Updated Outbreak Assessment #26

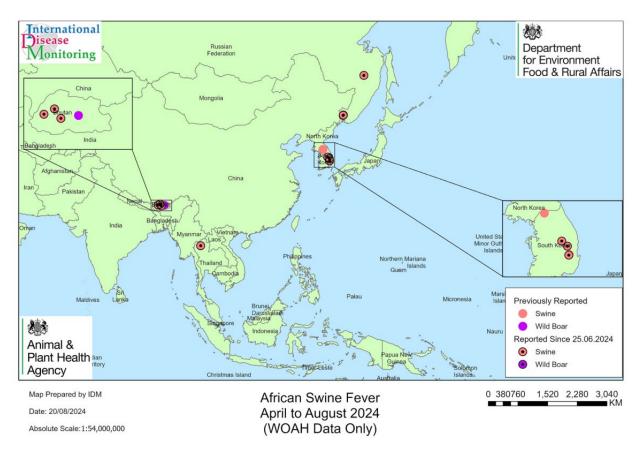
African swine fever (ASF) in Asia

19 August 2024

Disease report

Since our last <u>report on ASF in Asia on 25 June 2024</u>, African swine fever (ASF) has continued to be reported in domestic pigs and wild boar across Asia. The number of reports of ASF has increased in the Philippines, Vietnam and India. South Korea have also reported an increase in outbreaks, which they have in part attributed to extreme weather.

According to World Organisation for Animal Health (WOAH), outbreaks of ASF in domestic pigs have also been reported in Bhutan, Russia and Thailand.



Map 1: African swine fever outbreaks in domestic pigs (red points) and wild boar cases (purple points) across Asia from April 2024 to August 2024. (WOAH data only).

Situation assessment

Vietnam

In Vietnam, two ASF vaccines have already been developed, trialled and commercially available these are known as AVAC ASF LIVE and NATVET-ASFVAC. Vietnam has recently approved a third vaccine, DACOVAC ASF2, for commercial production, however, it is unknown when the vaccine will be commercially available. All these vaccines are live-attenuated. WOAH has urged countries to be mindful of the risks of using sub-standard vaccines that are not in line with WOAH international standards. They also mentioned that if countries do implement vaccines, that they should conduct their own trials before use. (WOAH, ASF vaccines.)

ASF genotype II is endemic in Vietnam, however, a new variant has been discovered in domestic pigs across six provinces in northern Vietnam. This new variant is a recombinant virus with features of both genotype I and genotype II, which first appeared in China in 2023. (Le et al. 2023) The vaccines currently in use in Vietnam are specifically for genotype II and are not effective against the new recombinant strain. There has been research into recombinant live attenuated vaccines however, as genotype II is most prevalent in Asia, no vaccines have been approved yet.

ASF outbreaks are still rising in Vietnam, with reports that food supplies could soon be affected as Vietnam is one of the world's top 10 countries for pork consumption. Since the beginning of 2024, there have been 660 reported outbreaks of ASF, affecting 44 out of 58 provinces. In response to this, the Ministry of Agriculture and Rural Development have introduced new prevention and control measures such as encouraging early reporting and tightening biosecurity to help tackle the spread. Prices of live pigs have risen by 15% since the beginning of the year due to farmers restocking after being struck with ASF last year. In 2018, prior to Vietnams first ASF report, they only imported £76,000,000 of pork products into the country whereas in 2022, Vietnam imported £184 million of pork products. No data is currently available for 2024 however, it is thought that these figures will be higher due to the impacts of ASF. These imports are predominantly from Russia, which is also affected by ASF however, it is unknown if these products have undergone a heat treatment process.

The Philippines

Since our last report, according to Empres-i, The Philippines have reported 139 outbreaks of ASF in domestic pigs. These are spread across the country with 73 of 82 provinces being affected since the first report in July 2019. According to media reports, Philippine officials state that they are experiencing an increase in outbreaks due to the start of the rainy season.

The Philippines Department of Agriculture (DA) and Food and Drug Administration have <u>approved AVAC ASF Live</u> however, clinical trials must be conducted prior to use which are being undertaken by the DA. The DA expect commercial use of the vaccine to begin in late 2024 or early 2025.

According to a statement by the Philippine Statistics Authority, the price of pork products has <u>increased to 2.4% in July from 1.5% in June</u>. This is due to the impact of African Swine Fever. However, the government are hoping that the availability of the vaccine will help reduce this inflation.

