

Abstract

In this study, made Three products of silver carp mince Fish Finger, Fish Ball and Fish Nugget were prepared and assessed for chemical tests such as moisture, fat, protein, ash, pH, peroxide, Tiobarbiotic acids, nitrogenous bases and volatile free fatty acids and total microbial count, psychotropic, Staphilococcus aureus and coliform, as well as sensory evaluation (odor, texture, taste, color and overall acceptability) at a temperature in - 18 ° C over three months.

Results showed significant differences in all chemical and biological factors (0.05> P) at the third month towards zero day that indicates effect of time on these factors. Among the processed products with Fish Ball showed overall significant increase (0.05> P) in the amount of fat and pH compared with Fish Finger and Nugget. In addition the damp content of the Fish Ball sample had no significantly difference in null day compared with Fish Finger. In addition, the PV, TBA, TVB-N and FFA showed the significant decrease (0.05> P) in the production maintenance the months. There was no significant difference in protein levels at zero days and the second month. Ash wing stub did not show significant differences (0.05> P) during storage compared to the nugget.

The microbial load during storage showed significant difference (0.05> P) between the processed products. The total microbial load, psychotropic bacteria, Staphilococcus aureus and coliform had lower significant difference in the third month (0.05> P). The results of microbial load showed that the fish ball sample had significant decrease compared with fish Finger Nugget (0.05> P). Generally processed products showed significant decrease in all sensory attributes such as taste, texture, color, odor and overall acceptability during storage in third months (0.05> P). On the basis of these results products had acceptable quality at the end of storage time.

Key words: Silver carp (*Hypophthalmichthys molitrix*), Fish ball, Fish finger, Fish nugget, Frozen storage



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**Comparison of quality characteristics of formulated
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(*Hypophthalmichthys molitrix*) mince during frozen
storage**

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