Annual Report

for the period from April 1, 2020 to March 31, 2021

CanSpotASF

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

ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

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Disclaimer: Information in the CanSpotASF Annual Report is intended for regional and national stakeholders within Canada and is considered unofficial. The Canadian Food Inspection Agency remains the organization responsible for all official reporting about African swine fever.

ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

LIST OF ACRONYMS

Acronym (EN/FR)	Organization name (English)	Organization name (French)
AAFC/ AAAC	Agriculture and Agri-Food Canada	Agriculture et agroalimentaire Canada
ASF/PPA	African swine fever	Peste porcine africaine
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
ASF EMB	ASF Executive Management Board	
NFAHWC/CNSBEAE	National Farmed Animal Health and Welfare Council	Conseil national sur la santé et le bien-être des animaux d'élevage
OAHN	Ontario Animal Health Network	-
RAIZO		Réseau d'alerte et d'information zoosanitaire



ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

EXECUTIVE SUMMARY

CanSpotASF is the national 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, a joint initiative of the swine sector and federal/provincial/territorial governments. The purpose of this report was to describe the inaugural year of CanSpotASF. The intended audience was the stakeholders in the swine sector and governments. The time period for the CanSpotASF Year 1 Annual Report was April 1, 2020 through March 31, 2021, although some references were made to foundational work that was undertaken prior to April 1, 2020.

For surveillance purposes, the Canadian swine population can be functionally categorised into three distinct segments; domestic-commercial; domestic-smallholding and wild pigs. Surveillance for these three populations is being planned in a stepwise and risk-based manner. As of March 2021, there were two ongoing surveillance tools; passive regulatory surveillance, and risk-based testing at approved animal health laboratories. Additional new tools were under development.

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 is referred to as passive regulatory surveillance and it was the first surveillance tool in place. It is an OIE requirement.

KEY RESULT

Between April 1, 2020 and March 31, 2021, a total of 199 ASF tests were completed. All tests were negative. Of the 199 tests, thirty were completed as part of CFIA investigations of suspect cases, and 169 were completed as part of the Approved Laboratory Surveillance Pilot.

The second CanSpotASF tool started as a pilot project in August 2020. It centers on proactive testing of samples collected through routine diagnostic activities at approved 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.

This annual report includes Year 1 surveillance results for the regulatory passive surveillance and the pilot at approved laboratory, the governance and structure of the technical committee and supporting working groups, along with more general information about the overall surveillance plan.

Key achievements included:

- Organization (technical committee & working groups)
 - Established terms of reference and a collaborative management structure to plan and implement new ASF surveillance tools;
- Risk-based early detection testing at approved laboratories
 - Initiated enhanced passive surveillance at approved laboratories
- Developing reporting structure (information and data sharing)
 - Enhanced information sharing about CFIA passive regulatory surveillance;
 - Utilizing existing CSHIN quarterly data and information sharing approach to report on ASF testing at approved laboratories
 - Annual report with revised 3-year plan
- Developing networks, human resource capacity and resources to support ASF surveillance in the smallholding swine population and wild pigs.

ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

INTRODUCTION

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

Under the Health of Animals Act and Regulations, the Canadian Food Inspection Agency (CFIA) has a mandate to conduct surveillance for ASF and to evaluate ASF surveillance. In 2019, the CFIA, along with other government agencies and the swine sector initiated collaborative ASF preparedness planning supported by an ASF Executive Management Board (EMB). 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.

Surveillance was one priority identified by the EMB. As such, in 2019 a working group consisting of federal and provincial governments, swine sector, academia, and laboratory representatives was created to;

- 1) Describe existing surveillance initiatives in Canada,
- 2) Determine whether additional surveillance was required in domestic and/or wild populations,
- 3) Provide recommendations as to which surveillance objectives and activities in both the domestic and wild pig populations should be considered.

