

Are new equine diseases a threat to UK horse owners? Vet Liz Mitchell from Scott Mitchell Associates, Hexham, reports.

# Emerging equine diseases

**W**e are all aware our equine friends can occasionally suffer from accident, illness or injury, but many are not aware of the constant threat of new diseases or the re-emergence of a disease not currently present in the UK.

The risk of the entry of a new equine disease into the UK has the potential to cause welfare issues and equine deaths, and the possibility of large-scale disruption of equine events and activities of the scale seen in the foot-and-mouth outbreak of 2001.

Several of these disease threats were previously seen only in the warmer climates of Africa and the Middle East. The spread of these diseases into southern Europe is thought to be due to the spread northwards of the species of insects which act as the carriers of virus. The increased risk of some of these diseases entering the UK is certainly in part due to climate change and the milder weather allowing survival of the insect species.

African horse sickness virus is related to the bluetongue virus which was responsible for UK cases in cattle and sheep in 2007 and is carried by the same type of midges. Therefore, we know if African horse sickness arrived

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in the UK it could spread around via midges which can be carried on the wind. Anyone with a pony affected with sweet itch will know how difficult it is to completely prevent your horse from being bitten by midges.

## Carrier

West Nile virus has, in recent years, spread into the USA and been responsible for many equine and some human deaths. The virus is located within the wild bird population. They are often not affected by the disease, but act as a source of the virus, which is carried to horses and humans by mosquitoes.

## West Nile virus

- **Animals affected:** Horses, humans and birds. Less commonly cats, bats, squirrels, rabbits and dogs
- **Cause:** Virus
- **Geographical distribution:** Africa, Europe, Middle East, West and Central Asia, USA. Recent cases in Morocco, Romania, Italy, Russia and South of France

- **Spread of disease:** Wild birds and mosquitoes. The mosquitoes pick up the virus from biting the wild birds and pass it on to horses or humans
- **Signs:** Fever, encephalitis (brain swelling), nervous signs. Some infected animals show no signs of illness
- **Disease status:** Notifiable

## African horse sickness

- **Animals affected:** Horses, mules, donkeys, zebras, elephants, dogs
- **Cause:** Virus
- **Geographical distribution:** Sub-Saharan Africa, Morocco, Middle East
- **Spread of disease:** Carried by midges, favour warm moist conditions
- **Signs:** Fever, laboured breathing, coughing, nasal discharge, swelling of the head, sudden death
- **Disease status:** Notifiable

The recent relatively rapid spread across countries is concerning and the potential for the spread of the virus within migratory birds is ever-present.

Post-mortem results from wild birds have shown some birds within the UK have been infected with the virus, although live virus has not been found. Surveillance has also shown the mosquito carrier is present in the UK, so the possibility of both the entry and spread of west Nile virus is present.

Equine infectious anaemia or swamp fever was responsible for a significant outbreak in Ireland in 2006, following the introduction of the virus in imported blood products. More recently, in England in 2010, several horses tested positive for the virus in routine post-import testing. In this case the import system identified the disease while the horses were still in quarantine.

Equine viral arteritis (EVA) is predominantly a sexually transmitted disease. Infected semen is the most likely source of infection, particularly because stallions become persistently infected. With the increasing trade in equine semen across Europe, and movement of horses for breeding purposes comes an increased risk of EVA infection.

While the threat of these diseases is undoubtedly concerning, Defra carries out risk assessments for the introduction of the diseases and has already produced documents for horse owners, including how to limit the spread of African horse sickness should an outbreak occur.

Legislation is also in place to help protect the horse population from the introduction of these diseases.

As a horse owner there are several actions you can take to help protect the UK horse population.

It is important to ensure all imports are legal and all the necessary paperwork is present and



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correct. The large amounts of testing, health checks and paperwork necessary for import and export has the specific purpose to protect our horse population, so never be tempted to take short cuts. It is illegal and you would be putting the UK horse population at risk.

It is illegal to import animals from areas affected by some of these diseases, for example African horse sickness. Recently imported animals should be kept in isolation and monitored for any signs of disease.

## Monitor

You should regularly monitor your own horses for signs of ill health and contact your vet if you have any concerns. All these diseases are notifiable, which means if a disease is suspected the premises must be isolated and the animal health authority informed immediately.

Sick animals, whatever the cause, should never be moved onto or off premises. They should be kept isolated and veterinary advice sought.

Horse breeders and mare owners should be aware of the codes of practice produced by the

## Equine viral arteritis

- **Animals affected:** Horses, ponies and donkeys
- **Cause:** Virus
- **Geographical distribution:** Worldwide including mainland Europe. Two cases identified in England in 2010
- **Spread of disease:** Mating or by infected semen (virus can survive in chilled or frozen

- semen) or respiratory droplets. Following infection stallions can become persistent shedders
- **Signs:** Abortions, fever, depression, stiffness, conjunctivitis, swelling of legs, around eyes and genital organs, sometimes no symptoms are seen
- **Disease status:** Notifiable

Horserace Betting Levy Board, which sets out recommendations for horse breeders for the prevention and control of diseases during the breeding season.

Owners should never breed from or use semen from horses with unknown EVA status. The virus can survive the chilling and freezing process, so all semen poses a risk and should not be used without the paperwork to show freedom from EVA. A simple blood test can prove this.

Riders who are competing in Europe need to be aware of these diseases and the additional risks present in some European countries. A vaccine is available against west Nile virus and is rec-

ommended for horses travelling to compete in risk areas. It will also be available to prevent infection should the virus enter the UK.

## Concerning

In summary, there are some very concerning diseases which pose a potential threat to the UK horse population and the functioning of the competition scene, but there is sound legislation in place to prevent the spread of disease and plans in place for actions in the event of an outbreak.

Horse owners can assist by adhering to the laws and codes of practice and monitoring their horses for signs of disease.

## Equine infectious anaemia (swamp fever)

- **Animals affected:** Horses, mules and donkeys
- **Cause:** Virus
- **Geographical distribution:** Areas of Europe, currently circulating in Italy and Romania.

- Outbreak in Ireland in 2006, cases in Wiltshire 2010
- **Spread of disease:** Insect carrier most commonly horse and stable flies, infected needles, blood and milk

- products, semen, saliva, nasal discharges
- **Signs:** Recurring fever, anaemia, fluid retention, signs can be mild, lifetime carrier status
- **Disease status:** Notifiable



Sick animals should never be moved onto or off premises. They should be kept isolated and veterinary advice needs to be sought.