CanSpotASF

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

RISK-BASED EARLY DETECTION TESTING at approved laboratories is the first new surveillance tool to be implemented as part of CanSpotASF.

There is no change for any case where ASF is suspected: these cases must be immediately reported to the local Canadian Food Inspection Agency (CFIA) district office.

Approved laboratories labs that are part of the CAHSN network can now do ASF testing on cases where you may want to rule-out ASF –just to be on the safe side. Until now, these types of cases have not been tested for ASF. This rule-out testing is targeted at herds with endemic diseases that could mask ASF and therefore delay detection. Both herd veterinarians and pathologists can initiate ASF rule-out testing.

What cases are eligible for risk-based early detection?

Certain diseases/conditions have been shown to mask the clinical signs associated with ASF and delay detection. Herds with a history of these diseases/conditions, or cases with a compatible clinicopathological presentation are eligible for testing (Table 1).

Table 1.
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.cholerasuis*; other bacteria
2. Porcine Reproductive and Respiratory Syndrome virus (PRRS), especially when it causes cyanotic skin.
3. 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

How does the RISK-BASED EARLY DETECTION TESTING pilot project work?

Any case submitted for pathology that includes sufficient information to trace the animal to premises of origin (Premises ID or animal location), appropriate tissues, and meets eligibility criteria (Table 1) may be tested for ASF. Appropriate sample material for testing includes tissue sections of tonsil, spleen, kidney, lymph node and terminal ileum, body fluids, and whole blood. The decision to test an eligible case can be made by the herd veterinarian or the pathologist managing the case. Consultation between the pathologist and the herd veterinarian on testing decisions is strongly recommended. The flowchart in Appendix 1 shows the testing decision tree.

Who will pay for testing?

ASF testing by approved laboratories on eligible cases will be paid for by the provinces as funding is available. Each province will have final authority to determine the total number and population distribution of provincially funded tests.

What will happen if the approved laboratory ASF test yields a suspicious or a positive result?

Table 2.
Protocol for a suspicious or positive ASF test result from an approved laboratory

1. The approved laboratory will immediately inform the herd veterinarian and the local CFIA district office where the herd is located. If the approved laboratory is conducting the test for another laboratory, the approved laboratory will immediately notify that laboratory. The original laboratory will be responsible for immediately notifying the herd veterinarian and the local CFIA district office.
2. The CFIA district office will;
    a. check the health of the animals on the premises together with the herd veterinarian,
    b. collect samples from additional pigs on the premises if required,
    c. coordinate collection and shipment of samples to the National Center of Foreign Animal Disease (NCFAD) in Winnipeg,
    d. complete a risk evaluation.
3. If the CFIA risk determination does not find evidence of ASF, the CFIA will place a quarantine to stop movement of swine off the premises until the NCFAD confirmatory testing is completed (estimated 48 to 96 hours).
4. If the CFIA risk determination finds that there is a suspicion of ASF, the CFIA will place a quarantine to stop movement of swine, and may make a declaration of infected place to stop other traffic on and off the premises until the NCFAD confirmatory testing is completed (estimated 48 to 96 hours).
5. If ASF is confirmed at the NCFAD, the CFIA will maintain or enhance the movement restrictions and initiate response activities.

More about the CanSpotASF pilot project

Under the direction from the ASF Executive Management Board, the CanSpotASF enhanced surveillance for African Swine Fever (ASF) is a collaboration between:

- the swine industry,
- the CFIA, diagnostic animal health laboratories,
- provincial governments,
- the Canadian Swine Health Intelligence Network (CSHIN) including the regional networks RAIZO, OAHN, CWSHIN, and
- the Canadian Animal Health Surveillance System (CAHSS).

A visual overview of CanSpotASF is provided in Appendix 2.

The CanSpotASF risk-based early detection testing at approved laboratories pilot is open to all Canadian Animal Health Surveillance Network (CAHSN) laboratories. CAHSN laboratories that are not approved for ASF testing can submit samples to a network laboratory that is approved. Currently, the approved laboratories for ASF testing are:

- the MAPAQ laboratory in Quebec,
- the Ontario Animal Health Laboratory,
- Prairie Diagnostic Services,
- Alberta Agriculture and Forestry Agri-Food Laboratories, and
- the BC Animal Health Center.

For more information

If you are a staff member at a diagnostic laboratory and would like more information about this pilot project, please contact your laboratory director.

