



Animal and Plant Health Inspection Service  
U.S. DEPARTMENT OF AGRICULTURE

# **Report of the Review of Belgium's Animal Health Statuses**

African swine fever, classical swine fever, foot and  
mouth disease, and swine vesicular disease

Veterinary Services  
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## Executive Summary

The United States Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) recognizes the animal health status of foreign regions under the authority of 9 Code of Federal Regulations Part 92. In 2017, APHIS began conducting reviews of animal health statuses held by foreign regions to determine whether conditions in the region support maintenance, suspension, or revocation of these statuses.

APHIS recognizes Belgium as part of the APHIS-defined European CSF region, which APHIS determined to be low risk for classical swine fever (CSF). APHIS also recognizes Belgium as free of foot and mouth disease (FMD) and free of swine vesicular disease (SVD).

In 2019, APHIS—in collaboration with the Canadian Food Inspection Agency (CFIA)—reviewed the classical swine fever (CSF) status of the APHIS-defined European CSF region, the foot and mouth disease (FMD) and swine vesicular disease (SVD) statuses of 13 European Union (EU) Member States, including Belgium, and evaluated EU zoning decisions for African swine fever (ASF). Belgium has reported African swine fever (ASF) in wild boar and has established restricted zones for ASF. Therefore, APHIS evaluated Belgium's ASF response measures, including ASF zoning decisions implemented by Belgium and the European Commission.

APHIS, jointly with CFIA, conducted a site visit to Belgium from September 16 – 20, 2019, to clarify and verify the information Belgium submitted to support the review. APHIS' observations, determinations, and findings are included in this report.

APHIS found no evidence that Belgium has CSF, FMD, or SVD in its domestic swine or wild boar. APHIS concludes that Belgium's veterinary infrastructure is capable of and its swine disease surveillance systems are sufficient to detect CSF, FMD, or SVD, should they occur. While there are pathways by which CSF, FMD, or SVD could enter Belgium, mitigations exist to reduce the likelihood of incursions of these hazards. This review therefore confirms that APHIS can maintain its animal health status recognitions of Belgium as low risk for CSF and free of FMD and SVD.

Belgium detected ASF in wild boar in September 2018, the first detection since 1985. At the time of this report, the most recent detection of ASF in wild boar occurred in November 2019. Belgium quickly and proactively implemented ASF response measures in the southern part of the country, including creating ASF restricted zones. Belgium's ASF emergency response has prevented the virus from spreading to domestic swine. APHIS concludes that Belgium is effectively implementing emergency response measures against ASF, including creating and maintaining ASF-affected zones.

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## Background

One of the Animal and Plant Health Inspection Service's (APHIS) primary missions is to prevent the introduction of foreign animal diseases into the United States. APHIS has regulatory authority in Title 9, Code of Federal Regulations, Part 92 (9 CFR 92) [1], to assess import risk and conduct animal health status evaluations of foreign regions for several foreign animal diseases. Exporting countries must be conferred one or more APHIS statuses to be eligible to export certain animals or animal products to the United States.

Consistent with the regulations in 9 CFR 92, and under a review program started in 2017, APHIS periodically reviews the animal health status of foreign regions. APHIS assesses the animal health conditions in a foreign region to confirm that the region's APHIS recognition for one or more animal disease can be maintained.

In 2019 APHIS reviewed the classical swine fever (CSF) status, the foot and mouth disease (FMD) status, and the swine vesicular disease (SVD) status of Belgium and evaluated Belgium's emergency response measures against African swine fever (ASF). APHIS requested, received, and reviewed information relevant to the factors used to conduct evaluations to establish initial animal health statuses from the competent veterinary authorities of Belgium, the Federal Agency for the Safety of the Food Chain (FASFC).

APHIS determined that the documentation FASFC provided, supplemented by publicly available information, was sufficient. APHIS selected Belgium for a site visit to clarify and verify the information they submitted. The site visit was conducted September 16 – 20, 2019, and included:

<p><u>Opening meeting, Brussels</u> To refresh and review the information FASFC supplied; hear directly from FASFC about FASFC legislation and programs, including traceability and export certification, and ASF zoning updates; for demonstrations of Belgian's national swine database and the EC's trade control database.</p>
<p><u>Border Control Post, Zaventem</u> To confirm border controls at Brussels International Airport for entry of animals or animal products into Belgium.</p>
<p><u>Regional Animal Health Service, Flanders (DGZ)</u> To confirm roles and responsibilities of Flanders' regional animal health service and clarify the swine health services they provide, including registration and identification services.</p>
<p><u>Local Control Unit, Oost-Vlaanderen Vlaams-Brabant (Flanders)</u> To confirm national competent authority oversight and field operations in a Flanders local control unit, including export certification and oversight of private veterinarians.</p>

<p><u>Commercial fattening farm, Flanders</u> To observe husbandry and management practices, including biosecurity, and to confirm veterinary oversight, traceability of swine movements on to and off of the farm, certification, etc.</p>
<p><u>Slaughterhouse/cutting plant/cold store, Flanders</u> To observe management processes and practices and confirm veterinary oversight, export certification, traceability of animal products, etc.</p>
<p><u>Rendering facility, Flanders</u> To observe management processes and practices, including truck biosecurity and seals, for collecting and rendering animal products. Also, to observe logistics of past large depopulation of domestic swine from the ASF-affected area and current collection and incineration of wild boar harvested or found dead, including wild boar that are positive for ASF.</p>
<p><u>Commercial swine farm and agrotourism destination, Wallonia</u> To observe husbandry and management practices, including biosecurity, and to confirm veterinary oversight, traceability of swine movements on to and off of the farm, certification, etc, on a small commercial farm and agrotourism business outside of but close to the ASF-affected zone.</p>
<p><u>Cutting plant for harvested wildlife, including wild boar, Wallonia</u> To observe management processes and practices, including biosecurity and traceability of meat and carcasses, and confirm veterinary oversight, ASF-related control measures, etc, at a meat cutting plant for harvested wildlife, including wild boar, that is in the ASF-affected area.</p>
<p><u>Local Control Unit, Luxembourg (Wallonia)</u> To confirm national competent authority oversight and field operations in a Walloon local control unit, including export certification and oversight of private veterinarians, and to confirm ASF control and eradication measures.</p>
<p><u>Wild boar carcass collection center for the ASF-affected area, Wallonia</u> For detailed discussions with ASF emergency response authorities from the Division Nature et Forêt (DNF) and to observe processes and practices at the wild boar carcass collection center for the ASF-affected area. Also, to visit and observe fences and traps deployed in the ASF response.</p>
<p><u>Regional Animal Health Service, Wallonia (ARSIA)</u> To confirm roles and responsibilities of Wallonia's regional animal health service and clarify the swine health services they provide, including registration and identification services and activities in the ASF response.</p>
<p>Closing Meeting, Wallonia</p>

