

# 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.*



UNIVERSITY OF MINNESOTA



*University of Minnesota Technical Coordination*

Sol Perez<sup>1</sup>, Auguste Brihn  
Andres Perez<sup>2</sup>

*Expert Focus group*

Jerry Torrison, Montserrat Torremorell,  
Cesar Corzo, Paul Sundberg, John Deen

<sup>1</sup>Project coordinator. E-mail: [mperezag@umn.edu](mailto:mperezag@umn.edu)

<sup>2</sup>Principal investigator. E-mail: [aperez@umn.edu](mailto:aperez@umn.edu)  
[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

Monday, July 1, 2019 – Monday, August 5, 2019

### Report Highlights

- **Bulgaria declares African swine fever (ASF) state of emergency:** 130,000 pigs were culled in two weeks due to detection of ASF on six industrial farms in Bulgaria.
- **First two ASF outbreaks reported in Slovakia:** On July 25, Slovakian authorities reported the first case of African swine fever in the village of Strážne, Trebišov district. A week later, a second case was confirmed in the village of Veľký Kamenec.
- **ASF detected at UK airport:** 300 kg of illegally imported meat which were detected and seized at the port authorities in Northern Ireland tested positive for ASF DNA fragments.

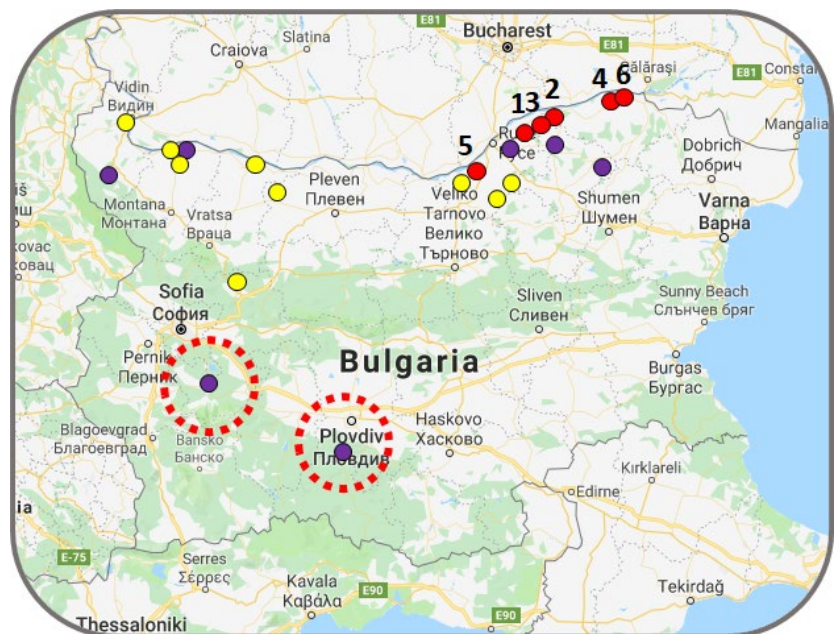
### African Swine Fever

#### EUROPE

#### Bulgaria

On July 22, the first outbreak in a commercial farm was reported in Bulgaria where 17,000 pigs in the village of Nikolovo, near Bulgaria's Rousse, were culled due to an outbreak of ASF on an industrial farm. **During the next two weeks another five outbreaks in large commercial farms were detected** (Table 1; Map 1).

The Agriculture Minister said last week that 20-km sanitary zones were being set up around all 62 registered industrial pig farms in the Black Sea state, noting that small private pig farms and home-breeding of pigs without biosecurity measures are not allowed in the zones.



Map 1. Location of July ASF outbreaks in Bulgaria. Color code of outbreaks: red – large commercial farms (number referenced to Table 1); yellow - small farms; purple - wild boars.

