

19 March 2004

Vol. 17 – No. 12

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LUMPY SKIN DISEASE IN SENEGAL

(Date of previous outbreak of lumpy skin disease in Senegal reported to the OIE: December 2002).

Extract from the monthly report of Senegal for January 2004, received from Dr Abdoulaye Bouna Niang, Director of Animal Production, Ministry of Agriculture, Dakar:

Location	No. of outbreaks in January 2004
Tambacounda region, Tambacounda department, Koussanar district (13° 53' N – 14° 04' W)	1



Total number of animals in the outbreak:

species	susceptible	cases	deaths	destroyed	slaughtered
bov	12	1	0	0	0

Note by the OIE Animal Health Information Department: To date, no information for February 2004 has been received at the OIE Headquarters.

FOOT AND MOUTH DISEASE IN SYRIA
Lifting of quarantine measures

Information received on 11 March 2004 from Dr George Khoury, Director of Animal Health Services, Ministry of Agriculture and Agrarian Reform, Damascus:

Serological surveillance for foot and mouth disease in different species of ruminants

No. of samples	Location	Date of collection	3ABC FMD antibody detection		FMD antibody detection types					
					A ₂₂		O ₁		Asia1	
			+	-	+	-	+	-	+	-
250	Damascus	4 May 2003	--	250	250	--	250	--	250	--
200	Der Alzour	11 June 2003	--	200	200	--	200	--	200	--
150	Aleppo	2 July 2003	--	150	150	--	150	--	150	--
100	Al raqqa	20 July 2003	--	100	100	--	100	--	100	--
100	Tartous	7 Aug. 2003	--	100	100	--	100	--	100	--
120	Latakia	10 Aug. 2003	--	120	120	--	120	--	120	--
120	Sweida	2 Sept. 2003	--	120	120	--	120	--	120	--
100	Quneitra	23 Oct. 2003	--	100	100	--	100	--	100	--
150	Homs	5 Nov. 2003	--	150	150	--	150	--	150	--
100	Hama	22 Nov. 2003	--	100	100	--	100	--	100	--
120	Daraa	3 Dec. 2003	--	120	120	--	120	--	120	--
100	Edleb	8 Jan. 2004	--	100	100	--	100	--	100	--
50	Alhasakh	10 Feb. 2004	--	50	50	--	50	--	50	--

Since the outbreak of foot and mouth disease (FMD) that appeared in February 2002, Syria has implemented quarantine procedures to control the disease and has vaccinated all the animals.

An epidemiological survey was carried out within a 70-km-diameter area around the outbreak and a serological survey was carried out in the country. Some of the results of these surveys have already been published in *Disease Information* (*Disease Information*, **16** (6), 36, dated 7 February 2003, **16** (9), 56, dated 28 February 2003, **16** (11), 68, dated 14 March 2003), and the remainder are shown in the table above.

Taken together, these results show that no suspected cases of FMD have occurred since February 2002, i.e. more than two years have passed since the last outbreak of FMD. In addition, sheep and goats have been free from FMD disease since 1999.

By the end of 2003, all quarantine measures and all animal movement restrictions within the country had been lifted.

Vaccination campaigns for all susceptible animals are still being implemented.

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HIGHLY PATHOGENIC AVIAN INFLUENZA IN THAILAND
Follow-up report No. 7

Information received on 12 March 2004 from Dr Yukol Limlamthong, Director General, Department of Livestock Development (DLD), Ministry of Agriculture and Cooperatives, Bangkok:

End of previous report period: 5 March 2004 (see *Disease Information*, **17** [11], 76, dated 12 March 2004).

End of this report period: 12 March 2004.

New outbreaks:

Location	No. of outbreaks
Chiengrai province, Muang district	1

Note: This outbreak was reported on 1 March 2004 and stamping out was implemented on 2 March. The report was late arriving at the DLD, which explains why this outbreak was not included in follow-up report No. 6 for the period from 28 February to 5 March.

Description of affected population in the new outbreak: caged layers, approximately 16 months old.

Total number of animals in the new outbreak:

species	susceptible	cases	deaths	destroyed	slaughtered
avi	22,013	600	12	22,001	0

Diagnosis:

A. Laboratories where diagnosis was made:

- National Institute of Animal Health, DLD;
- Department of Veterinary Medicine, Kasetsart University.

