Environmental Engineering and Management Journal May/June 2009, Vol.8, No.3, 595-599
http://omicron.ch.tuiasi.ro/EEMJ/

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TREATMENT AND MANAGEMENT OF DISTILLERY FERMENTED FRUIT SPENT MARC. II. PROCESSING BY COMPOSTING

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Abstract

This paper presents a comparative study of natural and mechanically mixed composting processes of marc resulting as a by-product during the production of alcohol obtained from fermented fruits. Moisture, temperature, pH values, soluble fraction, total organic carbon, Kjeldahl nitrogen and ash content were monitored for 60 days. During this period the atmospheric temperature varied from 18ºC to 21ºC. The composting process could be considered a combination of three stages: mesophilic, thermophilic, and maturation. The composting process need 34 days in mechanical stirred system and 46 days in the natural system. The biodegradation processes were stimulated by the mechanical stirring.

Key words: aerobic process, biodegradation, composting, vegetable waste

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