

# Foot and Mouth Disease outbreak and surveillance update report

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14 December 2022\*



## agriculture, land reform & rural development

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

Report compiled by:  
Directorate: Animal Health

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\* 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 WOH AH WAHIS system due to technical difficulties with the WOH AH reporting system. This report reflects changes since the previous update report of 30 November 2022.

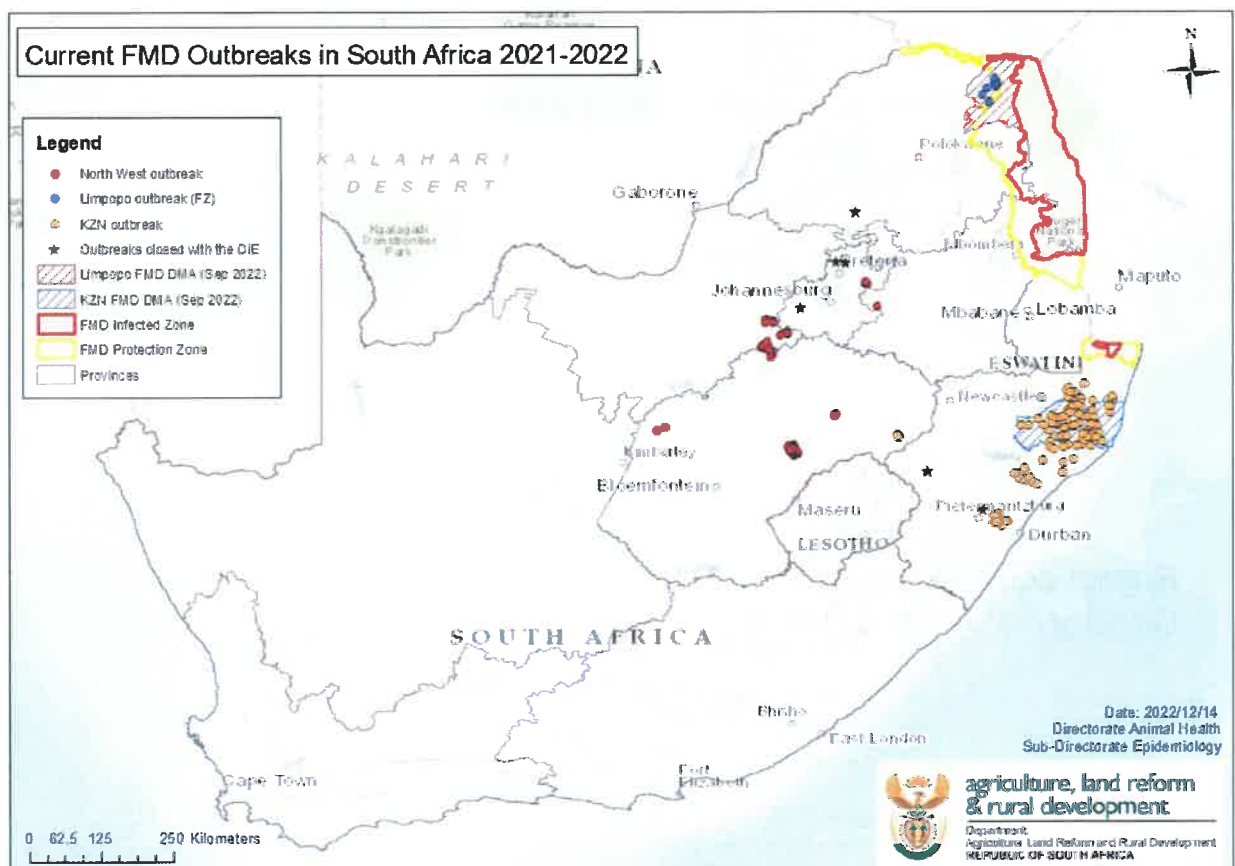
# 1. Summary of Outbreaks

The update report to follow will be reported per outbreak event in South Africa.

