



Japanese experience in the Control of HPAI

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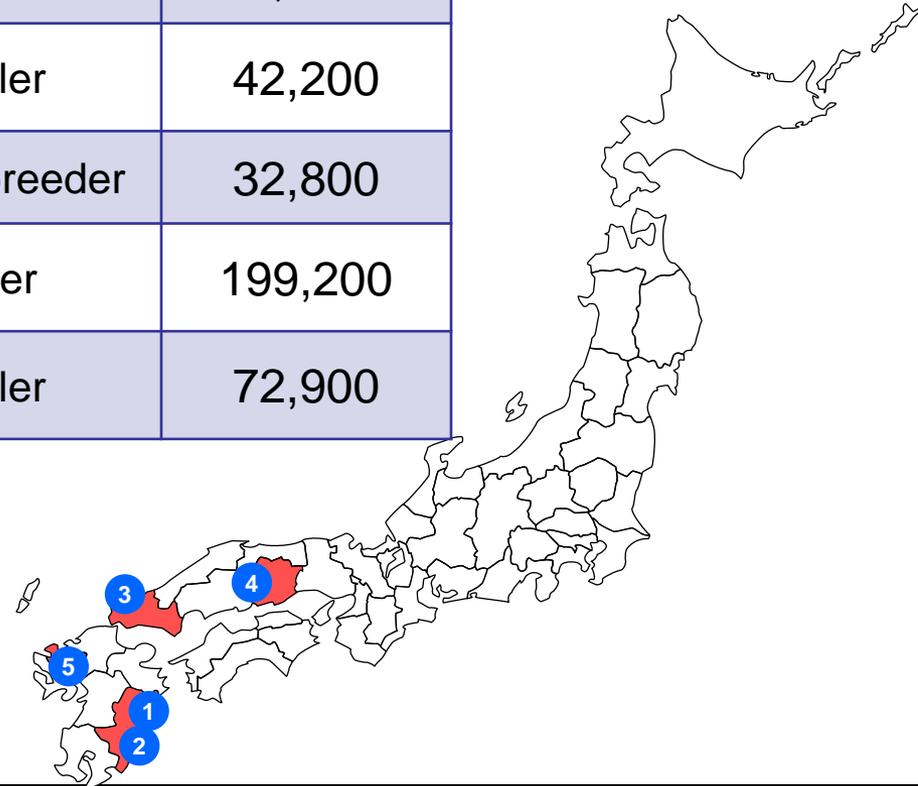


HPAI outbreaks in Japan from 2004 to 2015

2004	H5N1	4 cases (3 pref.)	270,000 culled
The Biosecurity Standards and the Guidelines established			
2007	H5N1	4 cases (2 pref.)	170,000 culled
Nov. 2010 - Mar. 2011	H5N1	24 cases (9 pref.)	1.8 mil. culled
The Biosecurity Standards and the Guidelines revised			
Apr. 2014	H5N8	1 case	112,000 culled
Dec. 2014 - Jan.2015	H5N8	5 cases (4 pref.)	351,000 culled

HPAI outbreaks since Dec. 2014

No.	Confirmation date	Place (Prefecture)	Affected population	Destroyed (round numbers)
1	16/Dec/2014	MIYAZAKI	Broiler breeder	3,900
2	28/Dec/2014	MIYAZAKI	Broiler	42,200
3	30/Dec/2014	YAMAGUCHI	Broiler breeder	32,800
4	15/Jan/2015	OKAYAMA	Layer	199,200
5	18/Jan/2015	SAGA	Broiler	72,900



Measures against HPAI

1. Prevention

- Impose strict biosecurity measures at farms

2. Early response

- Monitoring the disease situation (active/passive surveillance)
- Early detection and reporting

3. Containment

- Culling of infected animals
- Disinfection
- Movement restrictions
- Testing animals at farms around affected farms

1. Prevention Biosecurity standards

Livestock owners should:

- ❖ Keep update of the animal health info.
- ❖ Set biosecurity control areas
- ❖ Prevent introduction of pathogens
- ❖ Prevent wild animal-livestock contact (e.g. install bird net)
- ❖ Maintain hygienic conditions
- ❖ Daily check health of the livestock
- ❖ Secure burial sites or disposal facilities
- ❖ Keep records



Disinfection gate for vehicles at entrance to a farm



Install bird net at farm

2. Early response Active Surveillance in poultry

1. Fixed-point monitoring (all year round)

- high risk farms are selected
- at least 10 samples from each farm every month

2. Enhanced monitoring (migratory season; from Oct. to May)

- target farms are selected randomly at the level sufficient to detect 10% prevalence with at least 95% level of confidence.
- at least 10 samples for antibody tests from each farm

2. Early response

Passive Surveillance in poultry

- ❖ HPAI is a notifiable disease under the Act
- ❖ Mandatory immediate notification of abnormal mortality rate (twice the average mortality)

Notified cases since October 2011

2011 (Oct. ~)	2012	2013	2014	2015 (~Mar.)
1	16	25	28	29

NB. Some diagnosed as colibacillosis, coccidial infection etc.

