ISSN 1012-5329

DISEASE INFORMATION

24 January 2003 Vol. 16 – No. 4

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HIGHLY PATHOGENIC AVIAN INFLUENZA IN HONG KONG, SPECIAL ADMINISTRATIVE REGION OF THE PEOPLE'S REPUBLIC OF CHINA in waterfowl

EMERGENCY REPORT

Information received on 17 January 2003 from the Director of Agriculture, Fisheries and Conservation Department, Hong Kong:

Report date: 28 December 2002.

Nature of diagnosis: clinical, pathological and laboratory.
Date of initial detection of animal health incident: first deaths noted in Penfold Park, Shatin, on 30 November 2002.
Estimated date of first infection: 27 November 2002.

Outbreaks:

Ref.	Location	Affected population
Ref. 1	Penfold Park, Shatin	resident waterfowl (ducks, geese and swans) and wild little egrets (*Egretta garzetta)*
Ref. 2	Kowloon Park, Kowloon	resident waterfowl (ducks, geese and swans) and greater flamingos (*Phoenicopterus ruber*)
Ref. 3	Lok Ma Chau, New Territories	individual wild grey herons (*Ardea cinerea*)

Description of affected population: resident waterfowl (including ducks, geese, swans) and resident greater flamingo population in nature park areas with some wild ardeid birds affected at a nature park and at a pond in a reclamation area.

Total number of animals in the outbreaks:

outbreak	*susceptible*	*cases*	*deaths*	*destroyed*	*slaughtered*
Ref. 1	95 waterfowl	31	31	64	0
	>500 egrets	...	± 20	2	0
Ref. 2	207 waterfowl	104	89	0	0
	130 flamingos	16	12	4	0
Ref. 3	...	2	2	0	0

Diagnosis:

Outbreak Ref. 1: Reports of waterfowl dying in a nature park were made to the management on 3 December 2002, but the first deaths were noted on 30 November 2002. Date of sampling: 4 December 2002. Date of report: 9 December 2002.

Outbreak Ref. 2: Dead ducks in a zoological garden waterfowl collection were necropsied on 17 December 2002 and samples were taken. Date of report: 19 December 2002 for rapid tests and 21 December 2002 for virus isolation.

Outbreak Ref. 3: A grey heron found dead at a pond reclamation area adjacent to a construction site was submitted as part of surveillance of wild birds in ponds and marshes subsequent to egret deaths in outbreak Ref. 1. Date of sampling: 17 December 2002. Date of report: 20 December 2002.

A. ***Laboratory where diagnosis was made:*** Tai Lung Veterinary Laboratory, Agriculture Fisheries and Conservation Department, Hong Kong, and further virus characterisation at Department of Microbiology, Hong Kong University.

B. ***Diagnostic tests used:*** viral culture, influenza A antigen detection, immunoperoxidase test with H5 avian influenza specific monoclonal antibodies, H5 genome detection.

- Chick embryo inoculation with haemagglutination inhibition testing by specific reference sera from CVL(1) Weybridge, United Kingdom.
- Immunoperoxidase staining of tissues by H5 specific monoclonal antibodies.
- Genome detection by RT-PCR(2) tests using H5 specific primer sets from SEPRL(3), Atlanta, Georgia, United States of America.
- Virus genomic characterisation is in progress by gene sequencing using specific primer sets for all eight gene segments at Hong Kong University.

C. ***Causal agent:*** highly pathogenic avian influenza virus H5N1.

Epidemiology:

A. ***Source of agent / origin of infection:*** wild bird introduction suspected.

B. ***Other epidemiological details:*** the disease has remained within the pond systems.

Control measures:

Outbreak Ref. 1: All waterfowl were depopulated and the park was closed for disinfection. No restocking will be permitted until further discussions with the management.

