

C-S.2 Sheep Reproduction, Pregnancy and Parturition

Credits: 10 (100 hours)

Provider: Veterinary Postgraduate Unit – School of Veterinary Science

RCVS Content Covered

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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 in sheep 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 in sheep 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 appraise the literature relevant to clinical cases in the topics covered and how the literature can be used to inform practice.

Module Structure

The syllabus will be divided into 4 study units, each containing lecture and reading material supported by weekly interactions in the form of asynchronous case-based discussions, other discussions and/or synchronous journal clubs/literature critiques.

Study Unit 1: Fertility Oestrous cycle/Breeding programmes

Oestrous cycle and breeding programmes

- Principles and understanding of the biology of oestrous cycle

- Principles and understanding of oestrous cycle and its manipulation. (Use of vasectomised rams and hormonal therapy)
- Artificial insemination and embryo transfer techniques

Male reproductive system

- Clinical evaluation of the male reproductive system.
- Principles and application of diagnostic aids
- Aetiology, diagnosis, treatment and management of common infections/disorders

Abortion

- Understanding of biology/maintenance of pregnancy.
- Disease aetiology
- Differential diagnosis
- Epidemiology and risk factors
- Appropriate investigatory and diagnostic tests
- Public health implications
- Economic implications
- Management and prevention of abortion at the individual and flock level

Study Unit 2: Nutrition

- Nutritional management of the ewe.
- Metabolic diseases of sheep
- Disease aetiology
- Clinical presentation
- Differential diagnosis
- Epidemiology and risk factors
- Appropriate investigatory and diagnostic tests
- Appropriate therapies
- Animal welfare implications
- Economic implications
- Management and prevention of metabolic diseases at the individual and flock level

Study Unit 3: Obstetrics and Mastitis

Parturition

- Understanding of the biology of parturition/neonatal adaptation, and consequences. Obstetrics
- Veterinary management of obstetrical problems (medical, surgical and anaesthetic techniques).

Mastitis

- Disease aetiology
- Clinical presentation
- Differential diagnosis
- Epidemiology and risk factors for disease
- Appropriate diagnostic techniques
- Appropriate therapies
- Prognosis and outcomes
- Animal welfare implications
- Economic implications
- Management and prevention of disease at the individual and flock levels

Study Unit 4: Neonatal Disease of Sheep

Students will be expected to become familiar with the following categories of information for diseases occurring in the neonatal lamb

- Disease aetiology
- Clinical presentation
- Differential diagnosis
- Epidemiology and risk factors for disease
- Appropriate diagnostic techniques
- Appropriate medical and surgical therapies
- Appropriate anaesthesia and analgesia, including the common local, regional and general anaesthetic techniques/agents used in general practice
- Prognosis and outcomes
- Animal welfare implications
- Economic implications
- Public health implications
- Management and prevention of disease at the individual and flock level

Post-mortem examination

- Post-mortem examination of sheep
- Principles of safe sample collection, storage, submission and transportation.

Assessment Strategy

- **3 x 1500-word reflective case reports (90%)**
On a topic related to the relevant study units, students are required to reflect on their own practice, using evidence-based veterinary medicine to inform their reflection. Reflective case reports are written following the format of published case reports in the veterinary literature. The case report component of the assessment must be passed for successful completion of the module, and is non-compensatory with other assessments, however there is compensation between case reports. Case reports are also submitted to a discussion board for critique and discussion by/with peers. A proportion of marks for this assessment are also allocated to this discussion element.
- **1 x written journal critique (not more than 500 words) and group discussion (10%)**
Hosted by a staff member online synchronously using MS Teams. 2-4 students critique the same paper, and then discuss their critiques and any variations with the group, and the tutor and the students then hold a discussion of all papers. These are assessed on the submitted critique as well as the discussion.

Assessments are submitted sequentially with feedback being given between assessments to aid in the development of writing skills.

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.