

Foot and Mouth Disease outbreak and surveillance update report

8 April 2022*



agriculture, land reform
& rural development

Department:
Agriculture, Land Reform and Rural Development
REPUBLIC OF SOUTH AFRICA

Report compiled by:
Directorate: Animal Health

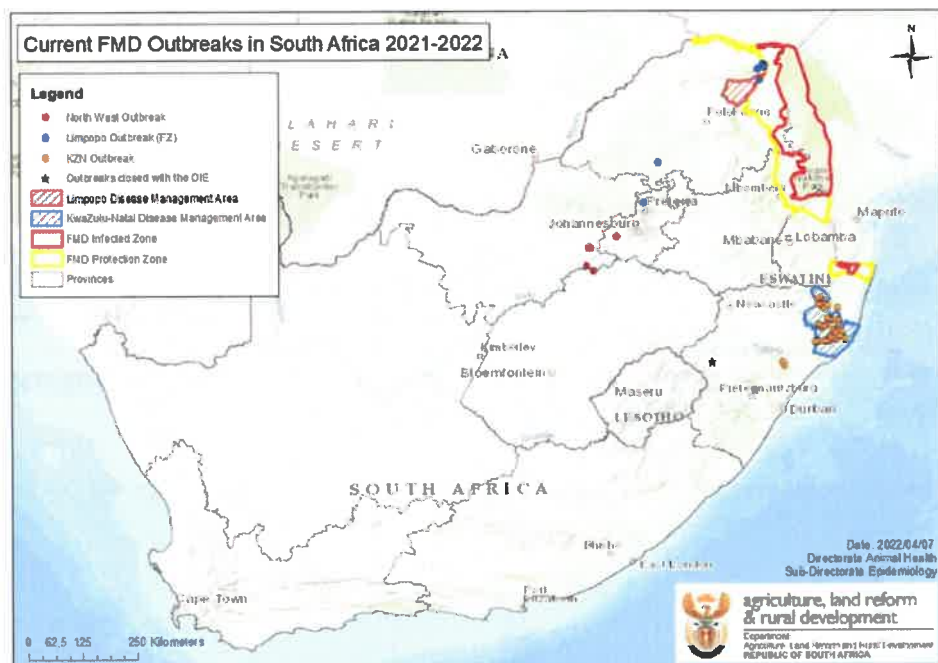
* This report includes all information as available by close of business on the indicated date. All the updates contained in this report may not currently reflect on the OIE WAHIS system due to technical difficulties with the OIE reporting system. This report reflects changes since the previous update report of 25 March 2022.

1. Introduction and summary

South Africa currently has 56 active Foot and Mouth Disease (FMD) outbreaks in the previous FMD free zone, comprised of three outbreak events. The first event started in May 2021 and is affecting KwaZulu Natal province, with a total of 44 reported outbreaks (42 open and 2 resolved). The second outbreak event started in March 2022 in the previous free zone in Limpopo Province, with 6 outbreaks reported in Limpopo, and 1 reported outbreak in Gauteng province in April 2022. The third outbreak event also started in March 2022 with 7 reported outbreaks in the North West (5), Gauteng (1) and Free State (1) Provinces.

Map 1: Reported outbreaks in the previous FMD free zone 2021 - 2022

Note: Dots on the maps that indicate locations in close proximity might appear as single dots.



Summary of active outbreaks per province:

Province	Number of open outbreaks	Number of resolved outbreaks	Total number of outbreaks	Last reported outbreak
KwaZulu Natal	42	2	44	7 April 2022
Limpopo (previous free zone)	6	0	6	7 April 2022
North West	5	0	5	7 April 2022
Gauteng	2	0	2	7 April 2022
Free State	1	0	1	7 April 2022
Total	56	2	58	

