Foot and Mouth Disease outbreak and surveillance update report

16 May 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 30 April 2022.

1. Introduction and summary

South Africa currently has 73 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. The second outbreak event started in March 2022 in the previous free zone in Limpopo Province and has spread to northern Gauteng Province in April 2022. The third outbreak event also started in March 2022 in North West Province, with spread to Gauteng and Free State 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.

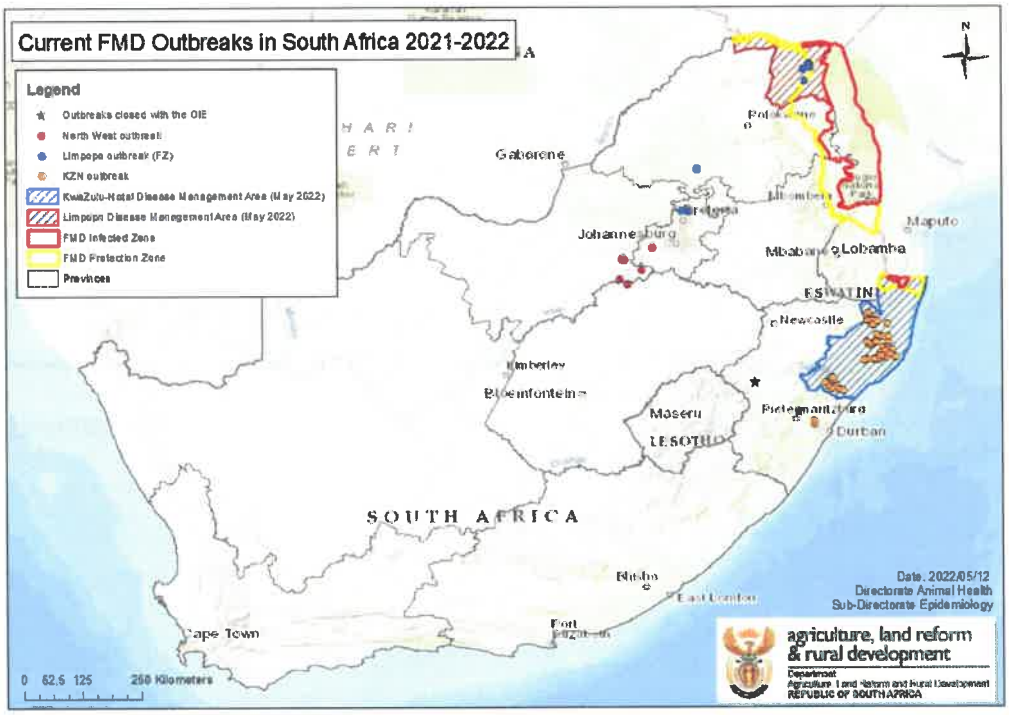


Table 1: Summary of active outbreaks per province:

Province	Number of open outbreaks	Number of resolved outbreaks	Total number of outbreaks	Last reported outbreak
KwaZulu Natal	57	2	59	12 May 2022
Limpopo (previous free zone)	6	0	6	7 April 2022
North West	6	0	6	12 May 2022
Gauteng	3	0	3	26 April 2022
Free State	1	0	1	7 April 2022
Total	**73**	**2**	**75**	

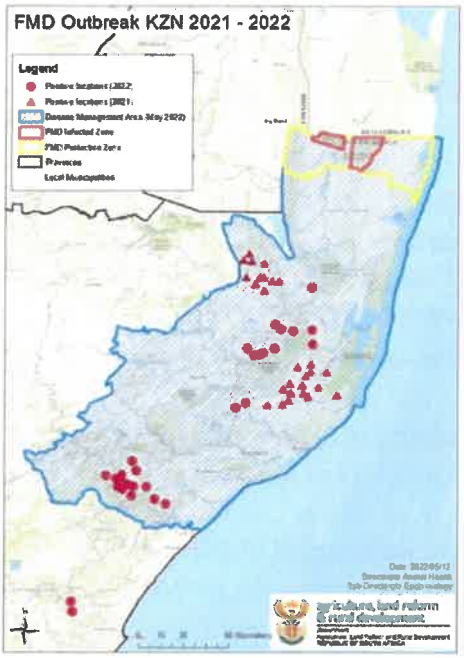
2. Details of open outbreaks

2.1 Outbreak event 1: KwaZulu Natal Province

2.1.1 Affected locations

Since the update report of 30 April 2022, 15 additional cases have been identified on communal grazing land in KZN through ongoing active and passive surveillance efforts. The new cases located within the new KZN Disease Management Area (KZN DMA see below), are as follows, 8 in KwaDukuza district, 2 in Nkandla distract and 3 in uMlalazi district. Two new cases fall outside of the new KZN DMA in Ethekwini district. The positive locations outside of the DMA have been placed under quarantine with associated movement restriction.

