



**University of Sadat City
Faculty of Veterinary Medicine
(Department of Food Hygiene & Control)**

**Studies on Antibiotic Resistant Food Poisoning Microorganisms in
Some Dairy Products.**

A thesis submitted by

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7-Summary

Two hundred samples, 50 each of Kareish cheese, Ras cheese, Ice cream and Milk powder were collected from supermarkets, dairy shops and street vendors in El- Gharbia governorate for microbiological analysis.

Microbiological examination of the examined samples revealed that *E. coli* could be detected in 32, 24, 18 and 10% of examined Kareish cheese, ras cheese, ice cream and milk powder samples, respectively.

S.aureus could be detected in 30, 22, 16 and 8% of examined Kareish cheese, ras cheese, ice cream and milk powder samples, respectively.

B.cereus could be detected in 8, 14, 10 and 20% of examined Kareish cheese, ras cheese, ice cream and milk powder samples, respectively.

Enterobacter sakazakii could not be detected in all the examined samples.

Concerning the antibiotic sensitivity test all the isolated isolates were tested against Gentamicin (120µg), Erythromycin (15µg), E-moxclav (30), Ampicillin (10µg), Ciprofloxacin (5µg), Doxycyclin (30), Cefazone (75), Sulphamethaoxazole-trimethoprim (25) and Vancomycin (30).

E.coli isolates were highly resistant to Vancomycin (30µg) and Sulphamethaoxazole-trimethoprim (25µg), while low resistant were to Ciprofloxacin (10µg) and Doxycyclin (30µg). *S.aureus* isolates recorded high resistant against Cefazone (75µg), and low resistant against Ciprofloxacin (10µg). *B.cereus* isolates were highly resistant to Cefazone (75µg), while the low resistant was to Gentamicin (120µg).

Pcr for some antibiotic resistant isolates revealed that that in *E.coli* presence of *blaTEM* (ampicillin resistant strains), *sul1* (sulphamethoxazole resistant) and *dfrA* (trimethoprim resistant) genes in all the strains examined by PCR. *B.cereus* revealed that *TetA*(tetracyclin resistant) and *bla* (beta lactamase resistant) resistant genes were found in all the examined samples while *ermA* (erythromycin resistant) gene were not isolated. *S.aureus* showed that *mecA* (methicillin resistant) gene and *vanA* (vancomycin resistant) gene were

found in only one strain, while *blaZ* (beta lactamase resistant) gene was found in all the examined samples.

Investigation the effect of Pomegranate Fruit peels and *Moringa oleifera* leaves ethanolic extracts at concentration (1& 2% from each extract) on sensory evaluation and their inhibitory effect on EHEC (O111: H2) in yoghurt during storage, proved to all treatments and control yoghurt were acceptable and the count of *E. coli* was significantly reduced during the periods of incubation.