

Preparedness for African swine fever

African swine fever (ASF) is a highly pathogenic disease with no effective treatment or prevention methods, and once it spreads, it will cause a long-term decline in productivity in the livestock industry and threaten the stable supply of livestock products to the public. In the Asian region, since the first outbreak was confirmed in China in August 2018, the affected area has continued to spread, increasing the risk of invasion into our country. Although there has never been an outbreak of ASF in Japan, various preparedness efforts are underway.

Situation in Asia

ASF invaded the Caucasus region and Russia in 2007 from the continent of Africa, where it is endemic. Subsequently, outbreaks expanded from Eastern Europe to Western Europe, and in 2018, an outbreak was confirmed in China. Since then, outbreaks have expanded throughout Asia, including South Korea and Vietnam. In particular, in our neighboring country of South Korea, the first outbreak was confirmed in September 2019, and ASF is gradually spreading in domestic pigs and wild boars.

Reinforcement of border control measures

The most important countermeasure against ASF in our country is to prevent the virus from entering. For this reason, the Animal Quarantine Service conducts promotional activities to prevent meat products from being brought into Japan from overseas, as well as border control measures at air and sea ports. In Japan, monitoring tests for the ASF virus are conducted on some pork products carried by passengers on air flights, cruise ships, ferries, that have been detected during animal quarantine inspections at airports, etc. To date, more than 100 cases of ASF virus genes have been detected, and the live virus has been isolated in some cases. For this reason, inspection at the time of entry is being strengthened, including detection activities by animal and plant quarantine dogs and oral question-

ing by animal quarantine officers. The 140 animal and plant quarantine dogs are engaged in detection activities at air and sea ports throughout Japan and at international post offices. The number of animal quarantine officers was also increased to 526 by the end of FY2022. In addition, from April 2019, the measures against the importation of illegal livestock products from overseas have been tightened. As of August 2023, there have been 6 cases of 10 arrests for violation of the Act on Domestic Animal Infectious Disease Control on importation of prohibited products for passengers who brought meat products into Japan. In addition, inspections of international postal items have been strengthened in cooperation with Japan Post, resulting in the arrest of four persons in two cases.

