

21 September 2001

Vol. 14 – No. 38

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RIFT VALLEY FEVER IN ZIMBABWE

(Date of last previously reported outbreak: June 1999).

Extract from the monthly report of Zimbabwe for June 2001, received from Dr Stuart K. Hargreaves, Director of Veterinary Services, Ministry of Agriculture, Harare:

Location	Number of outbreaks in June 2001
Manicaland province	2*

* 20° 32' S – 32° 59' E
20° 18' S – 32° 64' E

Total number of animals in the outbreaks:

species	susceptible	cases	deaths	destroyed	slaughtered
bov	792	8	6	0	0

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AFRICAN SWINE FEVER IN ZAMBIA

(*Date of last previously reported outbreak:* August 2000).

EMERGENCY REPORT

Information received on 18 September 2001 from Dr M.P.C. Mangani, Director of Animal Production and Health, Ministry of Agriculture, Food and Fisheries, Lusaka:

Report date: 7 September 2001.

Nature of diagnosis: clinical, post-mortem and laboratory.

Date of initial detection of animal health incident: 6 August 2001.

Estimated date of first infection: 30 July 2001.

Outbreaks:

Location	No. of outbreaks
MW Farm (15° 17.1' S – 25° 23.2' E)	1
Kalimba Farm (15° 18.2' S – 28° 21.5' E)	1

Description of affected population: the affected pigs were all on commercial properties.

Total number of animals in the outbreaks:

species	susceptible	cases	deaths	destroyed	slaughtered
sui	1,105	20	16	431	0

Diagnosis:

- A. **Laboratory where diagnosis was made:** preliminary studies made at the Central Veterinary Research Institute (CVRI) and the University of Zambia were positive. Confirmatory diagnosis was made by the Onderstepoort Veterinary Institute (OVI – South Africa).
- B. **Diagnostic tests used:** fluorescent antibody test and hemagglutination (University of Zambia and CVRI); polymerase chain reaction and virus isolation (OVI).

Epidemiology:

- A. **Source of agent / origin of infection:** a neighbouring abattoir.
- B. **Mode of spread:** movement of animals.

Control measures:

- quarantine;
- modified stamping-out policy;
- surveillance has been instituted;
- movement control inside the country;
- testing; other areas are being investigated.

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BLUETONGUE IN GREECE

(Date of last previously reported outbreak: December 1999).

EMERGENCY REPORT

Information received on 18 September 2001 from Dr Vasilios Stylos, Head, Animal Health Directorate, Ministry of Agriculture, Athens:

Report date: 17 September 2001.

Nature of diagnosis: clinical and laboratory.

Date of initial detection of animal health incident: 30 August 2001.

Estimated date of first infection: 20 August 2001.

1. Introduction – Background

- In 2000, following the major epizootic of bluetongue in 1999, involving parts of northern and eastern Greece and islands in the eastern Aegean Sea, the Greek Authorities implemented an epidemiological surveillance scheme in the affected areas, based on European Commission Decision 2000/350/EC, which indicated a low and geographically confined circulation of bluetongue virus.
- No clinical signs of bluetongue were reported in any parts of Greece throughout 2000 and up until September 2001.
- In early 2001, in light of the favorable surveillance results obtained in 2000, the Greek Authorities lifted the restrictions on animal movements in mainland Greece. This action was endorsed by European Commission Decision 2001/138/EC.
- The prefectures of Ioannina and Grevena, in particular, had never been affected by bluetongue and random sampling carried out in 1999 produced consistently negative serological results.
- The terrain in Ioannina and Grevena is largely mountainous and inaccessible, scarred by a network of canyons and rivers running in a general north-south direction favouring the spread of disease.

2. Circumstances surrounding the recurrence of bluetongue

2.1. Events leading to initial suspicion

Multiple clinical suspicions involving one sheep flock in Grevena and several flocks in various areas of Ioannina were first notified on 30 August and 6 September 2001, respectively.

On the basis of the clinical picture and morbidity/mortality rates, the estimated date of primary infection is 20 August (\pm two days) for Grevena and 27 August (\pm two days) for Ioannina. This assessment, however, is a provisional one pending the completion of a widespread clinical surveillance and epidemiological investigation.

Observed clinical signs included high fever ($>40.5^{\circ}\text{C}$), lameness, face oedema with nasal discharge, inflammation of the buccal cavity and lips and ptyalism. Full bluetongue clinical signs, however, developed over an observation period of 3-4 days.

On average, morbidity and mortality rates are 3.5% and 1.0%, respectively.

Samples (serum, blood with EDTA^[1] and spleen) were collected from clinically affected animals, and animals contiguous to such animals, in the period from 6 to 10 September 2001.

