How to recover a compartment after an outbreak

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‘Riding the wave to the future’

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Background (Poultry)

TREMOLÉN JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER
WEEKS 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4
SLAUGHTERING OF REMAINING B.  [Week 1]
COMPOSTING
BURIAL OF REMAINING MANURE
WASHING
DISINFECTION
SILENT PERIOD
SENTINELS
LIFTING OF QUARANTINE
Background (Pork)
Background (Fresh water Salmon)
Outbreak

Impacts
Outbreak impacts

- **Direct impact**
  - Mortality.
  - Change of stock.
  - Loss in productivity
  - Loss in quality

- **Indirect impact**
  - Extra cost in bio-security.
  - Extra cost in surveillance.
  - Extra logistic management
  - Lost markets

The recovery has the objective to reduce the impact of the outbreak
How to recover a compartment after an outbreak?

• How a compartment help to recover the free status, avoid losses and recover trust with clients and trade?

• Compartment is a tool to manage outbreaks and facilitate trade
The essence of a compartment

A sub-population of animals (fishes)

Separated from other subpopulation by Bio-security measures

Surveillance and laboratory status

Different status (Free of one or more diseases)

Traceability and contingency plan

Protocols of managements with audit program

Organization with link with veterinary service
Why a compartment?

• To demonstrate disease free status.
• To assess risk.
• To improve the animal health management:
  – The prevention of diseases introduction.
  – The early detection.
  – The rapid and efficient response to an outbreak.
Why a compartment?

• To have an official certify with international standard.
• To improve public and private relation.
• To facilitate national and international trade (guaranties and trust)
COMPARTMENTALIZATION IS ANIMAL HEALTH MANAGEMENT 2.0
## Variability of compartments

<table>
<thead>
<tr>
<th>TYPE OF SITE</th>
<th>EPIDEMIOLOGICAL UNITS</th>
<th>DISEASES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reproduction</td>
<td>One</td>
<td>Preventive: Exotic diseases</td>
</tr>
<tr>
<td>Production</td>
<td>More than one</td>
<td>Active: Endemic diseases</td>
</tr>
<tr>
<td>Multisite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combination of sites</td>
<td></td>
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</tr>
</tbody>
</table>
Role of Veterinary Service

Set the rules in the country.

Promote and innovate

Assessment companies applications

Include in a strategy

Audit compartment

Veterinary service

Present compartment to markets
What happens in an outbreak?
Outbreak event (First period)

- Endemic or exotic disease.
- Time of detection.
- Number of epidemiological units affected.
- Notification and VS reaction.
- Quality of contingency plan
How to recover a compartment after an outbreak?

Outbreak

Impact

Time

Measures

Compartment recovery

??????
Normal situation

Compartiment

Fresh water sites

Sea water sites

Sea water sites

Fresh water sites
How to recover a compartment after an outbreak

- How the outbreak is detected?
- How react to compartment?
- How to recovery the status?
- How to recovery the compartment?
- How to recover the trade?
Dealing with the outbreak

- Compartment
- Early detection Contingency plan
- Status recovery

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Contingency Plan of the compartment

- Pre-requisites
  - Diagnosis
  - Training
  - Stamping out and desinfection preparation
  - Surveillance
  - Biosecurity
  - Traceability

- Organisational/comunicational

- Technical

- Logistic

Contingency Plan
Details of the reaction (Contingency Plan)

1. Confirm the index case.
2. Notification of suspected/confirmed case
3. Identify the source of infection.
4. Establish the dissemination
5. Eliminate the source of infection
6. Disinfect the infected premises.
7. Avoid the dissemination.
8. Protect free sub-population.
9. Repopulate
10. Demonstrate freedom.
<table>
<thead>
<tr>
<th></th>
<th>Pre-outbreak</th>
<th>Outbreak</th>
<th>Post-outbreak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early detection</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Investigation</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Biosecurity</td>
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<tr>
<td>Surveillance</td>
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<tr>
<td>Stamping out and desinfection</td>
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<tr>
<td>Repopulation</td>
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<tr>
<td>Demonstration of free status</td>
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</table>
Where is the difference?

- First detection
- Early extra bio-security measures
- Investigation
- Stamping out
- Cleaning and disinfection
- Repopulation
- Status recovery
- Compartment recovery
- Sanitary negotiation
- Early extra surveillance measures

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How to recover a compartment after an outbreak (last part)

- Recover a compartment
  - The official recognition of disease free status.
  - The official compartment recognition.
  - The market compartment recognition.
Explore OIE guidelines (Terrestrial code: article 10.4.4. (Avian Influenza))

- If *infection* has occurred in *poultry* in a previously free country, *zone* or *compartment*, the free status can be regained three months after a *stamping-out policy* (including *disinfection* of all affected *establishments*) is applied, providing that *surveillance* in accordance with Articles 10.4.27. to 10.4.33. has been carried out during that three-month period.
“Lost its disease free status due to the detection of infection with ISAV in the zone but the following conditions have been met:

– on detection of infection with ISAV, the affected area was declared an infected zone and a protection zone was established; and

– infected populations have been destroyed or removed from the infected zone by means that minimise the risk of further spread of the disease, and the appropriate disinfection procedures (as described in the Aquatic Manual) have been completed; and

– previously existing basic biosecurity conditions have been reviewed and modified as necessary and have continuously been in place since eradication of the disease; and

– targeted surveillance, as described in Chapter 1.4., has been in place for at least the last two years without detection of infection with ISAV.
Requirement to recover a compartment after an outbreak

1. Transparency, diligent and cooperation.

2. An evidence of stamping out and proper disinfection (Specific protocol and report). Ideally by sentinel.

3. An evidence the population came from a free disease site, internal or external.

4. Sampling with negative results pre-movement.
Conditions to recover a compartment after an outbreak

5. Bio security with appropriated measures.

6. Surveillance in place of that population of the compartment (Early detection).

7. No evidence of clinical sign.

8. Targeted surveillance results to demonstrate freedom.
### Scheme to recover free status (ex. ISA virus)

<table>
<thead>
<tr>
<th>Month</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fishes</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Broodstock</td>
<td>30</td>
<td>30</td>
<td>30</td>
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</tbody>
</table>

End of stamping out, cleaning and disinfection

INDIVIDUAL OR POOL ANALYSIS
• Very clear from the beginning. All steps to be clear and how and when. Transparency and involvement.

• Strategy to present market, from the beginning. Ideal in bilateral agreement in a proactive approach. Transparency and permanent communication.
Discusion

• Variability of compartments and outbreak scenarios.

• Compartment as a toll to recovery after an outbreak.

• Importance of early detection and contingency plan.

• The role of veterinary service.

• Need to improved OIE code in relation to status recovery.

• Strategy to present and incorporate compartment in trade negotiations.
Acknowledgments

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Thanks very much