**To date, Bulgaria has had more than 26 outbreaks of ASF in industrial or backyard farms and culled more than 120,000 pigs (20% of the national stock, estimated in 600,000 pigs) alone last month in July.**

On August 2, the two first two cases of ASF in Southwestern Bulgaria were reported in wild boars. A wild boar carcass positive to ASF was found on Friday in the perimeter of Iskar hunting reserve - Samokovsko.

The Sofia Globe reported last Friday that “representatives of Bulgaria’s industrial pig companies called for the declaration of a countrywide state of emergency because of the spread of the diseases. Industrial pig producers, backed by representatives of Bulgaria’s meat production, meat processing and grain producing industries, called for even stricter measures to curb the contagion, warning that it is about to cause huge economic losses for the country. They stressed that rearing pigs in backyards should not be tolerated.”

Concomitantly, there were protests in various parts of Bulgaria where people are resisting government orders to cull their pigs or face, after the deadline to do so passes, compulsory culling of the animals by state authorities.

Outbreak	Report date	Location (village)	Destroyed animals
1	7/22	Nikolovo	17,590
2	7/25	Brashlen	36,551
3	7/26	Golyamo Vranovo	28,041
4	7/30	Popina	21,448
5	7/31	Bulgarsko Slivovo	17,200
6	8/2	Vetren	8,244
TOTAL			129,074

Hunters in the region are complaining about the hunting ban of three kilometers from the outbreak as they insist that hunting is needed to curb the wild boar population.

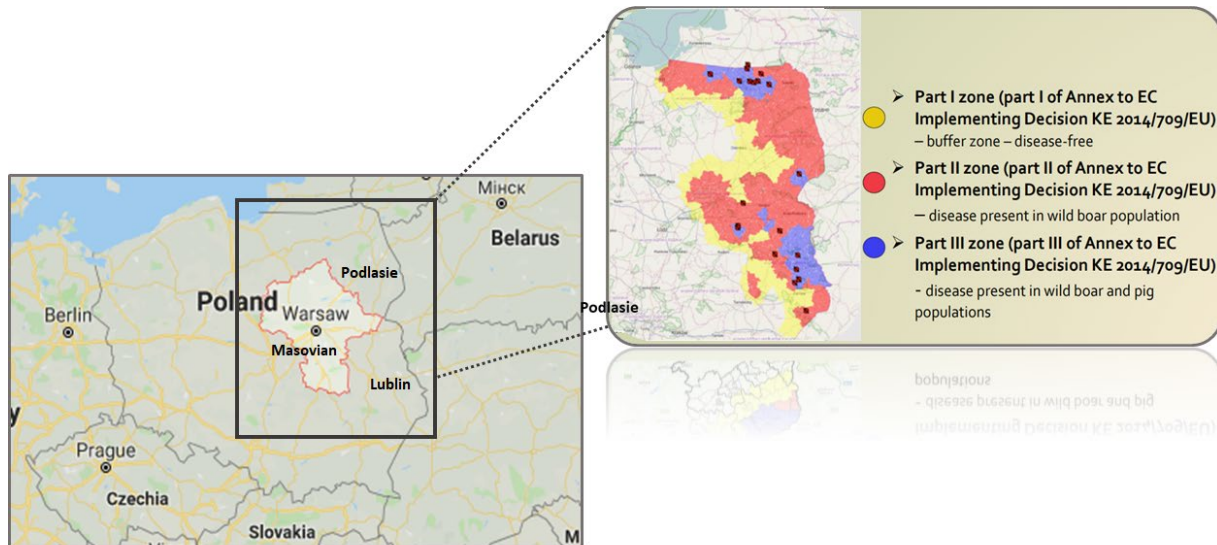
In the meantime, Greece and Macedonia have banned the import of pork from Bulgaria due to the outbreaks in the country and are adding more checks at the border to make sure no infected product gets through.

Table 1. July ASF outbreaks reported in large commercial farms in Bulgaria

## Poland

In June 2019, an ASF outbreak occurred in a 9,935 domestic head-herd in Poland. This is the largest outbreak of ASF in the country and the third outbreak that has occurred in a large commercial farm this year. Recently, large outbreaks as well as cases in wild boars have been confirmed in the Masovian province near Warsaw (Map 2), threatening regions with high concentration of pig production. Just in July, more than 10 consecutive outbreaks were detected on farms in the province of Podlasie and Lublin.

