

Ref: VITT 1200/VS – USA

**VESICULAR STOMATITIS**

**IN**

**THE UNITED STATES OF AMERICA**

**Date approved: 26 May 2004**

*DISCLAIMER: These assessments should not be used as sources of reference. IAHD reserves the right to make changes based on new information.*

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## **1. Summary**

The United States of America (USA) authorities reported an outbreak of Vesicular Stomatitis (VS) in horses at one property located in Reeves County, Texas, on 20 May 2004.

The EU and the UK have taken precautionary measures with regard to imports of registered horses from the USA. The EU and the UK will continue to monitor developments.

## 2. VESICULAR STOMATITIS IN HORSES IN TEXAS, USA

### 1.1. Disease Report

The USA authorities reported an outbreak of vesicular stomatitis (VS) in three horses at one property located in Reeves County, Texas, on 20 May 2004 (Fig.1). The affected property housed nine horses and nine steers. There is no report of the disease in steers<sup>1</sup>.

It is suspected that the 'New Jersey' virus strain of VS is involved, however, further confirmation tests are underway. Initial epidemiological investigation suggested no recent introductions of, or exposure to other animals.

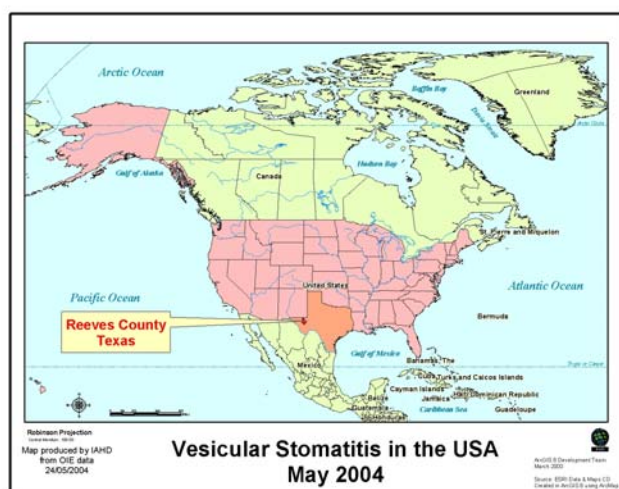


Fig. 1. An outbreak of VS in the USA

The USA authorities have already instituted disease control measures that involve quarantine of the affected property, movement control inside Texas, control of arthropods and surveillance. The last case of VS in the USA occurred in November 1998.

**Comment on VS<sup>2</sup>:** VS occurs sporadically in the Americas (North, Central and South). It is a non-fatal, viral disease of horses, cattle and pigs. Sheep and goats appear to be less susceptible to the disease. The disease also affects many species of wild animals.

The disease is manifested by erosions in the mouth and epithelium on the feet and teats, following an incubation period from 2-8 days. Although much less severe, the lesions in cattle and pigs caused by VS are similar to those of foot and mouth disease. Affected animals may experience severe weight loss, but usually recover in about two weeks after exhibiting clinical signs. No carrier state is reported.

The virus infects the animal via skin abrasions. Biting arthropods are suspected to be the major factor in mechanical transmission of the disease. Direct contact between animals, or people and contaminated fomites may also play a role in the disease transmission and spread. Animal products, semen or ova have not been demonstrated to play a role in disease transmission.

The virus may affect humans. The disease is manifested by mild flu-like symptoms, following an incubation period of one to two days.

<sup>1</sup> OIE, (2004). 040521USA - OIE Alert message. Vesicular Stomatitis in the United States of America, 21 May 2004.

<sup>2</sup> Further reading – Refer to Section 6.

## 1.2. Historic situation

### 1.2.1. Americas



Fig. 2. VS in the Americas

Fig.2 shows the VS situation in the Americas prior to this outbreak in the USA.

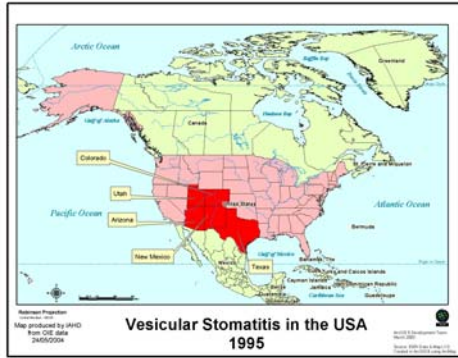
An outbreak of VS was recorded in Bolivia in April 2004 where movements of infected animals from other regions are suspected to have contributed to the introduction of disease.

The epidemiology of VS still remains largely unknown. The sand fly and the black fly may harbour the virus. The virus may be maintained in these arthropods by transmission to the next generation through the egg of the female (i.e. transovarial transmission). The disease appears to be reported at intervals of two to three years in tropical and subtropical countries of Central and South America, and intervals of 2-10 years in the USA. When it occurs, it may be reported throughout the year in tropical and subtropical areas of the Americas. It is usually reported during warm months in southern and western states of the USA<sup>3</sup>.

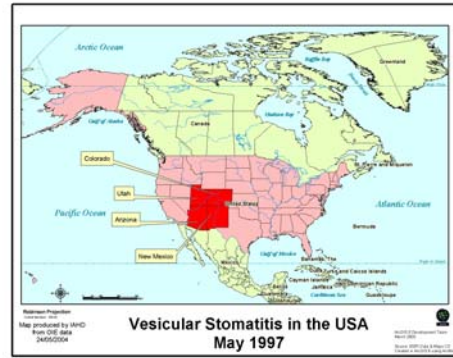
### 1.2.2. United States of America

This was the fourth occurrence of VS in the United States within the past 20 years. Figures 3, 4 and 5 show the affected states during outbreaks in 1995, 1997, and 1998.

