

## **ABSTRACT**

### **PRODUCTION BIOGAS COMMIXTURE FROM COW MANURE WITH CHICKEN MANURE**

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Biogas technology with zero waste concept is expected to be the alternative energy and to reduce environmental problems. The purpose of this study is to know the magnitude of the volume of biogas by kilogram of each chicken and cow dung comparison. The study was conducted in six treatments with the addition of chicken manure that is 0, 100, 300, 500.700 and 1000 grams. The fermentation process is done using a batch system with measurement of gas each day. The parameters observed in organic matter, the degree of acidity (pH), temperature, volume of biogas, biogas productivity, flame and C / N ratio of each treatment. The results showed that the overall pH of the beginning and end of the study tend to be close to neutral. The best results generated biogas production in the composition with the addition of chicken manure 50% in the amount of 35.690 ml, and the highest value of the biogas productivity of 0,33 liters /g volatile solid with the same composition.

**Keywords:** biogas, cow manure, chicken manure, anaerobic codigestion.