

# Swine Disease Global Surveillance Report

Worldwide pork production is highly interconnected by trade between countries and markets which could increase the risk of introduction of foreign pathogens into the US.

## PROJECT

The aim of these reports is to have a system for near real-time identification of hazards that will contribute to the mission of assessing risks to the industry and ultimately, facilitate early detection and identification, or prevent occurrence of events, in partnership with official agencies, and with our international network of collaborators.

Monthly reports are created based on the systematically screening of multiple official data sources, such as government and international organization websites, and soft data sources like blogs, newspapers, and unstructured electronic information from around the world, that then are curated to build a raw repository. Afterward, a group of experts uses a multi-criteria rubric to score each event, based on novelty, potential direct and indirect financial impacts on the US market, credibility, scale and speed of the outbreak, connectedness, and local capacity to respond average is calculated. The output of the rubric is a final single score for each event which then it is published including an epidemiological interpretation of the context of the event.

*These communications and the information contained therein are for general informational and educational purposes only and are not to be construed as recommending or advocating a specific course of action.*



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[www.cahfs.umn.edu](http://www.cahfs.umn.edu)

Current and previous reports:

[www.swinehealth.org/global-disease-surveillance-reports/](http://www.swinehealth.org/global-disease-surveillance-reports/)

**Spontaneous  
reporting TOOL**



## Swine Disease Global Surveillance Report

Tuesday, August 31, 2021 – Tuesday, October 5, 2021

### Report Highlights

- **ASF in Haiti:** Haitian authorities confirmed the detection of ASF in the country after 37 years
- **ASF Dominican Republic:** Field visit report - over 165 outbreaks confirmed
- **New FMD strain in Namibia:** Serotype O has been detected for the first time in the country
- Taiwan tightens entry point checks

### OUTBREAKS BRIEF

R	Location	Date	Disease	Impact
3	Anse-a-Pitre, <b>Haiti</b>	9/21	ASF	234 animals dead or destroyed. 750 slaughtered.
2	Multiple locations, <b>Dominican Republic</b>	Sept	ASF	Over 165 confirmed outbreaks across 25 out of 31 provinces
	Central and southeast regions, <b>Romania</b>	8/26 - 9/21	ASF	4 commercial premises reported outbreaks with over 80,000 pigs affected
2	Siu Sai Wan area, <b>Hong Kong</b>	9/3	ASF	First case of ASF reported in wild boar on the island
1	Northeast Zambezi region, <b>Namibia</b>	Aug	FMD Serotype O	First report of serotype O in the country
1	Tripura state (near the border with Mizoram), <b>India</b>	9/22	ASF	First outbreak in the state. Cases were reported in a farm of exotic pigs run by the government.
1	Belgorod oblast (central federal district), <b>Russia</b>	9/27	ASF	Commercial farm (Miratorg) with over 24,000 pigs.
1	Eastern Visayas (central island), <b>The Philippines</b>	9/15	ASF	Active outbreaks in 43 communities with over 15,000 infected animals
1	Multiple provinces, <b>South Africa</b>	Sept	ASF	10 new ASF outbreaks. <i>Since 2019, the country has reported 115 outbreaks involving over 49,000 pigs</i>

1	Bono region (eastern region - border with Ivory Coast), <b>Ghana</b>	9/17	ASF	200 affected pigs
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Outbreaks described in the table above are colored according to an assigned significance score. The score is based on the identified hazard and potential it has to affect the US swine industry. Rank (R) Blue: 1 - no change in status; Red: 2 - needs extra attention as the situation is dynamic; Black: 3 - requires consideration or change in practices to reduce exposure to the US swine industry. Map with the location of the events reported is available at the end of this report.

