FACT SHEET

INFLUENZA A OVERVIEW

July 2017

Prior to the 2009 human pandemic, cases of human spillover infection of pigs with an influenza virus, had never been identified or diagnosed in Australian pigs.

Symptoms observed in Australia at that time were less complicated and very different to symptoms previously and currently observed in typical swine influenza outbreaks overseas. Most common symptoms in Australian herds were:

i) lack of interest in feed
ii) a dry cough
iii) elevated temperatures in some animals, and
iv) lethargy.

These symptoms are also suggestive of other diseases, so if you are concerned about the well-being of your animals please contact your veterinarian or your local animal health officer or state government district veterinarian.

Public health implications

There is evidence of interchange of influenza A viruses among pigs and other animal and bird hosts, either directly or after a process of genetic re-arranging. Influenza A viruses in pigs are substantially derived from human seasonal viruses over many years, so these represent a significant pool of gene segments known to be capable of infecting humans. This creates public health interest in understanding the dynamics of influenza A virus distribution in pigs.

The symptoms found in humans infected with influenza A viruses from pigs resemble seasonal influenza, i.e. fever, cough, sore throat and lethargy. Maintaining seasonal influenza vaccination in humans at risk (such as piggery and abattoir workers, and transporters) may assist with preventing transmission of influenza both from humans to pigs and from pigs to humans, therefore reducing opportunities for re-arranging. This is best achieved through clear workplace policy, awareness-raising and facilitated vaccination programs.

Vaccines/treatments

While there are vaccines available overseas that protect pigs against typical swine influenza, vaccines to protect pigs against influenza A viruses are not currently available in Australia. Pig vaccines against influenza A viruses that are manufactured overseas are typically produced locally and protect against strains that are circulating within that region. However, the make-up of circulating influenza A strains can differ dramatically, and it is not possible to manufacture a vaccine that will protect all animals even within the same country. What's more, the composition of the various commercial vaccines (antigenic mass, adjuvants etc.) can vary greatly. So, it is likely that in the event of an outbreak in Australia, vaccines from other parts of the world would be ineffective.

Treatment of affected herds is usually ineffective, although antimicrobial treatment is often used to lessen the impact of secondary bacterial infections. In countries where disease is endemic in pigs, vaccines, strict biosecurity and sound management practices are effective in lessening the impact of infection.

AUSTRALIAN Pork

Fact Sheet

Regulatory management

No action will be required unless the risk assessment indicates an unacceptable threat to animal or public health. It is expected that most diagnoses of influenza A virus in pigs will fall into this category.

Where a response is necessary, the control strategies implemented will be in line with the level of assessed risk and, in most cases, will include some or all of the following:

- enhanced biosecurity on affected premises
- appropriate workplace health and safety (WHS) measures, with advice from human health authorities
- tracing and surveillance to determine the source and extent of infection
- where warranted, the use of declared areas and controls over high risk movements of animals, people and things on affected premises to minimise the spread of infection
- raising activities to encourage enhanced monitoring for changes in the health status of pigs and poultry on nearby properties, and reporting of any changes to the relevant authorities
- industry support to increase understanding of the issues, facilitate cooperation and address any animal welfare and on-farm biosecurity issues
- a public awareness campaign.

Vaccination is unlikely to be used in an emergency response to an incident as a local, strain-specific vaccine would have to be developed.

In a situation in which an outbreak is considered unable to be contained or eradicated within an acceptable time period, the policy for long-term management of the disease will be determined following consultation between government and the pig industry. The policy adopted may involve enhanced biosecurity, surveillance and vaccination under an industry program.

Cost sharing

Infection with influenza A viruses in swine is included as a Category 4 disease in the Emergency Animal Disease Response Agreement (EADRA), a joint initiative of all governments and the livestock industries. Category 4 diseases are those for which costs will be shared 20% by government and 80% by industry.

The policy for the response to an outbreak of influenza A viruses in the Australian pig population will be determined by a risk assessment, taking into consideration, for example, how early the outbreak is detected, the extent of the outbreak, the location of affected premises, the subtype of virus involved and its zoonotic potential, the nature and severity of any clinical signs, and whether other respiratory pathogens that could complicate the clinical picture are present. The risk assessment and development of control strategies will be undertaken by the relevant jurisdictional Chief Veterinary Officer (CVO), in consultation with industry and other Australian governments. The jurisdictional CVO will collaborate with public health authorities when a zoonosis is suspected.

Economic and trade impacts

Swine influenza is not an OIE listed disease and there is currently no justification in the OIE Terrestrial Animal Health Standards Code for the imposition of trade measures on the importation of pigs or their products. To date there is no evidence that the virus is transmitted by food and influenza A viruses are generally not heat resistant.