



شبكة المعلومات الجامعية

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شبكة المعلومات الجامعية

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# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

## قسم

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



## يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of  
15-25- c and relative humidity 20-40%

# بعض الوثائق الأصلية تالفة



# بالرسالة صفحات لم ترد بالاصل

Tanta University, Kafr El-Shoikh  
Faculty of Veterinary Medicine  
Department of Food Hygiene



*See*

*Incidence of some food poisoning microorganisms in  
some meat products in El Gharbia Governorate*

*A Thesis  
Submitted to Faculty of Veterinary Medicine,  
Kafr El-Sheikh, Tanta University  
For the degree of Ph.D in Veterinary Science  
(Meat Hygiene)*

By  
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(B.V. Sc., 1988) Alexandria University, Edfina  
M. V. Sc., Zagazig University, Benha Branch (1996)

Under Supervision of  
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Researcher in Animal Health Institute  
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1999

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Faculty of Veterinary Medicine  
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وقل رب زدني علما

صدق الله العظيم

الآية (١١٤) سورة طه

***Dedicated To:***

***My parents,***

***Husband***

***And Sons.***

*Tanta University-Kafer El-Sheikh  
Faculty of Veterinary Medicine  
Department of Food Hygiene, and Control.*

**APPROVAL SHEET**

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# INTRODUCTION

## *1- Introduction*

Meat and meat products has been one of the most important beneficial food for most people in all countries due to their high levels of protein, vitamins and some minerals. Therefore meat and its products are excellent media for the growth of many micro-organisms especially food poisoning types, which widely distributed in nature (Bachill and Jaiswal, 1988). Processed meat products may affect the public health due to the presence of spoiling and/or pathogenic micro-organisms which leading to infection or intoxication (Libby, 1975; Hanninenes, 1980 and FAO/WHO, 1983).

Handling of meat and its products and improper heating act as an important vehicle of infection and may cause human food poisoning. Such foods are safe when properly heated and hygienically handled (Mahoney and Campbell, 1983; Mates, 1983; Norman and Carl, 1985; Troller, 1986; Rao and Ramesh 1988).

In fresh meat high total counts indicate that the meat was either of poor sanitary quality begin with or has exposed to conditions favouring bacterial proliferation. Meat is fit for human consumption when surface counts are  $< 10^6$  /cm<sup>2</sup> and interior counts  $< 10^5$ /g (Levine, 1961; Longree, 1972; Hyyliainen et al 1975 and Mates, 1983).

Enterobacteriaceae is considered to be an indicator of faecal contamination and cause intestinal infection and food poisoning (Mira, 1989).

Salmonella spp., Staphylococcus aureus and E. coli infection are the main organisms that cause food poisoning. Meat was the vehicle of transmission of such organisms which affecting the consumers (Nubbut et al, 1982; Todd, 1983; Macdonald, 1986; Todd, 1989; and FAO, 1990).