



Research Article

Microbiological and sensory evaluation of rainbow trout fillet processed by sous-vide method

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ARTICLE INFO

This article was previously published in Persian Journal of Seafood Science and Technology (2015, 1: 1-6). However, the journal's name was changed to Frontiers in Food, Drug and Natural Sciences (FDNS). For the citation purposes and courtesy of the authors, this article is re-published in FDNS.

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ABSTRACT

This study evaluated the microbiological quality and sensory characteristics of Rainbow trout (*Oncorhynchus mykiss*) fillets processed by the sous-vide method under chilled storage at 4 °C. Two different heat treatments were studied (65 °C for 15 min and 85 °C for 5 min). For this, vacuum packed fillets of Rainbow trout cooked in a water bath. After reaching a core temperature of 65 and 85 °C, cooking was prolonged for 15 and 5 min, respectively for first and second treatment, then samples were stored in refrigerator (4 °C) for 21 days. Results showed that microbial counts decreased by increasing the heating temperature and increased by increasing storage time. The heat treatment of 85 °C was the most effective one to ensure the safety and extend the shelf life of sous-vide trout fillets to preserve the sensory characteristics. Based on these results, sous-vide samples had an acceptable sensory quality after 21 days of storage at 4 °C.

Keywords: Fish; Microbial quality; Shelf life; Sous-vide.