Fact sheet for horse owners

Japanese encephalitis virus

Japanese encephalitis (JE) is a mosquito-borne disease that mainly affects pigs, waterbirds, and horses. JE was exotic to Australia but in early 2022 was detected in northern and southeastern Australia, including South Australia.

About the virus

JEV is an arbovirus which means it is transmitted via bites from infected mosquitoes. La Niña weather conditions have made the weather wetter and warmer than normal, increasing mosquito activity. There is no specific treatment for JE in horses.

Mosquito bites spread the virus

The natural lifecycle of JE is between waterbirds and mosquitoes, which may on occasion spill over to other animals. Waterbirds and pigs act as amplifying hosts, which means they develop a level of virus in the blood that infects more mosquitoes when they feed on infected animals.

Humans, horses, and other animals can also become infected through mosquito bites. Horses are known to be a 'dead end host' – the level of virus circulating in infected horses' blood is too low to reinfect mosquitoes.

Symptoms to look for in horses

Many horses infected with the virus do not show any signs of illness. Most cases that do have symptoms are mild and will recover within a short period of time, however some horses may develop severe encephalitis that can cause death.

Common symptoms in horses include:

- elevated temperature
- lethargy
- decreased or no appetite
- jaundice
- neurological such as incoordination, wobbliness, hyperexcitability
- difficulty swallowing or impaired vision.

Horses infected with other arboviruses may also show the same clinical signs. These include West Nile virus – Kunjin strain (WNV-Kunjin), Murray Valley encephalitis virus (MVEV) and Ross River virus (RRV) which are endemic to Australia. It is also important to be aware of the risk of Hendra virus, which may also present with similar signs.

How you can minimise the risk of JE to your horses

Control mosquitoes on your property

Key measures that will help reduce the mosquito load on your property include:

- Monitoring for mosquitoes at the various stages of their lifecycle. This can help determine the most effective control methods of and help break the breeding cycle.
- To monitor, inspect bodies of water and containers for wrigglers, as well as areas where adult mosquitoes will rest like ceilings and walls.
- Non-chemical measures include removing anything in the open that is filled with water or has the potential to hold water.
- Filling in potholes or other areas that collect water.
- Clearing debris from gutters, downpipes, and drains around buildings so that water doesn't pool, and trimming overhanging tree branches where mosquitoes may rest.
- Ensuring effluent drainage is free flowing, flushed regularly and does not pool.
- Sealing tanks, wells or other large water containers, or screening with 1mm mesh.

Horse owners should refer to the detailed guidelines provided at **www.farmbiosecurity.com.au**

Minimise horse exposure to mosquitos

- use mosquito repellent or netting
- put a light summer or cotton rug on horses, a fly mask, and if the horse allows, apply a safe insect repellent (do not spray repellent around or above their eyes)
- rugging and hooding with lightweight permethrin fabric may help protect horses not stabled overnight
- house horses during peak periods of mosquito activity (between dusk and dawn).

Reporting an animal suspected to have JE

Japanese encephalitis is a notifiable disease in South Australia.

If you suspect JE (or any other notifiable disease) in your horses, please call your private vet or the **Emergency Animal Disease Hotline on 1800 675 888.**

Your vet can discuss subsidised testing with PIRSA. Laboratory testing to confirm Japanese encephalitis virus and other flavivirus in horses does take time, with results taking a number of weeks to come through.

JE in people

Humans can also be infected with JE. Most infections in people cause no symptoms. Some people experience a fever and headache, but severe cases may result in convulsions, disorientation, and coma. If you experience any symptoms, you should seek medical advice.

People in contact with sick horses should also be aware of the risk of Hendra virus and other zoonotic infections. Visit: **pir.sa.gov.au/hendra-virus**