

C-S.2 Sheep Reproduction, Pregnancy and Parturition

Credits: 10 (100 hours)

Provider: Veterinary Postgraduate Unit – Institute of Veterinary Science

RCVS Content Covered

Module Content

At the end of this module, candidates should be able to:

- Describe the husbandry and management of sheep in the UK and evaluate the relative merits of the systems used, on the basis of the health, welfare and productivity of the animals, and the safety and quality of the food produced.
- Formulate simple diets, and assess and provide advice on the adequacy of diets and feeding of sheep in relation to their nutritional requirements.
- Assess and provide advice on the adequacy of the housing and environment of sheep in relation to their health, welfare and productivity.
- Assess and provide advice on the welfare of sheep 'on-farms', during transport and at slaughter.
- Explain the aetiology, pathology, diagnosis, differential diagnosis, treatment, prognosis and control of the principal diseases of lambs in the UK.
- Describe the principal causes of reproductive failure in sheep.
- Discuss the importance of helminth control in the health and productivity of sheep enterprises.

Aim of the Module

This module aims to extend undergraduate training and utilise practice experience to develop postgraduate expertise in clinical decision-making and reasoning skills required by advanced practitioners in field of sheep reproduction. The module also aims to enable the candidate to critically evaluate their own standards of practice and develop strategies for continuous improvement in the future.

Learning Outcomes

At the end of the module, candidates should be able to:

1. Critically evaluate reproductive cycles of sheep, principal causes of reproductive failure, diagnosis, management and therapeutic options including intervention strategies and breeding technologies.
2. Investigate reproductive problems suspected to have nutritional cause, implement nutritional management strategies aimed at treatment and prevention of metabolic disease and critically appraise both their limitations and economic implications.
3. Critically evaluate and manage obstetrical problems in sheep.

4. Investigate mastitis by critically evaluating risk factors, and then implement preventive and management strategies in clinical cases.
5. Systematically evaluate the husbandry and management of lambs and make sound judgements on the basis of health, welfare, productivity and the safety and quality of the food produced.
6. Critically evaluate literature about ovine reproduction, pregnancy and parturition using the principles of evidence-based veterinary medicine.

Module Structure

The module will be divided into 4 study units:

Study Unit 1: Fertility

Oestrous cycle/Breeding programmes

- Principles and understanding of biology of oestrous cycle and its manipulation.
- Use of vasectomised rams and hormonal therapy (melatonin, progesterone / PMSG)
- Artificial insemination and embryo transfer techniques

Male reproductive system

- Clinical evaluation of the male urogenital system.
- Principles and application of diagnostic aids (semen evaluation, ultrasonography bacteriology).
- Diagnosis, treatment and management of common infections/disorders.

Abortion

- Understanding of biology/maintenance of pregnancy.
- Investigation of abortion.
- Principles for management/control of infectious causes of abortion.

Study Unit 2: Nutrition

- Nutritional management of the pregnant ewe.
- Understanding of energy/protein supply and demands of maintaining pregnancy.
- Intra-uterine growth retardation.
- Management advice using integrated nutritional profiling.
- Diagnosis, control and prevention of the common metabolic diseases of sheep.

Study Unit 3: Obstetrics and Mastitis

Flock breeding management - obstetrics

- Veterinary management of obstetrical problems.
- Application of spinal anaesthesia and other forms of analgesia.
- Caesarean operation.
- Welfare legislation.

Parturition

- Understanding of the biology of parturition/neonatal adaptation, and consequences.

Study Unit 4: Neonatal Disease of Sheep

- Diseases of Neonatal Ruminant, Investigation of Lamb Mortality, Lamb Welfare
- Lambs
- Investigation and management of common causes of perinatal lamb mortality
- Diagnosis, control and prevention of the common diseases of young lambs
- Diagnosis, control and prevention of the common diseases of growing lambs

Postmortem examination and storage

- Postmortem examination including practical demonstration.
- Principles of safe sample collection, storage, submission and transportation.

Assessment Strategy

3 x reflective, clinical case reports (1500 words each), 1 x short answer question and/or MCQ test and 1 x journal critique/journal club presentation (pass/fail)

PLEASE NOTE: It is your responsibility to ensure that you have access to sufficient appropriate cases where you were the primary decision maker to produce adequate material for the module. This may not be possible with some internship positions. You must also be aware of any limitations of your facilities that may make the accumulation of appropriate cases difficult or impossible.