2.2. Events leading to confirmation

On 13 September 2001 the Laboratory of Virology, Athens, reported positive serology results for antibodies to bluetongue virus (by ELISA^[2] and AGID^[3]) on samples collected from sheep flocks in Ioannina and Grevena.

Bluetongue in Greece: serological results available as at 17 September 2001

Location			Number of		Results (positive/total)
Prefecture	Settlement	Coordinates	samples	flocks	
Grevena	Smixi	40° 04' N – 21° 07' E	18	1	12/18
Ioannina	Elatohorion	39° 52' N – 20° 58' E	10	3	7/10
	Asprangeli	39° 48' N – 20° 43' E	20	1	7/20
	Kefalovriso	40° 00' N – 20° 33' E	10	1	8/10
	Vissani	39° 57' N – 20° 32' E	10	1	9/10
	Kato Meropi	40° 00' N – 20° 30' E	10	1	2/10
Total			78	8	45/78 (57.7 %)

Virology tests aimed at virus isolation and typing are in progress.

2.3. *Epidemiological considerations*

a) Source of agent / origin of infection

Two scenarios are being studied, viz:

- Overwintering of bluetongue virus previously occurring in Greece, or
- New incursion of bluetongue virus.

Typing of a recent field isolate in conjunction with the outcome of a large scale epidemiological investigation currently in progress may shed light on this question.

The epidemiological investigation is aimed at clarifying, in particular, the exact extent of spread within Ioannina, Grevena and adjoining Prefectures, the temporal and spatial pattern of spread and animal movements into and out of the affected areas during the critical time period.

However, the high sero-prevalence rates obtained in preliminary serological results combined with the severe clinical signs observed in affected animals suggest that the sheep population in the area was naïve and not previously exposed to bluetongue virus.

In this case, the relatively low morbidity and mortality rates may be due to low virulence and/or the particular type of bluetongue virus strain involved.

b) Mode of spread

Depending on the identification of the source, two scenarios may be applicable, viz:

- Internal movements of viraemic susceptible animals and/or wind-borne infective vectors from previously affected areas inside Greece, or
- Imports of viraemic animals or wind-borne infective vectors carried from neighbouring countries.

Again, typing of the field isolates and the epidemiological investigation may help answer this question too.

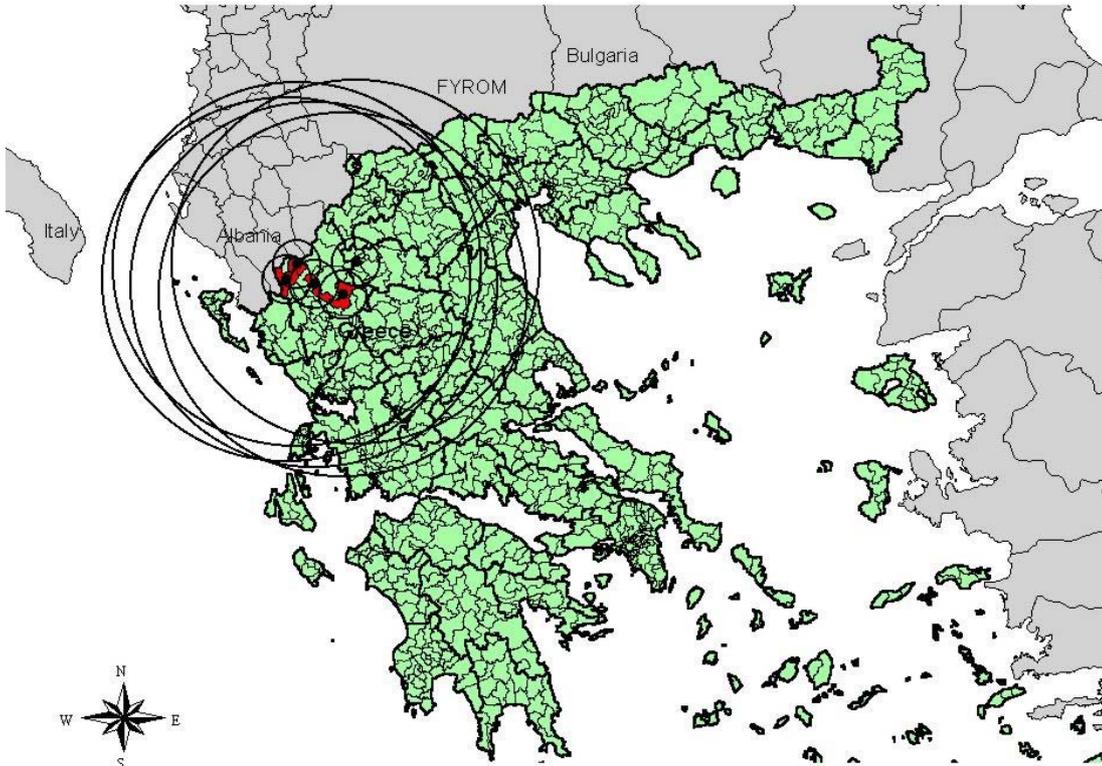
All consignments of live susceptible animals dispatched to Ioannina and Grevena since 1 August 2001, irrespective of their origin, are being identified and screened for possible exposure to bluetongue virus.

