

Protein Production from *Aspergillus niger* using Chemical and Enzymatic treatment of Rice Husk

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ABSTRACT

Microbes which possess high content of protein and harmless when consumed are being used by humidity as food supplement. The single cell protein (SCP) refers to any unicellular source of protein including yeast, bacteria, fungi and algae. The value of SCP is in its uses a nutritional supplement where conventional protein. Rice husk is a paddy field waste contains variable ingredients like mineral, carbohydrates, nitrogen and decomposed to fermented sugars by chemical and enzymatic methods. These fermented sugars were supplemented with mineral medium for the growth of *Aspergillus niger* and Single Cell Protein production. Production of SCP of *Aspergillus niger* in rice husk basal media. Identification and estimation of protein in *Aspergillus niger*. Inoculum preparation, spores were harvested from a week old *Aspergillus niger*. The rice husk (lingo-cellulosic material) was degraded into simple compounds (fermented sugars) by chemical and enzymatic treatment. Determine the acid concentration of the reagent by titrating with 1N sodium hydroxide to phenolphthalein and point. Demonstrate the single cell protein yield is higher in case of per chloric acid treated rice husk medium than sulphuric acid and ammonium hydroxide. A higher yield of SCP production from *Aspergillus niger* was possible by acid/alkali treated rice husk. Though utilization SCP production is emerging field encouraging results are obtained and some success is achieved in improving the overall protein yield by supplement of rice husk based medium with sulphuric acid and sodium hydroxide sources for Single Cell Protein production.