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Short Communication

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Claire Bougrier, Delphine Dognin, Cécile Laroche, Valérie Gonzalez, Dalel Benali-Raclot, Jesús Andrés Cacho Rivero

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Anaerobic digestion of Brewery Spent Grains: Trace elements addition requirement

Claire Bougrier¹, Delphine Dognin, Cécile Laroche, Valérie Gonzalez, Dael Benali-Raclot, Jesús Andrés Cacho Rivero

Veolia Recherche & Innovation, 291 avenue Dreyfous Ducas, Limay 78520, France

Abstract

The current study evaluates and compares the stability of anaerobic digestion of Brewery Spent Grains (BSG) with and without addition of nutrients. Based on the composition of the BSG two levels of nutrients addition were defined. Control reactor, without addition of nutrients, showed signs of instability after 3 months of operation and collapsed. On the contrary, supplemented reactors led to a COD removal rate of 60% and a methane production of $280 \text{ NL CH}_4 \cdot \text{kg}^{-1} \text{ VS}_{\text{added}}$.

According to these results, it was possible to define an additive solution adapted to BSG degradation.

Keywords: Anaerobic digestion; Brewer's Spent grains; Inhibition; Trace elements

1. Introduction

¹ Corresponding author at Veolia Recherche & Innovation, Centre de recherche de Limay, 291, Av Dreyfous Ducas, 78520 Limay, France, Tel.: +33 1 30 63 10 65; E-mail address: claire.bougrier@veolia.com (C. Bougrier)

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