Outbreak Ref. 2:
- As this is a collection of rare species, all waterfowl and flamingos have been placed in segregated quarantine facilities on-site, away from the public, and are under close observation by staff.
- Vaccinations using killed H5 avian influenza vaccine have been given to resident waterfowl and flamingos.
- Sick birds are moved to individual pens.
- All ponds have been emptied and disinfected and strict biosecurity procedures are being followed by staff.

Outbreak Ref. 3: Barrier lines have been strung across the pond, water levels have been raised and feeding has been stopped to discourage wild birds from entering this pond system to feed.

(1) CVL: Central Veterinary Laboratory.
(2) RT-PCR: reverse transcription – polymerase chain reaction.
(3) SEPRL: Southeast Poultry Research Laboratory.

HIGHLY PATHOGENIC AVIAN INFLUENZA
IN HONG KONG, SPECIAL ADMINISTRATIVE REGION OF THE PEOPLE'S REPUBLIC OF CHINA
Follow-up report no. 1 (disease detected in commercial poultry farms)

Information received on 17 January 2003 from the Director of Agriculture, Fisheries and Conservation Department, Hong Kong:

End of previous report period: 28 December 2002 (see *Disease Information*, **16** [4], 21, dated 24 January 2003).
End of this report period: 14 January 2003.

New outbreaks:

Location	No. of outbreaks
Ta Kwu Ling, New Territories	1
Tai Kong Po, New Territories	1

Description of affected population in the new outbreaks: multiple age groups of broiler chickens in A-frame cages in both outbreaks.

Total number of animals in the new outbreaks:

outbreak	*susceptible*	*cases*	*deaths*	*destroyed*	*slaughtered*
No. 1	16,000	2,500	2,500	13,500	0
No. 2	51,000	3,000	3,000	9,000	0

Diagnosis:

Outbreak No. 1: Surveillance testing of dead birds from a wholesale poultry market on 26 December 2002 gave a suspicious reaction for H5 infection, which was followed by monitoring of local farms that supplied the market the previous evening. An infected farm was detected. Date of sampling: 27 December 2002. Date of report: 28 December 2002. Estimated date of first infection: 17 December 2002.

Outbreak No. 2: Farmer reported 30 dead chickens in 98-day-old flock on 7 January 2003 (morning) and veterinary inspection showed over 150 dead in 3 sheds plus 3% birds with congested and cyanosed combs/wattles that morning. Date of sampling: 7 January 2003. Date of report: 7 January 2003. Estimated date of first infection: 4 January 2003.

A. Laboratory where diagnosis was made: see emergency report.

B. Diagnostic tests used: see emergency report.

C. Causal agent: highly pathogenic avian influenza caused by H5N1 virus genetically different from HK/1997 (H5N1). The genome sequence for the haemagglutinin cleavage site coded for multiple basic amino acids.

Epidemiology:

A. Source of agent / origin of infection: infected wild bird involvement suspected.

B. Other epidemiological details: there are no direct fomite links between outbreaks Nos. 1 and 2.

Control measures during reporting period:

Outbreak No. 1:
- Immediate quarantine and depopulation was undertaken with cleaning and disinfection on 28 December 2002.
- As a precautionary measure, the wholesale poultry market was closed for intensive cleaning and disinfection and the retail live poultry markets were closed on 1 January 2003 for intensive cleaning and disinfection.
- Ring vaccination using killed oil-adjuvanted H5N2 vaccine was conducted on 13 farms in the district around the outbreak farm.
- Intensive farm surveillance for the disease was commenced.

Outbreak No. 2:
- Immediate farm quarantine was started with vaccination on 8 January 2003 of all chickens in unaffected sheds that were segregated from the affected sheds.
- Ring vaccination was also conducted on the other 8 farms in the district around the outbreak farm on 8 January 2003.
- Slaughter of birds in the affected sheds was conducted on 10 January 2003.
- Intensive surveillance for the disease was commenced.

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NEWCASTLE DISEASE IN THE UNITED STATES OF AMERICA
Follow-up report No. 10

Information received on 17 January 2003 from Dr Peter Fernandez, Associate Administrator, Animal and Plant Health Inspection Service, United States Department of Agriculture (USDA), Washington, DC:

End of previous report period: 10 January 2003 (see *Disease Information*, **16** [3], 15, dated 17 January 2003).
End of this report period: 17 January 2003.

