

DISEASE INFORMATION

14 October 1994

Vol. 7 - No. 39

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CLASSICAL SWINE FEVER (HOG CHOLERA) IN BULGARIA

Translation of the text of a fax received on 7 October 1994 from Dr N.T. Belev, Delegate of Bulgaria to the OIE, Sofia:

S. R. - 2 No. 6

Final date of previous report period: 6 October 1994 (see *Disease Information*, 7 [38], 162).

Final date of this report period: 7 October 1994.

Estimated date of first infection: 16 December 1993.

Number of separate outbreaks identified so far: nine (9).

Geographical identification of the new outbreak:

9. Byalla municipality, Russe department.

Details concerning the new outbreak:

No.	Species	No. of animals in the outbreak	No. of cases	No. of deaths	No. of animals destroyed	No. of animals slaughtered
9	sui	107	2	2	21	84

Comments concerning affected population: fattening pigs in a private farm.

Comments to date concerning epidemiology of the disease: the pigs had been fed with swill.

Control measures taken during report period: stamping out and quarantine. Setting up of a 10-km-radius protection zone and a 30-km-radius surveillance zone around the outbreak.

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CLASSICAL SWINE FEVER (HOG CHOLERA) IN BELGIUM

Translation of the text of a telex received on 11 October 1994 from Dr L. Hallet, Inspector General, Ministry of Agriculture, Brussels:

S. R. - 1

Nature of diagnosis: virus isolation.

Date of initial detection of animal health incident: 5 October 1994.

Estimated date of first infection: unknown.

Number of separate outbreaks identified so far: one (1).

Geographical identification of the outbreak: Nevele municipality, Eastern Flanders province (in the western part of the country).

Details concerning the outbreak:

No.	Species	No. of animals in the outbreak	No. of cases	No. of deaths	No. of animals destroyed	No. of animals slaughtered
1	sui	1,158	152	6	1,152	0

Comments concerning affected population: fattening pigs in a closed farm.

Comments to date concerning epidemiology of the disease: investigations into the origin of the disease are under way.

Control measures taken: a 3-km-radius protection zone and a 10-km-radius surveillance zone have been set up around the outbreak. Within these zones, the following measures are in force:

- access to farms is strictly limited to authorised persons
- ban on the movement of pigs
- ban on the movement of porcine manure
- all pigs must be confined
- vehicles used for the transport of animals may not leave the zone without the authorisation of the veterinary inspector
- all pig owners are required to have their pigs examined once a week.

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ACUTE EQUINE RESPIRATORY SYNDROME IN AUSTRALIA

Text of a fax received on 12 October 1994 from Dr G. Murray, Chief Veterinary Officer, Department of Primary Industries and Energy, Canberra:

During the period from 7 to 26 September 1994, fourteen (14) thoroughbred horses died or were euthanised after becoming seriously ill with an "acute equine respiratory syndrome".

The outbreak has been restricted to properties directly associated with one stable in the suburb of Hendra in Brisbane, Queensland.

The situation as of 12 October 1994 is summarized in the following table:

Location of properties	Relationship between properties	No. of horses recovered ✧	No. of horses dead or euthanised	No. of in-contact healthy horses	Total No. of horses
* Hendra 1 (Brisbane)	Primary outbreak ("IP1")	4	11	9	24
* Hendra 2 (Brisbane)	neighbour to IP1	1	1	* 10	12
* Hendra 3 (Brisbane)	neighbour to IP1	0	0	* 7	7
Cannon Hill (Brisbane)	holding associated with IP1	0	1	* 14	15
Kenilworth (150 km north of Brisbane)	holding associated with IP1	1	1	⊕ 300	302
Samford	holding associated with IP1	1	0	20	21

✧ The 7 recovered horses are positive to virus neutralisation test.

* These three stables are immediately adjacent to each other.

* All negative to virus neutralisation test.

⊕ Although there are 300 horses on this holding, the 2 affected horses from IP1 have not been in contact with the other horses on this spelling property.

