

## **Abstract**

The aim of this study was to evaluate the effect of ascorbic acid in edible coatings on Silver carp (*Hypophthalmichthys molitrix*) fillets during in the refrigerated storage. Researching treatments included: without coating (no cover or treatment A), 1% chitosan edible coating (treatment B), 1% chitosan edible coating containing 0/05% ascorbic acid (treatment C) and 1% chitosan edible coating containing 1% ascorbic acid (treatment D). The silver carp fillets in solutions containing different concentration of ascorbic acid and solution chitosan was immersed separately and then were kept in the refrigerator for 18 days. Chemical analysis included measurements of pH, TVB-N, TBA and PV and microbial tests including TVC and PTC in 18 days was performed in a three-day period. The pH, TVB-N, TBA and PV coated samples under control samples (no cover). The pH, TVB-n, TBA and PV of the samples 1% chitosan edible coating containing 1% ascorbic acid less than the samples coated with chitosan one percent and the samples coated with chitosan-one percent of half percent of ascorbic acid and no significant differences were observed ( $p < 0/05$ ). The results microbial analysis showed that treatments covered less bacterial load compared to the control ( $p < 0/05$ ). The study found that 1% chitosan edible coating containing 1% ascorbic acid could improve the quality and increase the shelf life of fillets during in the refrigerated storage.

**Key words:** *Hypophthalmichthys molitrix*, Edible coating, Chitosan, Ascorbic acid, Shelf life



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