



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون أية 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 %



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات
لم ترد بالأصل

EFFECT OF PROSTAGLANDINS ON SOME PHYSIOLOGICAL AND REPRODUCTIVE CHARACTERS IN SOME BIRDS

BY

NEMATALLAH GAMAL EL-DIEN MOHAMMAD ALI

B. Sc. Agric. Sci. (Poultry production), Ain Shams Univ., 1987

M.Sc. Agric. Sci. (Poultry Physiology), Ain shams Univ., 1992

**Thesis submitted in partial fulfillment
of
the requirements for the degree of
DOCTOR OF PHILOSOPHY**

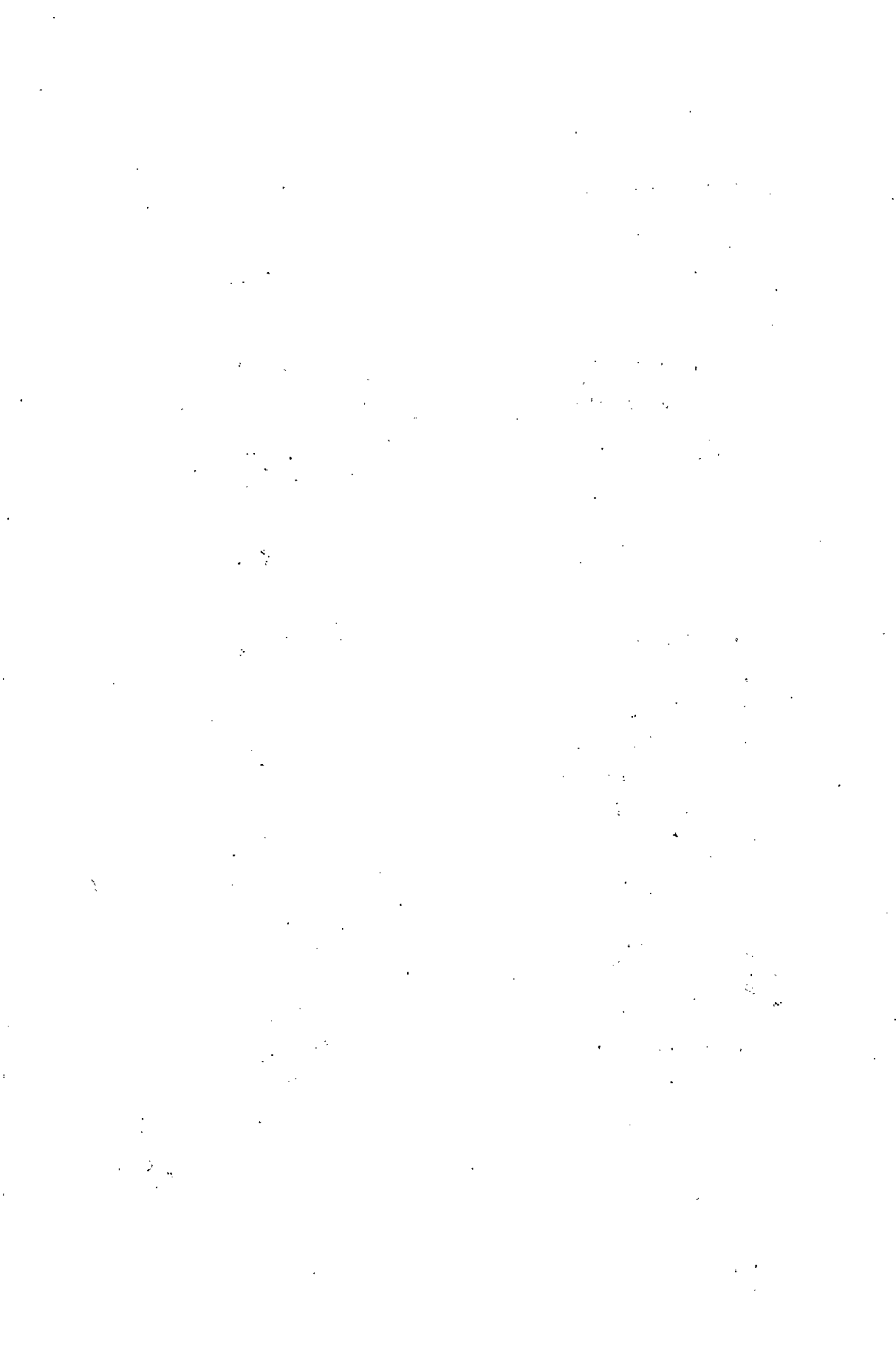
in

**Agriculture Science
(Poultry Physiology)**

**Department of Poultry Production
Faculty of Agriculture,
Ain Shams University**

1998

B
9424



APPROVAL SHEET

EFFECT OF PROSTAGLANDINS ON SOME PHYSIOLOGICAL AND REPRODUCTIVE CHARACTERS IN SOME BIRDS


BY

NEMATALLAH GAMAL EL-DIEN MOHAMAD ALI

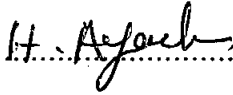
B. Sc. Agric. Sci. (Poultry production), Ain Shams Univ., 1987

