

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



Swine Health Information Center

University of Minnesota Technical Coordination

Sol Perez¹, Auguste Brihn

Andres Perez²

Expert Focus group

Jerry Torrison, Montserrat Torremorell,

Cesar Corzo, Paul Sundberg, John Deen

¹Project coordinator. E-mail: mperezag@umn.edu

²Principal investigator. E-mail: aperez@umn.edu

www.cahfs.umn.edu

Current and previous reports:

www.swinehealth.org/global-disease-surveillance-reports/

**Spontaneous
reporting TOOL**



Swine Disease Global Surveillance Report

Monday, September 30, 2019 – Monday, November 4, 2019

Report Highlights

- **Alarming statement from The World Organization for Animal Health (OIE) supports global analyst’s forecasting:** about a quarter of the global pig population has died or is expected to die as a result of the African swine fever (ASF) epidemic.
- **Increasing global concern regarding smuggled meat products from infected countries:** two containers filled with misdeclared pork were seized last week by the Bureau of Customs at the port of Manila.
- **First ASF confirmed in wild boars of South Korea:** South Korea confirmed the virus in 18 wild boars; 154,000 pigs had been culled as of October 30.
- **Media reports ASF cases in Indonesia:** Although it has not been officially recognized, media reports that pigs in 11 districts / cities in North Sumatra Province have tested ASF positive.
- **First outbreak of Aujeszky’s disease virus in Mexico since 2015:** Five cases of Aujeszky’s disease confirmed in the northeast part of the country.
- **New outbreaks of Classical swine fever (CSF) in Brazil close to the free zone:** 132 pigs were culled.

African Swine Fever

OIE REPORT

Between September 27 and October 10, 507 new outbreaks were officially notified, whereas the total number of ongoing ASF outbreaks worldwide is now 9,491 (6,083 outbreaks in Vietnam only). Although there are several barriers for a comprehensive assessment of ASF’s global impact, the OIE has started making some tangible efforts in this regard reporting the impact of ASF based on direct losses. These losses are calculated by the sum of dead and culled animals from the infected farm or backyard premises of the reported outbreak (Fig 1), other costs such as depopulation of premises in the control zone as preventive measures, operational costs, loss of markets, are not being considered.

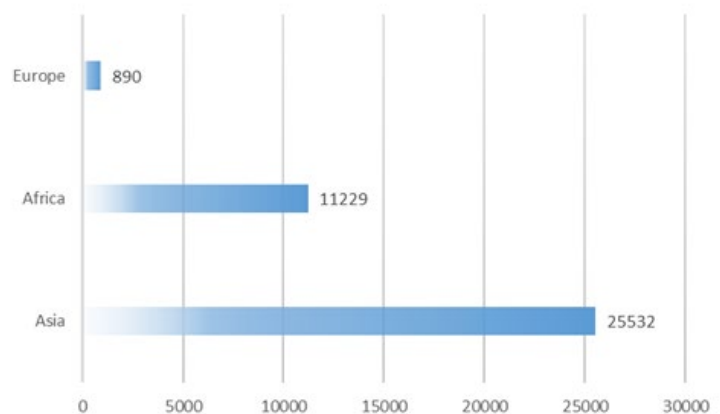


Fig 1. Losses due to ASF outbreaks notified through WAHIS within the period (September 27 – October 10, 2019)

Last week, Dr. Mark Schipp, president of OIE, stated that the ASF epidemic “...is the biggest threat to any commercial livestock of this generation.”

In the last year, the spread of the disease has taken policymakers by surprise and has been particularly devastating in China – home to the world’s largest pig population. Rabobank, a financial services company that specializes in food and agriculture, predicted that this year China would lose between 20% and 70% of its herd, as many as approximately 350 million pigs, a quarter of the world’s total.

China is a dramatic example of the impact of the disease in the entire region. Presently, Chinese consumers are feeling the pain. Some are even switching to other less expensive meat alternatives, such as chicken, as the dietary staple becomes unaffordable.

