



Cost effective production of penicillin and biogas from rotten grapes by novel fermentation technique

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Abstract

India produces approx. 13 million tonnes grapes annually, of which approximately 30% goes as waste. Grape juice primarily contains fructose, glucose and sucrose as carbon sources which can be fermented to Penicillin. During the processing of grape juice, huge quantities of grape pulp (pomace) are generated which causes environmental pollution problems. This can be converted to biofuel (Biogas/biomethane) by anaerobic technology (Methanogenesis). Penicillin was produced using rotten grape juice medium under different cultural conditions- mat culture, free mycelial format both in batch as well as in fed-batch mode and grown using pellet morphology. The diameter of inhibition zone was taken as a measure of potency of each of the formulation using raw grape juice as the basic substrate.

Biography

C Gopinathan is an Associate Professor in the Department of Biotechnology at University of Calicut. He has been honoured with Fellow of Council of scientific and Industrial research (CSIR). He is a technical advisor for the large scale manufacturing of Bacillus thuringiensis based biopesticides, solid waste management using high rate anaerobic digestion technology, Penicillin production using solid state fermentation technology and large scale oyster mushroom production.



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