

**Studies on production of Single Cell Protein from *Aspergillus niger* using various natural sources**

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**ABSTRACT**

Malnutrition is the major problem facing now-a-days in many developing countries. Deficiency of protein in human food is the main issue. This demand led to the search of non conventional protein sources to supplement the conventional sources. The present investigation was carried out to utilize various cellulosic waste materials as substrate for the production of SCP by using standard from fungi *Aspergillus niger*, which is being isolated from the rice bran, wheat bran and banana peel as the basal media. A synthetic medium namely potato dextrose medium was prepared as reference medium. The collected substrates were used for biochemical characterization namely protein estimation, carbohydrate estimation, calculation of percentage moisture content and the substrates were finally used for the medium preparation for the SCP production. The degree of mycelial biomass growth depends on the type of substrate used. Thus, in the present study different cellulosic substrates considered as waste materials were explored for biomass production (SCP) instead of dumping them. To conclude, rice bran proved to be the best substrate for single cell protein production using *aspergillus niger*. Future prospects will require a need to work on toxicological potential of the single cell thus produced.