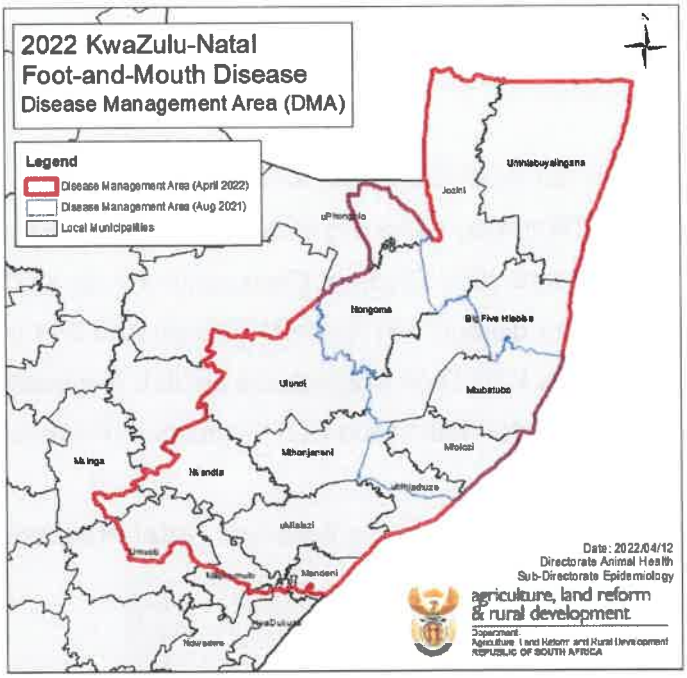
Map 2: Outbreak event in KwaZulu Natal Province



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 spread of the disease beyond the margins of the September 2021 KZN DMA, the KZN DMA was revised to include all areas with positive locations or perceived to be at high risk of infection due to being epidemiologically linked. As a result, the Minister declared an expansion of the KZN DMA in the Government Gazette No. 46350 on 10 May 2022.

Map 3: May 2022 revised KZN DMA (outlined in red) compared to September 2021 KZN DMA (outlined in blue)



The following areas are included in the new May 2022 KZN DMA:

- The whole of the Umkhanyakude District Municipality
- The whole of the King Cetshwayo District Municipality
- The whole of Hluhluwe Imfolozi Park;
- The whole of Nongoma Local Municipality and Ulundi Local Municipality in the Zululand District Municipality;
- The portion of the Pongola Local Municipality east of the R66, and south and west of the N2 and the portion that lies to the east of the N2 , south of the road P522 leading to Jozini;
- The portion of the Maphumulo Local Municipality east of the R74;
- The portion of the Ndwedwe Local east of the R74 and to the north of the road P110;
- The portion of the KwaDukuza Local north of the road P110;
- The portion of the Mandeni Local Municipality north of the road P110 on the east of the R102 and north of the Tugela River on the west of the R 102;
- The portion of the Umvoti Local east and north of the R74 and to the east of the R33; and
- The portion of the Msinga Local Municipality east of the R33, south of the Tugela River.

2.1.3 Movement control

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 started on 15 March 2022 and is still ongoing in the areas of the KZN DMA 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 80 000 cattle were vaccinated thus far and the numbers are rising continually.