At these sites APHIS and CFIA received presentations from and/or interviewed the responsible animal health officials, locally employed staff, private veterinarians, and owners, operators, or staff of the farm or facility. APHIS and CFIA also reviewed farm or facility records and other swine health program documentation.

From the written information Belgian animal health officials provided, and from information obtained on the site visit, APHIS reviewed Belgium's veterinary infrastructure, livestock demographics, livestock movement and marketing patterns, surveillance programs, disease control capabilities, and emergency response systems for the specified hazards. The review is intended to determine that 1) the hazards are not currently present in Belgium; 2) the hazards are unlikely to be introduced into Belgium and ultimately infect or contaminate swine commodities exported to the United States; and, 3) if Belgium experienced an incursion of the hazards, their competent veterinary authorities would rapidly detect, report, control, and eradicate the disease, with exports to the United States promptly stopped to prevent the introduction of the hazard into the United States. Additionally, APHIS evaluated the ASF zoning decisions implemented by and in Belgium since the disease was detected in wild boar in 2018.

### APHIS Animal Health Status Recognitions of Belgium

APHIS maintains a website that lists the animal health status of foreign regions [2]. APHIS currently recognizes Belgium as part of the APHIS-defined European CSF region, which APHIS determined to be low risk for CSF. APHIS also recognizes Belgium as free of FMD and free of SVD. Belgium reported ASF outbreaks in wild boar in 2018 and 2019, and thus has established and maintained ASF-restricted zones.

### Last Reported Detections of CSF, FMD, SVD, and ASF in Belgium

CSF was last detected in Belgium in 1997 in domestic swine and in 2002 in wild boar [3, 4]. Belgian animal health officials stated that FMD has not been detected in Belgium since 1974, OIE database information provided by Belgium and independently obtained by APHIS indicate FMD was last detected in 1976 [3, 5, 6]. SVD has not been detected in Belgium since 1993 [3, 7]. ASF was detected in Belgium in 2018 in wild boar and has been detected sporadically since. ASF has not been detected in domestic swine. As of April 2020, the last report of an ASF detection in wild boar occurred in November 2019 [3,8,9].

### Vaccination Against CSF, FMD, or SVD in Belgium

Vaccination against CSF, FMD, and SVD is prohibited in Belgium, except for approved emergency vaccination. Belgium does not vaccinate against ASF, either, as an effective ASF vaccine is not yet available [3].

### Livestock Demographics and Animal/Product Traceability in Belgium

#### Livestock Demographics

Belgian animal health officials provided several maps of livestock production and demographics in Belgium, and livestock census data from 2013 [3]. To summarize, Belgium has approximately 6.5 million swine that are reared on approximately 5,000 farms. The bulk of Belgium's swine production occurs on large farms, as 40% of the total swine herd is raised on farms with more than 2,000 pigs per farm and almost 50% of Belgium's breeding sows are on large breeding farms (> 300 sows).

The distribution of swine production in Belgium is very important to this evaluation because it heavily influences Belgium's swine health strategies, most notably their ASF zoning,

and eradication efforts. Belgium's swine industry is highly contained in the Flanders region, in the north part of the country. Flanders is responsible for approximately 95% of Belgium's national swine production [3]. In contrast, the Walloon region, in the southern part of Belgium, has very little commercial swine production but has a much higher number of wild boar. All of the ASF detections in wild boar have occurred in the Walloon region. Thus, ASF zoning and control strategies (discussed in detail [here](#)) have primarily been applied in, and by, Wallonia.

### Swine and Swine Holding Identification and Registration

Belgian animal health officials provided information that described identification and registration requirements for pigs and swine holdings (e.g., farm, slaughterhouse). Belgium's requirements for registration and identification of pigs and pig farms, in national legislation via Royal Decrees of 2014, aligns with EC requirements (of Directive 2008/71/EC) and norms. To summarize the requirements, all holdings with 1 or more pigs must be registered with the FASFC. Each farm has a unique herd number (12 digits, numerical) and a unique code (4 digits, alphanumerical), with both numbers traced to owner name, address, etc. Farm registries are captured in Belgium's national registry database, SANITEL, via the SANITRACE interface. SANITRACE houses a number of data points, including the farm's unique identification number, short code, address, GIS location, and information on the veterinarian with whom the farm has contracted surveillance and inspections.

Pigs must be identified at weaning, before they leave the farm of birth or subsequent farm, or upon entry into Belgium from a third country. Registration of all pig movements is mandatory, and all pigs must be accompanied by a transport document. Farms of origin and destination must keep up-to-date herd registries, which capture arrivals and departures of animals. For pigs moved to slaughter, the slaughterhouse must keep records for arriving lots of pigs. Pig movements are captured in SANITEL, which connects to the EC's Trade Control and Expert System (TRACES) database, which records the movements of animals and animal products via intra-EU trade and the movements of animal products imported into, or transiting, the EU from third countries. Swine slaughter and food safety information is captured in the BELTRACE database, which is linked to the SANITEL database [3].

It is important to note that livestock registration and identification is the official purview of Belgium's FASFC. However, livestock identification and registration is one of many services that FASFC delegates to the respective [Regional Animal Health Service \(RAHS\)](#) of the Flanders and Walloon regions. The RAHSs, along with other responsibilities, assist farmers with identification and registration of their holdings and manage the SANITEL database, e.g., register holdings, distribute ear tags and transport documents, and perform data entry of paper records.