M.Sc. Agric. Sci. (Poultry Physiology), Ain shams Univ., 1992

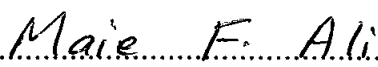
This thesis for Ph. D. degree has been approved by:

DR. M.G. KAMAR.....

Professor of Poultry Physiology, Fac. of Agric., Cairo University.

DR. H. E. AYOUB.....

Professor of Poultry Breeding, Fac. of Agric., Ain Shams University.

DR. MAIE F. ALI.....

**Professor of Poultry Physiology and Head of Poultry
Production Department, Fac. of Agric., Ain Shams University.**

Date of examination: 11 / 2 /1998

EFFECT OF PROSTAGLANDINS ON SOME PHYSIOLOGICAL AND REPRODUCTIVE CHARACTERS IN SOME BIRDS

BY

NEMATALLAH GAMAL EL-DIEN MOHAMMAD ALI

B. Sc. Agric. Sci. (Poultry Production), Ain Shams Univ., 1987

M.Sc. Agric. Sci. (Poultry Physiology), Ain shams Univ., 1992

Under the supervision of:

DR. MAIE F. ALI

**Prof. of Poultry Physiology, and Head
Poultry Production Department,
Faculty of Agriculture,
Ain Shams University**

DR. MAHMOUD A. ELAROUSSI

**Associate Prof. of Poultry Physiology,
Applied Biological Department,
Nuclear Research Center,
The Atomic Energy Authority.**

how much of the
time is spent in
the laboratory

ABSTRACT

NEMAT ALLAH GAMAL EL-DIEN MOHAMMED ALI.

Effect of prostaglandins on some physiological and reproductive characters in some birds. Unpublished Doctor of philosophy, Dept. of Poultry Production, Fac. of Agric., Univ. of Ain Shams, 1998.

Three experiments were conducted. The first experiment dealt with the effect of dietary oils on fertility, hatchability and productive potential in female in Japanese. A total of 140 female quail were assigned randomly to one of five treatment groups and fed on basal supplemented with 3% of one of the following oils; olive (T1), soybean (T2), palm (T3), corn (T4), and control group. Eggs were incubated, and their fertility and hatchability were calculated.

Birds were sacrificed and autopsied, ovaries and oviducts were weighed. The results showed that: body weight of quail were significantly higher in treatments than control. The weight of second and third follicles were significantly higher in treatments than control. However, the weights of ovary, oviduct and shell gland were not significantly affected by different oil treatments. Egg production, fertility and hatchability were higher in all treatments compared to control.

In the second experiment, the levels of saturated and unsaturated fatty acids as precursors of prostaglandins were measured in plasma of 16 days embryo by GLC. The results of this study showed that the levels of prostaglandins precursors to control.