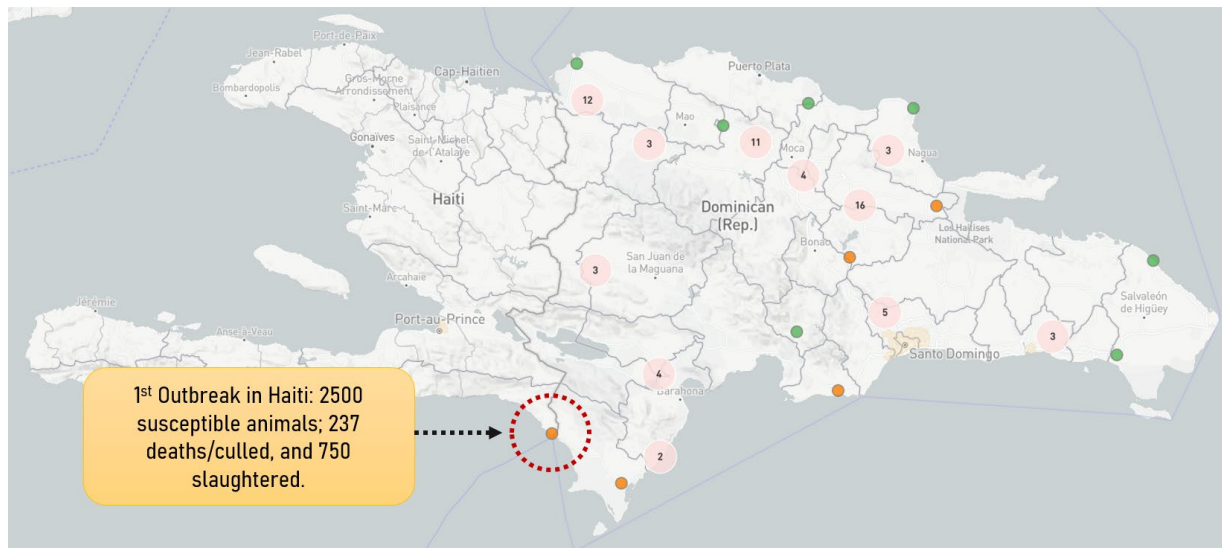
## African Swine Fever

### The AMERICAS

#### Haiti

On September 20, Haitian authorities reported its first outbreak of ASF since September of 1984, at an operation in Anse-a-Pitre, in the south-eastern province of Belle-Anse, close to the border with the Dominican Republic (Map 1).

The samples were shipped and tested at the Foreign Animal Disease Diagnostic Laboratory (FADDL) on Plum Island. This collaboration between USDA and the country comes along with the agency's support in the Dominican Republic, given the lack of diagnostic infrastructure to confirm suspicious cases in both countries.



Map 1. Location of the first outbreak of ASF in Haiti (Source: [WAHIS-OIE](#))

#### The Dominican Republic (DR)

##### *Report of a field visit*

Since the first report of ASF in the island, back on July 28, 77 outbreaks have been reported to the OIE, 59 of which have been already resolved, and 14 still ongoing. The total number of cases throughout these 77 outbreaks is 4290. Most of these reports are in backyard premises with fewer than 100 pigs, although three involve community-type backyard operations with around 1,000 pigs.

In parallel, the Epidemiology Division, Department of Animal Health (DAH), Directorate of Livestock, Ministry of Agriculture in the Dominican Republic, has reported some backlogs in their submission to OIE, connected with some challenges to perform the associated inspection after a suspect case is reported. Until September 22, over 165 outbreaks of ASF were confirmed, with another over 50 suspect cases recorded, which were still waiting to be inspected (Figure 1).

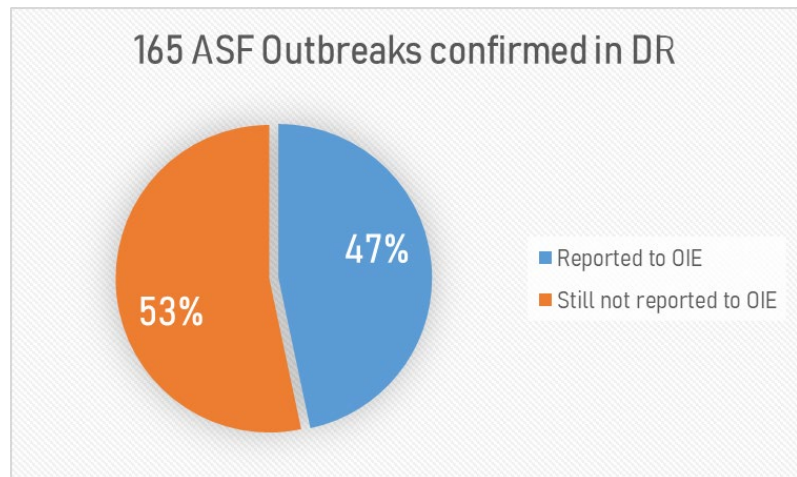
Dr. Andres Perez (Director of CAHFS, UMN) visited DR the week of September 13. During this visit, he had the chance to meet with multiple stakeholders and gathered critical data on the current status of the epidemic.

