

# Ministry for Primary Industries

## FarmsOnLine

### **REDUCING THE IMPACT OF A BIOSECURITY THREAT IN NZ**



#### **THE ISSUE**

The agriculture, food, forestry and fishing industries are major contributors to New Zealand's economy. It is the role of the Ministry for Primary Industries (MPI) to protect these industries from biological risk such as disease outbreaks.

One such threat is foot-and-mouth disease, an infectious and sometimes fatal virus that affects cloven-hoofed animals. There was an outbreak of foot-and-mouth in the United Kingdom in 2001 resulting in a cost to the economy of £8 billion. An outbreak of this disease in NZ would be devastating, with likely impacts on the New Zealand dollar, higher employment rates, higher unemployment and a downturn in business confidence according to the Reserve Bank.

In May 2005, then Prime Minister Helen Clark received a letter claiming the foot-and-mouth virus had been deliberately released on Waiheke Island. Although Police and the Ministry of Agriculture and Food (now MPI) treated this as a hoax, they activated the disease management response system of field investigation, diagnosis, management and control of disease. Staff deployment to the farms was quick, however investigators' responses were impeded by lack of accurate data, gaps in data and disparate data formats. The investigation took a week to complete and was very costly.

#### **THE SOLUTION**

Although confirmed as a hoax, the threat and exercise highlighted the need for a national system to capture accurate, comprehensive, standardised data on all rural and lifestyle properties in NZ.

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e-Spatial and Interger were chosen by MPI to design, build and maintain a database around property location, ownership and management of all rural properties, land use, stock and crops in New Zealand. The system developed is a government-owned database called FarmsOnLine.

In operation since 2011, it is the authoritative source of rural property information for biosecurity management and natural disaster alerts. To ensure robustness, FarmsOnLine relies on data sharing agreements with a wide range of organisations and individual property owners and farmers. Agreements have been put in place with industry organisations including Silver Fern Farms and the Animal Health Board, and industry groups such as New Zealand Pork and Poultry Industry Association NZ. The database has assisted with the implementation of the NAIT (National Animal Identification and Tracking) programme, which complements FarmsOnLine in enhancing NZ's biosecurity management.

***“Speed is the key to dealing with any emergency, and FarmsOnLine will give our trading partners confidence that New Zealand can rapidly respond to disease outbreaks.”***

***David Carter, Biosecurity Minister***

## THE RESULT

The location-based information in FarmsOnLine enables intelligent data analysis such as easily identifying all properties within a control parameter. It also enables MPI to perform more complex operations such as tracking animal movements, land use changes and farm size.

Although primarily developed to help protect NZ's biosecurity, FarmsOnLine also has other important uses. It is invaluable to exporters who are required to provide certain information to international trading partners. One such use is being able to demonstrate that food has been produced according to halal principles of correct segregation of halal from non-halal products. Another is supporting research related to the rural sector such as animal, plant and human health, and food safety.

Spatial information for the FarmsOnLine system is sourced from a range of providers including Land Information New Zealand (LINZ), Animal Health Board, New Zealand Post, Core Logic, DigitalGlobe and CNES as well as industry data sets.

Today, if there is a biosecurity outbreak or other rural emergency, MPI, local and regional government and the emergency services are able to contact property owners and managers quickly to significantly reduce the damage that could occur. It gives New Zealand's trading partners increased confidence in our ability to respond to disease outbreaks and reduces the likelihood of trade restrictions that could cost us millions of dollars a day.



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