



Canadian Pork Council
Conseil canadien du porc

ASF

Banff Pork Seminar
January 2020

The Threats to Canadian Pork

1. ASF Virus Continues to **Spread Globally**
2. Illegal Meat Products Continue to **Move Globally**
3. A Single Case = **Massive** Farm Business **Disruption**
4. Few **Zoning** Agreements
5. No Clear **Recovery** Programming

Dr. Jaspinder Komal – Canada CVO

“We’re very, very worried. It’s a huge threat to the pig population, pig production.”

“We have accelerated our effort in raising awareness and preparing ourselves and putting plans in place ... this is really unprecedented.”

'We're very, very worried': Canada's 'unprecedented' campaign to keep out African Swine Fever, from sniffer dogs to sausage bans

Hundreds of citations and fines — of up to \$1,300 — have been levied in the last year to travelers with undeclared east Asian swine products



Canadian Border Services Agency sniffer dog Ambrose is at the forefront of “unprecedented” efforts to keep African Swine Fever out of Canada. *Twitter*



African Swine Fever

Prevention

Preparedness

Response

Recovery

We
Are
Making
Progress



Detector Dog Service

Mar 14th 2019 Announcement

\$31 million

24 new Dog Teams over 5
Years

Total to 39



The Honourable Marie-Claude Bibeau, Minister of Agriculture and Agri-Food Canada, stands at the Montréal-Trudeau airport with two Canadian border services officers and two detector dogs.

North American ASF Forum

Apr 30th & May 1st

Hosted by NA's 3 CVO's

Industry

Government

Global





OBJECTIVE: To prevent entry and mitigate the impacts of ASF in the Americas

FOUR PILLARS FOR ACTION BASED ON A FOUNDATION OF SCIENCE ▼



PREPAREDNESS PLANNING

1

Expected outcome: Countries have a high state of readiness to swiftly control ASF should it enter the Americas region.



ENHANCED BIOSECURITY

2

Expected outcome: Key biosecurity measures are in place to prevent the entry of ASF into the domestic and wild pigs populations of the Americas, and mitigate its spread within these populations.



ENSURE BUSINESS CONTINUITY

3

Expected outcome: Mitigate the trade impacts of ASF on the swine sector, both nationally and internationally, while controlling and eradicating the disease.



COORDINATED RISK COMMUNICATIONS

4

Expected outcome: Effective risk communication on ASF with target audiences to encourage informed decision making, behaviour modification, and trust in governments and industry.

AREAS FOR ACTION

- Increase readiness by validating ASF preparedness plans and testing response capabilities through exercises involving all stakeholders.
- Find solutions to deficiencies in ASF response capabilities and planning gaps.
- Optimize rapid ASF detection in the Americas by ensuring capacity for surveillance.
- Develop the appropriate process and capacity for rapid risk assessment to identify risks for ASF and inform policy decision as situations evolve.
- Continue to collaborate internationally on critical ASF research with particular attention to the development of vaccines and other tools to prevent or respond to an ASF outbreak.

AREAS FOR ACTION

- Identify key threats, gaps, and best practices in national border biosecurity, including establishment of appropriate level of activity, informed by risk assessment.
- Establish coherent collaboration to ensure border authorities share intelligence and best practices to mitigate the entry.
- Foster collaboration and compliance to address biosecurity ensuring responsibilities of all stakeholders are identified.
- Involve stakeholders in government, industry, and academia to gain an understanding of the wild pigs populations, and share best management practices at borders and the interface with domestic pigs.

AREAS FOR ACTION

- Ensure risk based movements of animals and animal products domestically to keep industry viable in the face of an outbreak.
- To provide guidance and technical support for the development of common standards for zone establishment to gain wider acceptance.
- Proactively negotiate the recognition of zoning approaches with trading partners to reduce impediments to trade.
- Work with international partners and the OIE to develop globally recognized and accepted guidance on the application of compartmentalization for ASF to gain wider acceptance, both in infected and uninfected countries.

