

A B S T R A C T

SHELF-LIFE STUDIES OF FISH SAUSAGE

(Carcharhinus limbatus)

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In this project an emulsion type fish sausage was prepared from the muscle of Black Fin Shark (Carcharhinus limbatus) and corn flour (10%). To this mixture soya oil (10%), salt (2%), sugar (1.5%), monosodium glutamate (0.2%), mixed spices (0.5%), ascorbic acid (0.05%), sodium nitrite (0.01%) and iced water (14% of the weight of fish flesh) were also added. Sodium tetrapyrophosphate (0.2%) was used to improve the water-holding capacity of the product. The emulsion was packed in regenerated cellulose casings before cooking. The effects of storage temperature on the keeping quality was determined by chemical, physical and microbiological tests. Sensory evaluation of the results were then performed.

Proximate analysis showed that fish sausages contained 68.5% moisture, 14.5% crude protein, 3.7% fat and 1.0% ash. The fish sausage can serve as a protein supplement to a daily meal.

Storage of fish sausage at room temperature (28° - 31°C) caused a decrease in water content, a decrease in total bacterial count (in the early stages of storage), a decrease in TBA value and an increase in TBVN. Peroxide and pH values, however, did not seem to be affected. The values of TBA, pH and bacterial count of fish sausage increased, but water content decreased when the sausages were stored at chilling temperature (2° - 4°C). Peroxide value again showed no change as storage time proceeded. Freezing temperature (-10° - -6°C) caused an increase in TBA and TVEN values while the water content and total bacterial count decreased and the pH remained constant.

Chemical and microbiological analyses showed the storage life of fish sausages at room, chilling and freezing temperatures to be two(2) days, ten(10) days and four(4) weeks, respectively.