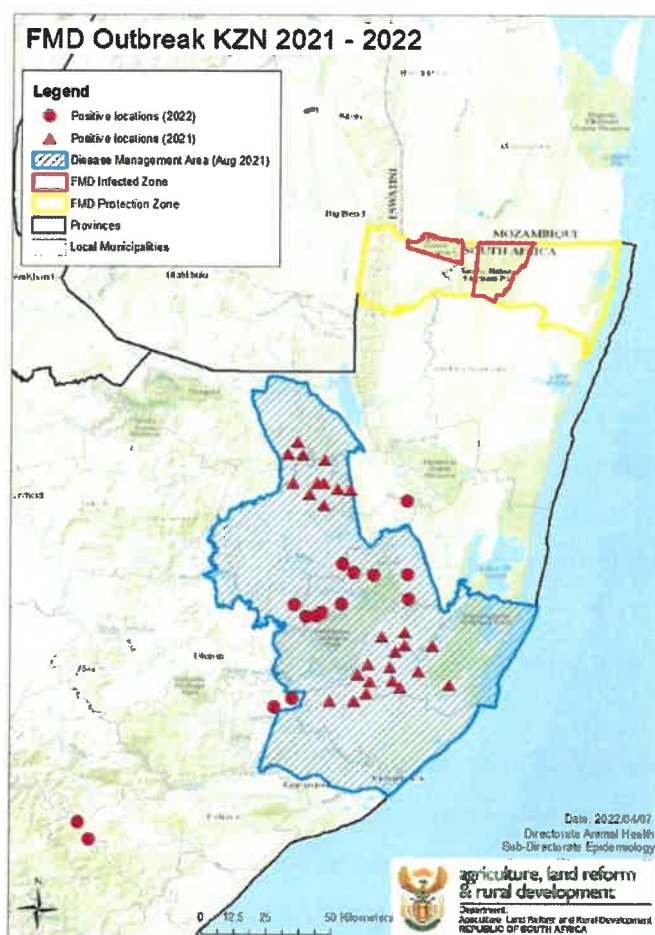
2. Details of open outbreaks

2.1 Outbreak event 1: KwaZulu Natal Province

2.1.1 Affected locations

Since the update report of 25 March 2022, two additional cases have been identified, one in the Big 5 Hlabisa municipality within the KZN Disease Management Area (KZN DMA) and one in the Jozini municipality, outside the KZN DMA which was declared in September 2021. The outbreaks involve cattle in dip tanks in communal grazing land.

Map 2: Outbreak event in KwaZulu Natal Province



2.1.2 Increasing the size of the KZN Disease Management Area:

The Minister of Agriculture, Land Reform and Rural Development declared a Disease Management Area in the KwaZulu-Natal Province (KZN DMA) in the Government Gazette No. 44783 on 30 June 2021, which was reduced in size on 7 September 2021, as declared in the Government Gazette No. 45109. Following the resurgence of the outbreaks in January

2022, and subsequent spread of the disease beyond the margins of the KZN DMA, the margins of the KZN DMA is being reconstructed to include all areas with positive locations or perceived to be at high risk of infection due to being epidemiologically linked. In the meantime, the individual locations are being quarantined.

2.1.3 Movement control

The newly identified infected locations outside the DMA were placed under quarantine and movement control measures also remain in place in the DMA. There has been no change in the movement restrictions on cloven-hoofed animals, their products and genetic material out of, into, within or through the revised DMA. Roadblocks and Visible Veterinary Patrols continue to monitor movements of animals within, through and out of the DMA.

2.1.4 Vaccination

The vaccination campaign is still ongoing in the areas where there appears to be active virus circulation. A risk-based approach is followed, to ensure that the areas at highest risk are vaccinated first. Around 45 000 cattle were vaccinated thus far and the vaccination campaign continues.

2.2 Outbreak event 2: Limpopo-Gauteng Provinces

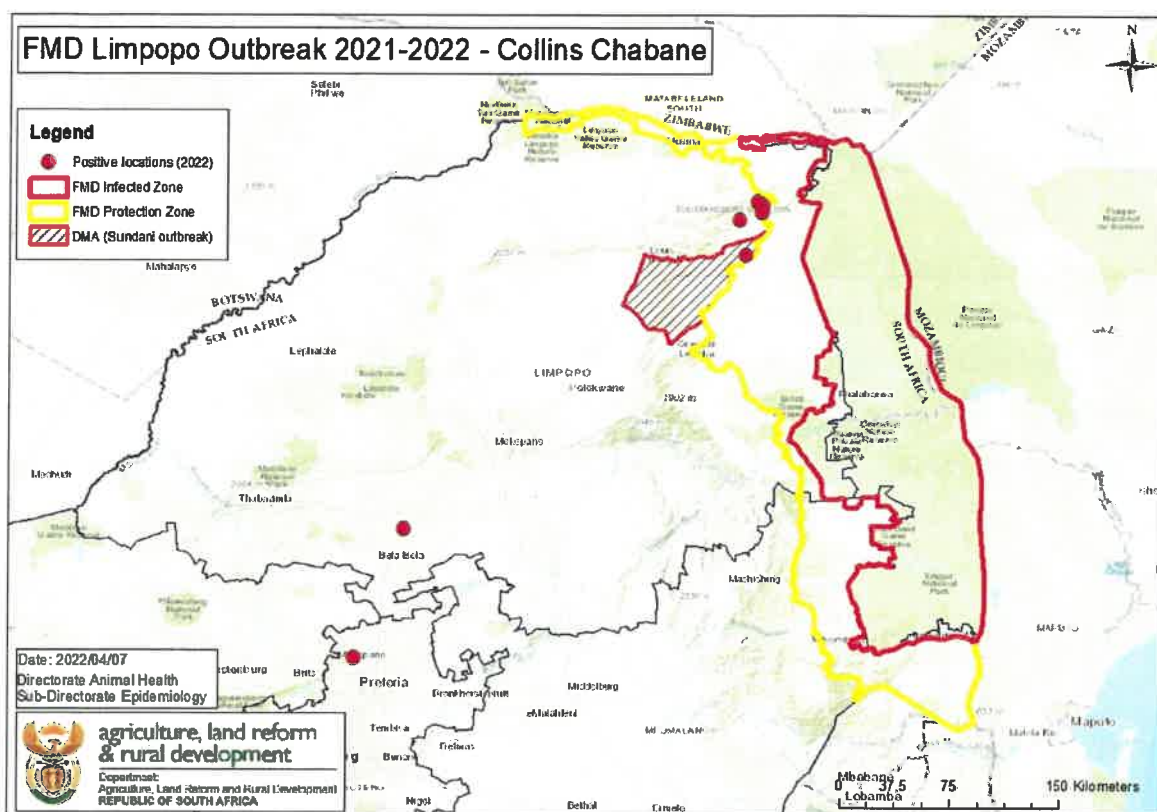
2.2.1 Affected locations:

