

Contents

Highly pathogenic avian influenza in Thailand: in felines in a zoo (follow-up report No. 1)	317
Bluetongue in Morocco: follow-up report No. 2	318
Highly pathogenic avian influenza in South Africa: follow-up report No. 3	319
Foot and mouth disease in South Africa: virus type SAT 2 in the FMD controlled area (follow-up report No. 4)	320
Highly pathogenic avian influenza in Thailand: follow-up report No. 29	321
Bluetongue in Spain: in the peninsular territory (follow-up report No. 2: cases reported in Extremadura)	324

HIGHLY PATHOGENIC AVIAN INFLUENZA IN THAILAND in felines in a zoo (follow-up report No. 1)

Information received on 22 October 2004 from Dr Yukol Limlamthong, Director General, Department of Livestock Development (DLD), Ministry of Agriculture and Cooperatives, Bangkok:

End of previous report period: 20 October 2004 (see *Disease Information*, **17** [43], 312, dated 22 October 2004).

End of this report period: 22 October 2004.

Though the clinical disease was first noticed on 11 October 2004 in 16 tigers, the number of sick animals has been increasing on a daily basis.

Total number of animals in the outbreak (updated data):

species	susceptible	cases	deaths	destroyed	slaughtered
fau	441	83	39
avi*	12	0	0

* 10 peacocks and 2 ostriches kept in a separate area of the zoo

Since the tiger is an animal on the CITES⁽¹⁾ list, any slaughter or destruction in a zoo, for welfare reasons or public health concerns, must be authorised by the Ministry of Natural Resources and Environment.

It is possible that the sick tigers were not observed at the onset of clinical manifestations. Sick and healthy animals would therefore have initially been kept together in their usual cages. However, the healthy animals, including tiger cubs (under 6 months of age) that were fed with chicken meat and pork, did not subsequently present any clinical signs. This information, provided by the zoo veterinarians, could imply that tiger-to-tiger transmission is unlikely in this outbreak.

No clinical disease or deaths have yet been observed in other species: two domestic ducks that are occasionally put into the crocodiles' ponds⁽²⁾, dogs, pigs, horses and elephants raised separately from the tiger section and for shows together in the zoo.

More than one supplier and more than one slaughterhouse are involved in supplying chicken carcasses to the zoo. The DLD authorities are currently tracing back supplies from all types of premises since late September 2004.

- (1) CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora
 (2) Note: the crocodiles are also fed with carcasses and whole chickens.

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BLUETONGUE IN MOROCCO Follow-up report No. 2

Translation of information received on 22 October 2004 from Dr Hamid Benazzou, Head, Animal Health Division, Ministry of Agriculture and Rural Development, Rabat:

End of previous report period: 13 October 2004 (see *Disease Information*, **17** [42], 297, dated 15 October 2004).

End of this report period: 22 October 2004.

New outbreaks:

Location	No. of outbreaks
Benslimane province, Ouled Yahya rural district	1
Kenitra province	2
Larache province, rural districts of El Ouamra, Larache and Tatoft	3
Rabat province, Shoul rural district	1
Sefrou province, rural districts of Aghbalou Hkourar, Ahi Sidi Lahcen and Tazouta	3
Taounate province, rural districts of Tafrant, Taounate and Kissane	3
Taza province, Zrarda rural district	1
Total	14

Description of affected population in the new outbreaks: sheep.

Number of animals in the new outbreaks:

<i>Location of the outbreaks</i>	<i>species</i>	<i>susceptible</i>	<i>cases</i>	<i>deaths</i>	<i>destroyed</i>	<i>slaughtered</i>
Benslimane	ovi	780	70	22	0	0
Kenitra	ovi	180	4	0	0	0
Larache	ovi	170	4	0	0	0
Rabat	ovi	100	5	0	0	0
Sefrou	ovi	120	5	0	0	0
Taounate	ovi	70	13	2	0	0
Taza	ovi	125	5	1	0	0
Total	ovi	1,545	106	25	0	0

In September 2004, an outbreak was detected in Ifrane province. This is in addition to the outbreaks already reported in *Disease Information*, **17** [39], 273, dated 24 September 2004. The data for the outbreak are as follows:

<i>Location of the outbreak</i>	<i>species</i>	<i>susceptible</i>	<i>cases</i>	<i>deaths</i>	<i>destroyed</i>	<i>slaughtered</i>
Ifrane province, Ain Leuh rural district	ovi	200	35	0	0	0

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

Information received on 22 October 2004 from Dr Emily Mmamakgaba Mogajane, Assistant Director General, National Regulatory Services, National Department of Agriculture, Pretoria:

End of previous report period: 16 September 2004 (see *Disease Information*, **17** [43], 309, dated 22 October 2004).