- South Africa has 3 outbreak events which are comprised of 183 open Foot and Mouth Disease (FMD) outbreaks.
- The last outbreak was reported on 31 October 2022 and there were no new cases reported to the World Organization for Animal Health (WOAH founded as OIE) in over a month.
- 8 premises have been resolved and closed with the WOAH.
- There are two viruses responsible for the current outbreaks:
  - SAT 2 serotype in Outbreak event 1: KwaZulu Natal Province, with spread to Free State Province
  - SAT 3 serotype originating from Outbreak event 2: Limpopo Province (previous free zone), with spread resulting in Outbreak event 3: North West, Free State, Gauteng and Mpumalanga.

**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:**

<b>Outbreak Event</b>	<b>Number of open outbreaks</b>	<b>Number of resolved outbreaks</b>	<b>Total number of outbreaks</b>	<b>Last reported outbreak</b>
1	119	2	121	31 October 2022
2	7	3	10	13 June 2022
3	57	3	60	31 October 2022
<b>Total</b>	<b>183</b>	<b>8</b>	<b>191</b>	

## **2. Control Measures Implemented**

### **2.1 Control measures on movement of cattle, sheep and goats**

The control measures on movement of cattle, sheep and goats in the two Disease Management Areas (DMAs) in Limpopo and KwaZulu-Natal Provinces, remain in place. Should farmers wish to move such animals into, through, within, or out of these two DMAs, their local state veterinary office must be contacted to find out whether the intended movements will be allowed, and under which conditions.

In the rest of the country, livestock owners must provide a declaration of health and origin and must obtain the necessary Stock Theft documents for all cattle, sheep and goats to be moved from their property of origin onto new properties. Recipients of such animals must give written agreement to isolate new livestock for 28 days before introducing them into the main herds of the destination farm.

### **2.2 Movement control on affected farms / locations**

All affected farms and feedlots in North West, Free State, Gauteng and Mpumalanga Provinces remain under quarantine with strict access control. The locations involved are well fenced and movement of animals from these farms can be effectively prevented. Affected locations in KwaZulu Natal and Limpopo also remain under quarantine and no cloven-hooved animals or their products may move from these locations. The control measures for movement of cloven-hooved animals and products out of the FMD protection zones have not changed.

### **2.4 Controlled slaughter**

Provinces have begun with depopulating animals from positive locations. Cattle are sent to designated abattoirs for controlled slaughter. The infected properties remain under quarantine

until 28 days after depopulation and disinfection. The outbreaks on the properties will be officially closed once the disinfection process has been concluded.

### **3. Diagnostic tests and epidemiology**

Based on epidemiological investigations, the main routes of virus transmission are:

- Movement of clinically healthy animals that are in the incubation period
- Contamination of properties by vehicles, persons, implements and other possible fomites entering the farms
- Nose to nose contact between cattle on neighbouring farms
- Illegal movement of animals out of affected areas

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):

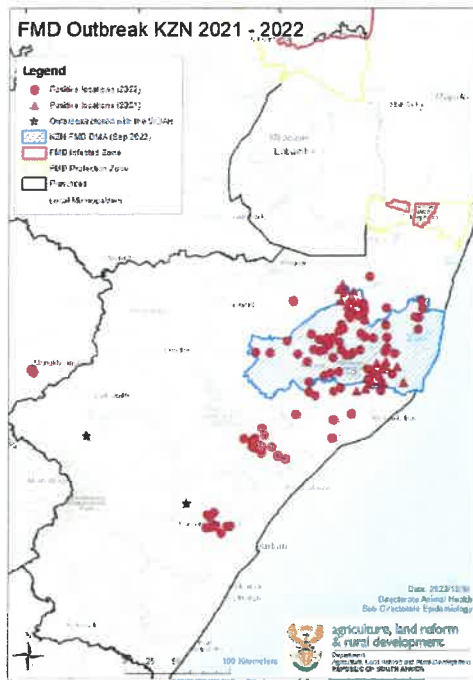
- Solid Phase Competition ELISA (SPCE)
- Non Structural Protein (NSP) ELISA
- Polymerase Chain Reaction (PCR)