*Special acknowledgments to all the partners who made this visit possible: OIRSA, Universidad Autónoma de Santo Domingo, Dirección de Ganadería (DR Government), USDA/APHIS and FAS; producers association: Federación Dominicana de Porcicultores, Asociación Dominicana de Granjas, and private practitioners and laboratories.*

## KEY FINDINGS

### Potential origin of the epidemic

- The first confirmed case traced back to **April 10** (source: OIE-FAO-OIRSA-IICA technical mission, public report in Spanish)
- Rumor: unusual **high mortalities observed since February** (source: interviews)
- Eight sequenced (WGS) samples (source: USDA/APHIS PIADC report) → *Genotype II ASFv (Georgia 2007)*
- Hypothesized routes of introduction (source: OIE-FAO-OIRSA-IICA technical mission report, unless otherwise stated)
  - Haiti
    - geographical proximity
    - rumors suggesting high pig mortalities back in early 2021 (source: interviews)
  - Improperly treated ship garbage
  - The illegal introduction of swine products
    - Tourists
    - Importation: illegal swine products from China identified at markets (source: OIRSA risk analysis report)



### Organization of the swine sector in DR (Source: Dr. Pedro Lora)

The swineherd of DR is distributed as in many other regions of the world in commercial and backyard production systems across the 31 provinces, which are grouped in eight regions. **The commercial sector holds ~62,000 sows in 334 farms.** In contrast, the backyard is much more challenging to estimate. Still, preliminary estimation reports between 40,000 – 60,000 farms. **In total: ~ 1-2 million pigs in DR.**

