



To evaluate the biochemical parameters of fruit waste infested with fungi

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Abstract : *In the present investigation, the various fruit wastes used included papaya waste, orange waste, pomegranate rind, watermelon skin, pineapple skin and mango peel. A total of five different combinations of fruit waste were inoculated with two fungi i.e. Aspergillus niger and Rhizopus oligosporus. These different wastes were taken for analysis of different biochemical parameters like analysis of protein, carbohydrate and fatty acid contents. The maximum protein content with Aspergillus niger was found to be 999 µg/ 500 mg substrate when used in combination with watermelon skin and mango peel. However, the maximum protein content in Rhizopus oligosporus was found to be 990µg/ 500 mg substrate when used in combination with watermelon skin and pomegranate*

rind. The maximum carbohydrate content in Aspergillus niger was found to be 848µg/500 mg of substrate when used in combination with Pineapple skin and pomegranate rind. However, the carbohydrate content in Rhizopus oligosporus was found to be 821 µg/ 500 mg substrate when used in a combination with papaya skin and orange waste. The maximum fatty acid content in Aspergillus niger was found to be 0.0196µg/500 mg of substrate when used in combination with pomegranate rind and watermelon skin. However, The fatty acid content Rhizopus oligosporus was found to be 0.0252µg/ 500mg substrate when used in combination with pineapple skin and pomegranate rind. The study suggests that molds use fruit refuse to built up their protein, carbohydrate and fatty acid content.

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Introduction :

Fruit wastes are produced in large quantities in the markets and constitute a source of environmental pollution. Increasing world population and food crisis has shifted the emphasis on use of wastes for alleviating food shortage.

Fruits store energy in the form of