Outbreaks (updated data):

Location	No. of outbreaks*
Los Angeles, Riverside, San Bernardino, San Diego, Ventura Counties, State of California	1**
Clark County, State of Nevada	

* USDA is defining this event as a single point source outbreak affecting multiple premises.
** 4 positive commercial layer operations and approx. 1,222 positive or exposed backyard premises.

Four commercial egg-layer operations have been confirmed to be affected. Over one million commercial laying hens are housed in these operations, and to date, approximately half of these have now been depopulated.

State of California

Confirmed affected and/or exposed commercial establishments by county:
- Riverside (2)
- San Bernardino (2)
- San Diego (1)

Quarantined backyard flocks (infected and/or dangerous contacts) by county:
- Los Angeles (195)
- San Bernardino (680)
- Riverside (338)
- Ventura (1)
- San Diego (1)

State of Nevada

Quarantined backyard flocks (infected and/or dangerous contacts) by county:
- Clark (2)

Control measures during reporting period: see previous reports. Approximately 680,000 birds were slaughtered and destroyed.

In addition to the expanded quarantine zones in the State of California (see *Disease Information*, **16** [3], 15, dated 17 January 2003, and the map below), and due to the detection of the virus in a backyard flock in southern Nevada, the quarantine zone also includes the following areas in southern Nevada: Clark County and portions of Nye County. These two counties in Nevada are adjacent to San Bernardino County, California, a zone that has been under quarantine in California.

The affected backyard flock in the State of Nevada consisted of about 30 hens used for egg production for personal consumption. This flock had been depopulated. A neighbor's backyard flock adjacent to the affected flock was also depopulated as a precautionary measure.

Note from the OIE Central Bureau: To date 1,222 premises have been reported as infected by or exposed to Newcastle disease in the State of California and in Clark county in the State of Nevada, since the emergency report dated 3 October 2002 (see *Disease Information*, **15** [40], 194, dated 4 October 2002). As from now, any further cases of this disease reported to the OIE within the context of this epizootic will no longer be notified in the weekly publication *Disease Information* but will be recorded in the OIE database, available on the OIE website through the "Handistatus" interface, at the following address: http://www.oie.int/eng/info/en_bdd.htm

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BOVINE SPONGIFORM ENCEPHALOPATHY IN JAPAN

(***Date of previous case of bovine spongiform encephalopathy in Japan reported to the OIE:*** August 2002).

EMERGENCY REPORT

Information received on 21 January 2003 from Dr Toshikazu Ijichi, Director of Animal Health Division, Ministry of Agriculture, Forestry and Fisheries, Tokyo:

Report date: 21 January 2003.

Nature of diagnosis: laboratory.
Date of confirmation of diagnosis: 20 January 2003.

Outbreaks:

Location	No. of outbreaks
Naga gun, Wakayama Prefecture	1

Description of affected population: a Holstein cow aged six years and eleven months, born in Hokkaido Prefecture and then transferred to a dairy farm in Wakayama Prefecture, which was slaughtered at the abattoir on 17 January 2003.

Total number of animals in the outbreak:

species	***susceptible***	***cases***	***deaths***	***destroyed***	***slaughtered***
bov	...	1	0	...	1

Diagnosis:

- The brain sample from the cow tested positive to the ELISA-based bovine spongiform encephalopathy (BSE) screening test required by the Ministry of Health, Labour and Welfare for all cattle slaughtered at abattoirs since 18 October 2001.
- The brain sample was sent to the National Institute of Infectious Disease for confirmation and was subjected to Western blot analysis and immunohistochemical examination, with a positive result on 20 January 2003.

A. Laboratories where diagnosis was made:

- Wakayama City Public Health Center, Meat Inspection Office (Wakayama city, Wakayama Prefecture).
- National Institute of Infectious Disease (Shinjuku-ku, Tokyo).

