

The National Arbovirus Monitoring Program (NAMP)

Veterinary Officers, Biosecurity and Product Integrity

WHAT DOES NAMP DO?

NAMP monitors the distribution of economically important insect-borne viruses of livestock and their vectors in the whole of Australia. It is jointly funded by the livestock industries and state and territory governments.

WHAT IS AN ARBOVIRUS?

An **arbovirus** is an **arthropod-borne virus**. Insects are part of the arthropod group of animals. Arboviruses are transmitted by blood-sucking insect vectors. The virus multiplies inside the vector, which then transmits it to other animals.

NAMP covers Akabane, bluetongue and bovine ephemeral fever viruses. The insects that transmit these viruses are *Culicoides* (midges) and mosquitoes.



Figure 1. Collecting insects from cattle

WHY ARE ARBOVIRUSES IMPORTANT?

From the perspective of international trade, it is important for Australia to be able to determine areas within the country that are free of arboviruses. The export of ruminants from Australia and international trade in their semen and embryos depend on an accurate assessment of any risks to the health of an importing country's livestock industries.

From a disease perspective, it is important to know the distribution of these viruses in order to manage cattle and sheep properly. As the viruses are insect-borne, they may be present in some areas on a seasonal basis. Cattle and sheep that have not previously been exposed may show clinical disease when infected with some of these viruses.

WHY NAMP?

NAMP has three major objectives:

To support trade - by providing technical information to meet the requirements of the Australian Quarantine and Inspection Service for export protocol negotiations and to assist exporters to meet export certification requirements. NAMP particularly supports the export of live cattle and sheep.

To provide bluetongue early warning - by conducting a dynamic surveillance of the northern bluetongue endemic area in order to detect new incursions and to provide an early warning of any spread from the south of the strains present.

To provide risk management - by providing epidemiological advice to producers and exporters on arboviruses.

HOW IS NAMP ORGANISED?

NAMP relies on a national network of sentinel cattle herds from which regular blood samples are taken and tested for the viruses. There are at least 10 animals in each sentinel herd. The frequency of sampling depends on the amount of arbovirus activity in the local area. In addition, potential insect vectors are trapped and identified to monitor changes in their location and abundance.

In the Northern Territory (NT), sentinel herds are located at five government research farms: Beatrice Hill Farm, Berrimah Farm, Douglas Daly Research Farm, the Katherine Research Station and the Arid Zone Research Institute in Alice Springs. Several pastoral properties also run sentinel herds for NAMP.

Test results are recorded in a national database to which all states and the NT contribute. The information in the database is then used to build a profile of insect-borne viruses for the whole of Australia.

MORE INFORMATION

NAMP Coordinator for the NT: Lorna Melville, phone (08) 8999 2251.

NAMP website:

<http://www.animalhealthaustralia.com.au/programs/disease-surveillance/national-arbovirus-monitoring-program/>

Related Agnotes

Agnote K41: Bluetongue in Cattle and *Agnote* K25: Three-Day Sickness or Ephemeral Fever

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