The occurrence of this outbreak, near the limit between red and yellow zones, will lead to the new creation of infected and threatened zone within a radius of 10 km affecting the buffer zone northern direction from Warsaw. **This will therefore change the status in terms of prohibitions in breeding and moving pigs.**



Map 2. Current Polish ASF regionalization scheme

- **Current situation versus last year**

By the end of July, 33 outbreaks of ASF in pig farms were confirmed in the country this year. In comparison, in the same period of 2018, there were already around 70 outbreaks. Unfortunately, this does not mean that the losses caused by ASF will be lower this year. On the contrary, the total number of pigs slaughtered due to disease outbreaks is already higher (approximately 30,000 pigs) than the total of culled animals throughout 2018 (25,395 pigs). And this only refers to the direct costs of the outbreaks, to this should be added losses of producers whose farms are within the affected zones. Considering a smaller number of outbreaks and a much higher number of culled animals, it is simple to conclude that ASF outbreaks are occurring in larger herds. Since January, 13 ASF outbreaks have been confirmed in farms with less than 50 animals, which represents 40% of the outbreaks. In comparison, in 2018 almost 70% of all outbreaks were in small herds. In part, this is due to greater awareness of producers about the need to comply with biosecurity measures, but largely to the close down of small farms.

- **Potential entry pathways**

Investigations into the most recent outbreaks have provided possible sources of ASF introduction into herds. These include: non-compliance with biosecurity rules (e.g., lack of fences, lack of disinfection mats, inadequate handling of pigs kept with another species); or hay or grass for feeding animals, brought from places where cases of ASF in wild boars have occurred, among others. Still, local producers' association states that commercial farms with thousands of pigs have the knowledge and awareness of the need to comply with the principles of biosecurity. However, the current situation of mass occurrence of ASF in wild boars, creates such an enormous environmental pressure, that even the greatest biosecurity infrastructure does not guarantee the safety of the herd.

- **Wild boar population control**

On this matter, last March the authorities issued the first regulation regarding massive cull of wild boar, estimated in 210,000 animals, bringing tension between veterinary authorities and Polish hunting associations through all the country. The plan was to reduce drastically the current population of wild boar that is thought to stand around 230,000. To encourage hunters to shoot, the state offers a bounty of up to £135 for an adult female. Lately, the regulation will be extended until reach the target population density of 0.5 wild boar per km<sup>2</sup>. Last week authorities declared that in the case of slowness of the Hunting Association, penalties will be imposed on the hunters during the sanitary hunting. Detractors of this measures highlight that scientists have also found that areas cleared of boars are soon repopulated with boars, many of which might come from Eastern European states where swine



fever is more prevalent. Furthermore, Polish government has communicated its intention to start working on the 768-mile barrier along the country's eastern border to stop swine-fever infected boars crossing into Poland, announced last year.

