

Better Biosecurity Provides

Peace of Mind, Healthy Stock and a More Viable Business

Benefits

- Protects your neighbours and the countryside.
- Keeps new disease out.
- Reduces the spread of disease.
- Keeps more animals healthy.
- Cuts costs of disease prevention and treatment.
- Improves farm efficiency.

How disease spreads

- Movement of animals, people and machinery between and within farms.
- Farm visitors – people and vehicles.
- Introduction of new animals.
- Contact with neighbours' livestock.
- Shared farm equipment.
- Contamination by vermin and wild birds.
- Animals drinking from contaminated rivers and streams.

How to stop it – KEEP IT CLEAN

- Be aware of the need for biosecurity.
- Make a herd/flock health plan with your vet including isolation for new or returning stock.
- Don't bring infection onto your farm, or spread it around your farm, on your clothes, footwear or hands.
- Where possible, limit and control farm visitors – people and vehicles.
- Keep farm access routes, parking areas, yards, feeding and storage areas clean and tidy.
- Have pressure washers, brushes, hoses, water and disinfectant available and make sure visitors use them.

- Don't allow contact with neighbours' livestock – maintain your fences.
- Don't share injecting and dosing equipment – if it can't be avoided, cleanse and disinfect thoroughly.
- Clean then disinfect any farm machinery/equipment if sharing with a neighbouring farm.
- Implement a pest control programme.
- Fence off streams and rivers – supply clean fresh drinking water in troughs.
- Keep livestock away from freshly spread slurry for six weeks.
- Ensure identification and record keeping are accurate and up to date.
- Dispose of fallen stock properly.

Buying new stock – Returning your stock to the farm

Always know the health status of animals you are buying or moving!

- Incoming and returning stock should be kept separate from the rest of the herd/flock – discuss with your vet and agree a testing programme.
- Use separate equipment and staff or handle isolated stock last.
- Keep isolation buildings as near as possible to the farm entrance and separate from other livestock buildings by 3 metres.
- If using a paddock, keep it separated by at least 3 metres (with double fencing) from other animals on the farm.
- Dispose of bedding so other livestock can't have access to it.

Foot and Mouth Disease-Chris Dunkley

As a result of many telephone calls and enquires concerning the Foot and Mouth outbreak I have recently received I have put together a brief article that may help explain the measures and seriousness of the outbreak as it affects balloonists and try and get across how serious and complicated the situation really is. The information has been gleaned from many sources but, with direct relevance to this outbreak, very extensive information including accurate maps (with OS map references) and regular updates can be sourced from the Ministry of Agriculture, Farming and Fisheries Website. This is HYPERLINK "<http://www.maff.gov.uk/>" www.maff.gov.uk/. Once in the home page look on the bottom right and click on Foot and Mouth disease. This will put you into the FMD information centre which has lots of details.

Ballooning by its nature, and balloons by their construction, could potentially be a very high risk factor in spreading the disease. Farmers seeing an approaching balloon will be fearful of both its previous landing site and where it may have come from. The resultant retrieve vehicle, its trailer and occupants all pose an equal threat once they arrive at the farm gate. If you land on a farm which a few days later becomes a suspected site then you may well have carried the virus away in the envelope, on the basket, on your person or on the vehicle. If you land on a farm that is within an exclusion zone then it is most likely to be legally impounded and at worse destroyed. It cannot be stressed enough how extremely virulent FMD is and how feared it is by the farming community. Even when the all clear is given (technically 14 days after the last reported outbreak) it will most likely be a further month or so before the countryside even thinks about opening up again. Many farms and farm related businesses may well never recover.

There will no doubt be many discussions and debates on just how the disease has spread but fundamentally the causes are complicated and intertwined. It may well have come from contaminated meat scraps in leftovers going for pig food, contaminated feed or even bought in on clothing. Speculation that it was deliberately introduced has also been raised. There is no question that cheap imported meat from infected regions of the world could be to blame and that the closure of small local markets and abattoirs means that infected livestock can and, in many cases, has to be moved many miles. We may never be sure of any of the answers or reasons for this outbreak but so far all reported outbreaks have been traceable back to Heddon. Once isolated, unrelated outbreaks occur that can't be traced back then the situation gets very grave. This is most likely to occur should the virus be carried by wild animals or human beings across the countryside.

Please respect the wishes of the farming community and do all you can to minimise any risk of spreading the virus and, sadly, expect that even when this epidemic is over that the farming community in general may well be less than welcoming to anyone coming onto their land. In the case of farms having been affected the BBAC should strongly consider making them a No Landing area. Thankyou.

