شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

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 الوثائـــــــق الاصليـــــة تالفـــة

بالرسالة صفحات لم ترد بالاصل

BREEDING FOR IMMUNE RESPONSE

IN JAPANESE QUAIL

Pre[illegible]ongour

Thesis presented

By

Mohammed Atef Youssef Helal

(B.V. Sc, 1990, M.V. Sc., 1994)

For

The Ph. D. Degree

Animal Breeding and Production

(Poultry Breeding)

To

Animal Husbandry Department

Faculty of Veterinary Medicine

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(1999)

بسم الله الرحمن الرحيم

قـــرار لجنة الحكم والمناقشة

قامت لجنة الحكم والمناقشة بفحص الرسالة وترى أنها اشتملت على بحث هـادف ومواضيـع لها أهميتها فى مجال التربية والإنتاج الحيوانـى (تربيـة دواجن) كمـا قـامت اللجنـة بمناقشـة المتقدم مناقشة مستفيضة ووجدت أنه ملم إلماما تاما بكل ما جاء بها.

لـــــــــــــــــذلك

قررت اللجنة ترشيح السيد ط.ب/ محمد عاطف يوسف هلال للحصول على درجة دكتوراه الفلسـفة فى العلوم الطبية البيطرية ـ التربية والإنتاج الحيوانى (تربية وإنتاج الدواجن)

اللجنـــــــــــــــــــة

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Introduction

INTRODUCTION

Survival and health of poultry are fundamental for efficient production. Infectious diseases are responsible for major economic losses in poultry industry. Although vaccines and medicines are widely used for prevention and treatment, they represent an expense and a reduction in their use may be required for ethical reasons.

Economic losses caused by avian diseases may result from mortality, morbidity, negative effects of subclinical infections, costs of vaccination, medication, and other veterinary care, reduced genetic gain from selection, and deterioration of human health from zoonotic diseases, and cost of laboratory safety precautions would also share in aggregation of this damage.

Efficient poultry production is dependent upon a properly functioning immune system to defend against disease. Modern management practices, which strive to protect animals by isolation from disease agents or by induction of vaccination immunity, may be antagonistic to natural genetic selection for disease resistance and may allow genetic susceptibility to increase in a breeding population.

Genetic selection for increased immune responsiveness and disease resistance can make permanent improvements in fitness and also enhance vaccine effectiveness. Improving disease resistance via genetic selection is a desirable approach for many reasons. Although the progress per generation may be small,

it is heritable and therefore cumulative over generations. Improved immunoresponsiveness conserves natural resources by decreasing losses in production efficiency due to the presence of disease. Animal well being is enhanced by greater resistance to disease.

The aim of the present work was to investigate the effectiveness of divergent selection for immune response to inactivated Newcastle disease virus vaccine and to study the resulted correlated responses of body weight at different ages, egg production, egg weight, fertility and hatchability, some serum parameters and phagocytic activity. In addition, genetic parameters; heritability, genetic and phenotypic correlations of the studied traits will be estimated.

Review Of Literature

REVIEW OF LITERATURE

I. Selection:

There are two ways in which the action of the breeder can change the genetic properties of the population; the first is the selection and the second is the mating system. Selection is an important tool for changing gene frequencies for better fit individuals for a particular purpose. Selection, means breeding from the best individuals whatever "best" may be. **Falconer (1989)** stated that artificial selection produces changes of the population mean through changes of gene frequency by separating the adult individuals of the parent generation into two groups, the selected and the discarded, that differ in gene frequencies. Natural selection operating through differences of fertility among the parent individuals or of viability among their progeny. Thus there are three stages at which change of gene frequency may result from selection: the first through artificial selection among the adults of the parent generation; the second through natural differences of fertility also among the adults of parent generation and the third through natural differences of viability among the individuals of the offspring generation.

II. The avian immune system:

The fowl employs various protective mechanisms to promote survival as being discussed by **Siegel, 1980.** These mechanisms can be classified as specific or non-specific. Non-specific reactions are the stress response and the non-immunological action of macrophages, complement, lysozyme, and interferon. The immune system reacts specifically against invading organisms, in close cooperation with non immunological functions and interacting with stress response.