This working group produced a recommendation paper in October 2019 (*African Swine Fever: Surveillance Working Group Recommendations*). As a result, a collaborative working group that leveraged existing swine surveillance infrastructure and was made up of technical experts from federal and provincial governments, the swine sector, and academia, was brought together in January 2020 to champion activities to enhance ASF surveillance. This group was termed the CanSpotASF Technical Committee (TC), and the overarching surveillance program has been named CanSpotASF.

SURVEILLANCE OBJECTIVES AND PRIORITIES

CanSpotASF is the Canadian national surveillance system for ASF and includes existing and enhanced surveillance activities that aim to protect the commercial swine sector from the impacts of ASF.

OBJECTIVES

The TC identified that *the primary objective of CanSpotASF was to enhance early detection testing for ASF.* A secondary objective was to support the claim that Canada's swine sector remains free of ASF.

SURVEILLANCE PRIORITIES AND PLAN

The TC developed a comprehensive list of ASF management and surveillance options that could be taken in Canada's domestic and wild pig populations, and then applied the surveillance objectives, along with an inventory of existing work being undertaken by various groups across Canada to develop immediate priorities for CanSpotASF.

As such, the following priorities were identified:

GOVERNANCE AND MANAGEMENT PRIORITIES

- 1. Develop terms of reference for TC;
- 2. Develop communication and reporting structure for CanSpotASF;



SURVEILLANCE PRIORITIES

- 3. Continue the mandatory CFIA passive regulatory surveillance;
- 4. Establish ASF testing of eligible cases by approved laboratories;
- 5. Develop a process for ASF testing of eligible abattoir condemnations;
- 6. Strengthen engagement with smallholdings in ASF prevention and preparedness;
- 7. Assess risk of ASF introduction and transmission to and between commercial, smallholding and wild pig populations.

Given the stepwise nature of planned implementation for CanSpotASF, priorities 1 to 4 were identified as Year 1 focus areas. Exploratory operational feasibility assessment and planning for priorities 5 and 6 were also started.

PROGRESS ON GOVERNANCE AND MANAGEMENT PRIORITIES

GOVERNANCE

Terms of reference were completed and included a description of the communication and reporting structure. The TC established a number of active working groups (Figure 1). Members are listed in Appendix 1. The approved laboratory working group was focused specifically on planning, implementing, and monitoring the ASF surveillance at approved laboratories. The abattoir surveillance working group was focused on determining the feasibility and processes that might be used to implement ASF surveillance at provincial and federal abattoirs, The smallholding working group had a broader mandate to enhance health and welfare activities for smallholdings, with an immediate focus of enhancing ASF surveillance for smallholdings. Because of the broad mandate of the smallholding working group, it was expected to report back to the TC with regards to ASF surveillance, but not with non-ASF focused activities. The communications and reporting groups were tasked with developing communications products and reporting processes for all CanSpotASF components.

The TC recognized that there were other Canadian working groups focused on the broad issue of wild pig management. While not directly involved in this work, the TC followed progress in order to access any future opportunities to advance ASF surveillance priorities.



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

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

ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

COMMUNICATION

Communication was identified by the TC as a critical part of any collaborative national surveillance initiative, including CanSpotASF. As such, the communication group was tasked with developing communication processes and producing and distributing needed communication materials. Examples of communication materials and activities undertaken in Year 1 included the one-page overview (Figure 2) and items listed in Table 1. Publicly available documents were posted on the National Farmed Animal Health and Welfare Council website (https://www.ahwcouncil.ca/african-swine-fever-surveillance-information).