Pork makes up around 70% of China's total meat consumption, according to official data for 2018. On average, a person in China eats 20 kilograms of pork each year. It costs now nearly 70% more than it did a year ago, causing the food price index to reach its highest point in seven years, according to data released on October 14 by China's National Bureau of Statistics. The surge was so dramatic that it pushed Chinese inflation to 3% in September, up from 2.8% the previous month. Pork retailed for about 32 yuan (\$4.5) per kilogram in 2017, according to government data. Now it's selling for more than 60 yuan (\$8.45) for the same amount in many places. The country has been subsidizing pork to some extent. From April to mid-September, the government gave out about 3.2 billion yuan (\$452 million) in cash to low income families so they could continue to afford eating pork and auctioned off 30,000 metric tons of frozen pork from its central reserves to stabilize prices.

China has also been importing more pork from the rest of the world. The country imported more than 1.3 million tons of pork in the first nine months of 2019. Pork imports are projected to increase by 66.6 percent in 2019 over 2018 and another 34.6 percent year over year in 2020. US pork sales to China have doubled, while European pork prices have reached a six-year high.

Global awareness

OIE disseminates on its website announcements received from Member Countries on disease introduction simulation exercises. Simulation exercises are mostly meant to test and practice measures of an established national contingency plan.

The OIE encourages member countries to share their experiences about the preparation of generic and/or disease-specific national contingency plans.

While remarkable, it is not unexpected, the significant increase in the number of ASF exercises conducted by member countries during the last year.

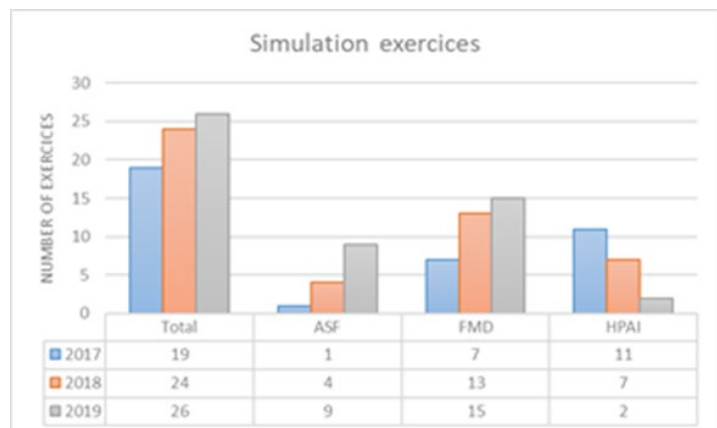


Fig 2. Source: OIE

Disruptions in regional markets as concerns arise regarding ASF infected smuggled products

The Philippines

Last week, authorities of the Bureau of Customs at the Manila airport seized two containers filled with misdeclared pork products from China worth P3.5million (\$0.7 million). After being tagged “red,” the

shipment underwent physical and X-ray screening. Upon closer inspection, authorities discovered the meat products.

Since the report of the first ASF outbreak in the country, authorities in the Philippines not only have deployed significant resources to support the efforts through all the system to control the spread of the diseases in the country but also have increased surveillance protocols with the aim of avoiding new introductions. The country has installed the first modern and automated road bath disinfection facility for animal transport carrier vehicles at the South Luzon Expressway (SLEX) extension-STAR Tollway biosecurity and quarantine checkpoint in Santo Tomas, Batangas to avert ASF spread ([Link](#)).



Fig 3. Seized products by the Philippines authorities

Myanmar

The Myanmar Pig Breeders and Producers Association has asked the Livestock Breeding and Veterinary Department, under the Ministry of Agriculture, Livestock, and Irrigation, to suspend imports of live pigs and pork products due to the outbreak of ASF in neighboring countries. Although ASF has been already reported in the country, the outbreaks only affected several animals in Shan State (Map 1), but so far hasn't spread to other parts of Myanmar.



