Comparative analysis of microbial and nutritional qualities of Oyster Mushroom (*Pleurotus florida*) cultivated from Tapioca peel and Paddy straw substrates

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ABSTRACT

Mushrooms are fleshy, spore-bearing reproductive structures of fungi grown on organic substrates. They have played an important role as a human food due to its nutritional and medicinal properties for a long time ago. In present day's mushroom cultivation are regarded as environment-friendly method for recycling of the vast lignocellulosic waste which could otherwise dropped into the environment and cause pollution. Oyster mushrooms (*P. florida.*) are edible fungi belonging to the class *Basidiomycetes* and are increasingly becoming popular as protein-rich delicious vegetable. The present study focus on the comparative analysis of proximate and microbial qualities of oyster mushrooms (*P. florida*) cultivated from the two different substrates -Tapioca peel and paddy straw. The freshly harvested mushrooms from two different substrates were analyzed for moisture, crude protein, crude fat, carbohydrate, crude fiber ash contents and energy values by following the procedure of AOAC, (1990). The total microbial load was enumerated on nutrient agar medium and assessed by colony counting method. The results indicated that oyster mushroom cultivated from tapioca peel substrate was found to be rich in energy (66.98 kcal), crude proteins (4.35%), carbohydrates (7.89), crude fat (1.11%) , ash (1.4%) and crude fibers(0.7%) as compared to paddy straw, it was energy (52.36 kcal), crude proteins (2.48%), carbohydrates (7.33%), crude fat (0.66%) , ash (0.87%) and crude fibers(0.56%). Mushrooms cultivated from paddystraw showed more microbial load than from tapioca peel on storage period.

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