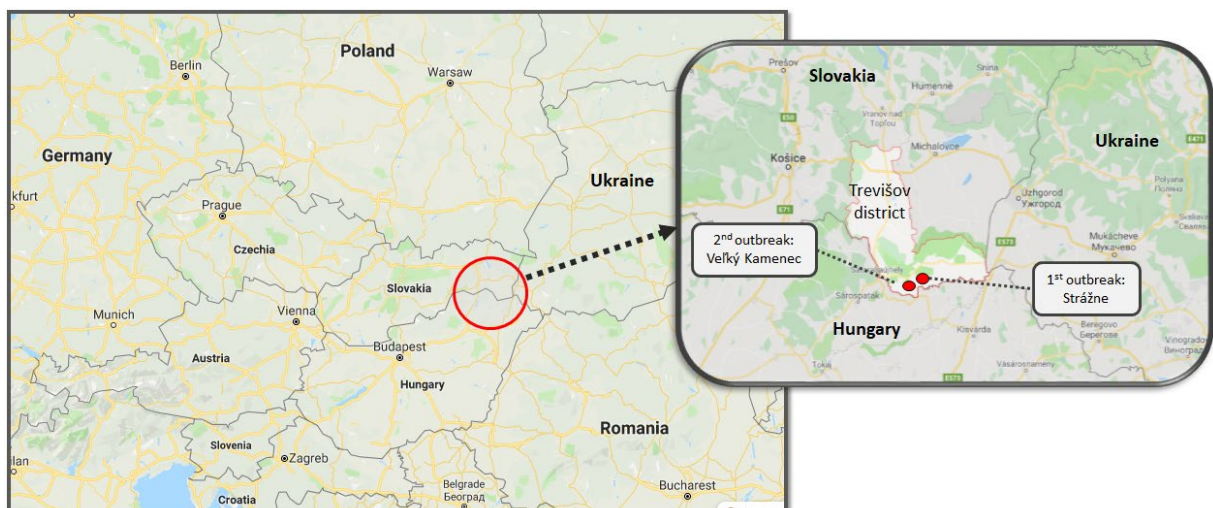
Local sources, representing the National Union of Producers and Employers of the Swine Industry, have stated last week that methods of fighting the disease in Poland have proven to be ineffective. Specifically, the control strategies, currently in place, to reduce wild boar population leaves much to be desired, as do the cooperation of administrators and hunters. *“Without the systematic reduction of wild boars, we will not be able to cope with the virus, even despite the introduction of biosecurity on farms.”* Poland has reported over 1,400 outbreaks of ASF in wild boar populations since October 2018.

**- Polish product imports**

Interestingly, in October 2018, the USDA Animal and Plant Health Inspection Service (APHIS) agreed to lift restrictions on imports of some fresh and frozen pork from Poland that were put in place earlier that month, due to potential risk from ASF. APHIS notified Poland that it will lift restrictions on all establishments located in the contiguous free zones; however, APHIS will retain restrictions on raw products and heat-treated, but not fully cooked, products from two establishments while they complete a more thorough review of the export protocols.

**Slovakia**

On July 25, the first case of ASF was reported in Slovakia in a backyard farm in the village of Strážne, Trebišov district. The village is situated close to the Hungarian border (Map 3). The diagnosis was confirmed by the national reference laboratory, informed the Agriculture Ministry's press department. The official veterinarians of the State Veterinary and Food Administration's regional office adopted measures that comply with the government regulation to cull the animals in the affected farm, and a protection zone of three kilometers from the outbreak point was established along with another 10-kilometer surveillance zone. On July 30, a second case was detected in the village of Veľký Kamenec (Map 2), which is about 5.5 kilometers from the first outbreak, and about four kilometers from the common Slovak-Hungarian border. On August 2, 68 pigs were culled in that village.



*Map 3. Location of the first two outbreaks of ASF in Slovakia, near the border with Hungary.*

Currently, the source of infection of both outbreaks is still unclear, thus epidemiological investigations are underway. In response, a ban of pig breeding in both villages was issued last week. The measures also include the search for possible dead animals in the border areas in the vicinity of municipalities

where an outbreak has been identified. The director of RVPS also mentioned that the army will support the search through the whole surveillance zone. Authorities are working to create awareness among the farmers in the region, regarding the critical importance of immediate notification to the official veterinarian in the event of the death of a domestic pig. It's important to highlight that under local regulations it is mandatory to register holdings even if they keep only one pig. Last year, responding to the increasing number of outbreaks in bordering countries, the Ministry of Agriculture granted an unlimited hunting license for wild boars with the goal to reduce their numbers and prevent the introduction of the disease.

