

# JOB ROLE – ANIMAL HEALTH WORKER

Sector – Agriculture

(Qualification Pack Code: AGR/Q4804)

Class IX



PSS Central Institute of Vocational Education  
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# **UNIT 4: PREVENTION AND CONTROL OF INFECTIOUS AND CONTAGIOUS DISEASES**

## **Session 1: Factors Responsible for the Spread of Diseases in Farm Animals**

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# Session Objectives

The student will be able to :

- Describe the factors responsible for the spread of diseases.
- Explain the common routes of disease transmission and epidemic diseases.
- Describe the agencies involved in control of epidemic diseases.

# Introduction

To control farm diseases and transmission, it is very important to know about factors responsible for the spread of diseases, routes of disease transmission.

A Animal Health Worker should be aware about the agencies involved in the control of animal diseases and the reporting mechanism for outbreak of diseases.

# **Factors Responsible for the Spread of Diseases in Farm Animals**

Disease is a condition of discomfort in an animal caused by pathogens like bacteria, virus, parasites (worms) and fungus.

# Types of Farm Animal Diseases

<b>Bacterial Diseases</b>	<b>Viral Diseases</b>	<b>Parasitic Diseases</b>
<b>Anthrax</b>	<b>Foot and Mouth Disease (FMD)</b>	<b>Tapeworm infestation</b>
<b>Black quarter</b>	<b>Rabies</b>	<b>Hydatid cyst</b>
<b>Tetanus</b>	<b>Plague</b>	<b>Ascariasis</b>
<b>Tuberculosis</b>	<b>Pox</b>	<b>Babesiosis</b>
<b>Colibacillosis</b>	<b>Influenza</b>	<b>Theileriosis</b>