### **4. Details of open outbreak events (as reported to the WOA)**

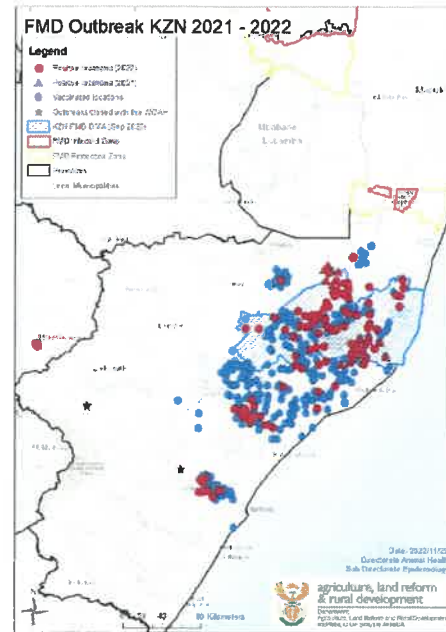
#### **4.1 Outbreak event 1: KwaZulu-Natal – Free State Provinces**

- 119 open outbreaks with the last outbreak reported on 31 October 2022
- 2 outbreaks resolved
- Vaccination campaigns run continuously and over 300 000 cattle have been vaccinated thus far.

**Map 2: Outbreak event in KwaZulu-Natal – Free State Provinces**



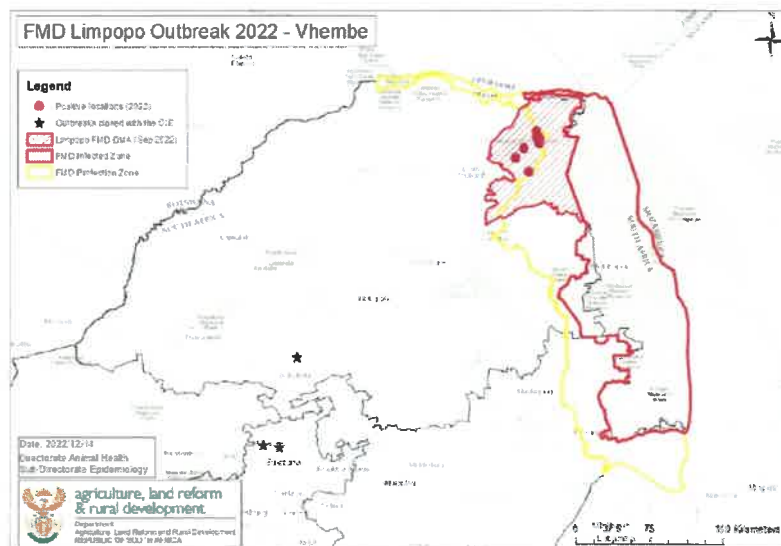
**Map 3: Vaccinated locations in KwaZulu-Natal – Free State Provinces outbreak event (most positive locations are also vaccinated, therefore vaccinated and positive points are superimposed)**



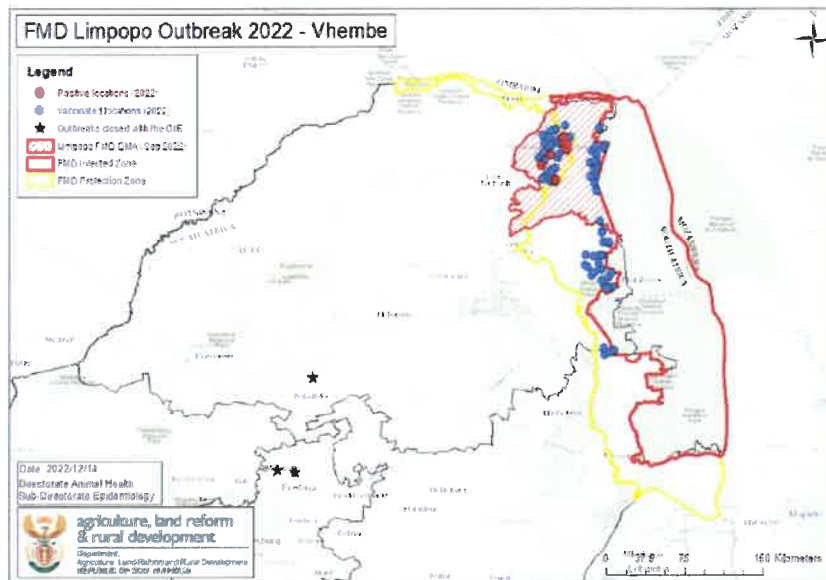
**4.2 Outbreak event 2: Limpopo Province**

- 7 open outbreaks with the last outbreak reported on 13 June 2022
- 3 outbreaks resolved
- Vaccination campaigns run continuously, and 99 522 cattle have been vaccinated thus far.