AREAS FOR ACTION

- Develop a consistent approach and strategies to communicating risk, adapted to the specific needs and circumstances, including disease status, of various countries.
- Identify or develop platforms and mechanisms for ongoing coordination of messaging and for sharing of communications-related information between countries.
- Establish mechanisms for monitoring public narrative on ASF to ensure information in media and social media is accurate.
- Develop notification protocols to update partners on disease status.



PARTNERSHIPS

Leverage existing partnerships or build new ones to engage stakeholders in areas which require collaboration to attain expeditious and responsive solutions to manage ASF. Clearly define the roles and responsibilities of the partners in accordance with their respective mandate.



GOVERNANCE

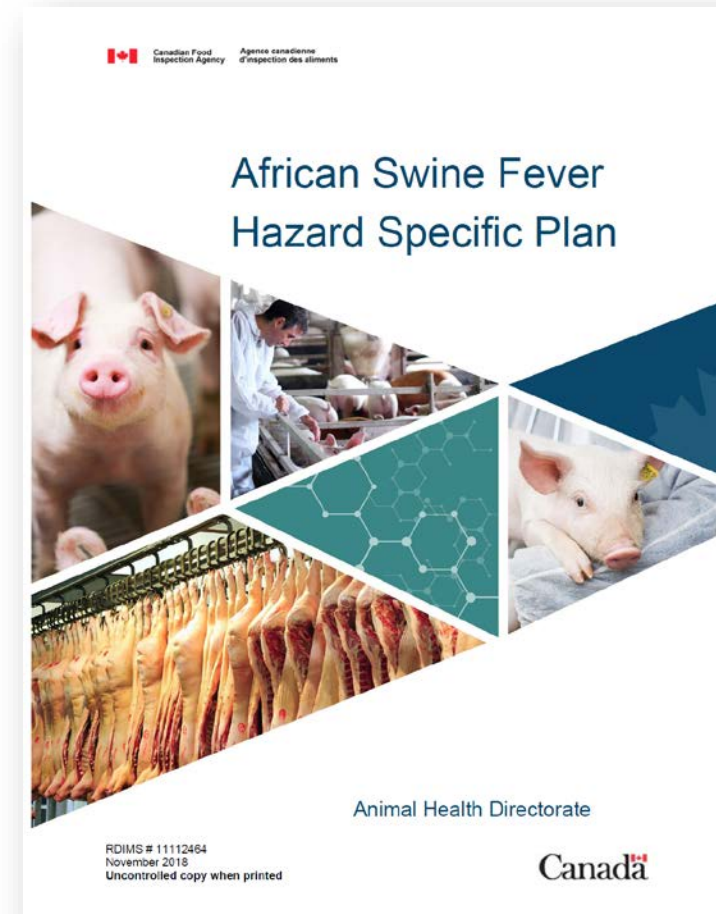
Optimize the potential of existing governance mechanisms at international, regional, sub-regional and national levels to ensure effective coordination and co-operation among all parties to implement appropriate measures to achieve common objectives for the prevention and control of ASF.

CFIA & Industry Preparedness

ASF Hazard Specific Plan

(LMIS)

