Homemade Biodigester with Greater Production of Natural Gas from Decomposed Food

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Due to the high contribution of methane gas to the greenhouse effect by anthropogenic events, mainly agriculture and livestock, it arose to propose a homemade alternative method to reduce this effect. By studying the "homemade biodigester with the highest production of natural gas from decomposed food", it was hoped to determine if the meat or the fruits produced greater methane gas. For this, three (3) biodigesters and their manometers were prepared and verified to be secure that doesn't have holes, leaks and close perfectly. Then, fresh beef tenderloin meat (commercially purchased), breadfruit, and bananas (obtained from the plants) were prepared by grinding the food, mixing with water and placing it into their container. For 30 days, the biodigesters remained sealed and in the house yard. To perform the daily readings, the manometer rule was observed, and counted if there has change in the meniscus. From day 12, the breadfruit produced its first gas molecule. While the bananas and beef began to produce their gas molecules from day 13. From the second day of production, the meat reflected a tendency to increase, but at the end of the study the total gas produced was 13, 11 and 8 molecules for beef, bananas and breadfruit, respectively. The hypothesis was accepted, because these results demonstrated that the homemade biodigester with the meat has the highest natural gas production. that. In the future, we could study the creation of a biodigester on a larger scale and compare some types of meat, fruits, or foods.

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