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DISEASE INFORMATION

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Contents

NEWCASTLE DISEASE IN DENMARK

(***Date of previous reported outbreak:*** February 1998).

EMERGENCY REPORT

Information received on 26 July 2002 from Dr Preben Willeberg, Chief Veterinary Officer, Danish Veterinary and Food Administration, Søborg:

Report date: 26 July 2002.

In addition to the report of suspected Newcastle disease in a poultry layer farm, dated 16 July 2002 (see *Disease Information*, **15** [29], 126, dated 19 July 2002), Denmark has now confirmed cases of Newcastle disease in other farms.

Development of the situation and control measures taken:

16 July 2002

A poultry holding situated near the town of Kolding in Velje county (central Jutland) was placed under official surveillance because of a suspected outbreak of Newcastle disease (see *Disease Information*, **15** [29], 126, dated 19 July 2002). The basis for the suspicion was high mortality and reduced egg production. Sampling was carried out and laboratory investigations were initiated at the Danish Veterinary Institute. The diagnostic procedure was expected to take up to five weeks.

Based on the provisional investigations, the Danish Veterinary and Food Administration decided not to wait for the diagnostic confirmation but to initiate immediate measures in order to reduce the possible risk of spread of the disease. The flock was stamped out. A 3-km protection zone and a 10-km surveillance zone were established around the affected farm. Furthermore, to prevent the risk of spread of the disease a provisional ban on assembling poultry including exotic birds (e.g. at markets and exhibitions) and on pigeon races was established.

19 July 2002

A poultry holding situated near Hadsund in central Jutland (approximately 150 km north of Kolding) was placed under official surveillance due to a suspected outbreak of Newcastle disease. The suspicion was based on the presence of paralysed birds among a flock of young hens. Sampling was carried out and laboratory investigations were initiated at the Danish Veterinary Institute.

In this case, also, it was decided not to wait for confirmation but to initiate immediate measures to reduce the risk of spread of the disease. A 3-km protection zone and a 10-km surveillance zone were established around the affected farm.

As of 19 July, there was no indication of any connection between the holding in Hadsund and the suspected outbreak in Kolding. Investigations were intitated to determine any possible contacts with the flock in Hadsund.

22 July 2002

Hens from the Hadsund holding were found to have been sold to six holdings. The six holdings were placed under official surveillance, and protection and surveillance zones were established. It was decided to stamp out all the affected flocks as soon as possible.

Among these six holdings there were two tradesmen who resold hens to backyard flock holders in western and southern Jutland. A total of 20 backyard flocks in western Jutland and approximately 200 backyard flocks in southern Jutland were thus placed under investigation. As of 22 July, all these flocks were placed under official surveillance and diagnostic sampling was initiated.

24 July 2002

One of the six contact flocks was stamped out.

In order to increase the diagnostic sampling capacity of the Regional Official Veterinary Service in southern Jutland, the Danish Veterinary and Food Administration allocated staff from other Regional Services to southern Jutland. Private veterinary practices have also been engaged in the sampling.

As of 24 July, the Danish Veterinary and Food Administration had a full overview of the birds purchased from the tradesman in western Jutland.

In southern Jutland, however, the situation was still not fully clear, as the established contacts had not all been visited and new contacts were still being added to the list.

The Danish Veterinary Institute announced the isolation of a virus belonging to the same virus group as Newcastle disease virus. A confirmatory diagnosis was expected within the next eight days.

25 July 2002

Two more of the six contact flocks were destroyed.

Many of the backyard flocks were found to include seropositive birds, which showed no clinical signs. In most cases, birds originating from the contaminated site were seropositive while birds of other origin kept together with the seropositive birds were seronegative.

26 July 2002

The Danish Veterinary Institute informed the Danish Veterinary and Food Administration that they had isolated paramyxovirus 1 from a contact flock to one of the two first suspected poultry flocks (Hadsund). ICPI was 1.75.

To date, the ICPI has not been established for the flock in Kolding.

NEWCASTLE DISEASE IN DENMARK
Follow-up report No. 1 (summary update for July 2002)

Information received on 1 August 2002 from Dr Preben Willeberg, Chief Veterinary Officer, Danish Veterinary and Food Administration, Søborg:

End of previous report period: 26 July 2002 (see *Disease Information*, **15** [31], 137, dated 2 August 2002).
End of this report period: 1 August 2002.

Total number of outbreaks identified since 16 July 2002:

Location	No. of outbreaks
North Jutland South (Nordjylland Syd) county, Jutland peninsula	4
Viborg county, Jutland peninsula	2
Ringkøbing county, Jutland peninsula	20
Southern Jutland (Sønderjylland) county, Jutland peninsula	46
Ribe county, Jutland peninsula	3
Århus county, Jutland peninsula	1
Vejle county, Jutland peninsula	1
Total	77

Description of affected population: outbreaks have been identified predominantly in backyard flocks; only 8 flocks have more than 1,000 birds each. There has been very limited spread within flocks from the purchased pullets to other birds, and so far only one incident of suspected spread to a commercial flock has been found, in which no introduction of infected pullets has taken place.