Livestock Market
Interruption Strategy



NA Diagnostic Cooperation

❖ Harmonization of ASF Dx in North America- SENASICA, FADDL & CFIA

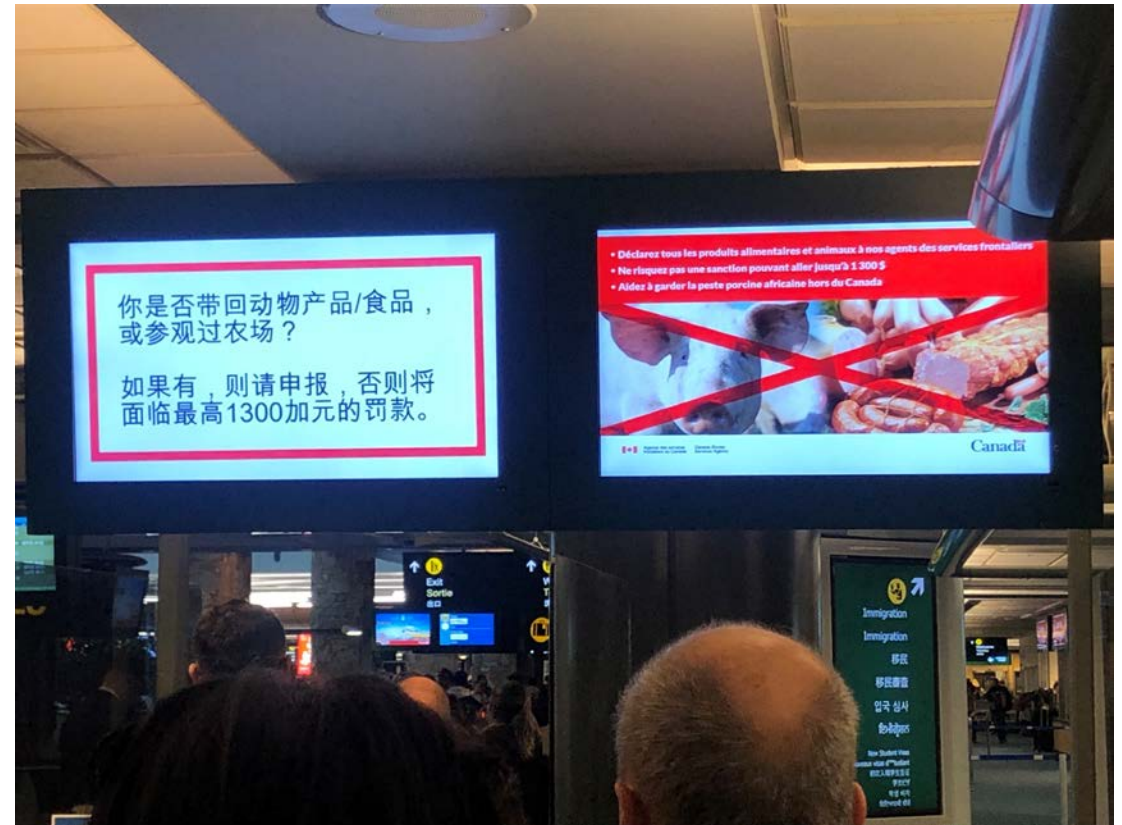
- US, Mexico & Canada national FAD Labs - **Similar mandate and responsibilities**, but use **different diagnostic tests & reagents** obtained from a **wide variety of sources**
- Harmonization is critical - **Intensive and highly interconnected trade** between Canada, Mexico and the US
- Initiated **harmonization of all Dx tests for ASF, FMD and CSF**
- First phase will focus on **real-time PCR assays**
- Develop a **“Harmonization” Panel** - 30 samples per pathogen (Dilution series, different genotypes/serotypes, negatives, differentials)



Travellers Entering Canada

In Flight Announcements

- General
- Specific
- Adaptive





Penny Lawlis • 1st

Lead Auditor and Trainer at Professional Livestock Auditing Inc.

19h •

Good to see info re ASF at Pearson! #EganBrockhoff

...see more

Signage at Airports

ASF Alert

Declare Meat Products

Multiple Languages

Fines



NATIONAL LEVEL COMMITTEES AND WORKING GROUPS

Executive Management Board

National Emergency Response Team

Enhanced
Biosecurity-Prevention

Preparedness Planning

Ensure Business
Continuity

Coordinated Risk
Communications

Biosecurity
Working Group

Humane Depopulation
Working Group

Hog Supply
Working Group

Communication
Working Group

Wild Pig
Working Group

Surveillance
Working Group

Research Working Group

Zoning Industry-Government
Working Group

Executive Management Board

Government

- CFIA VP's
- CVO

Industry

- CPC Executive Director
- CMC
- Industry Leaders

National Emergency Operations Centre

Activated Summer 2018

Federal – Provincial – Industry

- CFIA, CBSA, AAFC – CCVO's & Ag – CPC

National Working Groups

Putting Industry at the ICS Table

Provincial Emergency Operations

Three Regional EOC's

- Industry
- Provincial CVO's
- Regional CFIA Managers



Foreign Animal Disease
Preparedness

Bringing Teams Together

EMERGENCY OPERATIONS CENTRES MEETING

NOVEMBER 25 – 26, 2019

GATINEAU, QUÉBEC



Canadian Pork Council
Conseil canadien du porc

CPC NEOC Meeting

- Prevention & Preparedness
- Destruction & Disposal
- Response & Operations
- Assessing Impact
- Zoning
- Communications