If you are a veterinary practitioner and would like more information about this pilot project, please contact your regional swine network lead:

Region	Name	Email
Western Canada	Jette Christensen	manager@cwshin.ca
Ontario	Christa Arsenault	christa.arsenault@ontario.ca
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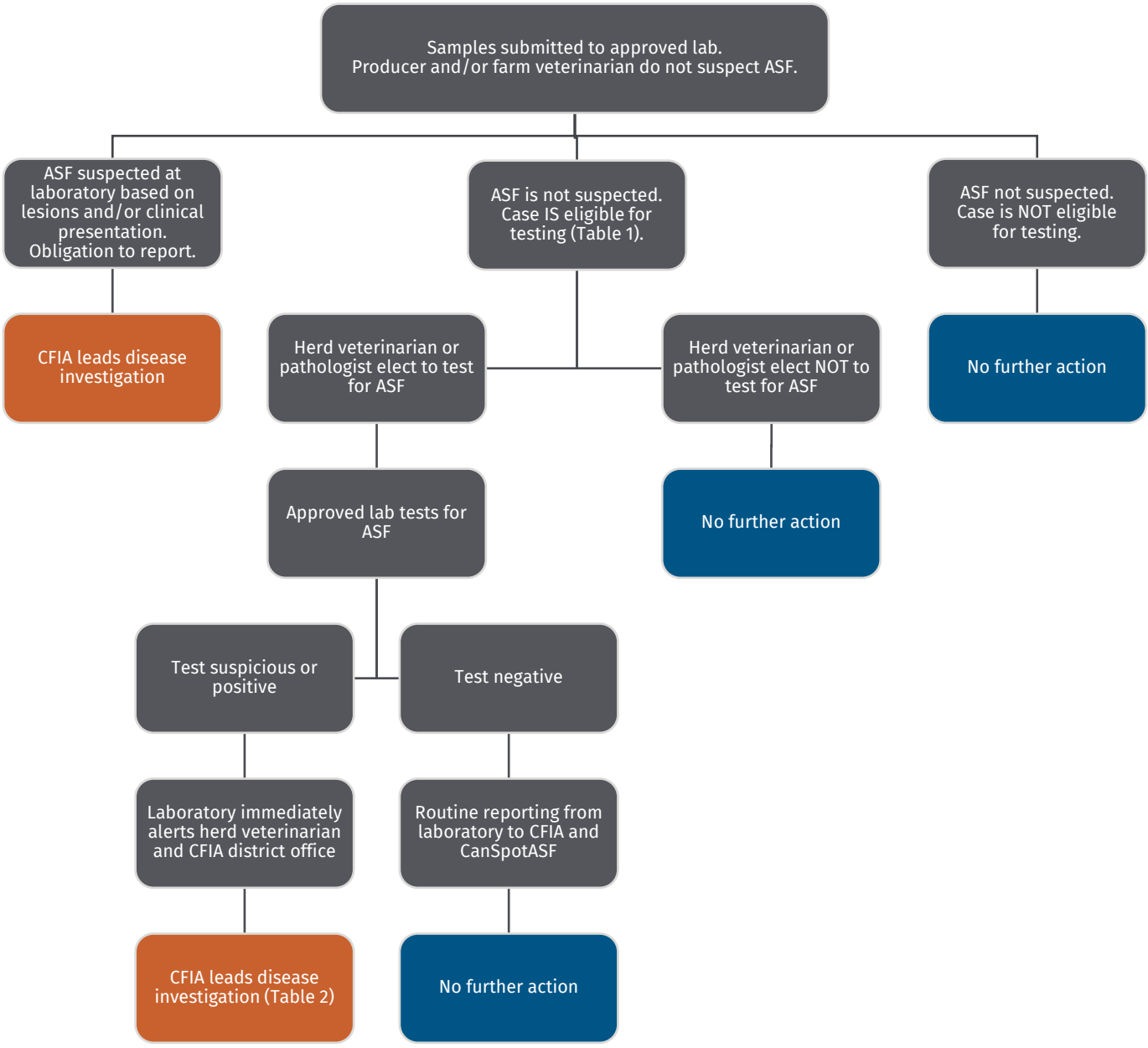
Appendix 1.

Flowchart showing processes for the CanSpotASF: Risk-based early detection testing at approved laboratories



Appendix 2

Overview of CanSpotASF program for early detection of African Swine Fever in Canada

CanSpotASF

SURVEILLANCE OF AFRICAN SWINE FEVER IN CANADA

PASSIVE SURVEILLANCE

- Absence of disease
- Used to declare freedom and early detection
- Relies on mandatory reporting and suspect investigations

ENHANCED PASSIVE SURVEILLANCE

- Early detection
- Easier to transition to outbreak surveillance
- Aims to protect the commercial swine sector from impacts of ASF

OUTBREAK SURVEILLANCE

- Occurs during and after an outbreak
- Used to establish zones and prove freedom
- Details outlined in the Hazard Specific Plan for response

CanSpotASF TOOLBOX

CanSpotASF provides several tools that can be implemented by region and population. Implementation will be stepwise and prioritized based on risk and logistical feasibility. Enhanced surveillance will be an iterative process and will include pilot projects; more tools may be added as implementation progresses.

APPROVED LABS ✦✶✹

Rule-out testing at Canadian labs approved for ASF testing

ABATTOIRS ✦✶

Risk-based testing in provincially- and federally-inspected slaughterhouses

ON-FARM ✦✶

- Outreach
- Small-holder networks
- Education
- Sample submissions

OTHER TOOLS ✦✶✹

- Wild pig stakeholder network
- Enhanced sampling capacity

DOCUMENTATION

Development of a process and system to pull together ASF surveillance information

ASF SURVEILLANCE **POPULATIONS**

✦Commercial Indoor

✶Small-holder, organic or captive wild boar

✹Wild Pigs