



Research Article

Changes of biogenic amines in silver carp (*Hypophthalmichthys molitrix*) fillet under different packaging conditions

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ABSTRACT

A comparative study of the effects of different packaging on the formation of biogenic amines during storage of silver carp (*Hypophthalmichthys molitrix*) at 4 °C was carried out. Silver carp fillet was stored in air, modified atmosphere packaging (MAP) and vacuum packaging (VP) for 16 days. The biogenic amine content generally increased in all treatments with increasing storage time. The concentrations of putrescine and/cadaverine in fish stored in air reached maximum levels of 132.18 and 143.4 mg 100 g⁻¹ after 16 days, respectively significant differences were found ($p < 0.05$) in the levels of cadaverine and putrescine among the three treatments. Spermidine and spermine levels increased slightly and did not change much throughout the storage period for all experimental conditions. The amine contents of silver carp were highest in silver carp stored in air, followed by VP and MAP. The use of MAP showed a with carbon dioxide to extension the shelf-life (approximately four days) of silver carp by inhibiting microbial growth compared to air and VP.

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