## United Kingdom

The United Kingdom announced that it detected ASF in illegally imported meat for the first time. In June 2019, as part of routine activities, port authorities in Northern Ireland seized a total of 300 kg of meat and dairy products illegally brought into NI by passengers during the month. A sample of one of these seizures, a sausage originating from Asia, was tested at the Agri-Food and Biosciences Institute (AFBI), resulting in the detection of ASF virus DNA fragments. Though the presence of ASF DNA does not necessarily mean that the meat was infectious, it further underlines the potential risk to the UK from pork and pork products being brought illegally into the country by international air passengers. Despite this detection of ASF virus fragments, the UK still determines the risk of contaminated products containing ASF entering into the UK to be *medium* and the risk of exposure to the pig population to be *low*. The Department for Environment, Food and Rural Affairs (DEFRA) is however continuing to closely monitor the situation and will continue to review risk analysis as new information arrives.

## ASIA

### China

The Chinese government issued a report on July 3, describing certain failures in how the ASF epidemic has been handled until now. [The report](#) highlights specific weaknesses in the implementation of the control procedures established in the country.

#### *Report's main points:*

- Many weaknesses in the live pig management inspection chain
- Control of movements of live hogs has not been strict enough
- Insufficient capacity to test for ASF in slaughterhouses
- Basic animal quarantine is not comprehensive enough
- The ability to prevent epidemics is still weak

The report summarizes that the situation of prevention and control of the epidemic is still complicated and severe, and presents a list of recommendations to improve the capabilities for prevention and control.

Still, a local investigation done by Caixin, a Chinese newspaper, shows several challenges that the report does not cover. In this article, Dr. Qiu Huaji, director of the porcine infectious disease research branch of the Harbin Veterinary Research Institute, shared his point of view regarding the fast spread of ASF through China. "It took a decade for swine fever to spread through Russia, but barely six months to appear north and south of the Yangtze River," Qiu said. He recognized human ignorance and carelessness for its vast and rapid spread. The official data shows that new sow stock has fallen by 23%. But, unofficial sources described that the situation may be much worse, and research by Rabobank suggested that up to 200 million animals could be affected.

According to Ren Qiuyu, reported by Caixin, while official reports show that the frequency of new reports has slowed significantly, the reality at a local level is very different. In the field, covering up

swine fever outbreaks has become the norm. Pig breeders around the country have described their frustration as their attempts to report have not been taken into account.

The main drivers for such a situation seem to be:

- Limitation of local governments to pay the required compensation to owners of culled pigs.
- Tension between local and higher authorities after a political order from the central government urged officials to “resolutely prevent more occurrences of the epidemic.”

This scenario has led farmers to discard their pigs at the first signs, thus potentially infected pigs were approved for sale to slaughterhouses, sometimes in different provinces, at extremely low prices — less than four yuan (58 U.S. cents) a kilogram in some cases. Also, there are limited governmental organizations doing animal disposal, forcing poor farmers in many provinces to inappropriately dispose of dead animals on the side of roads, in rivers, or in forests.

As an example of the complexity of the current situation, an animal husbandry bureau official estimated that the pig stock in Zhaoqing has dropped by about 60%; however, the city still has no official confirmation of ASF. Furthermore, the reporter found that this was the case in multiple other townships and cities in southern China with numerous dead pigs. There was evidence of outbreaks with animals testing positive for the virus, yet no official confirmations.

The enforcement of transport bans has been another of the main limitations to control the spread of the disease. The backroads linking cities have made it difficult to control transit outside the control zones. He added that grassroots infectious disease prevention work (e.g. farmer/operator education, implementation of regulation regarding health certificates, training on disinfectant protocols for farms/transport, etc. *source*, [Jurado, 2018](#)) had been seriously inadequate in the space of the rapid expansion of China’s pig breeding industry. “In fact, for many years, China has never successfully isolated an animal epidemic. That’s all reliant on vaccinations,” he said.

