

# 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 systematic 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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reporting TOOL**



## Swine Disease Global Surveillance Report

Tuesday, December 4, 2021 – Monday, January 3, 2022

### Report Highlights

- **African Swine Fever (ASF) Regionalization:** France arrives at an agreement with China to carry on trade in case of an ASF outbreak.
- **ASF in Germany:** number of infected wild boar goes over 3,000 before the end of 2021.
- **Classical Swine Fever (CSF) in Japan:** authorities confirmed three new outbreaks in commercial farms - over 18,000 pigs were destroyed.
- **Taiwan CSF Status:** Authorities are carrying out a plan using sentinel farms to end vaccination against CSF - they target 2023.
- **Porcine Epidemic Diarrhea (PED) in Canada:** Manitoba closes the year with 30 outbreaks in less than three months - half reported in December.

### OUTBREAKS BRIEF

R	Location	Date	Dx	Impact
2	Miyagi prefecture, <b>Japan</b>	12/13-24	CSF	3 outbreaks in commercial farms were confirmed - over 18,000 pigs were destroyed.
2	Hebei Province, <b>China</b>	12/20	ASF	245 pigs illegally transported were seized at a highway checkpoint and tested positive for ASF - 9 cases and 245 were culled.
1	Mecklenburg-Vorpommern state, <b>Germany</b>	12/2	ASF	3 wild boar carcasses - 150 km from the border with Poland
1	Perak State, <b>Malaysia</b>	12/5	ASF	4 wild boar cases were reported.
1	Perak State and Pahang State, <b>Malaysia</b>	12/24	ASF	Over 6,000 domestic pigs were culled to avoid the spread of the disease.
	Cagayanan Province, <b>The Philippines</b>	12/11	ASF	248 destroyed. 42 hog raisers affected.
1	5 districts in West Kalimantan, <b>Indonesia</b>	12/16	ASF	2,965 pigs dead. Also, ASF-positive pork products were found in local markets.
1	Talana town, East Sardinia, <b>Italy</b>	12/10	ASF	3 seropositive animals were detected and slaughtered
	Amur region, Far Eastern district, <b>Russia</b>	12/13	ASF	17 backyard pigs and 2 wild boar

	Manitoba, <b>Canada</b>	12/26	PED	15 new outbreaks reported
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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 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. A map with the location of the events reported is available at the end of this report.*