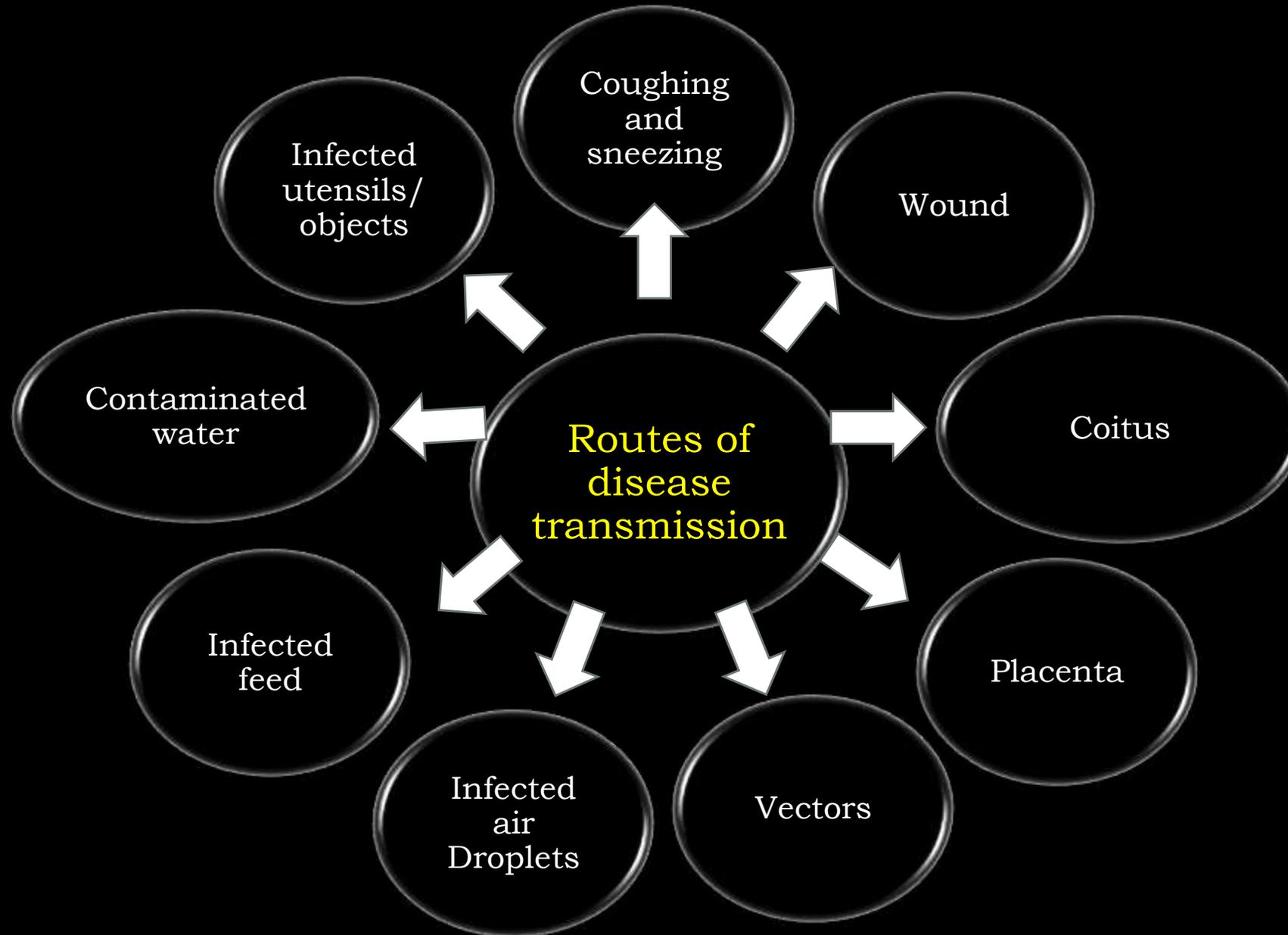
# Factors Affecting Spread of Diseases

1. **Genetic:** Exotic breeds of cattle are more susceptible to various pathogens as compared to indigenous breeds of cattle.
2. **Age:** Young animals have weak immunity as compared to mature animals and thus get infected with pathogens easily.
3. **Nutritional status:** Poorly fed and unvaccinated animals easily get infected with pathogens.
4. **Climate:** Hot and humid climate and unhygienic farm practices propagate the pathogens at a faster rate.

# Routes of Disease Transmission

1. **Respiratory route:** When an infected animal coughs or sneezes, the pathogens are transmitted to other animals.
2. **Digestive route:** When grass or water contaminated with dung or secretions of the infected animal is consumed by healthy animals, the disease gets transmitted.
3. **Through wounds:** In case of an injury or wound on the animal, some of the pathogens can enter into the body of healthy animals through the wounded part and cause diseases like Tetanus.
4. **Other routes:** Pathogens may transmit diseases among animals through vectors like ticks, mites, fleas, etc.