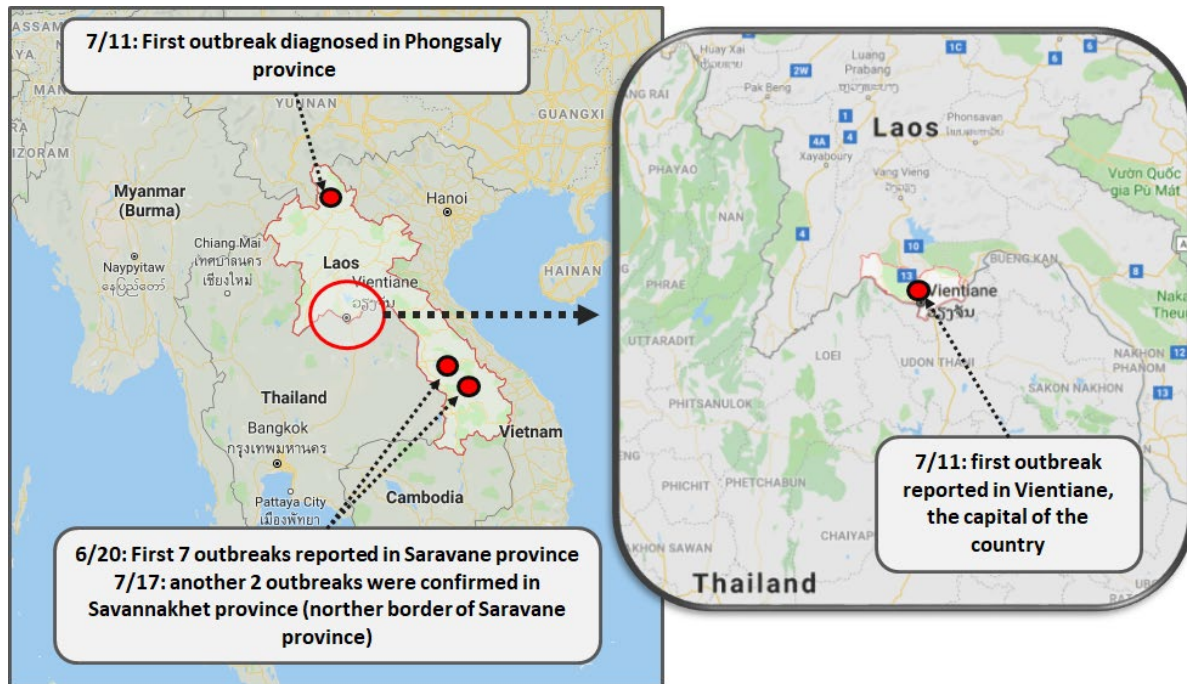
## Taiwan

On July 19, Taiwan expanded hand luggage checks to arrivals from Russia, following the resumption of direct flights between Taiwan and Russia. The other countries and areas listed under this regulation are China, Hong Kong, Macau, Vietnam, Cambodia, Laos, Myanmar, Thailand, North Korea and South Korea, according to the Cabinet’s Central Emergency Operation Center for ASF. Since August 2018, 1,958 pork products confiscated at Taiwan ports of entry have been checked for ASF, with 88 testing positive—82 from China and six from Vietnam.

## Laos (Lao People’s Democratic Republic)

On June 20, Laos reported its first cases of ASF in Saravane province. In July, two other provinces reported outbreaks. On July 11, Vientiane, the capital province, reported an outbreak on a farm of 110 animals, where 96 died because of the diseases. This outbreak took place almost 300 miles from the first outbreak, in Saravane province. And on July 17, Savannakhet province, Saravane’s neighboring province to the north, detected new outbreaks in two villages affecting 655 and 751 animals, respectively. In early July, the Lao government thanked Thailand for sending disinfection equipment to help contain an outbreak of ASF in Saravane province.





Map 4. Location of outbreaks of ASF in Laos since June.

