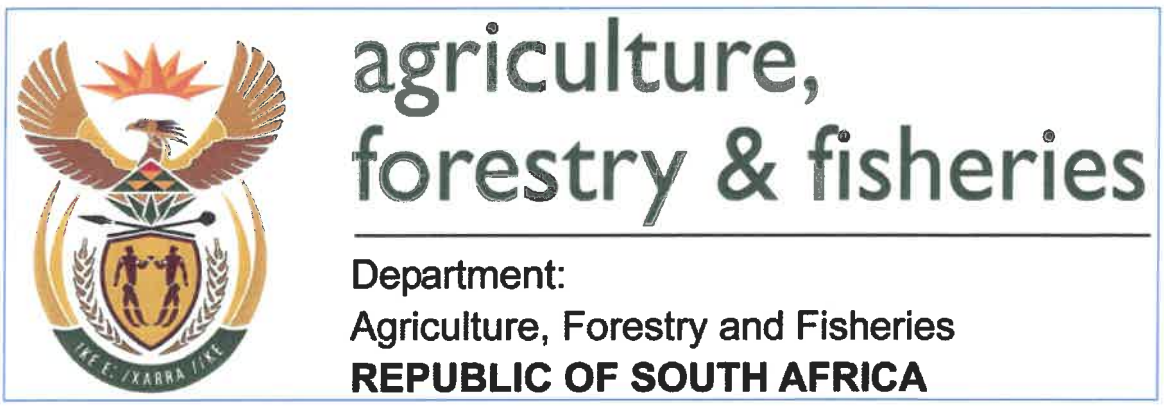
African swine fever outbreak and surveillance update report



Report compiled by:
Directorate: Animal Health
12 August 2019

1. Introduction and summary

Since April 2019 there have been fourteen reported outbreaks of African Swine Fever (ASF) in South Africa, all situated outside the ASF controlled area.

The following areas have been affected:

Date notified to the OIE	Locality	Province
10 April 2019	Zeerust area	North West Province
18 April 2019	Delmas area (a)	Mpumalanga Province
30 April 2019	Daveyton area	Gauteng Province
13 May 2019	Heilbron area	Free State Province
22 May 2019	Vanderbijlpark area	Gauteng Province
4 June 2019	Nigel area (a)	Gauteng Province
14 June 2019	Nigel area (b)	Gauteng Province
14 June 2019	Nigel area (c)	Gauteng Province
14 June 2019	Marikana area	North West Province
25 June 2019	Koppies area (a)	Free State Province
11 July 2019	Nigel area (d)	Gauteng Province
11 July 2019	Koppies area (b)	Free State Province
8 August 2019	Delmas area (b)	Mpumalanga Province
8 August 2019	Nigel area (e)	Gauteng Province

2. Details of outbreaks

2.1 History of affected localities

Area 1: Zeerust

Pig deaths were reported to the state veterinarian on a farm between Zeerust and Lichtenburg, about 10km outside of South Africa's ASF controlled area. The outbreak affected mainly free roaming European Wild Boar and a few Landrace pigs. The cause of the outbreak was most likely due to contact with warthogs in the area.

Area 2: Delmas and Daveyton

A farmer in the Delmas area experienced pig mortalities shortly after buying pigs from an auction and ASF was confirmed on PCR results. The state veterinarian visited the farm, as well as the auction, and obtained records for backward and forward tracing of pigs from February 2019.

Trace forward from the auction records identified four communal farmers from Daveyton, who had bought pigs at the auction. On state veterinary investigation, pig mortalities were noted and ASF was confirmed by means of PCR.

The second outbreak in the Delmas area was on a small scale informal farm where the pigs were confined, but neighbouring pigs could roam onto the farm in search of food.

Area 3: Heilbron and Vanderbijlpark

A farmer in the Heilbron area reported increasing pig mortalities to a private veterinarian. ASF was suspected on post mortem and confirmed on PCR. Forward and backward tracing identified an auction in Vanderbijlpark where the farmer had moved pigs to and from in the preceding weeks.

Trace forward from the auction in Vanderbijlpark identified a farmer Vanderbijlpark area who had experienced pig mortalities after buying pigs at the auction from the infected farm in Heilbron. The state veterinarian confirmed ASF based on PCR.

Area 4: Nigel

This area experienced four separate outbreaks. Sickness and mortalities were first reported in a communal herd of pigs in Nigel and the state veterinarian confirmed ASF on PCR. Trade through local auctions was identified as a likely source of infection.

