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PROCESSING OF COFFEE PEELS WASTE TO REDUCE ENVIRONMENTAL POLLUTION USING COMPOSTER TECHNOLOGY

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Abstract
The waste of coffee peels that have not been utilized until now is one of the problems that are still unsolved. The remnants of the coffee pods that have been ground are left behind and pile up around the coffee mill into a pile of garbage, which over time becomes a source of disease for humans. For this reason, management and processing must be carried out to overcome it. This research was conducted to examine the processing of coffee peels waste into organic fertilizer in the form of compost using composter technology in terms of changes in color and texture in the manufacturing process. The research method used was a Completely Randomized Design (CRD) consisting of 4 treatments and 4 replications, namely control (coffee peels + sawdust + goat dung), EM4 (coffee peels + sawdust + goat dung + EM4), LM (coffee peels +sawdust+goat dung+LM), and liquid organic fertilizer (coffee peels +sawdust+goat dung+ liquid organic fertilizer). Observations were made every 3 days until the compost was ripe with color and texture parameters. The results showed that the whole coffee peels waste compost had matured within 36 days and showed physical characteristics in accordance with SNI 19-7030-2004. However, in the speed of ripe compost, which is characterized by changes in color and texture, the LM of rice shows a faster than others.
Keywords: coffee peels, organic fertilizer, compost texture, compost color.

Introduction

Coffee is currently a trend almost all over the world which is liked by men, women as well as young people, and the elderly. This condition makes a high demand for coffee in all places. Coffee producers are competing to obtain coffee beans from all over the world with various types of coffee according to tastes in various countries. The five largest coffee-producing countries are Brazil, Vietnam, Colombia, Indonesia, and Ethiopia. As a country with large forest and plantation areas, Indonesia will produce 12 billion (million 60-kg bags) of coffee in 2020. In 2021, South Sumatra, Lampung, Aceh, North Sumatra, and Bengkulu will become the highest coffee-producing provinces in Indonesia. Of the total 532.8 thousand tons of coffee produced, Lampung Province produced 118 thousand tons. Meanwhile, almost all coffee is produced from community forests and conservation forests (Caksono, 2022; Deshmukh, 2021).

Conclusion

The whole coffee peels waste compost had matured within 36 days. All samples show that compost has matured according to the characteristics of the compost in SNI 19-7030-2004. The speed of mature compost, which is characterized by changes in color and texture, the LM of rice shows a faster than others.

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