Table 1. Examples of CanSpotASF communications documents

Risk-based early detection at approved laboratories: Technical document Risk-based early detection at approved laboratories: Information for veterinarians* Risk-based early detection at approved laboratories: Information for producers* CanSpotASF Surveillance of African Swine Fever in Canada: One page overview*

Examples of Communications activities	Provider	Dates
Risk-based early detection at approved laboratories: Webinar (EN)	CWSHIN	Oct 2020
Risk-based early detection at approved laboratories: Webinar (FR)	RAIZO	Oct 2020
Quarterly surveillance updates (regional and national calls and reports)	CSHIN, CWSHIN, OAHN, RAIZO, Atlantic	Oct 2020, Jan 2021, Apr 2021
Laboratorians Cross Country Check-In: ASF	CAVP, CAHSS	Oct 2020

*Indicates a document that is publicly available on the NFAWHC website (https://www.ahwcouncil.ca/african-swine-fever-surveillance-information).

CanSpotASF ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT



Figure 2. One page overview of African swine fever surveillance in Canada created by CanSpotASF communications working group.

ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

REPORTING

The reporting working group was tasked with developing a structure for information/data sharing, summarizing surveillance results, and monitoring and reporting on progress (management). The working group considered that reporting for CanSpotASF included three distinct components; internal CanSpotASF data and information sharing, external surveillance results reporting, and management reporting.

Quarterly surveillance reports were compiled by the regional swine networks and CSHIN. This reporting relied heavily on the pre-existing data sharing arrangements between CASHN laboratories and the regional swine networks (Figure 3). ASF test data were supplied to the regional swine networks by approved CAHSN laboratories across Canada. Results were compiled by regional swine networks (Atlantic, RAIZO, OAHN and CWSHIN), and brought together into a single national quarterly report produced by CSHIN. Information was shared at quarterly network calls (OAHN, RAIZO, CWSHIN) and CSHIN).

The 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 and risk-based laboratory surveillance.



Figure 3. Surveillance results reporting structure for CanSpotASF Approved Laboratory Pilot through CSHIN



SURVEILLANCE ACTIVITIES

ONGOING SURVEILLANCE ACTIVITIES

CFIA INVESTIGATION OF SUSPECT CASES

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

During the fiscal year 2020-2021 (as of March 31, 2021), there were 9 events involving follow-up as a result of an ASF suspicion, involving the provinces of Ontario and Alberta (Table 2). Triggers for investigation included suspicion raised by CAHSN laboratories (n=7) and suspicion of ASF raised on farm premises (n=2). In all situations, samples were referred to NCFAD for testing (PCR +/- ELISA), with a total of 30 animals that were tested. In all cases, all testing yielded negative results.

Month (Year)	Province	Trigger	History / Clinical presentation	Population	Samples tested	Number of Animals Tested	Tests
April (2020)	ON	CAHSN lab referral due to ASF suspicion - on farm	Sudden death in nursery pigs, scouring, vasculitis noted at PM	Domestic - Commercial	2 sets of tissues (lung, intestine)	2	RT-PCR
April (2020)	ON	CAHSN lab referral due to ASF suspicion - at slaughter	splenomegaly, enlarged kidney, hemorrhagic lymph nodes	Domestic - Unknown	16 sets of tissues (lymph node, kidney, liver, spleen)	4	RT-PCR
May (2020)	ON	CAHSN lab referral due to ASF suspicion - at slaughter?	Vasculitis	Domestic - Commercial	2 sets of tissues	2	RT-PCR
June (2020)	AB	Herd veterinarian referral due to ASF suspicion - on farm	failure to thrive, fever, vomiting, hemorrhagic lymph nodes, kidney lesions, petechial hemorrhage	Domestic - Small holder (pet)	1 set of tissues (skin, liver, intestine, spleen, heart, lung, lymph node, kidney)	1	RT-PCR
June (2020)	ON	CAHSN lab referral due to ASF suspicion – at slaughter?	Vasculitis	Domestic - Commercial	5 sets of tissues (liver, kidney, spleen)	5	RT-PCR
August (2020)	ON	CAHSN lab referral due to ASF suspicion	congenital arthrogryposis, diarrhea	Domestic – Smallholdin g (Pet)	2 sets of tissues (lung, spleen, tonsil, liver, kidney, brain)	2	RT-PCR
Septem ber (2020)	ON	CAHSN lab referral due to ASF suspicion	necrotizing and hemorrhagic lymphadenitis, hepatic and intestinal hemorrhage, fibrinous peritonitis	Domestic - Commercial	1 set of tissues (lung, liver, spleen)	1	RT-PCR

