



INTERNATIONAL BREEDERS' MEETING
INTERNATIONAL COLLATING CENTRE

Animal Health Trust

Information Exchange on Infectious Equine Disease

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*Please note that due to changes in reporting from Australia, their reports are being reported one quarter in arrears behind the quarter being reported. Here we provide reports for the **FOURTH QUARTER** of 2009 for Australia. Please note that data **IS** for the quarter being reported. First quarter reports for other countries are provided after this in the usual way*

REPORT FOR FOURTH QUARTER 2009 FROM AUSTRALIA

*Animal Health Surveillance Quarterly (AHSQ) Compiled by Animal Health Australia (AHA)
(<http://www.animalhealthaustralia.com.au/status/ahsq.cfm>)*

STATE AND TERRITORY REPORTS

In Australia, the states and territories are responsible for animal disease control within their borders. National animal health programs are developed through consultation with the Animal Health Committee and are managed by Animal Health Australia.

NEW SOUTH WALES

Contributed by Rory Arthur, Department of Industry and Investment



Suspected Hendra virus ruled out

A 10-month-old Shetland pony from Campbelltown in western Sydney developed neurological signs and deteriorated rapidly over a 24-hour period. The pony had travelled from Tamworth and stayed near Luddenham (a known flying fox colony area) for two weeks. The pony was admitted to the University of Sydney Veterinary Clinic at Camden, where it was euthanased. Blood samples taken from the pony returned negative results to Hendra virus. Although almost all cases of Hendra infection in horses have been reported in Queensland (with one single case on the Far North Coast of New South Wales), it is assumed that the virus may exist wherever there are bat colonies. Veterinarians investigating severe respiratory, neurological or febrile diseases in horses in the Sydney region now consider Hendra virus as an alternative diagnosis. It is recommended that veterinarians use personal protective equipment.

QUEENSLAND

Contributed by Greg Williamson, Department of Employment, Economic Development and Innovation



Hendra virus quarantine lifted

Two separate incidents of Hendra virus (HeV) infection in Queensland were reported in the previous issue of AHSQ, one in Rockhampton Shire and one in Bowen Shire. At the start of the fourth quarter, only three properties associated with the Rockhampton incident remained in quarantine, including the infected property. The three properties in Bowen Shire were also still in quarantine. The final serological testing of all horses on these properties was conducted in October to coincide with a 32-day period (twice the longest known incubation time for HeV) since the last possible exposure to HeV. Horses were healthy and had no clinical evidence of HeV. Blood and serum samples tested at the CSIRO Australian Animal Health Laboratory by virus neutralisation test and PCR were all negative to HeV. In late October, all quarantines were lifted. There have been no further reports of HeV infection in the state. Due to ongoing human health concerns relating to HeV infection, Biosecurity Queensland has undertaken an education program for persons dealing with horses, particularly targeted towards the veterinary profession. HeV infection remains a rare disease in horses.

SOUTH AUSTRALIA

Nothing to report

VICTORIA

Nothing to report

TASMANIA

Nothing to report

WESTERN AUSTRALIA

Nothing to report

NORTHERN TERRITORY

Nothing to report

SUSPECT EXOTIC OR EMERGENCY DISEASE INVESTIGATIONS

Exotic or emergency disease investigations reported, 1 October to 31 December 2009

Disease	Species	State	Month	Response Code	Finding
Equine Influenza					
	Equine	NSW	Dec	2	Negative
	Equine	SA	Nov	3	Negative
	Equine	TAS	Oct	2	Negative
Hendra Virus					
	Equine	ACT	Oct	3	Negative
	Equine	NSW	Oct	3	Negative
	Equine	NSW	Nov	3	Negative
	Equine	NSW	Dec	3	Negative
	Equine	QLD	Oct	2	Negative
	Equine	QLD	Oct	3	Negative
	Equine	QLD	Nov	2	Negative
	Equine	QLD	Dec	2	Negative
	Equine	QLD	Dec	3	Negative
	Equine	VIC	Oct	3	Negative
	Equine	VIC	Nov	3	Negative
	Equine	WA	Oct	3	Negative
Vesicular stomatitis					
	Equine	QLD	Dec	3	Negative

