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THEILERIOSIS IN THE UNITED KINGDOM / GREAT BRITAIN Accidental infection

EMERGENCY REPORT

Text of a fax received on 26 June 2000 from Dr J.M. Scudamore, Chief Veterinary Officer, Ministry of Agriculture, Fisheries and Food, London:

Report date: 26 June 2000.

Date of first suspicion: 3 March 2000.

Date of confirmation: 25 March 2000.

The United Kingdom has acted to contain an accidental infection of cattle at a research institute with *Theileria annulata*.

The disease was detected in a dairy herd, kept by a research institute at its premises in Scotland, following post-mortem examination of an animal which died on the farm. The 668 other cattle at the research institute farm were tested for the disease and 25 cattle were found to be infected with *Theileria*.

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	669	26*	1	25	0

* 25 cases diagnosed at the laboratory; 1 case diagnosed at post-mortem examination.

Epidemiology:

It is likely that the infection occurred as a result of cross contamination from other animals kept by the institute which were experimentally infected under licence with *T. annulata* as part of their research to develop a vaccine.

As the natural vector of *T. annulata* does not exist in the United Kingdom, spread within the dairy herd is believed to have been by poor blood sampling techniques.

Action taken:

- The 25 other cattle found to be infected with *Theileria* were voluntarily destroyed by the institute.
- Restrictions on animal movements off the farm will remain in place until testing establishes that the infection has been eliminated.
- Tracing is in progress to locate and test other animals from the herd which have left the research institute farm.
- Containment procedures on the premises have been revised as have procedures for blood sampling animals on the premises.

MASS DIE-OFF OF SEA FISH IN BARBADOS

Text of a fax received on 27 June 2000 from Dr Trevor H. King, Senior Veterinary Officer, Ministry of Agriculture, Barbados:

Report date: 23 June 2000.

A mass die-off of reef-associated fish occurred in the waters of the South Caribbean.

In Barbados, the first reports of fish deaths were made on 17 September 1999 when fish were washed up on the shores of the East Coast either dead or moribund or exhibited unusual behaviour in the water including twisting and gasping at the surface. Divers reported large numbers of dead fish lying on the surface of the reefs.

The washing up of dead fish on beaches lasted for four weeks and it is estimated that well over 35,000 kilos of reef fish were buried during that period.

Initial investigations were concentrated on environmental factors, seeking evidence of algae bloom (red tide). This proved fruitless and focus on the fish themselves was then initiated.

30 September 1999 – Five lots of fish were submitted to the Veterinary Services Laboratory for histopathology.

2 October – Moribund fish were submitted. Tissues of liver, skin, muscle, and gills were cultured for microbiological investigations.

4 October – Pure cultures of a single type of bacterium grown at 35°C; a *Streptococcus*, were isolated. An expert from the Institute of Aquaculture, University of Stirling, Scotland, United Kingdom, served as consultant.

5 October onwards – Numerous post-mortem examinations have been conducted; microbiological testing of other tissues— brain, kidney and spleen— have been carried out.

Histopathological lesions were consistent with bacterial septicaemia and toxemia. All tissues yielded pure cultures of streptococcal organisms which were typed by the Biolog Microlog system as *Streptococcus iniae*. This was confirmed by PCR testing at laboratories in Israel, Canada and the United States of America, and at the University of Stirling, Scotland.

A monitoring system for reef fish is now in place.

Composition of fish found dead on the beach at Bath, Conset Bay and Sam Lords (conducted by Fisheries Division -FD- and Fisher Federation -FF)

Family name	Common name	Total (%)	Details
Acanthuridae	Surgeonfish	2,312 (46)	<i>Acanthurus coeruleus, Acanthurus bahianus, Acanthurus chirurgus...</i>
Kyphosidae	Sea chub	1,101 (22)	<i>Kyphosus sectatrix</i>
Scaridae	Parrotfish	358 (7)	<i>Scarus vetula, Scarus taeniopterus, Sparisoma rubripinne, Sparisoma aurofrenatum, Sparisoma viride...</i>
Serranidae	Sea bass	249 (5)	<i>Epinephelus fulvus, Epinephelus adscensionis, Epinephelus cruentatus, Epinephelus guttatus, Rypticus saponaceus...</i>
Balistidae	Triggerfish	201 (4)	<i>Melichthys niger, Balistes vetula</i>
Pomacentridae	Damselfish	110 (2)	<i>Abudefduf saxatilis, Stegastes planifrons, Microspathodon chrysurus</i>
	Angelfish	32 (1)	<i>Pomacanthus paru, Holacanthus tricolor...</i>
Sparidae	Porgy	100 (2)	<i>sp.</i>
Haemulidae	Grunt	103 (2)	<i>Haemulon chrysargyreum, Haemulon flavolineatum, Haemulon album</i>
	Filefish	92 (2)	<i>Cantherhines macrocerus...</i>
Mullidae	Goatfish	69 (1)	<i>Mullus auratus, Pseudupeneus maculatus, Mulloidichthys martinicus</i>
Holocentridae	Squirrelfish	51 (1)	<i>Holocentrus vexillarius, Plectrypops retrospinis, Ostichthys trachypoma...</i>