South Korea

Since our last assessment, South Korea has reported two outbreaks of ASF in domestic pigs, both in Gyeongsangbuk-Do. This year, South Korea has reported an increased risk of ASF outbreaks due to heat waves and torrential rains. South Korean precipitation typically occurs during summer months (May to August). It is noted that in South Korea, pig production is higher in summer months which leads to more frequent movements of vehicles and people, resulting in increased risk of farm-to-farm transmission. Kim, Y. (2023). Another study has shown that due to dry and cold winters, wild boar are more active during the summer, increasing the potential for contact with pig farms and disease transmission. Lim, J.-S., Andraud, M., Kim, E. and Vergne, T. (2023).

India

No outbreaks of ASF in India have been reported by WOAH or Empres-i since our last report on 25 June. However, there have been <u>media reports</u> of outbreaks in both Kerala, Southern India and Mizoram, Northeastern India. All pigs on the farms were culled, a 1km protection zone and 10km surveillance zone were set up and epidemiological investigations undertaken.

Indonesia

According to Empres-i, Indonesia has reported four outbreaks of ASF in domestic pigs since out last report in June. Further outbreaks have been reported to the Food & Agriculture organisation of the United Nations (FAO). ASF has been officially reported in 24 out of 34 provinces on Sumatra, Bangka Belitung, Java, Kalimantan, Bali, East Nusa Tenggara, Sulawesi, Riau Islands and Papua (FAO, 2024).

Bhutan

Since our last report, Bhutan reported three outbreaks of ASF in domestic pigs. The Ministry of Agriculture and Livestock published a letter regarding ASF, noting that the majority of farms experiencing outbreaks have poor biosecurity, inadequate farming practices and are feeding uncooked kitchen waste from hotels and restaurants to pigs. They reminded farmers to not feed kitchen waste to pigs and if they do, boil the feed for 30 mins, prevent domestic pigs from coming into contact with wild boar, restrict any visitors to the farm, and report any suspicious pig deaths for both wild boar and domestic pigs. According to the Bhutan Food and Drug Authority, they have handed out 8.6 million Bhutanese Ngultrum (£79,000) in fines related to the illegal imports of pork and pork products.

Thailand

There has been one outbreak of ASF in domestic pigs in Thailand since our last report, this is Thailand's first report of ASF in 2024. The premises was listed as a village premises housing 70 pigs. Epidemiological comments on WAHIS state that the outbreak may have occurred due to food scraps not being heated thoroughly, additionally the farm was in close proximity to a waste collection area with stray dogs, and fences were weak and inadequate.

Thailand has recently conducted trials of AVAC ASF LIVE to assess vaccine safety. They have given 2,000 doses and found the pigs to become <u>immune and develop as expected</u>. The Department of Agriculture and Rural Development has said that they will begin large scale vaccination after <u>trials have been completed</u>.

China

Since our last report, The African Swine Fever Central Disaster Response Centre reported a pig carcass on the beach of Qingqi in Lieyu, Kinmen Islands in June. The carcass tested positive for the recombinant ASF strain. Farms within 10km of the carcass were observed for clinical signs however, no abnormalities were found.

Eastern Russia

Since our last report on 25 June, Russia has reported four outbreaks of ASF in domestic pigs. One outbreak was reported in Khabarovsk on a backyard farm housing three pigs. The other three outbreaks were reported in Primor'ye, close to the border with China. The three farms housed between 38,156 and 50,015 pigs.

According to ADIS summaries, Russia has reported 195 outbreaks of ASF in domestic pigs in 2024, with the last report being on 26 July 2024 and 82 cases in wild boar, with the last report being on 25 June 2024. It is unknown where these outbreaks were located in Russia.

Elsewhere

Since our last report on 25 June 2024, there have been no further outbreaks of ASF reported in Malaysia, Mongolia, Myanmar, Hong Kong, Singapore, Nepal, Bangladesh, Lao People's Democratic Republic, Cambodia, North Korea, Papua New Guinea or Timor-Leste reported to WOAH. It is likely that the virus is still circulating in these areas, evidenced by reports to other disease surveillance databases, media reports and annual reports submitted to WAHIS. According to the Central Emergency Operation Centre, as of 1 July 2024, Taiwan has officially been one year free of ASF.

