

## Contents

Classical swine fever in Germany: in domestic pigs (follow-up report No. 2)	71
Avian influenza in Belgium: suspected outbreak	72
Highly pathogenic avian influenza in the Netherlands: follow-up report No. 3	74
Bovine spongiform encephalopathy in Slovenia: third case	75
Foot and mouth disease in Botswana: follow-up report No. 5	76

### CLASSICAL SWINE FEVER IN GERMANY in domestic pigs (follow-up report No. 2)

Extract from the monthly report of Germany for February 2003 and information received on 19 February 2003 from Dr Karin Schwabenbauer, Head, Animal Health Division, Ministry of Consumer Protection, Food and Agriculture, Bonn:

**End of previous report period:** 24 September 2002 (see *Disease Information*, **15** [39], 185, dated 27 September 2002).

**End of this report period:** 28 February 2003.

#### New outbreak:

Location	No. of outbreaks
Bad Dürkheim district, Rhineland-Palatinate (Rheinland-Pfalz) Land	1

**Description of affected population in the new outbreak:** holding for fattening.

#### Total number of animals in the new outbreak:

species	susceptible	cases	deaths	destroyed	slaughtered
sui	5	1	0	5	0

#### Diagnosis:

- A. **Laboratory where diagnosis was made:** Rhineland-Palatinate Veterinary Research Service, Koblenz, and Federal Research Service, Riems.
- B. **Diagnostic tests used:** virus isolation.

#### Epidemiology:

- A. **Source of agent / origin of infection:** not yet known; investigations are in progress.
- B. **Mode of spread:** unknown.
- C. **Other epidemiological details:** the holding is situated in an area where classical swine fever occurs in wild boar.

#### Control measures during reporting period:

- The animals in the affected holding were killed and their carcasses destroyed.
- Ban on movements of animals of susceptible species in an area around the infected holdings, in accordance with European Union legislation.
- Tracing of animal movements into and out of the infected holding.

## **AVIAN INFLUENZA IN BELGIUM** **Suspected outbreak**

### EMERGENCY REPORT

*Translation of information received on 17 March 2003 from Dr Luc Lengelé, Chief Veterinary Officer, Animal Health and Animal Products Department, Federal State Service for Public Health, Food Chain Safety and Environment, Brussels:*

**Report date:** 17 March 2003.

During the night of 10 to 11 March 2003, a large number of deaths were observed in four-week-old broilers (2,000 dead out of a total of 12,000 animals) at Poppel (Ravels district, Antwerp province).

Samples were sent to the VAR<sup>(1)</sup> laboratory. These were analysed using a rapid PCR<sup>(2)</sup> test. On 12 March, the result of the test was negative for highly pathogenic avian influenza. A second test also gave negative results. Since a negative PCR result does not guarantee the absence of the disease, standard virus isolation tests are being performed and the results are due on 24 March.

In view of the clinical picture, and as avian influenza could not be ruled out, a buffer zone was established during the night of 11 to 12 March in consultation with the Dutch authorities: this zone includes all of Ravels district and the Dutch district of Baarle-Hertog.

### **Measures applied in the buffer zone:**

- Total ban on the transport of poultry and other birds, hatching eggs, poultry manure and litter.
- Ban on table eggs leaving layer farms.
- All poultry must be maintained in their farms.
- All dogs and cats belonging to suspect farms must be maintained in their farms.
- The wheels and tyres of vehicles leaving a poultry farm must be disinfected.
- Cloven-hoofed animals and horses on mixed farms where poultry are present are not allowed to leave the establishment.
- Ban on the removal of slurry or manure from mixed farms where poultry are present.
- Access to poultry farms and hatcheries is prohibited to unauthorised persons. This ban does not apply to persons caring for the animals, the farm veterinarian, staff of the Federal Agency for the Safety of the Food Chain (FASFC), or personnel sent by the FASFC.

### **Other measures:**

The suspect farm at Poppel was immediately subjected to pre-emptive culling.

In consultation with the European Commission, the issuing of export certificates for live poultry and hatching eggs has been suspended.

The three farms situated within a radius of 1 km of the suspect farm have been subjected to pre-emptive culling.

Since 13 March, the following measures have also been implemented throughout the country:

- Total ban on the transport of live poultry and hatching eggs, including their movement on the public highway without a vehicle.
- In derogation of these provisions, subject to a transport authorisation being issued in accordance with the instructions of the FASFC, the transport of poultry for immediate slaughter in an abattoir situated on Belgian territory and designated by the FASFC (outside the buffer zone) may be authorised, as may the transport of day-old chicks to an establishment where no other poultry are present.