Map 1. Shan state, Myanmar

Currently, legal and illegal imports of pigs and pork products occur in border areas of the country and the association is asking the authorities to "...call a temporary halt on the trade to avoid further introduction of the virus and to reduce illegal trading," said U Maung Maung Lay, vice chair of the association. "If the local demand for pork is high, we can allow some imports by air provided the shipments have documentation to show they are disease-free," he added.

Malaysia – First detection of ASF in imported products

The Agriculture and Agro-based Industry Ministry and related agencies communicated that they will monitor and carry out inspections on premises suspected to be smuggling in pigs and pork products. This decision was taken after the Veterinary Public Health Laboratory in Bandar Baru Salak Tinggi detected the DNA of ASF virus in a luncheon pork product imported from China, in Sarawak, on October 22. As a precautionary measure, the

Department of Veterinary Services has already issued bans on the importation of pigs and pork products from: China, Poland, Belgium, Thailand, Vietnam, Cambodia, Hong Kong, Myanmar, and Laos.

Japan – 77 confirmed cases of infected pork products

The Ministry of Agriculture, Forestry and Fisheries has confirmed that since October 2018, 77 confirmed cases of ASF infected pork products being seized at local airports brought by travelers from countries such as China, Vietnam, Cambodia, and the Philippines.

Australia - 27 tons of pork have been seized at Australia's borders since February

Australian border authorities at Sydney airport stopped and refused entry to a 45-year old woman from Vietnam who was caught entering the country with 10 kg of undeclared food in her luggage, including raw quail, pork, squid, and pate amongst other food items. This is the first time Australia has revoked a visa over food after the introduction of even stricter biosecurity laws. After an update to the laws in April, visitors to the country can have their visas shortened or even canceled if they are found bringing illegal food products to the country.

South Korea

South Korea's Ministry of Environment reported the first outbreak of ASF in wild boar on October 2 within the demilitarized zone (DMZ), the heavily guarded strip of land that surrounds the border between the two Koreas. As of October 30, the ASF virus was confirmed in 18 wild boars from Gangwon-do (six) and Gyeonggi-do (12). The last confirmation came a day after officials found three dead wild boars in Paju, a city bordering North Korea. Two of the boars tested positive for the virus.

The country has also confirmed 14 cases of ASF at local pig farms since September 17, when the country confirmed its first case of the deadly hog disease at a farm near the border with North Korea. Only 11 have been reported to OIE so far. To date, all reported cases have been in areas bordering the North.

On October 27, an enhanced emergency measure reinforcement plan was released. This includes: installation of a wide-area fence from Paju to Goseong to divide the border area into four zones: Paju and Yeoncheon; Western Cheorwon; Eastern Cheorwon; and Northeast Gangwon (Hwacheon, Yanggu, Inje, Goseong). The decision came amid rising concern that wild boars may travel longer distances during the breeding season. The plan includes the use of firearms in the buffer zone to drive wild boars from south to north. About 440 officials will carry out daily patrols in the designated areas. After the installation of the wide-area fence, the wild boar management areas and regional management plan will be adjusted.

Since the first outbreak was discovered (September 17), the ministry said it had culled around 154,000 pigs as of October 30. That would be 1.25% of the country's pig industry, which includes 6,000 farms raising a population of roughly 12.3 million pigs.

Philippines

The Philippines is implementing a 1-7-10 protocol to prevent the spread of ASF. All pigs within a 1 km radius of infected farms will be culled; the movement of pigs and products will be limited under strict surveillance and testing within a 7 km radius, and farms within a 10 km radius will be required to submit a mandatory disease report. For each culled pig, hog raisers receive P5,000 (\$100). **Still, the Department of Agriculture believes hog raisers are not disclosing ASF status of their animals when selling them to traders and manufacturers, and swill feeding from hotels and restaurants continues.**

According to the grain and feed outlook, there will be a 10% reduction in hog feed demand in the Philippines due to ASF. Grain imports will be lower in 2019/2020 with wheat, compared to corn and cassava, expected to be affected most.

