BIOSECURITY IN A PIG FARM

FARMERS TRAINING

26TH MARCH 2025

PRESENTOR: DR G M WAMAI

Tel: 0728 522 676

GWamai@farmerschoice.co.ke

Is everything Okay????

Objectives

- By the end of the training, attendees to have learnt;

1. What is biosecurity
2. How are diseases spread
3. Biosecurity measures
4. What to do during a diasease outbreak

Definition

- A set of practices, measures and policies aimed at preventing entrance of disease causing agent inside the pig farm or preventing spread of infections within the same farm

Principals of biosecurity

- **Bio-exclusion;** prevention of disease introduction (external biosecurity measures)

- **Bio-containment;** prevention of disease spread within the same farms, group of animals and different animals (internal)

Impact of diseases in a pig farm

- Mortalities – African Swine Fever, Foot and Mouth, Swine Influenza
- Slow growth rates
- High veterinary and treatment costs
- Reproductive issues like infertility, reduced litter sizes
- Disruption of supply chains – quarantine and movement restrictions
- Trade restrictions
- Carcass contaminations
- zoonosis

How are diseases spread???

- Understanding disease transmission is central to designing proper biosecurity protocols

  - ❑ Direct transmission – animal to animal contact

  - ❑Indirect – contact with fomites (inanimate objects), vectors(rodents, birds, insects, domestic animals

PIG PRODUCTION SYSTEMS

PRODUCTION SYSTEM

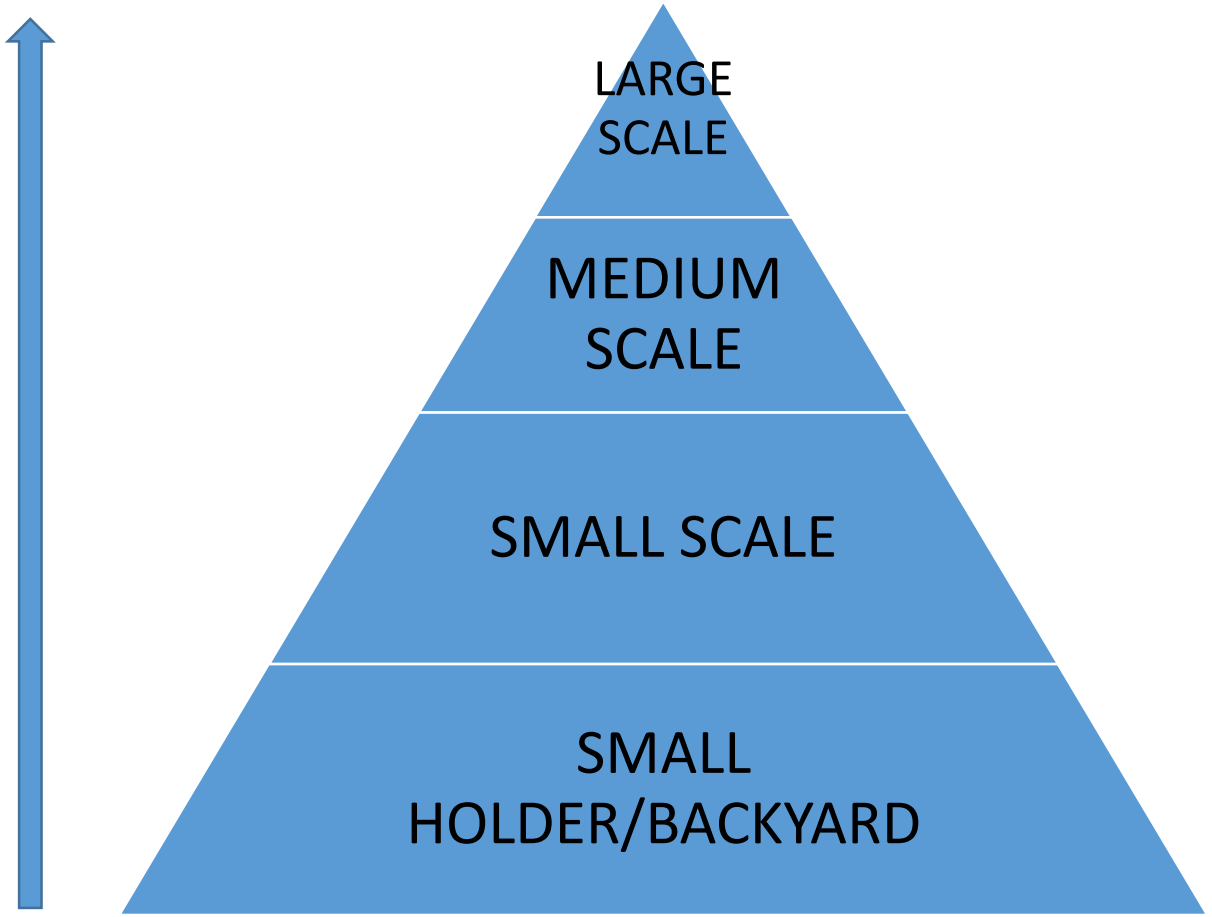
- **SMALL HOLDER/BACKYARD (1 – 10 PIGS/HOUSEHOLD)**
- **SMALL – MEDIUM SCALE (5 – 20 SOWS)**
- **MEDIUM SCALE (20 – 500 SOWS)**
- **LARGE SCALE (> 500 SOWS)**