Key to response codes

- 1: Field investigation by government officer
- 2: Investigation by state or territory government veterinary laboratory
- 3: Specimens sent to the Australian Animal Health Laboratory (or CSIRO Entomology)
- 4: Specimens sent to reference laboratories overseas
- 5: Regulatory action taken (quarantine or police)
- 6: Alert or standby
- 7: Eradication

REPORT FOR THE FIRST QUARTER 2010

ARGENTINA

EHV-1 Abortion

One Thoroughbred mare aborted due to EHV-1 during post import quarantine. The mare travelled from USA on 8th February and aborted on 12th February. The non neuropathogenic strain was confirmed by Virology Institute INTA Castelar using agent isolation and real time PCR. The mare had been vaccinated during fifth, seventh and ninth month of pregnancy with EHV-1 inactivate vaccine.

AUSTRALIA

As reported above, the first quarter 2010 report for Australia will be provided in arrears at the beginning of the second quarter report 2010.

CANADA

Regret no report received.

CHILE

Strangles (*Streptococcus equi*)

A limited outbreak was reported on 2nd February 2010, affecting 20 Thoroughbred breeding stock on one premises. The outbreak was clinically mild and confirmed by Servicio Agrícola y Ganadero by agent isolation. The animals displayed signs that included fever, anorexia, serous nasal discharge, abscessed submaxillary, mandibular and retropharyngeal lymph nodes.

DENMARK

Confirmed nothing to report.

FRANCE

(Information supplied via the RESPE, the French network for epidemiological surveillance of equine diseases)

Strangles (*Streptococcus equi*)

Strangles was reported in non-Thoroughbred horses in six premises in the regions of Seine-et-Marne, Côtes d'Armor, Moselle and Loire-Atlantique. The animals affected displayed signs that included lymphadenopathy, nasal discharge, fever in three cases, coughing in three cases, abscessation in three cases, dysphagia and anorexia in two cases. None of the horses was vaccinated. Laboratory diagnosis was made using PCR.

Contagious Equine Metritis (CEM)

One case of CEM was confirmed on 8th March using agent isolation. This case occurred on a French Trotter in Orne.

Piroplasmiasis

Remains endemic in France.

EHV Neurological Disease

One French Saddle horse in Loire-Atlantique showed clinical signs of EHV neurological disease and was confirmed by PCR. The animal was vaccinated and no other animal was affected on the premises.

EHV Neurological Disease and Abortion

One case of EHV neurological disease and abortion was identified on a French Saddle horse in Haute-Vienne. Blood and cerebrospinal fluid collected at necropsy were positive for EHV-1 by PCR.

EHV Abortion

Nine EHV abortions have been reported on six premises (one case on three premises and two cases on the three others). Four incidents were on Thoroughbred premises and two were on non-Thoroughbred premises. The premises were in Orne, Vendée, and Ain. Mares on the two Thoroughbred premises were fully vaccinated.

Equine Infectious Anemia (EIA)

One case of EIA was identified on 3rd March and two cases on one premises on 30th March in French Trotters in the Dordogne. The three affected horses were euthanized. The French Ministry is performing an epidemiological inquiry and further information will be reported as it becomes available.

GERMANY**Equine Infectious Anaemia (EIA)**

Further to the previously reported EIA cases on premises in two different administrative districts, notice has been given that the investigations have been completed. The competent authorities considered the disease eradicated in the administrative districts of Kulmbach (Federal State of Bavaria) and Zollernalbkreis (Federal State of Baden-Württemberg). Consequently all implemented quarantine measures on the affected premises and within the established protection zones were removed.

According to the final report of the competent authorities in the administrative district of Kulmbach, three premises with four, 35 and resident horses, respectively, were affected. In all, 7 affected horses were euthanased. In the course of the eradication, a total of 229 horses on 17 premises were screened within the administrative district of Kulmbach and 49 horses, resident outside the named district, were also tested. In spite of these extensive investigations reasons for the introduction of the disease into the administrative district of Kulmbach remains unknown. However, a connection between the three affected premises via horse contacts with animals that were retrospectively shown to be positive for EIA was shown.

EHV Abortion

On 12th January 2010 a single case occurred in a vaccinated Thoroughbred mare on a stud in the south east of Germany. The mare aborted on a premises used for quarantine purposes by the stud, where she had been taken 9 days prior to abortion. DNA fragments of EHV-1 were detected by PCR by the University of Leipzig in fetal tissues and placenta. Therefore, EHV-1 was considered to be the cause of the abortion, although distinct morphological changes were absent. For monitoring purposes all in-contact mares at the stud from which the mare originated were serologically tested twice. The observed antibody levels were not considered significant in either samples from any mares. Further abortions have not been reported to date on the stud during the foaling season.

