Emine Cagla Cilingir, Expert Opin Environ Biol 2016, 5:3(Suppl)
http://dx.doi.org/10.4172/2325-9655.C1.011

An overview of biogas production from poultry manure

Emine Cagla Cilingir
Hacettepe University, Turkey

The increasing demand for energy industry and losing sustainability of fossil fuels has led the world to find alternative energy sources. This trend has enabled renewable energy sources to replace conventional energy sources. Today, with the search for renewable energy sources, by extending its meaning, the concept of waste has begun to take place in the energy sector as a raw material. For this purpose, the application of using methane, which is obtained by the biodegradation of renewable materials, for producing heat, electricity and fuel is becoming widespread. Wood, coal, animal waste, agricultural waste and other fuels that are derived from biological sources are used for the application of biogas obtained using renewable sources. Nowadays, animal waste is the most commonly used renewable material which has the characteristics of waste. With the aim of decreasing the effects of climate change and other environmental adverse effects that are generated from other waste, the application of utilization of animal waste for biogas production is applied frequently worldwide, especially in rural areas. Livestock sector, which generates the most important source of income of rural areas, necessitates turning to waste minimization. Also, poultry sector constitutes one of the most important part of the livestock sector. Rapid development of poultry sector accelerates the orientation of manufacturers' biogas production. This paper reports on the method of application of biogas production from poultry waste. Furthermore, by means of statistics data and considering the number of poultry animals and various criteria, the amount of waste originating from poultry sectors was calculated worldwide. Based on the amount of waste, potential biogas production worldwide and the amount of energy equivalence were calculated. Considering the findings, to what extent it will benefit the energy sector was mentioned. Lastly, how poultry manure, when applied with different manure as co-digestion, contributed to the energy sector was emphasized.

Biography

Emine Cagla Cilingir is a Research Assistant of Environmental Engineering at the Hacettepe University of Ankara, Turkey. She received her Bachelor's degree from Istanbul University and is a Master's student at the Hacettepe University. Her thesis is about the alternative production mechanism of volatile organic components. Her research interests include the recovery and reuse of agricultural, municipal, and industrial waste products.

cilingircagla@gmail.com

Notes: