

National prevention and control measures for avian diseases [Republic of Korea]

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Seoul, Republic of Korea



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Overview of the Republic of Korea's poultry farms

- Susceptible population

- Chicken : 3,771 farms, 223,040,791 heads
- Duck : 606 farms, 9,843,408 heads

* (July 2024, KAHIS) chicken farms with more than 3,000 heads, Duck farms with more than 2,000 heads.

- Risk of introduction of avian diseases into Korea and measures

- HPAI viruses are introduced from wild migratory birds almost every year.
- In order to prevent the introduction of HPAI from overseas, quarantine detector dogs are being used at borders to search for prohibited items such as poultry meat
- Early detection of HPAI viruses of wild migratory birds through surveillance program.

Avian disease situations

- HPAI(Dec 2023~May 2024)
 - No. of outbreaks : 32 cases (15 in duck, 17 in chicken)
 - Subtype : H5N6, H5N1
- Newcastle disease
 - No outbreak since June 2010
 - All chickens must be vaccinated at the hatchery and poultry farm

HPAI Outbreaks in Korea(2021-2024)

Classification	2021/2022	2022/2023	2023/2024
Outbreak Cases (Farms)	47	75	32
Serotype	H5N1	H5N1	H5N1, H5N6
Destroyed (Approximately)	7.3 million	6.6million	3.6 million



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Response measures to HPAI outbreak

1. Movement control

First response teams carry out
Movement control by MAFRA



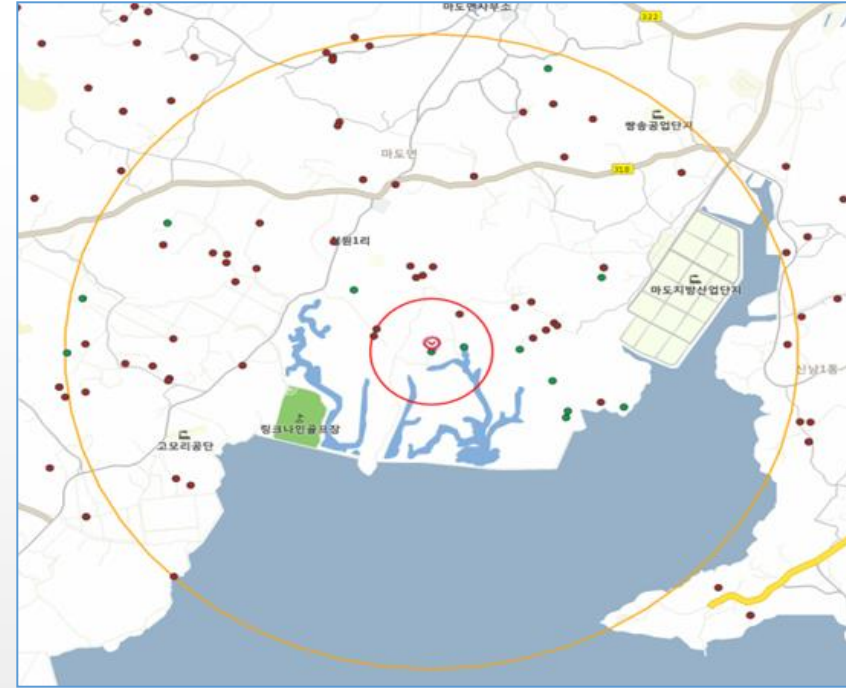
The relevant officials perform
cleaning and disinfection on the site



First response teams remains
until stamping-out is completed



Response measures to HPAI outbreak : 2. Tracking and control



- GPS-based vehicle registration management and tracking.
 - The GPS tracking system is used for recording the routes of all livestock vehicles.
- Korea Animal Health Integrated System(KAHIS).
 - Set up DB of the information of livestock facilities and rapid response system for disease control.

Response measures to HPAI outbreak : 3. Standstill

● Standstill for movement restriction

- Implemented on all the livestock farms, related facilities (slaughterhouses etc.) and vehicles. (within 48 hours)



Response measures to HPAI outbreak

4. Stamping out

- All susceptible animal within a 500m radius from the confirmed farm must be culled as preemptive measure in principle.
- The distance range can be adjusted through a risk assessment of APQA.
- Epidemiologically related farms with HPAI infected farm can also be culled as a preemptive measure.

