

Japanese encephalitis is an acute mosquito-borne viral disease that can cause reproductive losses and encephalitis in susceptible species. The infection occurs in pigs and horses and can also rarely cause disease in other animals and people.

Animals and people become infected through the bite of infected mosquitoes. The disease is maintained and spreads between mosquitoes, some wild and domestic birds, and pigs (Figure 1).

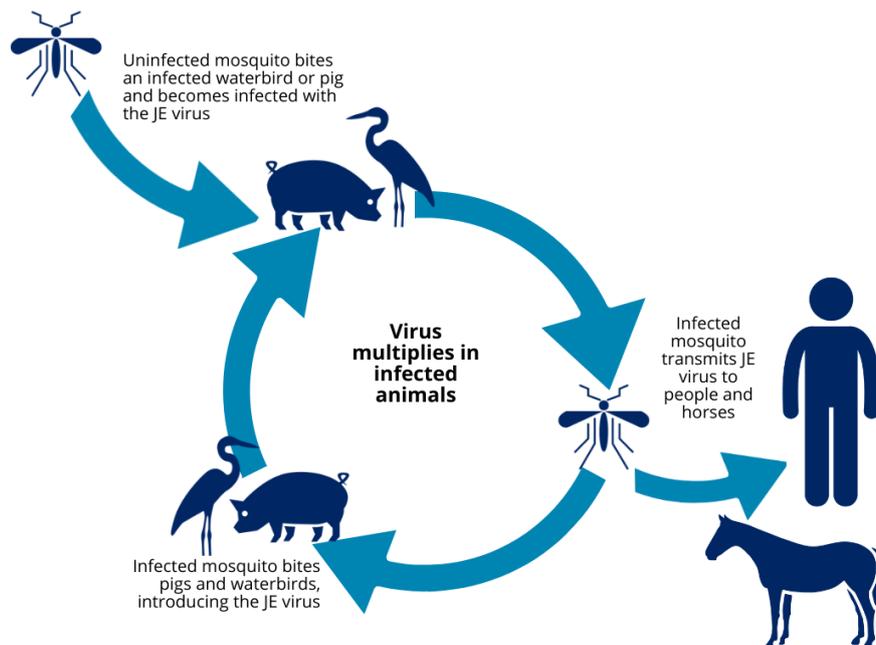


Figure 1. Japanese encephalitis disease virus transmission pathway

Japanese encephalitis in NSW

NSW Department of Primary Industries and the Australian Centre for Disease Preparedness (ACDP) have confirmed the presence of Japanese encephalitis virus in samples from several pig properties. The detection of the virus was confirmed by PCR (polymerase chain reaction) on Saturday, 26 February after ruling out other likely viral causes. It has also been confirmed by whole genomic sequencing by ACDP on one NSW property.

Japanese encephalitis in pigs

In pigs, clinical signs include:

- Mummified and stillborn or weak piglets, some with neurological signs (Figures 2-4).
- In a naïve population, litters from sows and gilts can be both affected Piglets infected after birth can develop:
 - Encephalitis which presents as paddling or other neurological signs in the first six months of life (Figures 5-6 showing brain dissections)
 - Wasting, depression or hindlimb paralysis that may be seen in suckling piglets and weaners.

Adult sows do not typically show overt signs of disease. If boars are present on farm, they may experience temporary infertility and enlarged testicles.