(1) VAR: Veterinary and Agrochemical Research Centre

(2) PCR: polymerase chain reaction

*Additional information received on 18 March 2003 from Dr Luc Lengelé, Chief Veterinary Officer, Animal Health and Animal Products Department, Federal State Service for Public Health, Food Chain Safety and Environment, Brussels:*

**Report date:** 18 March 2003.

The initial clinical findings (acute clinical signs, severe depression and acute loss of appetite, high mortality and morbidity) and the findings at autopsy (including, amongst others, pneumonia, tracheitis, myocarditis, nephritis, cyanosis, oedema and intestinal infection) performed on 11 March 2003, all showed the aspecific picture of general malfunction that can be found in cases of infection with highly pathogenic avian influenza (HPAI) virus.

However, an additional clinical examination of the birds on the morning of 12 March revealed a very favourable evolution: the general clinical appearance of the broilers had improved drastically and the number of deaths had dropped from about 300 birds in the afternoon of 11 March to only 100 birds overnight. This evolution is contrary to the classical development of HPAI in birds housed on the ground, where morbidity and mortality usually increase rapidly and easily exceed 80%.

Several tests attempted to demonstrate virus or virus particles in samples of lung tissue and excrement collected from broilers at the suspect farm. With the exception of a PCR<sup>(1)</sup> test conducted at the Dutch National Reference Laboratory at Lelystad, all tests were performed at the VAR<sup>(2)</sup> (Belgian National Reference Laboratory) at Ukkel.

a) RT-PCR test

The Federal Agency for the Safety of the Food Chain (FASFC) ordered four RT-PCR<sup>(3)</sup> tests for H7 viral particles on lung tissue and excrement: three were performed by the Belgian National Reference Laboratory and one by the Dutch National Reference Laboratory. All four tests revealed no evidence of H7 viral particles.

b) Isolation on suspensions

Suspensions of primary chicken embryo fibroblasts were inoculated with tissue samples. All samples gave negative results after six days of cultivation.

c) Isolation on embryonated eggs

Since neither a negative result in the PCR test nor the absence of viral replication in tissue suspensions can officially rule out HPAI infection, the OIE standard for HPAI virus detection<sup>(4)</sup> was applied immediately in an attempt to isolate the virus in embryonated hatching eggs. A total of 20 embryonated eggs (four series of 5 eggs) were inoculated. The results of this test were also favourable:

- Only 7 of 20 embryos died, the earliest occurring four days after inoculation. All 7 dead embryos were found to be infected with the vaccine paramyxovirus strain La Sota; this strain is used in Belgium to vaccinate broilers against Newcastle disease. The HPAI virus was not demonstrated in any of the 7 chicks.
- In accordance with OIE and European Union standards, the remaining 13 eggs were killed and passaged into a new batch of embryonated eggs.

It is very important to emphasise that, to date, the laboratory tests have not demonstrated a link between the HPAI virus and the clinical signs of the broilers. Also, taking into account the favourable evolution of the clinical signs, which are not consistent with avian influenza, HPAI infection can most certainly be ruled out. However, in accordance with OIE and European Union standards, the result of passaging through the new batch of embryonated eggs must be obtained before officially confirming the above results.

As a result of the meeting held by the European Standing Veterinary Committee on 18 March, the measures of Commission Decision 2003/173/EC will be redrawn from 19 March 2003 at 00:01 hours. This means that the nation-wide transport ban on live poultry and hatching eggs can be lifted.

In conclusion, the suspicion of avian influenza, as initially notified, has already been invalidated by the laboratory results and the clinical evolution observed.

(1) PCR: polymerase chain reaction

(2) VAR: Veterinary and Agrochemical Research Centre

(3) RT-PCR: reverse transcription – polymerase chain reaction

(4) See chapter 2.1.14. of the *Manual of Standards for Diagnostic Tests and Vaccines*, 4th edition, OIE, 2000

## HIGHLY PATHOGENIC AVIAN INFLUENZA IN THE NETHERLANDS Follow-up report No. 3

Information received on 18 March 2003 from Dr Frederik H. Plumers, Chief Veterinary Officer, Ministry of Agriculture, Nature Management and Fisheries, The Hague:

**End of previous report period:** 10 March 2003 (see *Disease Information*, **16** [11], 63, dated 14 March 2003).

**End of this report period:** 18 March 2003.

**New outbreaks:**

Location	No. of new outbreaks
Province of Gelderland	20
Province of Utrecht	7

**Description of affected population in the new outbreaks:** 20 flocks of layer hens, 3 flocks of broiler parents, 2 flocks of turkeys and 2 small backyard flocks.

