Annual Report

April 1, 2024 to March 31, 2025

CanSpotASF

Enhanced surveillance activities to protect the commercial swine sector from the impacts of African swine fever

This report provides information on CFIA ASF passive regulatory surveillance and CanSpotASF

CONTENTS

LIST OF ACRONYMS

Acronyme (EN/FR)	Organization name	Nom de l'organisation
AAFC/AAC	Agriculture and Agri-Food Canada	Agriculture et Agroalimentaire Canada
AHC/SAC	Animal Health Canada	Santé animale Canada
ASF/PPA	African swine fever	Peste porcine africaine
ASF EMB/CEG- PPA	ASF Executive Management Board	Conseil exécutif de gestion de la PPA
CAHSN/ RCSZ	Canadian Animal Health Surveillance Network	Réseau canadien de surveillance zoosanitaire
CAHSS/SCSSA	Canadian Animal Health Surveillance System	Système canadien de surveillance de la santé animale
CASV/ACVP	Canadian Association of Swine Veterinarians	Association canadienne des vétérinaires porcins
CAVP/ACPV	Canadian Association of Veterinary Pathologists	Association canadienne des pathologistes vétérinaires
CBSA/ASFC	Canadian Border Services Agency	Agence des services frontaliers du Canada
CFIA/ACIA	Canadian Food Inspection Agency	Agence canadienne d'inspection des aliments
CSHIN/RCSSP	Canadian Swine Health Intelligence Network	Réseau canadien de surveillance de la santé porcine
CPC/CCP	Canadian Pork Council	Conseil canadien du porc
CWSHIN	Canada West Swine Health Intelligence Network	
ECCC	Environment and Climate Change Canada	Environnement et Changement climatique Canada
NCFAD/CNMAE	National Centre for Foreign Animal Disease	Centre national des maladies animales exotiques
OAHN	Ontario Animal Health Network	Réseau ontarien pour la santé animale
RAIZO		Réseau d'alerte et d'information zoosanitaire

EXECUTIVE SUMMARY

CanSpotASF is enhancing the passive surveillance system for early detection of African swine fever (ASF) in swine in Canada. It is part of a complete ASF preparedness and planning system supported by the ASF Executive Management Board (EMB), now known as the ASF Leadership Team (created June 2025), a joint initiative of the swine sector and federal/provincial/territorial (FPT) governments.

The purpose of this report is to describe the fifth year of the CanSpotASF program. The intended audience is Canadian stakeholders in the swine sector and governments. The time period for the CanSpotASF Year 5 Annual Report was April 1, 2024, through March 31, 2025. Previous work (CanSpotASF Years 1, 2, 3, 4) are detailed within the AnimalHealthCanada.ca/CanSpotASF quarterly and annual reports page.

For surveillance purposes, the Canadian swine population can be functionally categorised into three distinct populations; domestic-commercial; domestic-smallholding and invasive wild pigs. Surveillance for ASF in these populations aims to be risk-based. A stepwise approach to the implementation of different surveillance tools (components) has been developed.

Overall, the national ASF surveillance in Canada has two elements/parts: The Canadian Food Inspection Agency (CFIA) passive surveillance where all suspicions of ASF must be reported to the Veterinary authority (CFIA) and the extension where a rule-out test for ASF may be performed (Fig 1).

CanSpotASF expands reach of the surveillance by encouraging vigilance and timely sampling across the industry through promoting awareness, standardizing diagnostic procedures, and facilitating consistent data analysis.

As of March 2025, as described in figure 1, ASF surveillance in Canada was comprised of passive regulatory surveillance reportable to the Canadian Food Inspection Agency (CFIA) and three (3) surveillance tools under CanSpotASF: risk-based testing at approved animal health laboratories, risk-based sampling at abattoirs, and risk-based surveillance in invasive wild pigs.

CanSpotASF thereby serves as a strategic extension of CFIA regulatory passive surveillance, improving the sensitivity and responsiveness of Canada's overall ASF surveillance system. Its activities directly contribute to the core objectives of the national ASF surveillance: early detection of disease, rapid containment of potential incursions, and the continued demonstration of Canada's ASF-free status to trading partners and stakeholders.

ASF has been a federally reportable disease in Canada since 1991. As such, all suspect cases must be reported to the CFIA for further investigation. This requirement, referred to as passive regulatory surveillance aligns with the World Organization for Animal Health (WOAH) international standards.

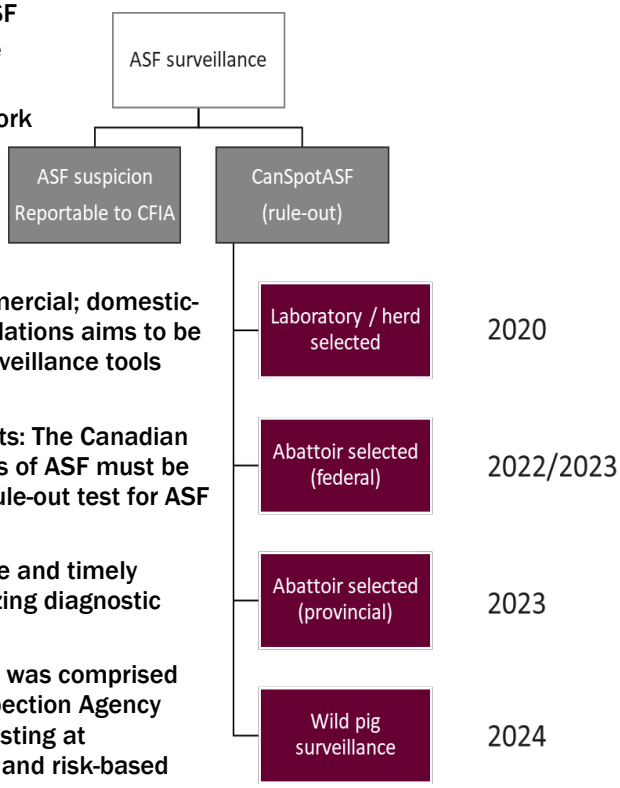


Figure 1: Canada's overall ASF surveillance structure. (*Provided by Dr. Jette Christensen*)

The first CanSpotASF tool, risk-based surveillance through early detection testing at approved laboratories started as a pilot project in August 2020 and is now routinely applied in all provinces. It centers on proactive testing of samples collected through routine diagnostic activities at animal health laboratories. Because the clinical signs of ASF can be mistaken for common diseases of swine, and because ASF can be slow-moving and insidious, ASF testing of certain cases, referred to as eligible cases, at approved laboratories offers an opportunity for rule-out testing for ASF.

