

# Veterinary Public Health

## 1. Environmental Hygiene

- 1.1 Sources of water supply and their quality
- 1.2 Physical, chemical and biological evaluation of water
- 1.3 Major sources of water contamination and their prevention measures
- 1.4 Methods of purification and water sanitization
- 1.5 Main sources of atmospheric pollution in the animal houses and their effect on animal health and production
- 1.6 Bacteriological flora found in water and air
- 1.7 Management of sewage and farm refuses
- 1.8 Sanitation of animal houses and farm waste recycling
- 1.9 Methods of prevention and control measures of air and water borne diseases

## 2. Veterinary Epidemiology

- 2.1 Definition, objective and application of veterinary epidemiology
- 2.2 Ecological concept of epidemiology
- 2.3 Disease transmission, prevention and control
- 2.4 Pattern of disease distribution in the community, epidemic, endemic, sporadic and pandemic
- 2.5 Multifactorial causation of disease: agent, host and environment
- 2.6 Strategies of epidemiology
- 2.7 Types of epidemiological studies: Descriptive, analytical and experimental
- 2.8 Investigation of an epidemic
- 2.9 Prevention, control and eradication of diseases
- 2.10 Law regulation animal diseases
- 2.11 International organizations regulating emerging and spreading diseases of animals and birds; Office International Des epizootic (OIE), its functions, its categorization of diseases that are transmissible
- 2.12 Regulation, regulating handling, import, export of biomaterials
- 2.13 Veterinary economics and risk assessment

## 3. Milk and Meat Hygiene, Food Safety and Public Health

- 3.1 Aim, objectives and role of veterinary public health
- 3.2 Milk and meat hygiene in relation to public health
- 3.3 Microbial flora of milk and milk products. Sources of milk contamination during collection, handling and transportation of milk and process of dairy products
- 3.4 Prevention and control of milk and milk products contamination. Hygienic handling/management of dairy equipments

- 3.5 Quality control of milk and milk products, legislation and standards for milk and milk products
- 3.6 Elements of meat inspection
- 3.7 Humane slaughter of animals. Postmortem inspection of meat animals
- 3.8 Methods of inspection of meat. Rigor mortis and examination of lymph nodes
- 3.9 Speciation of meat
- 3.10 Inspection of poultry and aquatic foods for human consumption
- 3.11 Occupation health hazards in meat processing plants. Meat as a source of disease transmission
- 3.12 Food safety, definition, hazard analysis and critical control point (HACCP) system and chemical and microbial toxicities Associated with milk, meat and aquatic foods
- 3.13 Risk analysis: assessment and management and food safety measures
- 3.14 Toxic residues such as pesticides, antibiotics, metals and hormones and microbial toxins in food and their health hazards.
- 3.15 International and national food safety standards (Office International Des Epizootics (IOE), World Trade Organization (WTO), Sanitary and Phytosanitary (SPS) and Codex Alimentarius)

#### **4. Zoonosis and Public Health**

- 4.1 Definition and objectives of zoonosis
- 4.2 Classification of zoonosis. Direct, Cyclo, Meta and Saprozoonoses
- 4.3 Role of domesticated pests, various wild and cold blooded animals in transmission of zoonotic diseases
- 4.4 Mode of transmission of zoonotic diseases and their prevention and control measures
- 4.5 Study of the important zoonotic diseases of the region, e.g., rabies, brucellosis etc.
- 4.6 Methods of prevention, control and eradication of zoonotic diseases
- 4.7 Socio-economic conditions and human health
- 4.8 Zoonotic pathogens as agents of bio-terrorism