

Utilisation of fruits waste for Citric acid production by Solid state fermentation technique.

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ABSTRACT

Citric acid is the most important organic acid produced in tonnage and is extensively used in pharmaceutical industries. Earlier it was extracted from Lemon. Due to the increasing demand for it now it was totally produced by fermentation process using *Aspergillus niger* from different sources of carbohydrates such as molasses & starch based media. However alternative sources of carbon such as agro-industrial residues have perspective to its production. The potential of agricultural waste such as pineapple, mixed fruit, maosmi as a substrate was examined for citric acid production by *Aspergillus niger* using Solid state fermentation technique. Three main parameters were considered fro the effective yield: Temperature; low-molecular weight alcohol; Nitrogen source. The study has revealed that food waste material can be used for citric acid production by Solid state fermentation using *Aspergillus niger*. The use of the waste might represent an efficient method of reducing the environmental problem due to their disposal and also help in reduction of substrate cost.And also the production of Citric acid by fruit waste without addition of other nutrients could be of interest to possible, future industrial applications.