



Canadian Food
Inspection Agency

Agence canadienne
d'inspection des aliments

AFRICAN SWINE FEVER

Disease Response – Part 2

Canadian Veterinary Medical Association



Canada 

Agenda

- African swine fever
Disease Response



A photograph of several piglets in a field of green grass under a bright blue sky with wispy clouds. The piglets are white with some brown spots. One piglet in the foreground is looking towards the camera. The text 'ASF Disease Response' is overlaid in the center of the image.

ASF Disease Response

The *Health of Animals Act* and *Regulations*

Under the *Health of Animals Act* and *Regulations* a CFIA inspector may:

- investigate the suspicion of animal disease;
- impose movement restrictions;
- order destruction;
- order disposal;
- pay compensation;
- order cleaning & disinfection.

What Happens if ASF is Suspected?

CFIA will investigate all reported suspect cases and perform the following:

- field epidemiology investigation;
- establish biosecurity zones on site to prevent disease from leaving the premises → biocontainment;
- diagnostic sampling;
- apply movement restrictions.



Suspect Investigation

Field Epidemiology Investigation

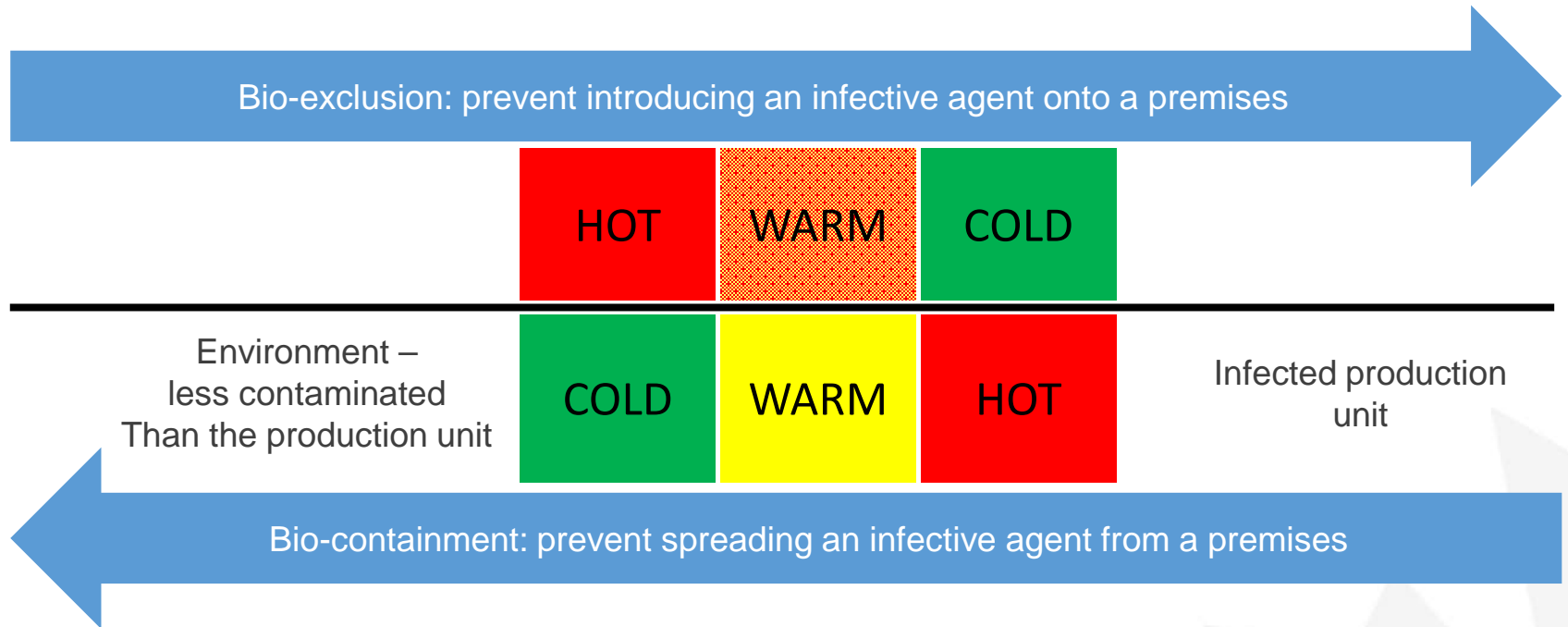
1st action to occur in an investigation

- Collection of information prior to the visit
 - Call to the animal/ premises owner +/- call to the veterinarian
- Collection of information during the on-site visit
 - Premises, affected animals, herd of origin, workers
- Premises Investigation Questionnaire (PIQ)
- Personal information is protected under the provisions of the *Privacy Act*