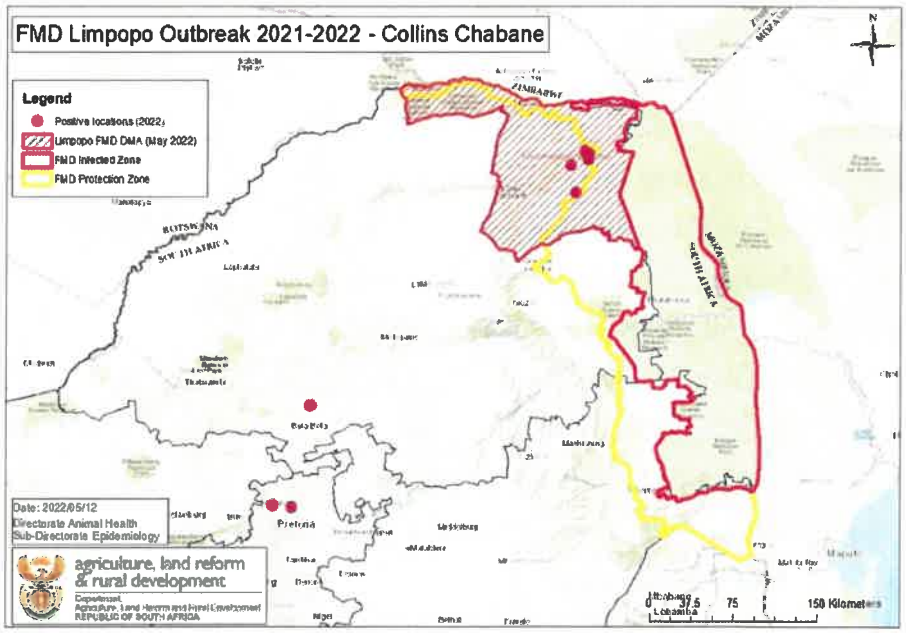
2.2 Outbreak event 2: Limpopo-Gauteng Provinces

2.2.1 Affected locations:

Since the update report of 30 April 2022, intensive surveillance revealed no additional positive locations in the previous free zone of Limpopo Province.

The animals identified in Walmansthal, Gauteng, which were illegally moved from the FMD Protection Zone in Limpopo Province, have been confiscated and were safely removed to a designated abattoir in Limpopo Province for controlled slaughter.

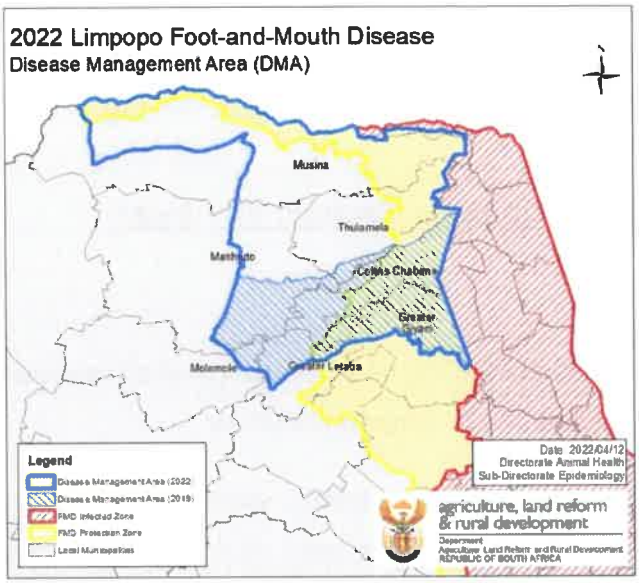
Map 4: Outbreak event in Limpopo and Gauteng Province



2.2.2 Increasing the size of the Limpopo Disease Management Area:

As a result of the new outbreaks in the previous free zone in Limpopo Province, the Minister of Agriculture, Land Reform and Rural Development by way of Government Gazette No. 46350 on 10 May 2022 increased the size of the Disease Management Area that had been originally introduced 2019 in the Limpopo Province (LP DMA).

Map 5: May 2022 revised LP DMA (outlined in blue) as compared to 2019 LP DMA (striated in blue)



The following areas are included in the new May 2022 LP DMA:

- The whole of Collins Chabane local municipality;
- The whole of Thulamela local municipality;
- The portion of Greater Giyani local municipality, Greater Letaba local municipality and Molemole local municipality north of the R36 road from the N1 Highway to Mooketsi. Along the Mooketsi / Giyani Road (R81) from Mooketsi to where the road crosses Little Letaba River up to the fence on the KNP;
- The portions of Makhado local municipality and Musina local municipality east of the N1 Highway from where the R36 road crosses the N1 Highway, including the Musina Nature reserve, following the border of the Musina Nature reserve until where it crosses the Venetia Mine Road, following the Venetia Mine Road until the R521, following the R521 until the international boundary at Pont Drift Border Post; and
- The northern boundary is the international border between Pont Drift Border Post and the Kruger National Park fence, while the eastern boundary is the Kruger National Park fence

2.2.3 Movement control:

Movement control is being implemented in the expanded DMA, with restrictions on cloven-hoofed animals' movement, their products and genetic material out of, into, within or through the revised DMA. The affected locations in southern Limpopo Province and Gauteng Province are quarantined separately as required.