5. Compensation

- Compensation is paid for culling by compensation team.

6. Vaccination

- No vaccination for HPAI. (Operating antigen bank for emergency vaccination)



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Response measures to HPAI outbreak - surveillance

- Every year, active surveillance for wild migratory birds, poultry farms, traditional market, slaughterhouse is carried out.
- The total number of samples tested is about 500,000 for one year.
- 11 cases out of the 32 HPAI outbreaks reported in poultry farms during 2023/2024 were detected during active surveillance.
- For wild birds, 19 HPAI outbreak cases were detected from fecal samples, captured birds or dead birds.

National prevention and control for HPAI

Measures	Y/N	Description
1. Programme to control or eradicate disease	Y	Avian Influenza regulation
2. Veterinary legislation	Y	Act on the prevention of contagious animal disease
3. Emergency preparedness and response plans	Y	Avian Influenza standard operation procedure(SOP)
4. Disease surveillance	Y	Every year perform active surveillance (about 500,000 cases).
5. Disease reporting	Y	According to law, report to veterinary agency as soon as confirm the HPAI
6. Detection and management of cases	Y	Movement restrictions of animal and animal product, culling, and disinfection
7. Measures to prevent introduction or spread of disease	Y	Animal border quarantine, surveillance of wild migratory birds
8. Vaccination	N	But operate antigen bank for emergency HPAI vaccination
9. Measures to protect public health	Y	Treatment medicine, vaccine against influenza for human (Korean CDC)
10. Communication and collaboration among all competent authorities	Y	Operation the central disasters and safety countermeasures headquarter, cooperation among relevant authorities.
11. Awareness programme for relevant stakeholders	Y	Public relations for related departments, association and producer group



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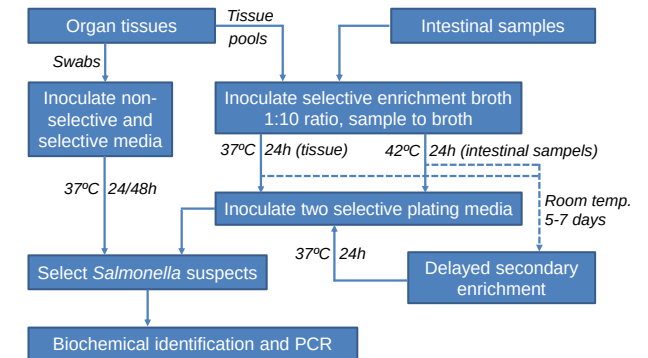
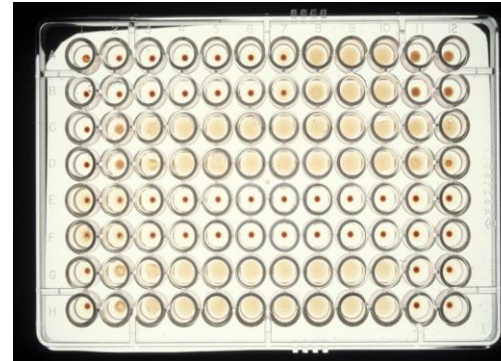
ONE
HEALTH
POULTRY
HUB