Suspect Investigation

Biosecurity

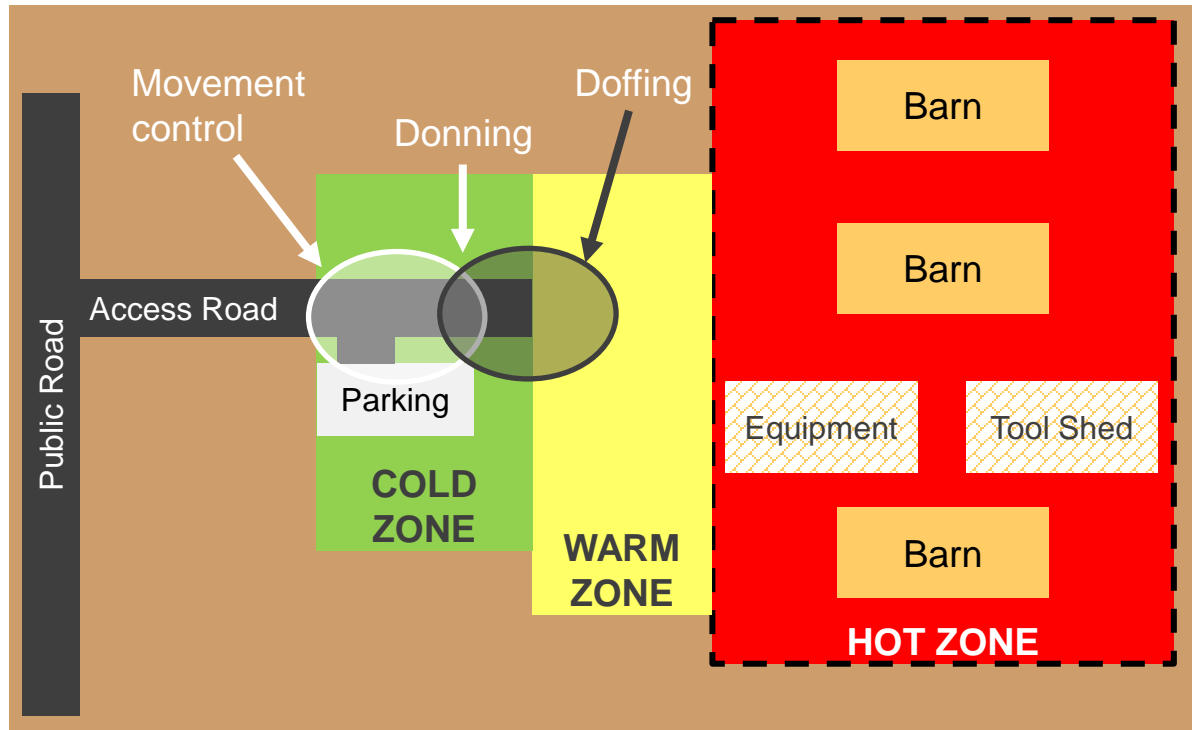


Biosecurity

bio-exclusion, bio-containment, and bio-management

Suspect Investigation

Biosecurity



Suspect Investigation

Clinical Examination and Sample Collection

Clinical examination

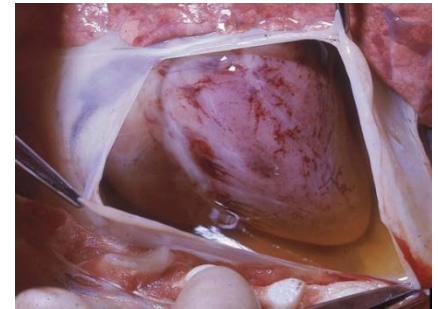
Sample types:

- Blood samples (9 animals showing clinical signs – febrile or signs of hemorrhage)
 - EDTA whole blood and
 - Serum
- Tissues (up to 5 animals)
 - Tonsil, spleen, lymph nodes, kidney, lung, liver, brain
 - Body fluids - Pericardial, peritoneal
 - Bone marrow – Best option for decomposed carcasses



Laboratory confirmation:

- National Centre for Foreign Animal Diseases (NCFAD)
National Microbiology Laboratory, Winnipeg, MB.



Suspect Investigation

Movement Control

- Access to the premises – restricted
- One single entry point
 - Gate officer
- Risk determination
 - Negligible Risk – no movement restrictions
 - Low Risk
 - High Risk:
 - Movement restrictions on the premises - “Declaration of an Infected Place”
 - Movement restrictions on animals / things - “Order to Quarantine Animals and/or Things”



ASF Presumptive Case

Immediate Measures

- Further diagnostic sampling – if required
- Extended epidemiological investigation to determine potential source and spread of disease to:
 - Identify all epidemiologically linked premises
 - Identify risk factors to determine incursion route
- Movement restrictions on all swine premises within a min 3 km radius
- Maintenance of on site movement restrictions and biosecurity zones
- Voluntary standstill may be recommended by CFIA

What Happens if ASF is Confirmed?

Disease Response Strategy: **Eradication**

Objective: Return to Canada's ASF Disease Freedom Status in domestic swine and if possible in wild pigs.

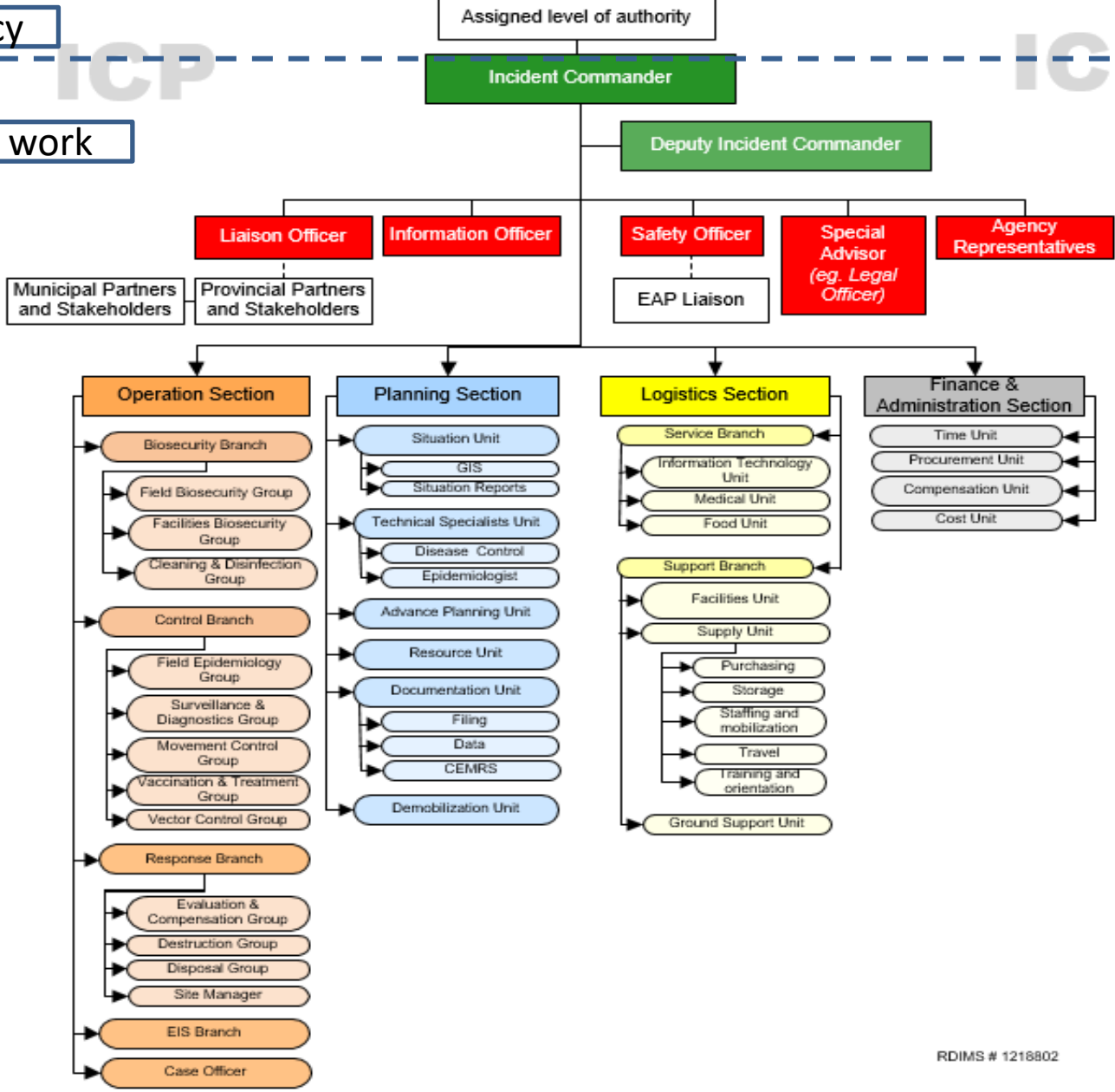
For OIE purposes eradication means “the elimination of a pathogenic agent from a country or zone “

