



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

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

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15 – 25c and relative humidity 20-40 %



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بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات
لم ترد بالأصل

**MODERN AND MODIFIED TECHNIQUES
FOR
STAPHYLOCOCCI TOXINS ASSAY**

BY

ZEINAB IBRAHIM MOHAMMAD SADEK

B.Sc.Agric. (Food Technology) Cairo Univ., (1976)

M.Sc.Agric (Dairying) Cairo Univ., (1986)

A thesis submitted in partial fulfillment
of
the requirements for the degree of

DOCTOR OF PHILOSOPHY

IN

**Agricultural Science
(Dairy Science and Technology)**

**Department of Food Science
Faculty of Agriculture
Ain Shams University
1996**

B912V1

Approval Sheet

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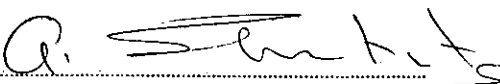
This thesis of Ph. D. Degree has been approved by:

Prof. Dr. T. A. NASSIB



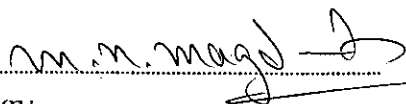
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Date of examination 5 / 3 / 1996

FOR

Technology

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**BY
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B.Sc.Agric. (Food Technology) Cairo Univ., (1976)
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Abstract

Zeinab Ibrahim Mohammad Sadek. Modern and modified techniques for staphylococci toxins assay. Unpublished Doctor of Philosophy dissertation, University of Ain Shams, 1996.

Evaluation and standardization of different Staphylococcal enterotoxin assay techniques (Microslide double gel-diffusion, Electroimmunodiffusion, Reversed passive latex agglutination and Enzyme linked immunosorbent assay) were carried out for standard reference enterotoxins A,B and D. Evaluation was achieved by measuring and comparing the method sensitivity and confirmatory responses. The resulting standard curves and assay by these methods were reapplied on laboratory produced enterotoxins for further evaluation.

Evaluation of the applicability of these methods for assay of reference enterotoxins types A,B and D seeded in milk, Domiati and Ras cheeses, were implemented. In addition, assay of enterotoxin A,B and D produced by *S.aureus* different strains inoculated in raw, pasteurized milk and Domiati, Gouda and Ras cheeses was studied using the different methods.

The RPLA and ELISA methods showed the higher sensitivity than Microslide double gel-diffusion and Electroimmunodiffusion methods. Moreover, ELISA was found as the most sensitive and confirmatory method for detection of staphylococcal enterotoxins

Based on the examination purpose, the most reliable methods were:

1. ELISA (Sensitivity = 1.0 ng/ml, 90 min. to get a results) was the preferable method for very accurate, very fast, testing trace amount of SETs.
2. RPLA (Sensitivity = 1.25-1.5 ng/ml, 24 h. to get a result). was the preferable method for identifying the type of SETs and estimated concentration.

3. Electroimmunodiffusion (Sensitivity = 125 ng/ml, 48h. to get a result) for identifying SETs with approximate toxin concentration and low costs).
4. Microslide (Sensitivity = 125 ng/ml, 72-96h. to get a result) for identifying SETs with approximate toxin concentration and very low costs).

Key words: *S.aureus*-Enterotoxins-Microslide double gel diffusion-Electroimmunodiffusion - Reversed passive latex agglutination (RPLA)-Enzyme linked immunosorbent assay (ELISA) - Milk-Cheese.

ACKNOWLEDGMENT

The author would like to express her gratitude and sincere appreciation to Prof. Dr. M.N.Magdoub, Professor of Dairy Microbiology, Faculty, of Agriculture, Ain Shams University, Prof. Dr.M.M Sabbour, Professor of Dairy Microbiology, Dairy & Food Technology Department, National Research Center and Dr. A.M. Gaafar, Associate Professor of Dairy Science & Technology, Faculty of Agriculture, Ain Shams University, for their kind supervision, valuable suggestions, continuous encouragement and valuable advice.

Many thanks and appreciation would also be expressed to Dr. K. R. EL. Dairouty, Associate Professor of Dairy Microbiology, Dairy & Food Technology Department, National Research Center, for his great help and guidance he afforded during all stages of this work.

The author appreciates the help and cooperation of her colleagues in the Dairy Research Laboratory, National Research Center and Department of Food Science, Faculty of Agriculture, Ain Shams University.

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