

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار





بعض الوثائق الأصلية تالفة





بالرسالة صفحات
لم ترد بالأصل



B1-57A9

UNDER SUPERVISION
OF

Prof. Dr. Mohammed Bahgat Noseir

(Professor of Theriogenology)
Faculty of veterinary medicine
Alexandria University

Dr. Iman El-Sayed El-Bawab

(Associate professor of Theriogenology)
Faculty of veterinary medicine
Alexandria University

**Reproductive hormonal patterns and
behavioural traits in the camel (*Camelus
dromedarius*) during pregnancy,
parturition, and puerperium**

THESIS PRESENTED

BY

ALI SAAD IYOUB

(M.V.Sc., 1993, Fac. Vet. Med., Alex. Univ.)

FOR THE DEGREE OF

Ph.D.

(Gyneacology, Obstetrics & A.I.)

THERIOGENOLOGY DEPARTEMENT
FACULTY OF VETERINARY MEDICINE
ALEXANDRIA UNIVERSITY

1997



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا سبحانك لا علم لنا الا ما علمتنا انك انت العليم الحكيم

اللَّهُ
صَدَقَ
الْعَظِيمُ

(سوره ۲ - اية ۳۲ ، القرآن الكريم)



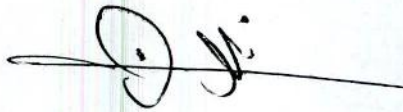
قرار لجنة الحكم والمناقشة

قررت لجنة الحكم والمناقشة ترشيح السيد ط.ب/ على سعد ايوب للحصول على
درجة دكتور الفلسفة فى العلوم الطبية البيطرية تخصص (الولادة وامراضها والتلقيح
الصناعى)

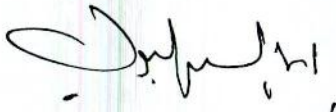
اعضاء اللجنة




السيد الاستاد الدكتور / على بدوى
استاذ الولادة ورئيس قسم الولادة
كلية الطب البيطرى - جامعة القاهرة



السيد الاستاذ الدكتور / فكرى محمد حسين
استاذ الولادة ورئيس قسم الولادة
كلية الطب البيطرى - جامعة الاسكندرية



الدكتورة / ايمان السيد البواب
استاد مساعد الولادة - كلية الطب
البيطرى - جامعة الاسكندرية (مشرفة)



الاستاذ الدكتور / محمد بهجت عبد الرحيم نصير
استاد مادة الولادة - كلية الطب
البيطرى - جامعة الاسكندرية (مشرف)

ACKNOWLEDGEMENT

First of all, I wish to say "Praise be to Allah the cherisher and sustainer of the worlds".

I would like to express my sincere thanks to Prof. Dr. Mohammed Bahgat Noseir, professor of theriogenology, faculty of veterinary medicine, Alexandria university, for his valuable supervision, great scientific help, and endless cooperation.

I would like also to express my sincere thanks to Dr. Iman E. El-Bawab, associate professor of theriogenology, faculty of veterinary medicine, Alexandria university, for her supervision, advises and cooperation.

My cordial thanks to Dr. Wael M.B. Noseir, lecturer of theriogenology, faculty of veterinary medicine, Alex. Univ., for his kind encouragement and for his scientific cooperation. My thanks are also to all members of theriogenology Dept., Alex. Univ., for their help and encouragement.

TABLE OF CONTENTS

<i>SUBJECTS</i>	<i>PAGE NO.</i>
# INTRODUCTION	1
# REVIEW OF LITERATURE	4
* Sexual Maturity & Breeding Season	4
* Estrous Cycle	9
* Gestation & Parturition	12
* Hormones of Reproduction	17
# MATERIALS & METHODS	29
# RESULTS	37
* Tables (3-11)	55
* Figures (1-7)	61
# DISCUSSION	68
* Camel's Behavioural Traits	71
* Hormonal Assay	80
# SUMMARY	90
# REFERENCES	93

INTRODUCTION

INTRODUCTION

Camel has its origin in North America (Wilson, 1984). Wilson (1984) has stated that the Tilopoda contains two families, one of those, the Xiphodontidae is very primitive and the second family is the Camelidae which have five sub-families one of them is the subfamily Camelinae. One genus from Camelinae is the genus Camelus. From the latter genus originates the two species, the dromedarius (one-humped) and the bactrianus (two-humped).

There is general theory that the domestication of the dromedary camel first occurred in Southern Arabia particularly in Hadramout area (Bulliet, 1975, Mikesel, 1955, and Zeuner, 1963). The dromedary appears to have been domesticated in connection with the trade of spices, incense and salt, and this was used around 3000 BP, this early use of spices trade suggests earlier domestication (Ripinsky, 1975).

The dromedary camel is numerically far superior to the Bactrian camel, and totals almost 90% of the genus Camelus in the world today (Wilson, 1984). More than 80% of African camels occur in Somalia and Sudan. In Asia the greatest number of the dromedary is found in India (40%) and Pakistan (28%). In Arab countries the dromedary population and its density per square kilometer is presented in table (1).

Breeding and reproduction in the dromedary camel have received attention among investigators (Musa, 1969; Musa and Abusineina, 1976 & 1978; Wilson, 1984;

Merkt, Musa, and El-Naggar, 1990; Hassan, 1993). Most of the studies depended on materials collected at slaughter house. Very limited research work depending on experimental work was reported.

Among reproductive physiological studies in dromedary camel was an assessment of hormone profiles prevailing during various stages of reproductive activities for determination of the endocrinological basis of normal reproductive process. This in turn could provide a good media for investigating some associated problems reducing the reproductive efficiency in this important animal.

For many decades, other farm animals have got utmost attention concerning researches on blood profiles of almost all hormones. Little information is known about the reproductive endocrinology in she-camel (Arthur, 1992). Hence, this study was designed to investigate the reproductive patterns and hormonal profiles during mating, pregnancy, parturition and postpartum period in female dromedary camels.

Table [1] : Camel population, land area in Arab countries (FAO, 1987)*

Arab Countries	Camel Population (X10 ³)	Land Area (Km ²)	Camel density (No/Km ²)
Algeria	147	2381741	0.06
Bahrain	1	620	1.61
Egypt	95	995450	0.09
Iraq	232	433970	0.53
Jordan	19	17180	0.20
Kuwait	5	17820	0.28
Lebanon	1	10230	0.10
Libya	75	1759540	0.04
Morocco	200	446300	0.45
Oman	6	212460	0.03
Qatar	9	11000	0.82
Saudi Arabia	108	2149690	0.05
Sudan	2904	2376000	1.22
Syria	8	184120	0.04
Tunisia	205	155360	1.32
U.A. Emirates	45	83600	0.54
Yemen	145	527970	0.66

(*)FAO production Yearbook, vol. 32: Rome, 1987