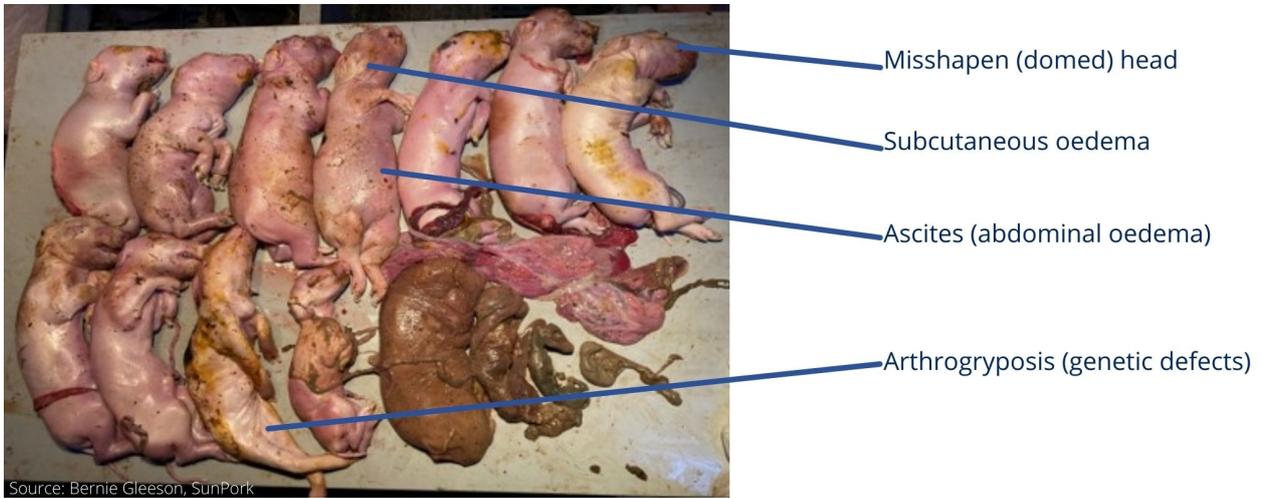
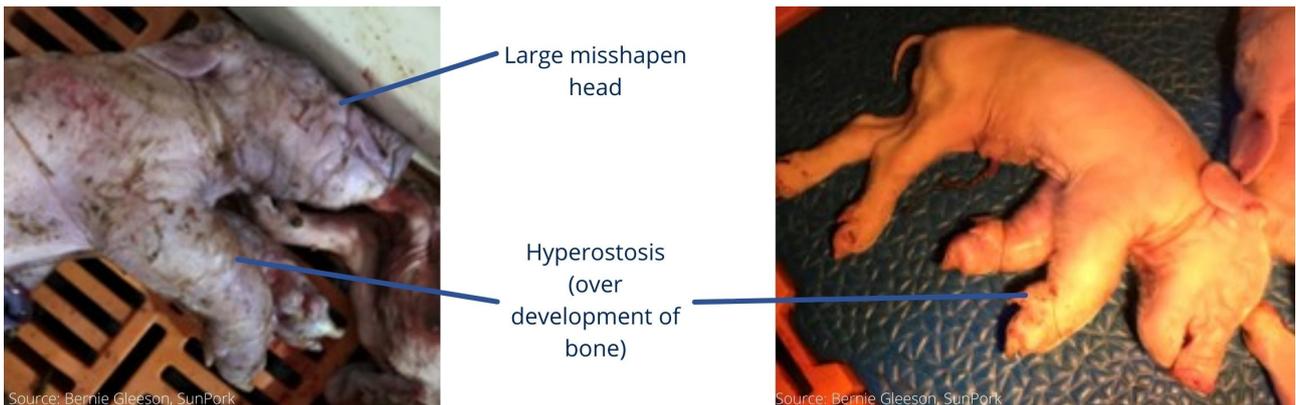
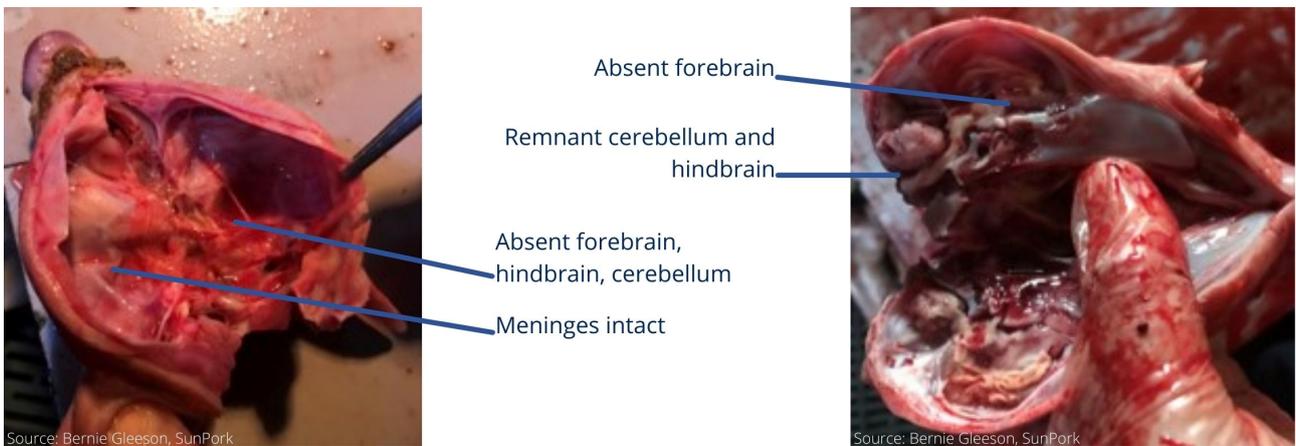


Figure 2. Clinical signs of JE in a litter induced, 7 days over-term. Source: Bernie Gleeson, SunPork Farms



Figures 3 and 4. Clinical signs of JE in piglets. Source: Bernie Gleeson, SunPork Farms



Figures 5 and 6. Brain dissections of two JE infected piglets. Source: Bernie Gleeson, SunPork Farms

Who to call?

If you observe unusual signs of disease, behaviour, or death consistent with JEV in your pigs contact your Local Land Services District Veterinarian (DV) or the **Emergency Animal Disease Watch Hotline on 1800 675 888** for assistance or advice.

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