

# PEMBUATAN BIOGAS YANG OPTIMAL DENGAN VARIASI CAMPURAN KOTORAN DAN URIN SAPI

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## ABSTRACT

*The use of fuel which has led to increasing fuel prices increased dramatically.. These conditions have a major impact for low income and poor, especially in rural areas. Therefore, the current rural communities mostly have been using the new alternative energy with the use of livestock waste into biogas. The purpose of this research is to determine the optimal production of biogas with a characteristic quality of the most methane gas levels, the maximum heating value stayed the shortest time. Research carried out using two kinds of raw material variation of cow manure and cow urine. Observations include the volume of biogas, methane gas levels of quality and calorific value. The results of this study showed that in 25 days, a mixture of cow manure and cow urine in the ratio 1: 2.5 may well produce biogas, producing biogas volume of 47.56 liters, 43.7% methane gas and calorific value of 5046,257 cal/liter.*

**Keywords:** cow manure, cow urine, biogas, methane gas levels, calorific value