The next tool, risk-based detection testing of condemned carcasses started in April 2022, with sampling occurring federally inspected abattoirs. Uptake in participation in provincial abattoirs has occurred at different times since. The tool focuses on utilizing abattoir inspection staff to collect samples for ASF rule-out testing on full carcass condemnations under specific condemnation codes.

The newest tool, risk-based surveillance testing of invasive wild pigs was officially implemented in July 2024. It aims to monitor and assess the potential risk of ASF introduction and spread through targeted sampling and

testing of invasive wild pigs. Since its official launch, samples have been collected and tested from all regions, contributing to a proactive surveillance framework.

This annual report includes 2024-2025 surveillance results for the regulatory passive surveillance, and CanSpotASF (risk-based surveillance through approved laboratory testing, abattoir testing, and invasive wild pig testing) along with an overview of CanSpotASF activities completed in 2024-2025.

KEY RESULTS

Between April 1, 2024, and March 31, 2025, a total of 984 cases were tested for ASF. All cases were negative. Of these, 3 were completed as part of CFIA investigations. There were 289 rule-outs as part of Approved Laboratory Surveillance, 556 rule-outs from abattoirs and 136 in the Invasive Wild Pig Surveillance.

KEY ACHIEVEMENTS FOR 2024-2025:

- Completed the fifth year of risk-based testing of eligible cases at approved laboratories.
- Completed the third year of risk-based sampling of condemned carcasses at participating federal and provincial abattoirs.
- Launched the risk-based surveillance testing of invasive wild pig.
- Conducted and completed the CanSpotASF epidemiological surveillance evaluation through an independent consultant.
- Validated and prioritized recommendations by the Technical Committee, based on the independent consultant's epidemiologic surveillance evaluation document.
- Developed and distributed a one pager information poster for abattoir inspectors.
- Published the newly revised technical documents and resources including technical documents for invasive wild pig testing.
- Continued to report surveillance results through the Canadian Swine Health Intelligence Network (CSHIN) and regional swine surveillance networks.
- Promoted and provided resources on CanSpotASF at events. For example, 2025 Banff Pork Seminar, 2024 Animal Health Canada Forum, 2024 Canadian Animal Health Laboratorians Network (CAHLN) Annual Meeting.

BACKGROUND

African swine fever (ASF) is a serious disease in swine. Canada is an ASF-free country, however, spread of ASF in other regions of the world since 2018 created heightened risk of disease introduction. The detection of ASF in Canada would have significant and immediate impacts (i.e. border closure with immediate stoppage of trade activities). Early detection provides the greatest opportunity to limit the scale and economic impact of an outbreak should one occur in Canada.

In 2019, the CFIA, along with other government agencies and the swine sector, created the ASF Executive Management Board (EMB), a collaborative ASF preparedness planning group. The primary focus of the EMB was to bring together federal, provincial, and territorial (FPT) governments and swine sector representatives to provide guidance on ASF preparedness, including surveillance for ASF in Canada (Appendix 1, Figure A1).

The EMB identified surveillance as a priority. In 2019, it created a working group consisting of federal and provincial governments, swine sector, academic, and animal health laboratory representatives to:

1) Describe existing surveillance initiatives in Canada;

2) Determine whether additional surveillance was required in domestic and/or wild populations; and

3) Provide recommendations regarding surveillance objectives and activities for both domestic and wild pig populations.

This working group produced a recommendation paper in October 2019 (*African Swine Fever: Surveillance Working Group Recommendations*). As a result, a collaborative working group made up of technical experts from federal and provincial governments, the swine sector and academia, which leveraged existing swine surveillance infrastructure, was formed in January 2020 to champion activities enhancing ASF surveillance. It was named the CanSpotASF Technical Committee (TC). The TC remained active in the fifth year of the CanSpotASF program.

SURVEILLANCE OBJECTIVES AND PRIORITIES

The Canadian national ASF surveillance system includes passive regulatory surveillance (passive surveillance) and enhanced surveillance activities aimed at protecting the commercial swine sector from the impacts of ASF.

CanSpotASF enhances early detection, supports Canada's claim of ASF-free status in domestic pigs, and provide surveillance in invasive wild pigs

CanSpotASF is designed as a peacetime surveillance system, but it may support capacity building for increased surveillance should there be an ASF outbreak in Canada.

OBJECTIVES

The objectives of CanSpotASF are to improve early detection testing for ASF and to support the claim that Canada's swine sector is free of ASF, which is a key element in international swine trade negotiations.

The TC recognized the need to clearly define the program's early detection objective. To address this and in response to a recommendation from an independent consultant, the TC developed the CanSpotASF Early Detection Goal document, which outlines the program's primary early detection objective in detail. See Appendix B (page 25) for the full document.

SURVEILLANCE PRIORITIES AND PLAN

To establish immediate priorities for CanSpotASF, the TC developed a list of ASF management and surveillance options that could be applied to Canada's domestic and wild pig populations; surveillance objectives and, an inventory of existing work being undertaken by various groups across Canada.

As such, the following priorities were identified:

GOVERNANCE AND MANAGEMENT PRIORITIES

1. Develop terms of reference for the TC.
2. Develop communications and a reporting structure for CanSpotASF.

SURVEILLANCE PRIORITIES

3. Continue the mandatory CFIA passive regulatory surveillance.
4. Establish risk-based ASF testing of eligible cases at approved laboratories.
5. Establish risk-based ASF testing of eligible abattoir condemnations.
6. Develop and implement a process for risk-based ASF testing of eligible wild pig populations.
7. Initiate and complete epidemiological surveillance report to demonstrate value of the program by an independent consultant.
8. Review the recommendations provided by the independent consultant that conducted the CanSpotASF epidemiological surveillance evaluation.
9. Strengthen engagement with smallholdings and veterinarians in ASF prevention and preparedness.
10. Assess risk of ASF introduction and transmission to and between commercial, smallholdings and wild pig populations.

