

إِنَّمَا إِلَهُكُمُ اللَّهُ الَّذِي لَا إِلَهَ إِلَّا هُوَ وَسِعَ

كُلَّ شَيْءٍ عِلْمًا

صدق الله العظيم

سورة طه

الاية: (٩٨)

Dedication

To those who taught me a word...

To the memory of my sister (Abeer)...

To my father...

To my mother...

Brothers...

Sisters ...

And all my friends

With ever lasting love.

Acknowledgment

First, I thank GOD, ALLAH who gave me the aptitude and patience to conduct and finish this study. I wish to express my sincere thanks and faithful gratitude to the honest, modest supervisor Dr. Hamid Agab for his generous, limitless assistance, encouragement and advice. Moreover, I would like to convey my cordial compliments to Professor A. Saad Mohamed for his enormous advices throughout the study. My compliments are sent to Dr. Mohammed Taj Eldin and Dr. Elobaid, the supervisor of Elragaa Agricultural Farm for help and assistance. Also my thanks are extended to dear colleagues Engineer Mutaz Hassan and Engineer Abd Elgayoum Gafer for their generous assistance.

Finally, it is a chance to convey my thanks to every one who helped, advised or contributed in this work,

Abstract

The study was performed in two ostrich farms rearing the same red-neck ostrich breed (*Struthio camelus camelus*) in Khartoum State.

The average weight of ostrich egg incubated in Farm A was 1486.66 g. while it was 1732.66 g. in Farm B. The fertility rate in both farms was found to be similar (66.6%). The average egg weight loss at day 39 in Farm A was found to be 9.18% while it was 12.36% in Farm B. The average incubation period needed for hatching to take place in both farms was 42.8 days, which was longer than that recorded for black neck ostrich eggs (42 days).

In Farm A, 30% late embryonic mortality was recorded while it was 20% in Farm B. In Farm A, the incidence of early embryonic mortality was found to be 20% while there was no early embryonic mortality in Farm B.

Lower hatchability rate (50%) was recorded in Farm A than the rate recorded in Farm B 80%. Higher percentage (60%) of hatched chicks was found oedematous in Farm A, while 37.5% of the hatched chicks in Farm B was found oedematous. The average weight of hatched ostrich chicks was found to be 1040 g. in Farm A while it was 1122.5 g. in Farm B.

This study has proved suitability and applicability of using ordinary chicken incubator for incubating and hatching ostrich eggs after performing specific modifications particularly in the egg trays to suit the size and shape of ostrich eggs.

ملخص الأطروحة

تمت الدراسة في مزرعتين (أ و ب) بولاية الخرطوم تقومان بتربية نوع واحد من النعاميات وهو النعام أحمر الرقبة.

تم رصد متوسط وزن البيض حيث بلغ في المزرعة (أ) نحو ١٤٨٦,٦٦ جم بينما سجل متوسط وزن البيض ١٧٣٢,٦٦ جم في المزرعة ب.

تلاحظ أن معدل نسبة الخصوبة في المزرعتين كان متساوياً (٦٦,٦%) كما تلاحظ أن معدل نسبة الفقد في وزن البيض عند ٣٩ يوم من بداية التحضين بلغ ٩,١٨% في المزرعة (أ) بينما كانت نسبة الفقد ١٢,٣٦% في المزرعة (ب).

أثبتت الدراسة أن متوسط فترة تحضين بيض النعام في المزرعتين كان ٤٢,٨ يوم وهو أطول من الفترة المعروفة لتحضين بيض النعام أسود الرقبة (٤٢ يوم). أثبتت الدراسة وجود نفوق جنيني متأخر بنسبة أعلى في المزرعتين أ و ب (٣٠% و ٢٠% على التوالي) مقارنة بالنفوق الجنيني المبكر (٢٠% و صفر% على التوالي).

أثبتت الدراسة ارتفاع معدل الفقس (٨٠%) في المزرعة (ب) مقارنة بمعدل الفقس ٥٠% في المزرعة (أ).

وجدت الدراسة أن متوسط أوزان الصيصان الفاقسة في المزرعة (أ) أقل (١٠٤٠ جم) مقارنة بأوزان الصيصان الفاقسة في المزرعة (ب) (١١٢٢,٥ جم).

كما لاحظت الدراسة وجود نسبة عالية (٦٠%) من حالات الاستسقاء في الصيصان الفاقسة في المزرعة (أ) مقارنة بنحو ٣٧,٥% في المزرعة (ب)، وربما يعزى ذلك لصعوبة التحكم في درجة الرطوبة المطلوبة في مفرخة الدواجن العادية التي استخدمت في المزرعة (أ) مقارنة بمفرخة بيض النعام المستخدمة في المزرعة (ب).

خلصت الدراسة أنه بالإمكان استخدام مفرخات الدواجن العادية في تحضين وتفقيس بيض النعام بعد إجراء التعديلات اللازمة في أطباق البيض وذلك بعد النتائج التي خلصت إليها الدراسة الحالية لاسيما في حالات عدم توفر المفرخات الحديثة المتخصصة لبيض النعام وكذلك لغلاء أسعارها.

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