Since the update report of 25 March 2022, 3 additional infected dip tanks have been identified in the Thulamela district to the north of the Disease Management Area (LP DMA), which was declared in January 2019. The affected area comprises communal grazing land in the previous FMD free zone in Vhembe in Limpopo Province.

In April 2022, animals with F-brands were found at an auction in the city of Tshwane municipality, Gauteng. F-brands are indicative of animals previously vaccinated against FMD and such animals may not move into the free zone. The presence of these animals therefore led to the auction management alerting the veterinary services and trace-back exercises linked the suspect animals to Limpopo Province.

Around the same time in April 2022, animals with F-brands were also noticed at an auction in Modimolle, Limpopo. The exact origin of these animals, and how previously vaccinated animals were moved into the previous free zone, is still being investigated.

Map 3: Outbreak event in Limpopo and Gauteng Province



2.2.2 Movement control:

The affected dip tanks were placed under quarantine and movement restrictions were put in place for epidemiologically linked dip tanks and high risk locations. The two auction premises were placed under quarantine. The trace-back and trace-forward investigations from the auctions are in process to identify at-risk premises.

2.2.3 Vaccination:

In an effort to curtail the spread of the disease, cattle in Thulamela are being vaccinated to establish a band of resistant animals around the known positive dip tanks.

2.3 Outbreak event 3: North West Province-Gauteng-Free State

2.3.1 Affected locations:

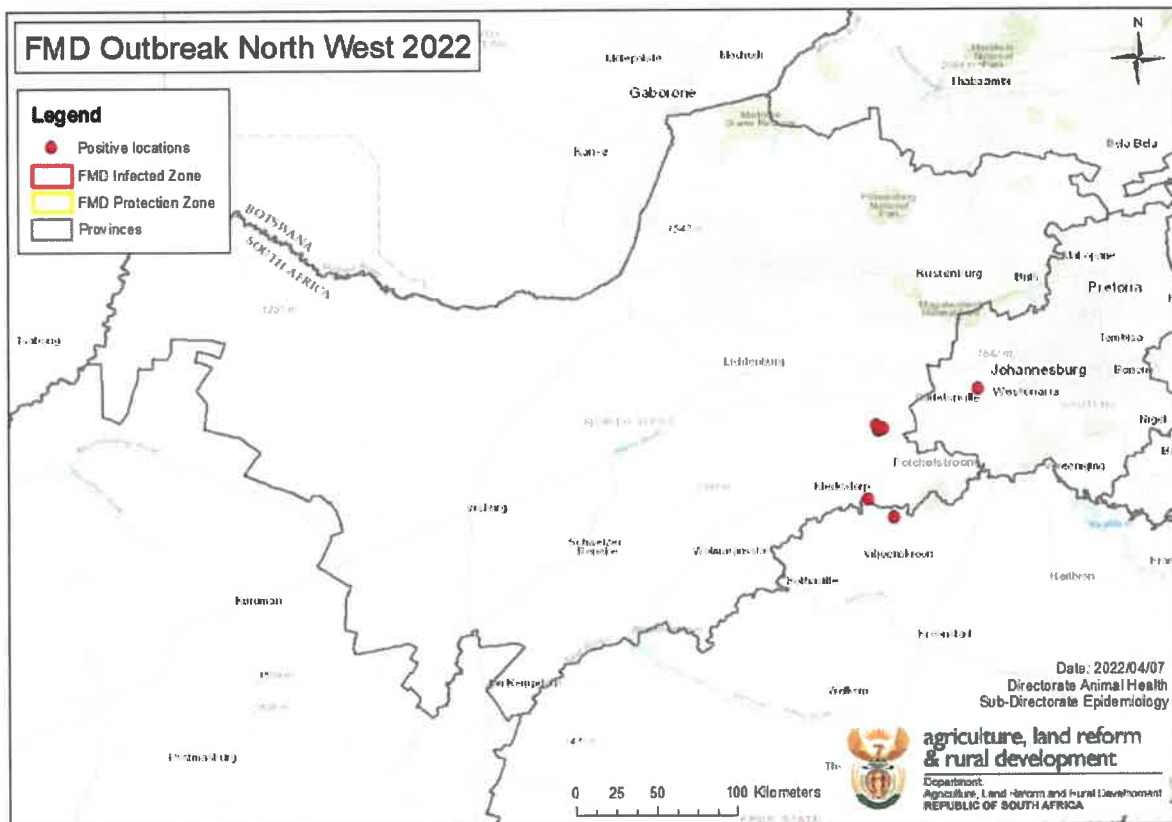
Since the update report of 25 March 2022, three additional infected farms were identified in North West Province. Two of these farms are in direct contact with other affected premises within the 10 km radius from the index farm. The other one was linked to an auction held in the North West Province in March 2022.

