

REF. NO.	C-VPH.2
TITLE:	HYGIENIC PRODUCTION OF FOOD
CATEGORY AND VALUE:	C - 10 CREDITS
NOTIONAL STUDY HOURS:	100

The module is required for all candidates who are aiming to achieve the Certificate in Advanced Veterinary Practice (Veterinary Public Health). It can be also taken as a free standing module.

MODULE CONTENT

HAZARD, RISK, AUDITING AND REGULATORY SYSTEMS (I.E. HACCP)

1. Legislative Objective: Prevention and control of food-borne hazards relating to human health

Learning Objectives

- 1.1 Demonstrate a **general** understanding of:
 - food-borne hazard such as physical, chemical and microbiological hazards and the critical stages at which contamination occurs
 - the purpose of EC/852/2004, the Food Safety Act and other legislation in the prevention and control of food borne hazards
 - the prevention and control of food-borne hazards using risk management methods
 - the purpose of the Industry Guide e.g. the measures taken by the industry to alleviate food-borne hazards relating to human health.

- 1.2 Demonstrate a **detailed** understanding of regulations EC/853/2004 and EC/854/2004.

2. Legislative Objective: Principles, concepts and methods of risk-analysis

Learning Objective

- 2.1 Demonstrate a **basic** understanding of the principles, concepts and methods of risk analysis.

3. Legislative Objective: Principles, concepts and methods of good manufacturing practices and quality management

Learning Objectives

- 3.1 Demonstrate a **general** understanding of the role of OVs in auditing the GMPs in order to check for compliance by the operator.

3.2 Demonstrate a **detailed** understanding of:

- good manufacturing practices (pre-requisite programmes) – maintenance programme, cleaning programme, medical certification programme, pest control programme, use of potable water.
- the legislative requirement relating to GMPs and that these are operator's responsibilities.

4. Legislative Objective: Principles, concepts and methods of HACCP, use of HACCP throughout the food production chain.

Learning Objective

Promotion and use of food hygiene, food related safety (good hygiene practices (GHP))

4.1 Demonstrate a general understanding:

- of the value of training for operatives relative to food safety
- the role of the OV in promoting the use of GHP.

5. Legislative Objective: Auditing and regulatory assessment of food safety management systems

Learning Objectives

5.1 Demonstrate a **basic** understanding of the types and purposes of audits e.g. FVO, MHS, FSA, SLA customer, retailers, EFSIS etc.

5.2 Demonstrate a **general** understanding of:

- the definitions of and differences between auditing and inspection.
- the principles of auditing
- Auditing of Regulatory requirements, including the application of GMP, GHP and HACCP-based control systems, by Authorised Officers appointed by the Regulatory Authority, such as OVs.

6. Legislative Objective: Essentials of food processing and food technology.

Learning Objectives

6.1 Demonstrate a **general** understanding of:

- The principles of prevention of food spoilage, such as different methods of chilling and freezing, drying etc.

- post mortem treatment such as electrical stimulation of carcasses.
- the method of meat processing – dressing techniques, maturing of meat, mechanical tenderising, hot de-boning, cutting, dicing, mincing, comminution , production of meat preparations and meat products, and mechanical recovery of meat
- different equipment used in meat processing, such as mincers/grinders, cutters/choppers, frozen cutters, emulsifying mills, stuffers/fillers, tumblers, massagers etc
- the scientific basis of prevention of meat spoilage and extension of shelf-life with particular emphasis on the technologies used in the UK – vacuum packaging, modified atmosphere packaging, curing and smoking, fermenting and canning.

7. Legislative Objective: Population dynamics of infection and intoxication:

Learning Objectives

- 7.1 Demonstrate a **basic** understanding of:
- food borne diseases.
 - Outbreak investigation.

8. Legislative Objective: Investigation of outbreaks of food-borne diseases in humans

Learning Objective

- 8.1 Demonstrate a **basic** understanding of:
- the agencies/people who might be involved in an investigation – EHOs, General Medical Practitioners, Hospital Doctors, NHS Public Health Consultants, Food outlet owners/proprietors/supermarkets, Food processing companies, MHS staff, FSA staff, CCDC, CDSC, DH, PHLS etc.

9. Legislative Objective: Information and communication technology as related to veterinary public health

Learning Objective

- 9.1 Demonstrate a **basic** understanding of:
- the use of databases, information sources and electronic monitoring systems for aspects of Veterinary Public Health and Animal Health ; including FSA, DEFRA, PHLS, EFSA, EU, Codex, OIE, GATT, WTO, WHO, FAO, TRACES, ANIMO etc.
 - how information technology can assist in personal development.

10. Legislative Objective: Data-handling and application of biostatistics

Learning Objective

10.1 Demonstrate a **basic** understanding of the interpretation of published material.

11. Legislative Objective: Diagnostic epidemiology

Learning Objective

11.1 Demonstrate a **general** understanding of the role of the OV in the collection of data for monitoring.

12. Legislative Objective: Monitoring and surveillance systems

Learning Objective

12.1 Demonstrate a **general** understanding of:

- the importance of monitoring and surveillance systems in diseases control (particularly notifiable and zoonotic diseases) and epidemiological surveillance.
- the importance of monitoring of animals at slaughter for animal welfare associated problems.
- the importance of monitoring of diseases both at farm level and at slaughterhouse, both ante and post mortem.
- the importance of targeted and non-targeted surveillance for disease using data collected from samples taken e.g. ZAP salmonella scheme, TB testing, TSE testing, and that animals are slaughtered for human consumption or disposal under different schemes, such as OTM scheme.
- The procedures and purpose of trichinella monitoring.

12.2 Demonstrate a **detailed** understanding of the clinical appearance / signs of notifiable diseases.

13. Legislative Objective: Relevant aspects concerning TSEs.

Learning Objective

13.1 Demonstrate a **general** understanding of:

- the types of TSEs i.e. vCJD and animal TSEs.
- the cause/causative agent of TSEs - Prions and their molecular properties.

- TSEs in animals, with special reference to BSE and Scrapie, and their clinical signs and epidemiology.
- Diagnosis of TSEs in animals and man.
- The diagnostic tests available for TSEs in animals – histopathology, rapid test using brain stem samples.
- TSE surveillance schemes.

13.2 Demonstrate a **detailed** understanding of:

- The nature and controls of TSEs.
- TSE regulations and the importance of correct disposal of SRM

14. Legislative Objective: Principles and diagnostic applications of modern testing methods

Learning Objective

14.1 Demonstrate a **basic** understanding of the purpose of testing and its methods for surveillance, diagnosis, testing for diseases and contamination.

15. Legislative Objective: Environmental issues related to food production (including waste management)

Learning Objective

15.1 Demonstrate a basic understanding of:

- the reasons for controlling animal by-products in relation to public and animal health.
- the generation and various destinations of animal by-products.
- waste disposal methods e.g. incineration, rendering, composting etc.
- the impact of environmental initiatives on the meat industry.
- the functions of DEFRA and the Environmental Agency in issues relating to food production.

16. Legislative Objective: Precautionary principle and consumer concerns.

Learning Objective

16.1 Demonstrate a **basic** understanding of the application of precautionary principles and consumer concerns.