

Effect of C/N Ratio Variations on Biogas Production With a Mixture of Cow Manure and Cassava Peel Waste Substrate

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ABSTRACT

Processing of cow manure mixed with cassava skin waste into biogas is one of the efforts to develop renewable energy and reduce cow manure and cassava peel waste. This study aims to determine the most optimal mixture composition in producing biogas. The variations used in this study are variations in the C/N ratio used, the variations are 20, 25, and 30. With a set processing time of 30 days. Processing is carried out using a digester which has total volume of 10 L. The best C/N ratio is 25 with a ratio between cow dung : cassava peel waste 7:23, which produces a total volume of 1960 ml of biogas.

Keywords *Biogas, Cow dung, Cassava peel waste, C/N Ratio*