Nature of the Virus

Foot and Mouth Disease (FMD) is an acute, highly contagious viral infection of cloven hoofed animals. Cattle, sheep, pigs and goats are susceptible and also some wild animals such as hedgehogs, coypu, rats, deer and zoo animals including elephants. There are seven immunologically distinct serotypes (affected by serum) A, O, C SAT1, SAT2, SAT3 and Asia1 which in turn are sub-divided. Strains can only be specifically identified in the laboratory. The current outbreak is linked to a particularly virulent form of a pan-Asiatic O type.

FMD is one of the most contagious of all animal diseases and may spread over great distances with movement of infected or contaminated animals, products, objects, and people. The virus can also be carried by the wind upto (60km overland and 300km over sea). Pigs are mainly infected by ingesting infected food. Waste feeding has been associated with outbreaks. Cattle are mainly infected by inhalation, often from pigs, which excrete large amounts of virus by respiratory aerosols (they snort and grunt) which become windborne. The incubation period is anything from 2-21 (average 2-8) days so large amounts of virus can be excreted by infected animals before any clinical signs are evident. To complicate matters, in the case of pigs, the disease is clinically indistinguishable from swine vesicular disease and vesicular exanthema hence the delay before confirming outbreaks. The rate of infection amongst all infected herds can reach 100%, however mortality can range from 5% (adults) to 75% in young stock (often 100% in piglets). If left untreated natural recovery is generally 8-15 days. Recovered cattle may be carriers for 18-24 months; sheep for 1-2 months. Pigs are not carriers.

The virus can be preserved by refrigeration and freezing (in frozen or chilled carcasses for consumption) and progressively inactivated by temperatures over 50°C (burning infected carcasses kills the virus). It is very sensitive to environmental influences, such as pH less than 5 or greater than 9 (strong acid or alkali-based disinfectants), sunlight and desiccation, however it can survive for long period of time at freezing temperatures. In infected animals it survives in the lymph nodes and bone marrow at neutral pH but is destroyed once the pH falls below 6.0 (after rigour mortis has set in). The biggest carriers are cattle, convalescent animals and exposed vaccinated animals where the virus can last upto 30 months or more (9 months in sheep). People can be infected through skin wounds or the oral mucosa by handling diseased stock, the virus in the laboratory, or by drinking infected milk, but not by eating meat from infected animals. The human infection is temporary and mild. FMD is not considered a public health problem.

Detecting the Virus

Clinical signs in cattle are salivation, depression, anorexia and lameness caused by the presence or painful vesicles (blisters) in the skin of the lips, tongue, gums, nostrils, coronary bands, interdigital spaces and teats. Fever and decreased milk production usually precede the appearance of vesicles. The vesicles rupture, leaving large denuded areas which may become

secondarily infected. In pigs, sheep and goats the clinical signs are similar but milder. Lameness is the predominant sign in all groups. Complications following recovery include permanent lameness, loss of the ability to control body heat, permanent weight loss and increased likelihood of abortion. It is generally harder to spot in sheep during the early stages.

Because of the range of species affected, the high rate and prolonged risk of infection, and the fact that virus is shed before clinical signs occur, FMD is one of the most feared reportable diseases. Outbreaks of FMD cost millions of pounds in lost production, loss of export markets, and loss of animals during eradication of the disease. The significance of many other reportable diseases is, in the main, due to their resemblance to FMD. The need to recognise FMD at the earliest opportunity is paramount to stopping its spread. The justification for the slaughter of all infected herds and livestock rather than allowing recovery is that widespread disease throughout the country would be economically disastrous. Injecting against the disease is costly and may not protect against all the strains and as injected animals can still host the virus there is no guarantee that the disease could not be spread by carcass.

Affected areas

FMD is endemic in parts of Asia, Africa, the Middle East and South America, with sporadic outbreaks in disease-free areas. Countries affected by FMD in the past twelve months include Butan, Brazil, Columbia, Egypt, Georgia, Japan, Kazakhstan, Korea, Kuwait, Malawi, Malaysia, Mongolia, Namibia, Russia, South Africa, Taipei, Tajikstan, Uruguay and Zambia. The last major outbreak of the disease in the EU was in Greece last year. The last outbreak in the UK was on the Isle of Wight in 1981 and believed to have been windborne from infected pigs in Brittany, Northern France.

Human Risk

There has only been one recorded case of FMD in a human being in Great Britain in 1966. The general effects of the disease in that case were similar to influenza with some blisters. It is a mild short lived, self-limiting disease. The Food Standards Agency has advised that the disease has no implications for the human food chain. There is a human condition called Hand, Foot and Mouth disease, which is unrelated and will not affect animals.