Developing and Monitoring
Livestock Production Systems

Introduction to the Course

Welcome to the course

Welcome to *Developing and Monitoring Livestock Production Systems*. This is a core course for the MSc, and an optional course for the Postgraduate Diploma, in the Livestock Health and Production Programme of the Royal Veterinary College. It is also an optional course for the MSc and Postgraduate Diploma in Veterinary Epidemiology and Public Health.

Humankind developed exploitative relations with other members of the animal kingdom during its first experiences of agriculture; this probably followed a period in which people's relationship with animals was more cultural and spiritual than agricultural. From their earliest experiences in animal domestication, humans have created a series of animal types and ways of exploiting them – breeds and husbandry. Over the relatively recent past there has been an accelerated process of homogenization, both in breeds and in husbandry methods, through the influence of commercial agriculture. Despite the rising demand for livestock products, or perhaps because of a lack of forethought in responding to it, there is now a recognition that many systems of livestock husbandry are not sustainable, either in economic or ecological terms. How should we react to this predicament?

This course seeks to provide an analytical framework through which you can develop a systematic appreciation of livestock production systems and the wider issues involved in the husbandry of livestock to provide for the various needs of humans.

What will you learn from this course?

By the end of this course you should be able to:

- explain the systems approach to livestock production
- discuss the background to farming systems development and how farming systems have adapted to local geography and resources
- give a detailed account of livestock production systems throughout the world
- describe the types of information and data that are required for appraisal and monitoring of livestock production systems
- explain how participatory research and extension contribute to further developments in livestock production systems
- discuss the main environmental, animal welfare and genetic diversity issues that occur in livestock production
- give an overview of feed resources and use, markets and marketing, and technology transfer and adoption by developing countries.

Course structure

The course consists of eight units of study, all of which you should complete. They make up the following three modules.

Module 1 *Introduction and Background to Systems*

In this module (Units 1–3) you will learn about the development of farming systems and how farming systems research contributes to the ongoing development of these systems. A detailed explanation of livestock production systems around the globe is presented, with examples, and some new developments are discussed.

Module 2 *Development and Monitoring of Systems*

The second module (Units 4–6) begins by describing what types of information and data are necessary for assessing the development of livestock production systems and for their ongoing monitoring. The importance of sampling in the process of data collection is explained and you will explore in detail the ways in which data are used in appraising the production system. Finally, concepts of participatory research and extension in the development of livestock farming and the emergence of organic farming, as an example of farmer-driven innovation and development, will be described.

Module 3 *Issues in Livestock Production Systems*

The final module consists of two units (7 and 8). The main issues that confront livestock farming are explored here. As the systems and issues facing developing countries are somewhat different from those in developed countries, the two units in this module will focus on the two situations separately. Issues such as animal welfare, effects on the environment, genetic concerns, and problems in technology transfer and adoption are examined in detail in this module.

Tutor-marked assignments

In addition to your work on the eight units, you are required to complete and submit at least one tutor-marked assignment (TMA) for assessment. If you submit more than one – and you may submit up to three – your best TMA will be used in the calculation of your final mark. Full information on how to approach and submit TMAs is provided in your *Student Handbook* and in the assignments themselves. You should bear in mind that your TMA will count for 20 per cent of your final mark for the course.

Study time

The entire course, including revision and examination, is designed to take approximately 240 hours to complete. The time taken to study the units varies depending on the individual units you select and on your prior knowledge of the subject. It is expected that you will spend 20–25 hours' study time for each unit, including 5 hours for the TMA(s), any remaining time to be used for personal study and revision.

Assessment

Your work for this course will be assessed by means of a three-hour unseen written examination paper which will take the form of essay questions. In addition, you must submit at least one and up to three TMAs. There are TMA submission deadlines for each module and for details please refer to your *Student Handbook*. The grade awarded will be based on the mark obtained in the written examination (80 per cent) and on the mark for the compulsory assignment (20 per cent).