### Belgium's Veterinary Infrastructure

#### Organizational structure of the national competent authority for animal health

Belgium's Federal Agency for the Safety of the Food Chain (FASFC) is the national competent authority for animal health and has national headquarters in Brussels. The FASFC is responsible for livestock programs and developing animal health rules and regulations, developing inspection guidelines and sampling plans, supervising and auditing local control offices, laboratories, and task forces, monitoring risks to food, feed safety, animal health and welfare, and domestic training and collaboration, and international cooperation [3].

Within the FASFC, there are the several relevant units for animal health. The two of note for this review are the Directorate-General for Control Policy, the national level unit which has overall responsibility for developing animal health policy, programs, and legislation. This unit also interfaces with the EC, other EU Member States, and other trading partners. The other important unit is the Directorate-General for Control, which has national offices and locally employed staff (see next section). The national unit develops overarching animal health activities to meet program or policy directives and coordinates those activities as they are implemented in the field [3].

### Field Veterinary Services, Including Veterinary Certification

Belgium's veterinary infrastructure and the field administration of veterinary services is heavily influenced by Belgium's three distinct regions- Flanders, Wallonia, and Brussels. FASFC offices and employees are distributed throughout Belgium and administer field veterinary services via nine locally employed field units, called Local Control Units (LCUs). The LCUs, organized and named primarily by the province they serve, provide veterinary services in Flanders, the Dutch speaking region in the north of Belgium and in Wallonia, the French speaking region in the south. They collaborate to provide veterinary services in Brussels, Belgium's national capital and third administrative region [3]. APHIS confirmed on the site visit that the LCUs provide veterinary oversight for farms, agricultural operations, and food businesses, and to private veterinarians conducting work on behalf of the competent authority. APHIS also confirmed that animal health policy cascades from FASFC national staff to the field via FASFC's local control units.

Supplementing the official employees of FASFC is Belgium's cadre of approximately 600 private veterinarians who can conduct activities in an official capacity for FASFC. Private veterinarians may conduct ante and post-mortem control in slaughterhouses and can audit and/or validate any "self-check" systems implemented by food business operators (which are essentially hazard analysis and critical control points (HACCP)-like plans that, if successfully implemented, can reduce veterinary oversight and auditing). Additionally, while FASFC is the competent authority for certification of export requirements related to food safety and animal health, FASFC indicated and APHIS confirmed that these veterinarians can certify animal products for export. Private veterinarians may not, however, provide any private services to establishments with which they have the FASFC contract, to avoid conflict of interest [3].

### Belgium's Regional Animal Health Services

Key to Belgium's veterinary infrastructure, and delivery of field veterinary services, are the two RAHSs. In the Dutch-speaking Flemish region the RAHS is the Dierengezondheidszorg Vlaanderen (DGZ). In the French-speaking Walloon region, the RAHS is the Association Régionale de Santé et d'Identification Animales (ARSIA). While these RAHS are contracted by FASFC to conduct veterinary services and animal health activities, and work closely with FASFC, they are independent public-private organizations who provide fees-for-service directly to farmers and food business operators. Swine farmers in Belgium must contract with one (but not both, to avoid conflict of interest) of the regional animal health services, and not necessarily the one in their region. Brussels does not have a RAHS due to the very few farms and animals therein, but any livestock operators in Brussels must also contract with either DGZ or ARSIA (but not both). The services provided by DGZ and ARSIA include, but are not limited to, livestock (including



swine) identification, registration, and disease surveillance. Also, DGZ and ARSIA each operate a laboratory that can conduct certain tests for swine diseases [3,10].

APHIS confirmed on the site visit that the RAHSs in Flanders (DGZ) and in Wallonia (ARSIA) are instrumental in implementing identification and registration services for Belgium's livestock industries, including swine, and that the RAHSs also provide other useful services under legal contract with FASFC. Communication between national competent authority employees, local competent authority employees, the RAHSs, and private veterinarians appeared sufficient.

#### Legal authority to conduct animal health activities

Belgian veterinary officials provided a table of Belgian and/or EC regulations that authorize animal health activities in the country and described throughout their written documentation which Belgian and/or EC regulations applied to certain animal health activities. Summarizing, some of the legislation (e.g., Belgian Royal Decrees of November 2003/February 2014 and June 2014 on "self-checks", mandatory notification and traceability in the food chain AND prevention or reportable pork swine diseases, respectively) is overarching and applies broadly to veterinary services administered for animal health programs. Other legislations are disease specific, including but not limited to the CSF (and ASF) Order of November 2002 laying down temporary measures for the control of classical swine fever in wild boar and the protection of pig herds against the introduction of swine fever by wild boar and a Royal Decree of October 2005 for controlling FMD. For SVD, Belgian authorities mostly cited EC legislation, e.g., 92/119/EEC introducing general Community measures for the control of certain animal diseases and specific measures relating to swine vesicular disease. For ASF, there are EC legislations (e.g. 2014/709/EC) and Belgian national legislations [3]. Overall, APHIS considers Belgium's animal health authorities to have sufficient legal apparatus to conduct veterinary services. Individual legislations will be referenced and discussed at relevant portions of this document.

#### Infrastructure and financial resources

FASFC officials provided data and information related to staffing levels and financial resources within their veterinary infrastructure. Summarizing the staffing data, the bulk (over 60%) of FASFC full-time-equivalent employees are housed in the national or local level of the Control unit. From this, APHIS favorably concludes the staffing structure reflects field implementation of veterinary services. Summarizing the budget data, FASFC conducts routine operations on approximately 180,000,000€ annually. In addition to funds allocated from government budgets, FASFC also collects user fees from every food chain business for certain services provided (e.g. export certification). Fees vary by service, but operators with "self-check" systems pay lower user fees. FASFC does not plan for nor set aside money in their annual budget for emergency response to animal diseases. Should an outbreak occur, separate funds are voted on by the Belgian government, and allocated [3]. Overall, staffing and budget appear to be balanced and sufficient for effective delivery of veterinary services.