B. Diagnostic tests used: ELISA[1] test, Western blot analysis and immunohistochemical examination.

Source of agent / origin of infection: under investigation.

Control measures:

- The dairy farm in Wakayama Prefecture where the affected animal was kept and the dairy farm in Hokkaido Prefecture where it was born have been placed under movement control by Kihoku Livestock Hygiene Service Center and Kushiro Livestock Hygiene Service Center, respectively.
- Identification of all animals that were kept with the infected cow.
- Epidemiological investigation of the feed used on the farm, as a possible source of infection.

Information received on 23 January 2003 from Dr Toshikazu Ijichi, Director of Animal Health Division, Ministry of Agriculture, Forestry and Fisheries, Tokyo:

Report date: 23 January 2002.

Nature of diagnosis: laboratory.
Date of initial detection of animal health incident: 23 January 2003.

Outbreaks:

Location	No. of outbreaks
Hokkaido Prefecture	1

Description of affected population: a Holstein cow aged six years and nine months, born and kept in a dairy farm in Hokkaido Prefecture was slaughtered at the abattoir on 21 January 2003.

Total number of animals in the outbreak:

species	***susceptible***	***cases***	***deaths***	***destroyed***	***slaughtered***
bov	...	1	0	...	1

Diagnosis:

- The brain sample from the cow tested positive to the ELISA-based BSE screening test required by the Ministry of Health, Labour and Welfare for all cattle slaughtered at abattoirs since 18 October 2001.
- The brain sample was sent to the Obihiro University of Agriculture and Veterinary Medicine for confirmation and was subjected to Western blot analysis and immunohistochemical examination, with a positive result on 23 January 2003.

A. Laboratories where diagnosis was made:

- Hokkaido Kitami Public Health Center (Kitami city, Hokkaido Prefecture).
- Obihiro University of Agriculture and Veterinary Medicine (Obihiro city, Hokkaido Prefecture).

B. Diagnostic tests used: ELISA[(1)] test, Western blot analysis and immunohistochemical examination.

Source of agent / origin of infection: under investigation.

Control measures:

- The dairy farm in Hokkaido Prefecture where the infected cow was born and kept has been placed under movement control by Abashiri Livestock Hygiene Service.
- Identification of all animals that were kept with the infected cow.
- Epidemiological investigation of the feed used on the farm, as a possible source of infection.

(1) ELISA: enzyme-linked immunosorbent assay.

Note from the OIE Central Bureau: As from now, any further cases of BSE in Japan will no longer be notified in *Disease Information* but will immediately be incorporated into the table on the number of reported cases of BSE worldwide (excluding the United Kingdom), which can be consulted on the OIE website at the following address:
http://www.oie.int/eng/info/en_esbmonde.htm

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FOOT AND MOUTH DISEASE IN ERITREA

(***Date of previous outbreak of foot and mouth disease in Eritrea reported to the OIE:*** February 2001).

Extract from the monthly report of Eritrea for December 2002, received from Dr Ghebrehiwet Teame Mahru, Director, Veterinary Services Division, Ministry of Agriculture, Animal Resources Development, Asmara:

Location	***No. of outbreaks in December 2002***
Tebeldia village, Goluj district, Gash-Barka region (125 km south west of Barentu)	1

Total number of animals in the outbreak:

species	***susceptible***	***cases***	***deaths***	***destroyed***	***slaughtered***
bov	5,000	3	0	0	0

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FOOT AND MOUTH DISEASE IN BOTSWANA
Suspension of "FMD free zone without vaccination" status

Note by the OIE Central Bureau, dated 23 January 2003:

Following the report of a foot and mouth disease (FMD) outbreak and vaccination against the disease in the "FMD free zone without vaccination" of Botswana, recognised by the OIE FMD and Other Epizootics Commission on 29 November 2002, the status of this zone is suspended, with effect from 20 January 2003.

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ISSN 1012-5329
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