B. Diagnostic tests used: virus isolation; haemagglutination and haemagglutination inhibition tests. 1 positive from 6 post-mortem specimens (carcasses: 3 quails, 2 native chickens, 1 layer).

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

Note: During the period from 6 to 12 March 2004, there were samples from 11 post-mortem specimens (passive surveillance), comprising 4 from ducks and 7 from village chickens. Neither H5N1 avian influenza virus nor Newcastle disease virus was detected in any of these samples. Other possible pathogens are being investigated.

Epidemiological details: the affected layer farm is located in a previously positive district; there are no other farms within a 5-km radius of this farm.

Control measures during reporting period:

- stamping out;
- quarantine;
- movement control inside the country;
- screening;
- zoning.

The DLD, in cooperation with the Governor of every province and with other departments in the Ministry of Agriculture and Cooperatives, held a campaign during the week from 1 to 7 March 2004, called "Big Clean-up Week", to encourage cleaning and disinfecting of all chicken farms and slaughterhouses in the country. The campaign was completed successfully. All chicken farms and slaughterhouses were cleaned or re-cleaned and disinfected within the same week in order to eliminate any residual virus and/or contaminated materials and prevent further transmission.

Vaccination remains prohibited.

BLUETONGUE IN CYPRUS

EMERGENCY REPORT

Information received on 12 March 2004 from Dr Phedias Loucaides, Director of Veterinary Services, Ministry of Agriculture, Nicosia:

Date of the report: 12 March 2004.

Nature of diagnosis: clinical suspicion followed by laboratory confirmation.

Date of initial detection of animal health incident: 25 November 2003.

Estimated date of primary infection: 20 September 2003.

Background:

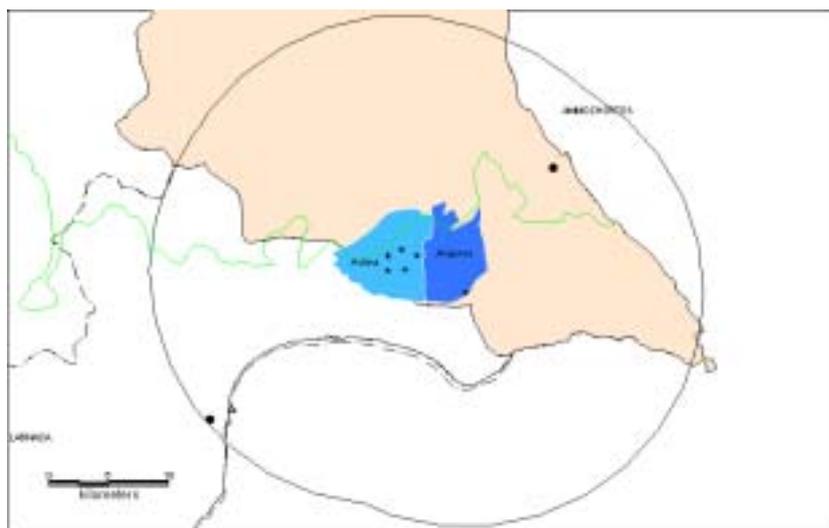
Seropositive animals have always been found in Cyprus. Since September 2003, a surveillance programme has been in place, with sentinel animals in several regions of Cyprus.

Seroconversion of the sentinel animals was found in the samples collected in October 2003. Based on these results, clinical surveillance was intensified.

Outbreaks:

Location	No. of outbreaks
Famagusta (Ammochostos) district, in the eastern part of the country	6 flocks*

* The location of each flock concerned is shown by a star on the map below.



Description of affected population: all of the affected animals were females except one ram. The affected sheep belong to the Chios breed or Chios cross breed. The affected goat belong to the Damascus breed.

Total number of animals in the outbreak:

species	susceptible	cases	deaths	destroyed	slaughtered
ovi	1,299	71	0	0	0
cap	69	1	0	0	0

Diagnosis:

At the end of November, very mild clinical signs were observed in six flocks in Ammochostos. Serum and blood samples were collected from these flocks for laboratory examination. An unusually high percentage of seropositive animals was found. Samples were sent to Greece for virus isolation. On 10 March 2004, the Veterinary Services of Cyprus received the virus isolation results.