**Map 4: Outbreak event in Limpopo Province**



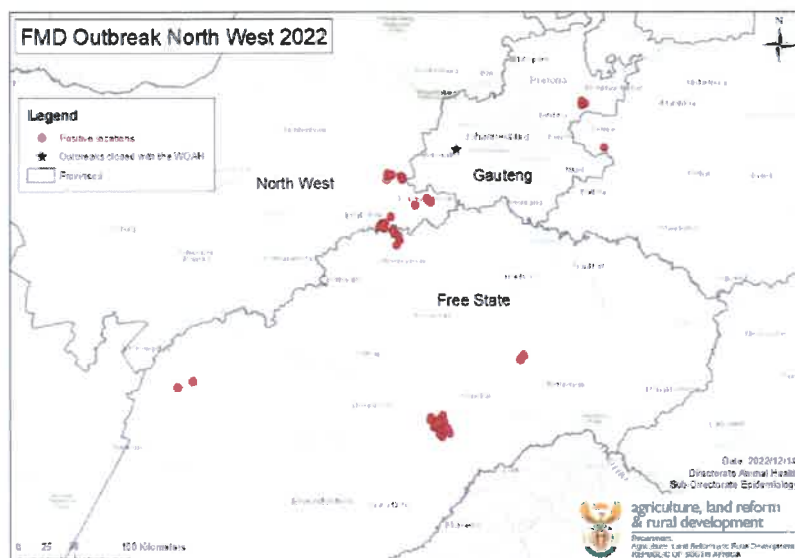
**Map 5: Vaccinated locations in Limpopo Province outbreak event (most positive locations are also vaccinated, therefore vaccinated and positive points are superimposed)**



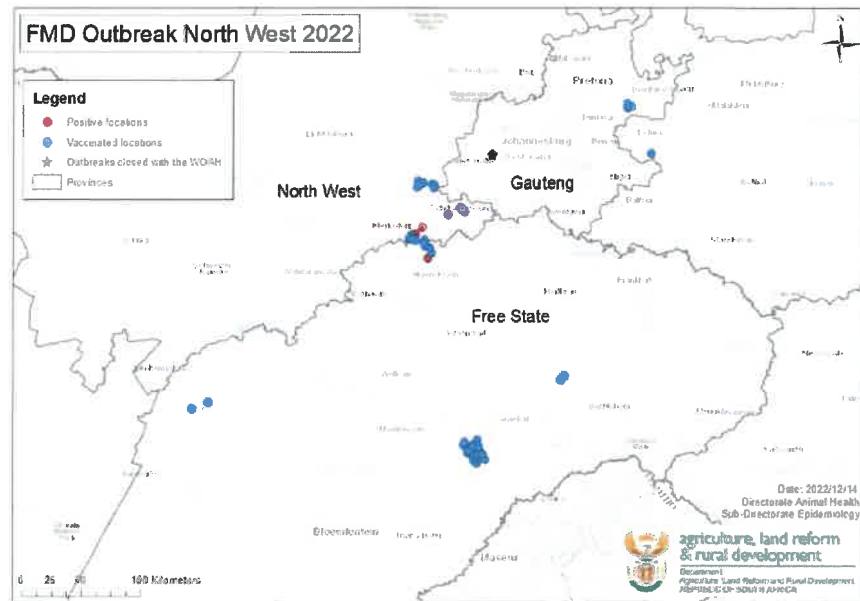
### **4.3 Outbreak event 3: North West - Free State – Gauteng - Mpumalanga Provinces**

- 57 open outbreaks with the last outbreak reported on 31 October 2022
- 3 outbreaks resolved
- Vaccination campaigns run continuously, and 171 636 cattle have been vaccinated thus far
- 46 411 cattle have been sent to designated abattoirs for controlled slaughter

**Map 6: Outbreak event North West - Free State – Gauteng – Mpumalanga Provinces**



**Map 7: Vaccinated locations in North West - Free State – Gauteng - Mpumalanga Provinces outbreak event (most positive locations are also vaccinated, therefore vaccinated and positive points are superimposed)**



## 5. 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.

Passive surveillance leads to reporting of suspect outbreaks by veterinarians and farmers that are followed up by intensive clinical inspection and laboratory testing. Some outbreak locations were identified as a result of such reports of varied clinical signs seen in cattle, while most were identified during trace back and trace forward exercises, including links of movements, 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 moulting, as well as serology.