Diagnosis: diagnosis in backyard flocks is based on serological reactors and known or suspected purchase of infected pullets originating from the index case through one or two levels of sales-flocks. Clinical signs and pathological lesions are variable.

- ***A. Laboratory where diagnosis was made:*** Danish Veterinary Institute.
- ***B. Diagnostic methods used:*** isolation of the virus and determination of the intracerebral pathogenicity index (ICPI) were completed on 26 July 2002 from the main cluster of outbreaks.
- ***C. Causal agent:*** paramyxovirus 1, the intracerebral pathogenicity index being 1.75.

Epidemiology:

- ***A. Source of agent / origin of infection:*** under investigation.
- ***B. Mode of spread:*** trade in birds. All but two or three flocks have purchased infected birds from the index case.
- ***C. Other epidemiological details:*** no Newcastle disease vaccination takes place in Denmark.

Control measures: killing and destruction of infected flocks were initiated before the final diagnosis was obtained (see Emergency report).

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FOOT AND MOUTH DISEASE IN ARGENTINA
Suspicion (final report: FMD ruled out)

Translation of information received on 26 July 2002 from Dr Bernardo Gabriel Cané, President, National Agrifood Health and Quality Service (SENASA), Secretariat for Agriculture, Livestock, Fisheries and Food, Buenos Aires:

End of previous report period: 11 June 2002 (see *Disease Information*, **15** [24], 97, dated 14 June 2002).
End of this report period: 26 July 2002.

1.- Reasons for the measures taken:

A private-sector veterinarian made a report when in the course of a predispatch examination he noticed mouth lesions compatible with foot and mouth disease (FMD) in some of the animals among a herd of 35 calves.

2.- Suspected clinical diagnosis:

Suspected FMD because of the finding of lesions compatible with the disease.

Date of inspection: 31 May 2002.
Date of notification: 30 May 2002.

3.- Location of the establishment:

Province: Buenos Aires
District: Patagones

4.- Details of the holding:

A breeding farm of 817 hectares located 15 km west of the city of Carmen de Patagones, on the north bank of the Negro River.

Population of the establishment:

No. exposed: 217 bovines.
No. sick: 14 bovines.

5.- Notification:

Official notification of the suspected cases was made through the daily and weekly epidemiological reports sent to the national offices of the SENASA and to the Coordinación de Relaciones Internacionales; to international organisations, such as the OIE, IICA[(1)], PAHO[(2)], Cuenca del Plata, and the European Union, to the Agricultural Councellors of the Argentine Embassies; and to neighbouring and other countries that require epidemiological information on a routine basis.

6.- Measures taken by the SENASA:

a. The provincial health authorities of Buenos Aires and Rio Negro, and the COPROSA[(3)] and the FUNBAPA[(4)], were informed about the situation and the measures taken.

b. An emergency team was sent to the area to coordinate and carry out the health measures necessary in view of the suspected outbreak. It was made up of SENASA field personnel and personnel of the Epidemiology Department.

c. Isolation measures:
   - Outbreak area: total ban on the movement, into or out of the affected establishment, of all animals of susceptible species, people and items that could act as a carrier for the causal agent.
   - Adjacent area: total ban on movement into or out farms; epidemiological monitoring, vaccination of all susceptible species, booster vaccination of bovines and serological testing of sheep.
   - Surveillance zone: movement restrictions, epidemiological monitoring, vaccination of susceptible animals and serological sampling.

d. Blockade of the affected district and neighbouring districts to prevent the illicit movement of animals with the intention of exporting them to the European Union.

7.- Total number of field actions carried out:

Number of farms inspected: 100.

Number of farms where vaccination was carried out: 66.

Number of animals vaccinated:

Cattle	5,240
Sheep	1,266
Swine	258
Total	6,764

8.- Emergency team: 7 veterinarians and 10 paratechnicians.

9.- Laboratory diagnosis:

a. Samples: epithelium and 30 sera (31 May 2002).

b. Results of the FMD tests:

Epithelium: Typing ELISA(5): negative.
Typing ELISA I BHK: negative.
Typing ELISA II BHK: negative.
Typing ELISA III BHK: negative.
Unweaned mouse test: negative.
PCR(6): negative.

Serum samples: All negative to ELISA 3ABC and EITB(7).

c. Serological testing in the adjacent area: of the 60 serum samples from the adjacent area analysed, 11 tested positive with ELISA 3ABC, but negative to EITB.

10.- Suspicions officially declared disproven:

On 12 June 2002 the Epidemiology Department received a fax conveying the negative results of the latest tests carried out by the Central Laboratory. The required notifications were made the same day, and the emergency measures that had been adopted in the area were suspended.

11.- Differential diagnosis:

Differential diagnostic tests included:

- Vesicular stomatitis: ELISA technique typing for New Jersey and Indiana virus, both in the field samples and the various passages in cultivated cells, and PCR.
- Bovine herpesvirus (IBR(8)): PCR and paired serology.
- Bovine viral diarrhoea (BVD): PCR and paired serology.
- Bovine enterovirus: PCR.

