

IMPROVEMENT AND CHARACTERIZATION OF LOW FAT HEALTHY SAUSAGE BY USING AMERICAN OYESTER MUSHROOM (*Pleurotus ostreatus*)

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Meat products are important sources of proteins, vitamins and minerals. They also contain considerable amount of fat, saturated fatty acids, cholesterol, salt, and etc. In order to produce healthier and nutritive meat products with less cholesterol, fat and lean meat can be replaced with Oyster mushroom (*Pleurotus ostreatus*). Incorporation of Oyster mushroom increases the nutritional value up to a noticeable level.

Preliminary trials were conducted to find out the best combination of oyster mushroom for the replacement. Fat portion from the boneless chicken meat was separated, weighed and gradually replaced by using *Pleurotus ostreatus*. Fifteen percent fat (T1) was used in the controlled sample and fat was replaced with 5% (T2), 7.5% (T3) and 10% (T4) of steamed Oyster mushroom. Samples were subjected to sensory evaluation by using 6 trained panelists and data of colour, texture, flavor, taste and general acceptability were analyzed using Freidman test in MINITAB software. According to the results T₃ was selected as the best treatment. Moisture, total ash, acid insoluble ash, fat and nitrite content were tested in two week intervals and Total Platelet Count (TPC) and presence of *E.coli* were tested in monthly intervals during frozen storage within seventy five days storage period. Then results were compared with Sri Lankan Standards (SLS) limits. Product was negative for *E.coli*. All parameters were in range of SLS limits. There was a significant difference ($p < 0.05$) in total ash, nitrite and fat but no acid insoluble ash and moisture among treatments. It can be concluded that *Pleurotus ostreatus* can be effectively utilized as an ingredient for the production of healthy mushroom sausage.

Key words: Fat, Mushroom, Sausage