3. *Applicable safeguard and control measures*

As of 14 September 2001, the Greek Authorities have implemented measures⁽⁴⁾ aimed at controlling bluetongue in compliance with European Council Directive 2000/75/EC, and in particular Articles 6, 7, 8, 9 and 10 thereof. Briefly, these measures include:

- a) Killing and destruction of animals clinically affected or suspected of being infected.
- b) Establishment of a 20-km-radius zone around the cluster of outbreaks, within which a census, close monitoring and a complete standstill of susceptible animals are applied. It should be noted that part of the Prefecture of Kastoria is also included in this zone.

- c) Establishment of a single 150-km-radius zone (see map), delineating both the protection and surveillance zones, where animal movement restrictions apply and initiation of epidemiological surveillance is being organised (sentinel bovines and light traps).



- d) Launching of a vector control campaign, especially inside the 20-km-radius zone.
e) Epidemiological investigations (see paragraph 2.3. above) and enhanced clinical surveillance inside the 150-km-radius zone.

It is pointed out that, in accordance with European Commission Decision 2001/138/EC, the entire territory of Greece is considered as a single surveillance zone for bluetongue and, therefore, live susceptible animals may not be exported.

- [1] EDTA: ethylene diamine tetra-acetic acid.
[2] ELISA: enzyme-linked immunosorbent assay.
[3] AGID: agar-gel immunodiffusion.
[4] Ministerial Decision No. 391397 of 14 September 2001.

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BLUETONGUE IN ITALY

UPDATE ON OUTBREAKS DETECTED ON THE ITALIAN TERRITORY SINCE 1 JANUARY 2001

Translation of information received on 18 September 2001 from Dr Romano Marabelli, Director General of Veterinary Services, Ministry of Public Health, Rome:

Report date: 18 September 2001.

New outbreaks:

Location		No. of outbreaks
Region	Province	
Calabria	Catanzaro	48
	Cosenza	42
	Crotone	118
	Reggio Calabria	2
	Vibo Valentia	4
Sardinia	Cagliari	7
	Nuoro	187
	Oristano	3
	Sassari	17

Total number of animals in the outbreaks:

<i>species</i>	<i>susceptible</i>	<i>cases</i>	<i>deaths</i>	<i>destroyed</i>	<i>slaughtered</i>
bov	546	0	0
ovi	63,353	2,667	95	1,075	1,078
cap	5,482	55	22	19	12

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FOOT AND MOUTH DISEASE

France, Ireland, the Republic of Korea and the Netherlands have regained the status of "FMD free country where vaccination is not practised"

The OIE Foot and Mouth Disease and Other Epizootics Commission evaluated documentation concerning the eradication of foot and mouth disease, submitted by the Delegates of France, Ireland, the Republic of Korea and the Netherlands, and, in accordance with Resolution No. XVII ("Restoration of recognition of the foot and mouth disease status of Member Countries") adopted by the OIE International Committee during its 65th General Session (May 1997), recognised on 19 September 2001 that these countries have regained their previously recognised FMD-free status without vaccination.

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FOOT AND MOUTH DISEASE IN ZIMBABWE
Follow-up report No. 2

Information received on 19 September 2001 from Dr Stuart K. Hargreaves, Director of Veterinary Services, Ministry of Agriculture, Harare:

End of previous report period: 27 August 2001 (see *Disease Information*, **14** [35], 202, dated 31 August 2001).

End of this report period: 17 September 2001.