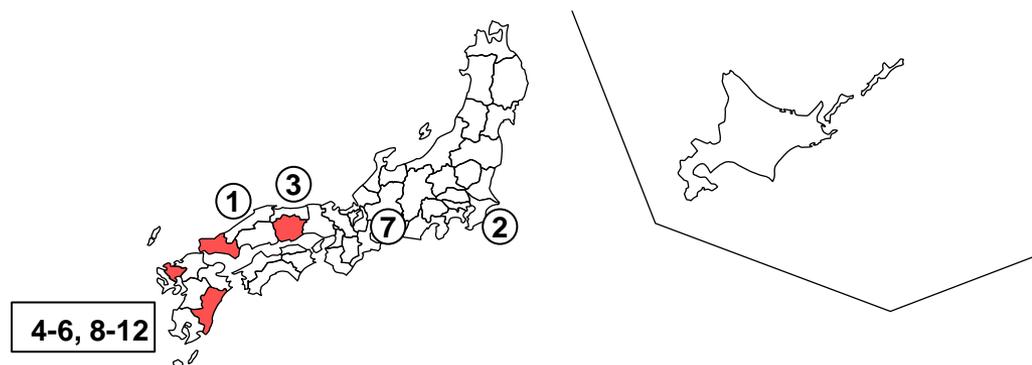
2. Early response Monitoring of AI in wild birds

- ❖ Fecal sampling from waterfowls
- ❖ Swab sampling from dead birds
- ❖ Bird habitat monitoring

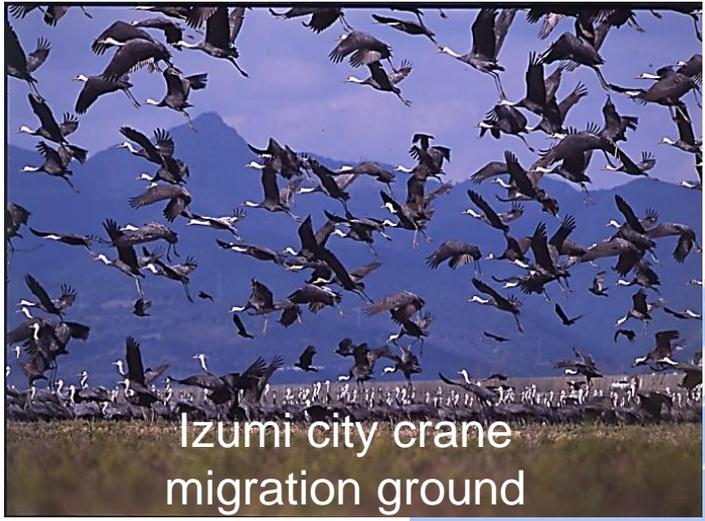
Results

H5N8 (Oct. 2014-)

No.	Sampling date	Confirmation date	Place	Wild bird species
1	13/11/2014	13/11/2014	Shimane	Fecal sample from Tundra swan
2	18/11/2014	22/11/2014	Chiba	Fecal sample from Falcated duck/Eurasian Wigeon
3	18/11/2014	27/11/2014	Tottori	Fecal sample from Tundra swan
4	23/11/2014	29/11/2014	Kagoshima	White-neped Crane
5	1/12/2014	6/12/2014	Kagoshima	Water sample
6	7/12/2014	10/12/2014	Kagoshima	Hooded crane
7	12/12/2014	20/12/2014	Gifu	Mandarin duck
8	17/12/2014	19/12/2014	Kagoshima	Hooded crane
9	24/12/2014	30/12/2014	Kagoshima	Hooded crane
10	3/1/2015	7/1/2015	Kagoshima	Hooded crane
11	14/1/2015	19/1/2015	Kagoshima	Mallard
12	13/2/2015	17/2/2015	Kagoshima	Mallard