Table 2. Details regarding CFIA investigation of suspect cases

	Car	ispor	ASE	- 5		-	
			ACTIVITIES THAT AI		and the second se	VER	
Novem ber (2020)	ON	Herd veterinarian referral due to ASF suspicion - on farm	Skin lesions, fever, sudden death	Domestic - Commercial	9 blood samples, 3 sets of tissues (tonsils, spleen, lymph nodes, fetal spleen)	12	rt-pcr; Elisa
Decem ber (2020)	ON	CAHSN lab referral due to ASF suspicion	Vasculitis	Domestic - Smallholdin g	1 set of tissues	1	RT-PCR

RISK-BASED EARLY DETECTION AT APPROVED LABORATORIES

Planning for this activity started in April 2020. Planning was a collaboration of the ASF TC and the Approved Laboratory Working Group (Appendix 1). In July 2020, a technical document that detailed which cases were eligible for testing and described testing and response procedures was finalized. Accompanying documents for veterinarians and producers were also completed. RAIZO, CWSHIN and CSHIN hosted live information sessions for veterinarians in October 2020.

Table 3 lists the clinicopathological presentations that were eligible for risk-based testing (termed 'eligible cases') as part of the risk based testing at approved laboratories. It is important to note that not all cases deemed to be eligible were expected to be tested for ASF due to factors such as; veterinarian or producer consent was not given, inadequate location information was provided with the submission, the tissues submitted were not approved by the CFIA for ASF testing, there were no fresh tissues (required for ASF testing), fresh tissues were too autolyzed for testing, or the case was not determined to be eligible until histopathology slides were reviewed and by then, fresh tissue samples of approved tissues were no longer available. Therefore, the purpose of reporting eligible case-counts was to track trends in time for the numbers of eligible cases diagnosed at laboratories, as well as the proportion of eligible cases tested.

Table 3. Clinicopathological presentations eligible for additional ASF testing at approved laboratories

- 1 Septicemia and/or multiorgan hemorrhage such as caused by *E.rhusiopathiae*; *S.suis*; *S.zooepidemicus*; *A.suis*; *S.Choleraesuis*; other bacteria
- 2 Porcine Reproductive and Respiratory Syndrome virus (PRRS), especially when it causes cyanotic skin.
- Porcine Dermatitis and Nephropathy Syndrome (PDNS) and vasculitis that can be caused by PCV 2, PCV
 3 or other pathogens.
- 4 Hemorrhagic diarrhea / necrotizing enterocolitis such as caused by Salmonella spp; L. intracellularis; B. hyodysenteriae; B. hampsonii
- 5 Fibrinous pleuritis / pericarditis / hydropericardium such as caused by *H. parasuis;* S.suis
- 6 Mulberry heart disease
- 7 Splenic torsion
- 8 Abortion above historical trend for herd
- 9 Mortality above historical trend for herd

Risk-based early detection testing was open to all CAHSN laboratories. The laboratories approved for ASF testing were the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ) Laboratorie de santé animale (Saint-Hyacinthe), the Ontario Animal Health Laboratory, Prairie Diagnostic Services, Alberta Agriculture and Forestry Agri-Food Laboratories, and the BC Animal Health Center. CAHSN laboratories that were not approved for ASF testing could submit ASF surveillance samples to an approved laboratory or the National Centre for Foreign Animal Disease (NCFAD) laboratory in Winnipeg.