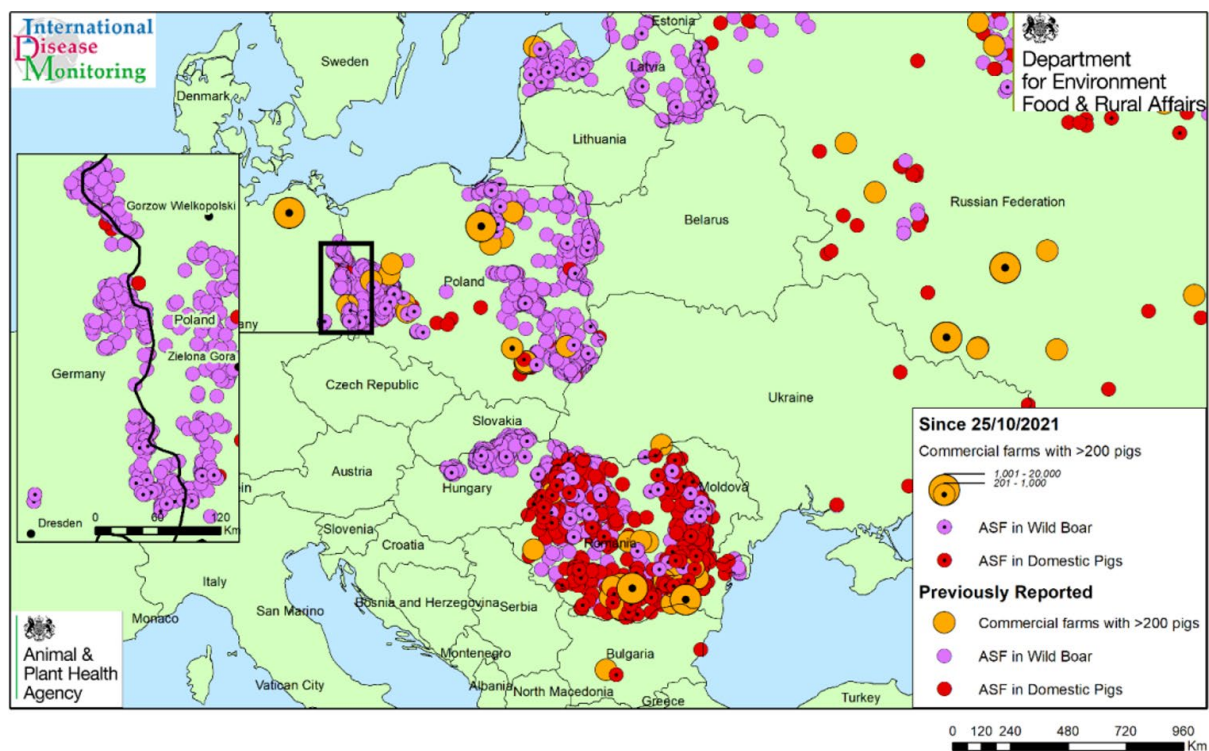
## African Swine Fever

### EUROPE

In December, six countries, including Italy, Poland, Romania, Slovakia, Ukraine, and Russia, reported new ASF outbreaks in domestic pigs. Meanwhile, 11 countries, including Bulgaria, Estonia, Germany, Hungary, Italy, Latvia, Lithuania, Poland, Romania, Slovakia, and Russia, reported cases of ASF in wild boar (European Commission Animal Disease System (ADNS); OIE).

The latest update from ADNS includes the total number of ASF outbreaks among European wild boar, which so far this year lies at 11,712 across 10 countries (as of December 19). Compared with the previous update on November 21, this figure represents an increase of 1,098 outbreaks (a 50% increase compared to the reports of November).

Since the beginning of 2021, European countries have registered 1,844 outbreaks in domestic pigs, 83 of them in November (a significant drop compared to the total reported in November (n= 278)). (19/12\_EC ADNS disease outbreaks report/).



Map 1. Distribution of outbreaks in Europe 2021- Map prepared by International Disease Monitoring group (IDM), Animal & Plant Health Agency, (DEFRA-UK).

#### Regional highlights:

- **France:** On December 13, a corresponding regionalization agreement was signed within the French-Chinese economic and financial dialogue framework and came into force on December 14. This agreement with its main export customer, China, will ensure pork trade can continue even if an outbreak of ASF occurs, potentially providing a blueprint for European countries threatened by the pig disease. Inaporc, the industry body, welcomed the signing of the

agreement and hailed the agreement as proof of the efficiency of French food and veterinary controls. According to Inaporc, regionalization will take place at the departmental level.

- **Russia:** New cases of ASF have been discovered in domestic pigs and wild boar in the Amur region in the far eastern federal district. In the first week of December, pigs in a backyard herd of 17 animals tested positive for the virus. Later, three ASF-positive wild boar carcasses were identified nearby. Both locations border China. These are the first reports since July.
- **Germany:** In December, the number of ASF cases in wild boar exceeded the 3,000 mark, arriving at a total of 3,092 infected animals. Germany is also in talks with the European Union about financial support for farmers who give up pig production in regions threatened by ASF.

[Resources: Computer animations of ASF spread in Germany and Poland since 2019 // Source: FLI.](#)

- **Poland:** In Western Poland, the cluster of outbreaks keeps expanding in all directions, from the location where the first outbreaks occurred in November 2019. Since then, over 6,107 outbreaks in wild boars, and 42 in commercial farms, have been reported. Outbreaks are being reported to the north, along the border with Germany, and to the south to be as close as 15km from the border with the Czech Republic.
- **Romania:** The whole country is considered under Zone III restrictions and unable to export pork products. Numerous outbreaks (44) were reported during this reporting period. Again, almost exclusively smallholdings were affected, except for two farms with 13,000 and 62,000 animals in the southeast of the country near the Black Sea coast.

## ASIA

In November, six countries - South Korea, Vietnam, China, Indonesia, The Philippines, and Lao - reported new ASF outbreaks in pig farms.

