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Generation of biogas from cow dung

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Abstract

A performance evaluation on how a laboratory scale digester can be used to generate biogas from cow dung at an ambient temperature was carried out with emphasis on the effectiveness of the feed stock; cow dung and the nature of the microorganisms involved in the anaerobic digestion of the organic waste. Two experimental set ups were made for the generation of biogas. The gases produced in the two set ups were collected over water and lime water. It was found that the set up in which the gas produced was over lime water gave a higher biogas volume ($15.80cm^3$) than the volume of biogas produced with the set up collected over water. The microbial species recovered included *Clostridium* spp, *Pseudomonas aeruginosa, lactobacillis acidophilus, bacillus cereus, Mycobacterium* spp., *bacillus subtiles, klebsiella* spp. and *Escherichia coli.* The substrate used demonstrated a potential for biogas generation