#### Belgium's Ability to Detect, Control, and Eradicate CSF, FMD, SVD, or ASF Surveillance for CSF, FMD, SVD, and ASF in Domestic Swine

Belgium’s primary method for detecting diseases in domestic swine is passive surveillance conducted on farms and at other food business operators. Belgium’s passive surveillance system is underpinned by the requirement that these diseases are all notifiable, with mandatory reporting by farmers, veterinarians, laboratories, etc. FASFC mandates disease reporting by Belgian decree (in 2003) that transposes the EC’s requirements for mandatory disease notification under Directive 82/894/EC *on the notification of animal diseases within the Community*) [3].

### ASF and CSF surveillance program for wild boar

Belgian animal health officials do conduct ASF and CSF surveillance in wild boar. Wildlife fall under the regulatory purview of regional wildlife officials, e.g. Division Nature et Forêt (DNF) in Wallonia, not FASFC. Thus, it is wildlife officials who organize and implement the ASF and CSF surveillance campaigns in wild boar. The campaigns coincide with hunting season, and a percentage of the harvested wild boar are tested. The ASF outbreak in Belgium, including surveillance and management programs for wild boar, is discussed later in this document. For CSF, the test results for wild boar for 2016 – 2018 are available in Table 1.

Table 1: CSF test results for wild boar for 2016 – 2018 [10]

ELISA PPC	2016				2017				2018			
	number	negative	uninterpretable	positifs	number	negative	uninterpretable	positifs	number	negative	uninterpretable	positifs
pig	262	260	2	0	296	294	1	1	380	378	0	2
boar	676	667	5	4	640	625	9	6	0	0	0	0
<b>Autopsies</b>												
pig	22				55				41			
boar	0				0				2			

### Epidemiological Investigations of Suspect Cases, and Disease Confirmation or Exclusion

In the event that passive surveillance leads to disease suspicion in domestic swine or wild boar, an epidemiological investigation is conducted, and samples are collected/tested to confirm or exclude the causative agent. Epidemiological investigations are triggered when farmers, veterinarians, food business operators, hunters, or the public report suspect cases, including sick or dead animals. Per Belgian animal health officials, required disease reporting flows from the animal owner, food business operator, or private veterinarian to the RAHS and FASFC at the LCU, then to FASFC at the national level. If necessary, FASFC triggers the national contingency plan.

FASFC described the precautionary measures implemented when a suspected case of a notifiable disease is being investigated. Summarizing, measures are taken at the index farm, including but not limited to: quarantine and isolation of potentially positive animals, movement restrictions and increased biosecurity on people, fomites, and animal products entering or leaving the premises, and sample collection for additional testing [3].

While RAHS employees can conduct epidemiological investigations, it is FASFC that collects samples for laboratory testing and FASFC that confirms the official diagnosis. While a disease is suspected, movement controls are implemented. If a contagious animal disease is confirmed, further control measures are implemented, including but not limited to: depopulation of all susceptible animals on the infected holding; tracing of animals and animal products from the

affected holding, and corresponding epidemiological investigations; establishing protection (3km) and surveillance (10km) zones, with restrictions on animals, animal products, and vehicles [3].

### Diagnostic Testing for Swine Diseases

Diagnostic testing for CSF, FMD, SVD, and ASF occurs at one of three laboratories in Belgium. The national reference laboratory for most animal diseases— including CSF, FMD, SVD, and ASF— is the Belgian national institute for health, Sciensano. It is the only laboratory that conducts confirmatory (virological) tests for all four of the hazards under review. The regional laboratories at DGZ and ARSIA can conduct serological testing [via enzyme-linked immunosorbent assays, (ELISAs)] for CSF and ASF, but must send all samples for confirmatory testing to Sciensano. The regional laboratories cannot conduct testing for FMD or SVD; all diagnostic tests for those diseases are conducted at Sciensano [3].

### Emergency Response Capability

#### Emergency Response Framework

Belgium has a generic contingency plan that covers common disease outbreak management strategies and standard emergency response measures. Included in the generic contingency plan is a description of Belgium’s emergency response framework. Belgium’s framework follows international and European Union norms by establishing a national level central crisis unit to plan and coordinate the emergency response and by establishing local crisis units and local specific units to implement emergency response procedures in the field. Per descriptions provided by Belgian animal health officials [3], the emergency response framework seems properly structured and sufficiently robust to handle animal disease outbreaks yet retains flexibility in the type, manner, and amount that human, physical, and financial resources can be deployed to the response.

#### Contingency Plans

Belgium’s generic contingency plan is supplemented by several disease-specific plans, which cover specific or situational measures to be taken in response to certain hazards. For the hazards under review, Belgium has specific contingency plans for FMD and CSF (and, by extension, ASF). APHIS directly observed on the site visit that Belgium’s veterinary infrastructure is capably responding to a highly contagious swine disease outbreak, ASF, by implementing appropriate contingency measures.

### Belgium’s Ability to Certify Exports of Animals and Animal Products

#### Export of animals and animal products

Data from the World Trade Organization’s International Trade Centre Trade Map database confirms that Belgium exports live animals and animal products to third countries and ships animals and animal products to other EU Member States via intra-Union trade. However, summarizing the WTO ITC data, Belgium did not export any live swine (or ruminants) to the United States in 2016, 2017, or 2018. Further, Belgium did not export any pork (fresh, chilled, or frozen) between 2016 and 2018. The only non-poultry fresh meat Belgium exported to the United States during that timeframe was 50 tons of beef (fresh or chilled) in 2017 and 6 combined tons of beef (fresh or chilled or frozen) in 2018. Belgium did export 55 tons of edible offal to the United States in 2018, which could have been swine-origin [11].

