



FACT SHEET

FAQ'S RISK MANAGEMENT FOR PORCINE EPIDEMIC DIARRHEA VIRUS (PEDV)

Is APL communicating with the Federal Government regarding PEDV?

APL is in regular contact with the Federal Department of Agriculture (DoA) via APL's Biosecurity Strategic Review Panel (BSRP), which includes representatives from Animal Health Australia, Australian Pig Vets and the DoA. The BSRP meets regularly with the last meeting being held late February 2014. Discussions about PEDV dominated the meeting, which resolved to address a number of issues. APL Policy Division has also had meetings with the Federal Chief Veterinary Officer (CVO).

Does the Federal Department of Agriculture have any planned actions?

The CVO would like to add PEDV to the list of exotic diseases covered by the Emergency Animal Diseases Response Agreement (EADRA). APL has commenced the risk analysis (which is required by the Federal Animal Health Committee). The risk analysis outcomes will also be incorporated into an AUSVETPLAN for PEDV.

What measures have APL implemented?

APL has commissioned a PEDV risk analysis with Associate Professor Eric Neumann (NZ). The BSRP will also review the latest American Association of Swine Vets (AASV) information particularly as PEDV in North America is behaving very differently to PEDV in Asia. These findings may result in a review of the current Australian Biosecurity Protocols for pork.

What has APL done to inform industry?

PEDV has been widely discussed with industry via a range of channels. APL's Research & Innovation team have also produced a PEDV Producer Alert, which includes biosecurity recommendations for stock transporters and feed manufacturers.

Has APL asked the producers of local plasma to outline what measures they are taking to prevent movement of disease via plasma here?

Since contaminated feed and/or feed ingredients have been suggested as possible causes for the outbreaks of PEDV in the USA, and feed samples from the first Canadian farm infected were PEDV positive, concern has been raised in Australia regarding domestically produced spray dried porcine plasma. Feedworks has outlined their measures to ensure the integrity of the Australian produced porcine plasma to industry via a newsletter. Australia does not import spray dried porcine plasma for use in animal feeds. However, of greatest concern is imported feed ingredient products from markets where the disease is occurring or has previously occurred e.g. parts of Asia.

Do we need to make any changes regarding on farm biosecurity protocols?

Recommendations for biosecurity procedures for staff and visitors include:

- *Limit visitors to farms*
 - *Unnecessary visitors that will have contact with your pigs should be discouraged.*
 - *Maintain a visitor register which visitors have to sign indicating that:*
 - i. *they have showered and changed clothes since their last exposure to pigs;*
 - ii. *they have not returned from overseas travel (especially in countries where PEDV has been reported) within the last seven days; and*
 - iii. *exactly where they were and on what dates they visited pigs.*
- *Follow other generally accepted biosecurity practices*
 - *Routinely clean clothing and footwear*
 - *Control entry to the farm*
 - *Implement a policy which does not permit staff to own or work with other pigs*
 - *Keeping non-farm vehicles outside of farm or at least their drivers inside their vehicles*



Do producers need to implement changes to biosecurity protocols regarding vehicles?

Studies indicate that abattoirs or stock collection points have played a significant role in the spread of PEDv in the USA. A preliminary study conducted at six abattoirs involving sample collection from stock trailers before and after unloading pigs, showed that although 17.3 per cent of trailers were contaminated before loading, 11.4 per cent on average of the trailers that were “clean” prior to unloading were contaminated after unloading. The US Pork Industry¹ has recommended a number of biosecurity procedures to try and reduce contamination of transport vehicles, specifically:

- Clean and disinfect pig stock trailers and trucks/prime movers after every movement of stock (sanitising and drying pig stock trailers is effective against PEDV);
- Use a 2 per cent phenol based disinfectant (phenols are recommended as most other disinfectants would be inactivated in the presence of organic material);
- Washing of trailers with clean water has been shown to be more effective than recycled water;
- Preliminary results suggest that it may be possible to inactivate PEDv in the presence of faeces by heating trailers to 72°C for ten minutes or by maintaining them at room temperature (20°C) for at least seven days;
- Keeping trailers dry is the key to PEDv inactivation as the virus can survive in wet areas for at least 28 days, and
- All equipment, including sorting-boards, paddles etc. need to be thoroughly cleaned, disinfected, and dried;