Farmer's Choice

Biosecurity Levels in different production systems

- Highest

- Lowest



Designing biosecurity protocols

Critical they cover all routes of disease transmission. Which include;

- Farm staff – resident at the farm
- Visitors – source
- When selling pigs – brokers??
- Going off farm to buy supplies/receiving supplies - feeds
- Replacement breeding stock – source (transboundary dise
- Introduction of new animals – quarantine and mixing
- On farm Pig flow management practices (all-in-all-out)
- Control of rodents, birds, wildlife and other pests
- Manure management
- Dead stock disposal

Bio-exclusion/ Bio-containment measures

CONCEPTUAL

Physical Location – away from road and other farms, slaughter houses, markets

STRUCTURAL

Physical barriers – fencing, layout, showers, changing rooms, visitors, feed delivery

PROCEDURAL

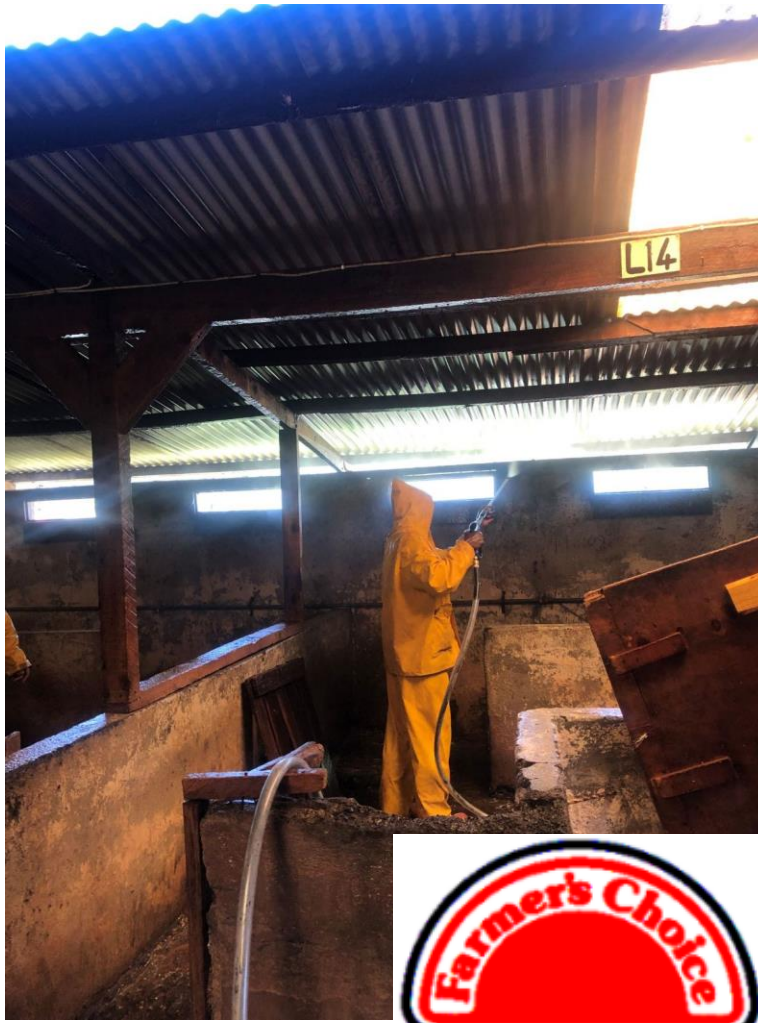
Routine procedures – adjusted quickly incase of disease outbreak

E.g. taking shower, changing PPEs, hand washing, disinfecting equipment and premises, flow of pigs(batch), isolation units, foot baths, wheel dips

External measures

Well maintained wheel dip

Internal measures



Farmer's Choice

Constraints to implementation of good biosecurity in pig farms

- Lack of awareness
- Lack of inputs - disinfectants, implements, technical personnel
- Fragmented systems/stakeholders
- Production systems – multiple species, communal boars,
- Costs involved – veterinary and implementation
- Water availability and quality
- Feed sources/types
- Poor manure and carcass disposal policies
- Lack of policies/implementation and or participation

Break of biosecurity protocols

Disease outbreak??? Which disease????