Fig. S2-1 Global spread of ASF

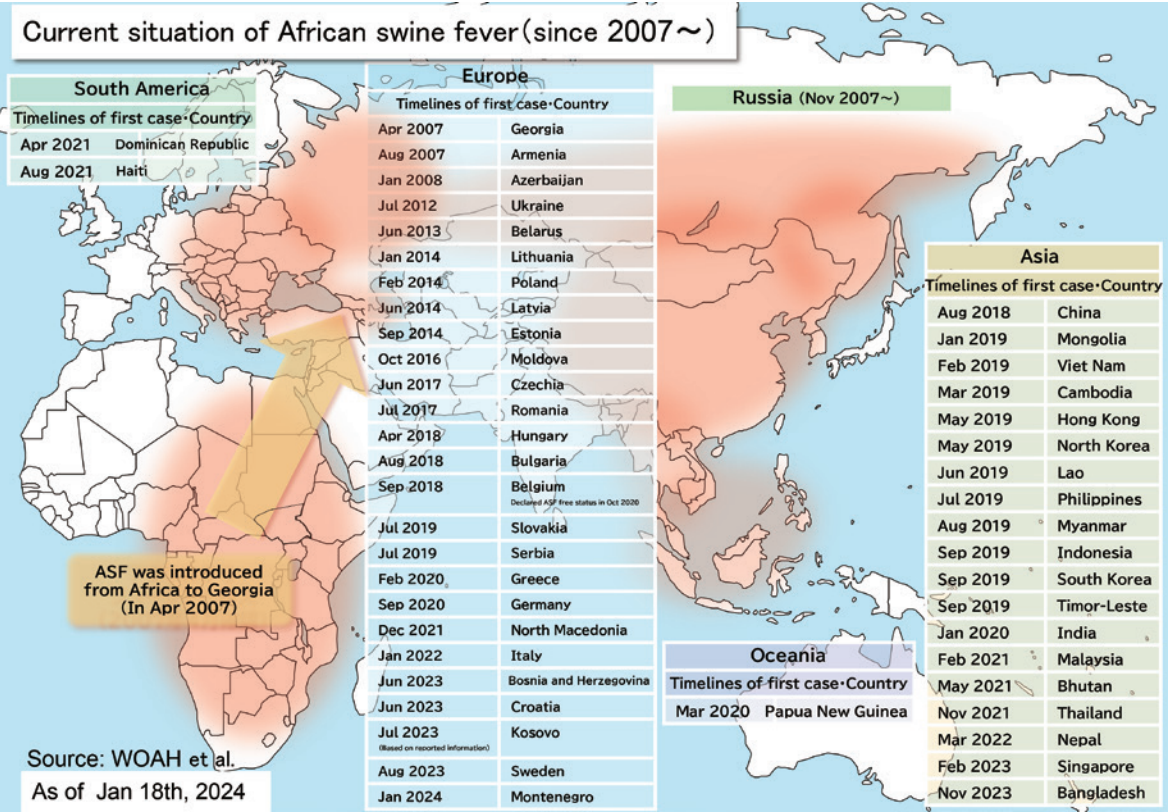


Table S2-1 Countries of origin of illegal livestock products detected from passengers' luggage and international postal items

○Passengers' luggage as of 2022 (preliminary data)

	country	cases	weight
1	Vietnam	8,121 (14.9%)	7,869 (22.0%)
2	Philippines	7,411 (13.6%)	5,184 (14.5%)
3	South Korea	4,907 (9.0%)	3,297 (9.2%)
4	China	4,217 (7.7%)	2,690 (7.5%)
5	Thailand	4,059 (7.5%)	1,787 (5.0%)
6	United States of America	3,802 (7.0%)	1,346 (3.8%)

○International postal items

	country	cases	weight
1	China	42,020 (79.4%)	46,811 (54.6%)
2	Vietnam	5,743 (10.8%)	33,750 (39.4%)
3	United States of America	1,095 (2.1%)	496 (0.6%)
4	Mongolia	952 (1.8%)	691 (0.8%)
5	Thailand	891 (1.7%)	387 (0.5%)
6	South Korea	288 (0.5%)	373 (0.4%)

Fig. S2-2 Detecting activity by the animal and plant quarantine dog



Improvement of animal hygiene management and preparedness for outbreaks

Thorough on-farm hygiene management is a basic measure for combating livestock infectious diseases, especially ASF, which cannot be prevented with a vaccine; it is necessary to improve on-farm biosecurity to prevent the virus from entering farms in case it enters Japan.

In addition to providing farmers with key information on on-farm biosecurity, livestock hygiene service centers (LHSCs) implement quarterly self-inspections at all pig farms nationwide to ensure that they are in full compliance with the standards for animal feeding and hygiene management. Farms that fail to comply will be given guidance, advice, recommendations, and orders based on the Act on Domestic Animal Infectious Diseases Control.

Regarding emergency preparedness, the "Guidelines for the Prevention of Specific Domestic Animal Infectious Diseases Related to African Swine Fever" (published by the Minister of Agriculture, Forestry and Fisheries on July 1, 2020) has been established, which stipulates measures to be taken in the event of an outbreak. A diagnostic manual for ASF has also been developed, and ASF tests are conducted on domestic pigs and wild boars by prefectural and national laboratories. Although there has been no outbreak of ASF in Japan, MAFF and prefectural governments are conducting simulation exercises to prepare for a future outbreak of ASF. Moreover, we are strengthening our preparedness for the occurrence of ASF in wild boars by, for example, conducting practical exercises on preventive operations such as proper disposal of wild boar carcasses.

Fig.S2-3 Key points on on-farm biosecurity



Surveillance and measures on wild boar

Prefectures conduct on-site inspections of pig farms once a year in principle to monitor the introduction of ASF. The purpose of these inspections is to detect abnormal conditions in pig populations and to conduct diagnostic tests on such pigs. In addition, all cases of pathological appraisal at the LHSCs are tested for antigens of ASF after autopsy examination.