Priorities 1 through 4 were completed in Year 1 (2020-2021). Planning for priority 5 occurred in Year 2 (2021-2022) and was completed in Year 3 (2022-2023). Planning for Priority 6 occurred in Year 4 (2023-2024 and was completed in Year 5 (2024-2025). Planning for Priority 7 was initiated in Year 4 (2023-2024) and was completed in Year 5 (2024-2025). Priority 8 was initiated by the Technical Committee (TC) following the completion of the epidemiological surveillance evaluation, and it is still ongoing at the time of this report.

Given the stepwise nature of the planned implementation for the CanSpotASF program, work continued with priority 9.

There have been some initiatives on priority 10. Canada-West Swine Health Intelligence Network (CWSHIN) is one of the regional networks that works closely with CSHIN and has resources to support CanSpotASF on priority 10. In March 2022 (Year 3), a risk analysis on introduction of ASF into the western provinces was completed and shared with CanSpotASF TC.

PROGRESS ON GOVERNANCE AND MANAGEMENT PRIORITIES

GOVERNANCE

Terms of reference have been in place since 2020 and include a description of the communication and reporting structure. Since 2020, the Technical Committee has established a number of active working groups (Appendix C which includes the list of members). The governance structure remained in place throughout 2024-2025 without substantial changes.

COMMUNICATION

The Technical Committee identified communications as a critical part of any collaborative national surveillance initiative, including CanSpotASF. As such, the communications working group was tasked with developing communication processes and producing and distributing needed communication materials. Public communications documents were posted on the Animal Health Canada website AnimalHealthCanada.ca/CanSpotASF in both English and French. Several documents and resources have been created, updated and published in 2024-2025.

Table 1: Selected CanSpotASF communications documents and activities

Document	First Published	Last Updated
Risk-based early detection at abattoirs: Technical document	Feb 2022	May 2024
Risk-based early detection at abattoirs: Information for plant managers	Mar 2022	May 2024
CanSpotASF 4th Annual Report (2023/2024)	Nov 2024	Jan 2025
Risk-based early detection at approved laboratories: Technical document	Jun 2020	Sept 2024
Risk-based early detection at approved laboratories: Information for veterinarians	Jun 2020	May 2024
Risk-based early detection at approved laboratories: Information for producers	Jun 2020	May 2024
CanSpotASF Surveillance of African Swine Fever in Canada: One page overview	Jun 2020	May 2024
Surveillance for African Swine Fever in Invasive Wild Pigs in Canada	May 2024	-
Risk-based early detection at abattoirs: Infographic Information for Abattoir Inspectors	July 2024	-

2024-2025 Communications activities	Provider	Date
Quarterly surveillance updates (regional and national calls and reports	CSHIN, CWSHIN, OAHN, RAIZO, Atlantic	Quarterly
Update to the ASF EMB	Emergency Management Project Lead AHC	Feb 2025

REPORTING

Quarterly surveillance reports were compiled by the regional swine networks (Atlantic, OAHN, RAIZO, CWSHIN) and the Canadian Swine Health Intelligence Network (CSHIN) (Figure 2). Approved Canadian Animal Health Surveillance Network (CAHSN) laboratories across Canada supplied ASF test data to the regional swine networks which compiled the results. CSHIN brought these results together and produced a single national quarterly report. This information was shared at quarterly regional network and scheduled CSHIN calls.

The new CSHIN website is now launched and can be found at this link. The new website has improved access to CanSpotASF and other CSHIN-related data. The new website includes a password-protected veterinarian login for access to more targeted information for this audience, along with improved navigation and easier access to publicly available CanSpotASF data and resources. This updated design is intended to better meet stakeholder needs, with a particular focus on enhancing support for CanSpotASF reporting and information sharing.

Reporting structure for CanSpotASF Approved Laboratory Testing through Canadian Swine Health Intelligence Network (CSHIN).

- The Canadian Swine Health Intelligence Network (CSHIN) provides functional model for surveillance without sharing standardized information.
- CSHIN collects, collates, and summarizes ASF-testing information from the 4 regional networks: CWSHIN (Western Provinces), OAHN (Ontario), RAIZO (Quebec), and the Atlantic Provinces.
  - Each regional network sends ASF-testing summaries to CSHIN.
  - CSHIN reports quarterly on national CanSpotASF testing numbers for each region/province throughout Canada. These numbers are published in the CSHIN quarterly veterinary reports which can be accessed through the CSHIN website portal for veterinarians. Animal Health Canada also includes an annual summary on CanSpotASF numbers in the annual report which is located on the CanSpotASF page on the Animal Health Canada website.
- CSWHIN collects, collates, and summarizes the ASF-testing and the eligible cases from 4 regional laboratories in 4 provinces. The ASF-testing summary is included in the regional quarterly reports.
- OAHN collects, collates and summarizes the ASF-testing and the eligible cases from 1 regional laboratory in Ontario. The ASF-testing summary is included in the regional quarterly reports.
- RAIZO collets, collates, and summarizes the ASF-testing and the eligible cases from 1 regional laboratory in Quebec. The ASF-testing summary is included in the regional quarterly reports.
- The Atlantic representative collects, collates and summarizes the ASF-testing and the eligible cases from three Maritime provinces. The ASF-testing summary is included in the regional quarterly reports.

Figure 2. Surveillance results reporting structure for CanSpotASF Approved Laboratory Testing through CSHIN

This Annual Report was compiled by the TC and included separate sections focused on.

I. Management reporting including governance, planning, implementation, finances, and communications and;
II. Annual surveillance results reporting including regulatory passive surveillance, risk-based approved laboratory surveillance, risk-based abattoir surveillance and risk-based invasive wild pig surveillance.

SURVEILLANCE ACTIVITIES

ONGOING SURVEILLANCE ACTIVITIES

Regulatory Passive Surveillance

As part of Canada's passive regulatory surveillance program, any suspected cases of African swine fever (ASF) must be reported to the CFIA immediately for follow-up investigation.

