

# 127, 17 27, 17 (20) 77, 17 (20









### جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



نقسم بللله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأفلام قد اعدت دون آية تغيرات



### يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15-20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of 15 – 25c and relative humidity 20-40 %



ثبكة المعلومات الجامعية





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# PHYSIOLOGICAL STUDIES OF GONADAL HORMONES ON THE REPRODUCTIVE TRACT OF FEMALE JAPANESE QUAIL

BY

### SAYED AHMED ABDEL-FATTAH MOHAMED.

B. Sc. Agric. Sci. (Poultry Production), Ain Shams Univ. 1993

S. F. S.

Thesis submitted in partial fulfillment of the requirements for the degree of MASTER OF SCIENCE

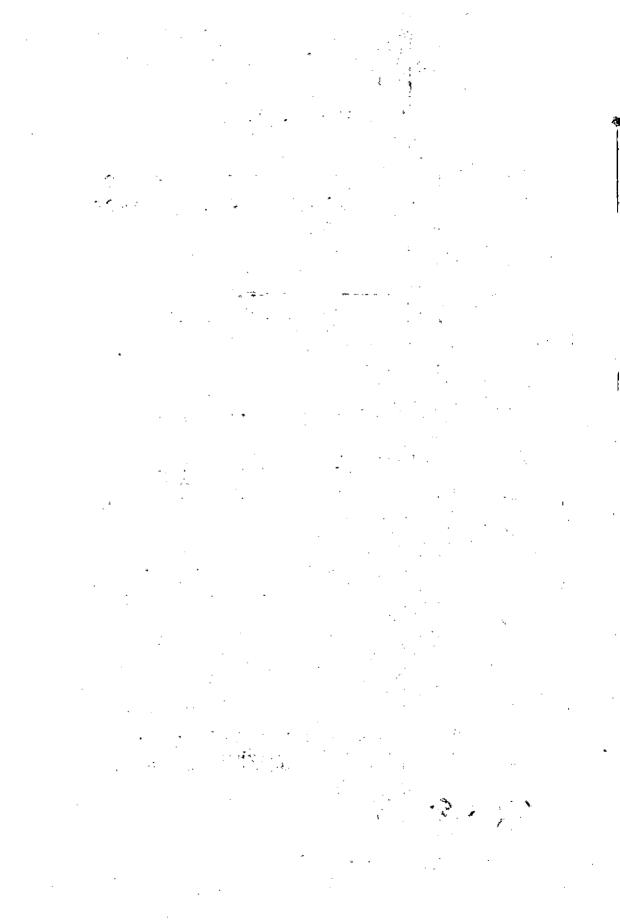
in

Agriculture Science (Poultry Physiology)

Department of Poultry Production
Faculty of Agriculture
Ain Shams University

1999

By CE.



### **APPROVAL SHEET**

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QUAIL

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## SAYED AHMED ABDEL-FATTAH MOHAMED. B. Sc. Agric. Sci. (Poultry Production), Ain Shams Univ., 1993

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#### ABSTRACT

SAYED AHMED ABDEL-FATTAH, Physiological studies of gonadal hormones on the reproductive tract of female Japanese quail. Unpublished Master of Science in Poultry Production (Poultry Physiology), Dept. of Poultry Production Fac. of Agriculture, Ain Shams Univ. 1999.

This study was designed to investigate the effect of estrogen, progesterone and combined administration of both hormones on body weight, egg production, development of the reproductive tract, function of the oviduct as measured by total soluble proteins and histological examination of the tubular gland cells of the magnum and shell gland portions of the oviduct of female Japanese quails

A total of 300 immature female chicks were reared on LD (16:8). They were fed ad Libitum on a commercial ration (23% crude protein and 3000 Kcal M.E./Kg diet). Chicks were randomly divided into t vo groups (A and B) and injected with ovarian hormones at 2 and 3 wks of age in A and B groups, respectively. Each group from A and B included six sub-groups. Three of these sub-groups were injected with estrogen, progesterone or a combination of both hormones at a dosage of 0.5 or 1.0 mg/ chick/ day for 7 d, while the other three sub-groups were served as controls: olive oil, sham and untreated control.

Body weight was recorded weekly from the beginning of treatment in both groups (A and B) till 10 wk of age. Egg weight and egg production were determined throughout the production period.

At 3, 4 and 10 wks of age 185 birds were randomly taken from group A, group B and both groups, respectively slaughtered and autopsied. At autopsy the oviducts were removed, and their weights and lengths were recorded.

The results showed that females received estrogen-progesterone combination at a dosage of 1.0mg/chick/d were significantly lower in

the averages body weight than the other treatments only before sexual maturity.

Chicks that administered with estrogen singly or in combination with progesterone at 2 wk of age (group A) resulted in delay of the age at first egg

and laid significantly less egg number compared with the other treatments.

There was significant increase in the weight and length of the whole oviduct and its portions; magnum and shell gland of immature female Japanese quail given estrogen singly or in combination with progesterone. Moreover, these treatments resulted in significant increase in total soluble protein content and cellular proliferation and differentiation of tubular gland in magnum and shell gland.

The morphological and histological observations of the whole oviduct and its portions; magnum and shell gland of mature female Japanese quail at 10 wk of age in both groups (A and B) revealed that all hormonal treatments were insignificantly different from control group.

Key words: estrogen – progesterone – oviduct – Japanese quail – tubular gland – magnum – shell gland – egg production – body weight– reproductive tract – soluble protein.

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