بسم الله الرحمن الرحيم


# شبكة المعلومـــــات الجامعية

# التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

# جامعة عين شمس

## التوثيق الالكتروني والميكروفيلم

## ﴿ قـــســـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية 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 %**


# بعض الوثائق الأصلية تالفة


# بالرسالة صفحات

# لم ترد بالأصـــل

# MICROBIOLOGICAL STUDIES ON MILK AND DAIRY PRODUCTS

BY
*MOHAMED ISMAEL AHMED HASHEM*

A Thesis Submitted in Partial Fulfillment
Of
The requirements for the degree of

**Doctor of Philosophy**

In

Agricultural Science
**(Dairying)**

Department of Food Science
Faculty of Agriculture
Zagazig University
2002

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*BY*

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B. SC. (1984) Food Science

M. SC. (1993) Dairying

This thesis for PhD degree has been

Under the supervision of :

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**Approval Sheet**

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# ABSTRACT

This study aims to produce a Mini Ras cheese with good microbiological quality. The Mini Ras cheese must avoid the problems which face the traditional Ras cheese by some changes in the technological steps .The use of heat shocked starter culture in order to enhance ripening process .In the mean time the low fat and low salt Mini Ras cheese is considered to be an important task to meet the needs of people with special needs

**The study was carried on the following parts :-**

**Part 1**: Processing of mini Ras cheese from different mixtures cow's and buffaloe's milk

**Part2** :Acceleration of Mini Ras cheese ripening with heat-shocked starter culture .

**Part3** : Processing of low fat mini Ras cheese .

**Part4** : Processing of low salt mini Ras cheese

**The following conclusion can be observed :-**

1-In order to manufacture mini Ras cheese the most suitable ratio of cow's and buffaloe's is (2:1)

2-The use of heat –shocked *P.acidilactis* enhanced the ripening of mini Ras cheese.

3-The production of low fat Mini Ras cheese with good quality can be obtained by the use of Zabadi starter in addition to heat –shocked *P. acidilactis* .

4-The low salt Mini Ras cheese can be made with the youghurt starter *streptococcus salivarus* subsp *thermophilus* +*L. delberuckii* subsp *bulgaricus* and temperature of storing must be reduced .

# ACKNOWLEDGEMENT