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COMPARATIVE STUDY OF BIOGAS PRODUCTION USING KITCHEN WASTE AND POULTRY WASTE

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ABSTRACT

Due to scarcity of petroleum and coal it threatens supply of fuel throughout the world also problem of their combustion leads to research in different corners to get access the new sources of energy, like renewable energy resources. Solar energy, wind energy, different thermal and hydro sources of energy, biogas are all renewable energy resources. But, biogas is distinct from other renewable energies because of its characteristics of using, controlling and collecting organic wastes and at the same time producing fertilizer and water for use in agricultural irrigation. Biogas does not have any geographical limitations nor does it requires advanced technology for producing energy, also it is very simple to use and apply.

Kitchen waste is organic material having the high calorific value and nutritive value to microbes, that's why efficiency of methane production can be increased by several orders of magnitude as said earlier. It means higher efficiency and size of reactor and cost of biogas production is reduced. Also in most of cities and places, kitchen waste is disposed in landfill or discarded which causes the public health hazards and diseases like malaria, cholera, typhoid.

This paper mainly brings out the journey identifies and evaluate the economic feasibility to produce biogas from poultry waste and kitchen waste. It has been concluded that biogas can be generated with a huge probability of energy for use in households as well as industrial use which can also cut the supply of non-conventional fuels and balancing the environment aspects using poultry waste digestion.

KEYWORDS: Biogas, Kitchen Waste, Poultry Waste, Natural Resources