

***PROCESSING LEACHATE INTO METHANE USING COW RUMEN
MICROORGANISMS AT WWTP (Waste Water Treatment Plant) PLTSA
BANTARGEBAANG***

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ABSTRACT

The treatment of leachate waste into methane with a mixture of cow rumen is one of the efforts to overcome energy crisis and reduce the amount of waste. This study aims to determine the best composition and processing time of a mixture of cow and leachate rumen in the process of processing into methane. The data analysis used in this study was to use three variations in composition between rumen and leachate, two variations in processing time and two variations in rumen types for start-ups. The variations of the composition set are 20 : 80, 30:70 and 40:60. The set time variations are 20 and 36 days and the rumen variations used are dry and wet rumen. Processing was carried out using a digester with a total volume of 25 L. The best variation was a composition of 40:60 with a processing time of 36 days using wet rumen with a methane yield of 4471.80 ppm.

Keywords : Biogas, cow rumen, digester, leachate, methane