The US protocols involve a “Line of Separation” (LOS) which refers to a clearly marked area of separation between the farm (sheds or loading out area, the pigs (not being loaded) and the farm employees) and the “outside” (truck, stock-trailer, truck drivers and other people outside of the farm). This LOS is a “no-man’s land”, where no person, equipment or pigs from either side of the line should cross. Summary of the protocol is:

- Loading area should be cleaned, disinfected and dry
- Truck driver must enter the truck wearing clean clothes that have not been worn around livestock. Just before exiting the truck he must put on a clean set of overalls and boot covers and use clean equipment to load the pigs. These items should be located in a designated clean area inside the cabin of the truck

- Farm workers should move the pigs up to the LOS, and the truck drivers should take over the control of the pigs after they cross the LOS
- Truck drivers should never enter piggery surrounds, sheds or offices
- After loading, the driver’s dirty clothes and equipment should be placed in a designated “dirty” area for later cleaning and disinfection. Before entering the cabin the truck driver should use hand sanitiser to make sure that the inside of the truck remains clean
- Any paperwork should be completed prior to loading and left in a pre-determined spot e.g. mailbox
- Provide disposable boot coverings on each side of the LOS, just in the case the LOS is crossed. Any farm employees that cross the LOS MUST follow farm entry biosecurity measures (such as shower in/out or change of clothes/boots and wash of hands) before they can re-enter the loading area.

What are the biosecurity considerations for abattoir unloading?²

In the USA, stringent biosecurity protocols have been implemented to minimise the contamination of trucks and stock crates leaving the abattoir. These protocols are also based on the LOS approach and will assist in reducing or stopping the potential for cross-truck/stock-trailer contamination at unloading. Steps include:

- Define a clearly marked area of separation between the abattoir (sheds & loading out area, the pigs in lairage and abattoir employees) and the “outside” (truck, stock-trailer, truck drivers and other people outside of the abattoir). Abattoir employees may step up to the LOS but not over it to the truck side, whereas truck drivers may step up to the LOS but not over to the abattoir side. LOS should be cleaned and disinfected between each truck
- Truck driver must enter the truck wearing clean clothes that have not been worn around livestock
- Upon arrival at the abattoir, the truck driver must not leave the cabin of the truck until it is backed up to the unloading race
- Just before exiting the truck he or she must put on a clean set of overalls and two sets of boot covers. These items should be located in a designated clean area inside the cabin of the truck. The driver should also carry extra boot covers

¹ National Pork Board Transportation Biosecurity Protocols for PEDV Control

² Adapted from the Indiana Packers Livestock Transporter Biosecurity Protocol



- Once the driver gets the okay to begin unloading, they **MUST** remove their plastic boot covers, allowing for the clean boots to enter the trailer
- The driver should also use clean equipment to unload the pigs. These items should be located in a designated clean area inside the cabin of the truck
- Once the driver enters the trailer, they will not leave the trailer unless they put on boot covers
- If for any reason the driver has to go back on the stock crate, they must remove their boot covers again. **Drivers should not wear boot covers inside the crate that have been in contact with the unloading race or general abattoir area**
- Driver needs to notify abattoir employees of DOA's and or animals that need to be euthanised
- After pulling away from the unloading race the driver must remain in the truck unless dragging off dead animals
- If a driver has dead animals, they need to put a new pair of boot covers on before dragging them off at the dead box
- Driver needs to dispose of all boot covers in supplied rubbish cans before leaving the property
- After unloading the driver needs to leave the premises as soon as possible
- After unloading, the driver's dirty clothes and equipment should be placed in a designated "dirty" area for later cleaning and disinfection. Before entering the cabin the truck driver should use hand sanitiser to make sure that the inside of the truck remains clean.

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What are the biosecurity considerations for stock feed manufacturers?

- Although it was expected that the heat generated through many processes used to prepare feed and various feed ingredients should inactivate the virus, the risk of cross contamination still exists.

APL suggests that stock feed manufacturers:

- Consider implementing a quarantine time of seven days for all imported goods and containers that have been imported from countries where PEDv is present; and
- Re-examine biosecurity processes during feed manufacture to ensure that the risk of re or cross-contamination is significantly reduced.