What Happens if ASF is Confirmed?

CFIA will implement an incident management structure to respond to the outbreak:

- establishment of a centralized location for managing the incident (i.e. Incident Command Post)
- deployment of responders for: destruction, disposal, diagnostics, epidemiology, movement control, etc.
- immediate engagement with stakeholders





RDIMS # 1216802

Response Activities

Infected premises:

- Epidemiology ✓
- Depopulation of animals on positive premises ✓
- Disposal ✓
- Evaluation of the animals for compensation ✓
- Cleaning & Disinfection activities ✓
- Restocking +/- sentinels ✓

✓	Completed immediately
✓	Completed later

Beyond the infected premises:

- Actions on epidemiologically linked premises ✓
- Actions on monitored premises (located 3 km up to a minimum of 10 km away from infected premises) ✓
- Implement zoning
 - Movement controls in order to avoid exposed/suspect animals, equipment, vehicles exiting the zones ✓
- Outbreak surveillance ✓

Epidemiology

Describing, documenting and communicating information on:

- The infected premises
 - When and from what source the agent was introduced to the premises.
 - Where the agent is and where it is not present on the premises.
 - When the agent may have been spread from the premises.
- The identification of epidemiologically epi -linked premises
- The prioritization of investigation of epi-linked premises
- The evaluation of risk and epidemiological analysis

Outbreak Surveillance & Diagnostics

Who is sampled during an outbreak?

- All epidemiologically linked premises
 - Contact; and
 - Proximity premises (0 – 3 km from infected premises)
- Monitored premises
 - Premises within 3 – 10 km of infected premises
- Suspect premises
- Pre-movement testing
- Surveillance sampling

Laboratory Capacity

- Canadian Animal Health Surveillance Network (CAHSN) laboratories.
- National Centre for Foreign Animal Diseases