CanSpotASF ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

Testing of eligible cases (Table 4) at approved laboratories started in August 2020. As of March 31, 2021, 169 eligible cases had been tested across Canada. **All results were negative.** The approved laboratory working group continued to meet regularly to review implementation successes and challenges and discuss approaches to maximizing the proportion of eligible cases that were tested.

Table 4. Early detection at approved laboratory results for 2020/2021 (table provided by CSHIN)

CanSpotASF summary

CanaVeillePPA – Rapport sommaire



Canadian Swine Health Intelligence Network Réseau canadien de surveillance de la santé porcine

Atlantic

Period / Période	Number of eligible cases / Nombre de cas admissibles	Number of negative cases / Nombre de cas négatifs	Number of positive cases / Nombre de cas positifs
2020 Quarter 3 (Aug 1 to Sep 31) 2020 T3 (1er août - 30 septembre)	N/A	3	0
2020 Quarter 4 (Oct 1 to Dec 31) 2020 T4 (1 ^{er} octobre - 31 décembre)	6	1	0
2021 Quarter 1 (Jan 1 to Mar 31) 2021 T1 (1er janvier - 31 mars)	1	1	
Cumulative / Cumulatif	7	5	0

RAIZO (Québec)

Period / Période	Number of eligible cases / Nombre de cas admissibles	Number of negative cases / Nombre de cas négatifs	Number of positive cases / Nombre de cas positifs
2020 Quarter 3 (Aug 1 to Sep 31)			
2020 T3 (1 ^{er} août - 30 septembre)	42	8	0
2020 Quarter 4 (Oct 1 to Dec 31)			
2020 T4 (1er octobre - 31 décembre)	143	15	0
2021 Quarter 1 (Jan 1 to Mar 31)			
2021 T1 (1er janvier - 31 mars)	134	28	0
Cumulative / Cumulatif	319	51	0

OAHN (Ontario)

Period / Période	Number of eligible cases / Nombre de cas admissibles	Number of negative cases / Nombre de cas négatifs	Number of positive cases / Nombre de cas positifs
2020 Quarter 3 (Aug 1 to Sep 31)			
2020 T3 (1er août - 30 septembre)	N/A	6	0
2020 Quarter 4 (Oct 1 to Dec 31)			
2020 T4 (1 ^{er} octobre - 31 décembre)	18	2	0
2021 Quarter 1 (Jan 1 to Mar 31)			
2021 T1 (1 ^{er} janvier - 31 mars)	64	15	0
Cumulative / Cumulatif	82	23	0

ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

Period / Période	Number of eligible cases / Nombre de cas admissibles	Number of negative cases / Nombre de cas négatifs	Number of positive cases / Nombre de cas positifs
2020 Quarter 3 (Aug 1 to Sep 31)			
2020 T3 (1er août - 30 septembre)	38	9	0
2020 Quarter 4 (Oct 1 to Dec 31)			
2020 T4 (1 ^{er} octobre - 31 décembre)	52	36	0
2021 Quarter 1 (Jan 1 to Mar 31)			
2021 T1 (1er janvier - 31 mars)	41	45	0
Cumulative / Cumulatif	131	90	0

CWSHIN (Western provinces / Provinces de l'Ouest)

Disclaimer for Table 4: The number of eligible cases is calculated differently at the participating laboratories and the methodology differs amongst the reporting networks. The discrepancy between eligible cases and tested cases are due to technical factors such as; veterinarian or producer consent was not given, inadequate location information was provided with the submission, or the tissues submitted were not approved by the CFIA for ASF testing, CanSpotASF is a voluntary pilot project.



PLANNING NEW SURVEILLANCE ACTIVITIES FOR 2021/ 2022

Two new activities were under development; risk-based surveillance at abattoirs and strengthening engagement of smallholdings in ASF surveillance.

The process to develop new surveillance activities was:

- 1. A working group explored and described practical options.
- 2. The TC reviewed and recommended action to the EMB for consultation and support.
- 3. EMB member organizations committed resources.