A. Laboratory where diagnosis was made: Department of Virology, Centre of Athens Veterinary Institutions, Greece.

- B. Diagnostic tests used:** direct immunofluorescence test; serum neutralisation test; virus isolation test.
- C. Causal agent:** bluetongue virus serotype 16.

Epidemiology:

- A. Source of agent / origin of infection:** unknown.
- B. Mode of spread:** arthropods (*Culicoides*).

Control measures:

- quarantine of the affected farms;
- control of arthropods.

Monitoring of sentinel animals is still going on according to the plan.

Vaccination is prohibited.

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HIGHLY PATHOGENIC AVIAN INFLUENZA IN CANADA Follow-up report No. 1

FOLLOW-UP REPORT NO. 4 ON AVIAN INFLUENZA IN CANADA

Information received on 13 March 2004 from Dr Brian Evans, Executive Director, Canadian Food Inspection Agency (CFIA), Ottawa:

End of previous report period: 9 March 2004 (see *Disease Information*, **17** [11], 76, dated 12 March 2004).

End of this report period: 13 March 2004.

New outbreaks:

Location	No. of outbreaks
province of British Columbia, Abbotsford (Fraser Valley)	1 farm

Description of affected population in the new outbreak: a 4-barn broiler-breeding operation (24,000 birds), only one of which was infected.

Total number of animals in the new outbreak:

species	susceptible	cases	deaths	destroyed	slaughtered
avi	24,000

Diagnosis: monitoring within the official infected zone established around the index outbreak determined this second outbreak.

- A. Laboratory where diagnosis was made:** National Centre for Foreign Animal Disease, Winnipeg, Manitoba (12 March 2004).
- B. Causal agent:** highly pathogenic avian influenza virus subtype H7N3. The intravenous pathogenicity index is superior to 1.2 (testing is not completed).

Epidemiology: this second outbreak is contained within the official infected zone established around the index outbreak.

Control measures during reporting period:

- depopulation of the flock has commenced;

- the CFIA quarantined the affected premises;
- an additional 13,000 broiler breeders in two other operationally associated barns are being pre-emptively depopulated;
- the ring surveillance programme has been expanded to a 10-km radius of the index farm;
- a Ministerial Order prohibiting movement of poultry and poultry products, except under permit, has been put in place in a Control Area in British Columbia.

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AFRICAN HORSE SICKNESS IN SOUTH AFRICA in the surveillance zone (follow-up report No. 1)

Information received on 15 March 2004 from Dr Emily Mmamakgaba Mogajane, Assistant Director General, National Regulatory Services, National Department of Agriculture, Pretoria:

End of previous report period: 25 February 2004 (see *Disease Information*, **17** [9], 61, dated 27 February 2004).

End of this report period: 12 March 2004.

Confirmation of diagnosis:

The samples obtained from the diseased horses at the Elsenburg Agricultural Research Farm that died during the period between 21 and 24 February 2004, which were submitted to the Exotic Diseases Division of the Onderstepoort Veterinary Institute, were confirmed to be positive for African horse sickness (AHS) using the ELISA⁽¹⁾ test.

AHS virus was isolated and the isolated virus was typed as serotype 1.

New outbreaks:

Location	No. of outbreaks
Throughend farm (33° 57' S – 18° 49' E), approximately 15 km south-west of the original infected property	1 farm
Daktari farm (33° 59' S – 18° 49' E), approximately 5 km south of Throughend farm	1 farm

Note: in the emergency report, the suspected index farm was incorrectly stated to be in the Elsenburg district. The correct location is: Elsenburg Agricultural Research Farm of the Department of Agriculture of the Western Cape Province in the Stellenbosch district.

Affected population (epidemiological details, corrected and updated):

Four horses died on the Elsenburg Agricultural Research Farm of the Department of Agriculture of the Western Cape Province in the Stellenbosch district, within a short period between 21 and 24 February 2004. Two weeks previously, on 31 January, another horse died on the same farm with a tentative diagnosis of atypical 'annual rye grass toxicity'.

On 26 February, an American saddler foal, eight months of age, died peracutely on Throughend farm (33° 57' S – 18° 49' E), approximately 15 km south-west of the original infected property at Elsenburg.