**Total number of animals in the new outbreaks:**

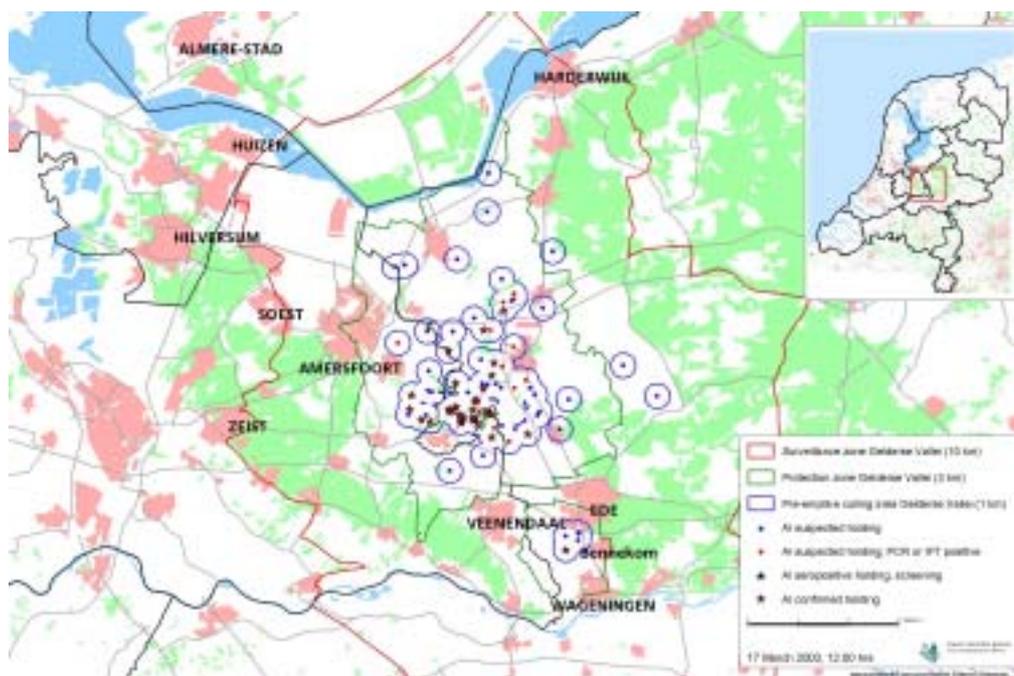
<i>species</i>	<i>susceptible</i>	<i>cases</i>	<i>deaths</i>	<i>destroyed</i>	<i>slaughtered</i>
avi	673,041	...	...	673,041	0

**Diagnosis:** see follow-up report No. 2.

**Epidemiology:**

- A. Source of agent / origin of infection:** the type of strain isolated on one of the infected holdings and the fact that many of the holdings had free-housing facilities strongly suggests introduction via waterfowl.
- B. Mode of spread:** contiguous or possibly through indirect contact with wildlife (waterfowl). Contiguous contact (spatial spread) is possible between holdings that are located within an area of 1 km of an infected flock. Thirty-two of the 54 outbreaks to date have occurred within a radius of 1 km of another infected holding. All confirmed outbreaks are located in "de Gelderse Vallei", an area with a very dense poultry population.

**Control measures during reporting period:** see follow-up report No. 2.



*Additional information received on 19 and 20 March 2003 from Dr Frederik H. Pluimers, Chief Veterinary Officer, Ministry of Agriculture, Nature Management and Fisheries, The Hague:*

**Report date:** 20 March 2003.

Several people working on the eradication of avian influenza have been infected with the highly pathogenic avian influenza (HPAI) virus and have developed conjunctivitis. About 132 human cases of conjunctivitis have been detected, of which 32 have been confirmed to be related to the HPAI virus. In one case, transmission of the virus from one person with conjunctivitis to another person has been diagnosed. This was the daughter of a person involved in the culling of an infected poultry farm.

After consultation of experts, the following measures were taken by the Ministry of Public Health:

- Hygienic measures: protective clothing, masks and spectacles for personnel working at the culling of infected and suspect farms. Washing of hands as a precaution against eye infection.
- Vaccination against human influenza of people working with poultry in the protection zones. This vaccination protects against human influenza and helps to prevent simultaneous infection with human and avian influenza.
- Antiviral treatment for persons with conjunctivitis who were in close contact with infected poultry.
- Antiviral prophylactic treatment of all persons who are working in close contact with infected poultry. This includes the persons working on eradication as well as the owners and workers of infected and suspected farms.