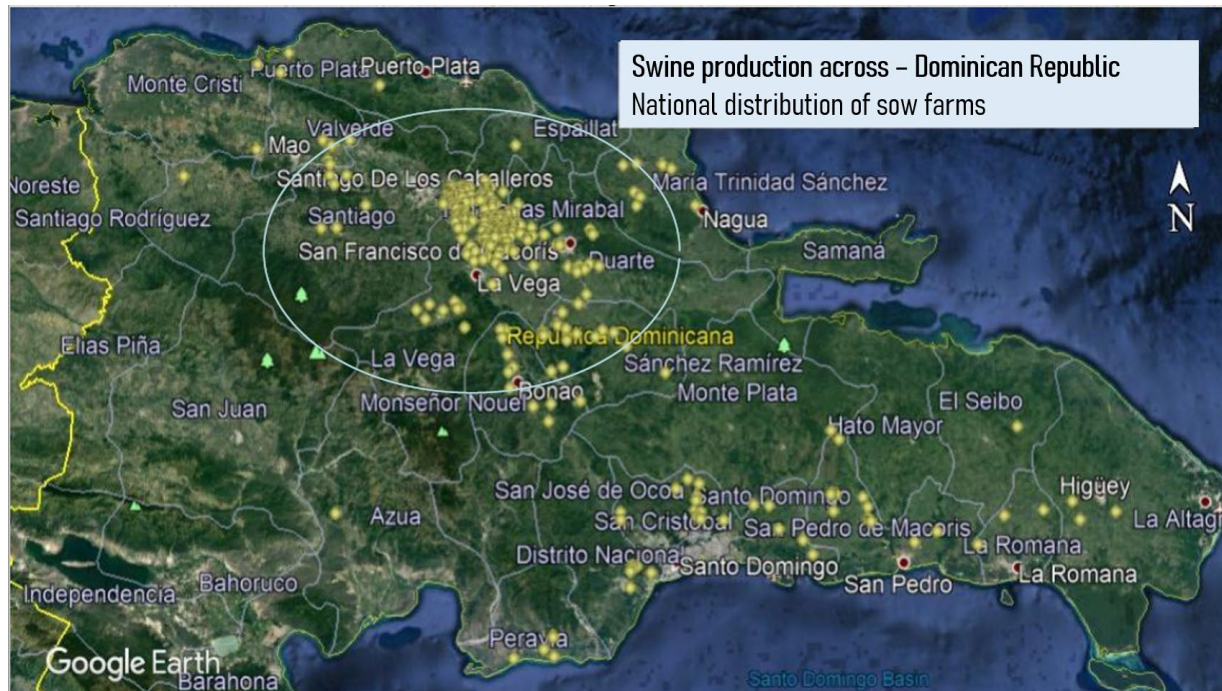
### Distribution of commercial farms

- 334 commercial farms:
- 3 genetic nuclei/multipliers
- 22 (500-2000 sow) farms
- 308 (<500 sows) farms



**259 (78%) clustered in north, north central, and northeast regions (Map 2)**





Map 2. Distribution of sow farms in the Dominican Republic

#### Outbreak investigation

- All pigs in the affected farm were sacrificed (electrocution) and buried
- Data collected using an outbreak investigation form (on paper, now moving to e-forms)
- Central database at the DAH
- Foreclosure ("Pignoracion"): sacrifice in one specific plant of pigs in neighboring farms subsidized by the government

Key risk detected by the FAO-OIE-IICA-OIRSA mission (Follow this link to access the full report - Original version: [Spanish](#); translated to [English](#))

- The number and distribution of outbreaks (and ongoing suspicions), added to the characteristics of structural informality of the pig value chain in specific sectors (of production, transformation, and commercialization), the fragility that the official agencies had at the beginning of this emergency, challenging to solve in a short time, and the not yet active participation of the private sector in the campaign, predict that the disease will continue to spread.
- It might be the intention to communicate that the disease is "under control" due to the significant advance in stamping out, which contrasts with the epidemiological evidence that the disease is in clear dissemination.
- The sustainability of measures that require high financial investment, such as compensation, will depend on the efficiency of the disease containment and eradication measures, a matter that is still uncertain.
- The risk of infection endemicity cannot be ruled out. Today it is easier to control the disease because it has a clear clinical expression. Still, over time the virus adapts and is not so easy to detect, which will make its control even more difficult.
- The weakness in infection control in the DR not only puts the country at risk but the entire region. DR has a high flow of products through temporary or permanent migration to other countries of the region. If ASF infection spreads to other countries in the region, it will pose a greater risk of reinfection for the DR when it advances in the eradication phase..

### *US preventive measures*

APHIS ongoing efforts:

- Pork and pork products from Haiti and the Dominican Republic are prohibited entry to the United States as a result of existing classical swine fever restrictions. After ASF was detected, the surveillance efforts were increased.
- APHIS continues to work diligently with Customs and Border Protection (CBP). CBP is increasing inspections of flights from Hispaniola to ensure travelers do not bring prohibited products to the United States. CBP will also ensure that garbage from these airplanes is adequately disposed of to prevent ASF transmission.
- On August 26, it was announced the intent to establish a foreign animal disease (FAD) protection zone in Puerto Rico and US Virgin Islands.
- As part of the actions taken to create the protection zone, on September 17, APHIS issued a Federal Order suspending the interstate movement of all live swine, swine germplasm, swine products, and swine byproducts from Puerto Rico and the US Virgin Islands to the mainland United States until APHIS can establish sufficient mitigations to authorize such movement.

## EUROPE

In September, Bulgaria, Poland, Romania, Slovakia, Ukraine, and Russia reported new ASF outbreaks in domestic pigs. Meanwhile, nine countries, including Bulgaria, Estonia, Germany, Hungary, Latvia, Lithuania, Poland, Romania, and Slovakia, reported cases of ASF on wild boar (European Commission Animal Disease System (ADNS)).