In fiscal year 2024-2025, there were 3* situations that resulted in ASF samples being collected as part of regulatory passive surveillance activities, in the provinces of Quebec, Ontario and Alberta. Triggers for investigation included: suspicion raised by CAHSN laboratories (n=1), and suspicion of ASF raised at time of slaughter (n=2). In all situations, samples were referred to NCFAD for PCR testing, and ELISA testing when serum samples were available from live animals. **All testing yielded negative results.**

In June 2024, a case in Quebec was triggered by suspicion at a federal abattoir after extensive hemorrhagic lesions were detected in one pig carcass during antemortem inspection. No similar lesions were observed in other pigs from the same shipment. Samples, including tissues from the suspect carcass and blood/serum from eight live animals from the same farm, were submitted to the NCFAD for testing. Both ASF PCR (nine samples) and ASF ELISA (eight samples) tests were conducted.
In October 2024, a case from Ontario originated as a referral from a CAHSN laboratory due to neurological signs in day-old piglets falling over, inability to stand, and failure to nurse. The sows showed no illness, and three piglets were sent for postmortem examination at the Animal Health Laboratory (AHL). While a nutritional or metabolic cause was suspected, ASF and classical swine fever (CSF) were ruled out. ASF PCR testing (three samples) returned negative results.
In March 2025, a case in Alberta was triggered by suspicion at a federal abattoir where a pig with bloody diarrhea died in its pen. Tissue and swab samples from the animal were submitted for testing, and ASF PCR (three tests) was performed.

*Note: this was not officially logged as a disease investigation as the intent of the submitter was for the submission to be made under the CanSpotASF abattoir surveillance program, but it entered into the laboratory system as a disease investigation.

RISK-BASED EARLY DETECTION AT APPROVED LABORATORIES

Testing of eligible cases at approved laboratories, which started in August 2020, continued throughout the 2024-2025 reporting period. Between April 1, 2024, and March 31, 2025, 289 cases had been tested with 9 in the Maritimes, 76 in Quebec, 89 in Ontario and 115 in the west. **All results were negative.**

RISK-BASED EARLY DETECTION AT ABATTOIRS

The abattoir working group, formed in December 2020, continued to work throughout the period for early detection surveillance at abattoirs using risk-based testing of certain full carcass condemnations. Abattoir inspection staff have been engaged and trained to collect non-suspect swine samples for ASF rule-out testing under specific condemnation codes. The technical documents developed by the working group were reviewed and published on the animalhealthcanada.ca/CanSpotASF web page to allow for more flexibility of language in relation to the eligibility criteria to increase sample submissions.

A one-page information poster for abattoir inspectors was developed and distributed among all the participating provincial abattoirs in Canada to enhance the understanding and awareness of ASF risks. The

poster provides a quick and accessible reference, helping ensure consistent understanding and implementation of the program and sample submission and reporting protocols across all participating provincial abattoirs in Canada.

Over the course of 2024-2025, federally inspected abattoirs made the commitment to continue to participate in abattoir surveillance. Federal inspection staff continued to receive training on eligibility criteria and on how to collect and submit samples to approved laboratories for testing. As of March 31, 2025, 461 cases had been tested from federally inspected abattoirs and 95 cases from provincially inspected abattoirs. A total of 556 cases had been tested. **All results were negative.**

Participating provinces completed significant work on outreach to abattoir managers regarding the surveillance at provincially inspected abattoirs. Training of provincial inspection staff also occurred throughout 2024-2025.

RISK-BASED SURVEILLANCE TESTING OF INVASIVE WILD PIG

In July 2024, the invasive wild pig surveillance component of CanSpotASF was launched, marking a significant expansion of Canada's African swine fever (ASF) early detection efforts. Development of this component within CanSpotASF was done through collaboration between federal and provincial wildlife organisations, provinces, approved laboratories, CSHIN and other regional networks and CanSpotASF. This component includes wild pigs as well as all escaped domestic pigs that are captured and slaughtered.

This initiative aims to monitor for signs of ASF in invasive wild pig populations. Wild pigs may become a reservoir for ASF if the disease were to be introduced to Canada either first in wild pigs or as a result of transmission from domestic pigs. The initiative was a collaboration between federal and provincial lead organizations working on invasive wild pig management. The key activities included training in sample collection, and reporting procedures. It initiated surveillance in wild pigs nationally, with criteria developed in provinces with established populations to target the highest risk areas, and engaging wildlife agencies such as Canadian Wildlife Health Cooperative.

This wild pig surveillance enhances Canada's readiness by laying strong foundations for sample collection, submission and testing in an ASF response, building networks for collaboration during a response, and supports a coordinated, cross-sectoral approach to ASF prevention and preparedness. The technical document developed by the invasive wild pig working group outlining the invasive wild pig monitoring activities (such as Squeal on Pigs) and protocols for ASF testing in invasive wild pigs has been published and can be found on animalhealthcanada.ca/CanSpotASF page.

Official testing of eligible cases of invasive wild pigs started in July 2024, continued throughout the 2024-2025 reporting period. Between July 2024, and March 2025, 136 cases had been tested with none in the Maritimes, 14 in Quebec, 2 in Ontario and 120 in the west. All results were negative.

INDEPENDENT EPIDEMIOLOGIC EVALUATION OF CANSPOTASF

Between May and December 2024, an independent epidemiologic evaluation of the CanSpotASF surveillance program was conducted to assess its effectiveness in achieving program objectives and to identify opportunities to improve its overall efficiency.

Animal Health Canada (AHC), through the CanSpotASF Technical Committee, contracted Ausvet, an Australian epidemiology firm, to conduct the evaluation. The evaluation involved an analysis of the program data, consultations with key stakeholders, and a comprehensive review of surveillance processes. In their final report, Ausvet outlined the program's key strengths and limitations and provided practical recommendations for improvement.

Findings were presented to the ASF Executive Management Board, the CanSpotASF Technical Committee, and AHC leadership on December 3, 2024. The evaluation further affirmed the significance of the program and outlined a path to strengthen CanSpotASF as an essential component of Canada's ASF preparedness and response efforts.