Antiviral treatment of eradication personnel started on 15 March.

The local Public Health Authorities have started their campaign for vaccination and treatment of other persons in the protection zones.

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### BOVINE SPONGIFORM ENCEPHALOPATHY IN SLOVENIA Third case

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

#### EMERGENCY REPORT

*Information received on 19 March 2003 from Dr Simona Salamon, Acting Chief Veterinary Officer, Ministry of Agriculture, Forestry and Food, Ljubljana:*

**Report date:** 19 March 2003.

**Nature of diagnosis:** laboratory.

#### **Total number of animals in the outbreak:**

<i>species</i>	<i>susceptible</i>	<i>cases</i>	<i>deaths</i>	<i>destroyed</i>	<i>slaughtered</i>
bov	14	1	0	...	...

**Diagnosis:** the cow was killed on the farm and tested for bovine spongiform encephalopathy (BSE) as part of regular monitoring.

**A. Laboratories where diagnosis was made:**

- National Veterinary Institute (NVI), Ljubljana.
- OIE Reference Laboratory for BSE, Bern, Switzerland.

**B. Diagnostic tests used:** western blot, histopathology, immunohistochemical examination, ELISA<sup>(1)</sup>.

**Control measures:**

- Identification of all bovine animals on the farm where BSE was confirmed.
- Killing of all animals identified as belonging to the same cohort as the affected animal.
- Official control of the affected farm. Bovine animals can leave the farm only for slaughter, where they have to be tested for BSE. All movements have to be approved by the official veterinarian; tracing back and identification of animals and their products if necessary.

(1) ELISA: enzyme-linked immunosorbent assay

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**FOOT AND MOUTH DISEASE IN BOTSWANA  
Follow-up report No. 5**

*Information received on 20 March 2003 from Dr Micus Chiwasanee Chimbombi, Director of Animal Health and Production, Ministry of Agriculture, Gaborone*

**End of previous report period:** 24 February 2003 (see *Disease Information*, **16** [9], 55, dated 28 February 2003).

**End of this report period:** 20 March 2003.

The foot and mouth disease (FMD) outbreak is under control, with all cattle and pigs in the infected zone destroyed (see table) and preliminary clinical and serological results in the surveillance zone indicating no evidence of the disease.

There have been no more cases in any of the remaining susceptible species in the infected zone, in the surveillance zone or indeed in the rest of the country.

Repeated fortnightly inspections and sampling of animals in the control zone have so far yielded negative results.

Surveillance countrywide has been done only once so far; there were no clinical signs suggestive of FMD and laboratory testing is ongoing.

*Summary of destruction figures for the infected zone (updated data)*

<i>crush</i>	<i>bovines</i>	<i>swine</i>
Matopi	1,141	-
Tsiteng	1,204	-
Strauss (Mokata)	305	58
Annah Blackbeard Farm	252	-
Maswikiti	383	-
Old Blackbeard Farm	328	-
Strauss (Shashe)	251	-
<b>Total</b>	<b>3,864</b>	<b>58</b>

**Control measures during reporting period:**

- Area demarcation:** see Follow-up report No. 1.
- Biosecurity:** appropriate biosecurity measures will remain in force till further notice.
- Quarantine and movement restrictions:** see Follow-up report No. 4.
- Stamping out:** destruction of all cattle in the infected zone is complete, the last animal having been destroyed on 14 March 2003.

**e. Surveillance:**

In cattle: The fourth round of clinical surveillance and serological sampling in the surveillance zone is currently under way. So far, and in the previous three rounds of inspection, no lesions or clinical signs suggestive of FMD have been found. Clinical inspections and sero-sampling based on a statistically-derived sample size of cattle in the rest of Veterinary Disease Control Zones Nos. 6 and 7 as well as country-wide are continuing.

In small ruminants: Three rounds of FMD surveillance in these species in the infected zone have been completed, with all the 421 small stock (389 goats and 32 sheep) inspected and sera collected for FMD testing. There were no clinical signs suggestive of FMD. Laboratory results for the first two rounds were negative, while those for the third round are awaited.

In the surveillance zone, the first round of inspection of small ruminants is scheduled for completion on 21 March 2003.

In pigs: The first round of inspections of pigs in the surveillance zone is complete, with 159 pigs inspected and no clinical signs suggestive of FMD found.

In wildlife: Following the first FMD survey in resident cloven-hoofed wildlife species (kudu and impala), a follow-up operation is scheduled for May 2003. All animals inspected so far have been found to be clinically and serologically free of FMD.

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