RISK-BASED EARLY DETECTION AT ABATTOIRS

A working group was formed to assess the operational feasibility and potential benefit of early detection at abattoirs. Their first step, which started in December 2020, was to develop materials and processes.

The abattoir working group has been developing technical documents that will detail which cases would be eligible for testing, and will describe potential sampling, testing and response procedures.

Next steps as of March 31, 2021 included review of the technical documents and activity plan by the TC. Based on the review the TC will make a recommendation to the EMB on the abattoir early detection.

Future work will include finalizing commitment for federal and provincial plants to participate, securing funding, and developing inspector training materials and determining how to implement sampling into inspector workflows.

STRENGTHEN ENGAGEMENT OF SMALLHOLDINGS IN ASF PREVENTION AND PREPAREDNESS

The smallholding working group was formed to assess feasibility and benefit of including ASF surveillance activities from this sub-sector in CanSpotASF. The working group quickly recognized that smallholdings were diverse in terms of livestock kept, farming philosophies, farming goals, and product markets and that animal and resource movement networks connecting smallholdings to other producers, as well as social networks connecting smallholdings to agencies working in animal health and welfare were poorly documented. In addition, there were gaps in information about the number and location of smallholdings. As such, the working group noted that it would be challenging to benchmark animal health and welfare on Canadian smallholdings, to assess disease risks, and to determine what outreach and surveillance activities should be prioritized. These gaps were highly relevant but not restricted to ASF surveillance.

The working group prioritized:

- Cataloguing and sharing information about surveillance and animal health and welfare initiatives targeted at smallholdings that were managed by various stakeholders across Canada, so that organizations would be aware of complementary activities and could share opportunities and lessons.
- 2) Cataloguing available health management resources for smallholdings and supporting use of these.
- 3) Supporting increased availability of veterinary services for smallholdings.
- 4) Activities focused on ASF preparedness and planning in smallholdings;
 - a. Increased training for practicing veterinarians so that more of these pigs would be seen by veterinarians and eligible cases would be tested as part of a continuation of the approved laboratory pilot.
 - b. Create and promote education on ASF.
 - c. Assess risk of ASF introduction and transmission between and within smallholdings.

ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

CanSpotASF

d. Promote and support registration of smallholdings in provincial identification (PID) systems and nationally through PigTrace.

Catalogues to address priorities 1 and 2 has been completed, Listings of initiatives and resources were available on the CAHSS website (<u>www.cahss.ca</u>). New items will be added to the listings as they become available.

In reference to Priority 4a, a course for veterinarians interested in supporting smallholdings and pet pig owners was being developed by NFAHWC.

In reference to priority 4b, a number of resources have been developed that included a CFIA advertising campaign, outreach initiatives launched by the Prairie Swine Centre and OMAFRA, and national and regional smallholding manuals.

The assessment of ASF introduction risk to smallholdings (4c) will be partially addressed through the CWSHIN project described in the next section.

ASSESS RISK OF ASF INTRODUCTION AND TRANSMISSION TO AND BETWEEN COMMERCIAL, SMALLHOLDING AND WILD PIG POPULATIONS

In December 2020, Canada West Swine Health Intelligence Network (CWSHIN) announced that the network intended to contract out a special project on an *African swine fever risk analysis*. The work on scoping the ASF risk analysis was performed by CWSHIN's Technical Group that was expanded to include representatives from CFIA and CAHSS. After the scoping process the key question was:

Relatively speaking where is the highest (one year) likelihood of an index case as defined by population and geographical area in the four western provinces – and how likely is the case to be detected?

A contract was made with Politikos Inc. in March 2021, and the group started the work with a stakeholder call in late March 2021. Politikos was expected to provide their final report to CWSHIN in late 2021.

CanSpotASF ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT

THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

COMBINED SURVEILLANCE RESULT

For the time period between April 1, 2020 and March 31, 2021, 30 animals were tested for ASF as part of CFIA investigations of suspect cases. An additional 169 cases were tested as part of the Approved Laboratory Surveillance Pilot. All test results were negative.