CPC NEOC Meeting

“You fight the way you
train, so you better train
the way you want to fight”

— Mike Johnstone



Small Scale Producers

Producer Manuals

Social Media Campaign

CPC one-pagers





Swine Innovation Porc

**ASF RESEARCH PRIORITY
RESOURCE ALLOCATION**

Developed by the Coordinated ASF Research Working Group

WORKING GROUP MEMBERS:

Andrew Van Kessel, Swine Innovation Porc
Egan Brockhoff, Canadian Pork Council
Alfonso Calvijo, National Centres for Animal Disease (for CFIA)
Volker Gerdts, VIDO-InterVac
Gabriela Guigou, Canadian Pork Council
Paul Sundberg, Swine Health Information Centre
Leslie Walsh, Swine Innovation Porc

Research Working Group

SIP

CPC

NCFAD

CFIA

VIDO

SHIC

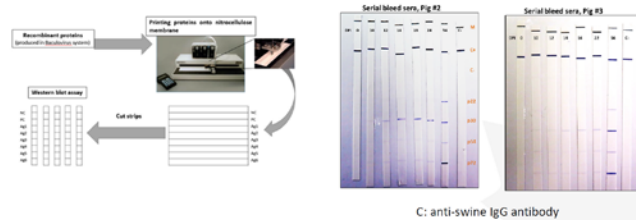
ASF Research in Canada

1. Multi-antigen print immunoassay – confirmatory assay for ASF ELISA.
2. Indirect & Competitive ELISA – validation of commercial and inhouse kit.
3. Oral Fluid ASF Detection – Study with 2 different ASF Viruses.
4. Field Validation of Oral Fluid for ASF – Vietnam, USDA and Canada study.
5. Meat Exudate PCR – Alternatives for ASF detection.
6. Highly Sensitive & Specific On-site Detection System for ASF – testing and validation.
7. ASF Eradication diagnostics – Ghana cooperative study.
8. Harmonization of NA labs project – US, Canada, Mexico.
9. Viral Vector Vaccine Development Research
10. Antiviral Candidate Research

❖ New Serological Assays for ASF

1. Multi-antigen print immunoassay (MAPIA)

- Confirmatory assay for ASF ELISA
- Funded by NPB-CEEZAD, CFIA RPS
- Baculovirus expressed ASFV antigens (p22, p30, p54 and p72)
- Printed on PVDF membrane
- Can be produced in large scale at BSL 2 conditions



2. Oral fluid (OF) as a surveillance tool for detection of ASF in commercial herds Contd.



- ❖ A larger group of pigs (25-30) in a single pen with one pig exp. infected
- ❖ Two independent studies at the NCFAD - Highly virulent ASF Georgia 07
Two independent studies at the FADDL - Moderately virulent ASF Malta/78
- ❖ Combined with direct observation and use of infrared cameras for detection of fever during sampling period
- ❖ Tested for ASF genome by real-time PCR (FADDL & NCFAD protocols)

3. Field Validation of OF Testing in an ASF- Affected Country



- MOU between CFIA & the Vietnam National University of Agriculture (VNUA)
- Upcoming - Training, Setting up the NCFAD & FADDL ASF real-time PCR assays, oral fluid sample collection and portable assay validation



Cooperation Collaboration

AFRICAN SWINE FEVER



Keeping African swine fever out of Canada

Feed Risk Analysis

PIPESTONE®

**Industry Government
ASF Working Group**

Feed Imports **NOT of
Animal Origin**



Declaration – MARCH 2019

Secondary Control Zones were declared by the Minister of Agriculture and Agri-Food under the *Health of Animals Act*

An Order was made under the *Health of Animals Act*
Designating Things as being capable of being affected or contaminated by ASF Virus

Notice to Industry

Changes to import requirements for unprocessed **grains** and **oilseeds**, as well as associated meals destined for use in livestock feed

As of March 29, 2019, the following changes will come into effect for imports of unprocessed grains and oilseeds, as well as associated meals destined for use in livestock feed from those countries listed in [Appendix 3 of Import Requirements for Plant-based Feed Ingredients Imported for Use in Livestock Feed](#) entering Canada through a declared secondary control zone. The declared control zones are those marine ports identified in [Appendix 1](#) of Import Requirements for Plant-based Feed Ingredients Imported for Use in Livestock Feed.

