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The Determination of Total Microbial Count and Prevalence of Salmonella in the Shrimp Supply in Khuzestan Province

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Abstract : Salmonella is one of the major causes of foodborne diseases throughout the world. Shrimp are an important commodity in world fishery trade. The microbiological quality of shrimp must be evaluated for assurance of shrimp. The aim of this study was to evaluate the microbiological quality and to determine the prevalence of Salmonella in shrimp sold in Khuzestan province. In this study, a total of 245 samples of shrimp sold in Khuzestan province were tested for Salmonella prevalence and total microbial population. The mean aerobic bacterial count in 50.2% of samples was 2200, in 29.8% of samples was 13,600, in 20% of samples was 36,700, and the mean aerobic bacterial count in the total samples was 20,000. (20,000 cfu/cc). Of the total samples, 33 samples were positive for Salmonella and the prevalence of Salmonella was determined 13.4%. These results indicate the possibility that shrimp contribute to foodborne infections. The improvement of shrimp quality is an important issue, and shrimp before consuming should be washed with water containing chlorine, with the aim of increasing safety. In addition, it should be avoided to eat shrimp as raw or not cooked properly.

Keywords : determination, total microbial, Salmonella, shrimp
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