Results received from Labor Dr Boese GmbH – an HBLB CEMO registered laboratory**Equine Viral Arteritis (EVA)**

Two horses affected, with diagnosis by PCR and virus isolation.

Leptospirosis

Two horses affected, with diagnosis by PCR.

Equine Herpesvirus-1

Thirteen horses affected, with diagnosis by PCR.

Equine Herpesvirus-4

Two horses affected, with diagnosis by PCR.

Strangles (*Streptococcus equi*)

One horse affected, with diagnosis by PCR.

Contagious Equine Metritis (CEM)

Two horses affected, with diagnosis by agent isolation. There were 2,462 horses tested for CEM by culture.

HONG KONG

Confirmed nothing to report.

IRELAND (Republic of)**Strangles (*Streptococcus equi*)**

Three outbreaks were reported with one case in Limerick, one case in Kerry and four cases in Carlow.

Equine Influenza

Two outbreaks, one in a sports horse yard and one in a National Hunt racing yard, were identified by RT-PCR and serology. Virus isolation is in progress. The virus isolated from horses in the National Hunt yard belongs to Clade 1 of the Florida sublineage.

Equine Herpesvirus-1

Nine cases of EHV-1 abortion were identified on a private Thoroughbred stud farm. The mares were described as fully vaccinated. Two single cases of EHV-1 abortion were identified on two private Thoroughbred stud farms. One case of EHV-1 abortion was identified on a public stud farm. All three mares were described as unvaccinated.

Equine Herpesvirus-4

One case of EHV-4 abortion was identified.

ITALY**Rabies**

Following the first fatal case of equine rabies, confirmed in the north east of Italy on 11th February 2010, vaccination is now compulsory for all susceptible domestic livestock. No further cases have been reported.

Equine Infectious Anaemia (EIA)

With regard to the three EIA cases reported in Italy (Apulia on 26th March and Perugia and Naples on 13th April) these cases were reported by *Reseau d'Epidemio-Surveillance en Pathologie Equine (RESPE)* and subsequently in two separate ICC interim reports (March 2010 #5 and April 2010 #2). We should clarify that these were sub-clinical cases identified by serological surveillance only and therefore not clinically obvious. ICC apologises for any confusion caused by this.

JAPAN

EHV-1 Abortion

An outbreak was reported on 5th January 2010, with the last case reported on 29th March 2010. The diagnosis was confirmed by Hokkaido Hidaka Livestock Hygiene Service Centre and Hokkaido Ihuri Livestock Hygiene Service Centre using serology. The outbreak was limited, affecting 26 Thoroughbreds and non-Thoroughbreds on 10 premises. Twenty five of the 26 horses had been vaccinated.

EHV-1 Neurological Disease

An outbreak was reported on 16th February 2010 with the last case reported on 19th February 2010. The confirming laboratory was Hokkaido Ihuri Livestock Hygiene Service Centre using serology. The outbreak was limited affecting five horses on one premises. All horses had been vaccinated.

NEW ZEALAND

Regret no report received.

SINGAPORE

Confirmed nothing to report.

SOUTH AFRICA

Regret no report received.

SOUTH KOREA

Strangles (*Streptococcus equi*)

A limited outbreak of strangles occurred from December 2009 to March 2010 on one premises in Gyeonggi Province. Two strangles cases in Thoroughbred horses were reported from one Thoroughbred breeding farm. The affected animals displayed signs that included fever, anorexia, nasal discharge and lymph node enlargement. The College of Veterinary Medicine, Seoul National University confirmed the diagnosis by agent isolation. The animals were treated and recovered without complications. The control measures applied were isolation and disinfection of infected premises.

SPAIN

Regret no report received.

SWEDEN

Strangles (*Streptococcus equi*)

Strangles is endemic throughout the country affecting all types of horses.

Equine Influenza

An outbreak was confirmed by the SVA laboratory using PCR. The outbreak was limited affecting 10 Thoroughbreds on two premises. It was presumed there was poor vaccination status in these stables.

