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# Management of cattle on arrival to feedlots

Best practice guidelines for effective  
vaccination on arrival

Prepared for MLA

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# Introduction

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This material has been prepared in response to a request from Meat and Livestock Australia (MLA) to provide advice on the best process for managing and vaccinating cattle against Foot and Mouth Disease (FMD) and Lumpy Skin Disease (LSD) upon arrival at Indonesian feedlots. Information is based on current understanding of vaccination efficacy, regional disease status and biosecurity practices. Recommendations may be subject to change in the event of new knowledge or a change in regional disease status or biosecurity approaches.



## From port to feedlot

- Naive animals arriving at the port should be prevented from coming into contact with live animals (cattle, buffalo, sheep, goats or pigs) or potentially contaminated items such as trucks or dirty equipment.
- Trucks should be cleaned and disinfected prior to loading cattle with organic material (e.g. soiled bedding and faeces) removed and disinfectant applied.
- Insects should be removed from trucks using chemical insecticide or insectocutors.
- If bedding is used for transport, it should be fresh and clean and obtained from a safe source.
- Personnel transporting livestock (transporters) should not be involved in moving cattle if their own livestock are currently infected with FMD or LSD or if they are living in a village with an active outbreak.
- Personal livestock (cattle, buffalo, sheep, goats or pigs) ownership amongst transporters should be recorded.
- Transporters should take the most direct route to the feedlot (whilst also avoiding outbreak areas if they are known).
- Transporters should only stop for breaks that are necessary i.e. necessary for driver safety or with ESCAS/livestock transport requirements compliance.
- Other animals of susceptible species (cattle, pigs, goats and sheep) should not be collected en route to the feedlot.

## At the feedlot

### Quarantine

- New animals should be placed under 'quarantine' per usual requirements (14 days).
- Animals in quarantine should be located as far away as possible from existing animals and kept in such a way as to avoid animal to animal contact (not in adjacent pens).
- Staff tending to animals in quarantine should tend to them first.
- Staff tending to animals in quarantine should maintain strict hygiene with foot baths and hand washing stations on entry to the quarantine pen.
- Where possible, clean, freshly laundered overalls should be available for staff tending to quarantine animals.
- Staff who reside in an area experiencing current outbreaks of LSD or FMD should not be allowed to tend to animals in quarantine (if this is not possible, these staff should also wear masks and clean overalls and shower on arrival if facilities are available).
- Entry of visitors and vehicles should be limited.
- Visitors should not be allowed to access animals in quarantine.
- No visitors who have been in contact with FMD or LSD affected animals or have been to an area experiencing a current outbreak should be allowed to enter the site.
- Entering vehicles should be inspected and found to be clean and disinfected before being allowed into the facility. There should be designated parking away from the feedlot pens.
- Equipment used to tend to animals in quarantine should not be used elsewhere in the facility and should be cleaned and disinfected daily.
- If equipment must be used elsewhere, including auto feeders, it must be cleaned and disinfected after use and stored safely to prevent contamination.



## Vaccination

- Animals should be vaccinated as soon as possible once arriving at the feedlot. It is preferable to only vaccinate healthy animals. However due to the risk of FMD, even animals showing signs of mild illness (off feed, diarrhoea, lameness, etc) should be vaccinated.
- If other procedures are required such as weighing, tagging or blood sampling, these should all be conducted at the same time to avoid numerous stressful events.
- Animals should be vaccinated for FMD and LSD in accordance with the manufacturer's instructions. Anecdotally, it is safe to administer LSD and FMD vaccines at the same time provided separate syringes are used and each vaccine is injected into opposite sides of the neck.
- Vaccination in breeding females is considered safe if administered before mating OR after Day 44 of gestation. Calves born to previously infected or vaccinated cows should be vaccinated at 6 months. It is safe to vaccinate them from as early as 2 months but there may be interference from maternal antibodies, limiting the effectiveness of the vaccine.
- Electronic or paper records should be completed to record which animals have been vaccinated. Animals in quarantine should remain in quarantine for at least 7-10 days post vaccination<sup>1,2</sup>.

## Monitoring

- Animals in quarantine should be monitored daily and any animals showing signs of general illness and/or lameness should be immediately removed.
- Animals should be closely monitored for depression, reduced food intake, drooling, teeth grinding, blisters, nasal discharge and lameness.
- Serology can be conducted to monitor responses to vaccination and provide information on the level of protection. If feedlots are interested in using serology they should contact the national reference laboratory (PUSVETMA: [pusvetma@pertanian.go.id](mailto:pusvetma@pertanian.go.id)).
- Photos of animals with clinical signs are shown in Appendix 1 – Clinical signs of FMD.

<sup>1</sup>The development of immunity will vary between cattle.

<sup>2</sup>The Government of Indonesia stipulates that cattle arriving into the country should be in quarantine for at least 14 days.



# Appendix 1 – Clinical signs of FMD

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Figure 1 Young bovine with foot and mouth disease (Kitching, 2002)



Figure 2 Cow with ruptured tongue vesicle, two days after start of clinical signs of FMD (Kitching, 2002)



Figure 3 Healing tongue of bovine with FMD, four days after the start of clinical signs (Kitching, 2002)



Figure 4 Tongue lesions on a cow with FMD (Kitching, 2002)



Figure 5 Ruptured vesicle on the foot of a bovine five days after clinical signs of FMD first appeared (Kitching, 2002)



## References and further information

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Images from:

Kitching, R.P., 2002. Clinical variation in foot and mouth disease: cattle: -EN- -FR- -ES-. Rev. Sci. Tech. OIE 21, 499–504. <https://doi.org/10.20506/rst.21.3.1343>

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