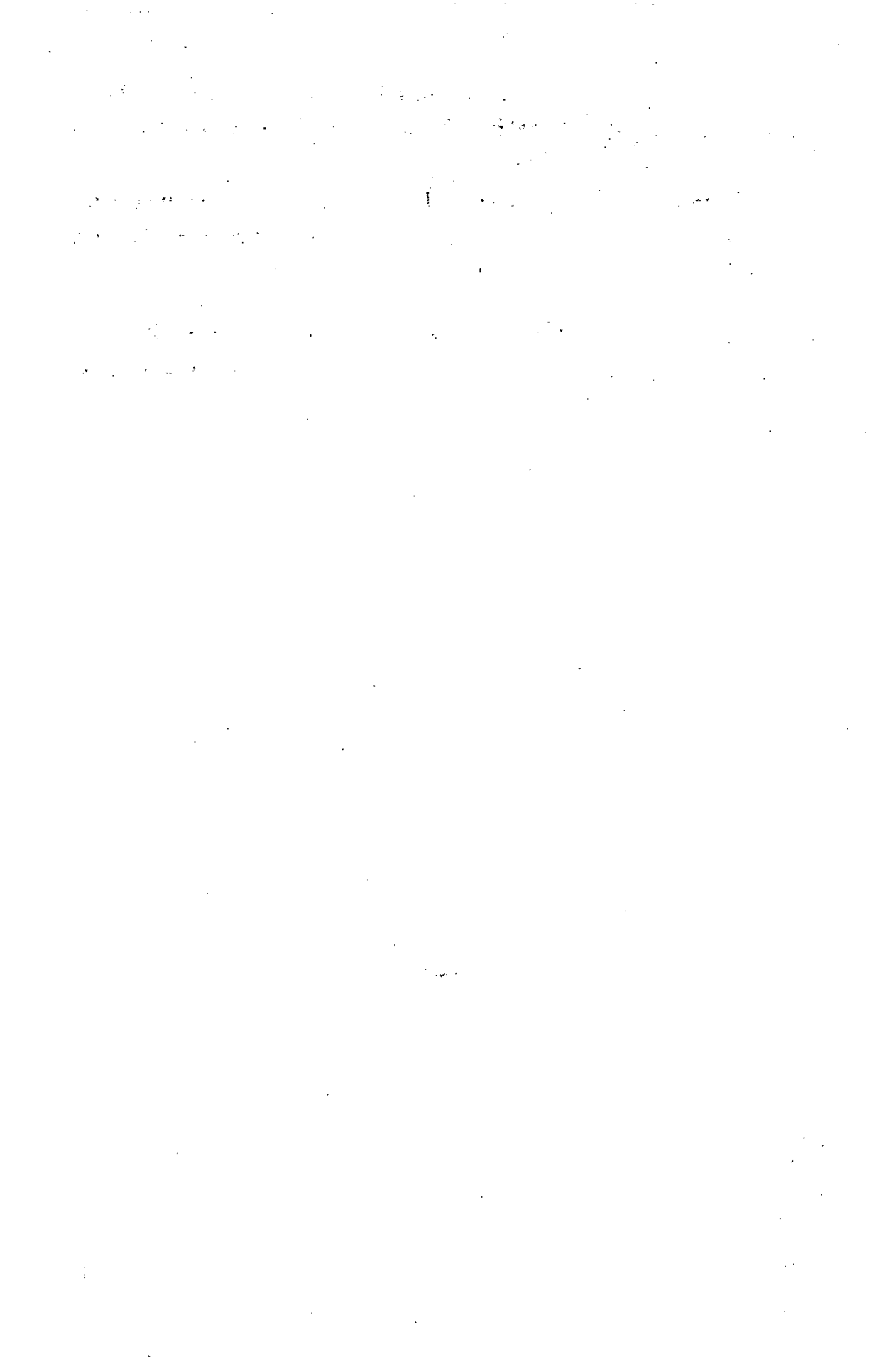
In the third experiment, the effect of prostaglandins injections and their inhibitors *in ovo* on hatchability was examined. One thousand fertile quail eggs were incubated and at 16 days of incubation, eggs were injected with PGE1, PGF2 α , indomethacin, aspirin, ethanol, sham and control with no injection.

Hatchability percentages were calculated after 18 days of incubation. PGE1 and PGF2 α resulted in highly significant increase in hatchability

percentages as compared to the other treatments ($P<0.01$). While the anti-prostaglandins, aspirin and indomethacin resulted in reduction in hatchability percentages.

These results suggested that prostaglandins and their precursors (saturated and unsaturated fatty acids) played an important role in the physiological processes of Japanese quail.

Key Words: PGE1- PGF2 α - Egg production - Saturated and unsaturated fatty acids - Fertility - Hatchability - Aspirin - Indomethacin - Embryos.



ACKNOWLEDGEMENTS

The author would like to express her sincere gratitude and thanks to Dr. Maie F. Ali, Professor of Poultry Physiology, and Head of the Poultry Production Department, Faculty of Agriculture, Ain Shams University for her close supervision, help and in suggesting the problem, continued guidance during the research study, preparation and writing of this manuscript.

Also I wish to express my deepest appreciation and gratitude to Dr. M.A. Elaroussi, Associate Professor of Poultry Physiology, Applied Biological Department, Nuclear Research Center, the Atomic Energy Authority for his valuable advises, supervision, providing the diet of this study and helping in writing this manuscript.

Thanks are due to Dr. M.M. Fathy, Assistant Professor of Poultry Breeding, and A. Galal, Assistant lecturer of Poultry Breeding, Faculty of Agriculture, Ain Shams University for their valuable help in the statistical analysis of the data and to Mrs T.M. Yousef for helping in typing this manuscript

Also my deep gratitude and thanks are due to CeMarp for providing partial funding during this study.

Additionally, I would like to express my thanks to all staff members and workers of Poultry Physiology, Faculty of Agriculture, Ain Shams University, for their great help during the experimental work.

Finally, I would like to express special gratefulness to my family especially to the soul of my father for his encouragement and moral support and patreiotic patience, which made all this possible.