

QUALITY AND FRESHNESS EVALUATION OF ALBANIAN SARDINES (*SARDINA PILCHARDUS*) DURING FROZEN STORAGE CONDITIONS

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Abstract

The quality and shelf life of sardines (*Sardina pilchardus*) stored in frozen conditions (-18 °C) has been evaluated in this study. Freshness and quality changes in the ice-stored fish were investigated by physico-chemical and microbiological analyses. TVB-N and pH values were determined for 30 days of the storage, while TBA, FA (ex) and FA (dext) values were determined for 60 days. It has been found that the chemical indicators of spoilage, total volatile basic nitrogen and trimethylamine values obtained ranged from 11.7 –16.8 mg per 100 g and 0.14–0.65 mg per 100 g, respectively. Thiobarbituric acid values remained in low levels during storage regime. During all the period being analyzed has been found that the level of histamine did not exceed the legal limit in all samples. Along the storage period it has been established that all quality criteria for the acceptability of the sardine, were not reached to the maximum limits.

Keywords: *Sardine, freshness, histamine, quality changes, frozen storage.*