

**Rural and Regional Affairs and Transport References**  
Answers to questions on notice  
**Agriculture, Fisheries and Forestry Portfolio**

**Inquiry:** Adequacy of Australia's biosecurity measures and response preparedness

**Question No:** IQ22-000070

**Hearing Date:** 15 November 2022

**Division/Agency:** Biosecurity Animal Division (BAD) D3

**Topic:** Importing the LSD live virus relative to an FMD live virus

**Hansard Page:** 24-25

**Question Date:** 15 November 2022

**Question Type:** Spoken

**Senator the Hon Matthew Canavan asked:**

CHAIR: It seems strange that they'd put it in their submission to us but not at least start these discussions with the government. I presume there are, but could you map out the different risks of importing the LSD live virus relative to an FMD live virus? Do they need to be contained at higher-standard laboratories? Are there any greater risks of an escape, as you mentioned?

Dr Parker: I have some outstanding technical people who are back in the office, and I'm happy to give a full answer to that question on notice. But I will provide you with a very short answer to the extent of my technical knowledge. Clearly, LSD is a vector transmitted virus; FMD isn't. So you need the vector as well as the virus in an LSD situation. They are very different viruses like that. I think you would say FMD is a really highly infectious agent that has a whole range of transmissions. It can be transmitted by the wind, it can be transmitted by direct contact, it can be transmitted by fomites—it has a whole range of things. It's a very infective agent in that sense. You could say LSD, because of the involvement of a vector, isn't quite as infective. I'm not using particularly scientific terms; I'm trying to create a picture and a story around this. If it's important to the committee, I'm very happy to provide a more scientific basis for the differences between the viruses and the differences in the containment. But, put simply, you'd want to be pretty sure that you had FMD contained, and you'd want to be pretty sure that the ACDP would be able to meet that. There's a whole range of new containment standards which have come into play since the ACDP was built, so there may be some things in there that it's unable to meet at the moment. It may require significant investment to upgrade the ACDP facilities. All this is a bit unknown at this stage.

**Answer:**

- Lumpy Skin Disease (LKD) and Foot-and-mouth Disease (FMD) affect different species and are transmitted in different ways.
- LSD virus is transmitted primarily by biting insects, but transmission via direct contact with the virus in the environment or through fomites, such as people, are not common methods of infection.
- FMD virus is transmitted by direct contact between animals and by contaminated fomites including laboratory workers and veterinarians if proper biosecurity containment procedures are not observed. Under some circumstances, airborne transmission can also occur. Transmission following incidental laboratory contact with laboratory workers and through incompletely treated laboratory biosecurity waste has been demonstrated overseas.

- FMD virus has escaped from high containment laboratories and vaccine production units overseas on a number of occasions. The risks posed by the escape of FMD virus from specialised laboratories led to the development of specific international minimum standards for the containment of FMD virus.
- The international minimum standards for FMD virus containment were substantially reviewed and updated following the accidental release of FMD virus from the Pirbright site in the United Kingdom in 2007.
- Before an import permit would be considered by the Department of Agriculture, Fisheries and Forestry, a risk assessment of the Australian Centre for Disease Preparedness' facilities, systems and procedures would be required against the international minimum standards and to ensure that the biosecurity risks can be appropriately managed.