All the above tests yielded negative results, except the paired serology for bovine herpesvirus (IBR), in the course of which reactors were found on both occasions.

Conclusion:

On the basis of the epidemiological investigations, the development of the situation in the affected establishment and the results of the diagnostic tests, we conclude that the lesions observed in the animals during a check-up before being sent to a livestock fair were due to a situation involving IBR.

(1) IICA: Inter-American Institute for Cooperation on Agriculture.
(2) PAHO: Pan American Health Organization.
(3) COPROSA: *Comisión Provincial de Sanidad Animal* (Animal Health Provincial Commission).
(4) FUNBAPA: *Fundación Barrera Zoofitosanitaria Patagónica* (Patagonian Animal and Plant Sanitary Barrier Foundation).
(5) ELISA: enzyme-linked immunosorbent assay.
(6) PCR: polymerase chain reaction.
(7) EITB: electroimmunotransfer blot.
(8) IBR: infectious bovine rhinotracheitis.

FOOT AND MOUTH DISEASE IN MONGOLIA
Follow-up report No. 1

Information received on 28 July 2002 from Dr Ravdan Sanjaatogtokh, Director, State Veterinary Services, Ministry of Food and Agriculture, Ulaanbaatar:

End of previous report period: 21 July 2002 (see *Disease Information*, **15** [30], 132, dated 26 July 2002).
End of this report period: 28 July 2002.

New outbreaks:

Location	No. of outbreaks
Aitantsegts district (49º 04' N – 90º 45' E), Bayan-Ölgiy province, in the western part of the country	13

Total number of animals in the new outbreaks:

species	*susceptible*	*cases*	*deaths*	*destroyed*	*slaughtered*
bov	3 074	69	0	69	...

Diagnosis:

- ***A. Laboratory where diagnosis was made:*** State Central Veterinary Laboratory, Ulaanbaatar.
- ***B. Diagnostic tests used:*** ELISA(1) and complement fixation test.
- ***C. Causal agent:*** foot and mouth disease virus type O.

Epidemiology:

- ***A. Source of agent / origin of infection:*** under investigation.
- ***B. Mode of spread:*** animals having free access to common pasture.

Control measures:

- quarantine and movement control;
- ring vaccination is being implemented in the outbreak areas.

(1) ELISA: enzyme-linked immunosorbent assay.

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TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHY IN AN IMPORTED FELID IN AUSTRALIA
Suspected case in a zoo

EMERGENCY REPORT

Information received on 29 July 2002 from Dr Gardner Murray, Chief Veterinary Officer, Department of Agriculture, Fisheries and Forestry Australia (AFFA), Canberra:

Report date: 29 July 2002.

The purpose of this report is to advise of the presumptive diagnosis of a transmissible spongiform encephalopathy (TSE) in a male Asiatic golden cat (*Catopuma temmincki*) in Melbourne Zoo, and of the appropriate actions taken to ensure that Australia continues to be free from TSEs affecting farmed or wild animals.

The felid, which had been born in 1992 and imported from a European zoo to Melbourne Zoo in 1998, was found dead on 4 March 2002 with no premonitory signs apart from an occasional lameness, attributable to a healed carpal fracture.

A post-mortem examination was conducted by veterinarians at Melbourne Zoo, with findings indicating pancreatic disease and peritonitis as the cause of death.

Routine histopathology was recently conducted on other tissues collected at the post-mortem examination. Histopathological findings in this case included spongiform changes in the white matter tracts of various parts of the brain.

Referral of fixed and fresh frozen tissues to the Australian Animal Health Laboratory (AAHL) for further testing for TSE exclusion followed. The AAHL obtained positive results by immunohistochemistry, electron microscopy (for scrapie-associated fibrils) and western blot. A presumptive diagnosis of TSE has been made on the basis of these findings.

Samples of brain tissue from the affected animal will be sent to an OIE Reference Laboratory to confirm this diagnosis.

The history of this male Asiatic golden cat at Melbourne zoo is one involving only short duration contacts with an Australian-born female of the same species, and a dietary regime consisting exclusively of whole rabbits, chickens and rats, and kangaroo meat (all of Australian origin). As such, it is virtually certain that exposure to TSE infectivity occurred at a time before the animal was imported into Australia for zoo display.

Enquiries of Chief Veterinary Officers in the two European countries in which this zoo cat was previously held have been initiated with a view to establishing possible sources of exposure to TSE infectivity.

The in-contact female Asiatic golden cat remains alive and healthy. As an interim precautionary measure, it has been placed under conditions of lifetime quarantine at Melbourne Zoo.

Australia's active and passive surveillance systems for TSEs in animal populations continue to confirm the absence of this group of diseases on a country-wide basis.

Note: Spongiform encephalopathy was diagnosed in a cheetah in a zoological park in Western Australia in 1992 (see *Disease Information*, **5** (16), 52, dated 24 April 1992). The cheetah had been born in Marwell Zoo in the United Kingdom in 1986, imported together with two litter-mates to Australia in 1989, and held in quarantine in a zoo since importation. The affected animal and its two siblings were euthanised.

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Disease Information on the Web:
http://www.oie.int