Secondary Control Zones

International Shipping
Ports become **Secondary
Control Zones**

- Vancouver
- Prince Rupert
- Toronto
- Montreal
- Quebec
- Halifax




Making People Aware

WHAT'S HITCHING A RIDE IN YOUR FEED?

African swine fever (ASF) and other foreign animal diseases (FAD) can be transmitted via feed or feed ingredients imported from countries where these diseases are present.

Both contaminated feed ingredients and contaminated packaging can potentially carry live virus.



Holding feed ingredients in storage prior to feeding can reduce viral survival.
Time, temperature, the feed ingredient itself and the properties of the virus all impact survival time. All four of those factors are critical but a simple rule is, the higher the temperature the shorter the virus survival time.

Transport time of feed ingredients from China to Canada or Europe to Canada averages between 30 and 40 days. Those days count in our favour.

Recommended holding times before a feed or feed ingredient is used:
20°C for 20 days or 10°C for 100 days

Considerations to reduce the risk of viral transmission through feed ingredients:

1. Country of Origin – selecting feed ingredients from regional sources reduces the risk of the introduction of a Foreign Animal Disease.
2. Supplier Selection – ask your Feed Mills and Feed Ingredient Suppliers to select sources that are from countries free of Foreign Animal Disease when possible, or at minimum, are compliant with known quality assurance standardization such as ISO 22000 or FAMI-QS.
3. Feed Mills – Select Feed Mills that are part of a recognized biosecurity program and participate in the Animal Nutrition Association of Canada's [FeedAssure Program](#) and follow their [National Biosecurity Guide](#).



Current research has shown that **feed ingredients can support viral survival and act as transport media to introduce diseases to your farm.** The science on viral transmission via feed is still in its infancy and will continue to change but there is enough known to make general recommendations. This document is intended to inform decisions that may reduce the risk of viral transmission. It is not intended to guarantee the complete elimination of the risk of viral transmission via these potential routes.



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Reality check:


- Feed is one of many potential vectors of the virus
- Exclusion of high-risk ingredients such as rice hulls and corn cobs from high-risk countries such as China, is currently the best strategy to keep feed and feed ingredients from bringing ASF into Canada.

Current supply chain constraints may limit producers' ability to completely avoid Chinese- or Asian-based ingredients, and it may not be necessary if the ingredient is unlikely to be contaminated.

Here's what you can do:

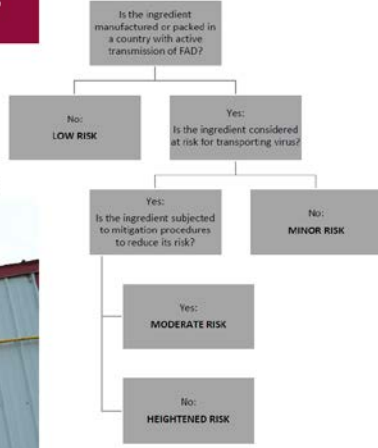
- Have a chat with your suppliers
- Review and improve your biosecurity
- Stay tuned for more research

Pork producers should work with their feed suppliers to minimize viral transmission risk from feed ingredients.



SHIC decision tree matrix to minimize viral transmission risk from feed ingredients

The decision tree and questions developed by the US-based Swine Health Information Center (SHIC) could help producers have conversations with their feed or ingredient supplier about the safety of their ingredients.



```
graph TD
    Q1[Is the ingredient manufactured or packed in a country with active transmission of FAD?] -- No --> L1[LOW RISK]
    Q1 -- Yes --> Q2[Is the ingredient considered at risk for transporting virus?]
    Q2 -- No --> L2[MINOR RISK]
    Q2 -- Yes --> Q3[Is the ingredient subjected to mitigation procedures to reduce its risk?]
    Q3 -- Yes --> L3[MODERATE RISK]
    Q3 -- No --> L4[HEIGHTENED RISK]
```

