



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



شبكة المعلومات الجامعية
@ ASUNET



شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

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 الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

Bv9.7

**PHYSIOLOGICAL EFFECT OF LIGHT ON EGG
PRODUCTION IN JAPANESE QUAIL.**

BY

AYMAN MOHMED HASAN AHMED

B. Sc. Agric. Sci. (Poultry Production), Ain Shams Univ., 1992

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

in

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Faculty of Agriculture,
Ain Shams University**

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APPROVAL SHEET

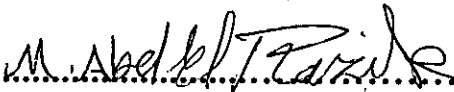
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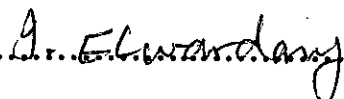
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ABSTRACT

AYMAN MOHAMED HASAN AHMED, Physiological effect of light on egg production in Japanese quail. Unpublished Master of Science in Poultry Production (Poultry Physiology), Dept. of Poultry Production Fac. of Agriculture, Ain Shams Univ., 1998.

This study was designed to investigate the effect of light regimens (LD8: 16 (short day), 12:12, 16:8 and 20:4) on body weight, reproductive performance and plasma progesterone hormone.

Birds were reared under short day length regimen (LD 8:16) from 5wk of age till 14wk of age then reared under different light regimens: LD8: 16 (short day), 12:12, 16:8 and 20:4.

The results showed that short day (LD 8: 16) significantly depressed body weight gain of female birds compared with other females reared under long daylength (LD 12: 12, 16: 8 and 20:4). At 12 and 13wk of age there was no significant difference in body weight between the four light regimens. At 14wk of age females under short day length (LD 8: 16) were significantly the heaviest in their body weight.

Light regimens LD 12: 12, 16: 8 and 20: 4 caused precocious sexual development. The ages at first laid egg were 56, 56, 58 and 82 days for females reared under LD 20: 4, 16: 8, 12: 12 and 8: 16, respectively. Egg production was recorded for each female till the age of 100 days. Birds reared under light regimens of (LD 12: 12, 16: 8 and 20: 4) laid significantly more eggs till 14wk of age.

Light intensity had no effect on egg production.

Ovaries and oviducts of females raised under short day (LD8: 16). Were immature till 14wk of age. However females kept under (LD 12: 12, 16: 8 and 20: 4) had mature functional ovaries and oviducts.

Average plasma progesterone hormone levels of females kept under (LD 12: 12, 16: 8 and 20: 4) 3h before ovulation were significantly higher than that of females kept under (LD 8: 16). It is

apparent that light regimen (LD 12:12) increased progesterone hormone level which stimulate the release of LH hormone and culminate in egg production.

Key Words: Light regimens - Egg production - Japanese quail - Progesterone - Photoperiod - Body weight - Reproduction.