FINANCIAL UPDATE

Governance, management, reporting and activity planning for CanSpot ASF was funded through in-kind contributions of federal and provincial governments, the swine sector, and the National Farmed Animal Health and Welfare Council. Contribution time from all partners was estimated to be in excess of 1600 hours.

Funding for approved laboratory sample testing has been provided by provincial governments.

FORWARD LOOKING 3-YEAR PLAN

Based on work completed to date, the CanSpotASF TC developed a forward looking 3-year plan (Figure 4).

CanSpotASF 3-year	plan
Organization (Technical committee & working groups) Risk-based early detection testing at approved laboratories Develop reporting structure (information and data sharing) Revise 3-year plan	2022–2023 Risk-based early detecting testing continued Implementation of prioritized new surveillance activities Develop next 3-year plan
Risk-based early detecting testing Abattoir and smallholding WGs re CWSHIN report on results from ", Prioritization of new surveillance smallholdings) 2021–2022	ecommendations ASF risk analysis"

Figure 4. CanSpotASF 3-year work plan.

GOALS FOR THE NEXT YEAR 2021 TO 2022

Based on the CanSpotASF 3-year plan, the deliverables for 2021/2022 are that:

- 1. The regulatory passive surveillance will continue.
- 2. The risk-based early detection testing at approved laboratories will continue;
 - a. Assess opportunities to expand surveillance from primarily commercial farms to smallholdings.
 - b. A mid-year review of the activity will be performed by the Laboratory WG and forwarded to the TC by December 2021. This review is anticipated to include a descriptive analysis of surveillance pilot uptake, successes and challenges.
- 3. The abattoir WG will finalize their assessment of the operational feasibility and report to the technical committee (TC) by December 2021.
- 4. The Smallholding WG will provide a status to the TC by December 2021.
- 5. The TC will continue to evaluate new diagnostic testing technology for surveillance after CFIA completes validation and approval.
- 6. CWSHIN will share the result of the ASF risk analysis with the TC in December 2021.
- 7. By end of January 2022, the TC will have prioritized ASF surveillance activities and recommended the next steps to the EMB.

Other recommendations:

If possible, the TC should meet in person in January 2022 to prioritize the next steps. Therefore, resources for a 1- to-2-day meeting should be allocated by the EMB.

CONCLUSION

CanSpotASF is the first Canadian initiative in the swine sector to use a collaborative, multi-stakeholder approach for governance, planning and implementation of enhanced surveillance for a foreign animal disease.

Achievements for the first year included the launch of the technical committee with associated terms of reference, and five active working groups to support TC work.

The Approved Laboratory Surveillance Pilot was launched in August, 2021, and 169 eligible cases were tested as part of this pilot. The CFIA investigations of suspect cases continued unchanged from previous years, resulting in 30 ASF tests between April 1, 2020 and March 31, 2021.

In total, between April 1, 2020 and March 31, 2021, 199 ASF tests were completed. All tests were negative.

CanSpotASF ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT

THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

APPENDIX 1

Technical Committee and Working Group members contributing to CanSpotASF 2020/2021

CanSpotASF Technical Committee Membership

Amy Snow (co-chair)	Canadian Food Inspection Agency
Theresa Burns (co-chair)	Canadian Animal Health Surveillance System
Christa Arsenault	Government of Ontario
Christian Klopfenstein	Canadian Association of Swine Veterinarians
Claudia Gagné-Fortin	Government of Quebec/ Réseau d'alerte et d'information zoosanitaire
Craig Price	Canadian Food Inspection Agency
Egan Brockhoff	Canadian Pork Council
Gabriela Guigou	Canadian Pork Council
Glen Duizer	Government of Manitoba
Heather Arbuckle	Canadian Food Inspection Agency
Jette Christensen	Canada West Swine Health Intelligence Network / Government Saskatchewan
Kathleen Hooper-McGrevy	Canadian Food Inspection Agency