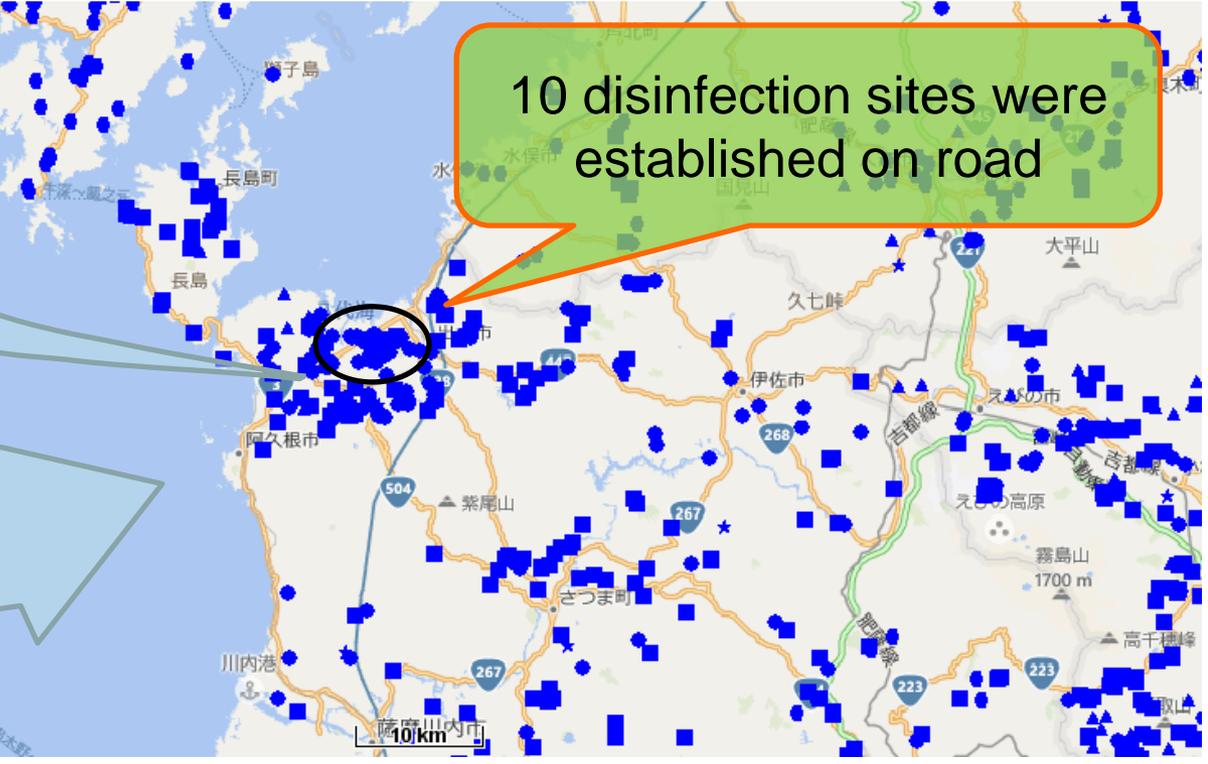


Prevention effort against HPAI in wild bird



Izumi city crane migration ground

Area where HPAIVs were isolated from cranes and environment



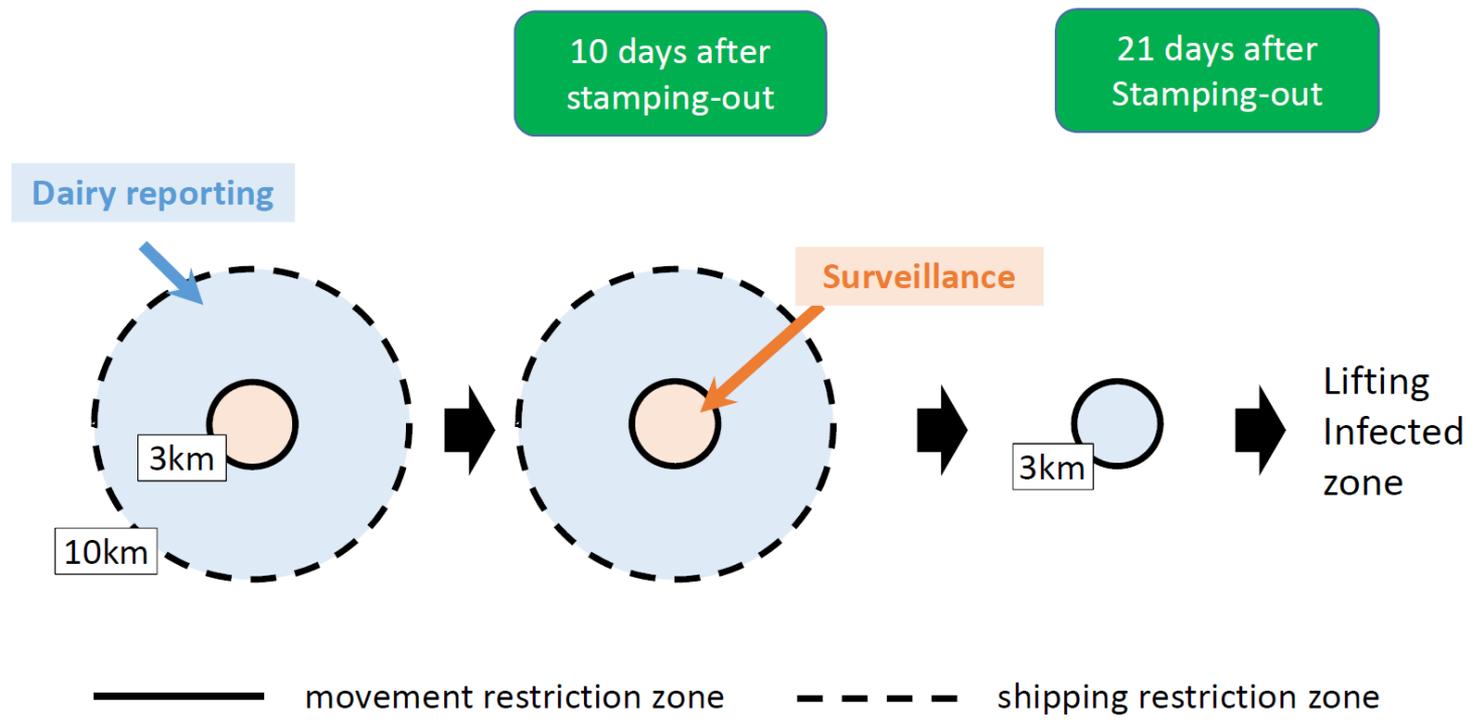
10 disinfection sites were established on road



