



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
على هذه الأفلام قد أعدت دون أية تغيرات



## يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of  
15 – 25c and relative humidity 20-40 %



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# بعض الوثائق الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل

B.1.1.9

# **SAFETY AND QUALITY OF SOME DAIRY PRODUCTS THROUGH MICROBIAL CRITERIA**

*Thesis Presented*

*By*

***Hatem Mohamed Ahmed Khair Allah***

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**Faculty of Veterinary Medicine**

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**UNDER THE SUPERVISION OF**

**Prof. Dr. Abbas Amin Ahmed**

Professor of Milk Hygiene  
Faculty of Veterinary Medicine  
Alexandria University

**Prof. Dr. Ahlam Amin El-Leboudy**

Professor of Milk Hygiene  
Faculty of Veterinary Medicine  
Alexandria University

**Dr. Ashraf Mohamed Nazem**

Assistant Professor of Milk Hygiene  
Faculty of Veterinary Medicine  
Alexandria University

بسم الله الرحمن الرحيم

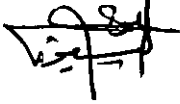
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لذلك

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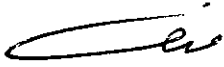
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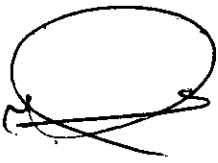
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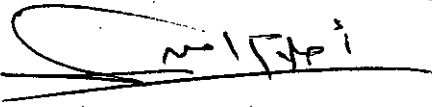
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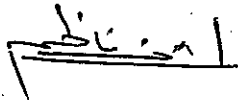
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*To*

*My Father,*

*My Wife Hanan,*

*My Children*

*Yara & Ahmed and*

*The Soul of My Mother*

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## ARABIC SUMMARY

# *Introduction*

# 1. INTRODUCTION

Soft cheeses are excellent dietary sources of high quality animal protein, high level of calcium, phosphorus, vitamin A, riboflavin and other members of vitamin B-complex. They have milk fat of high calories, easily digestible sugars and fat soluble vitamins which are essential for health development of infants, and as a good supplement for different diets of all ages.

Soft cheeses (Kareish and Damietta) are manufactured in Egypt by farmers, dairy shops, private and large modern factories. Kareish cheese is a popular article consumed in Egypt due to its low price and its high nutritive value. Such product is made at times by farmers from naturally fermented skim milk. Damietta cheese is the most popular white soft cheese in Egypt as well as some Arabic countries. It may be consumed either fresh or after maturation in salted whey usually at high ambient temperature.

Unsanitary cheese manufacture and handling may produce cheese mostly contaminated with different types of microorganisms, gaining access to the product from various sources of contamination (*Ahmed and Sallam, 1991*).

Total counts of bacteria are the most useful indicator of microbiological status of dairy products. A high viable count often indicates contamination of raw material, unsatisfactory sanitation or unsuitable time

and temperature conditions during storage and/or production (*Mossel, 1983*).

*Law et al. (1976)* detected rancidity and soapy off-flavours after 2 - 4 months in cheese made from pasteurized milk due to the presence of psychrotrophs in cheese. High level of psychrotrophs in cheese may lead to texture problems. Off-flavour development in several cheese samples with psychrotroph counts of  $10^6$  CFU/ml was noted after only 3 months maturation (*Hicks et al., 1986* and *Banks et al., 1988*).

High Coliform content in these products induce undesirable changes that lower their quality or even render them unmarketable (*Foster et al., 1958* and *APHA, 1985*).

Faecal Coliforms are widely distributed in nature. They gain entry to milk products through the water supply, equipment, unhygienic conditions of production and handling (*Hafez, 1984*). *E. coli* which may contaminate soft cheese are considered as index of faecal contamination as they are commonly found in the alimentary tract of animals and man, hence the possible presence of other enteric pathogens is expected (*Chhabra et al., 1982; ICMSF, 1982; Krieg and Holt, 1984* and *Shelaih et al., 1987*).

Enterococci are widely distributed in nature. They gain entry into milk and milk products through the water supply, equipment and unhygienic conditions of production and handling. They have been incriminated as