

Bio-Security of dairy farm

Dr DANVEER SINGH YADAV

Assistant Professor

Livestock Production Management

- Minimum disease risk to minimum possible

Definition: Bio-Security is of immense help to **reduce** disease hazards and thereby **improve health status** and **productivity of livestock**.

- 
- Bio-security: The protection of the environment and health of living things from diseases, pests and bio-terrorism.

- 
- Restricted access to livestock farm
 - Provision of footbath
 - Use of personal protective equipment (PPEs)

- 
- Cleaning and disinfecting the animals
 - Dry scrubbing and thorough cleaning of the floors and walls
 - Wet down the surfaces with detergent and water.
 - Scrubbing and cleaning the area with fresh water.

- 
- Spraying disinfectant (like phenol or bleaching powder) on the surface.
 - Cleaning the equipment, feed tubs and buckets with detergent and fresh water.

- In case of a disease outbreak, animal farm is fumigated with formalin and potassium permanganate in the ratio of
- Waste generated in the animal farm like manure, feeds, debris, etc., are disposed off by burial or burning.

- Culling and disposal of farm animals
- Poor production
- Poor reproductive ability or sterility
- Stunted growth
- Incurable illness
- Diseases like Tuberculosis, Johne's disease, Brucellosis
- One or more quarters of the udder being non-functional due to chronic Mastitis.

Objective

- Minimize germ load
- Toxin principle
- Anti-nutritional factors
- Limited infection on farm
- Health
- Maximum production
- Exploit maximum genetic potential

Bio-security measures for livestock farming

Top Biosecurity measures to break the chain of infection

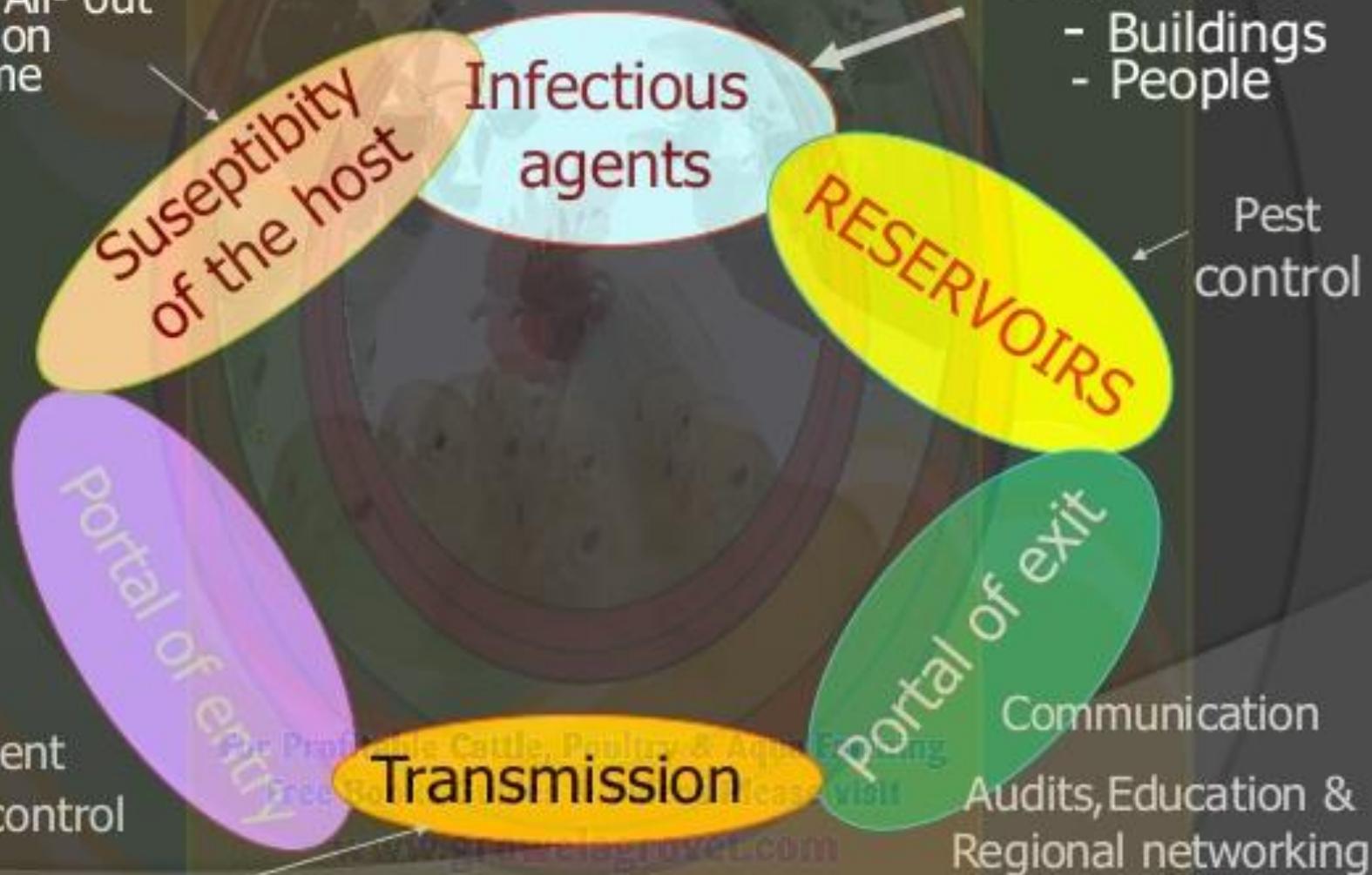
Removing susceptible host

- All - in - All- out
- Vaccination
- Down time

Sanitation

- Buildings
- People

Pest control



- 
1. Purchase of healthy and high potential livestock
 - Suitable area
 - Random sample test units

2. Cleaning, disinfection and rest of houses

- Fumigation
- To **break-up the life cycle of germs** naturally

3. Restricting entry of microbes in farms

- Mechanical carriers
- Footbath at entrance
- Restricted entry outside vehicles and passing them through disinfected dip.



4. Water quality and sanitation:

- Clean cool and potable water
- 02 - 03 month check the microbial count and mineral status
- Avoid development residence by microbes
- U V rays/Ozonisation used for water purification

5. Vaccination and medication

- According to disease prevalence
- Effective vaccination
- Immunomodulators
- Deworming (before one week vaccination)
- **Only essential medicine** with B- complex

6. Supply of quality feed

- Free from microbial contamination(**toxin**)
- Ant nutritional factor
- Fungal toxins(Aflatoxin, T2toxin)
- Immunosuppression

7. Day to day hygiene and Sanitation on farm

- **2-3 weeks** to remove harbouring place of germs

8. Control of parasites and rodents

- Protect from their predators
- **Periodically** treated both external /Internal parasites
- Insecticide should be **rotated**

NO ENTRY



**STRICT
BIO-SECURITY
IN EFFECT**



9. Disposal of dead carcass and waste

- Dead carcass source of infection which spread through air and predators.
- **Dressing waste** on farm should be **burnt**.

10. Stress management

- Changes in climate
- Vaccination
- Sudden change feed

11. Overall management

- Timely

12 Educating farmers and farm managers



BIOSECURITY

DO NOT ENTER