On July 11, officials from the Agriculture and Forestry Office confirmed the presence of ASF in two villages of Khua district of Phongsaly Province, 450 miles north of Vientiane (this outbreak has not been reported to OIE yet). Local sources also mentioned that officials had found the virus in Bounneua district, but no information has been released regarding the number of pigs affected. Farmers in the affected villages have been forbidden to transport or sell pigs in a bid to contain the outbreak, while the owners of dead pigs have been instructed to immediately bury them.

### Thailand

Thailand is in high alert due to the spread of ASF in its neighboring countries, Laos and Cambodia. Last month, the Thai government approved a US \$4.7 million budget to prepare the nation for a potential outbreak. The country has tightened border inspections, allocated significant resources to dismantle illegal slaughterhouses and traders, and imposed stricter requirements for reporting hog deaths. At points of entry, it has confiscated pork products 550 times since August, detecting the virus 43 times, according to the Livestock Department. The Agriculture Ministry has estimated an outbreak may cost the Thai economy more than US \$1 billion if over 50% of the country's hogs are infected.

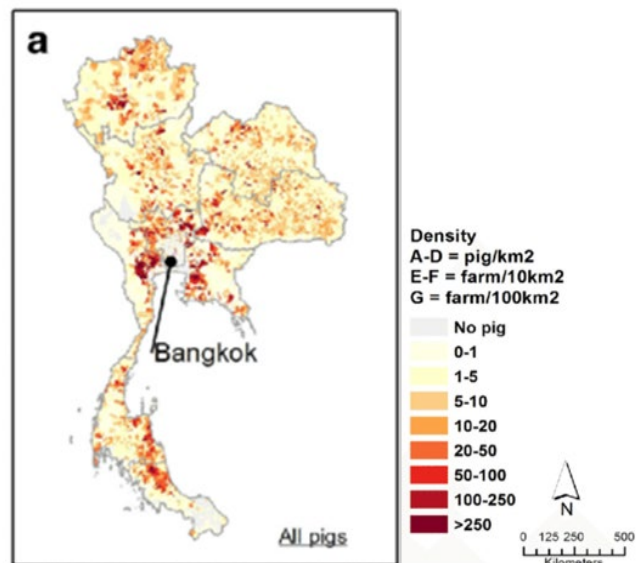


Figure 1: Distribution of pig production in Thailand (Source: Spatial analysis and characteristics of pig farming in Thailand, BMC Vet Res. 2016 Oct 6;12(1):218.).



Still, experts fear that the disease could already be in the country, due to certain difficulties in monitoring efforts which could be limiting the reporting procedures in certain areas of the country.

## Vietnam

Since the first outbreak in Vietnam's northern Hung Yen province in February, the epidemic has led to the culling of some 3.6 million pigs nationwide, or 11.1 percent of the country's total pig population (source: Ministry of Agriculture and Rural Development (MARD)). In Vietnam, pig farming is the main livelihood activity of 2.5 million households. Similarly, in other countries of the subregion, including Laos, Cambodia and Myanmar, small scale pig production significantly contributes to the incomes of large segments of the population. Reports from the countries have already indicated that animal losses caused by ASF have caused reductions of farmers' incomes in the affected countries (FAO). Vietnam is compensating farmers at 80 percent of the market price. But payouts need to be more "timely" to incentivize reporting, said Dr. Hu Suk Lee, a scientist at the International Livestock Research Institute (ILRI) in Hanoi. Some farmers are selling off infected pigs rather than informing authorities.

## Classical Swine Fever

### Japan

In September 2018, Japan reported Classical swine fever (CSF) in domestic swine for the first time since 1992 in Gifu province. Since then, CSF cases have been regularly reported to OIE, but mostly in wild boar in either Gifu prefecture or the neighboring Aichi prefecture.

On July 23, Japan reported 77 wild boar cases, four of which were detected in Mie prefecture close to Gifu border. No outbreak in domestic swine was reported for the month of July.

### OIE - General assembly resolutions

The Director General published a List of Members recognized as CSF free and having CSF free zones according to the provisions of Chapter 15.2. of the Terrestrial Code.