2.2.4 Vaccination:

In an effort to curtail the spread of the disease, cattle in the affected Thulamela area of Limpopo Province are being vaccinated to establish a band of resistant animals around the known positive dip tanks. Fourteen locations with a total of 6262 cattle have been vaccinated thus far, and the vaccination campaign continues.

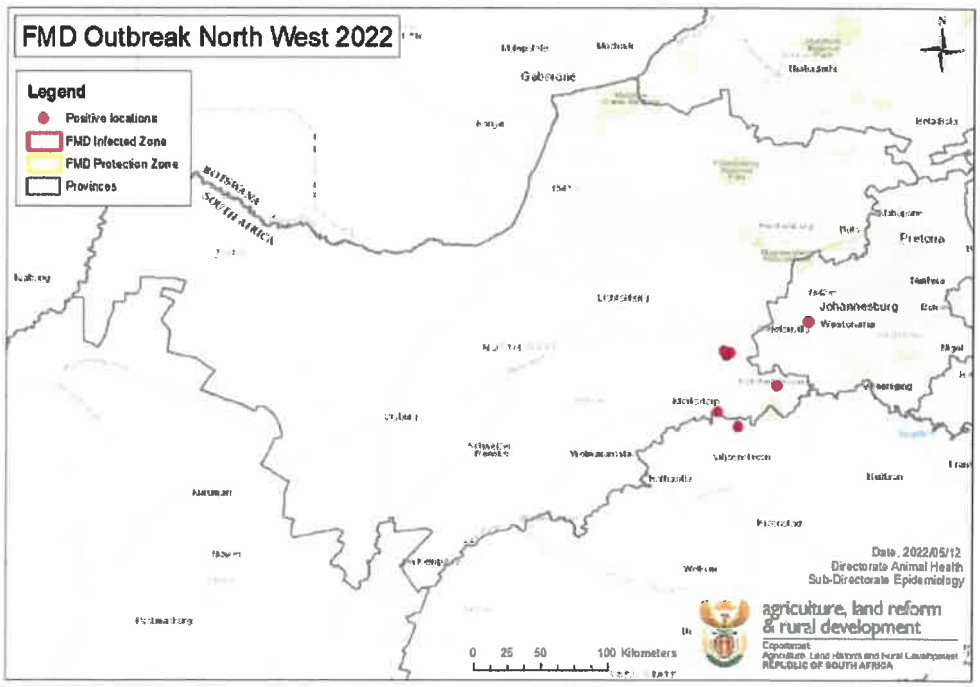
2.3 Outbreak event 3: North West Province-Gauteng-Free State

2.3.1 Affected locations:

The last clinically positive case in the North West Province was confirmed on 7 April 2022. Since the update report of 30 April 2022, one additional infected farm in close proximity to the index farm in North West Province was reported to the OIE. However, this is not a new infection and the delay in reporting to the OIE was due to other factors.

Two positive farms, one in Gauteng Province in the Randfontein municipality and the other in the Free State Province in the Moqhaka municipality, were identified due to epidemiological links to the outbreak in the North West Province. The affected cattle on these two farms were safely removed to a designated abattoir in Limpopo Province for controlled slaughter. The farms will remain under quarantine until 28 days after depopulation and disinfection.

Map 6: Outbreak event North West - Gauteng - Free State



2.3.2 Control measures implemented:

The affected farms are currently under quarantine with strict access control. The locations involved are well fenced and movement of animals from these farms can be effectively prevented.

3. Diagnostic tests and epidemiology

The outbreak event in Vhembe district in Limpopo Province is caused by a SAT 3 virus, which is also responsible for the outbreaks in North West, Free State and Gauteng Provinces. This virus is not epidemiologically linked to other FMD viruses identified in recent years.

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.

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

The three outbreak event areas continue to be subjected to clinical and serological surveillance, with intensified inspections around newly identified infected farms and dip tanks and at epidemiologically linked locations identified through forward and backward tracing. In addition, passive surveillance leads to reporting of suspect outbreaks by veterinarians and farmers that are followed up by intensive laboratory testing

Some outbreak locations were identified as a result of reports of varied clinical signs seen in cattle, while most were identified during trace back and trace forward exercises, including links of movements through auctions, as well as surveillance of farms adjacent to positive locations. The varying clinical presentation of the disease in different locations necessitates surveillance based on both clinical inspections, including mouthing, as well as serology.