End of this report period: 22 October 2004.

Updated information on the outbreak in The Blue Crane Route Municipality area:

In The Blue Crane Route Municipality area, around Bedford and Somerset East in the western region of the Eastern Cape Province, the results of polymerase chain reaction (PCR) tests performed on samples collected from a sixth farm confirmed that it was positive for highly pathogenic avian influenza. Culling was applied to this farm and to two additional farms because of their association with the first mentioned farm. The culling of ostriches was completed on 10 September 2004. All poultry within a 3-km radius of these farms (i.e. the infected area established around these farms), were also culled. The animals and their products that were destroyed comprised: 2,456 ostriches, 10 ostrich eggs, 1,344 chickens, 1,616 other eggs and 84 other birds (turkeys, geese, ducks and pigeons).

There are no commercial poultry farms in The Blue Crane Route Municipality area.

Updated information on the outbreak in Grahamstown Municipality (about 160 km from The Blue Crane Route Municipality):

In the Grahamstown Municipality area, in the western region of the Eastern Cape province, a third farm was found to be positive. Farm 'Resolution' had been under suspicion after the first two rounds of blood samples gave inconclusive results for avian influenza. A third batch of blood samples was collected from ostriches from this farm during the week of 6 September 2004. The results were then found to be positive for avian influenza. Clinical cases were also observed and post-mortem examinations confirmed the diagnosis. The culling of ostriches on this farm commenced on 21 September 2004. Heavy rains delayed the culling of ostriches, but it was finally completed on 30 September.

Total number of animals in the outbreaks (updated data):

<i>species</i>	<i>susceptible</i>	<i>cases</i>	<i>deaths</i>	<i>destroyed</i>	<i>slaughtered</i>
avi	30,000	28,154	0

Control measures during reporting period:

In order to prevent further spread of the disease, all poultry, including ostriches, in the Infected Areas were slaughtered. Up to 30 September 2004, 23,064 ostriches and almost 3,550 chickens, ducks, geese and turkeys were killed and buried, and 1,594 ostrich eggs and 1,707 other farmed bird eggs were destroyed.

In addition, 21 wild ostriches were shot and destroyed, bringing the total number of ostriches culled to 23,625 on 4 October 2004.

The destruction of all birds and their eggs is a precautionary measure taken by the government of South Africa to contain the disease.

The so-called 'mopping-up' (i.e. cleaning-up) on all the farms on which animals had been culled, was finalized on 4 October 2004. The operations included the aerial surveillance of all farms to determine whether any ostriches, other poultry or ostrich eggs were still present on the farms. Ground teams were then sent in to destroy all birds and their products and to disinfect the farms.

To date, no clinical signs or positive serological results for the highly pathogenic avian influenza strain H5N2 have been found in any birds other than ostriches in the infected area of the current outbreaks in South Africa.

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FOOT AND MOUTH DISEASE IN SOUTH AFRICA Virus type SAT 2 in the FMD controlled area (follow-up report No. 4)

Information received on 22 October 2004 from Dr Emily Mmamakgaba Mogajane, Assistant Director General, National Regulatory Services, National Department of Agriculture, Pretoria:

End of previous report period: 30 July 2004 (see *Disease Information*, **17** [32], 226, dated 6 August 2004).

End of this report period: 22 October 2004.

New foot and mouth disease virus infections were seen in 6 epidemiological units (diptank areas or farms) in week 5 of the epizootic and in a further 6 epidemiological units in week 6 (weeks 5 and 6: between 26 July and 8 August 2004), while the booster vaccinations were being administered. The number then decreased dramatically during the 7th and 8th weeks (between 9 and 22 August 2004). No new infections were seen thereafter (except for a couple of cases at a diptank on the northern border of the Quarantine Area on 18 October 2004), despite weekly intensive inspection and moulting of all cattle in the whole of the Surveillance and Quarantine Areas⁽¹⁾. The progressive decrease in the number of new infections indicates that the vaccine-induced immunity will successfully slow and eventually stop any further spread of the disease.

