

African Horse Sickness – an insect-borne disease of Equidae with a high mortality rate.

The disease has spread north from southern and equatorial Africa to North Africa and the southern Mediterranean in the 1960's. It has been known since the 1700's

The causal agent is a virus with 9 distinct subtypes causing 4 distinct clinical syndromes. The disease is both seasonal and cyclical mimicking the life cycles of the host insect vectors - *Culicoides imicola* and *C. bolitinos*.

In a susceptible population the respiratory form dominates with a 95% death rate. Signs are of a high temperature lasting 1-2 days with profound respiratory difficulties.

The sub acute or cardiac form has a lower fever and a longer illness leading to progressive swellings of the head and face particularly. Mortality is 50% at around 4-8 days after the onset of signs. This clinical form of AHS is usually associated with infection by virus strains of low virulence or is encountered in immune animals infected by heterologous virus strains, or may be a function of biological variation in the infected animal.

The acute or mixed form represents a mixture of the pulmonary and cardiac forms. Although seldom diagnosed clinically, it is the most common form and is seen at post-mortem examination in most fatal cases of AHS in horses and mules. The mortality rate in the mixed form is >80% and death usually follows within 3–6 days after the onset of the febrile reaction.

Horse sickness fever is the mildest form and is frequently overlooked in natural outbreaks. The incubation period varies from 5 to 14 days, and is followed by a febrile reaction. Apart from the febrile reaction, other clinical signs are rare. This form of the disease is usually observed in partially immune animals or in resistant species, such as the donkey and zebra.

Vaccination is a possibility with annual boosters providing control.
(none licensed in the UK as of 2017)

DON'T PANIC ! – If global warming occurs the insect host vector will be able to over winter and the disease will spread northwards. This is unlikely

to happen very quickly and we will have plenty of warning. However the southern parts of the UK and northern Europe do have the capacity to keep the host insect species alive if we have mild winters. A similar Culicoides insect borne disease is present in Northern Europe – Bluetongue which affects cattle and sheep.

Paris , 23 August 2006 – Dutch, Belgian and German Authorities have officially notified the World Organisation for Animal Health (OIE) of the occurrence of an outbreak of Bluetongue in sheep on their territory. The first occurrence of the disease in the Netherlands signifies the most northern locality where the disease has ever been diagnosed.

Although Bluetongue virus has entered the UK in 2007 vaccination in 2008 has controlled it. AHS is still not close to the UK but vigilance is necessary.