Table 2: Summary of Serological surveillance per province:

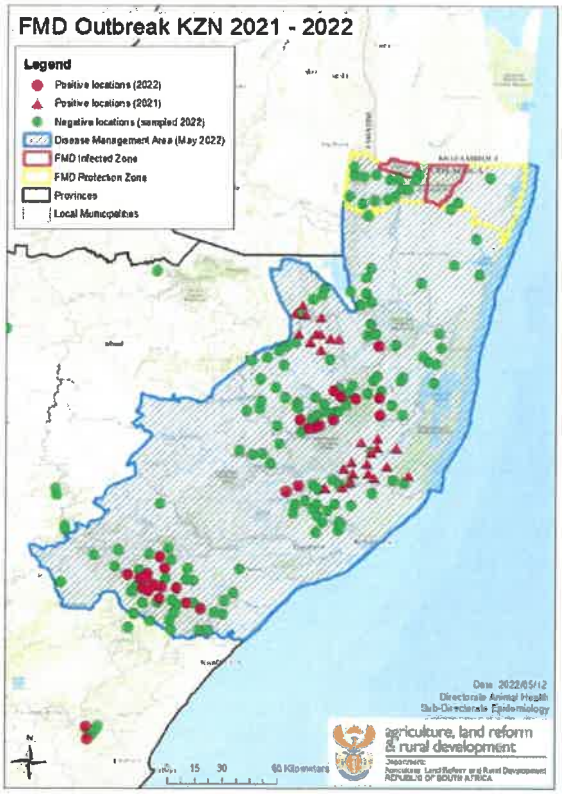
Province	Number negative locations	Number of positive locations	Total number of locations sampled
KwaZulu Natal	169	57	226
Limpopo	15	6	21
North West	43	6	49
Gauteng	19	3	22
Free State	23	1	24
Total	**269**	**73**	**342**

Once animals are found to be positive at a location, the entire location with all in contact animals at the location is regarded as positive. The table above therefore reflects that status of locations and not the individual animals at the locations.

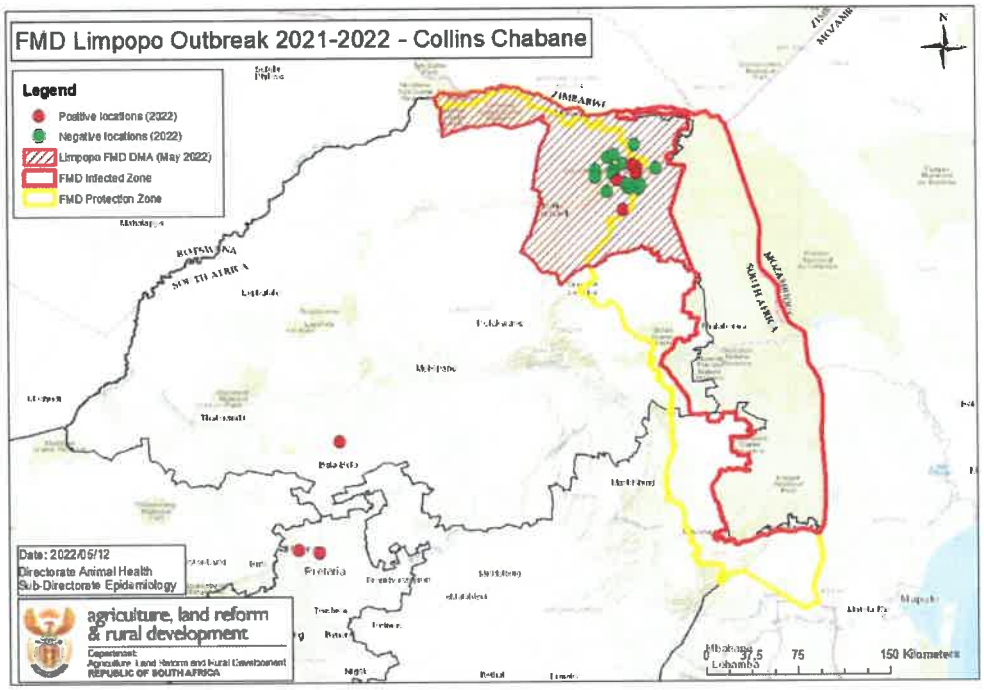
Below are maps of each outbreak event, indicating all locations surveyed, with negative results indicated in green and positive locations in red.

