شبكة المعلومات الجامعية

# بسم الله الرحمن الرحيم


شبكة المعلومات الجامعية

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# التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

# 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


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# بالرسالة صفحات لم ترد بالأصل

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# Effect Of Stress On Reproduction And Maternal Physiology And Behaviour In Sheep

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# APPROVAL SHEET

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# Contents

# INTRODUCTION

# Introduction

In all systems of management, there are two groups of stressors, namely environmental stress and management related stressors (**Zoldage, 1983, Moberg** and **Mench, 2000**). Environmental related stressors include environmental temperature, humidity and nutrition. Management related stressors; consist of animal density, handling procedures, psychological distress, noise and trauma. Single factors from each group or combinations of such factors, can serve as stressors, which can significantly challenge the homeostasis of the animal. The overall effects of this challenge will further depend on the duration of the stimulus and its intensity or strength. As long as the stressful event remains a challenge, the animal will be under stress. The behavioral responses and physiological changes that follow on the challenge manifest themselves in various adverse ways as the effects of the stress.

Livestock production efficiency is largely dependent on reproductive performance. Several factors are known to affect the reproductive performance of farm animals, some of which are biological, physical, environmental or nutritional type. Dietary nutrients promote the programming and expression of the metabolic pathways that enable animals to achieve their genetic potential for reproduction. These pathways are complex and in many cases are not yet fully described (**Robinson, 1996**). Thus, the identification of blood-borne metabolites that mediate, for example, the nutritional activation of the GnRH pulse generator is proving extremely difficult. On the other hand, important new observations are being made to clarify the effects of feeding level and specific dietary nutrients during embryonic and early fetal life on subsequent reproductive performance (**Lucase, 1992**). Undernutrition and deficiency of a specific nutrients, could interfere with the synthesis of

hormones involve in reproduction. In other case, nutrition might affect rate at which a hormone destroyed by metabolism or even the sensitivity to hormone of its target organ (**McDonald et al., 1990**).

Insecticides are group from pesticides, which are widely used, in agricultural purposes for combating different external parasites, which affect the livestock, so the great use of these insecticides introduced a serious hazard to animal especially most of these substances are highly selective but are generally toxic to many non target species. Organophosphorus are most widely used in veterinary practices as for combating external parasites, these substances get access to reach inside the animal through dermal tissues, the clinical manifestation, biochemical changes and development disorders depend upon the dose used and physical condition of the animal. Owing to their mode of application as dips or spray, accidental and/or prolonged exposure to these insecticides cause great economic losses (**Abou Arab et al., 1994**). **Yagoob et al. (1995)** and **Witorsch (1995)** stated that long exposure for these pollutants cause deleterious effects as neurologic effect (persistent neurologic syndrome), haematoenzymatic alterations and reproduction disorders. The adverse effect of insecticides produced either by direct cellular action on the reproductive organs or indirectly interferes with the hypothalamo-hypophyseal control function.

Animal behaviour is important, not only because it provides a guide about the characteristic ways of each species for performing certain action but also, reveals much more about certain than other under natural conditions, copulation by our common farm animals is usually preceded by a number of premating (courtship) behaviours often exhibited well in advance the female's period of sexual stimulation of both male and female participants. Among the interesting behaviour patterns, is the maternal behaviour care and suckling attempts of

newborn, which has a dramatic quality? Maternal behaviour is an integral physiologic part of the reproductive cycle, since successful mother-young relationship accounts for survival and preservation of farm species of animals (**Houpt, 1998**).

The aim of this study is to clarify and explore the effects of undernutrition and dipping with diazinon throughout the reproductive cycle in ewes (estrous cycle and late stage of pregnancy) on the:

1. Hormonal alterations in serum cortisol, prolactin and progesterone concentrations.
2. Haemogram of stressed ewes.
3. Biochemical changes (cholesterol, total lipids, some microelements such as copper and zinc, glucose, total protein, albumin, globulin and A/G ratio).
4. Sexual and maternal behaviour of stressed ewes and newly born lambs.

# Review Of Literature