All of the current total of 37 known infected epidemiological units (31 diptank areas and 6 commercial farms) are located within the declared Quarantine Area with a complete movement embargo on cloven-hoofed animals and their products. No major jumps of the infection outside the Quarantine Area were detected at any stage. However, a slight expected southward spread of the disease within the Quarantine Area was detected on 15 July 2004, a slight westward spread was detected on 19 July 2004, and a minor northward spread was detected on 28 July 2004. These necessitated a few very minor adjustments of the control areas declared with respect to the epizootic to accommodate the risk management requirements. The Surveillance Area remains well within the previously defined borders within the Mopani District Municipality and no adjustment of the outer Surveillance Area, not even a minor one, was required to the west.

The detection of cases in the Buffer and Surveillance Zone areas of South Africa's declared FMD Controlled Area, and the fact that a small portion of the previous Free Zone that is part of the FMD Controlled Area was voluntarily sacrificed by inclusion in the extended Surveillance Area that was cordoned off and excluded from national and international trade as part of the strategy to control and contain the epizootic of FMD⁽²⁾, does not affect the export status of South Africa's Free Zone without Vaccination as recognised by the OIE, and the trade status of the rest of South Africa is thus not affected and the status of the active FMD Free Zone without Vaccination remains unchanged.

(1) See details in Follow-up report No. 3

(2) See details in Follow-up report No. 1

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HIGHLY PATHOGENIC AVIAN INFLUENZA IN THAILAND
Follow-up report No. 29

Information received on 23 October 2004 from Dr Yukol Limlamthong, Director General, Department of Livestock Development, Ministry of Agriculture and Cooperatives, Bangkok:

End of previous report period: 15 October 2004 (see *Disease Information*, **17** [42], 304, dated 15 October 2004).

End of this report period: 22 October 2004.

New outbreaks:

Location	No. of outbreaks
AngThong province, Chaiyo district	1
AngThong province, Muang district	2
AngThong province, Pa Mok district	1
AngThong province, Pho Thong district	1
AngThong province, Sa Waengha district	2
AngThong province, Samkoo district	2
AngThong province, Viset Chai Chan district	6
Buriram province, Chumni district	1
Buriram province, Muang district	1
Buriram province, Na Pho district	1
Buriram province, Nang Rong district	2
Buriram province, Prakhon Chai district	1
Chachoengsao province, Muang district	1
Chainat province, Muang district	1
Chaiyaphum province, Khon Sawan district	1
Chaiyaphum province, Nong Bua Rahaeo district	1
Chaiyaphum province, Subyai district	1
Chaiyaphum province, Thep Sa Thit district	1
ChonBuri province, Bang Lamung district	1
ChonBuri province, Panus Nikhom district	1
KamphaengPhet province, Khanu Worakabsaburi district	3
KamphaengPhet province, Khlong Lan district	2
KamphaengPhet province, Kosumpeenakorn district	1
KamphaengPhet province, Lan Krabu district	2
KamphaengPhet province, Muang district	7
KamphaengPhet province, Sai Thong Watthana district	1
KanchanaBuri province, Phanom Thuan district	1
Khonkaen province, Srichompoo district	1
LopBuri province, Khok Samrong district	1
LopBuri province, Muang district	1
LopBuri province, Tha Wung district	2
NakhonRatchaSima province, Chok Chai district	1
NakhonRatchaSima province, Non Sung district	1
NakhonRatchaSima province, Non Thai district	1
NakhonRatchaSima province, Prathai district	2
NakhonRatchaSima province, Sung Noen district	3