**The latest update from ADNS includes the total number of ASF outbreaks among European wild boar, which so far this year lies at 9,396 across 12 countries (as of September 24). Compared with the previous update on August 28, this figure represents an increase of 438 outbreaks. Since the beginning of 2021, European countries have registered 1,483 outbreaks in domestic pigs, 233 of them in the month of September (less than half of the total - 524 - reported in August, across Poland, Germany, Romania, Bulgaria, Estonia, Serbia, Slovakia, and Ukraine. (24/9\_EC ADNS disease outbreaks report/)).**

## ASIA

In September, six countries - The Philippines, Indonesia, India, Vietnam, Papua New Guinea, and China - reported new ASF outbreaks in pig farms.

### *Regional highlights*

- **Vietnam:** From January to September 2021, more than 90 000 pigs were destroyed due to ASF (nearly double the figure of the same period in 2020).
- **The Philippines:** As of mid-September, ASF affected 14,924 pigs in 230 villages (almost 7% of the total pig population in the region). Active cases of ASF are found in the three main regions/islands. Recently, in Luzon Island (north), ASF was confirmed in multiple villages. In Eastern Visayas Region (central), ASF spread to 49 towns and cities in Leyte, Southern Leyte, Samar, Northern Samar, and Eastern Samar Provinces. Authorities associated the recent spread with the unregulated trading of processed meat. In Mindanao Island (south), ASF was reported in a backyard farm in Sarangani, Davao Occidental Province.

## Hong Kong

### *First case of ASF detected in the wild pig population in Hong Kong*

On September 3, the Agriculture, Fisheries, and Conservation Department (AFCD) in Hong Kong announced that samples taken from a wild pig carcass had tested positive for ASF under the surveillance program. These surveillance efforts started in response to the recent abnormal wild pig deaths in the Siu Sai Wan area. No other abnormal deaths have been observed in other areas in Hong Kong so far. The AFCD will continue to monitor for any abnormal deaths and maintain surveillance in the wild pig population.

**Until now, no pig farms have been affected by ASF on the island.**

The AFCD has notified all local pig farmers about the case immediately. They have been advised to enhance farm biosecurity to prevent the intrusion of wild pigs and introduction of ASF virus into the farm. Local pig farmers are also reminded to notify the AFCD if their pigs show any abnormal health conditions. The AFCD has been closely monitoring the animal health conditions in all local pig farms.

Authorities stressed that for personal safety and to prevent the introduction of ASF, wild boars should not be fed. Any garbage located outdoors should be kept tightly in closed containers. They also encourage the public to report any findings on a dead wild pig.

To strengthen ASF surveillance on local wild pigs, the AFCD has been working with the Food and Environmental Hygiene Department (FEHD) on a surveillance program for ASF since late 2019. This has involved testing for the ASF virus in wild pig carcass found and reported by the FEHD. To aid in early detection, samples collected from wild pigs of the Capture and Contraception/Relocation Programme are also tested for ASF.

## Taiwan

Taiwanese authorities are planning to tighten checks on all goods imported via air cargo from high-risk countries for ASF beginning next year.

*What will these checks imply?*

- Each item sent via air freight, including express mail, will be inspected at its entry point.
- Logistics companies that organize shipments to Taiwan from high-risk ASF countries will no longer be able to bulk clear consignments of goods -- a practice that expedites the clearance process.

These remarks came [after meat products smuggled from Vietnam by air were recently found to have ASF](#), prompting the relevant authorities to tighten the inspection of all goods coming from the Southeast Asian country from August 23, which includes halting expedited clearance of goods.

Between August 23 and September 5 (12 days), customs officials **found 69 packages totaling 118 kilograms** containing pork products from China, Vietnam, Hong Kong, South Korea, and the Philippines via air freight, including express delivery.

The deputy head of the Cabinet-level Council of Agriculture, also vice chief of the Central Emergency Operations Center for ASF, said conventional customs inspections are no longer adequate.

## AFRICA Namibia



### *New FMD serotype in the country*

Since last March, Namibia has been dealing with outbreaks of FMD in the northern region (Map 3). An FMD outbreak was first reported on June 3 in the Kasenu village, resulting in the area within a 30-kilometer radius being declared an infected area. Despite all the control measures in place, such as emergency vaccination and animal movement ban, the disease has spread to three other constituencies. The fact that infection rates remained high in the affected herds ended up triggering a further investigation. Later, the veterinary services confirmed the detection of a new strain of FMD - **FMD virus serotype O** - in samples collected from Kabbe North, causing the current outbreak in the Zambezi region.

