



The Pasteurization Effects on Micro Flora and the Thermo Resistant of Milk Microorganisms

Amilda Ballata*, Laura Shabani

Tirana University, Natural Sciences Faculty, Industrial Chemistry Department, Tirana, Albania

Received November 20, 2013; Accepted January 23, 2014

Abstract: Through this study aimed to determine and evaluate the quality of pasteurized milk during its lifetime. The samples are taken from seven different commercial milks. All the samples that were analyzed, resulted negative for the phosphatase test, so commercial milks were pasteurized. These analyses were performed on the first day of opening of commercial milk and in the last day of its storage, declared in the product label. Indicators of microbiological quality and freshness of pasteurized milk also were evaluated, by the method of cultivation in standard and selective medium: total count aerobic bacteria in PCA with skim milk; Total coli forms and enterobacter, also the evidence of *E. coli* in Mac Conky medium; Presence of yeast in PDA and mould in Capek. Evaluated the evidence of thermo tolerant microorganisms by thermal treatment in 85°C/10 minutes and after cultivation in PCA. Also the thermo resistant bacteria like *Bacillus stearothermophilus* in DTA medium. An important indices of keeping quality is the presence of *Bacillus cereus* with lecithinase activity, which is determinate by cultivation in selective medium with yolk egg emulsion. Normally the samples that were analyzed resulted conform standards for total count bacteria and thermo resistant bacteria. There were found the presence of yeast and there were not found the presence of mould.

Keywords: *milk, pasteurization, shelf-life, thermo resistant, bacteria, alkaline phosphatase.*

* Corresponding: E-Mail: amildaballata@gmail.com Tel: + 355 69 2806801