# Routes of disease transmission



# Epidemic Diseases

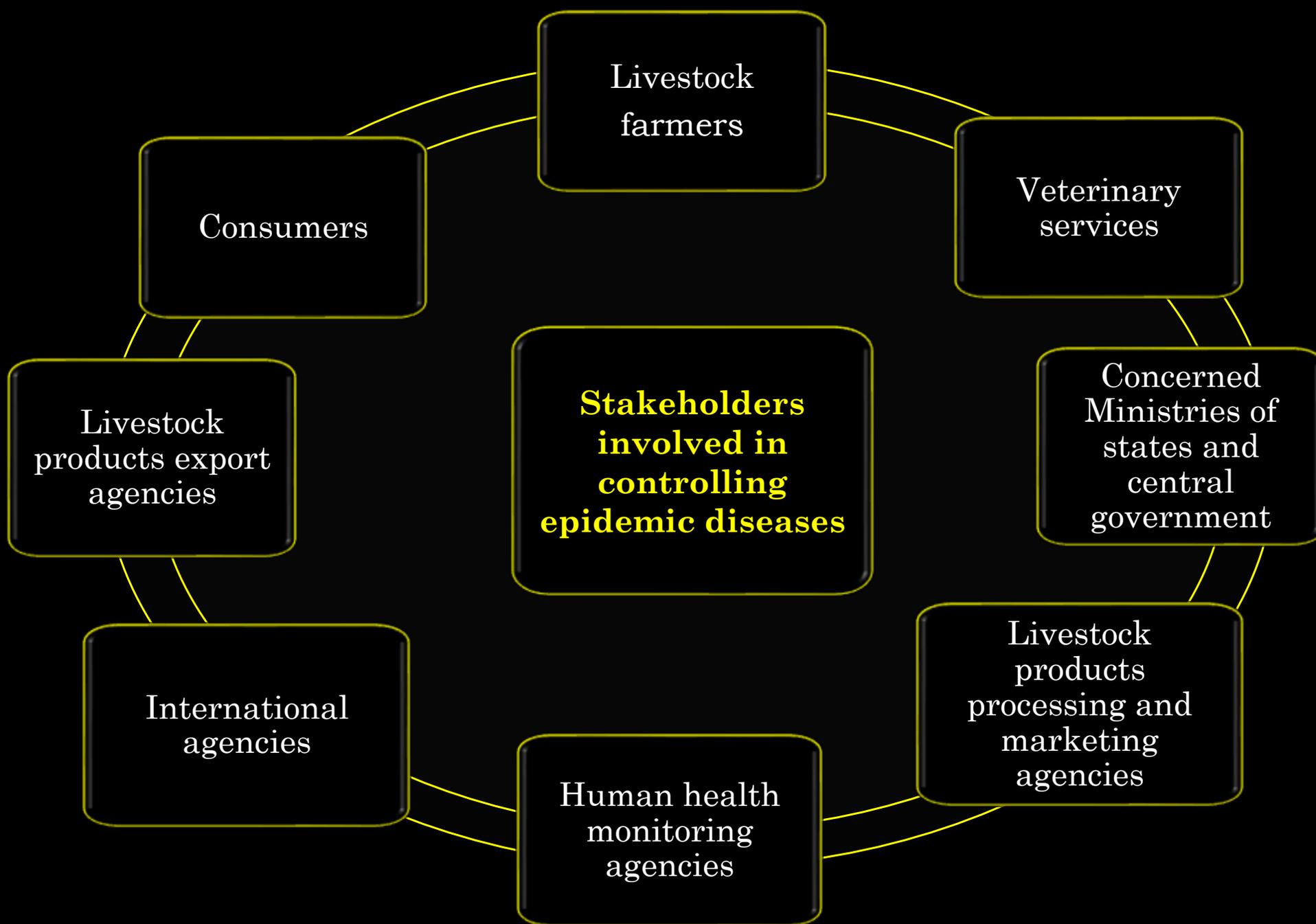
Animal diseases pose a big threat to the health of livestock and human beings. They cause economic loss to the farmers by:

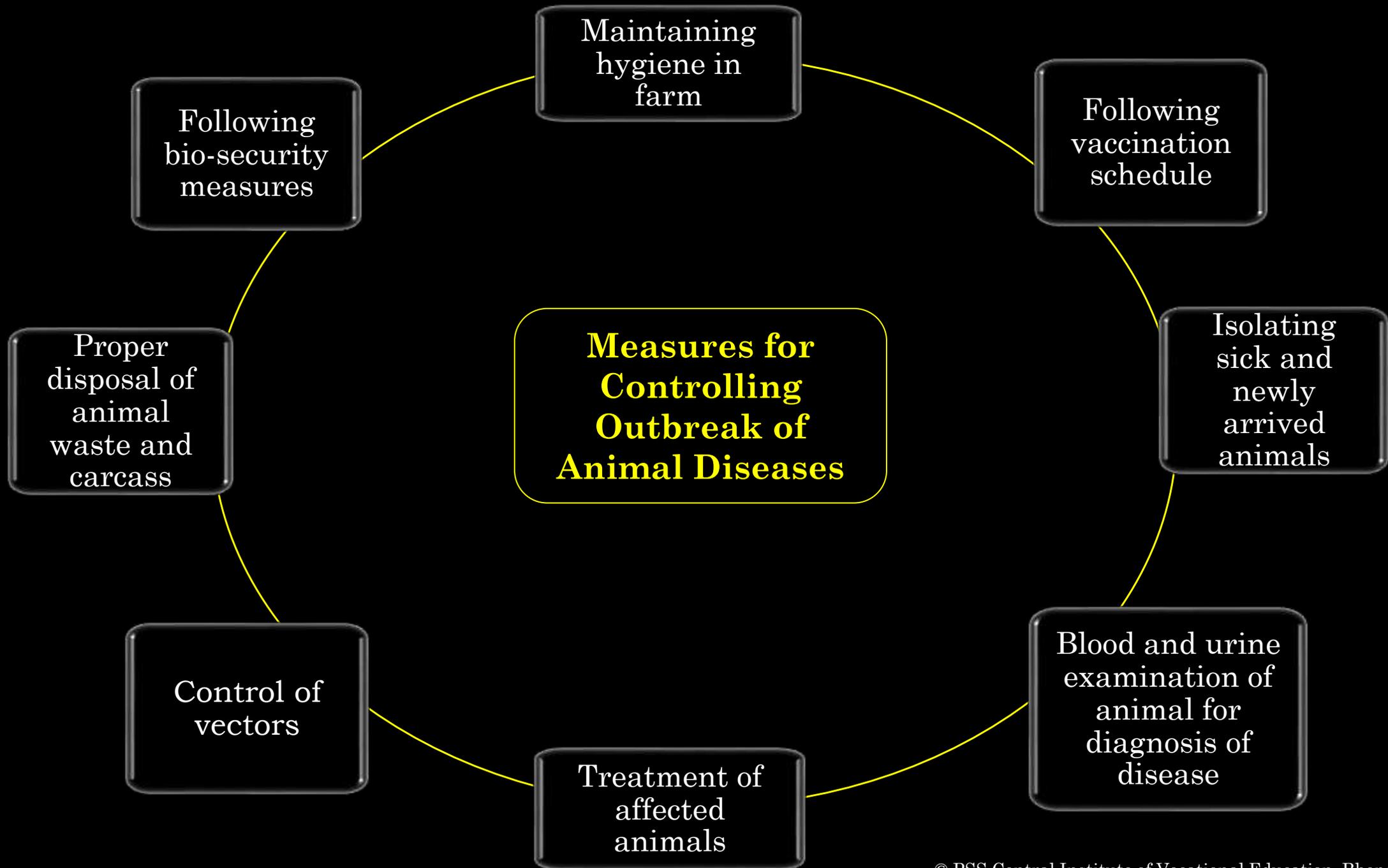
- (a) causing death of productive animals
- (b) reducing production of milk, eggs or wool and
- (c) decreasing fertility and reproductive capability in animals.

The diseases that spread very fast and easily across the farms, regions and national boundaries are called epidemic diseases, for example, Foot and Mouth Disease in cattle.

# Agencies Involved in Control of Epidemic Diseases

1. The laws and regulations in different countries regarding control measures and prevention of animal diseases are different.
2. Hence, to have uniform standards on monitoring animal health and to minimise the spread of epidemic diseases, the **World Organisation for Animal Health (WOAH)** was formed.
3. The WOAH is an intergovernmental organisation responsible for monitoring and improving animal health worldwide.
4. A total of 180 countries are members of this organisation.



