



# How do we stop the outbreak and prevent new ones?

Module 8 – Control and Prevention Measures



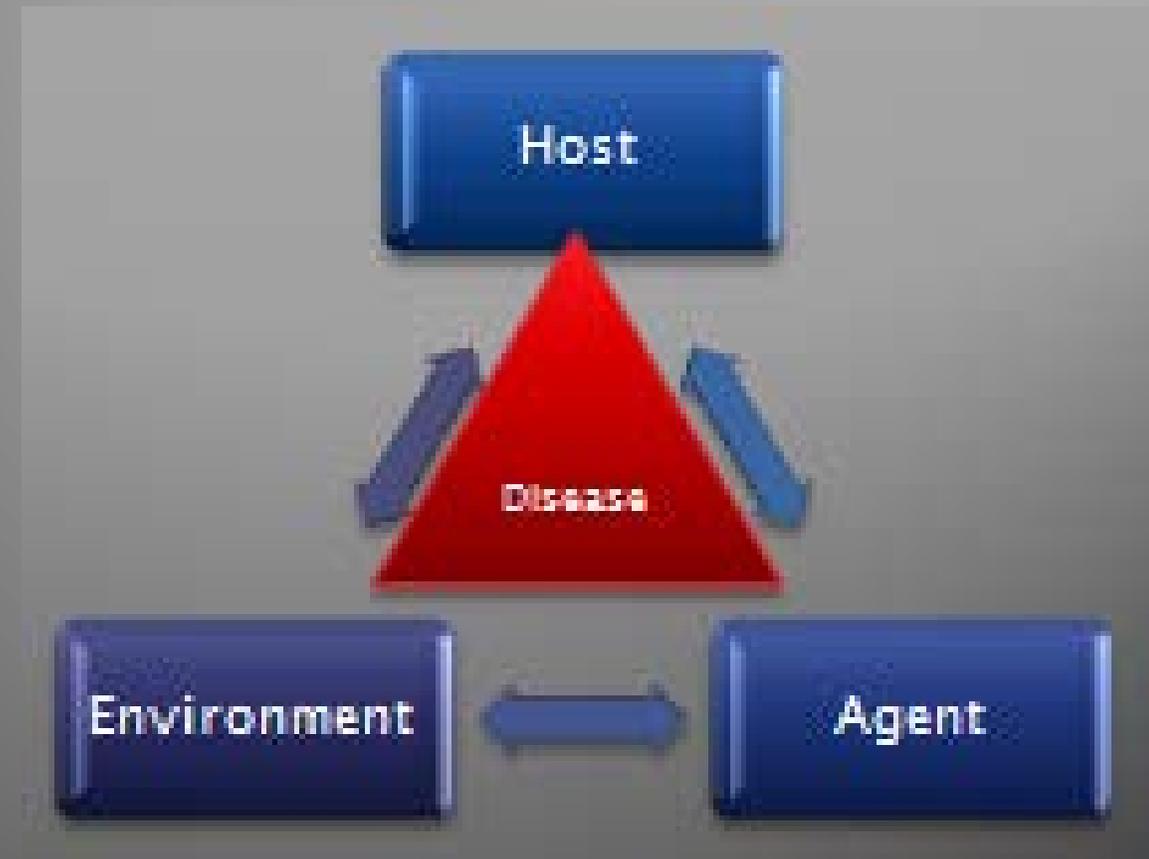
# Objectives

After completing this lesson you should be able to do the following:

- Make recommendations regarding quarantines and hold orders
- Assess the risk pathways for disease transmission onto and off of the premises
- Assess the current biosecurity on a premises
- Implement enhanced biosecurity measures on a premises
- Educate the owner/producer on the importance of biosecurity

# The Epidemiologic Triad

- ▶ Agent
  - Virus, bacteria, parasite, toxin ?
- ▶ Environment
  - Route of transmission, stability in the environment?
- ▶ Host
  - Single species, multiple species, zoonotic?