New outbreaks:

Location	No. of outbreaks
Matabeleland North province	1
Matabeleland South province	4

The total number of outbreaks of foot and mouth disease (FMD) now stands at 16 and are mainly confined to the south-west and south of the country in the two provinces of Matabeleland North and Matabeleland South, except for one outbreak at Triangle feedlot (see Follow-up Report No. 1).

a. Matabeleland North:

Lupane communal lands (Sobendle diptank, 18° 69' S – 27° 50' E). This area is in the surveillance zone where 8 clinical cases in a herd of 1,440 cattle were diagnosed. Following investigations at Sobendle diptank, infection is believed to have come from the traditional vaccination zone to the immediate west and near Mzola forest Chirisa/Chizarira Safari areas, where there are wild African buffaloes (*Syncerus caffer*). The buffalo fence surrounding these forest and game areas has been damaged adjacent to Sobendle diptank. In the traditional vaccination zone adjacent to Sobendle diptank, serological investigations are under way, as this is believed to be the source of infection. From this area, infection is believed to have spread through an illegal movement of cattle by motor transport to a more lucrative slaughter market around Bulawayo, from where it spread.

b. Matabeleland South:

- Dendele communal lands (30° 17' S – 29° 42' E). This is a communal area in Beitbridge District where infection has been detected at 4 diptanks. There were 1,967 cases out of a census of 6,479 cattle in Dendele. No cases were reported in other species.
- Siyoka communal lands (21° 58' S – 29° 58' E). This is another communal area in Beitbridge District which is adjacent to Dendele communal area where infection was also detected at 4 diptanks. There were 739 cases out of a census of 12,642 cattle in Siyoka. No cases were found in other species.
- Mtetengwe communal lands (30° 93' S – 30° 03' E). This communal area is south of Jopempi resettlement and infection was detected at only 1 diptank. There were 36 cases from a census of 30,211 cattle in Mtetengwe.
- Dibilashaba communal lands (21° 50' S – 29° 28' E). This communal area is to the west of Dendele communal area but in Gwanda district; infection was detected at 3 diptanks. There were 406 cases out of a census of 14,734 cattle in Dibilashaba.

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>
bov	65,506	3,156	0	0	0

Causal agent: the results of PCR⁽¹⁾ sequencing indicate that all outbreaks to date have been caused by the same virus type and strain (FMD virus type SAT 2). Samples were collected from the following: Willsgrove (Bulawayo District), Jopempi Resettlement (Beitbridge District) and Sobendle (Lupane District).

Epidemiology:

- A. Source of agent / origin of infection:** African buffalo are suspected to be the origin of infection. Laboratory results indicate virus type and strain similarity with previous isolates from Chirisa/Chizarira Safari areas isolated from wild buffalo probang samples.
- B. Mode of spread:** aerosol transmission.

Control measures during reporting period:

- Quarantine: all affected premises have been quarantined including a 40-km-radius zone around such properties. All cloven-hoofed animal movements remain suspended in Matabeleland North and Matabeleland South provinces except for direct slaughter at registered abattoirs. Elsewhere, movement for immediate slaughter at registered abattoirs is being permitted under official veterinary supervision.
- Vaccination: primary vaccination has been completed with approximately 170,000 cattle being vaccinated using trivalent (SAT 1, 2 and 3) and monovalent SAT 2 vaccines.
- Surveillance: intensive surveillance is under way on properties within a 40-km radius of all outbreaks. In the quarantined areas, approximately 300,000 cattle have been inspected. In the rest of the country, routine farm and diptank inspections are being carried out.
- Branding: all cattle on infected properties are being hot-iron branded with an 'S' for permanent identification. Such animals can only leave the property for direct slaughter and deboning at specified registered abattoirs. Cattle that are vaccinated on other properties will be branded with an inverted 'V' if they are outside the traditional vaccination zone.
- Website: for further details concerning control methods, outbreak sites, etc., please visit the web site at the following address: <http://www.africaonline.co.zw/vet>

(1) PCR: polymerase chain reaction.

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CLASSICAL SWINE FEVER IN SPAIN
Follow-up report No. 10

Translation of information received on 19 September 2001 from Dr Ignacio Sánchez Esteban, Deputy Director General of Animal Health, Ministry of Agriculture, Fisheries and Food, Madrid:

End of previous report period: 6 September 2001 (see *Disease Information*, **14** [36], 208, dated 7 September 2001).

End of this report period: 19 September 2001.

New outbreaks:

Location	No. of outbreaks
Bellmunt d'Urgell district, Lérida province, Catalonia Autonomous Community	2 farms

Total number of outbreaks reported to date: 29.

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>
sui	626	0	0	626	0

Note: Both affected farms are located within a 3-km-radius zone around the Bellmunt farm previously reported in the follow-up report No. 9. No clinical signs of classical swine fever have been reported. On 19 September 2001, however, the Animal Health Investigation Centre⁽¹⁾ confirmed infection using PCR⁽²⁾ technique on samples of viscera.

(1) *Centro de Investigación en Sanidad Animal (CISA-INIA)*, Valdeolmos, Madrid.

(2) PCR: polymerase chain reaction.

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