On 28 February, an Appaloosian horse died on Daktari farm (33° 59' S – 18° 49' E), approximately 5 km south of Throughend farm.

All of these were local horses that had been kept permanently in the 'AHS surveillance zone' of the Western Cape Province⁽²⁾ and had therefore not received annual AHS vaccinations. The 'surveillance zone' acts as an early warning system for the 'free zone' and horses are therefore normally not vaccinated against the disease, in accordance with the export protocol negotiated with the European Commission.

Diagnosis:

The macroscopic pathological lesions observed on the affected horses were either typical of AHS (Elsenburg and Throughend farms) or strongly indicative of AHS (Daktari farm).

The results of the samples collected from Throughend and Daktari farms are not yet available.

The trace-back investigations on the AHS outbreaks included an investigation on the horse that died on 31 January at the Elsenburg Agricultural Research Farm with the tentative diagnosis of atypical 'annual ryegrass toxicity'. A post-mortem examination was performed on this horse by a private veterinary pathologist and the diagnosis was made on the basis of the histopathological specimens taken. Serum and EDTA⁽³⁾ blood samples were collected, but were not submitted for laboratory testing for AHS until 25 February. This case was confirmed as positive for AHS by means of 'nested' RT-PCR⁽⁴⁾ test performed by the Exotic Diseases Division of the Onderstepoort Veterinary Institute on the EDTA blood samples.

A. Laboratories where diagnosis was made:

- Exotic Diseases Division, Onderstepoort Veterinary Institute;
- Equine Diagnostic Virology Laboratory, Faculty of Veterinary Science, University of Pretoria.

B. Diagnostic tests used: ELISA⁽¹⁾, polymerase chain reaction (PCR), virus isolation.

C. Causal agent: AHS orbivirus, serotype 1.

Epidemiological details:

The Elsenburg Agricultural Research Farm, like the Throughend and Daktari farms, is situated within the 'AHS surveillance zone'⁽²⁾, and is approximately 40 km from the 'AHS free zone', which is the only area in South Africa from where horses are accepted for export to other countries. There is no substantial spread of the disease towards the 'free zone'. It seems as if the real clinical manifestation of the disease was over the week-end of 21 February.

There are no records of any legal movements of horses into this area of the 'surveillance zone' nor are there any suspicions at this stage of any illegal movements.

Control measures during reporting period:

The following disease control measures were instituted:

- All horses on the affected and neighbouring farms are stabled overnight (from two hours before sunset until two hours after sunrise) while the *Culicoides* midges are active, and they are treated with insecticides twice daily.
- Officials of the Directorate of Veterinary Services in conjunction with private veterinary practitioners started to vaccinate all horses against AHS within a radius of 20 km surrounding the outbreaks.
- No horses are allowed to be moved into or out of the affected area.
- Owners of horses bordering the area at risk have been advised to restrict unnecessary movement of their animals out of the area.

These measures will serve to limit the spread of the disease.

(1) ELISA: enzyme-linked immunosorbent assay

(2) See map in *Disease Information*, 17 [9], 62, dated 27 February 2004

(2) EDTA: ethylenediamine tetracetic acid

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

HIGHLY PATHOGENIC AVIAN INFLUENZA IN PAKISTAN
Follow-up report No. 2

Information received on 16 March 2004 from Mr Razaqat Hussain Raja, Animal Husbandry Commissioner, Ministry of Food, Agriculture and Livestock, Islamabad:

End of previous report period: 6 February 2004 (see *Disease Information*, **17** [10], 67, dated 5 March 2004).

End of this report period: 16 March 2004.

No new outbreak has been reported and the situation is under control; however monitoring of the area is continuing.

Causal agent: avian influenza virus subtype H7.

Epidemiology:

- A. Source of agent / origin of infection:** the introduction of the disease is attributed to wild migratory birds/water fowl.
- B. Mode of spread:** later spread was due to direct contact, as well as improper disposal of dead birds; the winter season aggravated the situation and led to heavy mortality in layer flocks.
- C. Other epidemiological details:** no case of human infection has been reported from anywhere in the country.

