

African Swine Fever

African Swine Fever (ASF) is caused by an iridovirus, of which there are many different strains, and can result in a mortality of up to 90-100%. ASF is a notifiable disease, so any suspicion must be reported to a police constable officially, although in practice this is via your Vet or a Government Veterinary Officer. Strict movement restrictions will apply until results from samples are known.

To date, ASF has never been seen in the UK. Pigs become infected through eating infected meat or scraps of food that have been in contact with infected meat products. Meat, even frozen, can remain infected for many months. Carrier pigs, that are not showing any clinical signs but are shedding the virus, can also introduce infection into the herd. The virus can be transmitted in infected semen, and disease is spread between pigs through contact with secretions from the nose, mouth and urine. It can also be transmitted by contaminated people, vehicles and equipment.

Ornithodoros ticks, biting insects and lice can transmit the virus between pigs, although insects capable of ASF transmission are not currently present in the UK. Infectious ticks have been found in unused piggeries 5 years after the infected pigs were removed.

ASF and Classical Swine Fever (CSF) are both caused by different viruses which behave in different ways. They produce near identical clinical signs and so can only be distinguished at the laboratory.

Clinical Signs

A pig usually takes 5-15 days after being infected to show clinical signs, with all ages of pigs potentially affected.

The virus infects the pig through the respiratory tract, where it travels to the lymphoid tissue and replicates resulting in a viraemia (the presence of the virus in the blood stream). The virus destroys lymphocytes, a type of white blood cell used to fight infection in the body, and also damages the body's normal blood clotting mechanism. The result of this damage means that fluid accumulates in the lungs, resulting in death.

The first indication of this disease may be a number of sudden deaths, or a group of pigs with very high temperatures (41-42°C, 105.8-107.6°F). Once the temperature drops, the pigs become dull and anorexic, and can have extensive skin discolouration. The pig can also have diarrhoea, which may be bloody, and death is usually within 7-10 days of the onset of clinical signs. Infected pigs start shedding the virus within 24 hours of the onset of fever and any surviving pigs will remain persistently infected. Due to the high temperatures experienced, abortions may be seen in pregnant animals.

There are different strains of ASF and, in its milder form, the pigs are usually lethargic and inappetent.



Skin discolouration seen with ASF

Photo courtesy of www.nadis.org.uk

Diagnosis

ASF is suspected where there is rapidly spreading disease with associated clinical signs, along with high mortality.

Post mortem must be performed on freshly dead or euthanased cases. On post mortem, usual findings are dark-reddened lymph nodes; multiple haemorrhages throughout the tissues, kidneys and bladder; and 'button ulcers' in the pig's large intestine.



Splenic infarcts, areas of cell death in the spleen, can be seen in ASF

It is not possible to distinguish between CSF and ASF based on clinical signs and post-mortem findings. There are also other diseases that can produce similar signs such as acute sudden onset Erysipelas and severe infection with Salmonella, meaning samples must be taken for full diagnosis and confirmation.

Diagnosis is based on laboratory isolation of the virus itself, and also the presence of antibodies to the virus.

Treatment, Control & Prevention

There is no treatment for ASF.

Suspicion of disease must be reported to your Vet so that it can be investigated immediately. Movement restrictions will be imposed on farm where ASF is suspected until the results of any samples taken are known.

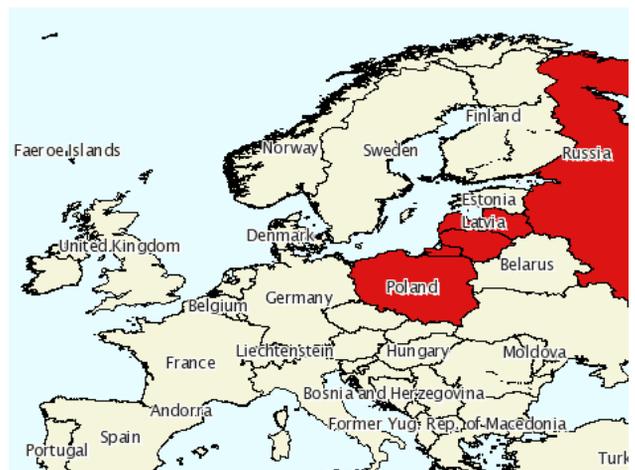
ASF is currently in Europe (see right). The UK is free from ASF, although to maintain this, the strictest biosecurity protocols must be adhered to.

The African Swine Fever Order 2003 bans the importation of live animals from infected areas. Where currently present in Europe, control of ASF is more difficult as wild boar act as a reservoir of infection.

Herd biosecurity is essential, especially where staff have travelled abroad, and all pork products should be banned from the farm as this is a major potential route of entry.

There is an EU ban on feeding pigs unprocessed meat products in swill to reduce the likelihood of a disease outbreak. This extends to all food products that have gone through any kitchen, whether catering or domestic.

Please speak to your Vet to discuss any questions you may have



*ASF positive countries shown in red.
Map source - OIE*