بسم الله الرحمن الرحيم

∞∞∞

تم رفع هذه الرسالة بواسطة / سامية زكى يوسف

بقسم التوثيق الإلكتروني بمركز الشبكات وتكنولوجيا المعلومات دون أدنى مسئولية عن محتوى هذه الرسالة.

ملاحظات: لا يوجد

STUDIES ON SOME IMMUNE AND PRODUCTIVE PERFORMANCE OF SOME LOCAL AND ADAPTED STRAINS USING MODERN SNAPS TECHNIQUES

By

HABIBA HASSAN REZK MAHMOUD
B. Sc. Agric. Sc. (Poultry Production), Faculty of Agriculture, Ain Shams University, 2013
M. Sc. Agric. Sc. (Poultry Production), Faculty of Agriculture, Ain Shams University,2018

A Thesis Submitted in Partial Fulfillment
Of
The Requirements for the Degree of

DOCTOR OF PHYLOSOFY
in
Agricultural sciences
(Poultry Breeding)

Department of poultry production
Faculty of Agriculture
Ain Shams University

2022

Approval Sheet

STUDIES ON SOME IMMUNE AND PRODUCTIVE PERFORMANCE OF SOME LOCAL AND ADAPTED STRAINS USING MODERN SNAPS TECHNIQUES

By

HABIBA HASSAN REZK MAHMOUD

B. Sc. Agric. Sc. (Poultry Production), Fac. of Agric., Ain Shams Univ., 2013
M. Sc. Agric. Sc. (Poultry Production), Fac. of Agric., Ain Shams Univ., 2018

This thesis for PHD. degree has been approved by:

Dr. Hassan Hassan Abdallah Younis **……..**
Prof. of Poultry Breeding, Faculty of Agriculture, vice president of post graduate studies and research Kafrelsheikh University.

Dr. A.Zein El-Dein Hassan Farag **……**
Prof. Emeritus of Poultry Breeding, Faculty of Agriculture, Ain Shams University.

Dr. Ahmed Galal EL-Sayed Gad **……..**
Prof. of Poultry Breeding, Dean Faculty of Agriculture, Ain Shams University.

Dr. Hassan E. Ayoub **……**
Prof. Emeritus of Poultry Breeding, Faculty of Agriculture, Ain Shams University.

Date of Examination: 17 \ 8 \ 2022

STUDIES ON SOME IMMUNE AND PRODUCTIVE PERFORMANCE OF SOME LOCAL AND ADAPTED STRAINS USING MODERN SNAPS TECHNIQUES

By

HABIBA HASSAN REZK MAHMOUD

B. Sc. Agric. Sc. (Poultry Production), Faculty of Agriculture ,Ain Shams University, 2013
M. Sc. Agric. Sc. (Poultry Production), Faculty of Agriculture ,Ain Shams University,2018

Under the supervision of:

Dr. Hassan EL-Sayed Ayoub

Prof. Emeritus of Poultry Breeding, Department of poultry production, Faculty of Agriculture, Ain Shams University

Dr. Ahmed Galal EL-Sayed Gad

Prof. of Poultry Breeding, Department of poultry production, Faculty of Agriculture, Ain Shams University

Dr. Lamiaa Mostafa Radwan

Prof. of Poultry Breeding, Department of poultry production, Faculty of Agriculture, Ain Shams University

ABSTRACT

HABIBA HASSAN REZK. Studies on some immune and productive performance of some local and adapted strains using modern snaps techniques .Unpublished PhD in Philosophy, Ain Shams University, Faculty of Agriculture, Department of Poultry Production, Egypt, 2022.

This experiment was designed to evaluating some productive traits and immune traits of Baladi chickens under heat stress condition and description of Baladi chickens genetically by using modern techniques.

