



TITLE: Comparison of Biogas Production from the Anaerobic Treatment of Poultry, Coconut water, Grass and Dried fallen leaves waste with Kitchen Waste in Biodigester

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ABSTRACT

The present work explores the production of biogas from various waste materials including Poultry, coconut water, grass and dried fallen leaves waste is compared with kitchen waste was carried out using anaerobic digestion method for 14 days. The composition of the wastes, including total solid, volatile solids, moisture, and ash content, is analyzed. Anaerobic digestion is very sensitive to change in pH and it is important to maintain pH of 6.7-7.4 for healthy system. The biogas generation was found to be high in poultry waste (12.56 m³) compared to the biodigester operated with coconut water waste (5.46 m³), grass waste (5.11 m³), and dried fallen leaves waste (4.65 m³). Furthermore, Poultry waste is already in smaller pieces and has a higher surface area, which makes it easier for the microorganisms to break down into simple compounds that they can consume and produce more biogas.

The search for alternative source of energy such as biogas should be intensified so that ecological disasters like environmental pollution, deforestation, desertification and erosion can be arrested.

BIOGRAPHY

I have completed my Bachelor's of technology in Biotechnology with some great experience of my domain. Coming from a background in biotechnology, my passion for food technology is undeniable. I'm driven by an insatiable enthusiasm to tackle fresh challenges and embrace opportunities that this field offers. My thirst for knowledge extends to exploring the realms of innovation and emerging food technology, where I'm keen to not only apply my existing expertise but also learn continuously. With a solid foundation in creative and analytical skills, I seamlessly contribute as a collaborative team player, meticulously attending to intricacies.

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