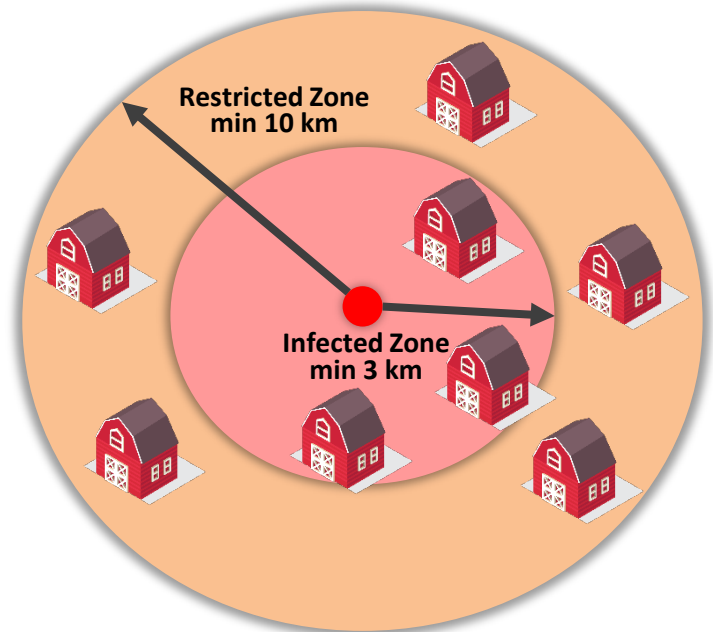
Movement Control

Individual Premises Movement Controls

Initially in an ASF outbreak, all infected premises, epidemiologically linked premises and premises within 10km minimum of an infected premises will have movement restrictions placed on them

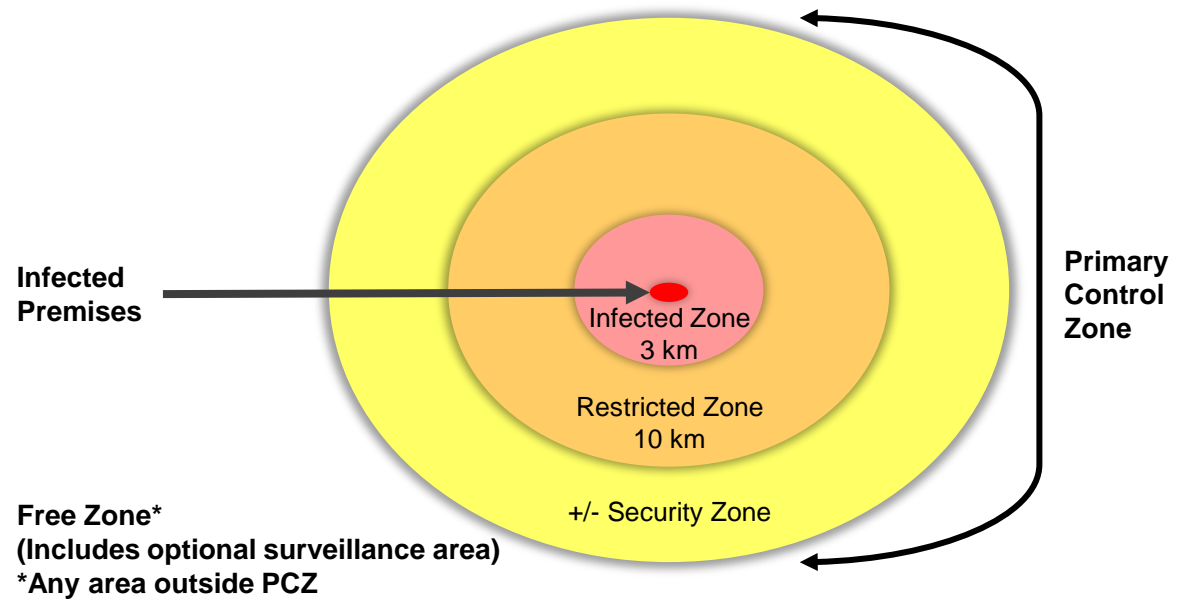
Declaring a Primary Control Zone (PCZ)

The CFIA will declare a PCZ as soon as possible once an outbreak of ASF confirmed.

