

## C-C.4 Bovine Nutrition, Husbandry and Lactogenesis

**Credits:** 10 (100 hours)

**Provider:** Veterinary Postgraduate Unit – School of Veterinary Science

### RCVS Content Covered

Click [here](#) to view the module content as outlined by the RCVS.

### Aim of the Module

The aim of this module is to:

1. enable the candidate to develop comprehensive and systematic understanding of nutrition, husbandry and lactogenesis in cattle herds;
2. critically evaluate their own standards of practice and develop strategies for continuous improvement in the future.

### Learning Outcomes

By the end of the module, successful candidates should be able to:

1. critically evaluate the husbandry and management of beef and dairy cattle in the UK, and the relative merits of the systems used;
2. provide candidates with the knowledge and skills to effectively evaluate their own standards of practice and develop strategies for continuous improvement in the future;
3. critically evaluate the legislation relating to the health, management and welfare of cattle and food production in the UK;
4. critically analyse incomplete data sets related to bovine nutrition, husbandry and lactogenesis and communicate conclusions to a farm owner or manager both verbally and in the form of professional reports;
5. 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: Housing and Handling

- Housing systems available, relative costs, advantages and disadvantages
- Space and ventilation requirements for Dairy and Beef animals (all ages)

#### Study Unit 2: Nutrition

- Nutritional requirements of cows (Dairy and Beef) and how they are calculated

- Characteristics of the common foodstuffs and their visual assessment
- Feeding systems for youngstock and adult stock
- Grassland management, forage crop production, harvesting and storage
- Nutritional problems: their recognition, treatment, prevention and control
- Monitoring of nutrition in the Dairy and Beef cow (using milk yield and quality, cow signalment, BCS, and faecal assessment)
- Relationship of Nutrition and Fertility in Dairy and Beef cows

### Study Unit 3: The Modern Cow and Production

- Lactogenesis
- Milk synthesis and its control
- Factors affecting milk yield and composition

### Study Unit 4: Beef Production

- Beef Finishing Systems (Dairy bred and suckled beef calves)
- Finishing systems for beef cattle from weaning to slaughter – nutrition and management
- Target growth rates and carcase classification
- Common nutritional diseases associated with different rearing systems

## Assessment Strategy

- **2 x 1500-word reflective case reports (60%)**  
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 1-hour open book examination (30%)**  
Based around clinical scenarios/cases, relevant to the module study units.
- **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.