Free countries: Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Chile, Costa Rica, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Liechtenstein, Luxembourg, Mexico, New Caledonia, New Zealand, Norway, Paraguay, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, The Netherlands, United Kingdom, United States of America, Uruguay.

Members having CSF free zones: Brazil, Colombia and Ecuador.

### References:

FAO - [ASF situation in Asia update](#)

OIE - [WAHIS interface - Immediate notifications](#)

### Europe

<https://www.gov.uk/government/publications/african-swine-fever-in-pigs-and-boars-in-europe>

<https://www.theguardian.com/environment/2019/jul/11/meat-infected-by-african-swine-fever-found-in-uk-for-first-time>

<https://www.nationalhogfarmer.com/livestock/poland-confirms-african-swine-fever-break-8000-head-herd>

<https://www.farmer.pl/produkcja-zwierzecka/trzoda-chlewna/bioasekuracja-to-za-malo-bez-odstrzalu-dzikow-nie-zatrzymamy-asf.87645.html>

<https://www.tygodnik-rolniczy.pl/articles/aktualnosci /skad-sie-wziely-nowe-ogniska-afrykanskiego-pomoru-swin-w-polskich-chlewniach/?page=2#lead>

<https://www.globalmeatnews.com/Article/2019/07/22/Collaboration-called-for-in-African-Swine-Fever-fight>  
<https://www.novinite.com/articles/198740/17%2C000+Pigs+in+Rousse+Region+will+be+Culled+to+Contain+African+Swine+Fever>  
<https://www.thenationalherald.com/254979/after-african-swine-fever-outbreak-greece-bans-bulgarian-pork/> -  
<https://www.reuters.com/article/us-bulgaria-swineflu/fourth-bulgarian-pig-farm-hit-by-african-swine-fever-idUSKCN1UP20A>  
<https://sofiaglobe.com/2019/08/04/bulgarias-african-swine-fever-outbreaks-counting-the-cost/>  
<http://www.fao.org/3/ca5273en/ca5273en.pdf>  
<https://www.physiciansweekly.com/african-swine-fever-hits-8/>  
<https://spectator.sme.sk/c/22175444/african-swine-fever-diagnosed-in-slovakia.html>  
<https://www.teraz.sk/ekonomika/pre-africky-mor-likviduju-vsetky-os/410653-clanok.html>  
<https://glob.zoznam.sk/aktualne-opatrenia-nepomohli-mor-osipanych-sa-siri-dalej/>  
[https://www.svps.sk/zvierata/choroby\\_AMO\\_SR\\_2019.asp](https://www.svps.sk/zvierata/choroby_AMO_SR_2019.asp)

**Asia**

**China -**

<https://www.caixinglobal.com/2019-07-05/how-secrecy-and-quarantine-fueled-chinas-swine-fever-crisis-101436251.html>

<https://www.the-scientist.com/news-opinion/scientists-race-to-build-vaccine-for-african-swine-fever--66034>

**Taiwan -**

<http://focustaiwan.tw/news/asoc/201907240017.aspx>

**Laos -**

[http://www.xinhuanet.com/english/2019-06/24/c\\_138169561.htm](http://www.xinhuanet.com/english/2019-06/24/c_138169561.htm)

[http://www.xinhuanet.com/english/2019-07/23/c\\_138250225.htm](http://www.xinhuanet.com/english/2019-07/23/c_138250225.htm)

<http://kpl.gov.la/detail.aspx?id=47156>

**Thailand -**

<https://www.nationthailand.com/breakingnews/30371594>

<https://www.scmp.com/news/asia/southeast-asia/article/3010987/were-red-alert-thailand-ramps-efforts-prevent-african>

**Vietnam -**

<https://thediplomat.com/2019/07/the-battle-to-curb-swine-fever-in-southeast-asia/>

<http://www.fao.org/3/ca5273en/ca5273en.pdf>

**Japan -**

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/818682/uoasf-south-east-asia-update9.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/818682/uoasf-south-east-asia-update9.pdf)