# Quarantines and Hold Orders

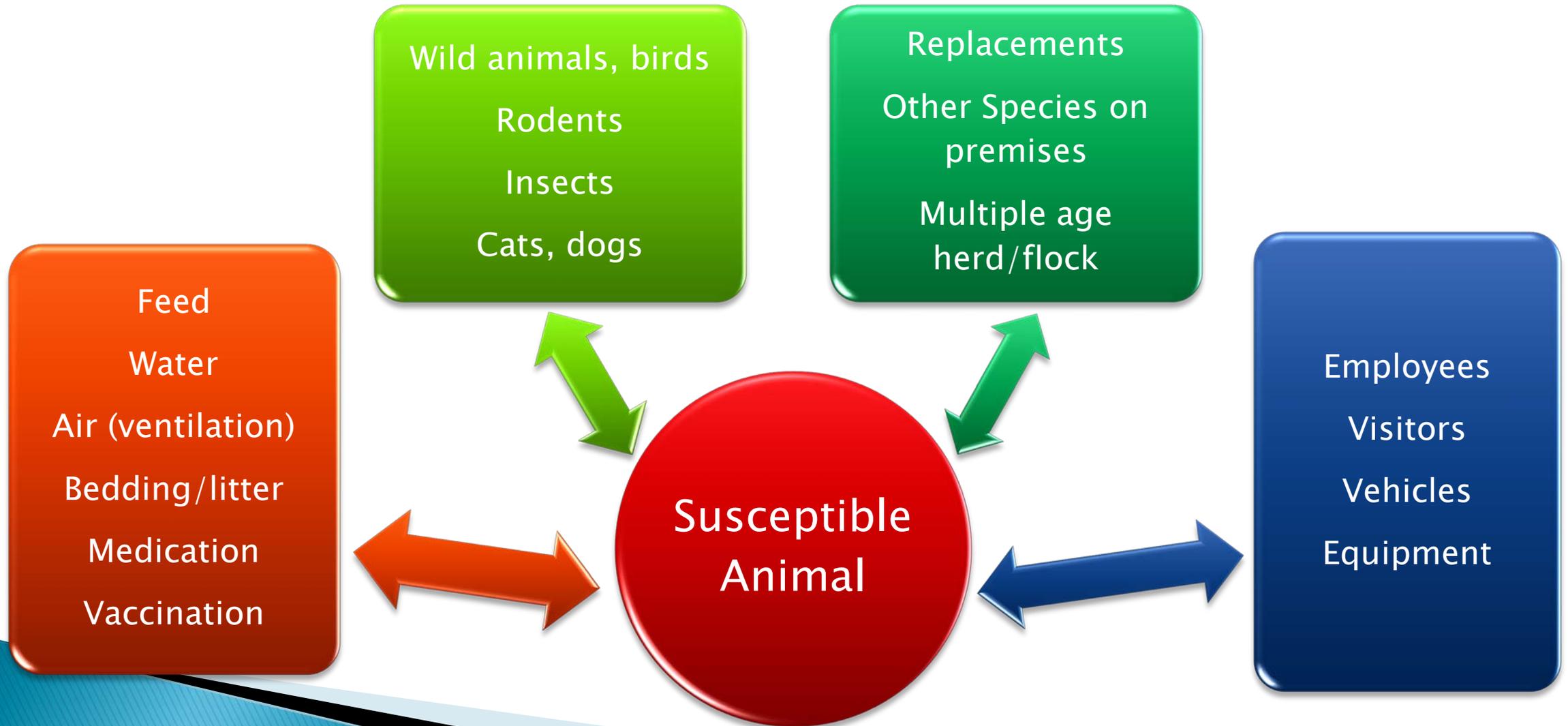
- ▶ Quarantine – “a restraint upon the activities or communication of persons or the transport of goods designed to prevent the spread of disease or pests”
- ▶ Hold orders are less formal, and are sometimes verbal directives.
- ▶ Quarantine orders are legal documents, enforceable by law.
- ▶ Generally, quarantines are placed under State authority. Federal interstate movement restrictions are less common.



# Writing a Quarantine Order

- ▶ Obtain a complete inventory of animals and products; ID may be required
  
- ▶ Make sure the order is specific and complete
  - Some examples–
    - When investigating a possible Contagious Equine Metritis case, you notice goats housed with the suspect equine. Do you quarantine the goats too?
    - When investigating a possible Avian Influenza outbreak on a farm that also houses swine, do you quarantine the swine? What about rabbits housed in the same barn?
  
- ▶ Make sure to indicate what is required for quarantine release
  - Testing
  - Controlled marketing
  - Depopulation
  - C&D

# Risk Pathways for Pathogens





# Biosecurity

- ▶ Biosecurity is an approach to animal husbandry that has a focus on preventing the introduction of pathogens by assessing all possible risks to animal health – basically keeping animals separate from disease organisms.
- ▶ Biosecurity is also a tool to help minimize the effect of infections and decrease the impact of disease.
- ▶ Biosecurity is a set of practical measures intended to decrease the likelihood of disease organisms moving onto or off of a premises.



# Implementing Enhanced Biosecurity

- ▶ Restrict visitors, vehicles and equipment from entering the premises.
- ▶ Ensure that anyone and anything that does enter is properly cleaned and disinfected prior to leaving.
- ▶ Dispose of animal carcasses, bedding and manure safely.
- ▶ Do not allow pets, other livestock or wild animals to enter the area housing the quarantined animals.
- ▶ When potentially infected animals are allowed to move to slaughter, it should be scheduled as the last shift at the end of the week to allow for proper cleaning, disinfection and down-time of trucks and processor. Route trucks away from other producers.



# Good Biosecurity Starts With You

- ▶ Model good biosecurity for the people you visit every day. When producers see it done correctly and consistently by you, they will be more likely to speak up if another visitor takes short cuts.
- ▶ Take the time to explain what you are doing and why. We are all educators every day!
- ▶ Use non-outbreak situations to help producers improve biosecurity.



# Summary

- ▶ Make sure quarantine orders are specific and complete
- ▶ Take into account all of the risk pathways for disease when assessing biosecurity
- ▶ During an outbreak, include specific and detailed biosecurity measures in the herd or flock plan.
- ▶ Practice and encourage good biosecurity every day