## Export certification procedures for animals and animal products

FASFC described, and the site visit team reviewed, certification requirements and processes for export of live animals and animal products to third countries from Belgium and to move live animals and animal products from Belgium to other EU Member States as part of intra-Union trade. For both, FASFC is the certifying authority. For live animals, FASFC inspects the animals at the farm of origin and, upon inspection, issues a health certificate for the animals to move across international borders. For intra-Union trade, the animals can move without further veterinary controls. After receiving an export health certificate, live animals being exported from Belgium to third countries move to an exit point, without further veterinary controls, for export to the third country. The on-farm inspection involves documentation, identification, and physical check of animals, and veterinary certification using unique reference numbers that make the consignment traceable, including the personal stamp of the certifying officer. For animal products, FASFC inspects the animal products at the site of the food business operator and, upon inspection, issues a health certificate. The on-site inspection involves documentation, identification, and physical check, and veterinary certification using unique reference numbers that make the consignment traceable, including the personal stamp of the certifying officer [3].

Member States are required to register the aforementioned activities into the EC's Trade Expert and Control System, [TRACES](#). TRACES is the European Commission's online database for recording the movements of live animals and animal products via intra-EU trade and the movements of live animals and animal products imported into, or transiting, the EU from third countries.

APHIS confirmed on the site visit a cascade of veterinary oversight for swine health and production that started with farm or agribusiness owners/operators and cascaded through the private veterinarian, local employees of the national competent authority (LCU), and the national competent authority. APHIS observed a high level of traceability of animal movements onto and off of farms. At the slaughterhouse and processing plant, APHIS confirmed sufficient veterinary oversight via the food business operator and on-site veterinarians and a very high level of traceability from swine carcasses to meat products. APHIS' observations in the commercial swine sector, particularly the traceability observed in the commercial slaughterhouse, demonstrated Belgium's ability to track pigs from birth, to fattening, to slaughter, to carcass, to meat product. This provides confidence in Belgium's ability to certify animals or animal products for export.

## Potential for CSF, FMD, SVD, or ASF Incursions into Belgium

APHIS concludes from the information summarized above that Belgium does not have active infections of CSF, FMD, or SVD in its domestic swine or wild boar. APHIS identified and will briefly discuss four pathways by which the hazards under evaluation could be introduced into Belgium. The four pathways are entry via natural movement of wildlife (e.g. wild boar); via incoming vehicle or passenger traffic; via commercial import of contaminated animal product; and via commercial import of infected live animals.

### Natural Movement of Wildlife, Particularly Wild Boar

Belgium shares borders with France, the Netherlands, Luxembourg, and Germany. Migrating wild boar are a direct concern to Belgium, as evidenced by the protective fencing measures taken by Belgium (and other EU Member States) in response to ASF. Fencing can only

reduce migration of wild boar; it is unlikely to fully eliminate it. However, the ASF restricted zones and the ASF emergency response measures implemented by Belgium have reduced the risk of the hazards being introduced into Belgium, and subsequently into Belgium's domestic swine population, via this pathway.

### Incoming Vehicle and Passenger Traffic

The entry pathway of incoming vehicle or passenger traffic is mitigated by Belgium's border interdiction efforts. Vehicles and passengers can enter Belgium via all four travel modes—road, rail, air, and sea.

Some vehicles and passengers (e.g. road, rail) enter from other EU Member States. Those vehicles and passengers are not subject to veterinary controls. Belgium's Customs Directorate may implement random inspections for prohibited passenger products.

Vehicles and passengers arriving from third countries are subject to border veterinary controls. Customs implements border interdiction efforts primarily by enforcing the EC's rules (e.g. EC/206/2009) for personal consignments of animal products arriving into the European Union. Summarizing this legislation, travelers are prohibited from bringing meat, milk, or their products unless they are small amounts (<10kg) from certain destinations (Faroe Islands, Greenland, or Iceland), or otherwise exempted (e.g. infant milk or food). Given the overall high volume of international travel, and the speed and distance over which modern international travel can occur, it is possible that one of the hazards could be introduced into Belgium via this pathway.

### Import Controls for Pork and Pork Product Imports

FASFC provided import data for certain animals and animal products. APHIS also obtained data from the World Trade Organization's International Trade Center database [14]. Summarizing, Belgium's top 10 suppliers of swine meat (fresh, chilled, or frozen) were all EU Member States. Belgium's top supplier of this commodity group in 2018, by a large margin (approximately 3-fold), was the Netherlands, who supplied approximately 36,000 tons. Second was Spain, who supplied approximately 12,000 tons. The United States of America was Belgium's largest third country supplier of swine meat in 2018, sending 174 tons. The data for edible offal, including swine, was similar-- the top 10 suppliers to Belgium in 2018 were other EU Member States, with the Netherlands again the top supplier by a large margin.

The arrival processes and border veterinary controls for arriving pork and pork products differs if entering Belgium as part of intra-Union trade or if entering Belgium as an import from a third country. Namely, there are no true border controls for animal products moving between Member States as intra-Union trade. These products do undergo inspection and certification prior to intra-Union trade, and those inspection and certification processes include documentation, identification, and physical checks.

Border veterinary controls are applied to animal products arriving into the EU from third countries. Animal products from third countries are subject to requirements stipulated by EC legislation (e.g. 97/78/EC). To summarize, these products must enter an EU Member State, in this case Belgium, at one of Belgium's six border control posts (BCP) approved for animal products (Figure 1).



Figure 1: Map of Belgium’s border control posts approved for animal products.

The official competent authority, in this case FASFC, must be notified prior to arrival and each consignment of arriving products must be accompanied by a “common veterinary entry document” (CVED) and an export health certificate. FASFC employees at Belgium’s BCPs, or the veterinarians they supervise, then perform document controls, identification checks, and physical inspection on arriving animal products. Every arriving consignment of animal products is subject to documentation and identification verification, including confirmation via seal or label inspection and export health certificate that the consignment is from an approved establishment in an authorized country. However, not all arriving products are subject to physical inspection. Instead, the type (e.g. temperature, organoleptic) and percentage of physical checks is determined based on a number of factors, including risk of the consignment, frequency of arrivals, and history of non-compliance by an importer. Similarly, risk-based and other factors can trigger some consignments to be sampled for laboratory testing. If, during any of these entry control processes, the animal products are determined to not satisfy entry requirements, or otherwise present an animal health or public health risk, BCP officials can reject the entry and return or destroy the product [3].