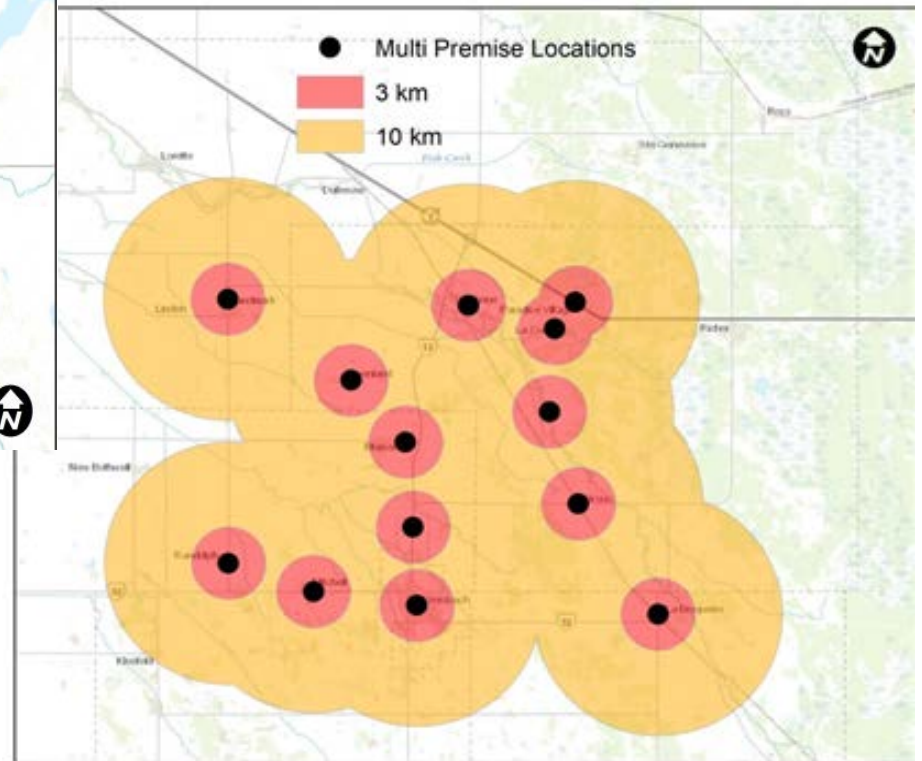
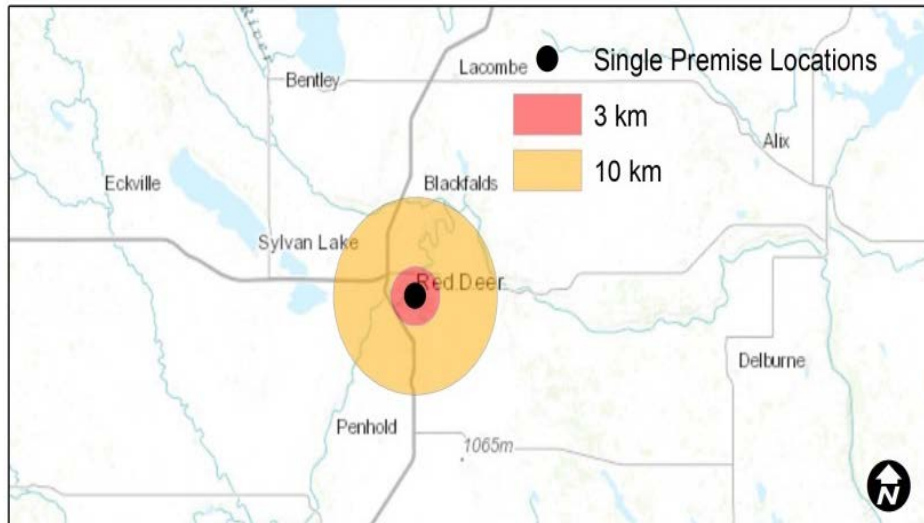


Primary Control Zone

- Minister's declaration (Federal Minister of Agriculture) → Delegation to CFIA president
- size and number depend on anticipated animal movement
- defined by identifiable political or geographic boundaries



Simulated Outbreak of ASF with Multiple Premises Across the Western Provinces



Depopulation: Humane Destruction Guidelines

- Depopulation is applied to:
 - All swine on an infected premises regardless of individual infection status
- The destruction method used depends on:
 - Animal production type (isoweans versus mature sows/boars), number of animals and environment/facilities
 - Provincial and international animal welfare requirements
 - Compliance with biocontainment measures

The owner or any person having care or control of an animal **may be ordered to dispose of it**, where the animal is, or is suspected of being, affected or contaminated by a disease .