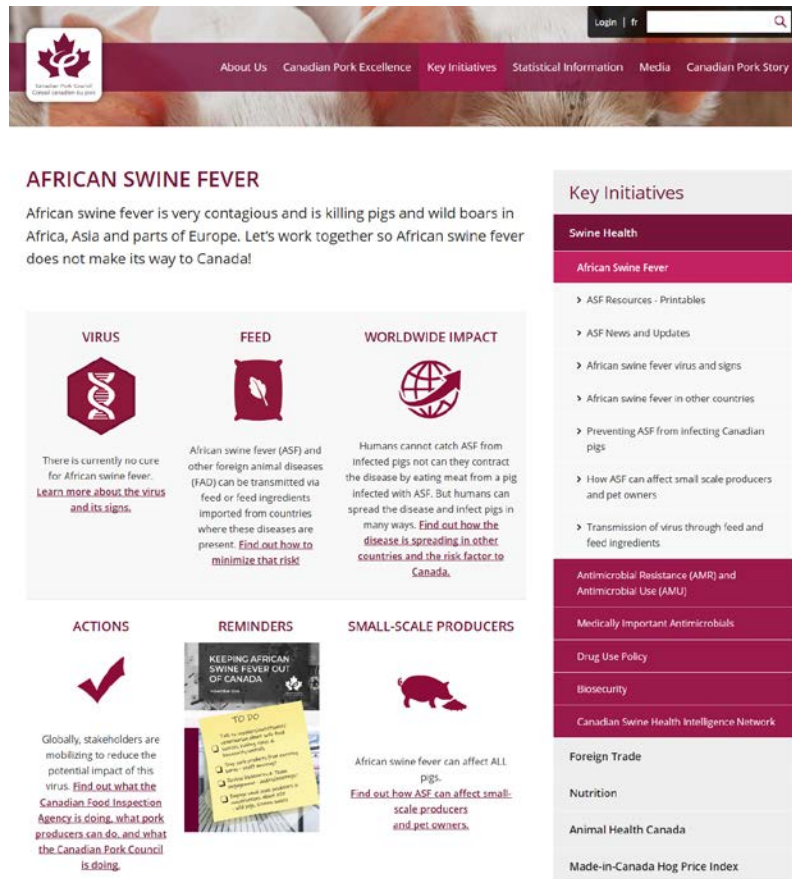
Low risk feed ingredients
Synthetic amino acids packaged in individual, single-use bags

High risk feed ingredients
Rice hulls and corn cobs
Conventional soybean meal
Organic Soybean meal
Soy oil cake
Distillers dried grains with solubles
Lysine hydrochloride
Choline Chloride
Vitamin D

For more information on African Swine Fever and the potential impact on the Canadian herd:
www.cpc-ccp.com/african-swine-fever



Resources and Communications



AFRICAN SWINE FEVER

African swine fever is very contagious and is killing pigs and wild boars in Africa, Asia and parts of Europe. Let's work together so African swine fever does not make its way to Canada!

VIRUS
There is currently no cure for African swine fever. [Learn more about the virus and its signs.](#)

FEED
African swine fever (ASF) and other foreign animal diseases (FAD) can be transmitted via feed or feed ingredients imported from countries where these diseases are present. [Find out how to minimize that risk!](#)

WORLDWIDE IMPACT
Humans cannot catch ASF from infected pigs nor can they contract the disease by eating meat from a pig infected with ASF. But humans can spread the disease and infect pigs in many ways. [Find out how the disease is spreading in other countries and the risk factor to Canada.](#)

ACTIONS
Globally, stakeholders are mobilizing to reduce the potential impact of this virus. [Find out what the Canadian Food Inspection Agency is doing, what pork producers can do, and what the Canadian Pork Council is doing.](#)

REMINDERS
[KEEPING AFRICAN SWINE FEVER OUT OF CANADA](#)
[TO DO](#)

SMALL-SCALE PRODUCERS
African swine fever can affect ALL pigs. [Find out how ASF can affect small-scale producers and pet owners.](#)