Conclusion

The rise in detections of ASF in multiple countries across Asia, and the wide geographic range of infection found within these countries, demonstrates the potential for further spread of ASF into and within the domestic pig and wild boar

populations in this part of the world, especially as those countries enter summer and wet seasons.

Vaccine development in Asia, including Vietnam, is a positive development as the first two vaccines have been approved for commercial use and the third has been approved for production. However, the increase of cases in Vietnam suggests that the vaccination campaign has had little benefit so far. This however, could be due to the recombinant strain being detected there, as mentioned in our <u>previous report</u>. While the start of the vaccine trials in Thailand and the Philippines is encouraging, it is unclear how the vaccine will impact the occurrence of ASF on these countries in the long run. It is important to note the <u>risks associated with the use of live-attenuated vaccines</u> in the control of this disease.

It remains illegal for travellers to import meat or dairy products from Asia and other non-EU country areas. Illegal importation of infected pork meat from affected parts of Asia, presents a significant route of entry of ASF virus into the UK.

ASF is still present in domestic pigs across Eastern Europe and is still circulating in wild boar across much of Eastern Europe, and in Germany (Brandenburg and Saxony, and recently Hesse) and Italy (Piedmont, Liguria and Emilia Romagna). Therefore, there remains a **medium** risk (occurs regularly) of incursion of ASF virus to the UK.

For more information on the situation in Europe, see our most recent update: https://www.gov.uk/government/publications/african-swine-fever-in-pigs-and-boars-in-europe)

Vaccine <u>trials are being conducted in forests in Hungary</u> on wild boar populations too, and the Pirbright Institute in Great Britain are conducting research in collaboration with international institutions to accelerate the development of safe and effective vaccines against ASF. However, these projects are not expected to show results for some time.

The countries listed in this assessment are not approved for exports of live pigs to the UK. Illegal importation of infected pork meat from affected parts of Asia, presents a significant route of entry of ASF virus into the UK. There are also ongoing concerns around infected pork products originating from affected non-EU countries entering the EU in passenger luggage and the subsequent waste being discarded in areas where wild boar or domestic pigs could access them.

Publicity campaigns are in place in the UK to inform the general public and discourage individuals from bringing pork products into UK. This includes targeted messages to key stakeholders such as road hauliers, hunters, pig keepers and veterinarians. See: https://pork.ahdb.org.uk/health-welfare/health/emerging-diseases/african-swine-fever/

It remains a critical time for the spread of the virus throughout Europe as well as into other regions through human-mediated routes such as introduction from personal imports (including illegal imports) or fomites. On 1 September 2022, strict controls were introduced restricting the movement of pork and pork products into Great

Britain from the European Union (EU) and European Free Trade Association states. It is no longer legal to personally import pork or pork products weighing over two kilograms, unless they are produced to the EU's commercial standards. This does not apply to commercial imports, which remain unaffected by the control, but Great Britain will be bringing in further controls in late 2023. Although this legislation does not currently apply to personal imports of pork products less than 2 kg from the EU, all travellers are strongly advised to avoid bringing, buying, ordering on the internet, or requesting any pork products – for example, fresh or frozen meat, dried or cured meats, sausages, salamis, or pâté – back to the UK from affected parts of Europe. It remains illegal for travellers to import meat or dairy products from Asia and other third country areas. We would like to highlight to all pig keepers, pig producers, smallholders and general public to ensure that pigs are not fed catering waste, kitchen scraps or pork products, thereby observing the swill feeding ban. All pig keepers should remain vigilant and ensure that any visitors to their premises have not had any recent contact with pigs or pig premises in the affected regions.

People returning from any ASF-affected areas of the world should avoid any contact with domestic pigs in commercial holdings, smallholdings or even household pet pigs. Habitats where feral pigs or wild boar exist should also be avoided. All clothing, footwear or equipment should be disinfected before entering pig areas.

Swill feeding any animal, whether pigs, poultry, ruminants, or wildlife is illegal and has the potential to cause substantial harm. We would like to emphasise to all pig keepers, pig producers, smallholders, and the general public to ensure pigs are not fed catering waste, kitchen scraps or pork products, thereby observing the swill feeding ban.

Pig keepers and veterinarians should remind themselves of the clinical signs for ASF. Any suspect cases must be reported promptly. Please see https://www.gov.uk/guidance/african-swine-fever for more information.

We will continue to monitor the situation.

Authors

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