Note that in both the table above, as well as the maps below, the number of locations that tested negative only indicates the number of locations that tested negative during this year (2022) from when the disease was found to be spreading again, whereas the number of positive locations, also includes the locations that were identified as positive last year (2021).

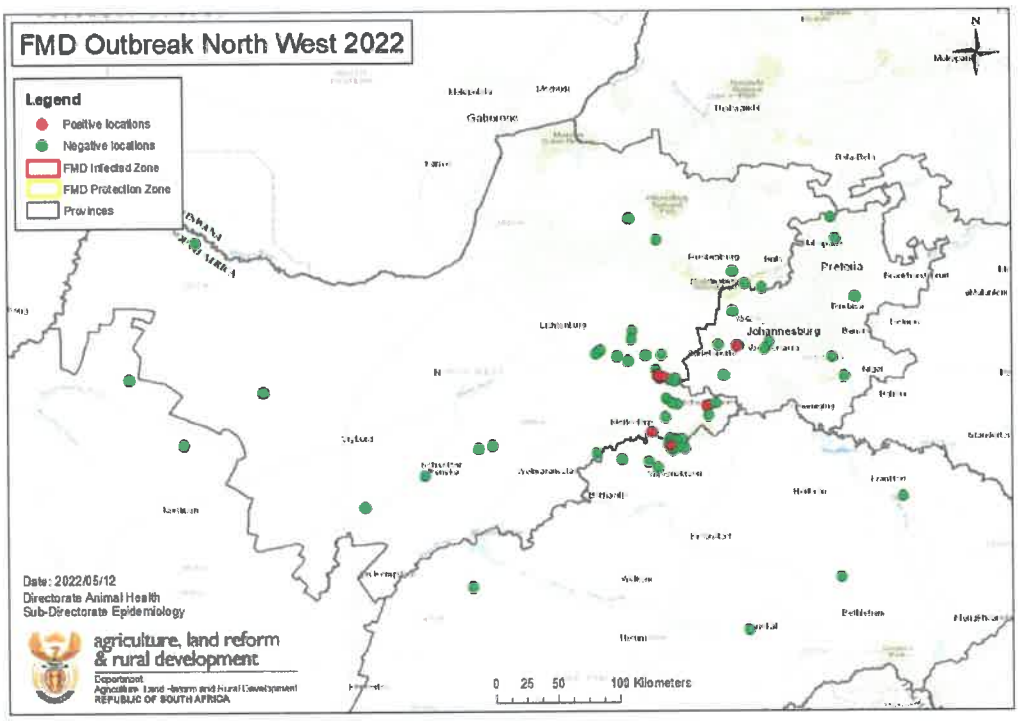
Map 7: Serological surveillance in KwaZulu Natal outbreak event, showing 169 negative and 57 positive locations



Map 8: Serological surveillance in Limpopo-Gauteng outbreak event, showing 15 negative and 6 positive locations



Map 9: Serological surveillance in North-West-Gauteng-Free State outbreak event showing 85 negative and 8 positive locations (please note that some of the points are superimposed due to close proximity)



5. Awareness and clamp down on illegal movements

The movement of animals remains the greatest contributing factor to the spread of disease. All stakeholders, farmers and livestock owners 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.

The illegal movement of animals from the FMD protection zone with vaccination to the FMD free zone played a significant role in all of the current outbreaks. The outbreaks in KZN, Limpopo and Gauteng Provinces were directly caused by such proven or suspected illegal movements. Any illegally moved animals found are seized and destroyed and perpetrators are prosecuted for contravention of the Animal Diseases Act, 1984 (Act No 35 of 1985). The cooperation between veterinary services and industry are working together to prevent this from occurring.

The animals that caused the outbreak in North West Province moved from an area in Limpopo which was not under restriction at the time of the movement. This was thus not an illegal movement, however, at the time of moving, the area of origin in Limpopo was already infected, though yet undetected at the time. This illustrates the real danger of animals moving during the incubation period of the disease.

Livestock owners are continuously reminded to exercise utmost caution when moving cloven-hoofed animals by ascertaining the history of the animals and their contacts and consulting veterinary advice prior to accepting any new stock.

MPHO MAJA

Director Animal Health

Date: 2022-05-18