Background

The Philippines in the last year has placed a number of safeguards to protect its \$5 billion dollar pig industry including banning products from dozens of countries where outbreaks of ASF have occurred. Through all October, the disease has shown a significant spread across the country, despite control efforts deployed by national and local agencies.

- As of October 1, around 20,000 backyard pigs in Bulacan province were culled - a third were infected with ASF. While there have been no confirmed cases in Pangasinan, 1,000 pigs were

culled in the province after 15 of 60 pigs seized from a Bulacan hog trader tested positive for ASF.

- On October 3 in Quezon City in Metro Manila, 400 pigs were culled after showing clinical signs of ASF. The Quezon City government allotted P15 million (\$0.3 million) for financial assistance to affected hog raisers. As of October 7, around 4,500 pigs were culled across the Quezon City barangays resulting in the distribution of another P14 million in financial assistance. The city government has reached out to the Department of Agriculture and the Department of Social Welfare and Development for additional aid.
- On October 18, Quezon City culled 164 pigs in Barangay Commonwealth after the area tested positive for ASF. Five other Quezon City barangays including Pasong Tamo, Tandang Sora, Roxas, Tatalon, and Bagong Silangan have all been cleared of ASF. Pig deaths have been discovered in barangay Matandang Balara but according to the Quezon City veterinarian, the area is not infected. As of October 28, Barangay Commonwealth has been declared ASF free. Barangay Payatas has yet to be declared ASF free and 2,000 pigs have yet to be culled. Multiple factors have prevented Barangay Payatas from being deemed ASF free including thousands of pigs, locating large enough burial sites, lack of inventory, and lack of cooperation from hog producers refusing to surrender their pigs to the cull due to financial loss.

Also occurring mid-month was the seizure of misdeclared pork products including 700 crates of pig products on San Juanico Bridge, amounting to P1.6 billion, and another seizure at the port of Manila with the shipment arriving from China.

Infected pork products already in the food chain

In October, **the Bureau of Animal Industry issued a laboratory report indicating ASF positive products** (cured pork, hot dogs, and sausages), but did not identify the brand despite requests from meat processors. However, a spokesman for the Department of Agriculture has confirmed the products were processed by a medium-sized manufacturer, purchased in central Luzon, and collected from a port in Calapan, Oriental Mindoro. On October 26, Meken Foods Corporation **ordered a voluntary recall of pork-based products**. Samples have been submitted for ASF testing and results are pending. Meken Foods Corporation insists their products are safe for consumption.

An additional two provinces - Cavite and Nueva Ecija - with at least two barangays in Dasmariñas City and one barangay in Palayan City have confirmed ASF respectively. As of October 24, over 62,000 hogs have been culled in seven areas in Luzon - Cavite, Quezon City, Pangasinan, Bulacan, Pampanga, Nueva Ecija, and Rizal. Bohol and Cebu provinces have banned hogs, pork, and products from Luzon island.

Risk misperception

Conflict is arising between hog raisers and meat processors. Hog raisers are pressing local governments to maintain processed meat movement bans **while the processors insist their products cannot infect hogs as ASF can only survive in live animals and fresh pork**. A number of local governments maintain a ban on processed meat products from ASF infected areas in Luzon. On October 21, the Department of the Interior and Local Government (DILG) requested bans be lifted to ensure a stable supply for the Christmas season and released guidelines for movement, distribution, and sale of processed meat. Meat processors fear losing movement could result in a P50 billion sales loss.

On October 29, the Philippine Associate of Meat Processors Incorporated (PAMPI) **urged members to stop buying local pork until local producers can assure government authorities and the public their pork is ASF free**. PAMPI has also urged authorities to randomly test pork for ASF in the Visayas and Mindanao areas despite no pig deaths.

