BACTERIAL ANALYSIS OF RAW AND PASTURIZED MILK, AVAILABLE IN SELECTED AREAS OF ISLAMABAD, PAKISTAN



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ABSTRACT

In this study, microbial content and biochemical characteristics of raw and pasteurized milk samples, collected from various locations of Islamabad, were studied. The sampling for raw milk was done early morning and evening on daily basis, as per the requirement for raw milk in sterilized plastic bottles according to the standard protocols. The pasteurized milk samples collected were among such brands which are popular and also which are not widely known to be used. The samples were analysed bacteria officially by serial dilution and standard plate count on different microbial official media. The Counts of total bacteria, total coliform, total fecal coliform, E-coli, and Salmonella were determined in milk samples. The microbial analysis of pasteurized milk samples gave no presence of any bacterial colonies on the media plates. Which shows the good microbial quality of pasteurized milk being produced and supplied further while, All the raw milk samples were individually bacteriologically analysed for the total viable count, plus the total coliforms counts by standard plate count method. The bacterial colonies which altered on media plates were characterized by performing various biochemical tests; gram staining, catalase test, oxidase test and the citrate utilization tests. The results of raw milk samples showed that the raw milk samples contain different bacteria which are pathogenic in nature like Salmonella and shigella, E. coli. It demands the regulatory authorities to check and monitor the quality of raw milk being supplied from dairy farms and from local shops. This needs attention from government and from public too, in order to remediate the concerning issue as may cause diseases in people consuming it.

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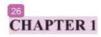
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