Member States are required to register the aforementioned activities into the EC’s Trade Expert and Control System, [TRACES](#). TRACES is the European Commission’s online database for recording the movements of animal products via intra-EU trade and the movements of animal products imported into, or transiting, the EU from third countries.

### Import Controls for Live Animals

FASFC provided limited import data for live animals, and APHIS also independently obtained data from the World Trade Organization’s International Trade Center database [15]. Summarizing the WTO data, all but one of Belgium’s suppliers of live swine are other EU Member States. Belgium received the most swine from France in 2018, who shipped approximately 34,000 tons. Second was the Netherlands, at just over 22,000 tons. From there the numbers decline significantly; all other source countries supplied 754 tons or less in 2018. Belgium’s only listed

third country supplier of live swine was Canada, and it was not listed as shipping anything to Belgium in 2016, 2017, or 2018. CFIA colleagues, via personal communication, reported two exports of live swine in the last 5 years—a single pig each in 2015 and 2017. For live bovines, all of Belgium’s suppliers were EU Member States. Belgium’s top two suppliers, by a very large margin, were the Netherlands and France. For small ruminants, all of Belgium’s suppliers were EU Member States. Belgium’s top two suppliers, by a very large margin, were the Netherlands and the United Kingdom.

Similar to animal products, the arrival processes and border veterinary controls for arriving live animals differs if the animals are entering Belgium as part of intra-Union trade or if entering Belgium as an import from a third country. Namely, there are no true border controls for animals moving between Member States as intra-Union trade. The EC has overarching regulations for intra-Union trade of live animals and germplasm, i.e. 90/425/EEC concerning veterinary and zootechnical checks applicable in intraUnion trade of certain live animals and products. The EC also has species-specific intra-Union trade requirements, e.g. 64/432/EEC, which stipulates the animal health requirements for intra-Union trade in bovines and swine. Summarizing, the competent authority for the Member State of origin verifies that the animals (or germplasm) for intra-Union trade meet EC identification and registration requirements and meet animal health requirements, as verified by a health certificate, and are accompanied by other transport documents. Additionally, the animals must originate from eligible holdings, i.e. holdings not subject to any movement restrictions.

Border veterinary controls are applied to live animals entering the EU from third countries. Animals from third countries are subject to requirements stipulated by EC legislation (e.g. 91/496/EEC). To summarize EC requirements, animals can only originate from approved third countries and must enter an EU Member State, in this case Belgium, at a BCP approved for animals (Figure 2).



Figure 2: Belgium’s border control posts authorized for entry into the EU of live animals.

The official competent authority, in this case FASFC, must be notified prior to arrival of each consignment of live animals at least 24 hours in advance, so that official veterinarians can be available to provide inspection services. Each consignment of live animals arriving from third countries must be accompanied by a CVED and an export health certificate. FASFC employees at Belgium's BCPs, or the veterinarians they supervise, then perform document controls, identification checks, and physical inspection on the arriving animals. Every arriving consignment of animals is subject to documentation controls, identity verification, and physical inspection. The physical check is primarily focused on animal welfare and fitness for travel but can include a clinical examination and may trigger the collection of samples for laboratory testing. Similarly, risk-based and other factors can trigger some consignments to be sampled for laboratory testing. If, during any of these entry control processes, the animals are determined to not satisfy entry requirements, or otherwise present an animal health or public health risk, BCP officials can reject the entry and return or euthanize the animal(s) [3]. Collectively, these border control processes confirm that the animals are from an authorized country and meet all entry requirements for health status.

As with animal products, Member States are required to register the aforementioned activities into the EC's Trade Expert and Control System, [TRACES](#). TRACES is the European Commission's online database for recording the movements of animal products via intra-EU trade and the movements of animal products imported into, or transiting, the EU from third countries.

## African Swine Fever in Belgium

Part of APHIS' scope for this review is to evaluate EU zoning decisions for African swine fever (ASF). As a European Union Member State, Belgium is included in APHIS' trade policy for the European Union for African swine fever. Meaning, APHIS considers affected with ASF "any restricted zone in the European Union (EU) established by the EU or any EU Member State because of detection of African swine fever in domestic or feral swine".

The EC promulgates its ASF regionalization policies through two primary pieces of legislation. One, Council Directive 2002/60/EC, is an overarching legislation for the prevention and control of African swine fever in domestic pigs or wild boar. The other, Commission Implementing Decision 2014/709/EU, is a more recent legislation that outlines specific regionalization measures for ASF, the annex of which is regularly updated with descriptions of ASF-affected parts. Links to both of those legislations and other important information such as the EC's [Working Document on the Principles and criteria for geographically defining ASF regionalization](#), and [Working Document on the Strategic approach to the management of African Swine Fever for the EU](#), are available at the EC's African swine fever website [16].

The core of the EC's current regionalization approach is to delineate and implement corresponding controls in ASF-affected areas, called "Parts", which are defined based on the nature of the ASF detection. Summarizing from 2014/709/EU [17], Part I is a delineated area in proximity to and established as a buffer zone around ASF detection in feral swine or wild boar. The areas where ASF has been detected in feral swine or wild boar are delineated as Part II. Areas where ASF has been detected in domestic swine are delineated as Part III, where the epidemiological situation is dynamic and disease evolution is uncertain, or Part IV, where ASF is



entrenched in domestic swine and the disease is considered endemic. The Annex of 2014/709/EU generates the EC's [ASF regionalization map](#) and their [online interactive ASF mapping tool](#).

