ABSTRACT

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EFFECT OF VARIATION OF MOLE VOLUME OF Stale RICE AND LAYER DEVELOPMENT ON PROCESSING SPEED, QUANTITY, AND FIRE ON BIOGAS FORMATION PROCESS.
viii + 66 pages + 18 tables + 4 pictures + 8 attachments

Biogas is a mixture of gases produced by metanogenic bacteria that occurs in materials that can decompose naturally under anaerobic conditions. The process of biogas formation requires a room in an airtight or closed condition to be stable. In principle, biogas is formed through several processes that take place in an anaerobic space or without oxygen. Biogas has a high energy content that is not inferior to the energy content of fossil fuels.

The purpose of this study was to determine the effect of variations in the volume of moles of stale rice and laying hens manure on process speed, quantity, and flame in the biogas formation process.

This type of research is a true experimental research with The Posttest Only Control Group Design research design. This experiment was in the form of an experimental group that was given treatment with the addition of MOL volume variations, while the control group was without additional MOL, then the results were measured which included biogas quantity, process speed and flame. The total samples in this study were 20 ml, 40 ml, 60 ml, and 80 ml with details of 4 variations and 6 repetitions.

The results of the *Two Way Anova* test show that there is an effect of variations in the volume of moles of stale rice and layer chicken manure on process speed, quantity, and flame in the biogas formation process, with variations in the formulation of 20 ml MOL Stale Rice: 3 kg Chicken Manure, 40 ml MOL Rice Stale : 3 kg Chicken Manure, 60 ml MOL Stale Rice : 3 kg Chicken Manure, 80 ml MOL Stale Rice : 3 kg Chicken Manure from the 4 variations tested.

The conclusion obtained is that it can be concluded that the 80 ml variation is the most effective variation for the biogas formation process. Suggestions for research need to be continued by paying attention to the factors that influence the formation process and the optimum conditions to achieve optimal results.

Keywords: MOL, Stale Rice, Chicken Manure
Library: 21 readings (2010 – 2020)