



August (Winter) 2011, 2 pages

FOOT AND MOUTH DISEASE

By Andy Cowan

In the 2011 Summer Edition of the ADF we included an article about the Foot and Mouth Disease outbreak in South Korea. At that stage, it was estimated that there had been 60 cases reported in about two months. This forced the slaughter of an estimated 500,000 cattle, pigs and other cloven-hoofed animals and causing estimated losses of 400 billion won (\$A344.67 million).

On April 17th 2011, South Korean authorities confirmed that, five days after it had declared the end of their worst-ever outbreak from last November to March, new cases of foot-and-mouth disease had been found. In actual fact, between last November to March 2011, about 3.48 million animals were slaughtered. Current estimates of the cost are about A\$2.6 billion.

In January, the South Korean government ordered the vaccination of all cattle and pigs. This was an attempt to contain the spread of the disease. It does take longer for a country that uses vaccinations to regain disease-free status from the World Organisation for Animal Health than when the disease is curbed solely by culling/slaughtering.

The worst recorded case of FMD was in 2001 in the UK. This outbreak caused losses of more than 8 billion pounds (approximately \$A19 billion). Of this total, losses of 3.1 billion pounds (approximately \$A7.6 billion) were attributable to agriculture and the food chain and 2.5 billion pounds (approximately \$A6.1 billion) being paid by the Government in compensation for slaughtered animals and payments for disposal and clean-up costs. In total, there were 2030 cases spread across the country, resulting in approximately six million animals being culled.

Since the UK outbreak, the Australian Government has committed to invest more than half a billion dollars to prepare for and manage the FMD threat. It has prepared contingency plans, implemented the new National Livestock Identification Scheme (NLIS) to improve tracing of livestock in an emergency, improved cargo container inspections and prepared possibilities for an Australia-wide stock quarantine.

Animals that can be affected by Foot and Mouth Disease virus are cattle, pigs, sheep, goats, buffalo, bison, deer, antelope, wild pigs, llamas, alpacas, giraffes, elephants, elk, moles, voles, rats and hedgehogs. Horses are resistant but, as we know, they have a different set of problems at the moment with the Hendra virus. The highest incidence of disease and deaths is seen in young animals. Most adult animals recover slowly from the disease but usually suffer long-term health problems. FMD is endemic in Asia, Africa and most of South America. At this moment Europe, North and Central America, the Caribbean, Australia, New Zealand, and many of the islands of Oceania are free of FMD. In 2009, FMD outbreaks were reported in Angola, Botswana, China, Egypt, Nigeria, Palestine, South Africa, Vietnam and South Korea. Last month FMD was reported in Israel, China, Korea, India and Vietnam. It is an enormous problem.

In Australia, particularly in the last two or three years, we have learnt a valuable lesson – never say never. As deer-farmers, we should be aware of what may happen. As we live in an ever-shrinking world, it may surprise you to know that the FMD virus can travel 60 km downwind on land and up to 200 km over water. It can also persist in fodder, in food products, on clothes and in the respiratory tracts of animals and humans and in the environment generally for up to 1 month. Many FMD outbreaks have been started by feeding pigs with infected animal meat or milk products. Fortunately, it is illegal to feed swill to pigs in Australia.

Recent research in the UK is suggesting that there may be a less brutal solution to FMD outbreaks. The researchers believe infected cattle are only infectious for a brief window of time. It appears that the animals are not infectious until, on average, 0.5 days after clinical signs appear. They suggest that further research should be directed at the early detection of infection and more rapid intervention.

References:

Intervet. 2009. Prevalence and incidence of Foot and Mouth disease.
Dept. of Agriculture, Fisheries and Forestry. June 2011. Foot and Mouth Disease.
University of Queensland. 2011. Farm Business. Foot and Mouth Disease.
www.GlobalIncidentMap.com
Charleston. B et al. May 2011. Science Magazine Vol 332. Relationship Between Clinical Signs and Transmission of an Infectious Disease and the Implications for Control.