The second outbreak occurred in a backyard pig establishment. The pig keeper, who had recently bought piglets from the affected communal herd, reported piglets dying and ASF was confirmed on PCR.

The third outbreak in the area was on a property where pigs had died after buying piglets from the affected area. ASF was diagnosed based on the post mortem findings and history.

The fourth outbreak in this area was in a communal herd, which showed signs of ASF. The state veterinarian submitted samples and ASF was confirmed on PCR.

The fifth outbreak in this area was in a closed herd, but where some of the pigs could escape their enclosure and range freely on the farm. The farm also received feed deliveries from another pig farmer in the area. Pigs started dying and ASF was confirmed by PCR from samples taken by the state veterinarian.

Area 5: Marikana

Pigs from an informal settlement, which are mainly fed swill, started dying and the state veterinarian confirmed ASF on PCR.

Area 6: Koppies

This area experience two outbreaks. The first reported outbreak was in pigs from a communal area that had started dying and the state veterinarian confirmed ASF on PCR.

The second outbreak was reported on a smallholding where acute mortalities were observed after the owner had visited the communal area mentioned above. Based on the post mortem findings of the state veterinarian and confirmation on PCR, ASF was diagnosed.

2.2 Confirmation of diagnosis

Unless otherwise indicated, confirmation of disease was done by positive PCR on organ samples at the Onderstepoort Veterinary Research Transboundary Animal Diseases laboratory (OVR-TAD). Most of the reported outbreaks have had the ASF virus sequenced.

All outbreaks in Mpumalanga, Gauteng and Free State were thus far found to be caused by the same Genotype I virus. The Zeerust outbreak in North West was found to also be a Genotype I virus, but seems to be different to the other Genotype I virus implicated.
The outbreak in the Marikana area was found to be caused by a Genotype II virus.
Sequencing of the viruses of the other outbreaks (where possible) will be undertaken.

2.3 Control measures implemented

For all these ASF outbreaks, the properties/areas were quarantined and movement controls from these properties/areas implemented. Mortalities were disposed of and registers kept of remaining pigs. Culling of remaining pigs commenced with the assistance of the South African Pork Producers Organisation (SAPPO) and these carcasses were disposed of, either by burial and covering with lime, or by burning. Affected pig holding facilities were cleaned and disinfected.

The sale of pigs at auctions was suspended in the four affected provinces (North West, Mpumalanga, Gauteng and Free State). Pig owners have been advised to only buy pigs directly from healthy herds.

3. Epidemiological investigation

The epidemiological investigations are still ongoing to identify the primary source(s) of the outbreaks. However, based on preliminary information available, the following risk factors have been suspected to play a role in spreading the disease:

- Contact between warthogs and domestic pigs (Area 1)
- Buying and selling pigs at auctions (Areas 2 and 3)
- Movement of pigs/people from infected herds (Areas 2, 4 and 6)
- Feeding of swill (Area 5)

4. Surveillance

All movements from infected properties and areas during the period prior to diagnosis are being traced and any suspect disease outbreaks in pigs are being investigated. If suspect clinical signs are observed, samples are collected to confirm the diagnosis.

Some serological surveillance has also been undertaken in surrounding areas from clinically healthy animals. The following is a summary of surveillance done on pig keeping properties with negative results:

Province	Number of properties visited and sampled	Samples collected		
		Serum	Organs	Blood
North West	65	228	10	-
Mpumalanga	20	5	10	103
Gauteng	10	15	7	4
Free State	8	8	5	1
KwaZulu Natal	1	-	1	-
Northern Cape	1	12	-	-
Limpopo	3	17	1	-

5. Trade implications

ASF is a disease listed by the OIE and thus has trade implications when an outbreak occurs outside of the controlled area. However, South Africa has a system of approving pig compartments that are free of specific diseases, including ASF. No outbreaks of ASF have ever occurred in South Africa's officially approved pig compartments which have specific biosecurity measures in place to prevent the entry of ASF. South Africa can thus provide the necessary guarantees to certify freedom from ASF, FMD, CSF and PRRS for pigs and pig products from these compartments. The list of approved pig compartments is available on our website on the linked titled "List of officially approved South African biosecure pig compartments" on: https://www.daff.gov.za/daffweb3/Branches/Agricultural-Production-Health-Food-Safety/Animal-Health/importexport/export.

Director Animal Health

Date: 2019-08-15