Belgium detected ASF in 2018 for the first time since 1985, and is thus implementing ASF control measures, including zoning. FASFC officials provided APHIS voluminous information—including but not limited to detailed maps and photos, descriptions of processes and activities, epidemiological reports and diagnostic testing results, and legislation—regarding the ASF outbreak in Belgium, and their emergency response against the disease [3, 18, 19, 20]. Many of those materials are directly available at, or based on information similar to what is posted at, the FASFC's website for the ASF outbreak (<https://www.fasfc.be/outbreaks-african-swine-fever>) or embedded links (e.g. <https://www.fasfc.be/african-swine-fever/asf-virus-wild-boar-belgium>). Additionally, APHIS visited several specifically selected sites in southern Belgium to observe first-hand Belgium's emergency response to ASF.

Summarizing data and information from those sources, and observations from the site visit, Belgium has been conducting response measures since they detected ASF in wild boar in September 2018. ASF was provisionally zoned in Belgium under separate EC legislation until November 2018, when it was then rolled into 2014/709/EU. ASF detections in January 2019, February 2019, and March 2019 required FASFC to expand the ASF zones. Belgium also detected ASF in October 2019 and November 2019. Throughout, Belgium's ASF activities aligned with the EC's regionalization policy and plans for ASF, and Belgium's changing zones were reflected in the EC's Annex and corresponding maps.

As of April 2020, Belgium has only detected ASF in wild boar—they have not detected ASF in domestic swine. If detected in domestic pigs, those swine would be subject to the testing and movement restrictions based on the zone in which they are located. Through mid-November 2019, Belgian authorities had tested 4,166 wild boar for ASF, 829 of which were confirmed positive for ASF. Further, all of Belgium's ASF detections in wild boar have been in Wallonia in southern Belgium. Wallonia does not have much commercial swine production; approximately 95% of Belgium's swine production occurs in Flanders in northern Belgium. Because the ASF outbreak has been limited to wild boar, the primary authority for emergency response measures are Wallonia's DNF officials. APHIS and CFIA visited the wild boar collection center in Virton (Wallonia) during the site visit for detailed discussions with ASF emergency response authorities. While there, the site visit team observed the biosecurity conditions and processes by which dead wild boar are processed at the collection center, including sample collection for ASF testing (conducted at Sciensano) prior to carcass transport and disposal at Belgium's lone rendering facility.

With regard to defining and maintaining ASF zones, and control measures therein, FASFC established the original ASF zones and affiliated control measures via national decree. Emergency response measures include, but are not limited to, culling domestic swine in the infected zone, and restricting re-stocking of premises; movement restrictions, mandatory identification and registration of holdings, etc.; extensive and elaborate fencing and trapping strategies to prevent or restrict wild boar movement; targeted wild boar removal campaigns; ASF testing on hunter-harvested and found dead wild boar; and ASF outreach, awareness, and public education. Notably, FASFC proactively organized and successfully implemented the depopulation of all domestic

swine in the original control area. In a large and well-coordinated undertaking, with tight biosecurity controls and FASFC oversight, domestic swine were transported to the rendering facility, euthanized, and safely disposed. When FASFC expanded the ASF affected zone in January 2019, February 2019, and March 2019, FASFC did not fully depopulate domestic swine in newly created areas.

Belgium appears to implement a flexible yet robust zoning strategy. Nationally, Belgian ASF emergency response officials delineate and refer to the ASF zones beyond what is captured in the EC maps and legislation. This is mostly to implement emergency response operations, and specifically related to wild boar management. Meaning, they define and refer to a “kernel zone”, “buffer zone”, “reinforced observation zone”, and “vigilance zone” based on the presence (or absence) of ASF virus and the wild boar management strategy therein, including available habitat and terrain and existing natural or artificial boundaries. While the terminology is more specific, as previously stated, the EC’s Parts I and II overlay the Belgian zones.

Overall, APHIS concludes from publicly available information, the information FASFC provided, and the information collected and observed first-hand during the site visit that Belgium’s response to ASF detections in wild boar in southern Belgium is robust and well-coordinated. To date, Belgium’s emergency response to ASF in Wallonia has effectively prevented spillover from wild boar to domestic swine. The ASF emergency response is the primary responsibility of Walloon government, but FASFC animal health officials, particularly those in the LCUs in Wallonia, assist with emergency measures and conduct passive surveillance in domestic swine for ASF. Throughout the site visit in southern Belgium there appeared to be a high level of communication and collaboration between these officials and FASFC’s local and national animal health officials. EC-published ASF-affected zones and buffer zones appear to accurately correlate to the ASF zones defined by Belgium. Also, the control measures implemented by FASFC in their ASF-affected zones appear to align with, or exceed, EC requirements.

The site visit team reached a favorable conclusion about Belgium’s emergency response to ASF in southern Belgium and observed a high level of veterinary oversight and a high level of animal and animal product traceability in Belgium’s commercial swine sector in northern Belgium. In regions outside of the ASF-affected zones, Belgium reinforced existing nation-wide measures on domestic swine holdings that would mitigate potential spillover of ASF from wild boar— e.g. prohibiting swill feeding, restricting outdoor access for pigs to areas that were double-fenced, and promoting proper biosecurity. The site visit team observed lack of or lapses in biosecurity measures at several sites located in the northern free zone. Additionally, FASFC implemented several new measures in response to ASF, including prohibiting or restricting domestic swine ownership in or around ASF-affected zones. However, FASFC allowed derogations to some of these restrictions or did not take swift corrective action when non-compliance was observed.

## Conclusions

APHIS saw no evidence that Belgium has CSF, FMD, or SVD circulating undetected in its domestic swine or wild boar populations. While there are pathways by which CSF, FMD, or SVD could enter Belgium, the hazards are not present in adjacent areas and mitigations exist to reduce the likelihood they enter Belgium.

Belgium has detected ASF in wild boar. Belgian identifies ASF-positive wild boar and effectively implements EC ASF control measures, including regionalization. As of April 2020, Belgium's ASF restricted zones and emergency response measures have prevented ASF transmission from wild boar to domestic swine.

APHIS considers Belgium's veterinary infrastructure capable of and its swine disease surveillance systems sufficient to detect CSF, FMD, or SVD, should they occur. APHIS observed first-hand that Belgium's veterinary infrastructure was capably conducting disease surveillance, diagnostic services, and emergency response measures in response to ASF. Additionally, APHIS observed a high level of traceability in the commercial swine sector, providing confidence that Belgian animal health officials could accurately certify swine commodities for export to the United States.