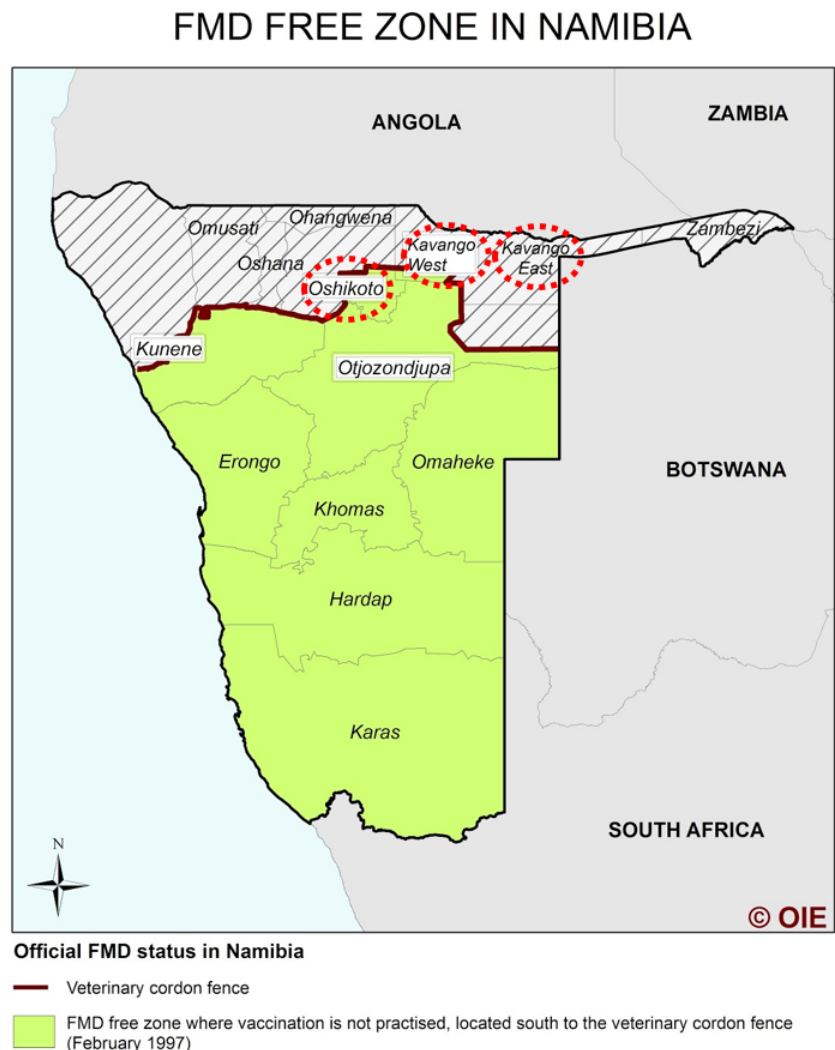
This is the first time the FMD serotype O has been detected in Namibia. Previously, the only FMD virus strains identified in the country were serotypes SAT 1, 2, and 3 (as of 2020 = years of detection, in parentheses: SAT1 (2015), SAT2 (2007, 2008, 2015, 2016), and SAT3 (2019, 2020)). Investigations to establish the source of the FMD serotype O are ongoing. However, it is suspected that there is illegal cross-border movement of cattle between Namibia's Zambezi region and Zambia. Zambia reported outbreaks of FMD serotype O in 2019 and 2020 to the OIE.

Emergency vaccination of cattle against the new FMD serotype O is currently ongoing, targeting the cattle population of 170 000 in the Zambezi region.

Map 3.  
FMD regionalization in Namibia

## Impact

Experts warned that this outbreak might impact the meat exports from Namibia, which is allowed to export beef to China, the EU, and the United States. It may also negatively affect the trade agreements that Namibia recently signed with countries, such as Ghana, on exporting meat and meat products.



