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Microbiological quality of soft white cheese produced traditionally in Jordan

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To determine the microbiological quality of soft white cheese, thirty samples were collected from selected dairy workshops and plants in major Governorates of Jordan. Physicochemical analysis were also included in the testing. A questionnaire was filled by interviewing each producer about the quality, safety and processing aspects of the workshops or factories. The averages of log10 of the standard plate count (SPC), lactic acid bacteria count (LABC), enterobacteriaceae count (EntC) and yeast and mold count (Y&MC) of the 30 samples were 8.3, 7.9, 5.4 and 3.0, respectively. A significant positive correlation (0.90) was noticed between SPC and LABC, indicating that most of SPC are LABC. *Staphylococcus aureus* count was between 5-8 log10 CFU/g whereas *Salmonella* was positive in 25 g in three cheeses samples in Madaba and Amman governorates which certainly pose health hazard. The averages of pH, acidity (% lactic acid), moisture and salt (NaCl %) in both (brine and cheese) and ash were 6.0, 0.53%, 56.5%, (12.6%, 9.4), and 9.5, respectively. Fourteen of the samples gave positive results to the alkaline phosphatase test, denoting the probability of using unpasteurized milk in the production. The high microbial content of the cheese samples especially *S. aureus* and presence of *Salmonella* in few samples reflects generally the poor hygienic conditions during production and storage, lack of refrigeration and absence of heat treatment to eliminate microorganisms. It could be concluded also from the results of the questionnaires that there is a lack of standardized method for production and keeping of soft white cheese in Jordan.

Biography

Moawiya A Haddad is an Assistant Professor at Al-Balqa Applied University, Dept of Nutrition and food technology. He has extensive experience in the fields of Antimicrobials and Food Microbiology. In the last five years, he has worked on antimicrobial activity of some Jordanian medicinal plants against some pathogenic microorganisms. He has worked on some probiotic bacteria that produce functional peptides to develop the traditional Jordanian soft white cheese. Other contributions to the field included production of healthy low sodium dairy products, production of healthy probiotic whey drink rich in bioactive peptides from released liquid whey of Jordanian cheeses, using kefir starter cultures for production of novel Jordanian cheese, using plant extracts in reduction of blood glucose in diabetic rats, identification of plant phenolic compounds using LC-MS

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