National prevention and control plan for HPAI

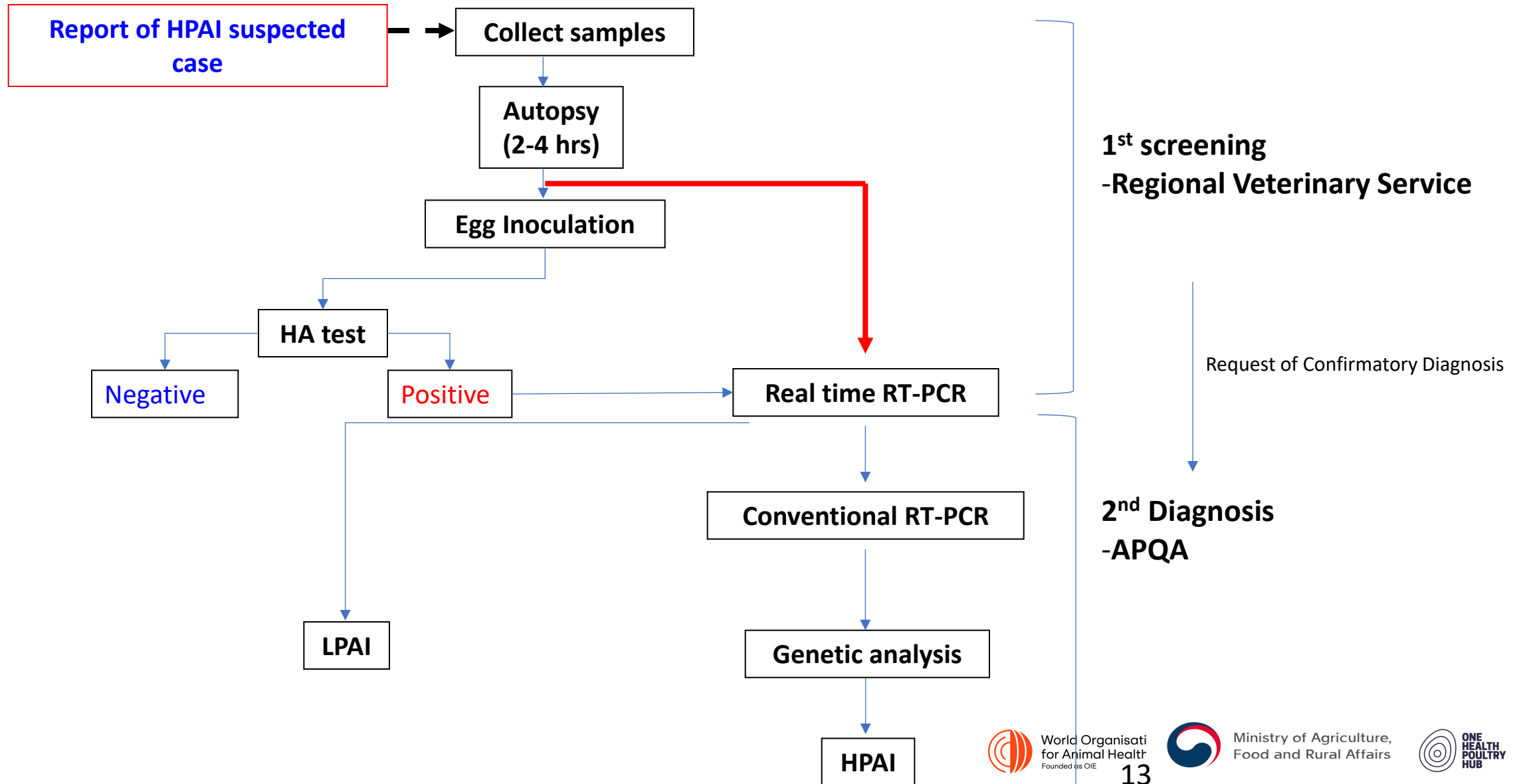
- Special prevention of epidemics period for disease control is designated from Oct. to Feb.
- All the poultry farms are visited and inspected for the preparedness in terms of biosecurity before the special prevention of epidemics period.
- Implement restrictions on breeding broiler ducks in high-risk areas during winter season to decrease the density of the duck farms.
- Integrated poultry farming business operators and local government(cities) with a high risk area of HPAI outbreak establish and operate their own biosecurity program.
- Education to biosecurity officials, farm owners, and other livestock-related personnel about biosecurity rules.

Laboratory capacity

- A brief description of rRT-PCR laboratory capacity for avian diseases
- APQA and provincial laboratories cooperate for the diagnosis of Avian disease like AI, ND
 - Diagnostics: virus isolation, (and RT-PCR), ELISA & HI, Sequencing, NGS etc.



Diagnostic procedure of HPAI



Challenges and solutions in implementing national plan

• Challenges	• Solutions
• Minimize HPAI outbreak	• Strengthening active surveillance for early detection of HPAI. • Increase biosecurity level of the poultry farms against HPAI outbreak. • Strengthening the awareness and compliance of the farms with the crucial biosecurity rules.
• Block the human infection	• Strengthening the collaboration system with the Disease control and prevention agency.

Thank you

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