Once any 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 the status of locations and not the individual animal cases at the locations. Note that the number of negative locations statistics are only updated when all the information has been received.

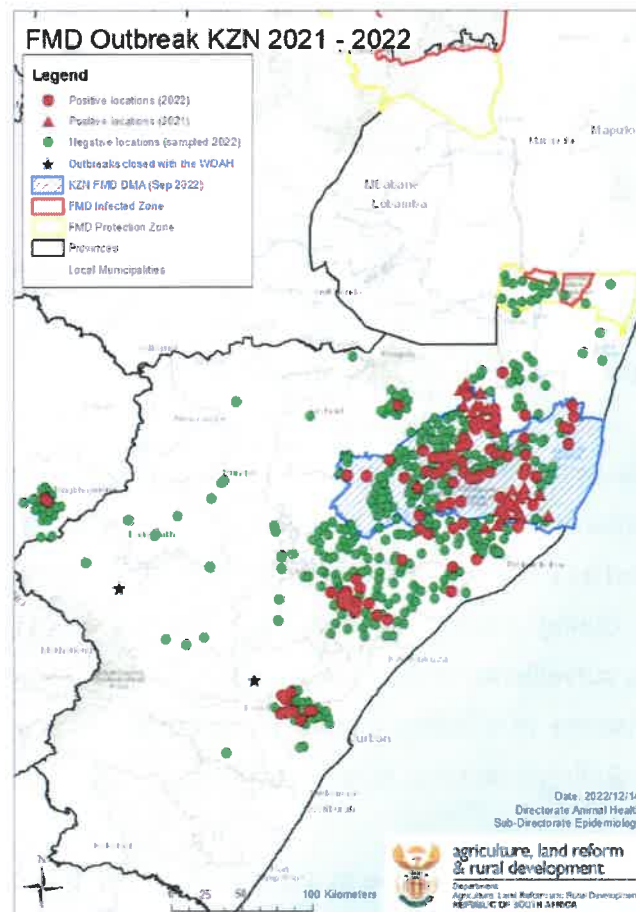


**Table 4: Summary of Serological surveillance per province:**

Outbreak Event	Number negative locations	Number of open positive locations	Total number of locations
1	443	119	562
2	211	7	218
3	389	57	446
<b>Total</b>	<b>1043</b>	<b>183</b>	<b>1 226</b>

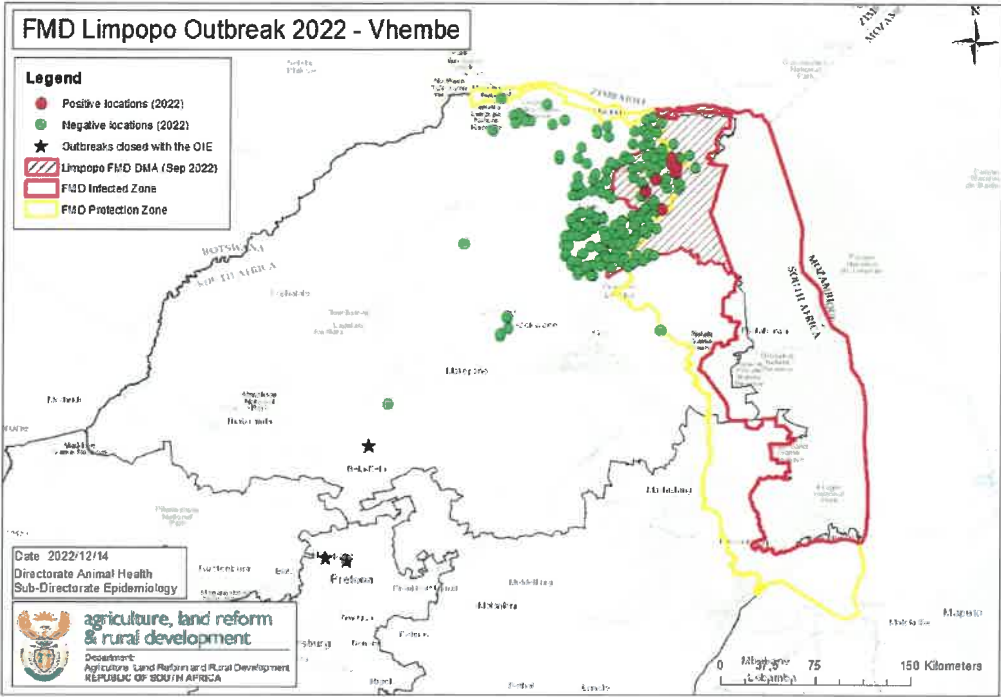
Below are maps of each outbreak event, indicating all locations surveyed, with negative results indicated in green and positive locations in red. Please also refer to the explanatory notes after the maps for more clarity.