Location (contd)	No. of outbreaks (contd)
NakhonSawan province, Banphot Phisai district	2
NakhonSawan province, Chumsaeng district	3
NakhonSawan province, Kao Liao district	1
NakhonSawan province, Krok Phra district	1
NakhonSawan province, Lat Yao district	3
NakhonSawan province, Mae Wong district	1
NakhonSawan province, Maepern district	1
NakhonSawan province, Phayuha Khiri district	1
NakhonSawan province, Tak Fa district	2
NakhonSawan province, Takhli district	1
NakhonSawan province, Tha Tako district	1
NakhonSiThammarat province, Huasai district	1
NakhonSiThammarat province, Muang district	1
NongBuaLamphu province, Si Bun Ruang district	1
NonthaBuri province, Muang district	1
Pattani province, Yarung district	1
PhetchaBun province, Bung Sam Phan district	1
PhetchaBun province, Chon Daen district	3
PhetchaBun province, Lom Kao district	1
PhetchaBun province, Muang district	3
PhetchaBun province, Sithep district	2
Phichit province, Bang Mun Nak district	1
Phichit province, Dongcharoen district	1
Phichit province, Muang district	1
Phichit province, Pho Thale district	1
Phichit province, Sam Ngam district	2
Phichit province, Taphan Hin district	1
Phichit province, Thap Khlo district	1
Phichit province, Wachirabaramee district	3
PhitsanuLok province, Bang Rakam district	6
PhitsanuLok province, Noen Maprang district	2
PhitsanuLok province, Phrom Piram district	1
PhitsanuLok province, Wat Bot district	1
Pranakorn Sri Ayudhaya province, Bangprahan district	1
Pranakorn Sri Ayudhaya province, Lad Bualuang district	1
Pranakorn Sri Ayudhaya province, Maharaj district	1
Pranakorn Sri Ayudhaya province, Pranakorn Sri Ayudhaya district	2
Pranakorn Sri Ayudhaya province, Saena district	3
Rayong province, Klaeng district	1
RoiEt province, Kaset Wisai district	1
SamutPrakan province, Phra Phra Daeng district	1
SamutSakhon province, Krathum Baen district	1
SamutSakhon province, Muang district	1

Location (contd)	No. of outbreaks (contd)
SaraBuri province, Inburi district	2
SaraBuri province, Kay-Bangrajan district	1
SaraBuri province, Muang district	1
SaraBuri province, Phra Putthabat district	1
SiSaket province, Kanthararom district	1
Sukhothai province, Ban Dan Lan Hoi district	2
Sukhothai province, Khiri Mat district	1
Sukhothai province, Muang district	3
Sukhothai province, Si Samrong district	1
Sukhothai province, Thung Saliam district	2
SuphanBuri province, Bang Pla Ma district	4
SuphanBuri province, Doemabang Nangbuat district	2
SuphanBuri province, Don Chedi district	2
SuphanBuri province, Muang district	8
SuphanBuri province, Nong Yasai district	1
SuphanBuri province, Song Phinong district	3
SuphanBuri province, U Thong district	2
Tak province, Wangchao district	2
Uttaradit province, Laplae district	1
Uttaradit province, Phi Chai district	2
Total	166

The outbreaks presented in this report were detected during the avian influenza active surveillance campaign (1-31 October 2004), during which every village in the country was screened for avian influenza.

Description of affected population in the new outbreaks: broilers, native poultry, fighting cocks, meat-type ducks, layer ducks, quails, other birds.

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	# 132,976	# 10,728	# 10,540	# 20,442	0

Incomplete total

Note: Vaccination remains prohibited.

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BLUETONGUE IN SPAIN
In the peninsular territory (follow-up report No. 2: cases reported in Extremadura)

Translation of information received on 27 October 2004 from Dr Arnaldo Cabello Navarro, Deputy Director General of Animal Health, Ministry of Agriculture, Fisheries and Food, Madrid:

End of previous report period: 22 October 2004 (see *Disease Information*, **17** [43], 314, dated 22 October 2004).

End of this report period: 26 October 2004.

New outbreaks:

Location	No. of outbreaks
Extremadura Autonomous Community, Caceres province, Almoharin municipality	1 farm (outbreak reference No. 19/2004)
Extremadura Autonomous Community, Badajoz province, Badajoz municipality	1 farm (outbreak reference No. 20/2004)

Description of affected population in the new outbreaks: cattle and sheep.

Number of animals in the new outbreaks:

Outbreak reference No.	species	susceptible	cases	deaths	destroyed	slaughtered
19/2004	ovi	776	...	0	0	0
20/2004	ovi	1,270	0	0	0	0
	bov	181	3	0	4	0
	cap	150	0	0	0	0

Diagnosis:

A. Laboratory where diagnosis was made: Central Veterinary Laboratory, Algete.

B. Diagnostic tests used: ELISA⁽¹⁾ and RT-PCR⁽²⁾.

Mode of spread:

- The outbreak in Almoharin originates from spent sheep moved from Andalusia for slaughter purposes and housed in a collecting centre in Don Benito municipality, near the farm where clinical signs were observed.
- The outbreak in Badajoz originates from movement of cattle from Cadiz.

Control measures during reporting period: measures in accordance with Directive 2000/75/EC of the Council of the European Union, dated 20 November 2000, laying down specific provisions for the control and eradication of bluetongue.

(1) ELISA: enzyme-linked immunosorbent assay

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

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