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SHELF LIFE AND CONTAMINATION INDICATORS OF SHRIMP FROM JAZZAN (SAUDI ARABIA)

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ABSTRACT

The objective of this study was to determine the shelf life of whole shrimp from Jazzan waters. The shrimp samples were collected from five fish companies at Jeddah fishery wholesale center. Samples were stored in ice and assessed for microbial, chemical, and sensory changes (for raw and cooked) every 72 hr for 9 days.

Microbial results indicated that psychrotrophic counts increased significantly from 6.25-6.92 to 8.26-8.47 log CFU/gm, while the mean of coliform counts (1.36-2.42 log MPN/gm) and staphylocccci (3.02- 3.74 log CFU/gm) did not increase significantly (P> 0.05) throughout storage time. The levels (mean) of total volatile basic nitrogen (TVB-N) at day six were in the range of 30.3 – 63.35 mg/100gm. Slight increase of pH from 7.27-7.34 to 7.64-7.72 over the storage period was noticed. Panelists rejected all raw samples based on overall acceptance at day six, while all cooked samples were rejected in the same day based on all tested sensory attributes. From this study, changes most indicative of ice-stored shrimp were microbial count and sensory attributes followed by TVB-N and pH.