Control measures during reporting period:

- Imposition of a temporary ban on the import of poultry and poultry products of any kind from avian influenza infected countries or from countries where the disease is suspected.
- A committee comprised of officials from the Ministry of Health, the Ministry of Food, Agriculture and Livestock, the Livestock Department of Sindh province and the National Institute of Health has been constantly monitoring and reviewing the situation.
- All the remaining birds at affected farms have been quarantined and vaccinated using H7 and H9 strains of avian influenza virus.
- Zoosanitary measures have been instituted and inter-provincial movements of poultry and their products have been restricted.
- Control of wildlife reservoirs in poultry farms.
- Zoning.
- An FAO⁽¹⁾ Consultant is in Pakistan and visiting areas where avian influenza is suspected.

Efforts are also under way to restore consumer confidence in poultry and poultry products.

(1) FAO: Food and Agriculture Organization of the United Nations

HIGHLY PATHOGENIC AVIAN INFLUENZA IN CAMBODIA
Follow-up report No. 1

Information received on 17 March 2004 from Dr Sorn San, Chief of National Animal Health and Production Investigation Center, Phnom Penh:

End of previous report period: 24 January 2004 (see *Disease Information*, **17** [5], 17, dated 30 January 2004).

End of this report period: 17 March 2004.

New outbreaks:

Location	No. of outbreaks
Kândal province, Kien Svay district, Kbal Koah commune, Preak Thom village	1
Kândal province, Kien Svay district, Preak Thmei commune, Boah Angkanh village	1
Kândal province, Ta Khmau district, Prek Samrong commune, Prek Samrong village	1
Phnom Penh municipality, Russey Keo district, commune No.6 (Kilometre 6), Boeung Chhouk village	1
Siem Reap province, Siem Reap district, Salakomroeuk commune, Wat Bo village	1
Siem Reap province, Siem Reap district, Slorgram commune, Boeung Daun Pa village	1
Takaev province, Bati district, Phnom Tamao Zoo	1
Takaev province, Daun Keo district, Rokar Khnong commune, Snor village	1
Takaev province, Sre Ronoung commune, Trapaing Krobeum village	1
Total	9

Description of affected population in the new outbreaks: three local chicken farms, three layer farms, two broiler farms, one duck flock and one wildlife rescue centre (zoo) with raptors, herons, crows, etc.

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	...	4,799	4,799	6,125	0

Diagnosis:

A. *Laboratory where diagnosis was made:* Pasteur Institute of Cambodia.

B. *Diagnostic tests used:* RT-PCR⁽¹⁾ (5 February and 3 March 2004).

C. *Causal agent:* avian influenza A virus subtype H5; H5N1 confirmed on 23 January 2004. Further analysis for confirmation and identification of other possible subtypes is being conducted.

Source of agent / origin of infection: unknown; investigations under way.

Control measures during reporting period:

- stamping out;
- disinfection and quarantine of the infected farms;
- control of animal movements.

(1) RT-PCR: reverse transcriptase – polymerase chain reaction

SCRAPIE IN BRAZIL
Follow-up report No. 1

Information received on 17 March 2004 from Dr João Crisóstomo Mauad Cavalléro, Director, Department of Animal Protection (DDA), Ministry of Agriculture, Livestock and Food Supply, Brasilia:

End of previous report period: 28 March 2004 (see *Disease Information*, **16** [14], 85, dated 4 April 2004).

End of this report period: 31 January 2004.

A case of scrapie was confirmed on 27 March 2003 in a farm in Parana (see emergency report). Seventy-five animals from the infected farm were destroyed and brain samples were taken and analysed for scrapie. No other positive animals were found on that farm.

Epidemiological investigations identified the contact animals, parents and offspring of all those animals sold to other farms that were born in the same farm and at the same period as the infected animal. A total of 309 animals were destroyed. In addition, 313 animals are under observation and will be submitted to a DNA test to identify those with a high susceptibility to scrapie.

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HIGHLY PATHOGENIC AVIAN INFLUENZA IN VIETNAM
Follow-up report No. 3

Information received on 18 March 2004 from Dr Bui Quang Anh, Director, Department of Animal Health, Ministry of Agriculture and Rural Development, Hanoi:

End of previous report period: 19 February 2004 (see *Disease Information*, **17** [9], 57, dated 27 February 2004).

End of this report period: 17 March 2004.

Between 26 February and 17 March 2004 there were no new outbreaks in Vietnam.

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