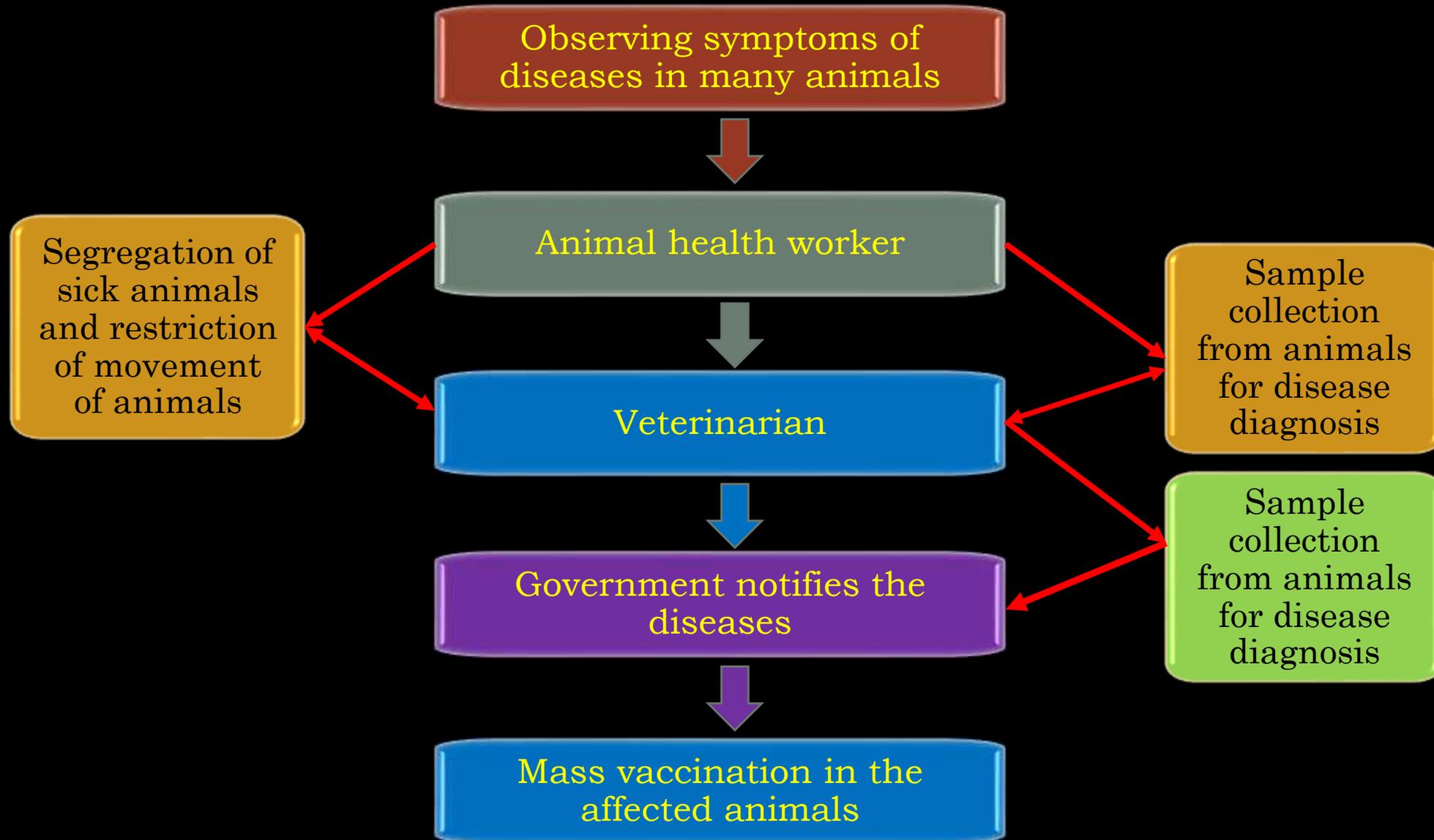


# Infectious and Contagious Diseases

Despite the adoption of all the preventive measures, there are chances that some of the animal diseases may suddenly appear in animal farms and damage animal health in a short span of time. Such a situation is called outbreak of that disease.

**Scheduled diseases:** The animal diseases which are listed as scheduled disease have a serious impact on the health of livestock, international trade and public health. Anthrax, Bluetongue, Brucellosis, Anaplasmosis and Tuberculosis are some examples of scheduled diseases.

# Reporting Mechanism in Case of Epidemics in Farm Animals



# Summary

In this session, you have learnt about factors responsible for the spread of diseases, routes of disease transmission, epidemic diseases and agencies involved in control of epidemic diseases.

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