



OLIVE LEAF EXTRACTS APPLICATION FOR SHELF LIFE EXTENSION OF VACUUM-PACKED FRIGATE MACKEREL (*AUXIS THAZARD*) FILLETS

Talal Lahreche¹✉, Mustafa Durmus², Elif Tugce Aksun Tümerkan^{3,4}, Taha-Mossadak Hamdi¹, Fatih Özogul²

¹Laboratory of Food Hygiene and Quality Insurance System (HASAQ), High National Veterinary School, Issad Abbes Avenue, Oued Smar, Algiers, Algeria.

²Department of Seafood Processing Technology, Faculty of Fisheries, Cukurova University, Adana, Turkey.

³Department of Bioscience, University of Exeter, Cornwall, United Kingdom.

⁴Department of Technical Research and Quality Control, General Directorate of State Hydraulic Works (DSİ), Ankara, Turkey.

✉t.lahreche@etud.ensv.dz

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ABSTRACT

The current study was aimed at investigating the impact of olive leaf extracts (OLE) on the quality parameters of white and dark muscles from fillets of frigate mackerel (*Auxis thazard*) stored under vacuum pack (VP) at a refrigerated temperature ($3\pm 1^\circ\text{C}$). The sensory assessment indicated that both muscle types of frigate mackerel had 12 days of shelf-life, while the application of OLE extended the shelf-life by 3 and 6 days in the white and dark muscles, respectively. However, total volatile base-nitrogen exhibited a longer shelf-life in all samples, while thiobarbituric acid values showed shorter shelf-life for control samples. OLE application initiated the lipid peroxidation in white muscle at an early stage of storage and improved the microbiological quality of both muscles by reducing bacterial growth. An assessment of various texture related parameters indicated that VP alone could not enhance the textural quality in both muscles, while OLE improved adhesiveness and circumvented the softening of both frigate mackerel muscles.