Disposal

- Disposal of all destroyed animals and ASF contaminated things (i.e. manure)
- Options:
 - On farm versus off farm
 - Burial
 - Landfill
 - Incineration
 - Rendering
 - Composting
- Biosecurity and Environmental issues



Evaluation & Compensation: The Basics

- Compensation is paid for:
 - animals and things ordered destroyed - market value
 - disposal costs of animals or things ordered destroyed.
- Compensation is not paid for lost production or costs associated with cleaning and disinfection.
- Compensation models are used to determine the value.

Cleaning & Disinfection (C&D)

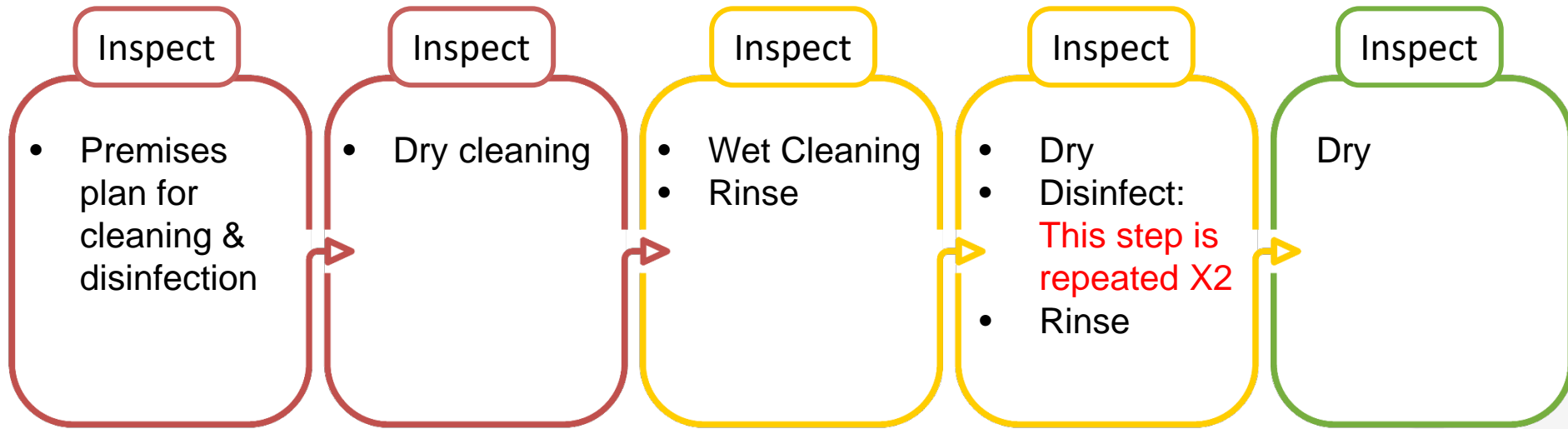
For every place or thing ordered to be cleaned and disinfected the:

- objective is to mitigate the risk of further spread of the infective agent.
- responsibility lies with the owner to complete this task.
- costs are borne by the owner.