### *Regional highlights*

- **The Philippines:** In December, despite the measures imposed by the government, ASF continued to spread in the Cagayan province, affecting seven municipalities. Up to 248 were culled, and at least 42 pig farmers have lost all their livestock.
- **Indonesia:** Over 2,965 pigs deaths across five districts and cities in West Kalimantan. Local authorities also reported the finding of pork products positive to ASF in local markets.
  - Among the control measures taken by the Livestock Service office in West Kalimantan Province, a **controversial measure** seems to have been applied: "...the injection of convalescent serum as an effort to build resistance to healthy pigs in infected areas." The convalescent serum is provided by the directorate general of animal husbandry and animal health. Local news reported that as many as 3,750 vials (60,000 doses), of which 877 have been already applied to 8,360 pigs.

In the meantime, in Lubuk Basung (West Sumatra), dozens of wild pigs were found dead suddenly in late November - early December. Local authorities have yet not confirmed the presence of ASF.

- **South Korea:** After receiving a report that the carcass of a wild boar was damaged, and after conducting an on-site investigation, the Wild Boar Damage Prevention Group confirmed that the gallbladder was removed in the process of transporting the carcass for processing. Wild boar gallbladders are used for traditional medicinal purposes. Still, since the incursion of ASF, when wild boars are captured, carcasses cannot be damaged except by designated sample collectors to prevent the spread of the disease, and self-consumption is prohibited. Authorities request the public's cooperation to actively monitor and report any illegal activities of hunters. In the same communication, they also said that:
  - A reward for catching wild boars (370,000 won in Taebaek-si) will be paid to those who have caught wild boars and properly handled them.
  - Also, to prevent the artificial spread of ASF, special crackdowns on poaching and smuggling will be intensively carried out from November to March next year.
- **Malaysia:** On December 25, local authorities from Malacca province confirmed the presence of ASF in Paya Megkuang city. In response, from 35 farms with over 40,000 pigs in the city, the culling of 6,000 pigs from seven farms that turned out positive was carried out. In addition, in early December, the presence of ASF in wild boars carcasses found in Perak and Pahang State was confirmed by the Veterinary Research Institute in Ipoh.
- **Taiwan:** On December 23, Central Emergency Operation Center (CEOC) revealed that sausages present in an intercepted package from Thailand were confirmed to be positive for ASF. Authorities said that a post office in Tainan first flagged a package from Thailand on December 15 after it was detected as containing sausages. A lab test conducted on the package on December 17 revealed that the items had the ASF virus. Once again, the Thai sausages tested positive for the virus at the state lab on December 22, confirming the initial result. According to the Taiwanese authorities' statement, this marks the first time the ASF virus has been detected in pork products from Thailand. The intercepted package from Thailand will be returned, with the case reported to the Thai authorities.

## Classical Swine Fever

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### ASIA

#### Japan

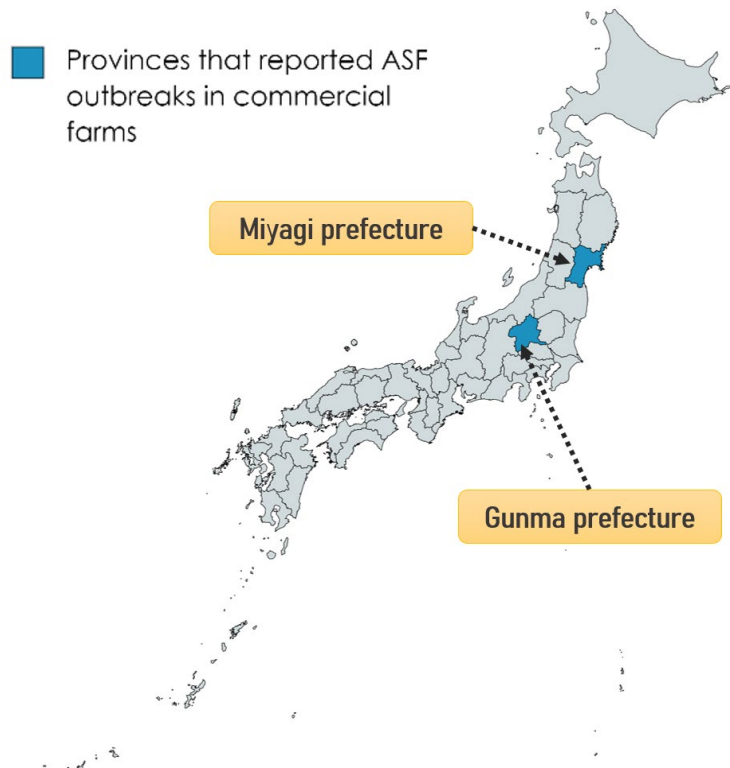
Between December 11 and 24, according to the latest official report from Japan's veterinary authority to the OIE, three new outbreaks of CSF were detected at commercial pig farms in Japan.

