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MANUFACTURING OF MUSHROOM INCORPORATED RICE BISCUITS AND ITS QUALITY AS AFFECTED BY PACKAGING

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Mushroom is a highly nutritious crop with much health benefits. Therefore incorporation into processed products can increase its consumption level. An investigation was undertaken to manufacture oyster mushroom (*Pleurotus ostreatus*) incorporated rice flour biscuits. Different mushroom flour levels; 15%, 10%, 5% were incorporated with rice flour and 100% rice flour biscuits was used as control. All the other ingredients were added in similar quantities for all treatments. Polypropylene (PP) and Biaxial Polypropylene (BOPP) were used as packaging materials to store for a period of three months. Quality parameters such as crispiness, sensory evaluation; keeping quality and Total Plate Count (TPC) and yeast/mould count were studied for the period of three months.

Taste, crispiness, odour and overall acceptability were best in rice flour (control) biscuits. Biscuits manufactured incorporating 15% mushroom flour resulted the lowest taste, crispiness, odour and overall acceptability but the score for appearance was the highest. The lowest score for appearance was given by the control. The highest TPC value was obtained from 10% mushroom incorporated biscuits while the lowest TPC was recorded in control. The control showed the highest yeast / mould count and the lowest was in 10% mushroom incorporated biscuits. BOPP was the better packaging material than PP. It was a better barrier for moisture, gases and microbes than the PP. Biscuits manufactured by incorporating 5% mushroom flour showed a comparatively better overall result. Considering the nutritive value, rice flour biscuits can be manufactured by incorporating 5% mushroom flour, which will increase the amount of proteins, minerals, some vitamins and some medicinal properties of rice flour biscuits. BOPP can be used as packaging material as it can increase shelf life of biscuits than use of PP.