عنوان مقاله:

Microbiological Quality and Safety of Retail Chicken and Beef Products in Lebanon

محل انتشار:

فصلنامه کنترل کیفیت مخاطرات مواد غذایی, دوره 7, شماره 2 (سال: 1399)

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خلاصه مقاله:

Background: Controlling and reducing the food-borne illnesses remain one of the most challenging problems encountered by food authorities worldwide. This study was conducted to assess the microbiological quality of chicken breast, chicken liver, local and imported offal, and ground beef meat products sold in the Lebanese retail market. Methods: Thirty-five chicken breast and liver samples produced by ISO 22000 certified and non-certified companies were purchased from the market. Chicken samples were tested for Total Aerobic Count (TAC), Total Coliforms (TC), Staphylococcus aureus, Salmonella spp., and Listeria monocytogenes. Twenty offal and ground beef meat samples were collected as sold in bulk from the market and were analyzed for Escherichia coli O157:H7. Statistical analysis was performed using SPSS statistical software v. 23.0. Results: The results showed that 20, 100, 20, 80, and 0% of the analyzed chicken breast samples were rejected for TAC, TC, S. aureus, Salmonella spp., and L. monocytogenes, respectively. For chicken liver samples, 100% of the samples were rejected for TC and Salmonella spp., while all the samples were accepted for TAC, S. aureus, and L. monocytogenes. E. coli O157:H7 was absent in all meat samples. Conclusion: Some chicken samples from both certified and non-certified suppliers exceeded the standard upper limits showing hygienic concerns; whereas meat products were safe for consumption regarding the pathogenic E. coli O157:H7. DOI: 10.18502/jfqhc.7.2.2885

کلمات کلیدی:

Bacterial Load, Colony Count, Microbial, Meat, Food Safety, Lebanon