This review confirms that Belgium can maintain its APHIS-recognized animal health statuses as low risk for CSF and free of FMD and SVD. APHIS also concludes that Belgium is effectively implementing emergency response measures against ASF, including creating and maintaining ASF-affected zones.

## References

1. U.S. National Archives and Records Administration. *Code of Federal Regulations. Title 9, Animals and Animal Products. Part 92, Importation of animals and animal products: Procedures for requesting recognition of regions*. Office of the Federal Register. Washington, DC. Available at: [https://www.ecfr.gov/cgi-bin/text-idx?SID=04ebc88ebad6624e4cef94be0374ea41&mc=true&node=se9.1.92\\_12&rgn=div8](https://www.ecfr.gov/cgi-bin/text-idx?SID=04ebc88ebad6624e4cef94be0374ea41&mc=true&node=se9.1.92_12&rgn=div8)
2. Animal and Plant Health Inspection Service (APHIS). *Animal Health Status of Regions*. Available at <https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-and-animal-product-import-information/animal-health-status-of-regions/animal-health-status-of-regions>
3. Federal Agency for the Safety of the Food Chain (FASFC). *Clarification of Information Requested for an Animal Health Status Review*. Enclosure to Official Letter of March 6, 2019.
4. World Organization for Animal Health (OIE). Handistatus II database. Available at: [http://web.oie.int/hs2/sit\\_pays\\_mald\\_pl.asp?c\\_pays=14&c\\_mald=14](http://web.oie.int/hs2/sit_pays_mald_pl.asp?c_pays=14&c_mald=14) searching “Belgium”, “Classical swine fever” and viewing “MultiAnnual Animal Disease Status”.
5. World Organization for Animal Health (OIE). *Annual Animal Health Report*. Enclosed by the Federal Agency for the Safety of the Food Chain (FASFC) to Official Letter of March 6, 2019.
6. World Organization for Animal Health (OIE). Handistatus II database. Available at: [http://web.oie.int/hs2/sit\\_pays\\_mald\\_pl.asp?c\\_pays=14&c\\_mald=14](http://web.oie.int/hs2/sit_pays_mald_pl.asp?c_pays=14&c_mald=14) searching “Belgium”, “Foot and Mouth Disease” and viewing “MultiAnnual Animal Disease Status”.
7. World Organization for Animal Health (OIE). Handistatus II database. Available at: [http://web.oie.int/hs2/sit\\_pays\\_mald\\_pl.asp?c\\_pays=14&c\\_mald=14](http://web.oie.int/hs2/sit_pays_mald_pl.asp?c_pays=14&c_mald=14) searching “Belgium”, “Swine vesicular disease” and viewing “MultiAnnual Animal Disease Status”.
8. Federal Agency for the Safety of the Food Chain (FASFC). *African swine fever (ASF) virus in wild boar in Belgium: Situation and detailed information*. Enclosure to Official Letter of March 6, 2019.
9. World Organization for Animal Health (OIE). *Follow-up report No. 48 (to the detection of ASF in wild boar in Belgium)*. Available at: [https://www.oie.int/wahis\\_2/public/wahid.php/Reviewreport/Review?reportid=32298](https://www.oie.int/wahis_2/public/wahid.php/Reviewreport/Review?reportid=32298).
10. Federal Agency for the Safety of the Food Chain (FASFC). *Additional questions to support the Animal and Plant Health Inspection Service's (APHIS) review of the classical swine fever, foot-and-mouth disease and swine vesicular disease statuses of Belgium, and our review of African swine fever zoning in Belgium*. Enclosure to Official Letter received via Email June 12, 2019.
11. World Trade Organization (WTO). International Trade Centre, TradeMap database. Available at: <https://www.trademap.org/>, searching “Belgium” for “exports” of “live animals”

and “meat of swine, fresh, chilled, or frozen” and selecting “United States of America” as “partner”.

12. World Organization for Animal Health (OIE). Handistatus II database. Available at: <http://web.oie.int/hs2>, searching “Multiannual Disease Status” for “Europe” for “classical swine fever”, “foot and mouth disease”, and “swine vesicular disease”.

13. World Organization for Animal Health (OIE). World Animal Health Information System (WAHIS) database. Available at: [https://www.oie.int/wahis\\_2/public/wahid.php/Wahidhome/Home/indexcontent/newlang/en](https://www.oie.int/wahis_2/public/wahid.php/Wahidhome/Home/indexcontent/newlang/en), searching “Animal health situation” for “Germany”.

14. World Trade Organization (WTO). International Trade Centre, TradeMap database. Available at <https://www.trademap.org>. Searching “Belgium”, for “Imports”, of HTS codes “0203” and “0206” and viewing “Yearly” results by “Quantity”.

15. World Trade Organization (WTO). International Trade Centre, TradeMap database. Available at <https://www.trademap.org>. Searching “Belgium”, for “Imports”, of HTS codes “0103” and “0102” and “0104” and viewing “Yearly” results by “Quantity”.

16. European Commission (EC). “African swine fever” website. Available at: [https://ec.europa.eu/food/animals/animal-diseases/control-measures/asf\\_en](https://ec.europa.eu/food/animals/animal-diseases/control-measures/asf_en).

17. European Commission (EC). *Commission Implementing Decision of 9 October 2014 concerning animal health control measures relating to African swine fever in certain Member States*. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014D0709&from=EN>.

18. Federal Agency for the Safety of the Food Chain (FASFC). *African Swine Fever Among Wild Boars in Belgium*. Enclosure to Official Letter of March 6, 2019.

19. Author not provided. *Evaluation of disease control in the ASF-infected territory*. Enclosure to Official Letter of March 6, 2019.

20. Wallonia Public Service and University of Liege. PowerPoint presentation *ASF-WB management in Belgium*. Presented and obtained on the APHIS/CFIA site visit to Belgium, September 2019.