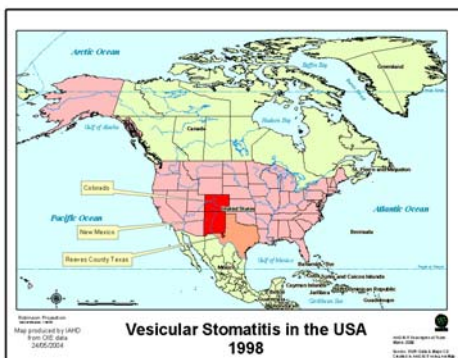
<sup>3</sup> Mebus, C.A. (2004). Part IV. Foreign Animal Diseases. Vesicular Stomatitis. Retrieved on 25 May 2004 from: [http://www.vet.uga.edu/vpp/gray\\_book/FAD/vst.htm](http://www.vet.uga.edu/vpp/gray_book/FAD/vst.htm)



**Fig. 3. VS in the USA (1995)**



**Fig. 4. VS in the USA (1997)**



**Fig. 5. VS in the USA (1998)**

In 1995, more than 365 properties were affected in five states. In 1997, 380 properties were affected in four states. In 1998, outbreaks were recorded in three states<sup>4</sup>.

## 2. LEGAL TRADE INFORMATION

### 2.1. Live horses

Electronic records show that 39 horses had been imported from the United States in the period from 1 May 2004 to 19 May 2004.

### 2.2. Other susceptible animals

The USA is not on the list of countries from where import of other susceptible animals is allowed.

<sup>4</sup> Anonymous, (2004). Vesicular Stomatitis confirmed in West Texas. American Quarter Horse Association. Retrieved on 25 May 2004 from: [http://www.aqha.com.magazines/news/052104\\_vesicularstomatitis.html](http://www.aqha.com.magazines/news/052104_vesicularstomatitis.html)

### **3. EU RESTRICTIONS**

#### **3.1. Imports to EU**

EU rules allow for temporary admission and permanent import of registered horses from the USA, subject to a country freedom statement for 6 months or laboratory testing. The testing must be carried out until at least 6 months have passed since the last outbreak.

### **4. ASSESSMENT OF THE RISK TO UK ANIMAL HEALTH**

Given the current outbreak of VS in the USA, the Veterinary Directorate considers that with regard to:

#### **4.1. Trade in horses**

##### **4.1.1. Imports prior to the outbreak**

- There is a negligible risk from importations of registered horses from the United States prior to the beginning of May 2004 because the USA was considered to be free of the disease.

##### **4.1.2. Imports during the risk period (1 May 2004 – 21 May 2004)**

- There is a negligible risk from importations during this period because:
  - The last import of registered horses to the UK from the USA occurred on 19 May 2004. It is likely that the required veterinary inspection prior to certification would have detected any clinically diseased horse and prevented their export to EU.
  - All horses imported to the EU from the USA are checked for correct certification at the Border Inspection Post and clinically inspected again. As a precaution, Defra is tracing and testing horses imported during the risk period. This includes horses that were imported via other EU Members States.

##### **4.1.3. Imports after the outbreak**

- There could be an increased level of risk because of the existing outbreak. However, it is considered that the risk remains negligible because:
  - The EU rules require clinical examination and pre-export testing of horses from the USA until six months have passed since the last outbreak.
  - Traders and the Border Inspection Posts (BIPs) in the United Kingdom were advised of the certification requirements on 21 May 2004.

#### **4.1.4. EU horses returning from the USA**

- There is a low risk from EU horses returning from the USA if they have been in contact with horses from affected properties. Therefore,
  - The UK horses returning from the USA will have to be subject to certification that they have not been in any contact with horses from an affected property during the past six months.

## **5. CONCLUSION**

There has been limited trade in registered horses from the USA. However, the controls in place before the outbreak were sufficient to mitigate any potential risk of disease introduction. We do not import other susceptible species from the USA.

The risk arising from this outbreak through trade in registered horses between the USA and EU during the risk period and the period after the outbreak is considered to be negligible because EU import rules foresee the possibility of an outbreak of VS. Defra and the European Commission continue to monitor the situation in the USA.

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26/05/2004

## 6. Further reading:

Blaha, T. (1989) (Ed). 2.2. Vesicular Stomatitis. Applied Veterinary Epidemiology. ELSEVIER, Amsterdam-Oxford-New York-Tokyo, 26-29.

Mebus, C.A. (2004). Part IV. Foreign Animal Diseases. Vesicular Stomatitis. Retrieved on 25 May 2004 from: [http://www.vet.uga.edu/vpp/gray\\_book/FAD/vst.htm](http://www.vet.uga.edu/vpp/gray_book/FAD/vst.htm)

Pharo, H. (1999). Import Risk Analysis. Imported seropositive animals. Assurance provided by serological tests. Ministry of Agriculture and Forestry, Wellington, New Zealand, ISBN:0-478-07981-8., pp.150. (Available from: <http://www.maf.govt.nz/biosecurity/pests-diseases/animals/risk/seropositive-ra.pdf>

Stone, M. (2000). Import Risk Analysis. Horses and horse semen. Ministry of Agriculture and Forestry, Wellington, New Zealand, pp.244. (Available from: <http://www.maf.govt.nz/biosecurity/pests-diseases/animals/risk/horse-ra.pdf>