Main results could be summarized as follows:

- Growth characteristics (body weight and body measurement) reflect that males of baladi chickens were significantly heavier than their counterparts at different ages. Also, the heat treatment group induced a significant decrease in body weight compared with the control treatment group for both sexes in parents stock.so, in offspring stock. And, heat treatment induced a significant decrease compared with control group in body weight trait. Also, heat treatment induced a significant decrease compared with control group in all body measurements(shank length, tibia length ,body depth, keel length, comb length and wattle length)
- Feed consumption and feed conversion ratio of baladi chickens recorded at 8-12 weeks of age. The present result showed that the Baladi chickens that was exposed to heat stress significantly consumed less feed from 8 to 12 days of age compared to the control treatment group.
- Phenotypic, the results showed that in the parent stock, at one day of age, orange color (light brown) was the dominant color among the colors within the stock 32% of the all stock, and at the age of 4 weeks, the orange color also appeared to be the dominant color among the colors by 35%. But, the results showed that in offsprings stock, at one day of age, orange color (light brown) was the dominant color among the colors within the stock 40% of the all stock, and at the age of 4

weeks, the orange color also appeared to be the dominant color among the colors by 65%.

- Heat stress measurements (Respiratory rate and rectal temperature) Shows that rectal temperature and respiration rate were significantly higher for the group exposed to heat stress than for the control group for parent stock, in offspring, Shows that rectal temperature and respiration rate were significantly higher for the group exposed to heat stress than for the control group.
- Maturation characters (body weight and body measurements) the results showed that body measurements of sexual maturity were no significantly in all traits (Shank length, Tibia length, Body depth, Keel length, Comb length and Wattle length).
- Production traits (egg weight, egg mass, egg number and egg production percent) the results showed that there is no significant difference between heat treatment and control treatment in the egg number trait. As, in egg mass trait, it was found that the heat treatment was significantly higher than the control treatment in 30 and 90 days of age. But a difference appeared in 150 days of age, where it was found that the control treatment was significantly higher than the heat treatments.
- Internal and external egg quality indicated Show that the effect of significant on the treatment.
- Immunity traits: the antibody titer was higher in control group compared with heat stress group. This shows that immunity is affected under heat stress compared to the control group and exposure to heat stress.
- The gene expression level of CD1b gene and IL4I1 gene expression were highly significant in the control group compared with the heat group.

***Key words*:** Heat stress, baladi free chicken, ELISA, SNAPs, RNA extraction, egg production, egg quality, CD1b gene and IL4I1 gene.

ACKNOWLEDGMENTS

I wish to express my deepest gratitude to **Prof. Dr. H. Ayoub** professor Emeritus of Poultry Breeding, Poultry Production Department, Faculty of Agriculture, Ain Shams University for his constructive guidance, valuable advice, revising the manuscript and continues supporting during this study. And, his valuable feed during this breeding.

I wish to express my deepest gratitude to **Prof. Dr. A.Zein El-Dein** professor Emeritus of Poultry Breeding, Poultry Production Department, Faculty of Agriculture, Ain Shams University for his constructive guidance, valuable advice, revising the manuscript and continues supporting during this study.

Special acknowledgments and deep grateful to **Prof. Dr. A. Galal,** professor of Poultry Breeding, Poultry Production Department, Faculty of Agriculture, Ain Shams University for supporting me in many ways during this study. To support me financially from the beginning of the experiment to its end, as well as morally support and follow-up to me constantly during this study.

I wish to express my sincere gratitude to **Prof. Dr.Lamiaa. M. Radwan,** professor of Poultry Breeding, Poultry Production Department, Faculty of Agriculture, Ain Shams University, encouragement, valuable advice, and remote revising the manuscript.

I wish to express my sincere gratitude to **Prof. Dr.Mahmoud Youssef mahrous,** professor of Poultry Breeding, Poultry Production Department, Faculty of Agriculture, Ain Shams University, encouragement, valuable advice.

My sincere gratitude and sincere thanks to **Dr.Ashraf fawzy syouh**, Faculty of Veterinary Medicine - Zagazig University.

I would like to express all my sincere gratitude and unlimited love to my husband (**Abdallah aziz**). Also, I would like to express all my sincere

gratitude and unlimited love to my **father**, **mother**, **sisters** and **brothers** for their patience, continual encouragement and love.

CONTENTS

LIST OF TABLES

LIST OF FIGURES