3. Containment Control measures taken at affected farms

- ❖ Prompt culling within 24h in principle
- ❖ Burial/incineration of carcasses within 72h in principle
- ❖ Burial/incineration of contaminated materials
- ❖ Cleaning and Disinfection

3. Containment Restriction zones



Inspection includes clinical inspections, and serological and virological tests

HPAI Freedom Surveillance

□ On-the-spot inspections:

- ❖ All farms in movement restriction zones within 24 hours
- ❖ Clinical inspections, virus isolation and serological tests

□ HPAI freedom surveillance:

- ❖ All farms in movement restriction zones after 10 days have passed since completion of all control measures at every farm
- ❖ Clinical inspections, virus isolation and serological tests

Compensations

For rapid and effective control,

Compensations by MAFF for

- The loss incurred by stamping out (100%);
- Costs for incineration and burial of carcasses and contaminated goods (50%);
- Sales reduction (50%) caused by movement restrictions

But in case of violation of the law,

- Reduced or no compensation for livestock owners who failed to take necessary preventive measures, promptly notify or cooperate to the control measures

Immediate notification & rapid response

	Case 1 MIYAZAKI-1	Case 2 MIYAZAKI-2	Case 3 YAMAGUCHI	Case 4 OKAYAMA	Case 5 SAGA
No. of birds	3,900	42,200	32,800	199,200	72,900
Type of farm	Breed for Broiler	Broiler	Breed for Broiler	Layer	Broiler
No. of chicken houses	1	4	10	5	7
No. of dead birds at affected house					
Day 0 (at notification)	18	30	17	15	8
Day -1	12	25	4	13	7
Day -2	1	19	0	7	4
Timetable					
Notification Farmer → Prefecture	13:30 15/Dec	10:00 28/Dec	12:40 29/Dec	10:00 15/Jan	12:50 17/Jan
Diagnosis	2:00 16/Dec	23:50 28/Dec	1:20 30/Dec	23:05 15/Jan	2:48 18/Jan
Start of culling	4:30 16/Dec	0:00 29/Dec	3:20 30/Dec	1:30 16/Jan	2:52 18/Jan



Result of epi study to date,

- Investigation at every affected farms
 - No direct man-made linkage was found between infected farms and other countries.
 - There are many water places and wooded area near affected farms.
- The genome sequence analysis
 - At least three lineages of H5N8 virus have been newly introduced into Japan since last fall.
- There is possibility that H5N8 virus are widely circulating in wild migratory bird (e.g. wild duck) populations in breeding areas of the continent.

Study report will be released by September



Findings

The most important elements for HPAI control are:

- Biosecurity and Prevention of the outbreak;
 - ✓ routine, continuous
- Early detection and notification; and
 - ✓ 100% compensation with measures avoiding moral hazard
- Rapid and appropriate initial responses.
 - ✓ Culling, Incineration / burying, disinfection
 - ✓ No vaccination



Prevent the spread, Reduce the risk of HPAI



Thank you for your attention