The evaluation was supported through funding from the Canadian Food Inspection Agency's Federal Assistance Program and the Sustainable Canadian Agricultural Partnership.
The summary of the Ausvet report can be found on the animalhealthcanada.ca/CanSpotASF reports page.

VALIDATION AND PRIORITIZATION OF AUSVET'S CANSPOTASF EPIDEMIOLOGIC SURVEILLANCE RECOMMENDATIONS BY THE TECHNICAL COMMITTEE

At the end of the 2024-2025 reporting period, the Technical Committee undertook a structured review process to validate and prioritize the recommendations presented in the independent consultant's epidemiologic surveillance analysis report. The goal was to rank these recommendations based on their urgency and potential immediate impact on strengthening the CanSpotASF surveillance program. This process ensured that proposed improvements are both evidence-based and aligned with the program's strategic objectives.

In addition, the review aimed to recommend appropriate individuals or teams to lead the implementation of each recommendation and to establish a systematic approach for tracking and reporting progress on the evaluation's outcomes. The prioritized recommendations will guide future enhancements and strategic planning efforts.

COMBINED SURVEILLANCE RESULTS FROM 2020/2021-2024/2025

The combined CanSpotASF activities from 2020/2021—2024/2025 resulted in testing of animals through passive regulatory surveillance (23), risk-based approved laboratory testing (1235), risk-based abattoir testing (1427) and risk-based invasive wild pig testing (136). **All test results were negative.** These surveillance activities collectively served to enhance early detection if there were to be a disease incursion, and the negative results support Canada's continued claim that the swine sector remains free of ASF. The combined surveillance results are presented In Table 1.

The definition of a case differed by surveillance component. In the passive surveillance a case was a premises (herd); in the rule-out testing at laboratories a case was assigned by the laboratory as all samples from one premises submitted on the same date; in the abattoir sampled component a case was a carcass, and in the invasive wild pig component a case was a carcass.

Table 1: Combined Surveillance results from 2020/2021 to 2024/2025

Surveillance component (Tool)	Definition of a case	Region	Cases tested for ASF by fiscal year ALL tested negative for ASF					Cumulative
			2020/21	2021/22	2022/23	2023/24	2024/25	
Passive regulatory surveillance	CFIA-Led Case Investigations	Maritimes	0	0	0	0	0	0
		Quebec	0	2	0	0	1	3
		Ontario	8	0	4	1	1	14
		Western Provinces*	1	3	0	1	1	6
Rule-out testing: herds, laboratories	Case ID assigned by laboratory based on date of submission and premises	Maritimes	1	15	6	9	9	40
		Quebec	51	112	96	87	76	422
		Ontario	17	60	123	86	89	375
		West Provinces*	21	110	82	70	115	398
Rule-out testing: federal abattoirs	Carcass	Maritimes (no federal abattoirs for swine)						
		Quebec	na	na	57	61	62	180
		Ontario			39	90	123	252
		West Provinces*			239	224	276	739
Rule-out testing: provincial abattoirs		Maritimes			1	2	1	4
		Quebec			15	15	10	40
		Ontario			0	15	37	52
		West Provinces*			35	78	47	160
Rule-out testing: Invasive wild pigs	Carcass	Maritimes	-	-	-	-	0	0
		Quebec	-	-	-	-	14	14
		Ontario	-	-	-	-	2	2
		West Provinces*	-	-	-	-	120	120
Subtotal			99	302	697	739	984	2821

Note: "Case" could be described as a unit of interest.
Disclaimers:

- CanSpotASF is a voluntary program.
- The methodology used to calculate these numbers may differ amongst the reporting networks.
- CanSpotASF testing isn't indicative of wild pig numbers in regions/provinces where this data was captured.
- Western Provinces* are Manitoba, Saskatchewan, Alberta, British Columbia.
- Official testing of eligible cases of invasive wild pigs started in July 2024.

FINANCIAL UPDATE

CanSpotASF had no budget and funding but relied on in-kind contributions from stakeholders in a public-private partnership.

Governance, management, reporting and activity planning for CanSpotASF were funded through in-kind contributions of federal and provincial governments, the swine sector, swine health intelligence networks, and Animal Health Canada. Federal and provincial governments provided in-kind contributions to train federal and provincial inspection staff.

Federal and provincial governments provided the funding for approved laboratory sample testing.

We acknowledge that the actual cost for testing samples at laboratories was very limited compared to the in-kind contribution in form of time commitment (salary) from federal and provincial governments (including swine health experts, abattoir staff etc.), the swine sector, swine health intelligence networks, and Animal Health Canada.

The CanSpotASF epidemiological surveillance evaluation was funded by the Canadian Food Inspection Agency Federal Assistance Program and Sustainable Canadian Agricultural Partnership.

CURRENT 3-YEAR PLAN

In March 2023, the CanSpotASF TC developed a forward-looking 3-year plan (Figure 3).

