

Application of biosecurity measures in practice

Training of Trainers (ToT) in Outbreak
Investigation and Response Management 2021
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Trainers



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Training Aim and Output

The overall aim of the FMD training programme were to improve District Officers capability to reduce the impact of FMD in Lao PDR .



How

DAFOs to prevent the introduction of FMD into villages and minimise the spread of clinical cases of FMD to other villages with the support from stakeholders

Desired outputs of the programme

- improved application of practical biosecurity measures by veterinary Para professions during outbreak investigation, response management and routine field work.
- provided appropriate advice to the farmers to apply and strengthen personal and farm biosecurity

Learning objectives

At the end of the training,

- the District officers would be able to apply biosecurity principles outbreak investigation and response management as well as during field work.
- the District officers would be able to provide advice to farmers to apply personal and farm biosecurity measures.

Linkages with OIE VPP Competencies

Lesson	Expected capabilities	OIE VPP Competencies
Personal biosecurity	<ol style="list-style-type: none">1. Apply personal hygiene to prevent onwards spread of infectious diseases, including FMD to other livestock.2. Advise livestock owners about preventive measures when introducing new livestock to herd.	3.1, 3.2, 6.2

Recap of how FMD spread ?

FMD spread by

- **Direct animal contact** The most likely transmission route is through direct animal contact e.g. common grazing.
- **Animal products** e.g. meat/milk, swill. Virus can be spread through the illegal feeding of untreated swill to pigs, or untreated milk to young animals.
- **Mechanical transmission** e.g. personnel. Virus present in secretions and excretions can be carried on footwear, clothing, vehicles, etc.
- **By air**, in particular when pigs are involved.



What the risk of the spreading disease by outbreak investigation team?

1) Vehicle

2) Equipment

3) people

Question

how to avoid the spread of the disease ?

Answer ?

We all have to follow or practice the
good biosecurity procedure strictly ,
Isn't it ?

What is Biosecurity?

In the OIE Terrestrial Animal Health Code, 'biosecurity is defined as 'a set of management and physical measures designed to reduce the risk of introduction, establishment and spread of animal diseases, infections or infestations to, from and within an animal population'.

Question

How do you prepare for
application of biosecurity
measures in practice ?

Supplies needed:

**CHECK ALL
EQUIPMENT AND
SUPPLIES**

- ☐ Liquid soap
- ☐ Two Brushes
- ☐ Three Buckets
- ☐ Two Bowls
- ☐ Clean clothes
- ☐ disinfectants
- ☐ Gloves
- ☐ Tarpaulin sheet
- ☐ Disposal bags

Question

Are you aware about 3 key principles of biosecurity ?

3 Key principle for biosecurity

1. Segregation

2. Cleaning

3. Disinfection

Instruction

Principles of biosecurity

1. Segregation



- Stop and Park your vehicle in good place and a little bit away from village.
- Identify entry and exit point to identify clearly clean and dirty areas.
- Only take necessary equipment and supplies at the farm

**Non
infected
area**

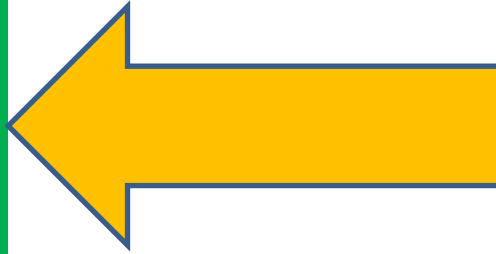


**Infected
village**

Entering a village

**DO NOT BRING
UNNECESSARY
EQUIPMENTS AND
SUPPLIES**

CLEAN



DIRTY

Exiting a Village

2. Cleaning

3. Disinfection

Instruction

Principles of biosecurity

2. Cleaning

- Remove all dirt, faeces, organic matter, soil
 - Cleaning hands
 - Shoes /gumboots
 - Equipment's
- Put all used waste to the disposal waste /bag



3. Disinfection

- Next stage after cleaning.
- Disinfectant to clean foot ware, equipment's.
- Check and change the disinfectant if needed to keep the disinfectant point or footbath or spray effective.
- The sufficient contact time and proper application would be required for effectiveness of the disinfectant.
- Disinfectants are toxic to animals and have environmental consequences hence appropriate safety measures and care should be taken while it application and its judicious use is recommended.

How to destroy or reduce risk of FMD virus?

Use of Disinfectant. FMD virus is vulnerable to extreme PH both acid (Citric acid, 4% Vinegar) and Alkali (caustic soda).

Instruction

Principles of biosecurity

3. Disinfection

Vehicle wheel, mudguard disinfection by spraying and allow them to dry if possible before



Handout material - I

3. Cleaning and disinfection

For good hygiene of your animals:

Regularly clean housing and surrounding area

Regularly clean feeding, watering troughs and other equipment



Use clean water, detergent for washing/cleaning
Use 0.2% citric acid for disinfection of equipment

Things to practice into good habits:

Personal hygiene

- Always wash your hand, shoes and equipment after touching animals

Before catching animals

- Always prepare clean equipment and wear clean clothing

Animal products

- Always clean and properly dispose of animal waste, carcass and manure

Dirty equipment

- Always clean equipment before going to next property

The New Zealand-OIE FMD Control Project
Department of Livestock and Fisheries



Handout material-II

2. Separate sick animals & quarantine new animals

- Separate sick animals from others to prevent spread of FMD
- Quarantine new arrival animals for a minimum of 15 days
- Avoid common grazing
- Observe sick animals, separate feed and water
- Avoid farmers/traders to enter your property
- FMD can spread by contaminated equipment, vehicles from trader



The New Zealand-OIE FMD Control Project
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Practice

- Please go through the biosecurity check list and supplies.
- Please go through the Biosecurity Video and awareness material (I and II).
- Physical demonstration of application of 3 key principles of biosecurity (Post –COVID)
- Role play for advising farmers, traders and community animal health workers.

Supporting materials

- Biosecurity equipment checklist
- Equipment kit for demonstration
- Biosecurity awareness material – poster, mobile flip chart and video.
- Biosecurity guidelines.
- Power point presentation

Summary

- Apply 3 steps biosecurity principles segregation cleaning and disinfection at peace time as well as during outbreak investigation.
- Be a biosecurity champion – lead by example to prevent onwards spread of infectious diseases, including FMD.
- Advice farmers to separate sick animals and apply personal and farm biosecurity measures.

References

- DLF's District officers Manual on FMD control.
- DLF's Biosecurity guidelines.
- Glossary, OIE Terrestrial Animal Health Code (2018).
- OIE recommendations of use of disinfectants
https://www.oie.int/fileadmin/Home/eng/Health_standards/tahc/2018/en_chapitre_disinfect_disinsect.htm

Thank You
for your attention!