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## **Biosecurity notice for horse owners: Mosquito borne disease alert – Murray Valley encephalitis virus, West Nile-Kunjin virus and Japanese encephalitis virus**

Now is the time for mosquito reduction activities

You are receiving this as you need to be alert for Murray Valley encephalitis virus (MVEV), West Nile Kunjin virus (WNV-K), and Japanese encephalitis virus (JEV).

Reducing mosquito numbers and exposure to mosquitoes is key to reducing the risk of arboviruses, including MVEV, WNV-K, JEV, and Ross River virus. Landholders should control mosquitoes on their property, eliminate breeding areas and use chemicals responsibly.

### **Detection of flaviviruses (Murray Valley encephalitis, West Nile-Kunjin and Japanese encephalitis) in surveillance activities**

Recent test results are suggesting a small number of horses may have been infected with MVEV or JEV. These horses have been sporadically reported from the Mount Lofty Ranges, Adelaide Plains, Gawler, Barossa and Mid North regions. Further testing is currently being undertaken by PIRSA which may assist our understanding of these test results.

Furthermore, routine surveillance for mosquito-borne diseases undertaken by SA Health have detected both MVEV and WNV-K through either mosquito trapping or sentinel chicken flocks this year in South Australia.

There has been one confirmed human case of JEV infection in South Australia this season (reported December 2022) from the Riverland region.

These detections indicate an increased risk for mosquito borne disease, prompting a warning to horse owners and industry to be alert and minimise exposure to mosquitoes as much as possible. While historically these diseases have more frequently been detected along the Murray River system, they have also been detected further away and we urge all horse owners to be alert for these diseases and take precautions.

Find out more about [arbovirus and mosquito monitoring reports in South Australia](#).

## **Be alert to signs of diseases**

### **Clinical signs in horses**

Most horses infected with flaviviruses will not show signs of disease. When clinical signs occur, they may include one or more of the following:

- neurological issues such as staggering or incoordination
- weakness
- lethargy or depression
- reduced or absent appetite.

If you notice a horse/s displaying these symptoms, they should be examined by a local veterinarian– laboratory testing may be required. It is also important to be aware that other diseases can present with neurological signs such as Hendra virus, so [personal protective equipment should be worn](#) when handling sick horses.

### **Flaviviruses – JEV, MVEV and WNV-K**

JEV, MVEV and WNV-K viruses are all closely related flaviviruses. The normal host for flaviviruses are wading waterbirds such as the heron with mosquitoes transmitting the virus between birds. However, occasionally there is transmission to other animals such as horses and humans. Due to their similar lifecycle and hosts it is possible that more than one of these viruses may be in the environment when climatic conditions are ideal. Horses do not spread the disease directly and are not a source of infection to people or other horses.

The clinical signs of these viruses in horses are indistinguishable from one another and diagnosis can be complicated due to antibody cross-reactivity between different flaviviruses.

## **Reduce chance of being bitten**

### **To protect horses from mosquito bites:**

- use mosquito repellent
- cover horses or keep them indoors during high mosquito activity, particularly at dawn and dusk
- eliminate mosquito breeding areas on your properties.

Detailed information to assist you in controlling mosquitoes and reducing the risk of mosquito bites to horses is available at [Farm biosecurity](#).

### **To protect yourself from mosquito bites:**

- use mosquito repellent containing picaridin, DEET or oil of lemon eucalyptus on exposed skin
- actively avoid mosquitoes – use insect screens, mosquito nets, coils and vaporisers, and wear long, loose fitting clothing
- avoid being outdoors during peak mosquito biting times of the day.

Find out more about how to [Fight The Bite](#).

### **What to do if you think your horse may be affected by a flavivirus?**

If you believe a horse may be affected by WNV-K, MVEV or JEV, report it to your vet.

Vets should contact their local PIRSA veterinary officer or the Emergency Animal Disease Hotline on 1800 675 888 for testing protocols and guidelines.

### **More information**

- [Horse health and disease resources](#)
- [Japanese Encephalitis \(PIRSA\)](#)
- [Fight The Bite](#)
- [Japanese Encephalitis \(SA Health\)](#)