Indonesia

Media reports indicated that pigs in 11 districts/cities in North Sumatra Province have tested ASF positive and that 4,071 animals have died as a consequence of the disease. The communication has been attributed to the Head of the Animal Health and Animal Husbandry Department of North Sumatra. The 11 regencies/cities that, according to the report, have been affected are Dairi Regency, Humbang Hasundutan, Deliserdang, Medan, Karo, Toba Samosir, Serdang Bedagai, North Tapanuli, Central Tapanuli, South Tapanuli, and Samosir District. In another report early this month, officials from Minahasa (North Sulawesi) say unknown virus has killed 100 pigs in Minahasa regency in last 3 months.



Map 2: Locations in Indonesia

EUROPE

During the last month, 10 European countries have reported new or ongoing outbreaks (Bulgaria, Hungary, Latvia, Moldova, Poland, Romania, Russia, Serbia, Slovakia, and Ukraine). Bulgaria and Romania seem to be the most heavily affected based on the sharp increase in the number of outbreaks reported since last August. The effectiveness of current control efforts implemented by local authorities is being challenged by sector stakeholders.

In the last DEFRA outbreak assessment for Eastern Europe and Belgium ([Link](#)), the British agency highlighted that "...the identification of non-compliant holdings and the feeding of kitchen waste to pigs may explain in part the epidemiological situation regarding ASF in Romania. This alone, however, cannot explain the sudden increase in the number of outbreaks. The seasonal increase is likely due to the existence of multiple transmission routes." Additionally, "Favorable weather conditions for potential arthropod vectors across the region could have accentuated the rapid dissemination of the virus over the summer, and human-mediated routes around harvesting and contact with wild boar which are moving around in the summer could also be implicated."

Interestingly, Western Europe has remained fairly unscathed. Belgium remains officially disease-free in domestic pigs. The decrease in detection likely reflects the significant investment in their eradication program.

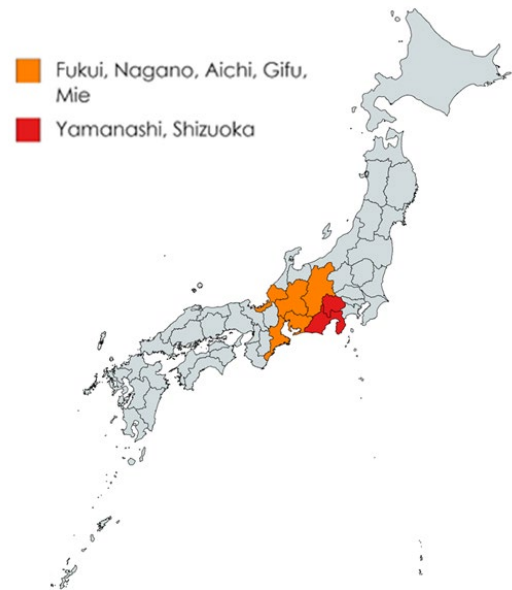
Classical Swine Fever

Japan

On October 17, a confirmed case of CSF in a wild boar was found in Fujieda City. No other cases in the area have been confirmed but the Ministry of Agriculture, Forestry, and Fisheries has added Shizuoka Prefecture (Map 3) to a "recommended area" for domestic pig vaccination. A program in this area has also been created to check procedures regarding inoculation. Another prefecture, Yamanashi, will also be vaccinating domestic pigs after a confirmed CSF case was identified in a wild boar in early October. As of October 31, no domestic pigs housed in the surrounding three farms within a radius of 10 km where the wild boar was captured have been observed with CSF clinical signs. Even though, since the beginning of the epidemic, strict shipment and movement restrictions have been imposed the expansion of the disease has not shown signs of waning.

