

<b>REF. NO.</b>	<b>C –C.3</b>
<b>TITLE:</b>	<b>CATTLE – DAIRY HEALTH &amp; FERTILITY</b>
<b>CATEGORY AND VALUE:</b>	<b>C - 10 CREDITS</b>
<b>NOTIONAL STUDY HOURS:</b>	<b>100</b>

Candidates working towards the designated Certificate in Advanced Veterinary Practice (Cattle Health and Production) will need to complete the A-Professional Key Skills module, the B-Clinical Key Skills module, one other B-module, and the three Cattle C-modules. Upon completion of all the necessary modules, a further synoptic assessment will also be required.

#### **GENERAL GUIDANCE NOTES**

Please refer to the General Guidance and Assessment for all Modules document.

#### **STANDARDS**

The aim of this module is to enable the candidate to extend and consolidate clinical knowledge and skills gained at undergraduate level, so that they can apply this knowledge to the management of the health and fertility of dairy herds, and the diagnosis and treatment of diseases of dairy cattle. The candidate will be able to evaluate their own standards of practice and develop strategies for continuous improvement in the future.

#### **LEARNING OUTCOMES**

This module will enable the candidate to:

- Gain a sound understanding of the management and monitoring of diseases in dairy herds.
- Demonstrate the role of the veterinary surgeon in planned cattle fertility management and production
- Explain the aetiology, pathology, diagnosis, differential diagnosis, treatment, prognosis and control of common and emerging diseases affecting dairy cattle in the UK.
- Describe the husbandry and management of dairy cattle in the UK, and evaluate the relative merits of the systems used.
- Develop awareness of legislation relating to the health and management of dairy cattle and food production.

#### **ASSESSMENT STRATEGY FOR THIS MODULE**

*It is suggested that this module could be assessed by some or all the following methods:*

- A **learning diary**, that documents in note form the candidate's experiences over the period that the module is being completed, including critical commentaries upon at least some of the learning resources used, and describes the application of the learning process to a wide range of cases encountered in practice.
- A **case book** of three cases, each of up to 1500 words length. These cases should be selected to demonstrate the candidate's ability to use the competences that have been acquired to cope with a challenging situation, rather than using classic "textbook cases" of particular conditions.
- **Critical review** of one publication in a refereed scientific publication relevant to module content (1,500 - 3,000 words)

## MODULE CONTENT

### 1. COMMON AND EMERGING DISEASES

- Epidemiology, recognition, treatment, prevention and control of the common and emerging diseases
- Herd economic assessment of disease and disease prevention; herd health preventative medicine schemes
- Recording systems for monitoring disease: analysis of health records and targets for disease incidence
- Mastitis:
  - Mastitis pathogens, their epidemiology, treatment, prevention and control
  - Dry cow therapy
  - Milking machine: its function, maintenance and testing; common problems and their role in mastitis
  - The milking routine and teat disinfection; pre- and post-milking
  - Somatic cell count – relevance, measurement and monitoring at herd and individual cow level
  - Diseases of the udder and teat
  - Economics, targets, recording and monitoring systems
- Lameness:
  - Routine foot care, trimming and footbathing
  - Infectious and non-infectious causes of lameness and their treatment, prevention and control
  - Environmental risk factors for lameness
  - Interaction between nutrition and lameness
  - Economics, targets, recording and monitoring of lameness at herd level

### 2. REPRODUCTION

- Normal ovarian cycle including endocrinology and pharmacological control

- Reproductive management and reproductive disease
- Parturition, dystocia and puerperal disorders; postpartum return to cyclical activity
- Oestrus detection, methods, problems and measurement
- Natural service vs AI, timing of service and methods of pregnancy diagnosis
- Expectations for fertility, measuring fertility and accepted reproductive targets
- Monitoring fertility and fertility control schemes.
  - Use of the ELISA milk progesterone assay in monitoring reproduction
  - Detailed examination of the female reproductive tract including ultrasonography and its uses and application
  - Prenatal death and abortions
  - Selection for breeding

### **3. MANIPULATION OF REPRODUCTION**

- Artificial Insemination:
  - Organisation of AI in the UK and the bodies involved with AI
  - Current legislation, semen collection and storage
  - AI techniques including DIY
  - Reasons for poor fertility with AI
- Embryo Transfer:
  - Code of practice and legislation relating to ET
  - Applications and methods of ET
  - Embryo preservation and micromanipulation, karyotyping and twinning