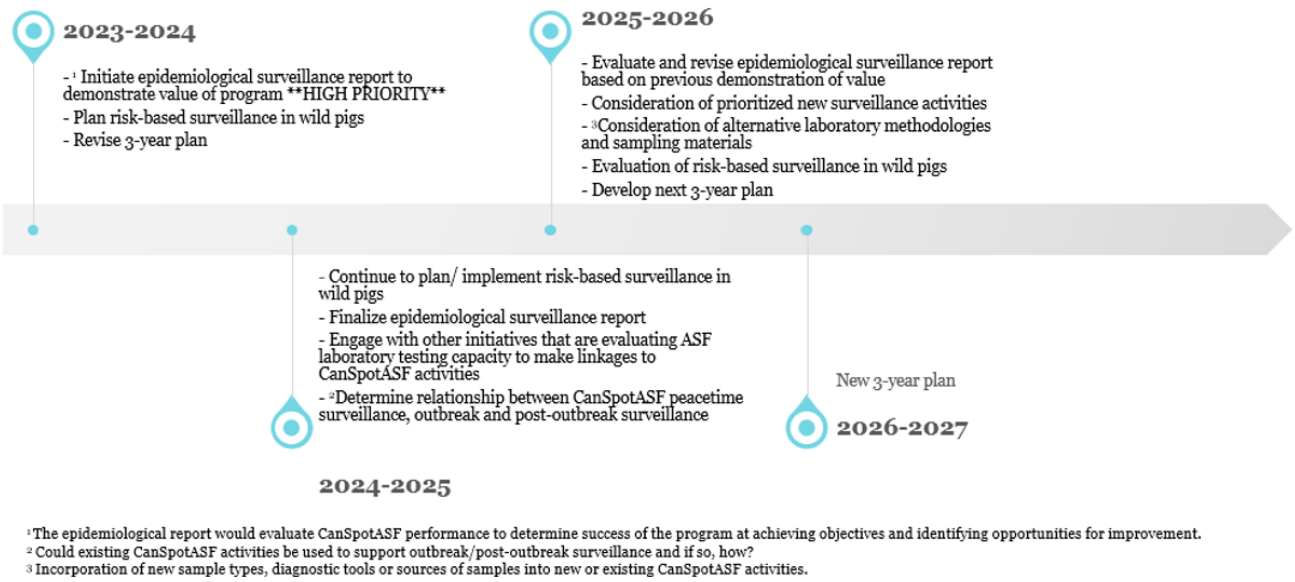


Figure 3. CanSpotASF Current 3-Year Plan

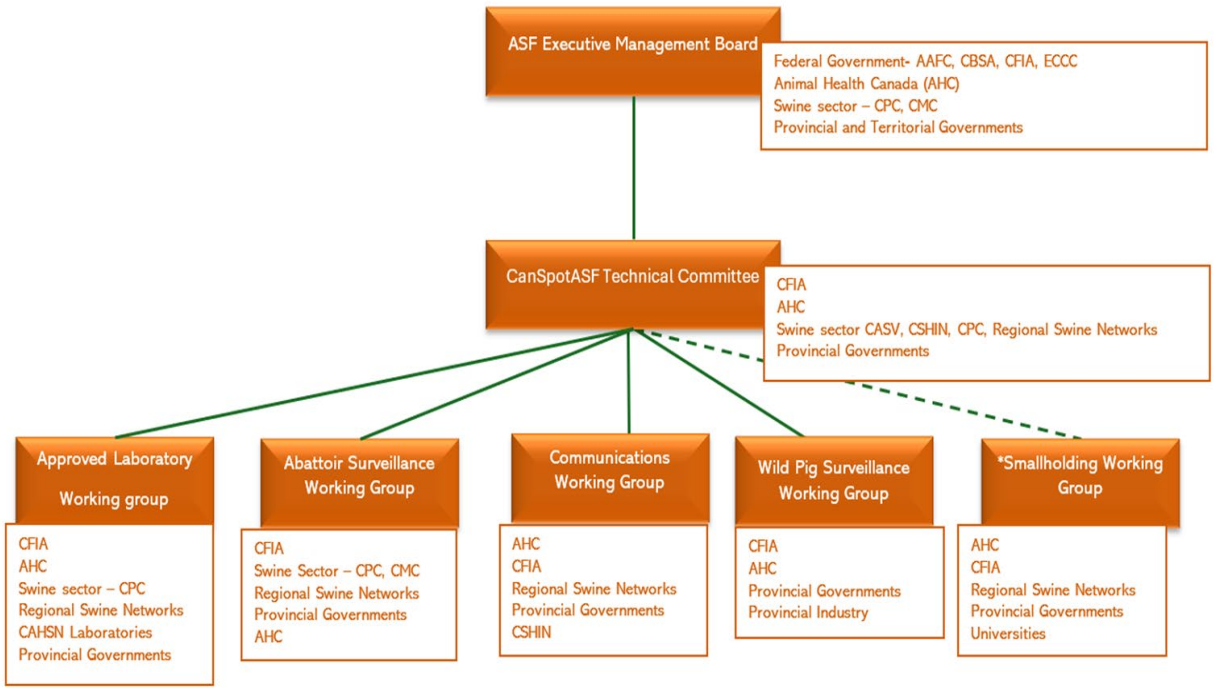
2025 – 2026 GOALS

Based on the CanSpotASF 3-year plan, the future deliverables for 2025-2026 are as follows:

1. Continue the passive regulatory surveillance.
2. Continue risk-based early detection testing at approved laboratories.
3. Continue the risk-based early detection sampling at abattoirs.
4. Continue the risk-based surveillance in invasive wild pig.
5. Continue surveillance results reporting through CSHIN and the regional swine networks.
6. Continue the work of the smallholding working group and the efforts to address priorities.
7. Continue to increase awareness and outreach of program to veterinarians, small holders and other relevant stakeholders.
8. Update CanSpotASF technical documents as necessary.
9. Finalize the validation and prioritization of the recommendations provided by Ausvet.
10. Present the outcome of the TC's validation and prioritization review process to the ASF EMB.
11. Identify specific individuals or teams to effectively address Ausvet recommendations.
12. Develop a systematic process to track and report progress on addressing the evaluation recommendations.
13. Evaluate options for incorporating new sample types into existing activities.
14. Evaluate opportunities for and feasibility of potential expansion of program to include other pathogens.
15. Evaluate and revise 3-year plan.

APPENDIX A:

Figure 1. Organizational structure of CanSpotASF under the ASF Executive Management Board



AAFC	Agriculture and Agri-Food Canada
AHC	Animal Health Canada
CAHSN	Canadian Animal Health Surveillance Network
CAHSS	Canadian Animal Health Surveillance System
CASV	Canadian Association of Swine Veterinarians
CBSA	Canadian Border Services Agency
CFIA	Canadian Food Inspection Agency
CSHIN	Canadian Swine Health Intelligence Network
CPC	Canadian Pork Council
ECCC	Environment and Climate Change Canada
Regional swine networks	Atlantic network, Ontario Animal Health Network (OAHN), Réseau d'alerte et d'information zoosanitaire (RAIZO), Canada-West Swine Health Intelligence Network (CWSHIN)

*Smallholding working group works on ASF specific and broader priorities and links to CanSpotASF TC on specific matters relevant to ASF surveillance planning

