



UNIVERSITY OF LONDON
External System

ACADEMIC EXCELLENCE SINCE 1858

A new short course by distance learning

Sustainable Livestock Farming in the Environment

www.londonexternal.ac.uk/rvc

Academic direction by:



Royal Veterinary College
University of London



This course integrates veterinary and livestock production sciences with environmental science. It will improve your understanding of how environmental science can be applied in good farm management, and through the large number of practical examples, it explains how some of today's environmental challenges can be addressed.

Key issues examined in the course include the effects that the disappearance of livestock can have on an ecosystem, urban livestock farming and keeping companion animals in cities, some of the emerging and re-emerging animal diseases and the types of environmental change that may be responsible for their development, and the inter-relationships between wildlife and both zoonotic and livestock diseases.

The course has a UK and European focus in topics, such as pollution from farm wastes and the impact of livestock farming on wildlife. When considering topics such as soil erosion, soil salinity and landscape change, attention is directed at semi-arid regions of the world. In the case of vertebrate pest management, much of the material is based on experience in Australasia. Overall, the focus is at the farm and regional level, rather than on global environmental issues. Nevertheless, many examples with worldwide relevance are described.

Some historical cases where there has been wildlife extinction and soil erosion are being repeated today. This is partly connected with population growth and urbanization. There are, however, two sub-continent where the population is growing rapidly in remote rural regions. In the western states of Brazil, and more recently in the Amazon basin, large areas have been deforested, and agriculture, including livestock

farming, has taken over. The population has also been rising in the mountain regions of the Central Asian Republics (Uzbekistan, Kyrgyzstan and Tajikistan) because of natural growth, as well as immigration from the more crowded and competitive cotton-growing valleys.

Vine growing and nut production are the growth sectors providing new employment opportunities in the Central Asian hills. One of the consequences of encroachment on Brazilian rain forests and the hills in central Asia is wildlife endangerment. In Brazil, the jaguar (*Panthera onca*) is now a near-threatened species and in Central Asia, wild goats and sheep have now been declared endangered. There is also the risk of erosion. Overgrazing of the summer mountain pastures in Tajikistan is said to have reduced productivity in the region by almost half in the last 20 years of the 20th century.

What will you learn from this course?

The aims of this course are to give you an understanding of how:

- plant and animal successions occur in changing landscapes
- wildlife conservation can interact with the farm environment
- soil is eroded in pastoral farming systems
- water resources can be protected
- livestock wastes can be rendered safe
- the changing environment is affecting disease patterns in livestock
- rising soil salinity is affecting some semi-arid livestock properties
- natural disasters present threats to animals
- national environmental policies can be translated into objectives at farm level.

The individual unit topics are:

Unit 1	Sustainable and Unsustainable Ecosystems: a Historical Perspective
Unit 2	Farm Effluent and Fertilizer Management
Unit 3	Water Quality
Unit 4	Erosion, Desertification and Marginal Farming System
Unit 5	Emerging and Re-emerging Animal Diseases
Unit 6	Parasites and the Environment
Unit 7	Animals in Natural Disasters and Disease Outbreaks
Unit 8	Wildlife Conservation in the Farming Environment
Unit 9	Vertebrate Wildlife Control
Unit 10	Wildlife Diseases and Zoonoses

Study time

The entire course, including revision and examination, is designed to take approximately 240 hours to complete. This is only an estimate and will depend upon your previous familiarity with the subject.

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 you may submit a maximum of three) Tutor Marked Assignments (TMA's). The grade awarded will be based on the mark obtained in the written examination (80%) and on the mark for the compulsory TMA (20%).

Flexibility to study wherever, whenever and however you like

As this course is offered by distance learning, you can fit your study around your family or professional commitments. You may decide to complete this short course on its own for interest or professional development. Or, it is also offered as an optional module within our distance learning MSc/ Postgraduate Diploma programme in Livestock Health and Production.