Slaughtering of cattle at the Katima Mulilo abattoir is also suspended, except for animals already in the quarantine camps. Cattle already in quarantine will be handled as per the Commodity Based Trade (CBT) protocol. The movement of meat already at Katima Mulilo abattoir will be handled according to the CBT requirements and OIE guidelines.

### **Regionalization**

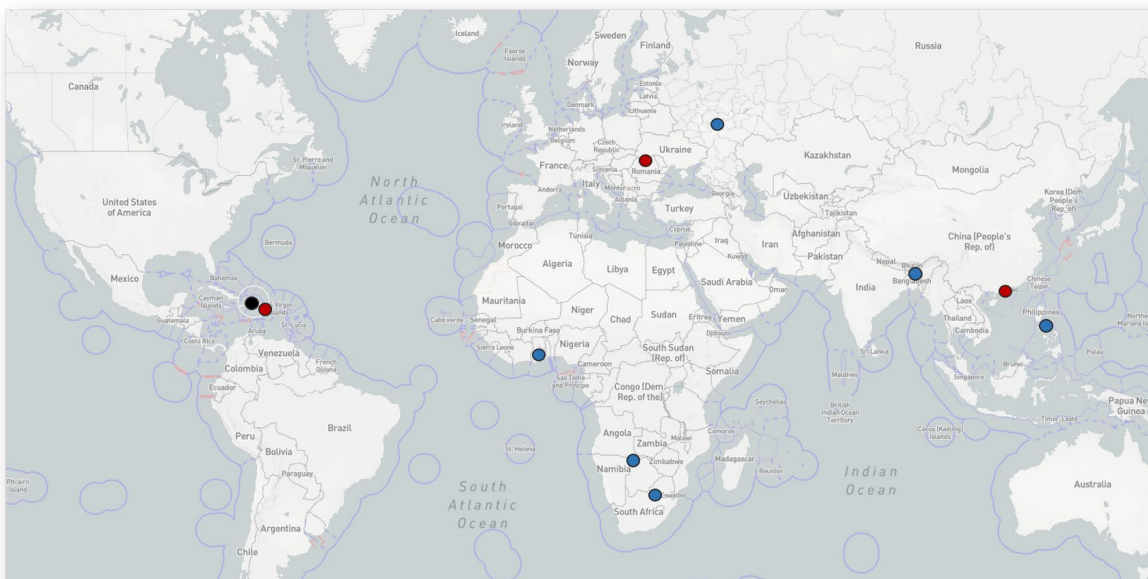
The Zambezi region, similar to the other northern regions (the striped region in the map), is part of the “protection zone” between the free zone (in green below the Red Line) and the infected zone (eastern states bordering Botswana and Zambia).

### **Namibia’s veterinary fence**

This fence divided the country into a veterinary buffer zone (north) and a veterinary surveillance zone (south). It started at Palgrave Point on the west coast of Namibia and ran in a generally eastern direction to a point on the common border between Namibia and Botswana at a 20° latitude.

The fence effectively cordons off Angola and the areas of Botswana where the disease is endemic. No cloven-hoofed livestock are under any circumstances allowed to move southwards through the veterinary cordon fence to prevent the spread of diseases such as FMD.

**The last FMD outbreak in the disease-free area south of the fence occurred in 1964.**



*Map 4. Location of the FMD outbreaks reported throughout December. Blue: 1 - no change in status; Red: 2 - needs extra attention as the situation is dynamic; Black: 3 - requires consideration or change in practices to reduce exposure to the US swine industry*

### **References:**

#### **Recurrent reports reviewed**

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The GSDMR team compiles information drawn from multiple national (Ministries of Agriculture or Livestock, Local governments, and international sources (FAO, OIE, DEFRA, EC, etc.), as well as peer-reviewed scientific articles. The team makes every effort to ensure but does not guarantee, accuracy, completeness, or authenticity of the information. The designation employed and the presentation of material on maps and graphics do not imply the expression of any opinion whatsoever on the part of the GSDMR team concerning the legal or constitutional status of any country, territory, or sea area or concerning the delimitation of frontiers.

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