Salmonellosis

A limited outbreak was confirmed on 4th November 2009, in one performance horse in a trotting stable. The stable is still isolated and samples have been collected. Decontamination of the stable and paddock has taken place.

SWITZERLAND

Equine Herpes Virus EHV-1/-4

In February, two unvaccinated broodmares aborted at seven months of pregnancy on a livery and riding premises in Jura. In one fetus, immunfluorescence was positive for EHV-1.

In February in a riding stable in the central part of Switzerland containing approximately 20 animals all horses and one donkey, with the exception of three, showed fever and slight nasal discharge and coughing. Approximately half of the horses developed neurological signs including hindlimb ataxia, paralysis of the bladder and rectum and recumbency. Four horses had to be euthanized and the remainder are recovering slowly. One horse was positive for EHV-1/-4 by ELISA. The investigations are ongoing, and the vaccination history is unknown.

In March, near Zurich, a 17-year old riding-pony mare showed exercise intolerance for approximately one week, within three days fever of 39°C, knuckling, ataxia and bladder paralysis. The mare was euthanized without further examination, although, there was a titre for EHV-1 of 1:243.

TURKEY

Confirmed nothing to report.

UNITED ARAB EMIRATES

EHV-1 Abortion

One case on a breeding stock horse was reported on 28th March 2010. The laboratory confirming diagnosis was the Central Ventral Research Laboratory UAE by agent isolation. The mare foaled one week early with premature placental separation. The foal was born alive but died within a few minutes without the lungs inflating. The virus was isolated from placenta, liver, spleen, lung and tonsil. Vaccination had taken place at five, seven and nine months of gestation.

Piroplasmosis (*Babesia caballi* and *Theileria equi*)

Piroplasmosis is endemic in the UAE with cases reported periodically. The confirming laboratory is Central Ventral Research Laboratory Dubai by serology and agent isolation.

Strangles (*Streptococcus equi*)

An outbreak was reported on 20th October 2009 with the last case reported on 22nd March 2010, affecting 15 non-Thoroughbreds on one premises. The confirming laboratory was Central Veterinary Research Laboratory UAE by agent isolation.

As a follow-up to the 4Q report on strangles cases in UAE, one of the mares on the property that had tested clear of the organism on PCR and culture of guttural pouches, had a foal that developed a 5cm subcutaneous abscess on the lateral thorax from which *Streptococcus equi* was cultured. There have been no further cases and the outbreak is now considered resolved.

UNITED KINGDOM

Equine Infectious Anaemia (EIA)

As previously reported, on 19th January 2010, the Department for Environment, Food and Rural Affairs (Defra) confirmed two cases of EIA by positive Coggins test (agar gel immuno diffusion assay) in two horses in Wiltshire, England, following importation from Belgium having previously originated from Romania. In line with existing regulations, the infected horses were humanely destroyed. All remaining horses on the infected premises have been tested with negative results, and no further cases have been reported. The premises on which the two horses were kept are currently under restriction and epidemiological investigations are on-going.

EHV-1 Abortion

One small outbreak, nine single cases of EHV-1 abortions and a case of neonatal death due to EHV-1 have been reported in this quarter. The small outbreak reported involved two abortions in vaccinated Thoroughbred mares on a stud farm. Of the nine single cases of EHV-1 abortions, one was diagnosed in a stud farm which reported another EHV-1 abortion in December 2009. All the mares involved in these nine single abortions were Thoroughbreds, with the exception of two. EHV-1 was diagnosed by PCR and virus isolation in placenta and/or fetal tissues. In a Thoroughbred stud farm a case of neonatal death was diagnosed to be due to EHV-1 by histopathology in fetal tissues.

EHV-1 Neurological Disease

As previously reported, in this quarter neurological EHV-1 was diagnosed by PCR in spinal cord tissues taken from a seven year-old Thoroughbred mare sent for post-mortem examination with a history of recumbent paralytic disease requiring euthanasia. The mare was in race training in a yard in southern England and all horses on the yard were current for EHV-1/-4 vaccination.

EHV-1 was confirmed by virus isolation from nasopharyngeal (NP) swabs and/or heparinised blood samples in 12 of the 32 animals in the premises. The yard and their veterinary surgeons worked closely with the British Horseracing Authority and the Animal Health Trust in conducting further serological and virological laboratory tests, which provided the all clear as of 18th February. No further cases have been reported and restrictions have been lifted.

