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Impact of probiotics on quality of some dairy products

Thesis presented by

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Abstract

A total of 180 samples of yoghurt (small and large scale), soft cheese (Tallaga and Feta) and rayeb milk (small and large scale) 30 of each were arbitrarily collected from variant places as dairy shops and markets in Beni-Suef governorate, Egypt. The results revealed that the mean values of total coliforms were $5.6 \times 10^4 \pm 9.5 \times 10^3$, $6.4 \times 10^3 \pm 1.2 \times 10^3$, $9.6 \times 10^4 \pm 5 \times 10^4$, $1 \times 10^4 \pm 3.5 \times 10^3$, $6.6 \times 10^4 \pm 9 \times 10^3$ and $5.2 \times 10^3 \pm 9.9 \times 10^2$ MPN/ml. or g. ., respectively., while the mean values of feacal coliforms were $5.5 \times 10^3 \pm 1 \times 10^3$, $6.9 \times 10^2 \pm 1.7 \times 10^2$, 1.9 x1 0^4 $\pm 6.6 \times 10^3$, $4.2 \times 10^3 \pm 9.6 \times 10^2$, $1.2 \times 10^4 \pm 4.1 \times 10^3$ and $3.3 \times 10^2 \pm 1.6 \times 10^2$ MPN/ml. or g., respectively., but couldn't isolated E.coli pathogen from any examined samples. In addition to the mean values of *S. aureus* were $5.7 \text{ X } 10^3 \pm 3.2 \text{ X } 10^3$, $9.3 \text{ X } 10^2 \pm 3.9 \text{ X } 10^2$, $4.3 \text{ X } 10^4 \pm 2 \text{ X } 10^4$, $5.1 \text{ X } 10^3 \pm 1.7 \text{ X } 10^3$, $3.6 \text{ X } 10^4 \pm 1.3 \text{ X } 10^4$ and $5.5 \text{ X } 10^2 \pm 2.7 \text{ X } 10^2$., respectively. The mean values of total yeasts and moulds were $2.1 \times 10^5 \pm 7.4 \times 10^4$, $6.6 \times 10^3 \pm 3.2 \times 10^3$, $2.6 \times 10^5 \pm 9.6 \times 10^4$, $2.3 \times 10^4 \pm 6.0 \times 10^3$, $2.2 \times 10^5 \pm 7.5 \times 10^4$, and $4.1 \times 10^3 \pm 1.5 \times 10^3$., respectively .

Also, the result revealed that 60% of examined *S. aureus* strains were enterotoxigenic by multiplex PCR technique as carried one or two se- genes.

The present work evaluated the influence and impact of probiotic as live organisms on the quality of some dairy products " Tallaga cheese and rayeb milk" through estimate chemical and microbial changes during their refrigerator storage especially against *S. aureus* and *C. albicans* organisms.

Keywords: Yoghurt, Soft cheese, Rayeb milk, Coliforms, *S. aureus C.albicans*, enterotoxigen, PCR, probiotic, *L.acidophilus* and *B.bifidum*.

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