Farm vaccination

After a comprehensive examination of the cost-benefits of implementing vaccination against CFS at the farm level in the affected prefectures and a public survey in affected prefectures to gather producers' opinion, Japanese authorities have begun vaccinating thousands of pigs against CSF in the listed prefectures. Despite concerns regarding a potential impact on pork exports, the Ministry of Agriculture, Forestry, and Fisheries has switched its policy to include the preventive vaccination of domestic pigs. Previously, the vaccination policy only included wild boars with an oral bait in selected areas in Gifu and Aichi. The OIE suspended Japan's disease-free status last year and vaccinating pigs will prevent Japan from regaining this status.



Map 3. Japanese prefectures affected by CFS

Currently, there are enough vaccines to inoculate about one million pigs and pharmaceutical companies have been requested by the Farm Ministry to boost vaccine production. Japanese Farm Minister Taku Eto said, "We'd like to secure as many (vaccines) as possible..." since the time to eradication may be prolonged and the vaccination areas may expand.

A key element of this plan is to establish a system that guarantees that no pig from the vaccine-targeted areas would be moved or sold outside the region, including a strict vaccine distribution management system and solid traceability system will be in place at prefecture level, these components would be a priority to minimize the impact of this strategy on Japanese pork exports.

- **New outbreaks of CSF in Brazil closer to the free zone**

The Brazilian Ministry of Agriculture, Livestock and Supply (Mapa) has confirmed the outbreak of CSF in the city of Forquilha, in the northern state of Ceará. It was the first confirmed outbreak in Brazil in almost a decade. The case was confirmed on October 6 on a family farm, more than 500 km north of Brazil's CSF-free zone, which is recognized by the OIE. First signs of the virus had become clear as early as August 25. The official notification reports that the "backyard-like" farm (a family-owned pig farm "with no links to commercial establishments") had 132 animals, of which 116 contracted the illness and 112 had died. The other 20 animals were culled.

There is no trade of pork products out of Ceará destined for southeast, midwest, and southern (Brazilian) states, which minimizes the contamination risk further. The news will not alter the disease status of that region, and would not impact the trade of pork, according to the Brazilian agriculture ministry.

Aujeszky's disease – a re-emerging threat?

Mexico

On October 22, the Senasica (OVS) notified the OIE that, through the active surveillance program operating throughout the country, it detected five cases of Aujeszky's disease (AD), also known as pseudorabies, in pigs in Tamaulipas state, in the northeast part of the country, close to Monterey's border. The country had been free of Aujeszky's disease since 2015. Technicians of the National Service of Agrifood Health, Safety, and Quality (Senasica) had not detected AD since December 2011.

The animals were found in four small farms in the municipalities of Mainero and Jaumave, Tamaulipas. In order to prevent the spread of the virus, Senasica ordered to cull all pigs on the affected farms and carcasses, by-products, and animal waste were destroyed. Producers in the area were advised to immediately inform official veterinary staff of the presence of pathognomonic signs of the disease and to prevent the movement of pigs and the introduction of herds at risk.

Foot-and-Mouth Disease

Southeast Asia

Even though Southeast Asian countries continue to struggle with outbreaks of foot-and-mouth disease (FMD) across most of its mainland countries, fewer cases had occurred there following an extensive vaccination campaign that began in 2012 and ceased in 2016. Still, experts highlighted that FMD seems to operate on a cycle of about five to seven years. When an outbreak occurs a large percentage of the herd is typically infected. When those cattle recover, they are effectively immune to that particular isolate for life. However, over time those cattle are replaced, by a new naive population. Plus new FMD isolates can enter the system from unregulated trade of animals between countries.

It's currently unclear how the latest outbreaks in the region occurred, but with limited control of livestock between the different countries, the informal trading and unofficial movements are certainly a big risk for the spread of FMD.

Taiwan

The country is in talks to pave the way for exports of its pork to Japan and some Southeast Asian countries, including Singapore, once it is declared as being free of FMD. Speaking at a press briefing to discuss a recent trip to Singapore to promote Taiwan's agricultural products, the Council of Agriculture chief said the OIE is scheduled to list Taiwan as free of FMD sometime after the general assembly in May 2020.