EHV-4 Respiratory Disease

EHV-4 was isolated from nasopharyngeal swab in a 15 year-old mare which showed pyrexia, cough, mucopurulent nasal discharge, tachypnea, conjunctivitis and swollen lymph nodes.

EHV-4 was also isolated from nasopharyngeal swab in a 5 year-old gelding showing clinical signs of inappetance, serous nasal discharge, lethargy and swollen hind limbs.

Contagious Equine Metritis (CEM)

As previously reported, in this quarter two outbreaks of contagious equine metritis have been reported.

On 5th of March 2010, Department for Environment, Food and Rural Affairs (Defra) confirmed Contagious Equine Metritis (CEM) in a 5 year old Arabian stallion stabled in Devon. The horse is under restriction and being treated in line with the HBLB Code of Practice. Further epidemiological investigations are on-going.

As of 23rd of March 2010, Defra confirmed CEM in a 10 year-old Highland mare stabled in Durham, England. The affected mare is under restriction and treatment has commenced in line with the HBLB

Code of Practice. A full investigation was undertaken by a veterinary officer on 23rd March 2010; results are pending.

Strangles (*Streptococcus equi*)

Strangles remains endemic in the UK, especially among parts of the non-Thoroughbred horse population. Diagnoses are confirmed in the UK based on traditional culture of *S. equi* and qPCR on respiratory samples and/or seroconversion using a blood-based ELISA test.

UNITED STATES OF AMERICA

Contagious Equine Metritis (*Taylorella equigenitalis*).

One additional stallion (non-Thoroughbred) has been confirmed positive for *Taylorella equigenitalis*, bringing the total number of carriers associated with the 2008/09 CEM event to 23 stallions and five mares. This stallion, though included in the exposed group of stallions and mares since 2009, was not finally tested for CEM until early 2010.

Piroplasmiasis (*Babesia caballi* and *Theileria equi*)

As of early April, some 376 horses out of 2,172 tested were confirmed seropositive for *Theileria equi*. Presently, there are 292 antibody positive horses under quarantine on the index premises in southern Texas. Additional seropositive horses are being held under quarantine in 10 states, including Texas. Only one *T. equi* seropositive horse was detected out of 861 cohorts tested in 17 states; cohorts refers to horses with recent direct contact with positive trace-out animals. Testing of horses for interstate movement or movement to events has resulted in 17 *T. equi* positive horses being detected upon entering racetracks in New Mexico. Additionally, 14 seropositive horses epidemiologically unrelated to the index premises have been confirmed in Texas, and one in California. Tracing and testing of horses sold from the index premises in earlier years is ongoing. Additional to *Amblyomma cajennense*, specimens of *Dermacentor variabilis* tick removed from horses on the index premises have proved capable of transmitting *T. equi*.

Strangles (*Streptococcus equi*)

Although outbreaks of strangles were reported from a number of states including Kentucky and Maine, the frequency of outbreaks was somewhat less than reported for the same period in previous years.

Equine Influenza

An isolated outbreak of respiratory disease in a group of mini-donkeys was associated with the detection of influenza virus by RT-PCR assay together with the isolation of equine herpesvirus 1 from a limited number of the affected animals.

Equine Herpesviral Diseases (EHV-1)

Respiratory illness related to EHV-1 was reported on a single premises in Oklahoma, Kentucky and Massachusetts. A total of 16 abortions due to EHV-1 have been confirmed in Kentucky, the majority in Thoroughbred mares. Outbreaks of EHV-1 neurological disease have been reported from Louisiana, New Jersey and Massachusetts. The three cases of neurological disease involved in the New Jersey outbreak were rescue animals that had come from an auction, all of which had to be euthanized. Both non-neuropathogenic and neuropathogenic strains of EHV-1 were detected in the non-fatal case of neurologic disease in Massachusetts.

Leptospirosis

A total of 13 cases of leptospiral abortion due to *L. interrogans* serovar pomona were confirmed in Kentucky, the majority representing sporadic abortions on individual premises.

***Lawsonia intracellularis* Infection**

The number of cases of *Lawsonia* infection was lower than in the last quarter of 2009, with four cases confirmed by PCR.

Venezuela

Regret no report received.

**REGARDS
INTERNATIONAL COLLATING CENTRE**

(Total pages = 11)