19 – 7030 -2004.

Key words: rhinoceros beetle larvae (Oryctes rhinoceros L.), corncob waste, bagasse, coconut husk, compost quality