

Abstract

Present study was conducted to investigate the effect of whey protein (WP)-Mono glyceride (MG) based edible coating on quality characteristics of fish finger made from silver carp mince during refrigerated storage (4 °C). For this purpose, after initial preparation, silver carp meat separated and minced and then combined with different filler, shaper and flavor enhancer materials. Eventually fish finger was made from prepared fish paste manually. After preparation of edible coating, fish fingers were immersed for a few seconds in solution, then dried and after packaging were stored in refrigerator for 15 days. Treatments of this study was as: fish fingers without coating (treatment A), fish fingers immersed in 5% WP-1.5% MG solution (Treatment B), fish fingers immersed in 10% WP-2.5% MG solution (Treatment C) and fish fingers immersed in 15% WP-3.5% MG solution (Treatment D). Chemical and microbial analysis and sensory evaluation was carried out on days 0, 3, 9, 12 and 15 in triplicate. The results showed that with prolongation of refrigerated storage, lipid content and also TBA, TVC and PTC content significantly increased and instead protein and moisture content significantly ($P < 0.05$) decreased. Treating of fish fingers with 10% WP-2.5% MG solution (Treatment C) significantly ($P < 0.05$) decreased the content of PVC and PTC to 3.5 and 2.46 log 10 CFU/g, respectively. Moisture loss in treatment C (9.45 %) during refrigerated storage was significantly lower than control samples (18.27 %). According to sensory analysis results, treatments C and D had longer shelf life in comparison to control sample.

Keywords: Fish Finger, edible coatings, shelf life, whey protein



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Title:

**Effect of whey protein-monoglyceride
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Silver carp during refrigerated storage**

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