

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



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
على هذه الأفلام قد أعدت دون أية تغييرات



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%

بالرسالة صفحات
لم ترد بالأصل

بعض الوثائق
الأصلية تالفه

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**EVALUATION OF SOME COMMERCIAL
DISINFECTANTS AGAINST SOME
BACTERIAL PATHOGENS**

Thesis presented
By

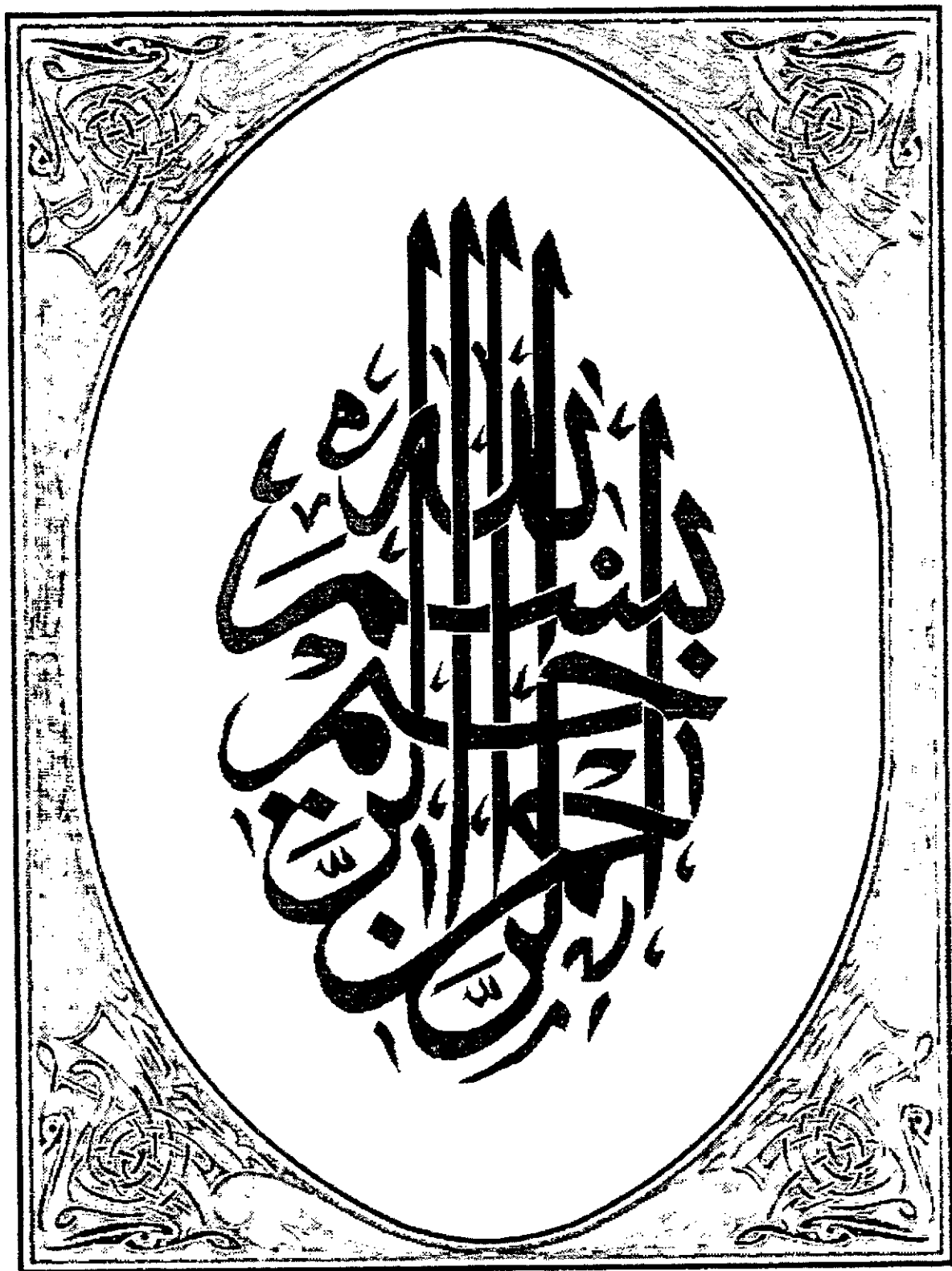
Ashraf Hegazy Mohamed El.Swaf
(B.V.Sc. ,Cairo university , 1983)

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بسم الله الرحمن الرحيم
قرار لجنة الحكم والمناقشة

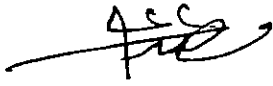
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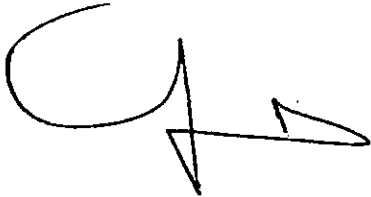
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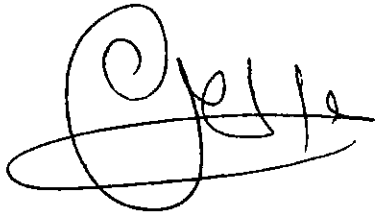
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1. INTRODUCTION

1. INTRODUCTION

The veterinary application of chemical and physical means of disinfection play an important role in prevention and control of different pathogens. Chemical disinfection have an important applications in animal buildings, pens, vehicles, incubators, egg trays, dairy practice, and chemical treatments for waste materials.

The relationship between chemical structure and antimicrobial activity of chemical disinfectants play a role in the field of veterinary disinfection to break the cycles of infectious diseases among animals and birds. The disinfection vary to some extent in certain characteristics such as speed of action , spectrum of antimicrobial activity , degree of retention of activity in the presence of organic matter , reactivity with metals, paints and plastic, toxicity and tainting properties and compatibility with particular detergents(*linton, et al. 1987*).

The cleaning routine is the most effective part of disinfection and the surfaces must be contact with the disinfectant for sufficient time to ensure the maximum kill of microorganisms.

Each type of chemical disinfectant has a characteristic spectrum of germicidal effect under optimal conditions relating to several parameters influence the in - use activity of antimicrobial agents. These include the

concentration of the agent, the number, type, condition and location of microorganisms, the temperature and PH of treatment, and the presence of extraneous material such as organic or other interfering matter. Microbial death depends markedly on the period of contact and concentration with disinfectant which it is being applied (*Linton, et al. 1987*).

Different groups of bacteria vary in their susceptibility to biocides, with bacterial spores being the most resistant, followed by mycobacteria, then Gram-negative organisms, with cocci generally being the most sensitive. This resistance might, in some instances, be associated with constitutive degradative enzymes but in reality is more closely linked to cellular impermeability (*Russell 1999*).

Some bacterial pathogens cause veterinary health problems such as *Staphylococcus aureus* was incriminated in a variety of animal diseases such as mastitis in cattle, sheep and goats, tick pyaemia in lambs, botriomycosis in horse and exudative epidermiditis in suckling pig. Moreover, *Staphylococcus aureus* was known to be responsible for numerous suppurative lesions of animals. (*Merchant and Packer, 1969*). *Streptococcus faecalis* in soil or air indicated pollution with human and animal excreta. Mastitis and urinary infection in cattle were reported to be due to *Streptococcus faecalis* (*Buxton and Fraser, 1977*). *Escherichia coli* was incriminated most of the cases of calf dysentery (*Cruickshank, et al. 1982*). Moreover, it was also recorded to be responsible of cystitis in

man and animal, meteritis, joint-ill and polynephritis (*Buxton and Fraser, 1977*). *Pseudomonas aeruginosa* was responsible of mastitis and woundinfections in domestic animals. In addition, this organism is associated with enteritis, pertonitis, arthritis and pneumonia in calves (*Buxton and Fraser, 1977*).

The aim of this study to evaluate the laboratory bactericidal effect of some disinfectant in the absence and presence of organic matter as well as to recommend the proper concentration of disinfectants and time of application to be used for prevention and control of some pathogens in veterinary practice.