Two other farms, one in Gauteng in the Randfontein municipality and the other in the Free State in the Moqhaka municipality, were identified as epidemiologically linked due to cattle bought at the same auction in the North West Province. Animals on these two farms also tested positive for FMD. Other suspect and/or epidemiologically linked locations are being followed up, including trace-forward of all animals present at the auction in March 2022.

2.3.2 Control measures implemented:

The affected farms were placed under quarantine with strict access control. Trace-back and trace-forward exercises are underway to identify epidemiologically linked locations, which are placed under precautionary movement suspension pending the outcome of clinical and serological investigations. The locations involved are well fenced and movement of animals from these farms can be effectively prevented. Therefore the Declaration of a Disease Management Area and vaccination is not indicated at this stage.

Map 4: Outbreak event North West - Gauteng - Free State



3. Diagnostic tests and epidemiology

The outbreak event in Vhembe district in Limpopo Province is caused by a SAT 3 virus. Contrary to expectation, phylogenetic analysis revealed that this virus was not due to spill-over from an outbreak in the adjacent FMD Protection zone. It is a different virus, not closely related to any SAT3 viruses identified in recent years. Further analysis confirmed that the same SAT3 virus is responsible for the outbreaks in North West, Free State and Gauteng Provinces.

In KwaZulu Natal Province, epidemiological investigations to date have not revealed a plausible source for the outbreak. However, the virus responsible for the outbreak is a SAT 2 serotype and is closely related to a SAT 2 virus responsible for an outbreak that occurred in the Protection Zone in northern Limpopo Province in 2019. It is therefore most likely that illegal movement of animals from the Protection Zone in Limpopo, to KZN Province, may be the cause of the outbreak in KZN.

For all reported outbreaks, confirmation of disease was done using a combination of the following diagnostic tests at the ARC Onderstepoort Veterinary Research Transboundary Animal Diseases laboratory (OVR-TAD):

- Solid Phase Competition ELISA (SPCE)
- Non Structural Protein (NSP) ELISA
- Polymerase Chain Reaction (PCR)

4. Surveillance

Clinical and serological surveillance around the affected areas continue, with intensified inspections around newly identified infected dip tanks in communal areas, or epidemiologically linked locations identified through forward and backward tracing. Some locations were identified as a result of reports of clinical signs seen in cattle, while most were identified during trace back and trace forward exercises. All of the locations are either linked directly to auction sales, or to movement from affected farms.

Varied clinical signs are seen, with some locations showing almost no clinical signs, some showing only foot lesions, while others show pronounced mouth lesions. The varying clinical presentation of the disease in different locations necessitates surveillance based on both clinical inspections, including mouching, as well as serology. All alerts reported for animals with clinical signs are being followed up.

5. Awareness

A follow-up media release alerted all farmers, livestock owners and members of industry that the disease had spread to different provinces due to movement of animals. All stakeholders were again requested to abide by the movement restrictions within all affected provinces and to not to move cloven hoofed animals without proper knowledge of the health status of the farms of origin. If there is any suspicion of FMD or linkage to an FMD affected property, members of the public must contact the State Veterinary Services immediately. A meeting was held with a large group of concerned stakeholders to further strengthen the liaison and cooperation between veterinary services and industry.


Director Animal Health
Date: 2022-04-08