Key Initiatives

- Swine Health
 - African Swine Fever
 - ASF Resources - Printables
 - ASF News and Updates
 - African swine fever virus and signs
 - African swine fever in other countries
 - Preventing ASF from infecting Canadian pigs
 - How ASF can affect small scale producers and pet owners
 - Transmission of virus through feed and feed ingredients
 - Antimicrobial Resistance (AMR) and Antimicrobial Use (AMU)
 - Medically Important Antimicrobials
 - Drug Use Policy
 - Biosecurity
 - Canadian Swine Health Intelligence Network
- Foreign Trade
- Nutrition
- Animal Health Canada
- Made-in-Canada Hog Price Index



ONTARIO PORK

Keep African Swine Fever out of Canada



Do not feed kitchen scraps and other food waste to your pigs

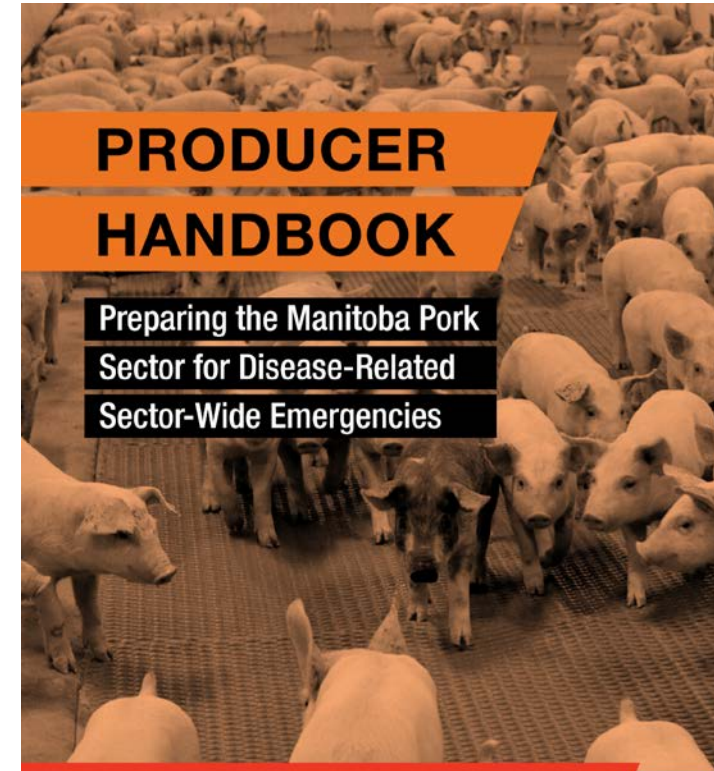
ontariopork.com

Resources and Communications

BIOSÉCURITÉ EN SITUATION D'URGENCE



23



Requires
more
attention:

ZONING

COMPARTMENTALIZATION

RESPONSE PROGRAMMING

DESTRUCTION & DISPOSAL

COMMUNICATIONS

WILD PIGS



ZONING

Zoning at Speed?

