



CLASSIC SWINE FEVER (CSF)

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What is classical swine fever (CSF)?

Classical swine fever, also known as hog cholera, has a worldwide distribution. It is a highly virulent and devastating virus disease found only in pigs. The disease was detected in South Africa in 2005 after an absence of 87 years, and is currently confined to the Eastern Cape Province. CSF should not be confused with African swine fever (ASF) which is also a virus disease, but endemic to certain parts of South Africa and carried by normal healthy warthogs and bushpigs.

How does CSF spread?

In countries free of the disease, such as South Africa before the current outbreak, the most likely source of the infection is introduction of the virus through imported pork and pork products that find their way into the porcine food chain via the feeding of waste food (swill). This emphasizes the importance of enforcing regulations on heat treatment of swill. The virus is readily inactivated by cooking. Once the disease has entered a country the main source of infection is the pig, either live animals or uncooked pig products. Infected pigs shed the virus in all bodily discharges (saliva, urine, faeces, semen, and nasal discharges). Mechanical transmission on vehicles, equipment and people (vets, farm workers etc.) moving between pig farms are significant means of spread within an infected area.

The virus is moderately fragile and does not persist in the environment or spread over long distances by the airborne route. It can survive for prolonged periods in a moist, protein-rich medium such as meat, other tissues, and body fluids, particularly if kept cold or frozen. The virus can survive for several months in frozen, cured or smoked pork.

What are the clinical signs?

All pigs in South Africa are totally susceptible to the disease and all infected pigs will show clinical signs and most will die. Time from infection to death varies from 10 - 20 days. The disease affects all age groups. The virus targets the immune system, wiping out most white blood cells, with later inflammation of blood vessel walls resulting in haemorrhages and thrombosis.

Initially infected pigs show fever, decreased activity, decreased appetite and dullness. Many sows will abort. In the following days, conjunctivitis with a discharge from the eyes may develop, and

affected pigs huddle and pile in a pen corner. Pigs are often constipated in the early stages of the disease but diarrhoea develops later. Difficult breathing with pronounced abdominal breathing is seen in some animals.

Many show nervous signs such as lack of coordination with weaving, staggering and hindquarter paresis. A purplish discoloration of the skin extending over the abdomen, snout, ears and legs is often seen. In many cases there are haemorrhages in the skin as well as numerous black necrotic crusts. There is no cure for the disease and almost all infected pigs will die.

The clinical signs of CSF are similar to many other diseases such as ASF, PRRS, salmonellosis and APP. Rapid and accurate diagnosis is essential.

Diagnosis

Where there is a suspicion of CSF, blood samples for serology, tissue samples (fresh spleen and lymph nodes on ice and samples of tissues in formalin) should be submitted to the laboratory. The State Veterinarian should be informed immediately.

How is CSF controlled?

CSF is a controlled animal disease and the government will implement a stamping out policy once an outbreak is detected. Strict movement control measures will also be implemented. There are good vaccines available but most countries, including South Africa, will not allow vaccination and rather opt for eradication. Pig farmers must do everything in their power to prevent the disease from entering their units. An effective and strict biosecurity program is the only way to prevent infection.



Sow showing severe depression, generalised erythema and conjunctivitis.