Since early identification of infection in wild boars through surveillance is crucial in the fight against ASF, each prefecture has been conducting antigen testing for both CSF and ASF in pigs or dead wild boars since September 2018. A new test method has been devel-

Fig.S2-4 Study of burial method (above) and training of burial (below) of dead wild boars as preparedness for ASF outbreak in Japan



oped that allows for easier and faster genetic testing for CSF and ASF, and efforts are underway to strengthen surveillance. Furthermore, in preparation for the case of a positive test in a wild boar in Japan, specific response procedures have been established, and video materials are provided to wild boar trappers and hunters to inform precautions against cross-contamination. In addition, information on the prevention of disease spread among wild animals through human activities is disseminated to the public who enter mountain forests for the purpose of outdoor activities such as trekking.

Fig.S2-5 Poster targeting hunters

狩猟者のみなさまへ
～豚熱対策のお願い～

・イノシシで豚熱（旧称：豚コレラ）が発生すると、その地域のイノシシ肉の利用が制限される可能性があります。狩猟にも大きな影響があります。

・イノシシで豚熱の感染が「ない地域では清浄性維持」・「ある地域では早期の清浄化」のために！

・皆さん一人一人の、洗浄・消毒対応が重要です！！

ウイルスがいる場所

- 豚熱感染イノシシが確認された地域は特に注意が必要です。
- 感染したイノシシは糞便中などにウイルスを排出し、環境中（土壌、植物など）を汚染します。
- 環境中にウイルスがいる山に入ると、靴、車両のタイヤ、猟具等に付着して豚熱ウイルスを拡散させるおそれがあります。

感染を広げないために必要な行動

いつ、何をすればいいの？

- 狩猟した後、大きく移動する際に「洗浄」「消毒」を実施。（具体的には、別の山へ移動するとき、山を降りるとき、移動途中でコンビニなどに立ち寄るときなど。）
- 自家消費用の解体時には、使い捨て手袋、衛生的な着衣（レインコート、防護服等）を使用。※レインコートは使い捨て又は洗浄・消毒。
- 解体後の内臓等は、放置せず二重に袋につみ密閉的に処理するか、やむを得ない場合は消毒等を適切に行い、公衆衛生の確保等に十分に配慮した上で適切に埋置する。
- 豚熱感染確認区域から、自家消費用を含む肉等を持ち出さない。 ※「豚熱感染確認区域におけるゴミ利用の手引き」に従ってゴミ利用する場合は除く。
- 自宅に帰ってから特に念入りに「洗浄」「消毒」を実施。次の猟場にウイルスを持ち込まない。

消毒のポイント（場所、ものなど）

埋置場所、捕獲容器、猟具、器具、靴、手袋、車両、ハンドル・座席・足下、タイヤ、ホイール

洗浄・消毒の方法

- 靴の裏、タイヤ周り
→ブラシ・水などで汚れを落とし、消毒する。
ウイルスは肉や血液だけでなく、糞尿、唾液等が混じっている土などにも含まれている可能性があります。靴裏やタイヤの溝の土などをブラシ等を使いながら逆性石けん液などで洗い流し、確実に洗浄・消毒します。
- 器具（ナイフなど）
→ブラシ・水などで血液などの汚れを落とし、消毒する。
- 消毒方法
→アルコールスプレーや逆性石けん液等を噴霧器、じょうろ等でかけて行います。手袋や衣服、猟具・ナイフなどで消毒薬のニオイや薬の残存が気になる場合はアルコールで。

※消毒薬は、薬局・ドラッグストア等で販売されています。

※事業等で、高リスクな場所を複数訪問する場合等での衛生対策は自治体担当部署の指示に従ってください。

※死イノシシ発見時は、接触を避け、自治体で検査等を行う可能性が 있으므로、各自自治体へ連絡してください。

令和4年6月 農林水産省 消費・安全局 動物衛生課 農村振興局 農村政策部 鳥獣対策・農村環境課 自然環境局 野生生物課 鳥獣保護管理課