- Surveillance
- Traceability
- Biosecurity

Recognizing Zones

- USA
- EU
- Who is next?
 - Japan
 - South Korea

Compartmentalization

- Industry
- CFIA
- CPC



AUSVET



OneHealth Scientific Solutions

MLF ASF Compartmentalization Project: Opening Remarks and Workshop Objectives

Rory McAlpine
November 21. 2019
Ottawa, Canada



Destruction / Disposal

Humane – *Sans cruauté*

At Speed - *Rapide*

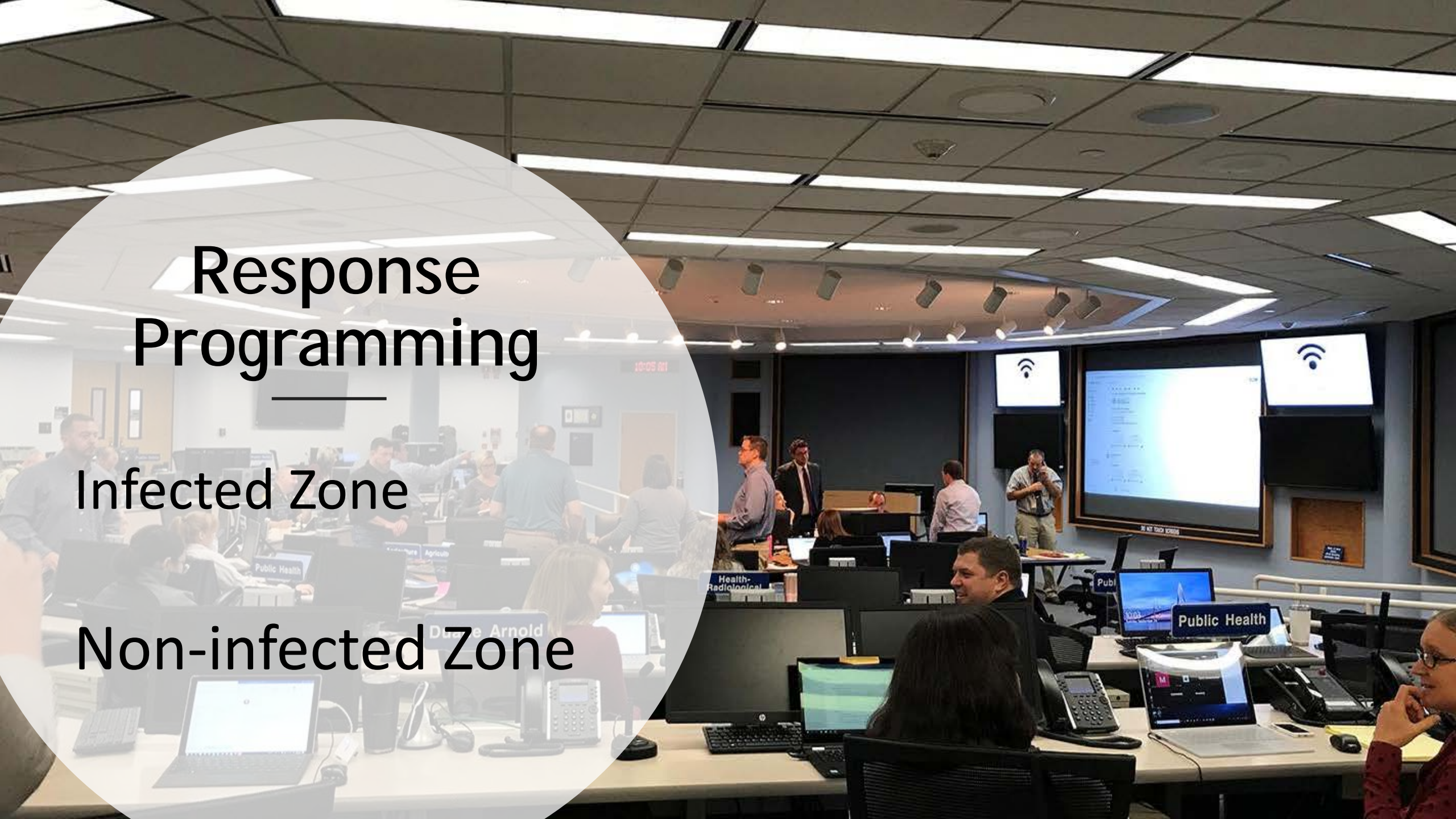
Environmentally Sound
*Sans danger pour
l'environnement*

Need Options
Besoin d'options

Response Programming

Infected Zone

Non-infected Zone





**CRISIS
AHEAD**

CRISIS COMMUNICATIONS

Are You Prepared?

Wild Pigs

Surveillance

Location

Management

Eradication



Environment and Climate Change Canada funding
to Canadian Wildlife Health Cooperative

What are
the next
steps?

MAINTAIN THE MOMENTUM

ZONING & COMPARTMENTS

ADVOCACY – RESPONSE PROGRAMMING

DESTRUCTION & DISPOSAL

STRATEGY IMPLEMENTATION

WILD PIGS

Common Goals

Keeping ASF out of NA

Industry Preparation

Bringing Focus to our Plans

**AFRICAN SWINE FEVER
ECONOMIC IMPACT**

#porkadvocate

