

# Japanese Encephalitis

## Information for Pig Producers and Owners

### WHAT IS JAPANESE ENCEPHALITIS?

Japanese encephalitis is a mosquito-borne viral disease that can cause reproductive losses and encephalitis in susceptible animal species. It is caused by Japanese encephalitis virus which is a member of the Flavivirus genus.

#### How is it transmitted?

The virus is primarily spread by mosquitoes feeding on infected pigs or some species of water birds and does not usually spread directly from animal to animal (i.e. it is not contagious from animal to animal, animal to human or human to human). Certain types of mosquitoes can become infected with JE virus such as *Culex spp.* and these tend to most active at dawn and dusk.

Pigs with the infection do not transmit the infection to other animals but may infect mosquitoes if bitten while they still have the virus in their blood.

Other livestock such as horses, cattle, sheep and goats are dead end carriers and cannot transmit the disease back to mosquitoes.

In general, spread is through the movement of some waterbirds (herons and egrets) and through the movement of infected mosquitoes, often over long distances due to wind dispersal.

### WHAT HAPPENS IF I HAVE A SUSPECTED OR CONFIRMED ANIMAL INFECTION ON MY PROPERTY?

Farmers should report any cases of unexplained pig deaths, especially piglets, or any suspected JE symptoms in any animal to the 24-hour **Emergency Animal Disease Watch Hotline** on [1800 675 888](tel:1800675888), to a vet or to Agriculture Victoria animal health staff.

#### What are the symptoms of Japanese encephalitis in pigs?

In pigs the virus affects reproductive performance. Adult sows do not appear to be ill but if infected before 60-70 days of pregnancy often either abort or give birth to mummified and stillborn or weak piglets, some with neurological signs. In a naïve population, litters from sows and gilts would be

expected to be equally affected. Boars may experience infertility and swollen, congested testicles.

#### How does the testing process work?

If you suspect Japanese encephalitis in any animal, phone the all-hours **Emergency Animal Disease Watch Hotline** [1800 675 888](tel:1800675888).

Agriculture Victoria will arrange for staff to attend your property to collect samples for testing. Laboratory testing is undertaken at both the state and national Diagnostic laboratories and may take from approximately three days to up to a couple of weeks to complete, depending on the type of samples submitted.

If samples from your pigs return a positive result for Japanese encephalitis virus, you will be contacted by Agriculture Victoria staff and will be provided with further advice and information.

#### Will livestock movements be impacted?

Quarantined infected properties are subject to conditions associated with the movement of pigs and semen off farm. If livestock on your property are suspected or confirmed positive, Agriculture Victoria staff members will immediately provide you with the relevant advice for livestock movement on and off your property. The movement of people, feed trucks or other vehicles are not impacted.

*Movement controls will continue to be assessed as the situation changes. Please continue to check the Agriculture Victoria website for the latest information.*

#### How can I protect my pigs from Japanese encephalitis?

Japanese encephalitis virus is spread primarily through biting insects. There is a possibility of transfer of virus from an infected and viraemic pig to another animal via management practices that involve penetrating the skin, e.g. vaccination, blood collection, etc.

Reducing mosquito habitats and exposure to mosquitoes is an important part of breaking the transmission cycle. [Integrated vector control practices](#) including the use of insecticides can reduce insect numbers and minimise further spread of the virus.

To minimise the risk of spreading the virus through management practices avoid reusing needles between animals when injecting and thoroughly wash and decontaminate other equipment between animals.

### Is there a vaccine available for my animals?

Vaccines for pigs are used in some countries where the disease is endemic. No vaccines for animals are registered for use in Australia. The issues around vaccination of pigs are under consideration.

## WHAT HAPPENS IF MYSELF OR MY STAFF ARE INFECTED WITH JAPANESE ENCEPHALITIS?

### What are the symptoms of Japanese encephalitis in humans?

More than 99 per cent of JE virus infections are asymptomatic (show no signs of disease). Less than one per cent of people infected with JE virus develop clinical disease.

A small number of people infected with JE virus may become seriously ill with encephalitis (inflammation of the brain). Other people may develop an illness with fevers, headaches and aches and pains.

Symptoms of encephalitis may include rapid onset of fever, headache, sensitivity to light, neck stiffness, vomiting, confusion or disorientation and sometimes seizures, progressing to coma. Anyone experiencing symptoms, particularly if they've visited regions near the border of Victoria and New South Wales or been in contact with pigs or with mosquitoes should seek urgent medical attention.

### What should I do if I suspect I have Japanese encephalitis?

Anyone experiencing these symptoms, particularly if they've visited northern and north-west Victoria or southern New South Wales, along the Murray River and its surrounds, or been in contact with pigs, should seek urgent medical attention. Please visit the [Department of Health JE](http://www.health.vic.gov.au) website for public health advice.

### How do I protect myself from Japanese encephalitis?

There are two ways to protect yourself, your family and staff: avoiding mosquito bites and vaccination.

Steps to protect yourself, your family and staff against mosquito-borne diseases include:

- wearing long, loose fitting clothes outdoors.
- using mosquito repellents containing picaridin or DEET on all exposed skin.
- limiting outdoor activity if lots of mosquitoes are about.

- using 'knockdown' fly sprays and plug-in repellent devices indoors.
- using mosquito coils in small outdoor areas where you gather to sit or eat.
- making sure your accommodation is mosquito-proof.
- sleeping under mosquito nets treated with insecticides if you don't have flywire screens on windows on your home or are sleeping in an untreated tent or out in the open.
- making sure there is no stagnant water around your home.
- remember, dusk and dawn is when most mosquitoes are more active but some will also bite during the day.

Further information can be found at [Beat the Bite](http://www.health.vic.gov.au).

**People handling newborn litters on farms should wear PPE (gloves, masks and goggles), particularly when handling stillbirths, mummified piglets, and afterbirth.**

### Will a vaccine be available for me and my staff?

In Victoria, state-funded JE vaccine will be available free-of-charge for people who may be at risk of exposure to the JE virus including those who may have occupational exposure to the virus or those travelling to endemic areas overseas or to the Torres Strait.

JE vaccinations will be provided by selected General Practitioners (GP) across Victoria. If you would like further assistance locating a GP service please email your closest Local Public Health Unit (LPHU). For a list of contacts of relevant participating LPHU visit <https://www.health.vic.gov.au/infectious-diseases/information-for-the-public-japanese-encephalitis-in-victoria>

JE vaccination is recommended for people who work at, reside at, or have a planned non-deferable visit to a:

- piggery, including but not limited to farm workers and their families (including children aged 2 months and older) living at the piggery, transport workers, veterinarians and others involved in the care of pigs
- pork abattoir or pork rendering plant.

## ACCESSIBILITY

If you would like to receive this publication in an accessible format, please telephone 136 186.

This document is also available in HTML format at <https://agriculture.vic.gov.au>