Thailand

Just recently, in the province of Kohn Kean, an order has been issued to close cattle markets in all 26 districts of this northeastern province from Nov 1-30 following an outbreak of FMD.

References:

FAO - [ASF situation in Asia update](#) -- OIE - [WAHIS interface - Immediate notifications](#)

South Korea -

www.reuters.com/article/us-vietnam-swinefever/vietnam-says-african-swine-fever-outbreak-slows-urges-farmers-to-rebuild-herds-idUSKBN1WW0PQ

www.upi.com/Top_News/World-News/2019/10/22/Report-Animal-agency-urges-North-Korea-to-report-African-swine-fever/3961571764716/

www.en.yna.co.kr/view/AEN20191022002900320?section=news

www.bbc.com/news/world-asia-49916065

www.agriculture.com/markets/newswire/skorea-confirms-new-case-of-african-swine-fever

Indonesia -

<http://afludiciary.blogspot.com/2019/10/indonesia-more-conflicting-reports-of.html>

<http://outbreaknewstoday.com/indonesia-african-swine-fever-reported-in-north-sumatra-according-to-media-report-51160/>

The Philippines -

www.bloomberg.com/news/articles/2019-10-18/african-swine-fever-spreads-to-south-of-main-philippine-island

www.rappler.com/nation/242855-another-african-swine-fever-case-eyed-barangay-quezon-city

www.news.abs-cbn.com/business/10/18/19/limited-swine-fever-cases-confirmed-in-more-areas-agri-dept-says

www.reuters.com/article/us-philippines-swinefever/philippines-detects-african-swine-fever-infections-in-two-more-provinces-idUSKBN1WX0RP

www.feednavigator.com/Article/2019/10/21/Lower-pig-feed-demand-forecast-for-the-Philippines

www.pna.gov.ph/articles/1084133

www.newsinfo.inquirer.net/1181087/meat-processors-group-airs-concern-over-african-swine-fever-test-report

www.bworldonline.com/industry-disputes-asf-finding-in-processed-meat/

Vietnam -

www.reuters.com/article/us-vietnam-swinefever/vietnam-says-african-swine-fever-outbreak-slows-urges-farmers-to-rebuild-herds-idUSKBN1WW0P0

Thailand -

www.bangkokpost.com/thailand/general/1780864/foot-and-mouth-disease-forces-closure-of-khon-kaen-cattle-markets

www.queenslandcountrylife.com.au/story/5882022/fmd-outbreaks-continue-to-hit-south-east-asia/

Japan -

www.mainichi.jp/english/articles/20191025/p2g/00m/0bu/104000c www.pig-world.co.uk/news/japan-to-vaccinate-thousands-of-pigs-to-tackle-classical-swine-fever.html

www.english.kyodonews.net/news/2019/09/b1efeadc7a28-update1-japan-to-vaccinate-pigs-to-tackle-hog-cholera-outbreak.html

www.pig333.com/latest_swine_news/japan-allows-the-vaccination-of-pigs-against-classical-swine-fever_15328/

www.promedmail.org/post/20191019.6735994

www.promedmail.org/direct.php?id=20191101.6756689

Kenya -

<https://www.businessdailyafrica.com/economy/Alarm-as-Kenya-runs-out-of-foot/3946234-5304032-e09dhsz/index.html>

Mexico -

https://www.3tres3.com/ultima-hora/mexico-libre-de-la-enfermedad-ajeszky_35373/

Brazil

<https://www.pigprogress.net/Health/Articles/2018/10/Brazil-CSF-outbreak-outside-the-disease-free-zone-343988E/>

<https://www.porkbusiness.com/article/brazil-detects-classical-swine-fever-remote-region>

<https://www.reuters.com/article/us-brazil-swine-fever/brazil-detects-form-of-swine-fever-in-remote-region-idUSKCN1MJ1H0>

https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI