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بالرسالة صفحات

لم ترد بالأصل

HOSSAM MAGHRABY

CONTROL OF MYCOPLASMA GALLISEPTICUM INFECTION IN COMMERCIAL CHICKEN FLOCKS VIA VACCINATION.

THESIS
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بسم اللہ الرحمن الرحیم

To my daughters Tasneem and Hadeel and to my husband Dr. Ahmed ZAITOUN.

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INTRODUCTION

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During the past decades, the economic importance of poultry industry is increased allover the world for many reasons encountered by Sturkie (1986) and Jordan (1990) who focused principally on the attractiveness and acceptability of poultry meat and eggs to many people, and the perceived healthfulness of poultry meat in human diets as well as the rapid efficiency of poultry in converting plant protein into animal protein. Therefore, diseases reduceing feed conversion and lowering the egg production are considered one of the major enemies to the poultry industry.

Avian mycoplasmosis is one of major field problems of the poultry industry. Documents on avian mycoplasmosis were frequently reported in different governorates of Egypt (El-Shater, 1986; Taha et al., 1991; Ali, 1991 and Dardeer, 1996) This may refer to the spread of infection throughout the Egyptian land, and consequently precautions should urgently be taken.

Two types of chicken mycoplasmas has been frequently incriminated as etiological agents responsible for mycoplasmosis, ***Mycoplasma synoviae*** and ***Mycoplasma gallisepticum*** (Ewing et al., 1996). The latter mycoplasma appeared to be more prevalent than the former in Egypt (Taha et al., 1991; Dardeer, 1996 and Aly, 1998).

From the economic point of view, in addition to the serious respiratory problems induced by the primary and/or the secondary role of mycoplasma infection, slower and inefficient growth of the infected bird, downgrading of carcasses of broiler, significantly reduced feed conversion, and reduced egg production and hatchablity rates were also encountered as an economic loss of broiler and layer flocks due to ***Mycoplasma gallisepticum*** infection. Furthermore, ***Mycoplasma gallisepticum*** infection may produce a diamond chance for development of some devastating viral diseases like infectious bronchitis and Newcastle disease (Amin and Jordan, 1979; Khan et al., 1986; Mohammed et al., 1987; Whithear et al., 1990a ; Taha et al., 1991; Evans et al., 1992 and Brown et al., 1995). Recently, embryonic death of the fertile eggs and the undesirable alterations in the embryonic development due to ***Mycoplasma gallisepticum*** were also reported by Fiorentin et al. (1997). Because of the highly significant economic losses caused by ***Mycoplasma gallisepticum*** infection in poultry farms, control of that microorganism is becoming a crucial goal.

There is no doubt that the fundamental base for control of ***Mycoplasma gallisepticum*** in poultry farms is by keeping the breeding stock free of infection. Otherwise, culling of the infected flocks (eradication) may have a beneficial value (USDA-NPIP, 1989 and Whithear et al., 1990a). Unfortunately, it appears under the