CanSpotASF Approved Laboratory Working Group Membership

Amy Snow (co-chair)	Canadian Food Inspection Agency
Aruna Ambagala	Canadian Food Inspection Agency
Brad Lage	Private veterinarian
Christa Arsenault	Government of Ontario
Egan Brockhoff	Canadian Pork Council
Francois Cardinal	Private veterinarian
Glen Duizer	Government of Manitoba
Julie-Helene Fairbrother	Government of Quebec / Ministère de l'Agriculture, des Pêcheries et de
	l'Alimentation du Québec Animal Health Laboratory
Karine Talbot	Hylife
Maria Spinato	Ontario Animal Health Laboratory
Sue Burlatschenko	Private veterinarian
Theresa Burns	Canadian Animal Health Surveillance System
Yanyun Huang	Prairie Diagnostic Services

ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

CanSpotASF Abattoir Working Group

Amy Snow	Canadian Food Inspection Agency
Claudia Gagné-Fortin	Government of Quebec/ Réseau d'alerte et d'information zoosanitaire
Christa Arsenault	National Farmed Animal Health and Welfare Council
Egan Brockhoff	Canadian Pork Council
Gavin Last	Government of British Columbia
Glen Duizer	Government of Manitoba
Jorge Correa	Canadian Meat Council
Magalie Chenard	Government of Quebec
Maggie Jordan	Government of Alberta
Mike Roberts	Canadian Food Inspection Agency
Nicholas Bachand	Canadian Food Inspection Agency
Nicola Jackson	Government of Ontario
Shawna Bast	Government of Alberta
Sonia Laurendeau	Canadian Food Inspection Agency
Temidayo Adewole	Government of Nova Scotia
Theresa Burns	Canadian Animal Health Surveillance System

CanSpotASF Communications Group

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Theresa Burns	Canadian Animal Health Surveillance System
Jette Christensen	Canada West Swine Health Intelligence Network / Government Saskatchewan
Claudia Gagné-Fortin	Government of Quebec/ Réseau d'alerte et d'information zoosanitaire
Gabriela Guigou	Canadian Pork Council

CanSpotASF Reporting Group

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Christian Klopfenstein	Canadian Association of Swine Veterinarians
Dan Hurnik	University of Prince Edward Island
Jette Christensen	Canada West Swine Health Intelligence Network / Government Saskatchewan
Nicholas Bachand	Canadian Food Inspection Agency
Noel Harrington	Canadian Food Inspection Agency
Theresa Burns	Canadian Animal Health Surveillance System

ENHANCED SURVEILLANCE ACTIVITIES THAT AIM TO PROTECT THE COMMERCIAL SWINE SECTOR FROM THE IMPACTS OF AFRICAN SWINE FEVER

Smallholding Working Group

Amy Snow	Canadian Food Inspection Agency
Andree Anne Girard	Canadian Food Inspection Agency
Angela Rouillard	Canadian Food Inspection Agency
Barbara Wilhelm	Western Canadian Animal Health Network
Christa Arsenault	Government of Ontario
Chunu Mainali	Government of Alberta
Claudia Gagné-Fortin	Government of Quebec/ Réseau d'alerte et d'information zoosanitaire
Doris Leung	Canadian Animal Health Surveillance System
Gabriela Guigou	Canadian Pork Council
Jim Fairles	Ontario Animal Health Laboratory
Megan Bergman	National Farmed Animal Health and Welfare Council
Murray Pettitt	Prairie Swine Centre
Nicole Wannamaker	Government of New Brunswick
Shawna Doyle	Canadian Food Inspection Agency
Susan Hilton	Canadian Food Inspection Agency
Theresa Burns	Canadian Animal Health Surveillance System
Tom Droppo	Government of British Columbia