Table A1. Federal condemnation codes that are eligible for ASF testing

Code	Description
930c	Septicemia
435	Erysipelas
574, 575	Hemorrhage*
051	Bruising
571	Pericarditis
577	Pleuritis

As condemnation codes used at abattoirs vary across provincial jurisdictions, the federal codes listed in Table A2 were mapped to eligible provincial condemnation codes for each province in Appendix 1, Table A2.
**(ecchymosis or petechial: condemnation codes: 574,575), where no underlying cause can be found (e.g. malfunctioning stunning device, this is common in poor electrical stunning*

Table A2. Eligible condemnation codes for testing by Province

Eligible provincial condemnation code	Maps to eligible federal condemnation code
Alberta	
Bruising	Bruising
Congestion	Septicemia
Cyanosis	Septicemia
Erysipelas	Erysipelas
Erythema	Septicemia
Hematoma	Bruising
Hemorrhage (Major)	Bruising
Hemorrhage (Petechial)	Septicemia
Hemorrhage / Splash (Ecchymotic)	Septicemia
Infarct	Septicemia
Pericarditis	Pericarditis
Pleuritis	Pleuritis
Septicemia	Septicemia
Toxemia	Septicemia
British Columbia	
Bruising	Bruising
Erysipelas	Erysipelas
Pericarditis	Pericarditis
Pleuritis	Pleuritis
Septicemia	Septicemia
Manitoba	
Bruising	Bruising
Erysipelas	Erysipelas
Pericarditis	Pericarditis
Pleuritis	Pleuritis
Septicemia/Toxemia/Congestion	Septicemia

Eligible provincial condemnation code	Maps to eligible federal condemnation code
Nova Scotia	
Bruising	Bruising
Congestion	Septicemia
Diamond Skin Disease	Erysipelas
Erysipelas	Erysipelas
Hemorrhagic Disease	Septicemia
Pericarditis	Pericarditis
Pleuritis	Pleuritis
Pyrexia (Fever)	Septicemia
Septicaemia	Septicemia
Septicaemia /Toxemia /Congestion	Septicemia
Splenic Torsion	Septicemia
Toxemia	Septicemia
Ontario	
Bruising	Bruising
Erysipelas	Erysipelas
Pericarditis	Pericarditis
Pleuritis	Pleuritis
Septicemia	Septicemia
Toxemia	Septicemia
Quebec	
Contusions 051	Bruising
Erysipèle 435	Erysipelas
Péricardite 571	Pericarditis
Pleurésie 577	Pleuritis
Purpura hémorragique 102	Septicemia
Pyrexie 113	Septicemia
Septicémie 930	Septicemia
Saskatchewan	
Cyanosis	Septicemia
Erysipelas	Erysipelas
Pleuritis	Pleuritis
Pericarditis	Pericarditis
Septicemia/Toxemia/Congestive Syndrome	Septicemia
Splenic Torsion	Septicemia

APPENDIX B:

CanSpotASF goal

September 2025

Developed by Jette Christensen and Glen Duizer

The primary objective of CanSpotASF is risk-based early detection of ASF to protect the commercial swine sector from the associated impacts of this disease. Other objectives of CanSpotASF include providing evidence of freedom from ASF and to ease the transition to outbreak surveillance if a positive ASF case is detected in Canada.

Introduction

The goal of CanSpotASF was discussed and stated in 2020 before testing in the first component started and it has remained unchanged (2020 to 2025). The stated goal was to protect the commercial domestic swine sector from adverse effect of ASF on production and trade therefore

The 1st priority was early detection, and (2nd) we should be ready to document freedom very quickly if required for trade

Early detection surveillance should be risk-based and consider factors such as

- Where the risk of introduction may be high (borders, feed, swill etc.)
- Where ASF could spread undetected?

The 2024 evaluation of CanSpotASF questioned if CanSpotASF met the goal of early detection and recommended: "*Further evaluation is required to determine whether CanSpotASF is meeting the surveillance objective of early detection*". When the CanSpotASF Technical Committee discussed the evaluation outcomes it was recommended that

- A refined or clarified definition for early detection in the context of ASF to be developed.
- Re-examine the stated goal of CanSpotASF (early detection versus disease freedom).

Therefore, the objective here is to re-examine and clarify the surveillance goal of CanSpotASF.

Risk-based surveillance

CanSpotASF is risk-based surveillance based on health because it targets the subpopulations with signs of clinical disease (Christensen et al 2024), or it targets the subpopulation of wild pigs where ASF may be undetected (Table).


Preventive Veterinary Medicine
Volume 226, May 2024, 106196

Lessons from CanSpotASF: Moving towards risk-based African Swine Fever surveillance with rule-out testing in Western Canada

Jette Christensen, Yonyun Huang, Glen Duizer

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https://doi.org/10.1016/j.prevetmed.2024.106196

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Selection criteria for surveillance	Targets herds/animals with	Risk-based surveillance
Clinical signs / problems in herds	Increased mortality or increased abortion rates. Eligible differential diagnosis	Based on health
Differential diagnosis such as PRRS, hemorrhagic presentation etc.	Eligible laboratory diagnosis	Based on health
Ante mortem condemnation	Eligible condemnation codes at federal and provincial abattoirs such as dead-on-arrival	Based on health
Found dead or captured wild pigs	Wild pigs	Based on sub-population of wild pigs

Early detection

Ideally, to increase the likelihood of detecting a disease early in an outbreak or epidemic of ASF would require observation / testing of the first affected animals or herds as early as possible. In a perfect system, the first ASF infected animal(s) would be detected when the first clinical signs occur.

However, for ASF, that is not realistic, because there are numerous differential diagnoses that could mask ASF occurrence, and the disease is likely to spread slowly from animal to animal at first. For example, we expect

- even with a high case-fatality rate the mortality caused by ASF may not increase the overall normal mortality in the herd the first week or two.
- disease that are differentials to ASF occur sporadic to endemic in Canada
- ASF has never been diagnosed in continental North America and is therefore not an expected disease or high on the list of differentials

Therefore, early detection of ASF is hard to achieve with typical surveillance methods such as (see table).

