NEWS ALERT



It's Time to Make the Most of Methane



Waste is all around us—and so is the demand for renewable energy. That means now is an excellent time to make the most of biogas production. Unfortunately, while some wastewater treatment plants and farms are already turning sewage, manure, and other organic wastes into biogas for heating and energy, the process is not as widespread or efficient as one would hope. The good news is that, with the right nutrients and microorganisms, wastewater operators and farmers can get the most out of their methane for heat and energy production.

Anaerobic Digestion Challenge

Microbes are the key to turning waste into biofuel and are a critical part of the anaerobic digestion process that is often used in wastewater treatment. Sometimes, however, these indispensable microorganisms do not have the right nutrients or numbers needed to carry out robust hydrolysis, resulting in more odor and less methane for heating or energy. To maximize methane production, farmers, wastewater treatment managers, and biogas plant operators can call in reinforcements: beneficial microorganisms (bioaugmentation) and nutrients (biostimulation) that will boost the hydrolysis process. Probiotics such as BCP12[™] can accelerate the rate of waste digestion, while BIOGAS BOOSTER 3[™] can provide the necessary micronutrients that microbes need to function well.



Effects on Biogas Production

Two biogas plants in Japan are a good example of what can happen with and without the right ingredients. With no supplements, the plants were generating 40% methane instead of 60% methane and producing a bad odor. By adding probiotics and nutrients such as BCP12™, BCP57™, BCP80™, and STIMULUS™, the plants were able to reach their full potential of 60% biogas production (reaching 300 kW/generator capacity) and resolve the odor issue. In another case, the addition of BIOGAS BOOSTER 3™ to a test reactor at York University showed promising signs of enhancing biogas generation after just one week.*



Biogas production is an important opportunity to turn waste into something valuable. Overcoming inefficiencies can be just as important in order for the effort to be worthwhile. If you operate an anaerobic digester, contact Bionetix® for specific advice to improve efficiency and make the most of your methane.



*York University NSERC Engage Project Report, "Novel Bacterial Blend to Enhance Biomethanation of Municipal Sewage Sludge," 11 December 2020. Prepared by Prof. Brar's Team: Dr. Bikash Tiwari, Rahul Saini, and Mona Chaali.



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