Extensive investigations have been undertaken by government veterinary authorities and private veterinary experts and known enzootic and exotic diseases of horses have been excluded.

Clinical signs: of the 21 cases known to date, 14 presented an acute respiratory syndrome with death in one to three days. A further 4 animals were clinically affected but have recovered while 3 have had virtually inapparent infections. Clinical cases have been inappetent and pyretic (up to 41° C) with shallow respiration, most having a frothy nasal discharge varying from clear to blood tinged. Mucous membranes have usually been dark to cyanotic and sometimes slightly jaundiced. Several animals were reported to have a dependent oedema (angle of jaw, legs, sheath), ataxia and head pressing. Terminal animals have usually died with a copious nasal discharge *in extremis*.

Post mortem examination: the common feature at gross necropsy has been severe lung congestion and oedema with blood-stained froth in the airways. Other findings have been associated with the respiratory system and include: petechial and ecchymotic haemorrhages in various organs as well as slight jaundice. Microscopically, lesions are those of an acute interstitial pneumonia with damage to endothelial linings of small blood vessels, haemorrhage and foci of early necrosis.

Comments concerning nature of agent: the Australian Animal Health Laboratory (AAHL) and the Animal Research Institute, Queensland have isolated the same virus from 5 cases. Since the initial virus isolation, all further work with potentially infective material has been undertaken at AAHL. Studies at AAHL have shown this acute equine respiratory syndrome (AERS) virus to belong to the *Paramyxoviridae* family and may be a member of the *Morbillivirus* genus. Evidence for this includes the following:

- electron microscopy shows a nucleocapsid with a herringbone pattern characteristic of this family;
- AERS virus haemagglutinates guinea-pig red cells but results are variable with red cells from other species;
- AERS virus does not possess neuraminidase, which is consistent with the *Morbillivirus* genus;
- nucleotide sequencing studies suggest that the virus is a *Morbillivirus* but work is continuing in this area;

- immunofluorescent antibody studies on virus infected monolayers using antibodies to turkey rhinotracheitis, rinderpest, Newcastle disease, respiratory syncytial virus, mumps, measles, canine distemper, and parainfluenza-3 viruses were negative;
- immunoelectron microscopy shows virus nucleocapsids to bind to labelled antibody to the isolated virus. Antibodies to parainfluenza types 1, 2 and 3 produce low level binding.

The isolated virus seems to be the cause of the syndrome. Evidence for this includes the following:

- no bacterial pathogen or toxin could be detected;
- African horse sickness, equine influenza, equine herpesvirus, equine viral arteritis and the equine viral encephalites were eliminated;
- AERS virus was isolated from the lungs of 5 cases;
- specific antibody to AERS virus is present in 4 recovered cases and 3 in-contact horses believed to have suffered a very mild and transient illness, but not in other horses;
- positive transmission tests to 4 horses at AAHL, 2 of which received pure virus culture, with subsequent recovery of the virus at autopsy.

Comments concerning epidemiology:

The incubation period in the natural cases was mostly 8 to 11 days with a maximum possible period of 16 days. In the experimental cases the incubation period was 3 to 12 days. Two suspected human cases had a putative incubation period of 5 to 8 days.

All the natural cases in horses and the suspected human cases can be linked to the original index case, which was first observed sick on 7 September and died on 9 September.

From the pathogenesis, clinical picture and pattern of spread, natural transmission is most likely direct via frothy nasal discharges as a consequence of close contact or mechanical transfer. Aerosol transmission seems unlikely as the upper respiratory tract does not have lesions and coughing is not a feature of the syndrome.

Available evidence suggests that this virus is not highly contagious under conditions of natural transmission.

To date there is no evidence as to the possible source of the virus.