What to do during a disease outbreak???

Within Neighborhood;

- Stop purchase of any new animal into the farm
- Restrict number of visitors to the farm
- Ensure wheel dips and foot baths are well maintained
- Ensure workers at the farm from outside don’t interact with the animals
- Enhancing cleaning and disinfection at the farm
- Closely monitor animals for early detection
- Involve the local vets immediately

Disease outbreak within the farm???

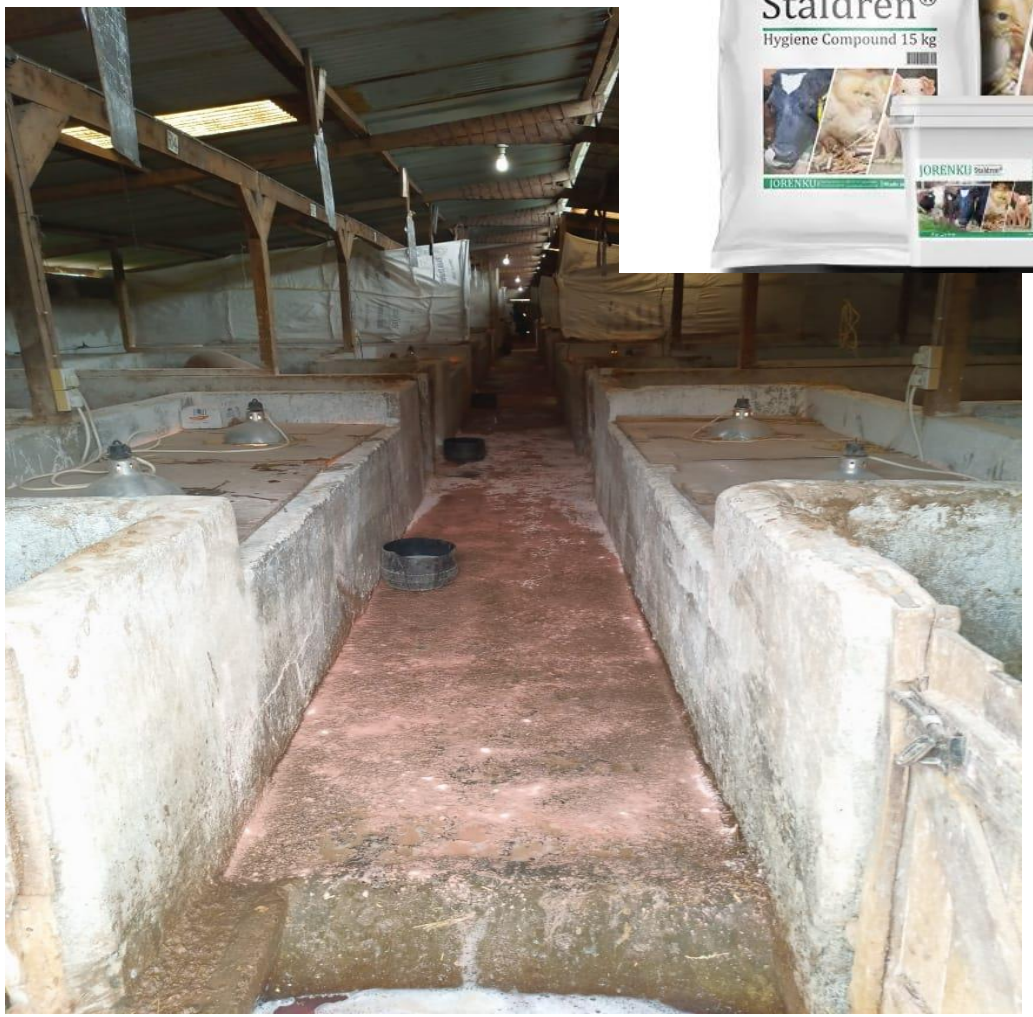
- Quarantine the pen, building, farm unit area, or entire farm
- Designate specific caretakers for the sick animals
- Seek professional support immediately
- Proper PPEs
- Proper decontamination and disposal of carcasses
- Restrict movement of animals and people within the farm
- Attend sick animals last

Products that can be used during outbreaks

- Magadi
- Strong disinfectants like Virkon S, Phenols
- Staldren

Why use

at the farm??



- Highly effective against bacteria, viruses, fungi
- Gentle to animals (commonly used in farrowing pens) and environment
- Easy to apply
- Binds ammonia – reduce smells
- Absorbs moisture – maintains dry pens
- Cost effective
- Package; 1kg , 25kgs

Farmer's Choice


Thank you