**Map 8: Serological surveillance in KwaZulu-Natal-Free State Province outbreak event, showing 443 negative and 119 positive locations**

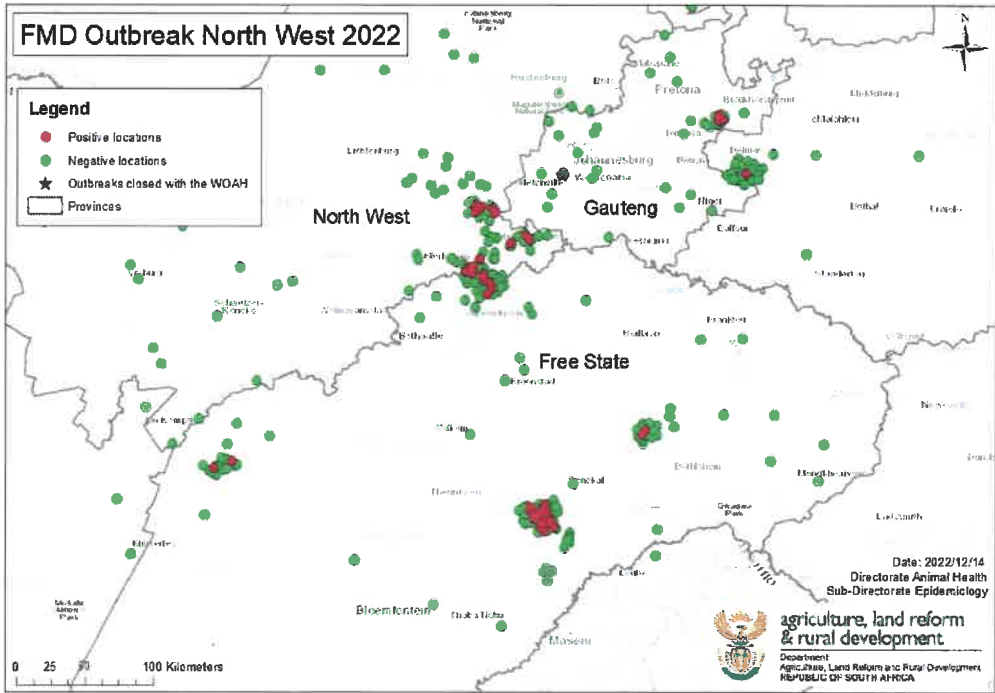




**Map 9: Serological surveillance in Limpopo Provinces outbreak event, showing 211 negative and 7 positive locations**



**Map 10: Serological surveillance in North West - Free State – Gauteng – Mpumalanga Provinces outbreak event showing 389 negative and 57 positive locations (please note that some of the points are superimposed due to close proximity)**



Note that in both the table, as well as the maps above, 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. The number of positive locations also includes the locations that were identified as positive last year (2021).

## 6. Notice regarding report

Due to the department closing for the Christmas to New Year period, the next report will only be published in January 2023.



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**Director Animal Health**

Date: 14/12/2022

