

CHIEF VETERINARY OFFICER BULLETIN – 27 February 2022

Japanese encephalitis virus detected in NSW piggeries

Japanese encephalitis virus (JEV) detected in samples from piggeries

Summary:

NSW Department of Primary Industries and the Australian Centre for Disease Preparedness (ACDP) have confirmed the presence of Japanese encephalitis virus in samples from six commercial 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.

This is the first time the virus has been detected in NSW livestock samples and suggests it is circulating in the higher-than-normal mosquito populations which have been reported in many areas of the state.

To date, the virus has been confirmed in samples from six properties across southern, central and north-western NSW, as well as at one Victorian property and one Queensland property through tests by those state agencies.

JEV does not present a food safety risk and all Australian grown pork remains safe to eat, however the virus does cause reproductive failures in pigs.

Japanese encephalitis clinical signs

Japanese encephalitis (JE) is a mosquito-borne viral disease, which is maintained in nature by transmission cycles involving *Culex* sp. mosquitoes, certain species of wild and domestic birds and pigs. Humans and horses may also become infected resulting in encephalitis (inflammation of the brain) and death in severe cases.

While adult non-pregnant sows show no obvious signs of infection, JE is associated with reproductive failure in pigs, with 50–70% losses reported in affected populations. Be alert to the signs of JE, including.

- Aborted, mummified or malformed fetuses, or piglets that are stillborn or weak at term,
- Infertility in boars - this is often temporary but may be permanent if the boar is severely affected.

Nervous signs such as tremors and convulsions are occasionally seen in pigs up to 6 months of age.

Other species can be infected with JE and clinical signs are usually mild or not obvious. Occasionally, horses can show neurological signs including severe encephalitis.

How to report symptoms

If pig illness or deaths are consistent with disease due to JEV, or suspect disease in other species contact the Emergency Animal Disease Watch Hotline on 1800 675 888 for advice.

For further information refer to [Emergency animal diseases field guide for Australian veterinarians](#) and the [AUSVETPLAN – Japanese encephalitis](#).

More information on clinical presentation and investigation can be found at:

- [Primefact 955 - Recognising exotic diseases of pigs](#)
- [Pig field investigation questionnaire](#)
- [Emergency animal diseases field guide for Australian veterinarians](#)

How to protect yourself and others

NSW Health advises simple actions to avoid mosquito bites include:

- Cover up as much as possible with light-coloured, loose-fitting clothing and covered footwear when outside.
- Use an effective insect repellent on exposed skin and reapply within a few hours. The best mosquito repellents contain Diethyl Toluamide (DEET), Picaridin, or oil of lemon eucalyptus.
- Use insecticide sprays, vapour dispensing units (indoors) and mosquito coils (outdoors) to clear rooms or repel mosquitoes from an area.
- Cover all windows, doors, vents and other entrances with insect screens.
- Remove any water-holding containers outside the house where mosquitoes could breed.

For further information on mosquito-borne disease and ways to protect yourself go to: www.health.nsw.gov.au/environment/pests/vector/Pages/resources.aspx

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