Serological surveillance results:

AAHL has developed a virus neutralisation test and an immunofluorescence test and, to date, 1,265 samples have been collected for testing. Results of 587 tests finalised to date have shown that the only positive horses have been those located on, or originating from, the infected Hendra racing stable in suburban Brisbane. All horses within a 1-km radius of this infected establishment are being tested for the presence of antibodies to this virus. Further results are expected within the next 48 hours. Blood samples have been submitted from areas outside the proclaimed infected area with all results to date being negative.

Movement controls:

On the basis of surveillance results, the infected area has been reduced from a broad area of southeast Queensland to a zone with a 5-km radius around the index premises and premises associated with direct movement of horses from the index stable. Limited horse race meetings have resumed in Brisbane, and, on the basis of serological survey results indicating no seroconversion in horses not on quarantined premises, all movement restrictions, except those applying to quarantined premises, have been lifted with effect from midnight on 11 October 1994.

Public health:

The trainer of the horses also became affected with a severe respiratory condition and died on 27 September 1994. The trainer, a stablehand, and the consulting veterinarian all seroconverted to the isolated virus. The stablehand exhibited influenza-like symptoms, but the veterinarian has remained in normal health.

Blood samples from 18 other humans associated with this suburban location have remained seronegative.

Transmission is believed to have been caused by very close contact with infected horses, for example hands in the mouth, and close contact with infected saliva.

The Queensland Director of Public Health has assured the general public that there is no public health risk from the equine virus.

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SUSPECTED FOOT AND MOUTH DISEASE IN NAMIBIA

Text of a fax received on 13 October 1994 from Dr J.J.H. Shaw, Director of Veterinary Services, Ministry of Agriculture, Water and Rural Development, Windhoek:

S. R. - 1

Nature of diagnosis: clinical.

Date of initial detection of animal health incident: 11 October 1994.

Estimated date of first infection: 2 October 1994.

Number of separate outbreaks identified so far: one (1).

Geographical identification of the outbreak: 17° 48' S - 25° 7' E, at Kasika, in the Caprivi district, north of the veterinary cordon fence.

Details concerning the outbreak:

No.	Species	No. of animals in the outbreak	No. of cases	No. of deaths	No. of animals destroyed	No. of animals slaughtered
1	bov	106,424	196	0	0	0

Comments concerning affected population: population concerned is in a remote area far to the north of the veterinary cordon fence. Exports from Namibia are thus not affected. Animals in this area are vaccinated regularly.

Comments to date concerning diagnosis: the disease is only strongly suspected at this stage.

Control measures taken to date: embargo on all movements of livestock and animal and plant products from the area. No vaccination will be undertaken until the disease has been confirmed and details of virus typing received.

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AFRICAN SWINE FEVER IN MOZAMBIQUE

Text of a fax received on 14 October 1994 from Dr F.G. Pinto, Head of the Animal Health Department, Ministry of Agriculture, Maputo:

S. R. - 2 No. 1

Final date of previous report period: 28 March 1994 (see *Disease Information*, **7** [13], 51).

Final date of this report period: 3 October 1994.

Estimated date of first infection: 1 March 1994.

Number of separate outbreaks identified so far: four (4).

Geographical identification of the new outbreaks: Tete Province:

2. Guro (17° 25' S - 33° 20' E)
3. Catandica (18° 05' S - 33° 10' E)
4. Nhamasoessa (19° 05' S - 33° 25' E).

Details concerning the new outbreaks:

No.	Species	No. of animals in the outbreak	No. of cases	No. of deaths	No. of animals destroyed	No. of animals slaughtered
2-4	sui	3,500	505	500	3,000	0

Comments concerning affected population: the disease occurred in piggeries located in the Guro, Catandica and Nhamasoessa residential areas, Tete town, surrounded by family-run pig farms. The disease is endemic in the area.

Comments to date concerning epidemiology of the disease: a few years ago similar deaths occurred in the areas surrounding these piggeries. Close contacts with animals from neighbouring families may have occurred when there was a deterioration in the feeding situation.

Control measures taken during report period: stamping out; disinfection of the infected piggeries; prohibition on the movement of pigs and products of porcine origin within the area.

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