

Livestock diseases and zoonoses

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At the beginning of the 21st Century, the world is faced with a changing landscape of infectious diseases that affect man and animals. Most livestock pathogens that emerge and re-emerge are capable of being transmitted to man and an increasing number are distributed by insect vectors. Globalisation defines the world of pathogens and the recent emergence and spread of swine flu provides a topical illustration of the threats presented by zoonotic viruses that can be moved rapidly around the world by the occupants of our 'global village'. Whilst distribution via air transport represents an extreme, the transmission of pathogens by insect vectors is increasingly linked to the effects of climate change, and new vector-borne diseases - such as bluetongue - are now occurring for the first time in Northern Europe.

However, old and persistent diseases that remain in most parts of the world must also be dealt with. Some, such as foot and mouth disease, present significant ongoing restrictions to national and international trade, and may have devastating financial impacts when they are introduced in to FMD-free areas. The future looks to be much, much more of the same; the scientific community will need to be fleet-of-foot to deal with some unexpected disease threats - and the world of zoonotic infections will drive the animal and human disease research specialists to work closer together.

Livestock diseases and zoonoses, a themed issue of *Philosophical Transactions B*, provides an overview of some of the issues relating to infectious diseases of livestock.

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