

EVALUATION OF VARIETY EFFECT OF MUSHROOMS ON VALUE ADDED MUSHROOM PRODUCTS

A.V.S. Sandamali¹, K.H.I. Gimhani¹, S.P. Rebeira², and S.C. Somasiri¹

¹Department of Animal and Food Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka.

²Food Research Unit, Gannoruwa, Peradeniya, Sri Lanka.

Value added mushroom products are a new concept in Sri Lanka. Therefore, a study was conducted to evaluate the effect of different mushroom varieties on value added mushroom products; mushroom fingers and mushroom spread. Mushroom fingers and mushroom spread were prepared in the laboratory using three varieties of mushrooms; Oyster mushrooms (*Pleurotus ostreatus*), *Makandura* white mushrooms (*Calocybe species*) and Abalone mushrooms (*Pleurotus cystidiosus*). Mushroom spread was packed in sterilized glass bottles and stored under refrigerated conditions. Mushroom fingers were vacuum packed and stored in freezer. The two value added products were evaluated for sensory attributes using nine-point hedonic scale, nutritional quality and shelf-life. Sensory evaluation was conducted by using 30 untrained panelists to select the best variety of mushroom for the preparation of mushroom fingers and spread. Mushroom fingers prepared using Oyster mushroom variety scored best ($p < 0.05$) for overall acceptability whereas, mushroom spread prepared using Abalone mushroom variety had the highest ($p < 0.05$) overall acceptability. Oyster mushroom fingers had a significantly higher ($p < 0.05$) crude protein ($6.71\% \pm 0.28$) and a significantly lower ($p < 0.05$) crude fiber ($0.26\% \pm 0.3$) and ether extract ($5.1\% \pm 0.31$) contents compared to Abalone and *Makandura* mushroom fingers. Abalone mushroom spread had a significantly higher ($p < 0.05$) crude protein content ($9.80\% \pm 0.19$) than the Oyster and *Makandura* mushroom spread. Total plate count and yeast and mould counts were negative and pH values were not significantly ($p > 0.05$) different for both products up to two months period. Thus in conclusion, Oyster mushroom and Abalone mushroom are the best among evaluated mushroom varieties for the preparation of mushroom fingers and spread respectively. These products can be stored up to two months without any changes in microbial properties.

Keywords: *Calocybe species*, Mushroom fingers, Mushroom spread, *Pleurotus cystidiosus*, *Pleurotus ostreatus*