The earliest outbreak was at a farm in Gunma prefecture in central Honshu (Map 2). Around 40 of the 2,400 pigs died; the rest were culled. Later, another farm in Miyagi prefecture, in the Tohoku region north of Honshu island (Map 2), confirmed the infection on December 11. Cyanosis was the noted symptom in one of the 11,900 animals at the premises. As well as those at this farm, around 2,200 pigs were also culled at epidemiologically linked premises elsewhere in Miyagi.

On December 24, authorities confirmed the third outbreak. This most recent farm to be affected by the disease is in Marumori, located in Miyagi prefecture. On this farm, nine of the around 7,000 pigs were observed with respiratory symptoms, fever, and diarrhea. Then, the presence of CSF was confirmed by laboratory diagnosis.

All the pigs at the premises were culled, along with 900 more, which were transported from the Marumori farm or had artificial insemination using sperm from pigs at the farm. These animals are now raised at 26 farms in prefectures, including Yamagata in northeastern Japan, Ibaraki, Gunma, Tochigi, and Chiba in eastern Japan, and Aichi in central Japan.

**These reports bring the country's total outbreaks to 76, with 273,000 domestic pigs directly affected and 4,200 wild boar detected positive across 39 of 47 prefectures since September 2019, when the country lost its CSF-free status after 25 years.**



Map 2. Japanese prefectures that reported ASF outbreaks in commercial farms during December

## Taiwan

*Authorities are carrying out a plan using sentinel farms to end vaccination against CSF*

A plan to end vaccination against CSF is going smoothly, and some farms with sentinel pigs are not expected to need to be vaccinated in the upcoming months, the Council of Agriculture (COA) shared in a press release on December 23.

Taiwan is free of foot-and-mouth disease (FMD) and ASF but is still in the OIE list of countries affected by CSF. Taiwanese pork products could be sold to Japan and other countries if vaccination against CSF was no longer needed.

To achieve this goal, in early 2021, authorities chose more than 150 hog farms nationwide to test its “no shots” program on young pigs. At each farm, 16 to 24 piglets were not vaccinated against CSF. Still, they were raised with vaccinated pigs to observe whether the unvaccinated pigs become infected, which would be evidence of the circulation of the virus in the environment of the farm.

The first 3,000 “sentinel” pigs from these farms were slaughtered and tested for CSF antibodies. The council also conducted environmental tests at farms with the sentinel pigs. From this batch, only a few sentinel pigs were found to be positive for antibodies, which might be due to errors or mix-ups in the animal identification or during the vaccination of the rest of the animals on the farm. Given that there have been no outbreaks of CSF in farms or the wild; some farms would likely be allowed to end vaccinations in June 2022. This is a preliminary achievement of this program, the council stated.

If everything goes smoothly, the sentinel pigs program should conclude by the end of this year. At the beginning of next year (2023), the council could convene a meeting of experts to decide whether the nation can inform the OIE of its success and request a change of its sanitary status.

If that happens, Taiwan will become the only Asian country free of CSF.

## Porcine Epidemic Diarrhea

### AMERICAS

#### Canada

In December, another 15 outbreaks of PED were reported by the Canadian authorities, making a total of 30 outbreaks since the start of this epidemic in late October 2021. This is a drastic increase from the records of 2020, when only three outbreaks were reported (last report July 2021)).

	Oct	Nov	Dec	Total
Finisher	1	4	8	13
Nursery		2	2	4
Sow	1	6	5	12
Farrow to Finish		1		1
	2	13	15	30

Table 1. Number of PED outbreaks in Manitoba classified by type of farm.

The last two years, in general, have been positive news for the pork industry on PED, after its worst-ever year for the virus in 2019 — which brought 82 new cases, including the province’s first in the west central and northeastern regions.

