

## **Development of a salted mince product using Catla (*Catla catla*) fish mince**

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Innovation of fish products is a way to increase the usage of low demand fish varieties in the market. Catla has comparatively low demand due to low consumer preference and higher production during the seasons. Objectives of the study were the development of a novel salted mince product and evaluation of the shelf life and the nutritional value. In this study, frozen Catla mince ( $-40\pm 1$  °C) and salt were used for the development of the product. Catla mince and salt(sodium chloride) were mixed in different ratios as 100:5, 100:10, 100:15, 100:20, 100:30, 100:50 and 100:100 and stored for five days in room temperature ( $35\pm 1$  °C) and in a refrigerator ( $1\pm 1$  °C) separately for the determination of mince to salt ratio which would give good binding properties. Refrigerated samples prepared with mince to salt ratio as 100:5, 100:10, 100:15, and 100:20 were selected according to the results of folding and biting tests. Further, mince and salt were mixed in different ratios within the selected range as 100:5, 100:7.5, 100:10, 100:12.5, 100:15, 100:17.5, 100:20, 100:22.5 and 100:25 to find the optimum ratio. According to the results of biting and folding tests, a mixture of 100:7.5 was selected as the optimal ratio and used for product development. The amount of salt, protein, moisture, ash and water activity of the end product were  $5.75\pm 0.34\%$ ,  $18.23\pm 0.4\%$ ,  $75.57\pm 0.43\%$ ,  $5.43\%\pm 0.08$  and  $0.98\pm 0.002$  respectively. There were no significant differences recorded in protein, moisture, water activity and sensory qualities of the product, during storage. This study shows that ability of preparing a mince product, with the acceptable binding and biting properties, using salt. The shelf life of the product extended up to one month in the refrigerator. The safety of the product was indicated by the absence of *Listeria monocytergenus* and *Clostridium perfringens*.

Keywords: product development, shelf life, mince product

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