

Karakteristik Biogas Campuran Kotoran Ayam dan Ampas Tebu (Bagasse) dengan C/N Rasio yang Berbeda. (*Characteristic of Biogas Mixing from chicken manure and Bagasse with Different C/N Ratio.*)

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ABSTRACT

Biogas is renewable energy formed through the process of fermentation of organic waste, such as manure. This energy can provide the daily needs. One of the most important factor making biogas is C/N Ratio level. The purpose of this study is to determine the optimal mixture of C/N Ratio for making a biogas. In this study, the ingredients for slurry (biogas mixture) got from organic material which is chicken manure and bagasse. There are 3 different treatments for composition of biogas mixture (A1 = C/N Ratio 20, B1 = C/N Ratio 30 and C1 = C/N Ratio 40). The result of this study showed that comparison C/N Ratio 40 was produced the highest biogas as much as 20.865 ml and the lowest one C/N Ratio 20 was produced 9.835 ml. Meanwhile the average production rate for C/N Ratio 30 was the fastest one only need 4 days for produced biogas. In this study using standard deviation to know the error of each repetition data. The final of this study is fuel test and the result is the biogas unburned, this thing happens caused from the chicken manure that used for material for biogas already in not good condition. The chicken manure that used in this study already dry, that means chicken manure already through decomposition process, which is that process should be the beginning process of the biogas inside the digester, this situations affect the fermentation process that caused biogas cannot produced methane gasses.

Keywords : *Biogas, C/N Ratio, Chicken Manure, Bagasse.*