Selection method	Type of surveillance	Limitations
Detection by frequent random testing depend on prevalences and sample size	Clinical observation	Clinical observation by producers or herd vets would target health and mortality in general because ASF has many differential diagnoses.
	Virology (antigen detection)	Herd-prevalence and within herd prevalence are expected to be low (a few percent) in the early stages of an outbreak Frequency and sample size would have to be unrealistic large to detect ASF early for example within the first 2 weeks of an outbreak.
	Serology (antibody detection)	A substantial proportion of animals must have seroconverted and survived which is not likely to happen early on in an outbreak (for most strains)
Risk-based testing would target subpopulation at increased likelihood of ASF	Clinical observation	The subpopulations at highest likelihood of introduction of ASF (small-holders and wild pigs) would be hard to observe clinical with sufficient frequency and sample size to ensure early detection
	Virology (antigen detection)	Virological testing of mortality (=high likelihood) may be feasible for commercial, smallholders and wild pigs.
	Serology (antibody detection)	Seroconversion needed but not expected in early stages of an outbreak

CanSpotASF includes the most feasible combination of passive and active surveillance:

- Reporting of suspect clinical cases to the CFIA for regulatory response as ASF is a federally reportable disease (passive surveillance).
- Risk-based surveillance where clinical observations on target animals or herds include ASF as a potential differential diagnosis leading to active virological testing (with PCR) to rule-out ASF (CanSpotASF).
- Active virological testing (with PCR) of captured (killed, hunted etc.) wild pigs as part of provincial wild pig control/eradication programs (CanSpotASF)
- Testing of unexplained wild pig mortalities found on the landscape (passive surveillance)

CanSpotASF cannot be evaluated in isolation because it is an enhancement of the passive surveillance. The combination of surveillance components increased the awareness of ASF because it has brought ASF to the attention of producers, herd vets, abattoir- and laboratory staff as a differential for diseases that are endemic in Canada. The increased awareness is really the first and most important step towards early detection.

The next step was the increased testing for ASF. Without the option for a rule-out test, only testing as part of a full CFIA investigation would happen which would require a reported suspicion of ASF classified as high-risk in the investigation.

Therefore, our understanding is that CanSpotASF contributed to early detection mainly through increased awareness by producers, herd vets, abattoir- and laboratory staff and wildlife organizations but also by some increased risk-based surveillance.

Here we have a paradox because the result of CanSpotASF may be that we are more likely to detect ASF early through passive surveillance not necessarily in the rule-out testing.

References

WOAH Chapter 15

SURVEILLANCE STRATEGIES

1. INTRODUCTION

The *population* covered by *surveillance* aimed at detecting disease and *infection* should include domestic, captive wild, wild and feral suid *populations* within the country or *zone*. *surveillance* should be composed of random and non-random approaches using clinical, virological and serological methods appropriate for the *infection* status of the country or *zone*.

WOAH Terrestrial Code chapter 15

2 CLINICAL *SURVEILLANCE*

Clinical *surveillance* is the most effective tool for detecting ASF due to severe clinical signs and pathology associated with *infection* with ASFv. However, due to the clinical similarity with other diseases such as classical swine fever, porcine reproductive and respiratory syndrome and erysipelas, and those associated with porcine circovirus 2 *infection*, clinical *surveillance* should be supplemented, as appropriate, by serological and virological *surveillance*.

Clinical signs and pathological findings are useful for early detection; in particular, any *cases* where clinical signs or lesions suggestive of ASF are accompanied by high mortality should be investigated without delay.

Wild and feral suids rarely present the opportunity for clinical observation, but should form part of any *surveillance* scheme and should, ideally, be monitored for virus as well as antibodies.

Source: https://rr-asia.woah.org/app/uploads/2020/02/4-3-introduction-risk-

Risk-based: identifying sub-populations at greater risk of being infected and ensuring these are represented in a proportion greater than in the general population.

Appendix C:

CanSpotASF Technical Committee and Working Group members

2024-2025 CanSpotASF Technical Committee Membership

Amy Snow (chair)	Canadian Food Inspection Agency
Christa Arsenault (co-chair)	Government of Ontario
Chantal Proulx	Government of Quebec
Christian Klopfenstein	Canadian Association of Swine Veterinarians
Geneviève Côté	Government of Québec
Michelle Coombe	Government of British Columbia
Egan Brockhoff	Canadian Pork Council
Erica Charlton	Emergency Management/Animal Health Canada
Gabriela Guigou	Canadian Pork Council
Christine Pelland	Canadian Association of Swine Veterinarians
Glen Duizer	Government of Manitoba
Heather Arbuckle	Canadian Food Inspection Agency
Jette Christensen	Canada West Swine Health Intelligence Network
Kathleen Hooper-McGrevy	Canadian Food Inspection Agency
Klaus Noegel	Government of British Columbia
Sylvain St-Hilaire	Canadian Food Inspection Agency
Noel Harrington	Canadian Food Inspection Agency
Kenneth Roblesky	Government of British Columbia
Afolakemi Adeniji (Admin)	Emergency Management/Animal Health Canada

CanSpotASF Approved Laboratory Working Group Membership

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Aruna Ambagala	Canadian Food Inspection Agency
Boese Darren	Canadian Food Inspection Agency
Christa Arsenault	Government of Ontario
Erica Charlton	Emergency Management/Animal Health Canada
Egan Brockhoff	Canadian Pork Council
Glen Duizer	Government of Manitoba
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CanSpotASF Abattoir Working Group

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Chris Smith	Government of Saskatchewan
Christa Arsenault	Government of Ontario
Egan Brockhoff	Canadian Pork Council
Klaus Noegel	Government of British Columbia
Kenneth Roblesky	Government of British Columbia
Kristine Lewis	Canadian Food Inspection Agency
Glen Duizer	Government of Manitoba
Jorge Correa	Canadian Meat Council
Magalie Chenard	Government of Quebec
Maggie Jordan	Government of Alberta
Margeret McGeoghegan	Canadian Food Inspection Agency
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Shawna Bast	Government of Alberta
Khalil Sahtout	Government of Saskatchewan
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CanSpotASF Invasive Wild Pig Surveillance Working Group

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