Family name	Common name	Total (%)	Details
Lutjanidae	Snapper	45 (0.9)	<i>Ocyurus chrysurus, Lutjanus mahogoni</i>
Ostraciidae	Boxfish	42 (0.8)	<i>Lactophrys trigonus, Lactophrys triqueter, Lactophrys polygonia...</i>
Bothidae	Flunder	33 (0.7)	<i>sp.</i>
Centropomidae	Snook	10 (0.2)	<i>Centropomus undecimalis</i>
Unidentified	Herring	5 (0.1)	<i>sp.</i>
Labridae	Wrasses	4 (0.1)	<i>Bodianus rufus, Halichoeres bivittatus</i>
Tetraodontidae	Puffer	4 (0.1)	<i>sp.</i>
Muraenidae	Moray	4 (0.1)	<i>sp.</i>
	Scorpionfish	2	<i>sp.</i>
Chaetodontidae	Butterfly fish	2	<i>Chaetodon striatus</i>
Synodontidae	Lizardfish	1	<i>sp.</i>
Unidentified fish		135 (3)	

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NIPAH DISEASE IN PENINSULAR MALAYSIA Detection of virus reactors

Text of a fax received on 28 June 2000 from Dr Mohd Nordin Mohd Nor, Director General, Departement of Veterinary Service, Ministry of Agriculture, Kuala Lumpur:

Report date: 26 June 2000.

Nature of diagnosis: laboratory.

Date of initial detection of animal health incident: 14 June 2000.

The third phase of the Nipah virus surveillance programme has been ongoing since April 2000 (see *Disease Information*, **13** [12], 43). The programme involves testing of pigs at farms using ELISA⁽¹⁾ and virus neutralisation test (VNT) to screen the pigs.

Six pigs from a farm in the district of Kinta were found to be positive to both ELISA and VNT on the first screening, and a seventh pig on the second screening. Subsequently, all the pigs in the farm were destroyed on 17 June 2000.

Three pigs were also found to be positive to ELISA and VNT on the first screening in a farm in the district of Larut Matang. These reactors were immediately destroyed and no movement of pigs is allowed from the farm. A second test for all the pigs in the farm is now being undertaken. If the results show more positive reactors, it will be indicative of active infection and all the pigs in the farm will be destroyed.

Affected area:

Location	No. of affected farms
district of Kinta, State of Perak (4° 23' N - 100° 07' E)	1
district of Larut Matang, State of Perak (4° 55' N - 100° 40' E)	1

Total number of animals in the affected area:

species	susceptible	positive reactors	deaths	destroyed	slaughtered
sui	2,025	10	0	1,728	0

Diagnosis:

- A. Laboratory where diagnosis was made:** Veterinary Research Institute, State of Perak, Malaysia, and CSIRO⁽²⁾ Laboratory, Geelong, Australia.
- B. Diagnostic tests used:** ELISA and virus neutralisation test.

Epidemiology:

- A. Source of agent / origin of infection:** further epidemiological investigations on the disease are being undertaken.
- B. Mode of spread:** contact.

Control measures during reporting period:

- quarantine measures and movement control;
- stamping-out policy;
- testing.

(1) ELISA: enzyme-linked immunosorbent assay.

(2) CSIRO: Commonwealth Scientific and Industrial Research Organisation (Australia).

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FOOT AND MOUTH DISEASE IN KAZAKHSTAN Follow-up report

FOLLOW-UP REPORT NO. 1

Translation of a fax received on 29 June 2000 from Dr Sh.Zh. Tursunkulov, Main State Veterinary Inspector, Ministry of Agriculture, Astana:

End of previous report period: 5 May 2000 (see *Disease Information*, **13** [22], 85, dated 9 June 2000).

End of this report period: 29 June 2000.

The epizootic situation in regard to foot and mouth disease (FMD) in farmed animals is extremely serious in Kazakhstan. There is an extremely serious threat of the disease spreading into neighbouring countries. This year, FMD has been recorded in the regions of East Kazakhstan, Karaganda, Zhambyl, Kyzyl-Orda, South Kazakhstan and Almaty.

The total number of animals in the outbreaks is: 1,463,300 head of cattle, 4,860,500 sheep/goats, and 205,600 pigs.

The number of animals in the zones at risk is: 1,966,800 head of cattle, 7,037,700 sheep/goats, and 320,600 pigs.

FMD virus serotypes O and A have been recorded. There is a tendency for further dissemination of the disease into the northern regions of Kazakhstan, where the main cattle population is located.

The necessary financial resources for FMD vaccine procurement have now been exhausted. Furthermore, new outbreaks of FMD in farmed animals are being discovered in the Republic.

Due to this situation, and in order to localise new outbreaks and create buffer zones, assistance is requested with provision of the following FMD vaccine: 3,933,600 doses for cattle, 14,075,400 doses for small ruminants and 641,200 doses for pigs.

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