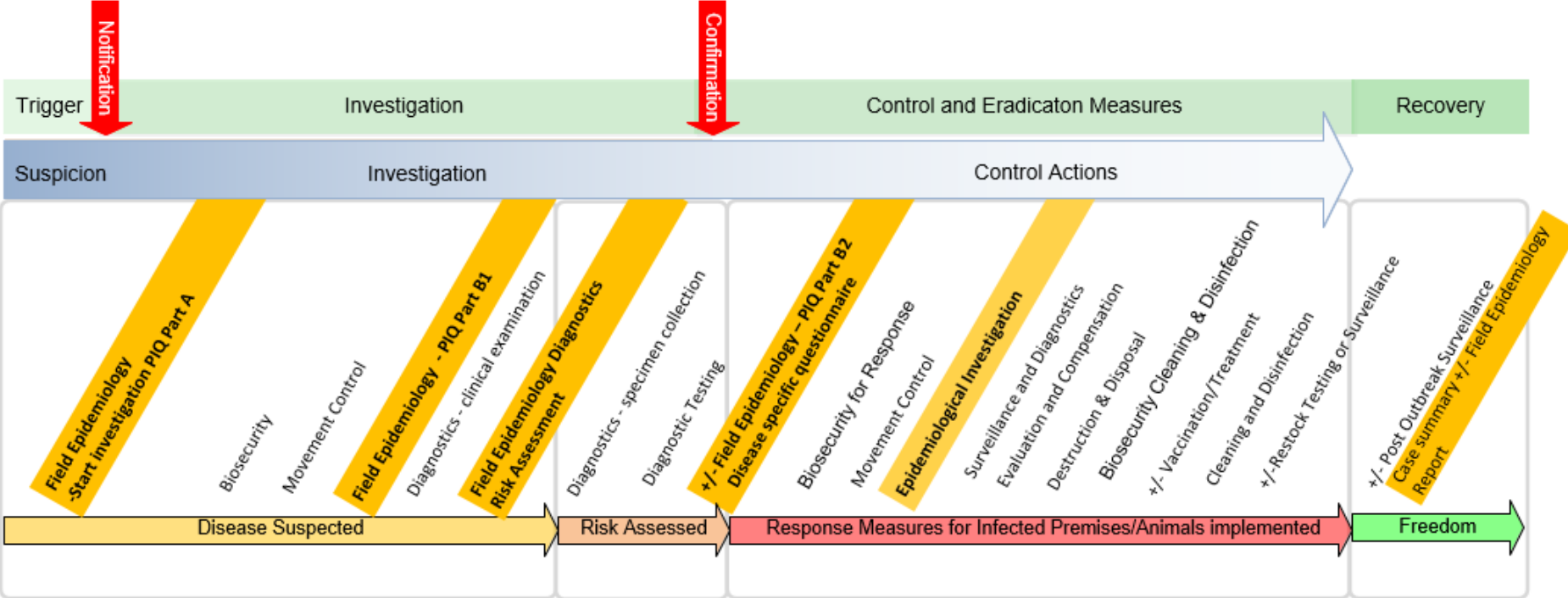
C&D must be approved by CFIA before restocking and the process of declaring “*country freedom*” can begin.

Steps Required for Cleaning & Disinfection



Fallow period is required +/- sentinel animals

Overview of ASF outbreak



Role of Veterinarians

What role might a veterinarian play during the disease response stage?

- Communication of response actions to clients
- Assist with provision of epidemiological information
 - Stress importance of good record keeping to producers!
 - Privacy respected
- Reinforce importance of biosecurity and respecting restrictions
- Surveillance
- Role in destruction



Communication with Veterinarians

Nationally, the CVMA (+/- other national veterinary groups, i.e. CASV) will be part of regular update calls, and will also receive information from the Chief Veterinary Officer for Canada.

- CVMA will need mechanisms to disseminate information to members.
- Provincial associations may also be a source of information for veterinarians

Locally, veterinarians will be key points of contact for CFIA responding to the disease on farm.

Messaging in an ASF Outbreak

Veterinarians play a key role in conveying these messages to their clients and within their communities before, during and after an ASF outbreak.

Canadian pork IS safe to eat.

The ASF virus cannot be transmitted to humans.

Eradication of the disease is a top priority for Canada.

Preventing the spread of ASF is everyone's responsibility.

ASF is a highly contagious disease affecting all PIGS

DO NOT feed food waste to pigs.

DO NOT throw pork products in the garbage unless they have been fully cooked.

DO clean all farm equipment, footwear and clothing PRIOR to visiting a farm.

DO NOT allow pork products to be brought onto your farm.

DO NOT allow farm access to wild pigs.

DO know where your feed and feed ingredients come from.

KNOW the signs of ASF.

REPORT any suspicious pig illnesses to your vet or the CFIA.

Conclusion

We have completed part 2 of the African swine fever presentation series.

Part 3 (November 3, 2020) will cover:

- Prevention and preparedness
- Role of veterinarians

A photograph of a group of white piglets in a pen. The piglets are the central focus, with several in the foreground looking towards the camera. They have pinkish-red ears and snouts. The background is slightly blurred, showing more piglets and a chain-link fence. The ground is dirt with some grass and sticks.

QUESTIONS?