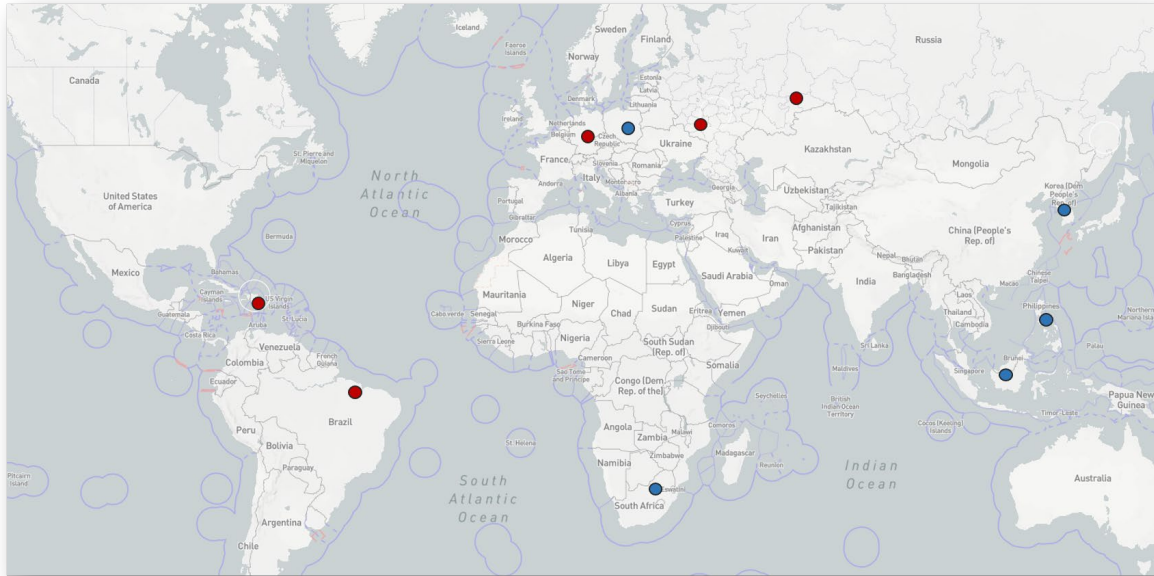
The significant outbreaks in 2017 (n= 77), and again in 2019 (n= 82), led the pork sector to drastically increase its efforts on disease prevention, including more emphasis on biosecurity and producer outreach, evaluating procedures, and the introduction of the Manitoba Co-ordinated Disease Response online portal, designed to disseminate educational resources and infection risk information quickly to producers.

As of December 22, 2021, 188 of the 222 total cases in Manitoba previously confirmed to have PED are now determined to be PED Presumptive Negative following a negative status protocol developed by the Chief Veterinary Office (CVO) and Manitoba's swine veterinarians.

#### A PED Presumptive Negative Status

This status is assigned to premises where the affected producer has implemented strict measures to eliminate PED from all pigs and pig contact areas and has confirmed the virus has been eliminated through repeated animal and environmental testing. However, a potential PED risk still remains within the manure storage system. Depending on the herd type and the stage of production, a PED infected premises can take four to six months to reach Presumptive Negative status.





Map 3. Location of the 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

- OIE - [WAHIS interface - Immediate notifications](#)
- OIE - [OIE Asia Regional office](#)
- FAO - OIE - [WAHIS interface - Immediate notifications](#)
- DEFRA - [Animal conditions international monitoring reports](#)
- CAHSS - [CEZD Weekly Intelligence Report](#)
- European commission - [ADNS disease overview](#)

## EUROPE

### France

- <https://english.fleischwirtschaft.de/economy/news/regionalisation-agreement-french-plan-ahead-52159>
- <https://www.reuters.com/business/healthcare-pharmaceuticals/france-says-china-agrees-regional-approach-pig-disease-trade-2021-12-13/>

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- <https://www.gov.mb.ca/agriculture/animal-health-and-welfare/animal-health/porcine-epidemic-diarrhea.html>
- <https://www.manitobacooperator.ca/livestock/hogs/first-ped-case-of-2021-confirmed/>

### Dominican Republic

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### Malaysia

- <https://theworldnews.net/my-news/culling-of-pigs-infected-by-african-swine-fever-to-be-hastened-to-curb-its-spread>
- <https://www.thestar.com.my/news/nation/2021/12/18/african-swine-fever-found-in-boars-in-perak-and-pahang>

### Indonesia

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### The Philippines

<https://www.manilatimes.net/2021/12/11/news/regions/7-cagayan-towns-affected-by-african-swine-fever/1825516>

**China**

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<https://www.reuters.com/markets/commodities/chinas-hebei-province-reports-african-swine-fever-pig-trucks-2021-12-16/>

**Japan**

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**South Korea**

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